



Wireless test report – 366445-TRFWL

Applicant:

Corning Optical Communications LLC

Product name:

Smallcell Indoor Radio Node

Model:

SCRN-330-4148

Model variant:

N/A

FCC ID:

Y47RN3304148

Specifications:

WINNF-TS-0122, Version V1.0.0

Test and Certification for Citizens Broadband Radio Service (CBRS); Conformance and Performance Test Technical Specification; CBS/D/DP as Unit Under Test (UUT)

WINNF-IN-00129, Version V1.0.0.0

WInnForum CBS/D/DP UUT Security Test 6 Cases Tutorial

Date of issue: **February 8, 2019**

Test engineer(s): **Andres Martinez/WL Engineer**

Reviewed by: **Juan M. Gonzalez/Business Dev. Manager**

Signature:

Test location(s)

Company name	Nemko USA Inc.
Address	2210 Faraday Ave, Suite 150
City	Carlsbad
State	California
Postal code	92008
Country	USA
Telephone	+1 760 444 3500
Website	www.nemko.com
FCC Site Number	Test Firm Registration Number: 392943 Designation Number: US5058
ISED Test Site	2040B-3

Limits of responsibility

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of WINNF-TS-0122 [Test and Certification for Citizens Broadband Radio Service (CBRS); Conformance and Performance Test Technical Specification; CBSD/DP as Unit Under Test (UUT)] .

Nemko San Diego has successfully completed the requirements to become a WInnForum CBRS Approved Lab and a CBRS Alliance Authorized Test Lab: <https://cbrs.wirelessinnovation.org/cbsd-certification-program>.

Copyright notification

Nemko USA Inc. authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Nemko USA Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. © Nemko USA Inc.

Table of contents

Table of contents	3
Section 1. Report summary	5
1.1 Applicant and manufacturer	5
1.2 Test specifications	5
1.3 Statement of compliance	5
1.4 Exclusions	5
1.5 Test report revision history	5
Section 2. Summary of test results	6
2.1 WINNF-TS-0122 requirements test results	6
Section 3. Equipment under test (EUT) details	7
3.1 Sample information	7
3.2 EUT information	7
3.3 Technical information	7
3.4 Product description and theory of operation	7
3.5 UUT exercise details	7
3.6 EUT setup diagram	8
3.7 EUT sub assemblies	8
Section 4. Engineering considerations	9
4.1 Modifications incorporated in the EUT	9
4.2 Technical judgment	9
4.3 Deviations from laboratory tests procedures	9
Section 5. Test conditions	10
5.1 Atmospheric conditions	10
5.2 Power supply range	10
Section 6. Measurement uncertainty	11
6.1 Uncertainty of measurement	11
Section 7. Test equipment	12
7.1 Test equipment list	12
Section 8. Testing data	13
8.1 6.1 CBSD Registration Process	13
8.2 6.3 CBSD Spectrum Grant Process	24
8.3 6.4 CBSD Heart Beat Process	27
8.4 6.5 CBSD Measurement Report	36
8.5 6.6 CBSD Relinquishment Process	38
8.6 6.7 CBSD Deregistration Process	40
8.7 6.8 CBSD Security Validation	42
8.8 7.1 CBSD RF Power Measurement	48
Section 9. Block diagrams of test set-ups	53
9.1 Test equipment set-up	53
Section 10. Log files library	54
10.1 Log file for test case ID: WINNF.FT.D.REG.2	54
10.2 Log file for test case ID: WINNF.FT.D.REG.4	64
10.3 Log file for test case ID: WINNF.FT.C.REG.7 for device -48-00:24:48:0e:f5:27	69
10.4 Log file for test case ID: WINNF.FT.C.REG.7 for device -49-00:24:48:0e:e1:47	76
10.5 Log file for test case ID: WINNF.FT.D.REG.9	89
10.6 Log file for test case ID: WINNF.FT.D.REG.11	92
10.7 Log file for test case ID: WINNF.FT.D.REG.13	95
10.8 Log file for test case ID: WINNF.FT.D.REG.15	100
10.9 Log file for test case ID: WINNF.FT.D.REG.17	105
10.10 Log file for test case ID: WINNF.FT.D.REG.19	108
10.11 Log file for test case ID: WINNF.FT.C.REG.20 (reference Log)	113
10.12 Log file for test case ID: WINNF.FT.D.GRA.1 for device -48-00:24:48:0e:f5:27	121
10.13 Log file for test case ID: WINNF.FT.D.GRA.1 for device -49-00:24:48:0e:e1:47	127
10.14 Log file for test case ID: WINNF.FT.C.GRA.2 for device -48-00:24:48:0e:f5:27	133

10.15	Log file for test case ID: WINNF.FT.C.GRA.2 for device - 49-00:24:48:0e:e1:47	139
10.16	Log file for test case ID:WINNF.FT.D.HBT.2.....	145
10.17	Log file for test case ID: WINNF.FT.C.HBT.3 for device - 48-00:24:48:0e:f5:27.....	162
10.18	Log file for test case ID: WINNF.FT.C.HBT.3 for device - 49-00:24:48:0e:e1:47.....	170
10.19	Log file for test case ID: WINNF.FT.C.HBT.5 for device - 48-00:24:48:0e:f5:27.....	178
10.20	Log file for test case ID: WINNF.FT.C.HBT.5 for device - 49-00:24:48:0e:e1:47.....	185
10.21	Log file for test case ID: WINNF.FT.C.HBT.6 for device - 48-00:24:48:0e:f5:27.....	192
10.22	Log file for test case ID: WINNF.FT.C.HBT.6 for device - 49-00:24:48:0e:e1:47.....	200
10.23	Log file for test case ID: WINNF.FT.C.HBT.7 for device - 48-00:24:48:0e:f5:27.....	208
10.24	Log file for test case ID: WINNF.FT.C.HBT.7 for device - 49-00:24:48:0e:e1:47.....	216
10.25	Log file for test case ID: WINNF.FT.D.HBT.8.....	224
10.26	Log file for test case ID: WINNF.FT.C.HBT.9 for device - 48-00:24:48:0e:f5:27.....	239
10.27	Log file for test case ID: WINNF.FT.C.HBT.9 for device - 49-00:24:48:0e:e1:47.....	246
10.28	Log file for test case ID: WINNF.FT.C.HBT.10 for device - 48-00:24:48:0e:f5:27	253
10.29	Log file for test case ID: WINNF.FT.C.HBT.10 for device - 49-00:24:48:0e:e1:47.....	261
10.30	Log file for test case ID: WINNF.FT.D.MES.2	269
10.31	Log file for test case ID: WINNF.FT.D.RLQ.2	324
10.32	Log file for test case ID: WINNF.FT.D.DRG.2	349
10.33	Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.1	364
10.34	Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.2	365
10.35	Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.3	366
10.36	Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.4	367
10.37	Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.5	368

Section 1. Report summary

1.1 Applicant and manufacturer

Company name	Company Name: Corning Optical Communications LLC
Address	475 Sycamore Drive.
City	Milpitas
Province/State	CA
Postal/Zip code	95035
Country	U.S.A.

1.2 Test specifications

WINNF-TS-0122 Version V1.0.0	Test and Certification for Citizens Broadband Radio Service (CBRS); Conformance and Performance Test Technical Specification; CBSD/DP as Unit Under Test (UUT)
WINNF-IN-00129, Version V1.0.0.0	WInnForum CBSD/DP UUT Security Test 6 Cases Tutorial

1.3 Statement of compliance

In the configuration tested, the EUT was found compliant.

Testing was performed against all relevant requirements of the test standard except as noted in section 1.4 below. Results obtained indicate that the product under test complies in full with the requirements tested. The test results relate only to the items tested.

See "Summary of test results" for full details.

1.4 Exclusions

None

1.5 Test report revision history

Revision #	Date of issue	Details of changes made to test report
TRFWL	February 8, 2019	Original report issued

Section 2. Summary of test results

2.1 WINNF-TS-0122 requirements test results

Section	Test case ID	Test case title	Applicable	Verdict
6.1.4.1.2	WINNF.FT.D.REG.2	Domain Proxy Multi-Step registration	M	Pass
6.1.4.1.4	WINNF.FT.D.REG.4	Domain Proxy Single-Step registration for Cat A CBSD	M	Pass
6.1.4.1.7	WINNF.FT.C.REG.7	Registration due to change of an installation parameter	M	Pass
6.1.4.2.2	WINNF.FT.D.REG.9	Domain Proxy Missing Required parameters (responseCode 102)	M	Pass
6.1.4.2.4	WINNF.FT.D.REG.11	Domain Proxy Pending registration (responseCode 200)	M	Pass
6.1.4.2.6	WINNF.FT.D.REG.13	Domain Proxy Invalid parameters (responseCode 103)	M	Pass
6.1.4.2.8	WINNF.FT.D.REG.15	Domain Proxy Blacklisted CBSD (responseCode 101)	M	Pass
6.1.4.2.10	WINNF.FT.D.REG.17	Domain Proxy Unsupported SAS protocol version responseCode 100)	M	Pass
6.1.4.2.12	WINNF.FT.D.REG.19	Domain Proxy Group Error (responseCode 201)	M	Pass
6.1.4.3.1	WINNF.FT.C.REG.20	Category A CBSD location update	M	Pass
6.3.4.2.1	WINNF.FT.D.GRA.1	Unsuccessful Grant responseCode=400 (INTERFERENCE)	M	Pass
6.3.4.2.2	WINNF.FT.C.GRA.2	Unsuccessful Grant responseCode=401	M	Pass
6.4.4.1.2	WINNF.FT.D.HBT.2	Heartbeat Success Case (first Heartbeat Response)	M	Pass
6.4.4.2.1	WINNF.FT.C.HBT.3	Heartbeat responseCode=105 (DEREGISTER)	M	Pass
6.4.4.2.3	WINNF.FT.C.HBT.5	Heartbeat responseCode=501 (SUSPENDED_GRANT) in First Heartbeat Response	M	Pass
6.4.4.2.4	WINNF.FT.C.HBT.6	Heartbeat responseCode=501 (SUSPENDED_GRANT) in Subsequent Heartbeat Response	M	Pass
6.4.4.2.5	WINNF.FT.C.HBT.7	Heartbeat responseCode=502 (UNSYNC_OP_PARAM)	M	Pass
6.4.4.2.6	WINNF.FT.D.HBT.8	Domain Proxy Heartbeat responseCode=500 (TERMINATED_GRANT)	M	Pass
6.4.4.3.1	WINNF.FT.C.HBT.9	Heartbeat Response Absent (First Heartbeat)	M	Pass
6.4.4.3.2	WINNF.FT.C.HBT.10	Heartbeat Response Absent (Subsequent Heartbeat)	M	Pass
6.5.4.2.2	WINNF.FT.D.MES.2	Domain Proxy Registration Response contains measReportConfig	M	Pass
6.6.4.1.2	WINNF.FT.D.RLQ.2	Domain Proxy Successful Relinquishment	M	Pass
6.7.4.1.2	WINNF.FT.D.DRG.2	Domain Proxy Successful Deregistration	M	Pass
6.8.4.1.1	WINNF.FT.C.SCS.1	Successful TLS connection between UUT and SAS Test Harness	M	Pass
6.8.4.2.1	WINNF.FT.C.SCS.2	TLS failure due to revoked certificate	M	Pass
6.8.4.2.2	WINNF.FT.C.SCS.3	TLS failure due to expired server certificate	M	Pass
6.8.4.2.3	WINNF.FT.C.SCS.4	TLS failure when SAS Test Harness certificate is issue by unknown CA	M	Pass
6.8.4.2.4	WINNF.FT.C.SCS.5	TLS failure when certificate at the SAS Test Harness is corrupted	M	Pass
7.1.4.1.1	WINNF.PT.C.HBT	UUT RF Transmit Power Measurement	M	Pass

Notes:

Section 3. Equipment under test (EUT) details

3.1 Sample information

Receipt date	November 5, 2018
Nemko sample ID number	366445

3.2 EUT information

Product name	Smallcell Indoor Radio Node
Model	SCRN-330-4148
Model variant	N/A
FCC ID	Y47RN3304148
Serial number	48-00:24:48:0e:f5:27 / 49-00:24:48:0e:e1:47
Software Details of UUT	Software Version: SCOS_8.0.0.217 Build Date: 2019-01-31

3.3 Technical information

Frequency band	CBRS band: 3550–3700 MHz
Type of modulation	QPSK, QAM16, QAM64
BW	10 and 20 MHz
Power requirements	56 VDC (PoE)

3.4 Product description and theory of operation

The UUT is a Domain Proxy Category A CBSD.

3.5 UUT exercise details

The UUT was loaded with software version: SCOS_8.0.0.217 and build date: 2019-01-31 for all testing.
All testing was performed with WinnForum SAS test harness version 1.0.0.2

3.6 EUT setup diagram

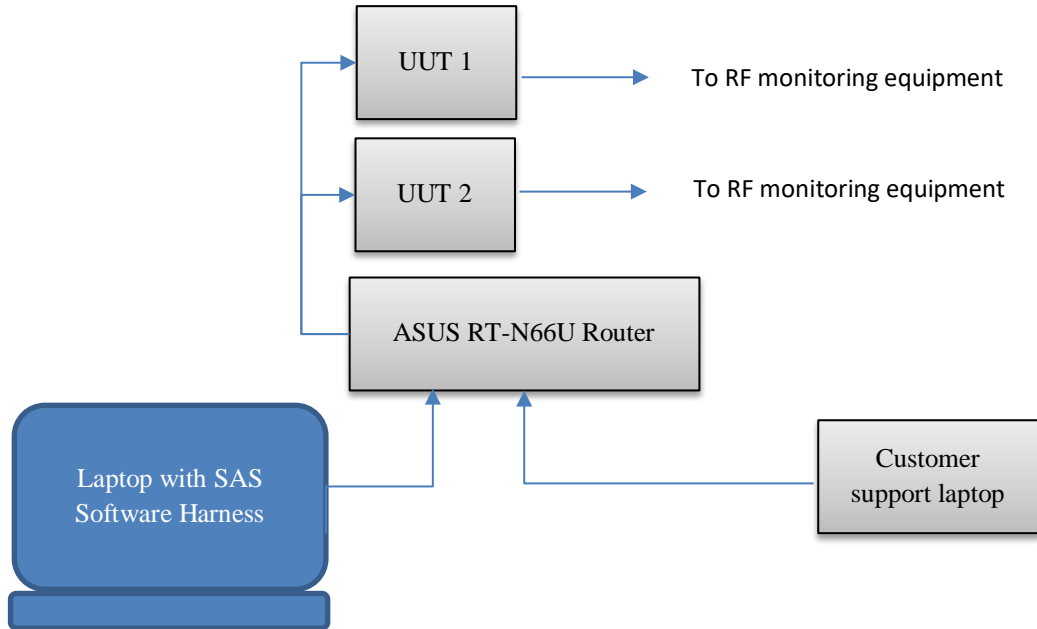


Figure 3.6-1: Setup diagram

3.7 EUT sub assemblies

Table 3.7-1: EUT sub assemblies + Auxiliary Equipment

Description	Brand name	Model/Part number	Serial number
Wireless Router	ASUS	RT-N66U	E4IA08020580
Proxy Server	SpiderCloud	SCSN8000 IMPS	N/A
Support Laptop	Dell	Latitude E6530	DPN-P28X4 A00
Support PC1	Dell	Optiplex 780	30320434333
Support PC2	Dell	Optiplex 780	30318848029
Support PC3	Dell	Optiplex 780	9767420137

Section 4. Engineering considerations

4.1 Modifications incorporated in the EUT

There were no modifications performed to the EUT during this assessment.

4.2 Technical judgment

None

4.3 Deviations from laboratory tests procedures

No deviations were made from laboratory procedures.

Section 5. Test conditions

5.1 Atmospheric conditions

Temperature	15–30 °C
Relative humidity	20–75 %
Air pressure	860–1060 mbar

When it is impracticable to carry out tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests shall be recorded and stated.

5.2 Power supply range

The normal test voltage for equipment to be connected to the mains shall be the nominal mains voltage. For the purpose of the present document, the nominal voltage shall be the declared voltage, or any of the declared voltages $\pm 5\%$, for which the equipment was designed.

Section 6. Measurement uncertainty

6.1 Uncertainty of measurement

UKAS Lab 34 and TIA-603-B have been used as guidance for measurement uncertainty reasonable estimations with regards to previous experience and validation of data. Nemko Canada, Inc. follows these test methods in order to satisfy ISO/IEC 17025 requirements for estimation of uncertainty of measurement for wireless products.

Measurement uncertainty budgets for the tests are detailed below. Measurement uncertainty calculations assume a coverage factor of $K = 2$ with 95% certainty.

Table 6.1-1: Measurement uncertainty

Test name	Measurement uncertainty, dB
All antenna port measurements	0.55

Section 7. Test equipment

7.1 Test equipment list

Table 7.1-1: Equipment list

Equipment	Manufacturer	Model no.	Asset no.	Cal cycle	Next cal.
Spectrum Analyzer	Rohde & Schwarz	ESU 40	E1131	1 year	8/23/19
SAS Test Harness Test Bed Computer	DELL	E5430	DALL0009	N/A	N/A
SAS Test Harness Software	WInnForumq	1.0.0.2		N/A	N/A

Note: NCR - no calibration required, VOU - verify on use

Section 8. Testing data

8.1 6.1 CBSD Registration Process

8.1.1 Definitions and limits

Upon a successful response from the SAS, the CBSD will generate its next message to the SAS. The SAS Test Harness, when configured for verification of a particular CBSD-SAS protocol procedure (i.e. registration), will / may not respond to any subsequent messages sent by the CBSD once the procedure being tested is complete.

8.1.2 6.1.4.1.2 [WINNF.FT.D.REG.2] Domain Proxy Single-Step registration for Cat A CBSD:

8.1.2.1 Test date

Start date January 30, 2019

8.1.2.2 Observations, settings and special notes

None

8.1.2.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness • UUT is in the Unregistered state 	-	-
2	DP with two CBSD sends correct Registration request information, as specified in [n.5], in the form of one 2-element Array or as individual messages to the SAS Test Harness: <ul style="list-style-type: none"> • The required userId, fcld and cbsdSerialNumber registration parameters shall be sent for each CBSD and conform to proper format and acceptable ranges. • Any REG-conditional or optional registration parameters that may be included in the message shall be verified that they conform to proper format and are within acceptable ranges. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	<ul style="list-style-type: none"> • SAS Test Harness sends a CBSD Registration Response in the form of one 2-element Array or individual messages as follows: <ul style="list-style-type: none"> ○ cbsdId = Ci ○ measReportConfig shall not be included ○ responseCode = 0 for each CBSD 	-	-
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	-	-
5	Monitor the RF output of each UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT shall not transmit RF 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.1.3 6.1.4.1.4 [WINNF.FT.D.REG.4] Domain Proxy Single-Step registration for Cat A CBSD:

8.1.3.1 *Test date*

Start date January 30, 2019

8.1.3.2 *Observations, settings and special notes*

None

8.1.3.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness • UUT is in the Unregistered state 	–	–
2	The DP with two CBSDs sends Registration requests in the form of one 2-element Array or as individual messages to SAS Test Harness. <ul style="list-style-type: none"> • The required userId, fcclid and cbsdSerialNumber and REG-Conditional cbsdCategory, airInterface, installationParam, and measCapability registration parameters shall be sent from the CBSD and conform to proper format and acceptable ranges. • Any optional registration parameters that may be included in the message shall be verified that they conform to proper format and are within acceptable ranges. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	<ul style="list-style-type: none"> • SAS Test Harness sends a CBSD Registration Response in the form of one 2-element Array or individual messages as follows: <ul style="list-style-type: none"> ○ cbsdId = Ci ○ measReportConfig shall not be included ○ responseCode = 0 for each CBSD 	–	–
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	–	–
5	Monitor the RF output of each UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT shall not transmit RF 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.1.4 6.1.4.1.7 [WINNF.FT.C.REG.7] Registration due to change of an installation parameter

8.1.4.1 *Test date*

Start date February 1, 2019

8.1.4.2 *Observations, settings and special notes*

None

8.1.4.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: • UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness	–	–
2	UUT has successfully registered with SAS Test Harness	–	–
3	Change an installation parameters at the UUT (time T) o Tester needs to record the current time at which the parameter change is executed.	–	–
4	Monitor the SAS-CBSD interface. UUT sends a deregistrationRequest to the SAS Test Harness The deregistration request shall be sent within (T + 60 seconds) from step 3.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.1.5 6.1.4.2.2 [WINNF.FT.D.REG.9] Domain Proxy Missing Required parameters (responseCode 102)

8.1.5.1 *Test date*

Start date January 30, 2019

8.1.5.2 *Observations, settings and special notes*

None

8.1.5.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness • UUT is in the Unregistered state 	–	–
2	The DP with two CBSDs sends a Registration request in the form of one 2-element Array or as individual messages to SAS Test Harness.	–	–
3	SAS Test Harness sends a CBSD Registration Response in the form of one 2-element Array or as individual messages as follows: <ul style="list-style-type: none"> ○ SAS response does not include a cbsdId. ○ responseCode = Ri for CBSD1 and CBSD2 	–	–
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	–	–
5	Monitor the RF output of each UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT shall not transmit RF 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.1.6 6.1.4.2.4 [WINNF.FT.D.REG.11] Domain Proxy Pending registration (responseCode 200)

8.1.6.1 *Test date*

Start date January 30, 2019

8.1.6.2 *Observations, settings and special notes*

None

8.1.6.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness • UUT is in the Unregistered state 	–	–
2	The DP with two CBSDs sends a Registration request in the form of one 2-element Array or as individual messages to SAS Test Harness.	–	–
3	SAS Test Harness sends a CBSD Registration Response in the form of one 2-element Array or as individual messages as follows: <ul style="list-style-type: none"> ○ SAS response does not include a cbsdid. ○ responseCode (Ri) = 200 for CBSD1 and CBSD2 	–	–
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	–	–
5	Monitor the RF output of each UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT shall not transmit RF 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Section 8 Testing data
Test name 6.1.4.2.5 [WINNF.FT.C.REG.12] Invalid parameter (responseCode 103)
Specification WINNF-TS-0122-V1.0.0



8.1.7 6.1.4.2.6 [WINNF.FT.D.REG.13] Domain Proxy Invalid parameters (responseCode 103)

8.1.7.1 *Test date*

Start date January 30, 2019

8.1.7.2 *Observations, settings and special notes*

None

8.1.7.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness • UUT is in the Unregistered state 	-	-
2	The DP with two CBSDs sends a Registration request in the form of one 2-element Array or as individual messages to SAS Test Harness.	-	-
3	SAS Test Harness sends a CBSD Registration Response in the form of one 2-element Array or as individual messages as follows: <ul style="list-style-type: none"> o SAS response does not include a cbsdId. o responseCode (R1) = 0 for CBSD1 o responseCode (R2) = 103 for CBSD2 	-	-
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	-	-
5	Monitor the RF output of each UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT shall not transmit RF 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.1.8 6.1.4.2.68[WINNF.FT.D.REG.15] Domain Proxy Blacklisted CBSD (responseCode 101)

8.1.8.1 *Test date*

Start date February 1, 2019

8.1.8.2 *Observations, settings and special notes*

None

8.1.8.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness • UUT is in the Unregistered state 	–	–
2	The DP with two CBSDs sends a Registration request in the form of one 2-element Array or as individual messages to SAS Test Harness.	–	–
3	SAS Test Harness sends a CBSD Registration Response in the form of one 2-element Array or as individual messages as follows: <ul style="list-style-type: none"> ○ SAS response does not include a cbsdId. ○ responseCode (R1) = 0 for CBSD1 ○ responseCode (R2) = 101 for CBSD2 	–	–
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	–	–
5	Monitor the RF output of each UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT shall not transmit RF 	<input checked="" type="checkbox"/>	<input type="checkbox"/>



8.1.9 6.1.4.2.10 [WINNF.FT.D.REG.17] Domain Proxy Unsupported SAS protocol version responseCode 100

8.1.9.1 *Test date*

Start date January 31, 2019

8.1.9.2 *Observations, settings and special notes*

None

8.1.9.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness • UUT is in the Unregistered state 	–	–
2	The DP with two CBSDs sends a Registration request in the form of one 2-element Array or as individual messages to SAS Test Harness.	–	–
3	SAS Test Harness sends a CBSD Registration Response in the form of one 2-element Array or as individual messages as follows: <ul style="list-style-type: none"> ○ SAS response does not include a cbsdId. ○ responseCode (Ri) = 100 for CBSD1 and CBSD2 	–	–
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	–	–
5	Monitor the RF output of each UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT shall not transmit RF 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.1.10 6.1.4.2.12 [WINNF.FT.D.REG.19] Domain Proxy Group Error (responseCode 201)

8.1.10.1 *Test date*

Start date January 31, 2019

8.1.10.2 *Observations, settings and special notes*

None

8.1.10.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness • UUT is in the Unregistered state 	-	-
2	The DP with two CBSDs sends a Registration request in the form of one 2-element Array or as individual messages to SAS Test Harness.	-	-
3	SAS Test Harness sends a CBSD Registration Response in the form of one 2-element Array or as individual messages as follows: <ul style="list-style-type: none"> o SAS response does not include a cbsdId. o responseCode (R1) = 0 for CBSD1 o responseCode (R2) = 201 for CBSD2 	-	-
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	-	-
5	Monitor the RF output of each UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT shall not transmit RF 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.1.11 6.1.4.3.1 [WINNF.FT.C.REG.20] Category A CBSD location update

8.1.11.1 *Test date*

Start date February 1, 2019

8.1.11.2 *Observations, settings and special notes*

WINNF.FT.C.REG20 test case was verified using WINNF.FT.C.REG7 : Installation Parameter Changed (Location) then CBSD rebooted to apply parameter change, then CBSD deregister and registered before 60 seconds with new parameter. UUT stoped transmissions when deregister.

8.1.11.3 *Test data*

The test case ID is provided as a means to ensure that evidence is provided showing compliance to this requirement.

#	Test Execution Steps	Results
1	<ul style="list-style-type: none"> This section is specific to Category A CBSDs that do not require professional installation. The requirement is for the Category A (non-professionally installed) to report to the SAS any location change exceeding a distance of 50m horizontally or 3m vertically within a 60 second window. It is left to the CBSD vendor and certification lab to generate the required evidence showing the UUT meets the requirement. 	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

8.2 6.3 CBSD Spectrum Grant Process

8.2.1 Definitions and limits

The test cases in this section are for verifying the handling of CBSD for various responseCodes in response from the-SAS Test Harness. The actions taken in response of any responseCode are beyond the scope of this document unless mentioned in the test procedure.



8.2.2 6.3.4.2.1 [WINNF.FT.D.GRA.1] Unsuccessful Grant responseCode=400 (INTERFERENCE)

8.2.2.1 *Test date*

Start date January 31, 2019

8.2.2.2 *Observations, settings and special notes*

None

8.2.2.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: • UUT has registered successfully with SAS Test Harness, with cbsdId = C	–	–
2	UUT sends valid Grant Request.	–	–
3	SAS Test Harness sends a Grant Response message, including • cbsdId=C • responseCode = R	–	–
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	–	–
5	Monitor the RF output of the UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: • UUT shall not transmit RF	<input checked="" type="checkbox"/>	<input type="checkbox"/>



8.2.3 6.3.4.2.2 [WINNF.FT.C.GRA.2] Unsuccessful Grant responseCode=401 (GRANT_CONFLICT)

8.2.3.1 Test date

Start date January 31, 2019

8.2.3.2 Observations, settings and special notes

None

8.2.3.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none">• UUT has registered successfully with SAS Test Harness, with cbsdId = C	-	-
2	UUT sends valid Grant Request.	-	-
3	SAS Test Harness sends a Grant Response message, including <ul style="list-style-type: none">• cbsdId=C• responseCode (R) = 401	-	-
4	After completion of step 3, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	-	-
5	Monitor the RF output of the UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none">• UUT shall not transmit RF	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.3 6.4 CBSD Heart Beat Process

8.3.1 Definitions and limits

The test cases in this section test the success path for the Heartbeat process. The SAS Test Harness shall use a heartBeatInterval of 60 seconds, unless specifically provided in the test case.

This test case incorporates validation of successful Spectrum Inquiry messaging (if present) and successful Grant messaging into the Heartbeat Success case.

8.3.2 6.4.4.1.2 [WINNF.FT.D.HBT.2] Domain Proxy Heartbeat Success Case (first Heartbeat Response)

8.3.2.1 Test date

Start date January 30, 2019

8.3.2.2 Observations, settings and special notes

None

8.3.2.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> DP has two CBSID registered successfully with SAS Test Harness, with cbsdId = Ci, i={1,2} 	-	-
2	DP sends a message: <ul style="list-style-type: none"> If message is a Spectrum Inquiry Request, go to step 3 If message is a Grant Request, go to step 5 	-	-
3	DP sends a Spectrum Inquiry Request message for each CBSID. This may occur in a separate message per CBSID, or together in a single message with array of 2. Verify Spectrum Inquiry Request message is formatted correctly for each CBSID, including for CBSID _i , i={1,2}: <ul style="list-style-type: none"> cbsdId = Ci List of frequencyRange objects sent by DP are within the CBRS frequency range 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	If a separate Spectrum Inquiry Request message was sent for each CBSID, the SAS Test Harness shall respond to each Spectrum Inquiry Request message with a separate Spectrum Inquiry Response message. If a single Spectrum Inquiry Request message was sent containing a 2-object array (one per CBSID), the SAS Test Harness shall respond with a single Spectrum Inquiry Response message containing a 2-object array. Verify parameters for each CBSID within the Spectrum Inquiry Response message are as follows, for CBSID _i , i={1,2}: <ul style="list-style-type: none"> cbsdId = Ci availableChannel is an array of availableChannel objects responseCode = 0 	-	-
5	DP sends a Grant Request message for each CBSID. This may occur in a separate message per CBSID, or together in a single message with array of 2. Verify Grant Request message is formatted correctly for each CBSID, including for CBSID _i , i={1,2}: <ul style="list-style-type: none"> cbsdId = C maxEIRP is at or below the limit appropriate for CBSID category as defined by Part 96 operationFrequencyRange, Fi, sent by UUT is a valid range within the CBRS band 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.3.3 6.4.4.2.1 [WINNF.FT.C.HBT.3] Heartbeat responseCode=105 (DEREGISTER)

8.3.3.1 *Test date*

Start date January 30, 2019

8.3.3.2 *Observations, settings and special notes*

None

8.3.3.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has registered successfully with SAS Test Harness • UUT has a valid single grant as follows: <ul style="list-style-type: none"> o valid cbsdId = C o valid grantId = G o grant is for frequency range F, power P o grantExpireTime = UTC time greater than duration of the test • UUT is in AUTHORIZED state and is transmitting within the grant bandwidth F on RF interface 	-	-
2	UUT sends a Heartbeat Request message. Ensure Heartbeat Request message is sent within Heartbeat Interval specified in the latest Heartbeat Response, and formatted correctly, including: <ul style="list-style-type: none"> • cbsdId = C • grantId = G • operationState = "AUTHORIZED" 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	SAS Test Harness sends a Heartbeat Response message, including the following parameters: <ul style="list-style-type: none"> • cbsdId = C • grantId = G • transmitExpireTime = T = Current UTC time • responseCode = 105 (DEREGISTER) 	-	-
4	After completion of step 3, SAS Test Harness shall not allow any further grants to the UUT.		
5	Monitor the RF output of the UUT. Verify: <ul style="list-style-type: none"> • UUT shall stop transmission within (T + 60 seconds) of completion of step 3 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.3.4 6.4.4.2.3 [WINNF.FT.C.HBT.5] Heartbeat responseCode=501 (SUSPENDED_GRANT) in First Heartbeat Response

8.3.4.1 Test date

Start date January 30, 2019

8.3.4.2 Observations, settings and special notes

None

8.3.4.3 Test data

#	Test Execution Steps	Results
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has registered successfully with SAS Test Harness • UUT has a valid single grant as follows: <ul style="list-style-type: none"> ○ valid cbsdId = C ○ valid grantId = G ○ grant is for frequency range F, power P ○ grantExpireTime = UTC time greater than duration of the test • UUT is in GRANTED but not AUTHORIZED state (i.e. has not performed its first Heartbeat Request) UUT sends a Heartbeat Request message. Ensure Heartbeat Request message is formatted correctly, including:	-
2	<ul style="list-style-type: none"> • cbsdId = C • grantId = G • operationState = "GRANTED" 	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
3	SAS Test Harness sends a Heartbeat Response message, including the following parameters: <ul style="list-style-type: none"> • cbsdId=C • grantId = G • transmitExpireTime = T = Current UTC time • responseCode = 105 (DEREGISTER) 	-
4	After completion of step 3, SAS Test Harness shall not allow any further grants to the UUT.	-
5	Monitor the SAS-CBSD interface. Verify either A OR B occurs: <ul style="list-style-type: none"> A. UUT sends a Heartbeat Request message. Ensure message is sent within latest specified heartbeatInterval, and is correctly formatted with parameters: <ul style="list-style-type: none"> • cbsdId = C • grantId = G • operationState = "GRANTED" B. UUT sends a Relinquishment request message. Ensure message is correctly formatted with parameters: <ul style="list-style-type: none"> • cbsdId = C • grantId = G Monitor the RF output of the UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT does not transmit at any time 	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail



8.3.5 6.4.4.2.4 [WINNF.FT.C.HBT.6] Heartbeat responseCode=501 (SUSPENDED_GRANT) in Subsequent Heartbeat Response

8.3.5.1 Test date

Start date January 30, 2019

8.3.5.2 Observations, settings and special notes

None

8.3.5.3 Test data

#	Test Execution Steps	Results
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has registered successfully with SAS Test Harness • UUT has a valid single grant as follows: <ul style="list-style-type: none"> ○ valid cbsId = C ○ valid grantId = G ○ grant is for frequency range F, power P ○ grantExpireTime = UTC time greater than duration of the test • UUT is in AUTHORIZED state and is transmitting within the grant bandwidth , power P UUT sends a Heartbeat Request message. Verify Heartbeat Request message is sent within latest specified heartbeatInterval, and is formatted correctly, including:	-
2	<ul style="list-style-type: none"> • cbsId = C • grantId = G • operationState = "AUTHORIZED" 	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
3	SAS Test Harness sends a Heartbeat Response message, including the following parameters: <ul style="list-style-type: none"> • cbsId=C • grantId = G • transmitExpireTime = T = current UTC time • responseCode = 501 (SUSPENDED_GRANT) 	-
4	After completion of step 3, SAS Test Harness shall not allow any further grants to the UUT.	-
5	Monitor the SAS-CBSD interface. Verify either A OR B occurs: <p>A. UUT sends a Heartbeat Request message. Ensure message is sent within latest specified heartbeatInterval, and is correctly formatted with parameters:</p> <ul style="list-style-type: none"> • cbsId = C • grantId = G • operationState = "GRANTED" <p>B. UUT sends a Relinquishment request message. Ensure message is correctly formatted with parameters:</p> <ul style="list-style-type: none"> • cbsId = C • grantId = G Monitor the RF output of the UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> • UUT shall stop transmission within (T + 60 seconds) of completion of step 3 	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

8.3.6 6.4.4.2.5 [WINNF.FT.C.HBT.7] Heartbeat responseCode=502 (UNSYNC_OP_PARAM)

8.3.6.1 Test date

Start date January 30, 2019

8.3.6.2 Observations, settings and special notes

None

8.3.6.3 Test data

#	Test Execution Steps	Results
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has registered successfully with SAS Test Harness • UUT has a valid single grant as follows: <ul style="list-style-type: none"> ○ valid cbsdId = C ○ valid grantId = G ○ grant is for frequency range F, power P ○ grantExpireTime = UTC time greater than duration of the test • UUT is in AUTHORIZED state and is transmitting within the grant bandwidth , power P 	-
2	UUT sends a Heartbeat Request message. Verify Heartbeat Request message is sent within latest specified heartbeatInterval, and is formatted correctly, including: <ul style="list-style-type: none"> • cbsdId = C • grantId = G • operationState = "AUTHORIZED" 	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
3	SAS Test Harness sends a Heartbeat Response message, including the following parameters: <ul style="list-style-type: none"> • cbsdId=C • grantId = G • transmitExpireTime = T = current UTC time • responseCode = 502 (UNSYNC_OP_PARAM) 	-
4	After completion of step 3, SAS Test Harness shall not allow any further grants to the UUT.	-
5	Monitor the SAS-CBSD interface. Verify: <ul style="list-style-type: none"> • UUT sends a Grant Relinquishment Request message. Verify message is correctly formatted with parameters: <ul style="list-style-type: none"> ○ cbsdId = C ○ grantId = G 	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
	Monitor the RF output of the UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. <ul style="list-style-type: none"> • UUT shall stop transmission within (T + 60 seconds) of completion of step 3 	

8.3.1 6.4.4.2.6 [WINNF.FT.D.HBT.8] Domain Proxy Heartbeat responseCode=500 (TERMINATED_GRANT)

8.3.1.1 Test date

Start date January 30, 2019

8.3.1.2 Observations, settings and special notes

None

8.3.1.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • DP has two CBSD registered successfully with SAS Test Harness • Each CBSD {1,2} has a valid single grant as follows: <ul style="list-style-type: none"> o valid cbsdId = Ci, i={1,2} o valid grantId = Gi, i={1,2} o grant is for frequency range Fi, power Pi o grantExpireTime = UTC time greater than duration of the test • Both CBSD are in AUTHORIZED state and transmitting within their granted bandwidth on RF interface 	-	-
2	DP sends a Heartbeat Request message for each CBSD. This may occur in a separate message per CBSD, or together in a single message with array of size 2. Verify Heartbeat Request message is sent within latest specified heartbeatInterval, and is formatted correctly for each CBSD, including, for CBSDi i={1,2}: <ul style="list-style-type: none"> • cbsdId = Ci, i = {1,2} • grantId = Gi, i = {1,2} • operationState = "AUTHORIZED" 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	If separate Heartbeat Request message was sent for each CBSD by the DP, the SAS Test Harness shall respond to each Heartbeat Request message with a separate Heartbeat Response message. If a single Heartbeat Request message was sent by the DP containing a 2-object array (one per CBSD), the SAS Test Harness shall respond with a single Heartbeat Response message containing a 2-object array. Parameters for each CBSD within the Heartbeat Response message should be as follows, for CBSDi: <ul style="list-style-type: none"> • cbsdId = Ci • grantId = Gi • For CBSD1: <ul style="list-style-type: none"> o transmitExpireTime = current UTC time + 200 seconds o responseCode = 0 • For CBSD2: <ul style="list-style-type: none"> o transmitExpireTime = T = current UTC time o responseCode = 500 (TERMINATED_GRANT) 	-	-

8.3.2 6.4.4.3.1 [WINNF.FT.C.HBT.9] Heartbeat Response Absent (First Heartbeat)

8.3.2.1 Test date

Start date February 1, 2019

8.3.2.2 Observations, settings and special notes

None

8.3.2.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has registered successfully with SAS Test Harness • UUT has a valid single grant as follows: <ul style="list-style-type: none"> o valid cbsdId = C o valid grantId = G o grant is for frequency range F, power P o grantExpireTime = UTC time greater than duration of the test • UUT is in GRANTED, but not AUTHORIZED state (i.e. has not performed its first Heartbeat Request) 	–	–
2	UUT sends a Heartbeat Request message. Ensure Heartbeat Request message is sent within latest specified heartbeatInterval, and is formatted correctly, including: <ul style="list-style-type: none"> • cbsdId = C • grantId = G • operationState = "GRANTED" 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	After completion of Step 2, SAS Test Harness does not respond to any further messages from UUT to simulate loss of network connection	–	–
4	Monitor the RF output of the UUT from start of test to 60 seconds after step 3. Verify: <ul style="list-style-type: none"> • At any time during the test, UUT shall not transmit on RF interface 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.3.3 6.4.4.3.2 [WINNF.FT.C.HBT.10] Heartbeat Response Absent (Subsequent Heartbeat)

8.3.3.1 *Test date*

Start date February 1, 2019

8.3.3.2 *Observations, settings and special notes*

None

8.3.3.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> • UUT has registered successfully with SAS Test Harness • UUT has a valid single grant as follows: <ul style="list-style-type: none"> o valid cbsdId = C o valid grantId = G o grant is for frequency range F, power P o grantExpireTime = UTC time greater than duration of the test • UUT is in AUTHORIZED state and is transmitting within the grant bandwidth F on RF interface 	–	–
2	UUT sends a Heartbeat Request message. Verify Heartbeat Request message is sent within the latest specified heartbeatInterval, and is formatted correctly, including: <ul style="list-style-type: none"> • cbsdId = C • grantId = G • operationState = "AUTHORIZED" 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	SAS Test Harness sends a Heartbeat Response message, with the following parameters: <ul style="list-style-type: none"> • cbsdId = C • grantId = G • transmitExpireTime = current UTC time + 200 seconds • responseCode = 0 	–	–
4	After completion of Step 3, SAS Test Harness does not respond to any further messages from UUT	–	–
5	Monitor the RF output of the UUT. Verify: <ul style="list-style-type: none"> • UUT shall stop all transmission on RF interface within (transmitExpireTime + 60 seconds), using the transmitExpireTime sent in Step 3. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.4 6.5 CBSD Measurement Report

8.4.1 Definitions and limits

This section explains test steps/condition/procedure for CBSD behavior for Measurement Reports.

8.4.2 6.5.4.2.1 [WINNF.FT.D.MES.2] Domain Proxy Registration Response contains measReportConfig

8.4.2.1 Test date

Start date February 1, 2019

8.4.2.2 Observations, settings and special notes

None

8.4.2.3 Test data

#	Test Execution Steps	Results	
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> UUT has successfully completed SAS Discovery and Authentication with SAS Test Harness UUT sends a Registration Request message. Validate the Registration Request message is formatted correctly, including:	-	-
2	<ul style="list-style-type: none"> userId is present and correct ffid is present and correct cbsdSerialNumber is present and correct measCapability= "RECEIVED_POWER_WITHOUT_GRANT" 	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
3	SAS Test Harness sends a Registration Response message, with the following parameters: <ul style="list-style-type: none"> cbsdId = C=valid cbsdId for this UUT measReportConfig="RECEIVED_POWER_WITHOUT_GRANT" responseCode=0 	-	-
4	UUT sends a message: <ul style="list-style-type: none"> If type message is Spectrum Inquiry Request, go to step 5, or If message is type Grant Request, go to step 7 	-	-
5	UUT sends message type Spectrum Inquiry Request. Verify message contains all required parameters properly formatted, and specifically: <ul style="list-style-type: none"> cbsdId=C measReport is present, and is a properly formatted rcvdPowerMeasReport. 	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
6	SAS Test Harness sends a Spectrum Inquiry Response, with the following parameters: <ul style="list-style-type: none"> cbsdId=C availableChannel is an array of availableChannel objects responseCode=0. 	-	-
7	UUT sends message type Grant Request message. Verify message contains all required parameters properly formatted, and specifically: <ul style="list-style-type: none"> cbsdId=C measReport is present, and is properly formatted rcvdPowerMeasReport. 	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail

8.5 6.6 CBSD Relinquishment Process

8.5.1 Definitions and limits

This section provides test steps, condition and procedures to test the conformance of the CBSD implementation for the CBSD Relinquishment Procedure. A precondition is the CBSD has successfully discovered the SAS it wants to communicate with.

8.5.2 6.6.4.1.2 [WINNF.FT.D.RLQ.2] Domain Proxy Successful Relinquishment

8.5.2.1 Test date

Start date January 31, 2019

8.5.2.2 Observations, settings and special notes

None

8.5.2.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> DP has successfully completed SAS Discovery and Authentication with SAS Test Harness DP has successfully registered 2 CBSD with SAS Test Harness, each with cbsdId=Ci, i={1,2} DP has received a valid grant with grantId = Gi, i={1,2} for each CBSD Both CBSD are in Grant State AUTHORIZED and actively transmitting within the bounds of their grants. Invoke trigger to relinquish each UUT Grant from the SAS Test Harness	-	-
2	Verify DP sends a Relinquishment Request message for each CBSD. This may occur in a separate message per CBSD, or together in a single message with array of 2. Verify Relinquishment Request message contains all required parameters properly formatted for each CBSD, specifically, for CBSDi: <ul style="list-style-type: none"> cbsdId = Ci grantId = Gi 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	If a separate Relinquishment Request message was sent for each CBSD by the DP, the SAS Test Harness shall respond to each request message with a separate response message. If a single Relinquishment Request message was sent by the DP containing a 2-object array (one per CBSD), the SAS Test Harness shall respond with a single Response message containing a 2-object array. Parameters for each CBSD within the Relinquishment Response shall be as follows: <ul style="list-style-type: none"> cbsdId = Ci grantId = Gi responseCode = 0 	-	-
4	After completion of step 3, SAS Test Harness will not provide any additional positive response (responseCode=0) to further request messages from the UUT.	-	-
5	Monitor the RF output of each UUT from start of test until 60 seconds after Step 3 is complete. This is the end of the test. Verify: <ul style="list-style-type: none"> UUT shall stop RF transmission at any time between triggering the relinquishments and UUT sending the relinquishment requests for each CBSD. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.6 6.7 CBSD Deregistration Process

8.6.1 Definitions and limits

A Deregistration request is issued by a CBSD to request a SAS to deregister the CBSD from the SAS. A Deregistration Request Message issued by a CBSD is provided in [n.5], Section 10.11.

In the Deregistration Response message, the SAS should echo back an array of DeregistrationResponse object. Each deregistrationResponse object consists of a cbsdId and a responseCode. If the deregistration request was successful, the responseCode should be set to 0, otherwise responseCode is set to appropriate error value. The deregistrationResponse Message and the deregistrationResponse object are provided in [n.5], Section 10.12.

Each test generates a CBSD deregistration request and validates the CBSD takes the appropriate actions following the SAS deregistration response.

These deregistration test cases assume the CBSD is the source (operator initiated, for instance reset site). Deregistrations triggered by the SAS in a response message with a responseCode of 105 are covered in other test cases.

8.6.1 6.7.4.1.2 [WINNF.FT.D.DRG.2] Domain Proxy Successful Deregistration

8.6.1.1 Test date

Start date January 31, 2019

8.6.1.2 Observations, settings and special notes

None

8.6.1.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Ensure the following conditions are met for test entry: <ul style="list-style-type: none"> Each UUT has successfully registered with SAS Test Harness Each UUT is in the authorized state DP has successfully completed SAS Discovery and Authentication with SAS Test Harness DP has successfully registered 2 CBSD with SAS Test Harness, each with cbsdId=Ci, i={1,2} DP has received a valid grant with grantId = Gi, i={1,2} for each CBSD Both CBSD are in Grant State AUTHORIZED and actively transmitting within the bounds of their grants. Invoke trigger to deregister each UUT from the SAS Test Harness	-	-
2	UUT sends a Relinquishment request and receives Relinquishment response with responseCode=0	-	-
3	Verify DP sends a Deregistration Request message for each CBSD. This may occur in a separate message per CBSD, or together in a single message with array of 2. Verify Deregistration Request message contains all required parameters properly formatted for each CBSD, specifically, for CBSDi: <ul style="list-style-type: none"> cbsdId = Ci 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	If a separate Deregistration Request message was sent for each CBSD by the DP, the SAS Test Harness shall respond to each request message with a separate response message. If a single Deregistration Request message was sent by the DP containing a 2-object array (one per CBSD), the SAS Test Harness shall respond with a single Response message containing a 2-object array. Parameters for each CBSD within the Deregistration Response shall be as follows: <ul style="list-style-type: none"> cbsdId = Ci responseCode = 0 	-	-
5	After completion of step 4, SAS Test Harness will not provide any positive response (responseCode=0) to further request messages from the UUT.	-	-

8.7 6.8 CBSD Security Validation

8.7.1 Definitions and limits

This section provides test steps, condition and procedures to test the conformance of the CBSD implementation for the Security Establishment Procedure. A precondition is the CBSD has successfully discovered the SAS it wants to communicate with. In all test cases under this category, the TLS connection is established successfully between the SAS Test Harness and CBSD. A pre-condition for these tests is that Certificates at CBSD and SAS Test Harness are correct and valid. The security procedure is irrespective of the procedures defined for the SAS Test Harness to CBSD communication.

8.7.2 6.8.4.1.1 [WINNF.FT.C.SCS.1] Successful TLS connection between UUT and SAS Test Harness

8.7.2.1 *Test date*

Start date January 31, 2019

8.7.2.2 *Observations, settings and special notes*

None

8.7.2.3 *Test data*

Step	Test Execution Steps	Pass	Fail
1	Verify in Wireshark the following in the captured packets: <ol style="list-style-type: none"> 1. Wireshark "Protocol" column shows "TLSv1.2" 2. CBSD/DP UUT sends "Client Hello" message to WInnForum SAS Test Harness WInnForum SAS Test Harness sends "Server Hello" message to CBSD/DP UUT. <ul style="list-style-type: none"> • The "Server Hello" message "Handshake Protocol" IE includes the "Cipher Suite" IE. • Verify the "Cipher Suite" shown in Wireshark is one of the following: TLS_RSA_WITH_AES_128_GCM_SHA256, TLS_RSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256, TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 3. "Application Data" messages are exchanged between WInnForum SAS Test Harness and CBSD/DP UUT. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Verify that WInnForum SAS Test Harness Command Prompt shows Registration Request Message from CBSD/DP UUT	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.7.3 6.8.4.2.1 [WINNF.FT.C.SCS.2] TLS failure due to revoked certificate

8.7.3.1 Test date

Start date January 31, 2019

8.7.3.2 Observations, settings and special notes

None

8.7.3.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Verify in Wireshark the following in the captured packets: <ol style="list-style-type: none"> 1. Wireshark "Protocol" column shows "TLSv1.2" 2. CBSD/DP UUT sends "Client Hello" message to WinnForum SAS Test Harness 3. WinnForum SAS Test Harness sends "Server Hello" message to CBSD/DP UUT. <ul style="list-style-type: none"> • The "Server Hello" message "Handshake Protocol" IE includes the "Cipher Suite" IE. • Verify the "Cipher Suite" shown in Wireshark is one of the following: TLS_RSA_WITH_AES_128_GCM_SHA256, TLS_RSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256, TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 4. CBSD/DP UUT performs DNS resolution for the FQDN of the CRL server, or OCSP server, or both listed in the X.509v3 extensions described above for the X.509 certificate of SAS Test Harness. 5. CBSD/DP UUT: <ul style="list-style-type: none"> • Download the CRL file according to the full URI listed in X.509v3 extension of "CRL Distribution Points" described above. OR <ul style="list-style-type: none"> • Send to the OCSP server an OCSP "Request" message containing the certificate serial number, and OCSP server replies. OR <ul style="list-style-type: none"> • Both CRL file download and OCSP transaction as described above. 6. "Application Data" messages are not seen between WinnForum SAS Test Harness and CBSD/DP UUT. 7. CBSD/DP UUT may send a TLS "Alert" message to WinnForum SAS Test Harness notifying of rejecting the TLS connection before attempting to establish the TLS connection again. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Verify that WinnForum SAS Test Harness Command Prompt does not show any Request Message from CBSD/DP UUT	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Section 8 Testing data
 Test name 6.8.4.2.2 [WINNF.FT.C.SCS.3] TLS failure due to expired server certificate
 Specification WINNF-TS-0122-V1.0.0 and WINNF-IN-00129-V1.0.0



8.7.4 6.8.4.2.2 [WINNF.FT.C.SCS.3] TLS failure due to expired server certificate

8.7.4.1 Test date

Start date January 31, 2019

8.7.4.2 Observations, settings and special notes

None

8.7.4.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Verify in Wireshark the following in the captured packets: <ol style="list-style-type: none"> 1. Wireshark "Protocol" column shows "TLSv1.2" 2. CBSD/DP UUT sends "Client Hello" message to WInnForum SAS Test Harness 3. WInnForum SAS Test Harness sends "Server Hello" message to CBSD/DP UUT. <ul style="list-style-type: none"> • The "Server Hello" message "Handshake Protocol" IE includes the "Cipher Suite" IE. • Verify the "Cipher Suite" shown in Wireshark is one of the following: TLS_RSA_WITH_AES_128_GCM_SHA256, TLS_RSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256, TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 4. "Application Data" messages are exchanged between WInnForum SAS Test Harness and CBSD/DP UUT. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Verify that WInnForum SAS Test Harness Command Prompt does not show any Request Message from CBSD/DP UUT	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Section 8 Testing data
Test name 6.8.4.2.3 [WINNF.FT.C.SCS.4] TLS failure when SAS Test Harness certificate is issued by an unknown CA
Specification WINNF-TS-0122-V1.0.0 and WINNF-IN-00129-V1.0.0.0



8.7.5 6.8.4.2.3 [WINNF.FT.C.SCS.4] TLS failure when SAS Test Harness certificate is issued by an unknown CA

8.7.5.1 Test date

Start date January 31, 2019

8.7.5.2 Observations, settings and special notes

None

8.7.5.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Verify in Wireshark the following in the captured packets: <ol style="list-style-type: none"> 1. Wireshark "Protocol" column shows "TLSv1.2" 2. CBS/D/DP UUT sends "Client Hello" message to WInnForum SAS Test Harness 3. WInnForum SAS Test Harness sends "Server Hello" message to CBS/D/DP UUT. <ul style="list-style-type: none"> • The "Server Hello" message "Handshake Protocol" IE includes the "Cipher Suite" IE. • Verify the "Cipher Suite" shown in Wireshark is one of the following: TLS_RSA_WITH_AES_128_GCM_SHA256, TLS_RSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256, TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 4. "Application Data" messages are not seen between WInnForum SAS Test Harness and CBS/D/DP UUT. 5. CBS/D/DP UUT may send a TLS "Alert" message to WInnForum SAS Test Harness notifying of rejecting the TLS connection before attempting to establish the TLS connection again. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Verify that WInnForum SAS Test Harness Command Prompt does not show any Request Message from CBS/D/DP UUT	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Section 8 Testing data
Test name 6.8.4.2.4 [WINNF.FT.C.SCS.5] TLS failure when certificate at the SAS Test Harness is corrupted
Specification WINNF-TS-0122-V1.0.0 and WINNF-IN-00129-V1.0.0.0



8.7.6 6.8.4.2.4 [WINNF.FT.C.SCS.5] TLS failure when certificate at the SAS Test Harness is corrupted

8.7.6.1 Test date

Start date December 31, 2018

8.7.6.2 Observations, settings and special notes

None

8.7.6.3 Test data

Step	Test Execution Steps	Pass	Fail
1	Verify in Wireshark the following in the captured packets: <ol style="list-style-type: none"> 1. Wireshark "Protocol" column shows "TLSv1.2" 2. CBSD/DP UUT sends "Client Hello" message to WinnForum SAS Test Harness 3. WinnForum SAS Test Harness sends "Server Hello" message to CBSD/DP UUT. <ul style="list-style-type: none"> • The "Server Hello" message "Handshake Protocol" IE includes the "Cipher Suite" IE. • Verify the "Cipher Suite" shown in Wireshark is one of the following: TLS_RSA_WITH_AES_128_GCM_SHA256, TLS_RSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256, TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 4. "Application Data" messages are not seen between WinnForum SAS Test Harness and CBSD/DP UUT. 5. CBSD/DP UUT may send a TLS "Alert" message to WinnForum SAS Test Harness notifying of rejecting the TLS connection before attempting to establish the TLS connection again. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Verify that WinnForum SAS Test Harness Command Prompt does not show any Request Message from CBSD/DP UUT	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.8 7.1 CBSD RF Power Measurement

8.8.1 Definitions and limits

This section provides test steps, condition and procedures to demonstrate conformance of the CBSD to limitations on transmit power due to maxEirp setting of AUTHORIZED grants for that CBSD.

8.8.2 7.1.4.1.1 [WINNF.PT.C.HBT] UUT RF Transmit Power Measurement

8.8.2.1 Test date

Start date January 31, 2019

8.8.2.2 Observations, settings and special notes

UUT transmitting at 16dBm/10MHz

8.8.2.3 Test data

8.8.2.4 Observations, settings and special notes

CBSD Vendor declaration of parameters:

Maximum rated power of UUT (EIRP, dBm/MHz)	20 dBm/MHz
Transmit dynamic range of UUT (EIRP, dBm/MHz)	30dB dynamic range (-10 dBm to +20 dBm)
Occupied bandwidth for the test case	20 MHz
maxEirp values for the test case	30
Antenna gain	5dBi +10Log(2)

8.8.2.5 Test data

To demonstrate compliance, the following parameters shall be chosen:

- lowFrequency, highFrequency of the grant. These values should correspond to the bandwidth of operation for the test, appropriate to the OBW of signal under test. Where a UUT is capable of multiple bandwidth operation modes, a single bandwidth operation mode shall be chosen for this test.

The test case below shall be performed for each of the maxEirp values: {P1, P2, ... PN}, determining a pass or fail for each. The UUT must comply with the grant maxEirp parameter for each test. Choice of maxEirp values {P1, P2, ... PN} should be made with knowledge of any limitations on UUT power control steps.

The UUT should be configured during the test to apply the maxEirp values to the entire occupied bandwidth and is implicitly expected to not exceed the dBm/MHz grant requirement.

The test execution steps below will yield a single measurement case. The test steps are to be repeated for each power measurement step, Pi, i = {1...N}.

#	Test Execution Steps	Results
1	<p>Ensure the following conditions are met for test entry:</p> <ul style="list-style-type: none"> • UUT has successfully completed SAS Discovery and Authentication with the SAS Test Harness • UUT has registered with the SAS, with CBSD ID = C • UUT has a single valid grant G with parameters {lowFrequency = FL, highFrequency = FH, maxEirp = Pi}, with grant in AUTHORIZED state, and grantExpireTime set to a value far past the duration of this test case <p><i>Note: in order for the UUT to request a grant with the parameters {lowFrequency, highFrequency, maxEirp}, the SAS Test Harness may need to provide appropriate guidance in the availableChannel object of the spectrumInquiry response message, and the operationParam object of the grant response message. Alternately, the UUT vendor may provide the ability to set those parameters on the UUT so that the UUT will request a grant with those parameters.</i></p> <p>UUT and SAS Test Harness perform a series of Heartbeat Request/Response cycles, which continues until the other test steps are complete. Messaging for each cycle is as follows:</p>	-
2	<ul style="list-style-type: none"> • UUT sends Heartbeat Request, including: <ul style="list-style-type: none"> ○ cbsdId = C ○ grantId = G 	-



- SAS Test Harness responds with Heartbeat Response, including:
 - cbsdId = C
 - grantId = G
 - transmitExpireTime = current UTC time + 200 seconds
 - responseCode = 0

3 Tester performs power measurement on RF interface(s) of UUT, and verifies it complies with the maxEirp setting, Pi. The RF measurement method is out of scope of this document, but may include additional configuration of the UUT, as required, to fulfil the requirements of the power measurement method.

Pass Fail

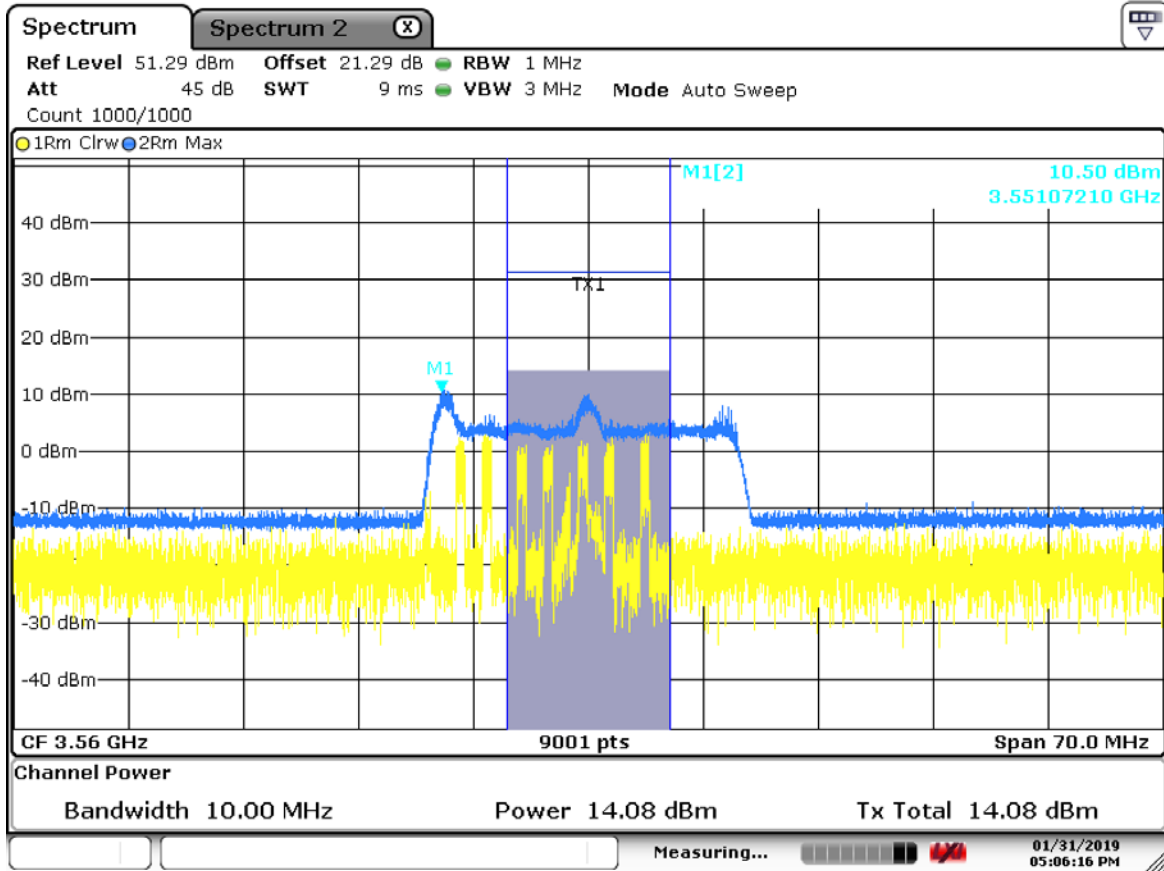
Note: it may be required for the vendor to provide a method or configuration to bring the UUT to a mode which is required by the measurement methodology. Any such mode is vendor-specific and depends upon UUT behavior and the measurement methodology.

Power measurement results - lowFrequency

Serial Number	Measured power (dBm)	Antenna gain (dBi)	EIRP (dBm)	EIRP (mW)
48-00:24:48:0e:f5:27	+14.08	5 +10Log(2)	22.08	0.1614

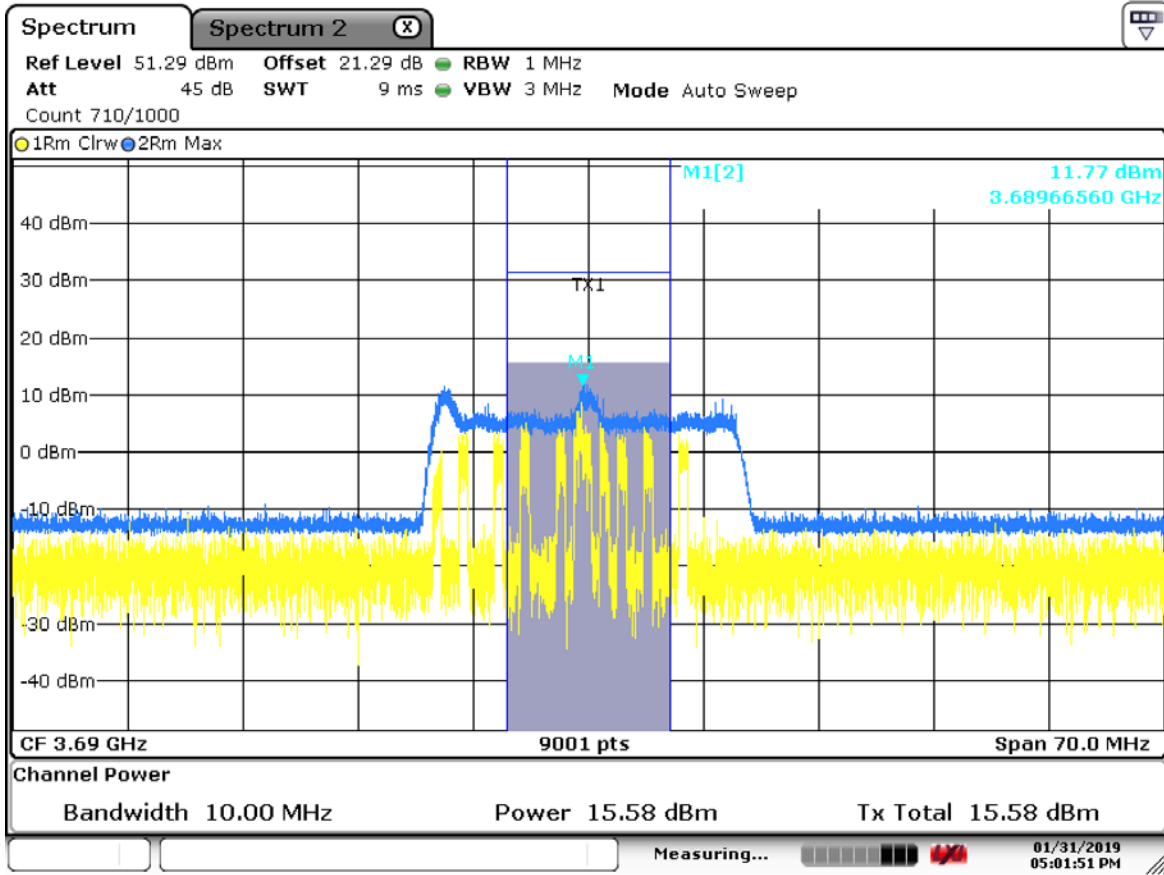
Power measurement results - highFrequency

Serial Number	Measured power (dBm)	Antenna gain (dBi)	EIRP (dBm)	EIRP (mW)
48-00:24:48:0e:f5:27	+15.58	5 +10Log(2)	23.58	0.2280



Date: 31.JAN.2019 17:06:16

Plot 1 - Low Channel

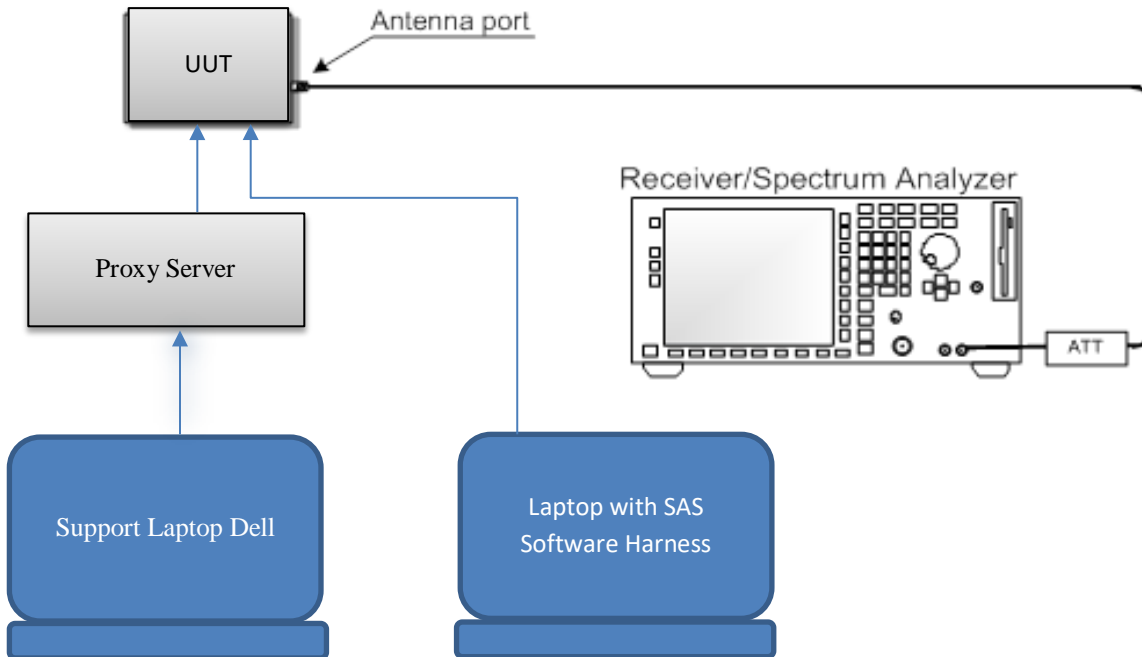


Date: 31.JAN.2019 17:01:50

Plot 2 - High Channel

Section 9. Block diagrams of test set-ups

9.1 Test equipment set-up



Section 10. Log files library

10.1 Log file for test case ID: WINNF.FT.D.REG.2

2019-01-30T17:21:49.289Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T17:21:49.289Z - INFO - the selected test from the user : winnf.ft.d.reg.2 is starting now

2019-01-30T17:22:57.209Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T17:22:57.256Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",

```

```

        "response": {
            "responseCode": 0
        }
    ]
}
2019-01-30T17:22:58.302Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3570000000,
                    "lowFrequency": 3550000000
                },
                {
                    "highFrequency": 3580000000,
                    "lowFrequency": 3560000000
                },
                {
                    "highFrequency": 3590000000,
                    "lowFrequency": 3570000000
                },
                {
                    "highFrequency": 3600000000,
                    "lowFrequency": 3580000000
                },
                {
                    "highFrequency": 3610000000,
                    "lowFrequency": 3590000000
                },
                {
                    "highFrequency": 3620000000,
                    "lowFrequency": 3600000000
                },
                {
                    "highFrequency": 3630000000,
                    "lowFrequency": 3610000000
                },
                {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3620000000
                },
                {
                    "highFrequency": 3650000000,
                    "lowFrequency": 3630000000
                },
                {
                    "highFrequency": 3660000000,
                    "lowFrequency": 3640000000
                }
            ]
        }
    ]
}

```

```

        },
        {
            "highFrequency": 3670000000,
            "lowFrequency": 3650000000
        },
        {
            "highFrequency": 3680000000,
            "lowFrequency": 3660000000
        },
        {
            "highFrequency": 3690000000,
            "lowFrequency": 3670000000
        },
        {
            "highFrequency": 3700000000,
            "lowFrequency": 3680000000
        }
    ]
}
]
}
}
2019-01-30T17:22:58.302Z - INFO - engine sent successfully, the response to
CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3555000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}
2019-01-30T17:22:59.318Z - INFO - deregistration request from CBRS : {
    "deregistrationRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
        }
    ]
}
}

```


2019-01-30T17:22:59.318Z - INFO - engine sent successfully, the response to
CBRS : {

```
"deregistrationResponse": [
  {
    "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
    "response": {
      "responseCode": 0
    }
  }
]
```

}
2019-01-30T17:23:10.345Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA"
    },
    "cbsdCategory": "A",
    "cbsdInfo": {
      "model": "RN-330",
      "vendor": "Spidercloud"
    },
    "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
    "fccId": "SCW-Temp",
    "groupingParam": [
      {
        "groupId": "zone2",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaGain": 3,
      "eirpCapability": 28,
      "height": 5,
      "heightType": "AGL",
      "indoorDeployment": true,
      "latitude": 39.56318664550781,
      "longitude": -104.8172378540039
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "NPLxLI"
  }
]
```

}
2019-01-30T17:23:10.392Z - INFO - engine sent successfully, the response to
CBRS : {

```
"registrationResponse": [
  {
```

```

    "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
    "response": {
      "responseCode": 0
    }
  ]
}
}
2019-01-30T17:23:12.023Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T17:23:12.023Z - INFO - the question is : Were there RF
transmissions from the CBSD1 during the test? please choose one of the
answers :
2019-01-30T17:23:21.657Z - INFO - for the question : Were there RF
transmissions from the CBSD1 during the test? , the user choose n
2019-01-30T17:23:21.657Z - INFO - the question is : Were there RF
transmissions from the CBSD2 during the test? please choose one of the
answers :
2019-01-30T17:23:27.398Z - INFO - for the question : Were there RF
transmissions from the CBSD2 during the test? , the user choose n
2019-01-30T17:23:42.795Z - INFO - The final result of the test :
winnf.ft.d.reg.2 is - passed and :the additional comments for the current
test are : NO RF Tx from UUTs
2019-01-30T17:21:49.289Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T17:21:49.289Z - INFO - the selected test from the user :
winnf.ft.d.reg.2 is starting now
2019-01-30T17:22:57.209Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,

```

```

        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "NPLxLI"
}
]
}
}
2019-01-30T17:22:57.256Z - INFO - engine sent successfully, the response to
CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}
2019-01-30T17:22:58.302Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3570000000,
                    "lowFrequency": 3550000000
                },
                {
                    "highFrequency": 3580000000,
                    "lowFrequency": 3560000000
                },
                {
                    "highFrequency": 3590000000,
                    "lowFrequency": 3570000000
                },
                {
                    "highFrequency": 3600000000,

```



```
        "lowFrequency": 3580000000
      },
      {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
      },
      {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
      },
      {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
      },
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3680000000,
        "lowFrequency": 3660000000
      },
      {
        "highFrequency": 3690000000,
        "lowFrequency": 3670000000
      },
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3680000000
      }
    ]
  }
```

```

    ]
  }
2019-01-30T17:22:58.302Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-01-30T17:22:59.318Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
    }
  ]
}
2019-01-30T17:22:59.318Z - INFO - engine sent successfully, the response to
CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-01-30T17:23:10.345Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {

```

```

    "airInterface": {
      "radioTechnology": "E_UTRA"
    },
    "cbsdCategory": "A",
    "cbsdInfo": {
      "model": "RN-330",
      "vendor": "Spidercloud"
    },
    "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
    "fccId": "SCW-Temp",
    "groupingParam": [
      {
        "groupId": "zone2",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaGain": 3,
      "eirpCapability": 28,
      "height": 5,
      "heightType": "AGL",
      "indoorDeployment": true,
      "latitude": 39.56318664550781,
      "longitude": -104.8172378540039
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "NPLxLI"
  }
]
}
2019-01-30T17:23:10.392Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}

```

2019-01-30T17:23:12.023Z - INFO - arrived to nstep starting question answer session with the technician

2019-01-30T17:23:12.023Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-01-30T17:23:21.657Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-01-30T17:23:21.657Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2019-01-30T17:23:27.398Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2019-01-30T17:23:42.795Z - INFO - The final result of the test : winnf.ft.d.reg.2 is - passed and :the additional comments for the current test are : NO RF Tx from UUTs

10.2 Log file for test case ID: WINNF.FT.D.REG.4

2019-01-30T19:22:55.061Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T19:22:55.061Z - INFO - the selected test from the user : WINNF.FT.D.REG.4 is starting now

2019-01-30T19:23:07.342Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T19:23:07.388Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```




```

    }
  ]
}
2019-01-30T19:23:07.999Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T19:23:08.013Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-30T19:23:09.017Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
    }
  ]
}
}
2019-01-30T19:23:09.032Z - INFO - engine sent successfully, the response to
CBRS : {
  "deregistrationResponse": [
    {

```

```

    "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
    "response": {
      "responseCode": 0
    }
  ]
}
2019-01-30T19:23:39.122Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T19:23:39.154Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
    }  
  ]  
}  
2019-01-30T19:23:40.700Z - INFO - arrived to nstep starting question answer  
session with the technician  
2019-01-30T19:23:40.700Z - INFO - the question is : Were there RF  
transmissions from the CBSD1 during the test? please choose one of the  
answers :  
2019-01-30T19:23:44.608Z - INFO - for the question : Were there RF  
transmissions from the CBSD1 during the test? , the user choose n  
2019-01-30T19:23:44.608Z - INFO - the question is : Were there RF  
transmissions from the CBSD2 during the test? please choose one of the  
answers :  
2019-01-30T19:23:45.904Z - INFO - for the question : Were there RF  
transmissions from the CBSD2 during the test? , the user choose n  
2019-01-30T19:23:59.874Z - INFO - The final result of the test :  
WINNF.FT.D.REG.4 is - passed and :the additional comments for the current  
test are : No RF Tx from UUTs
```

10.3 Log file for test case ID: WINNF.FT.C.REG.7 for device -48-00:24:48:0e:f5:27

```

2019-02-01T17:30:05.710Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-02-01T17:30:05.710Z - INFO - the selected test from the user :
WINNF.FT.C.REG.7 is starting now
2019-02-01T17:32:54.388Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 5,
        "eirpCapability": 24,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-02-01T17:32:54.436Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```

    }
  ]
}
2019-02-01T17:32:55.553Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-02-01T17:32:55.585Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```



```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-02-01T17:32:56.595Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 14,
        "operationFrequencyRange": {

```

```

                "highFrequency": 3570000000,
                "lowFrequency": 3550000000
            }
        }
    ]
}
2019-02-01T17:32:56.625Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-08T17:32:56Z",
            "grantId": "309650214",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-02-01T17:32:57.635Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "309650214",
            "operationState": "GRANTED"
        }
    ]
}
2019-02-01T17:32:57.667Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "309650214",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-02-01T17:36:17Z"
        }
    ]
}
2019-02-01T17:33:42.818Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "309650214",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-02-01T17:33:42.818Z - INFO - Time interval between two heartbeat request
messages is: 45.167, limit is: 65.0
2019-02-01T17:33:42.818Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "309650214",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T17:37:02Z"
    }
  ]
}
2019-02-01T17:34:06.898Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
    }
  ]
}
2019-02-01T17:34:06.914Z - INFO - engine sent successfully, the response to
CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-02-01T17:34:08.069Z - INFO - arrived to nstep starting question answer
session with the technician
2019-02-01T17:34:08.069Z - INFO - the question is : Did the CBSD stop RF
transmissions upon sending the Deregister request? please choose one of the
answers :
2019-02-01T17:34:26.789Z - INFO - for the question : Did the CBSD stop RF
transmissions upon sending the Deregister request? , the user choose y
2019-02-01T17:34:35.851Z - INFO - The final result of the test :
WINNF.FT.C.REG.7 is - passed and :the additional comments for the current
test are : verified.

```

10.4 Log file for test case ID: WINNF.FT.C.REG.7 for device - 49-00:24:48:0e:e1:47

```

2019-02-01T19:24:26.736Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-02-01T19:24:26.736Z - INFO - the selected test from the user :
WINNF.FT.C.REG.7 is starting now
2019-02-01T19:24:44.460Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 5,
        "eirpCapability": 24,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-02-01T19:24:44.507Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-02-01T19:24:45.571Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-02-01T19:24:45.585Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
  "responseCode": 0
}
}
]
}
2019-02-01T19:24:46.601Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "operationParam": {
        "maxEirp": 14,
        "operationFrequencyRange": {

```



```

        "highFrequency": 3570000000,
        "lowFrequency": 3550000000
    }
}
]
}
2019-02-01T19:24:46.618Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-08T19:24:46Z",
            "grantId": "115465001",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-02-01T19:24:47.632Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "115465001",
            "operationState": "GRANTED"
        }
    ]
}
2019-02-01T19:24:47.648Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "115465001",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-02-01T19:28:07Z"
        }
    ]
}
2019-02-01T19:25:24.276Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "115465001",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-02-01T19:25:24.276Z - INFO - Time interval between two heartbeat request
messages is: 36.643, limit is: 65.0
2019-02-01T19:25:24.290Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:28:44Z"
    }
  ]
}
2019-02-01T19:25:56.417Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T19:25:56.417Z - INFO - Time interval between two heartbeat request
messages is: 32.142, limit is: 65.0
2019-02-01T19:25:56.433Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:29:16Z"
    }
  ]
}
2019-02-01T19:26:41.059Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

}
2019-02-01T19:26:41.059Z - INFO - Time interval between two heartbeat request
messages is: 44.642, limit is: 65.0
2019-02-01T19:26:41.075Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:30:01Z"
    }
  ]
}
2019-02-01T19:27:13.203Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T19:27:13.203Z - INFO - Time interval between two heartbeat request
messages is: 32.143, limit is: 65.0
2019-02-01T19:27:13.217Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:30:33Z"
    }
  ]
}
2019-02-01T19:27:50.345Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}
}

```

```

2019-02-01T19:27:50.345Z - INFO - Time interval between two heartbeat request
messages is: 37.142, limit is: 65.0
2019-02-01T19:27:50.359Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:31:10Z"
    }
  ]
}
2019-02-01T19:28:28.987Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T19:28:28.987Z - INFO - Time interval between two heartbeat request
messages is: 38.643, limit is: 65.0
2019-02-01T19:28:29.003Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:31:49Z"
    }
  ]
}
2019-02-01T19:29:15.131Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T19:29:15.131Z - INFO - Time interval between two heartbeat request
messages is: 46.143, limit is: 65.0

```

```

2019-02-01T19:29:15.145Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:32:35Z"
    }
  ]
}
2019-02-01T19:30:00.273Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T19:30:00.273Z - INFO - Time interval between two heartbeat request
messages is: 45.143, limit is: 65.0
2019-02-01T19:30:00.289Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:33:20Z"
    }
  ]
}
2019-02-01T19:30:47.931Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T19:30:47.931Z - INFO - Time interval between two heartbeat request
messages is: 47.658, limit is: 65.0
2019-02-01T19:30:47.947Z - INFO - engine sent successfully, the response to
CBRS : {

```

```

    "heartbeatResponse": [
      {
        "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
        "grantId": "115465001",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2019-02-01T19:34:07Z"
      }
    ]
  }
}
2019-02-01T19:31:22.075Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T19:31:22.075Z - INFO - Time interval between two heartbeat request
messages is: 34.144, limit is: 65.0
2019-02-01T19:31:22.092Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:34:42Z"
    }
  ]
}
}
2019-02-01T19:32:02.217Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "115465001",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-02-01T19:32:02.217Z - INFO - Time interval between two heartbeat request
messages is: 40.142, limit is: 65.0
2019-02-01T19:32:02.250Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {

```

```

        "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
        "grantId": "115465001",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2019-02-01T19:35:22Z"
    }
]
}
2019-02-01T19:32:43.378Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "115465001",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-02-01T19:32:43.378Z - INFO - Time interval between two heartbeat request
messages is: 41.161, limit is: 65.0
2019-02-01T19:32:43.394Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "115465001",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-02-01T19:36:03Z"
        }
    ]
}
}
2019-02-01T19:32:43.519Z - INFO - deregistration request from CBRS : {
    "deregistrationRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47"
        }
    ]
}
}
2019-02-01T19:32:43.519Z - INFO - engine sent successfully, the response to
CBRS : {
    "deregistrationResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
]

```

```
}  
2019-02-01T19:32:44.769Z - INFO - arrived to nstep starting question answer  
session with the technician  
2019-02-01T19:32:44.785Z - INFO - the question is : Did the CBSD stop RF  
transmissions upon sending the Deregister request? please choose one of the  
answers :  
2019-02-01T19:32:52.128Z - INFO - for the question : Did the CBSD stop RF  
transmissions upon sending the Deregister request? , the user choose y  
2019-02-01T19:32:57.191Z - INFO - The final result of the test :  
WINNF.FT.C.REG.7 is - passed and :the additional comments for the current  
test are : Verified.
```


10.5 Log file for test case ID: WINNF.FT.D.REG.9

2019-01-30T19:14:07.351Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T19:14:07.351Z - INFO - the selected test from the user :
WINNF.FT.D.REG.9 is starting now

2019-01-30T19:14:16.259Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T19:14:16.305Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "response": {
        "responseCode": 102
      }
    }
  ]
}

```

```

    ]
  }
2019-01-30T19:14:23.930Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T19:14:23.977Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 102
      }
    }
  ]
}
2019-01-30T19:14:25.602Z - INFO - arrived to nstep starting question answer
session with the technician

```

2019-01-30T19:14:25.602Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-01-30T19:14:34.931Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-01-30T19:14:34.931Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2019-01-30T19:14:37.759Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2019-01-30T19:14:48.759Z - INFO - The final result of the test : WINNF.FT.D.REG.9 is - passed and :the additional comments for the current test are : No UUT RF TX

10.6 Log file for test case ID: WINNF.FT.D.REG.11

```

2019-01-30T19:26:18.543Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T19:26:18.543Z - INFO - the selected test from the user :
WINNF.FT.D.REG.11 is starting now
2019-01-30T19:26:31.286Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T19:26:31.411Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 200
      }
    }
  ]
}

```

```

    ]
  }
2019-01-30T19:26:43.036Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T19:26:43.068Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 200
      }
    }
  ]
}
2019-01-30T19:26:44.944Z - INFO - arrived to nstep starting question answer
session with the technician

```

2019-01-30T19:26:44.944Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-01-30T19:26:52.209Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-01-30T19:26:52.209Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2019-01-30T19:26:53.881Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2019-01-30T19:27:09.960Z - INFO - The final result of the test : WINNF.FT.D.REG.11 is - passed and :the additional comments for the current test are : No RF Tx from UUTs, verified

10.7 Log file for test case ID: WINNF.FT.D.REG.13

2019-01-30T19:30:55.753Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T19:30:55.753Z - INFO - the selected test from the user :
WINNF.FT.D.REG.13 is starting now

2019-01-30T19:31:09.051Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T19:31:09.176Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```

    }
  ]
}
2019-01-30T19:31:10.239Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```



```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T19:31:10.239Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-30T19:31:11.260Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
    }
  ]
}
}
2019-01-30T19:31:11.260Z - INFO - engine sent successfully, the response to
CBRS : {
  "deregistrationResponse": [
    {

```

```

    "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
    "response": {
      "responseCode": 0
    }
  ]
}
2019-01-30T19:31:18.328Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T19:31:18.375Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 103
      }
    }
  ]
}

```

```
]
}
2019-01-30T19:31:20.000Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T19:31:20.000Z - INFO - the question is : Were there RF
transmissions from the CBSD1 during the test? please choose one of the
answers :
2019-01-30T19:31:24.938Z - INFO - for the question : Were there RF
transmissions from the CBSD1 during the test? , the user choose n
2019-01-30T19:31:24.954Z - INFO - the question is : Were there RF
transmissions from the CBSD2 during the test? please choose one of the
answers :
2019-01-30T19:31:26.063Z - INFO - for the question : Were there RF
transmissions from the CBSD2 during the test? , the user choose n
2019-01-30T19:31:38.032Z - INFO - The final result of the test :
WINNF.FT.D.REG.13 is - passed and :the additional comments for the current
test are : No RF Tx from UUTs, verified.
```

10.8 Log file for test case ID: WINNF.FT.D.REG.15

```

2019-01-30T19:33:43.831Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T19:33:43.831Z - INFO - the selected test from the user :
WINNF.FT.D.REG.15 is starting now
2019-01-30T19:33:58.471Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T19:33:58.596Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-01-30T19:33:59.644Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T19:33:59.658Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-30T19:34:00.674Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
    }
  ]
}
}
2019-01-30T19:34:00.674Z - INFO - engine sent successfully, the response to
CBRS : {
  "deregistrationResponse": [
    {

```

```

    "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
    "response": {
      "responseCode": 0
    }
  ]
}
2019-01-30T19:34:08.207Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T19:34:08.237Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 101
      }
    }
  ]
}

```

```
]
}
2019-01-30T19:34:10.237Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T19:34:10.237Z - INFO - the question is : Were there RF
transmissions from the CBSD1 during the test? please choose one of the
answers :
2019-01-30T19:34:14.973Z - INFO - for the question : Were there RF
transmissions from the CBSD1 during the test? , the user choose n
2019-01-30T19:34:14.973Z - INFO - the question is : Were there RF
transmissions from the CBSD2 during the test? please choose one of the
answers :
2019-01-30T19:34:15.737Z - INFO - for the question : Were there RF
transmissions from the CBSD2 during the test? , the user choose n
2019-01-30T19:34:40.207Z - INFO - The final result of the test :
WINNF.FT.D.REG.15 is - passed and :the additional comments for the current
test are : No RF Tx from UUTs
```


10.9 Log file for test case ID: WINNF.FT.D.REG.17

```

2019-01-30T19:36:31.351Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T19:36:31.351Z - INFO - the selected test from the user :
WINNF.FT.D.REG.17 is starting now
2019-01-30T19:36:44.322Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T19:36:44.447Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 100
      }
    }
  ]
}

```

```

    }
  ]
}
2019-01-30T19:36:51.072Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T19:36:51.104Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 100
      }
    }
  ]
}
2019-01-30T19:36:52.651Z - INFO - arrived to nstep starting question answer
session with the technician

```

2019-01-30T19:36:52.651Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-01-30T19:36:55.572Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-01-30T19:36:55.572Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2019-01-30T19:36:56.151Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2019-01-30T19:37:08.167Z - INFO - The final result of the test : WINNF.FT.D.REG.17 is - passed and :the additional comments for the current test are : No RF TX from UUTs.

10.10 Log file for test case ID: WINNF.FT.D.REG.19

2019-01-30T19:39:40.849Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T19:39:40.849Z - INFO - the selected test from the user :
WINNF.FT.D.REG.19 is starting now

2019-01-30T19:39:54.282Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T19:39:54.407Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```

    }
  ]
}
2019-01-30T19:39:55.510Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T19:39:55.526Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-30T19:39:56.526Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
    }
  ]
}
}
2019-01-30T19:39:56.542Z - INFO - engine sent successfully, the response to
CBRS : {
  "deregistrationResponse": [
    {

```

```

        "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
        "response": {
            "responseCode": 0
        }
    ]
}
2019-01-30T19:40:03.105Z - INFO - registration request from CBRS : {
    "registrationRequest": [
        {
            "airInterface": {
                "radioTechnology": "E_UTRA"
            },
            "cbsdCategory": "A",
            "cbsdInfo": {
                "model": "RN-330",
                "vendor": "Spidercloud"
            },
            "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
            "fccId": "SCW-Temp",
            "groupingParam": [
                {
                    "groupId": "zone2",
                    "groupType": "INTERFERENCE_COORDINATION"
                }
            ],
            "installationParam": {
                "antennaGain": 3,
                "eirpCapability": 28,
                "height": 5,
                "heightType": "AGL",
                "indoorDeployment": true,
                "latitude": 39.56318664550781,
                "longitude": -104.8172378540039
            },
            "measCapability": [
                "RECEIVED_POWER_WITHOUT_GRANT"
            ],
            "userId": "NPLxLI"
        }
    ]
}
2019-01-30T19:40:03.151Z - INFO - engine sent successfully, the response to
CBRS : {
    "registrationResponse": [
        {
            "response": {
                "responseCode": 201
            }
        }
    ]
}

```

```
]
}
2019-01-30T19:40:05.151Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T19:40:05.151Z - INFO - the question is : Were there RF
transmissions from the CBSD1 during the test? please choose one of the
answers :
2019-01-30T19:40:10.917Z - INFO - for the question : Were there RF
transmissions from the CBSD1 during the test? , the user choose n
2019-01-30T19:40:10.917Z - INFO - the question is : Were there RF
transmissions from the CBSD2 during the test? please choose one of the
answers :
2019-01-30T19:40:14.026Z - INFO - for the question : Were there RF
transmissions from the CBSD2 during the test? , the user choose n
2019-01-30T19:40:32.246Z - INFO - The final result of the test :
WINNF.FT.D.REG.19 is - passed and :the additional comments for the current
test are : No RF Tx from Both UUTs
```


10.11 Log file for test case ID: WINNF.FT.C.REG.20 (reference Log)

-----For Reference only-----

WINNF.FT.C.REG20 test case was verified by below WINNF.FT.C.REG7 (This log is for REFERENCE ONLY)

2019-02-01T17:30:05.710Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-02-01T17:30:05.710Z - INFO - the selected test from the user :

WINNF.FT.C.REG.7 is starting now

2019-02-01T17:32:54.388Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA"
    },
    "cbsdCategory": "A",
    "cbsdInfo": {
      "model": "RN-330",
      "vendor": "Spidercloud"
    },
    "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
    "fccId": "SCW-Temp",
    "groupingParam": [
      {
        "groupId": "zone1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaGain": 5,
      "eirpCapability": 24,
      "height": 3,
      "heightType": "AGL",
      "indoorDeployment": true,
      "latitude": 39.56318664550781,
      "longitude": -104.8172378540039
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "NPLxLI"
  }
]

```

```

    ]
  }
2019-02-01T17:32:54.436Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-02-01T17:32:55.553Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,

```

```

        "lowFrequency": 3610000000
      },
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3680000000,
        "lowFrequency": 3660000000
      },
      {
        "highFrequency": 3690000000,
        "lowFrequency": 3670000000
      },
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3680000000
      }
    ]
  }
]
}
2019-02-01T17:32:55.585Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          }
        }
      ]
    }
  ]
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3580000000,
      "lowFrequency": 3560000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3590000000,
      "lowFrequency": 3570000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3600000000,
      "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3610000000,
      "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3620000000,
      "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {

```

```

"channelType": "GAA",
"frequencyRange": {
  "highFrequency": 3630000000,
  "lowFrequency": 3610000000
},
"ruleApplied": "FCC_PART_96"
},
{
"channelType": "GAA",
"frequencyRange": {
  "highFrequency": 3640000000,
  "lowFrequency": 3620000000
},
"ruleApplied": "FCC_PART_96"
},
{
"channelType": "GAA",
"frequencyRange": {
  "highFrequency": 3650000000,
  "lowFrequency": 3630000000
},
"ruleApplied": "FCC_PART_96"
},
{
"channelType": "GAA",
"frequencyRange": {
  "highFrequency": 3660000000,
  "lowFrequency": 3640000000
},
"ruleApplied": "FCC_PART_96"
},
{
"channelType": "GAA",
"frequencyRange": {
  "highFrequency": 3670000000,
  "lowFrequency": 3650000000
},
"ruleApplied": "FCC_PART_96"
},
{
"channelType": "GAA",
"frequencyRange": {
  "highFrequency": 3680000000,
  "lowFrequency": 3660000000

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-02-01T17:32:56.595Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 14,
        "operationFrequencyRange": {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        }
      }
    }
  ]
}
2019-02-01T17:32:56.625Z - INFO - engine sent successfully, the response to
CBRS : {
  "grantResponse": [

```

```

    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "channelType": "GAA",
      "grantExpireTime": "2019-02-08T17:32:56Z",
      "grantId": "309650214",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-02-01T17:32:57.635Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "309650214",
      "operationState": "GRANTED"
    }
  ]
}
2019-02-01T17:32:57.667Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "309650214",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T17:36:17Z"
    }
  ]
}
2019-02-01T17:33:42.818Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "309650214",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

2019-02-01T17:33:42.818Z - INFO - Time interval between two heartbeat request messages is: 45.167, limit is: 65.0

2019-02-01T17:33:42.818Z - INFO - engine sent successfully, the response to

```
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "309650214",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T17:37:02Z"
    }
  ]
}
```

2019-02-01T17:34:06.898Z - INFO - deregistration request from CBRS : {

```
"deregistrationRequest": [
  {
    "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
  }
]
```

2019-02-01T17:34:06.914Z - INFO - engine sent successfully, the response to

```
CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

2019-02-01T17:34:08.069Z - INFO - arrived to nstep starting question answer session with the technician

2019-02-01T17:34:08.069Z - INFO - the question is : Did the CBSD stop RF transmissions upon sending the Deregister request? please choose one of the answers :

2019-02-01T17:34:26.789Z - INFO - for the question : Did the CBSD stop RF transmissions upon sending the Deregister request? , the user choose y

2019-02-01T17:34:35.851Z - INFO - The final result of the test :

WINNF.FT.C.REG.7 is - passed and :the additional comments for the current test are : verified.

10.12 Log file for test case ID: WINNF.FT.D.GRA.1 for device - 48-00:24:48:0e:f5:27

2019-01-30T19:59:00.109Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T19:59:00.109Z - INFO - the selected test from the user :
WINNF.FT.C.GRA.1 is starting now

2019-01-30T19:59:13.234Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T19:59:13.282Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-01-30T19:59:14.344Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T19:59:14.359Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T19:59:15.365Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T19:59:15.398Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "response": {
                "responseCode": 400
            }
        }
    ]
}
}
2019-01-30T19:59:17.286Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T19:59:17.286Z - INFO - the question is : Were there RF
transmissions from the CBSD1 during the test? please choose one of the
answers :
2019-01-30T19:59:23.375Z - INFO - for the question : Were there RF
transmissions from the CBSD1 during the test? , the user choose n
2019-01-30T19:59:44.387Z - INFO - The final result of the test :
WINNF.FT.C.GRA.1 is - passed and :the additional comments for the current
test are : No RF Tx from CBSD1

```

10.13 Log file for test case ID: WINNF.FT.D.GRA.1 for device - 49-00:24:48:0e:e1:47

```

2019-01-30T20:06:14.154Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T20:06:14.154Z - INFO - the selected test from the user :
WINNF.FT.C.GRA.1 is starting now
2019-01-30T20:06:28.470Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T20:06:28.500Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```

    }
  ]
}
2019-01-30T20:06:29.563Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```



```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T20:06:29.579Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T20:06:30.595Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T20:06:30.627Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "response": {
                "responseCode": 400
            }
        }
    ]
}
}
2019-01-30T20:06:32.377Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T20:06:32.377Z - INFO - the question is : Were there RF
transmissions from the CBSD1 during the test? please choose one of the
answers :
2019-01-30T20:06:38.174Z - INFO - for the question : Were there RF
transmissions from the CBSD1 during the test? , the user choose n
2019-01-30T20:06:48.924Z - INFO - The final result of the test :
WINNF.FT.C.GRA.1 is - passed and :the additional comments for the current
test are : No RF Tx from CBSD1.

```

10.14 Log file for test case ID: WINNF.FT.C.GRA.2 for device - 48-00:24:48:0e:f5:27

```

2019-01-30T20:11:07.960Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T20:11:07.960Z - INFO - the selected test from the user :
WINNF.FT.C.GRA.2 is starting now
2019-01-30T20:11:24.461Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T20:11:24.586Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-01-30T20:11:25.634Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T20:11:25.664Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```



```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T20:11:26.680Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T20:11:26.696Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "response": {
                "responseCode": 401
            }
        }
    ]
}
}
2019-01-30T20:11:28.321Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T20:11:28.336Z - INFO - the question is : Were there RF
transmissions from the CBSD1 during the test? please choose one of the
answers :
2019-01-30T20:11:33.384Z - INFO - for the question : Were there RF
transmissions from the CBSD1 during the test? , the user choose n
2019-01-30T20:11:52.915Z - INFO - The final result of the test :
WINNF.FT.C.GRA.2 is - passed and :the additional comments for the current
test are : No RF Tx from CBSD1.

```

10.15 Log file for test case ID: WINNF.FT.C.GRA.2 for device - 49-00:24:48:0e:e1:47

```

2019-01-30T20:08:00.664Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T20:08:00.664Z - INFO - the selected test from the user :
WINNF.FT.C.GRA.2 is starting now
2019-01-30T20:08:20.107Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T20:08:20.154Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-01-30T20:08:21.203Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T20:08:21.219Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T20:08:22.234Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T20:08:22.250Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "response": {
                "responseCode": 401
            }
        }
    ]
}
}
2019-01-30T20:08:23.875Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T20:08:23.875Z - INFO - the question is : Were there RF
transmissions from the CBSD1 during the test? please choose one of the
answers :
2019-01-30T20:08:27.798Z - INFO - for the question : Were there RF
transmissions from the CBSD1 during the test? , the user choose n
2019-01-30T20:08:56.549Z - INFO - The final result of the test :
WINNF.FT.C.GRA.2 is - passed and :the additional comments for the current
test are : No RF Tx from CBSD2.

```


10.16 Log file for test case ID:WINNF.FT.D.HBT.2

2019-01-30T21:23:18.805Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T21:23:18.819Z - INFO - the selected test from the user : WINNF.FT.D.HBT.2 is starting now

2019-01-30T21:23:39.088Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T21:23:39.134Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-01-30T21:23:40.181Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
2019-01-30T21:23:40.213Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T21:23:41.227Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

                "highFrequency": 3630000000,
                "lowFrequency": 3610000000
            }
        }
    ]
}
2019-01-30T21:23:41.243Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T21:23:41Z",
            "grantId": "448157689",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T21:23:42.259Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "448157689",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T21:23:42.275Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "448157689",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-30T21:27:02Z"
        }
    ]
}
2019-01-30T21:23:46.290Z - INFO - registration request from CBRS : {
    "registrationRequest": [
        {
            "airInterface": {
                "radioTechnology": "E_UTRA"
            },

```

```

    "cbsdCategory": "A",
    "cbsdInfo": {
      "model": "RN-330",
      "vendor": "Spidercloud"
    },
    "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
    "fccId": "SCW-Temp",
    "groupingParam": [
      {
        "groupId": "zone2",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaGain": 3,
      "eirpCapability": 28,
      "height": 5,
      "heightType": "AGL",
      "indoorDeployment": true,
      "latitude": 39.56318664550781,
      "longitude": -104.8172378540039
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "NPLxLI"
  }
]
}
2019-01-30T21:23:46.338Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-30T21:23:47.354Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {

```



```
    "highFrequency": 3580000000,  
    "lowFrequency": 3560000000  
  },  
  {  
    "highFrequency": 3590000000,  
    "lowFrequency": 3570000000  
  },  
  {  
    "highFrequency": 3600000000,  
    "lowFrequency": 3580000000  
  },  
  {  
    "highFrequency": 3610000000,  
    "lowFrequency": 3590000000  
  },  
  {  
    "highFrequency": 3620000000,  
    "lowFrequency": 3600000000  
  },  
  {  
    "highFrequency": 3630000000,  
    "lowFrequency": 3610000000  
  },  
  {  
    "highFrequency": 3640000000,  
    "lowFrequency": 3620000000  
  },  
  {  
    "highFrequency": 3650000000,  
    "lowFrequency": 3630000000  
  },  
  {  
    "highFrequency": 3660000000,  
    "lowFrequency": 3640000000  
  },  
  {  
    "highFrequency": 3670000000,  
    "lowFrequency": 3650000000  
  },  
  {  
    "highFrequency": 3680000000,  
    "lowFrequency": 3660000000  
  },  
  {  
    "highFrequency": 3690000000,  
    "lowFrequency": 3670000000  
  },  
  {  
    "highFrequency": 3700000000,  
    "lowFrequency": 3680000000  
  }
```



```

    }
  ]
}
}
2019-01-30T21:23:47.369Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3600000000,
            "lowFrequency": 3580000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3610000000,
            "lowFrequency": 3590000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}

```

```

{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3620000000,
    "lowFrequency": 3600000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3630000000,
    "lowFrequency": 3610000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3640000000,
    "lowFrequency": 3620000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3650000000,
    "lowFrequency": 3630000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3660000000,
    "lowFrequency": 3640000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3670000000,
    "lowFrequency": 3650000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",

```

```

        "frequencyRange": {
            "highFrequency": 3680000000,
            "lowFrequency": 3660000000
        },
        "ruleApplied": "FCC_PART_96"
    },
    {
        "channelType": "GAA",
        "frequencyRange": {
            "highFrequency": 3690000000,
            "lowFrequency": 3670000000
        },
        "ruleApplied": "FCC_PART_96"
    },
    {
        "channelType": "GAA",
        "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3680000000
        },
        "ruleApplied": "FCC_PART_96"
    }
],
"cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
    "responseCode": 0
}
}
]
}
2019-01-30T21:23:48.384Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "operationParam": {
                "maxEirp": 18,
                "operationFrequencyRange": {
                    "highFrequency": 3630000000,
                    "lowFrequency": 3610000000
                }
            }
        }
    ]
}
2019-01-30T21:23:48.401Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",

```

```

    "grantExpireTime": "2019-02-06T21:23:48Z",
    "grantId": "313486824",
    "heartbeatInterval": 60,
    "response": {
      "responseCode": 0
    }
  }
]
}
2019-01-30T21:23:49.417Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "operationState": "GRANTED"
    }
  ]
}
2019-01-30T21:23:49.431Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:27:09Z"
    }
  ]
}
}
2019-01-30T21:24:18.059Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "448157689",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-30T21:24:18.059Z - INFO - Time interval between two heartbeat request
messages is: 35.799, limit is: 65.0
2019-01-30T21:24:18.075Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "448157689",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    },
    "transmitExpireTime": "2019-01-30T21:27:38Z"
  }
]
}
2019-01-30T21:24:30.107Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T21:24:30.122Z - INFO - Time interval between two heartbeat request
messages is: 40.69, limit is: 65.0
2019-01-30T21:24:30.138Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:27:50Z"
    }
  ]
}
}
2019-01-30T21:24:57.265Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "448157689",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-30T21:24:57.265Z - INFO - Time interval between two heartbeat request
messages is: 39.206, limit is: 65.0
2019-01-30T21:24:57.280Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "448157689",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:28:17Z"
    }
  ]
}

```

```

    }
  ]
}
2019-01-30T21:25:18.344Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T21:25:18.344Z - INFO - Time interval between two heartbeat request
messages is: 48.237, limit is: 65.0
2019-01-30T21:25:18.359Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:28:38Z"
    }
  ]
}
}
2019-01-30T21:25:38.907Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "448157689",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-30T21:25:38.907Z - INFO - Time interval between two heartbeat request
messages is: 41.643, limit is: 65.0
2019-01-30T21:25:38.924Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "448157689",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:28:58Z"
    }
  ]
}
]

```

```

}
2019-01-30T21:25:52.970Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T21:25:52.970Z - INFO - Time interval between two heartbeat request
messages is: 34.627, limit is: 65.0
2019-01-30T21:25:52.986Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:29:12Z"
    }
  ]
}
}
2019-01-30T21:26:22.112Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "448157689",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-30T21:26:22.112Z - INFO - Time interval between two heartbeat request
messages is: 43.205, limit is: 65.0
2019-01-30T21:26:22.128Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "448157689",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:29:42Z"
    }
  ]
}
}
}
2019-01-30T21:26:36.176Z - INFO - heartbeat request from CBRS : {

```

```

    "heartbeatRequest": [
      {
        "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
        "grantId": "313486824",
        "operationState": "AUTHORIZED"
      }
    ]
  }
}
2019-01-30T21:26:36.176Z - INFO - Time interval between two heartbeat request
messages is: 43.205, limit is: 65.0
2019-01-30T21:26:36.191Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:29:56Z"
    }
  ]
}
}
2019-01-30T21:27:08.319Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-30T21:27:08.319Z - INFO - Time interval between two heartbeat request
messages is: 32.144, limit is: 65.0
2019-01-30T21:27:08.335Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "313486824",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:30:28Z"
    }
  ]
}
}
}
2019-01-30T21:27:11.351Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {

```



```

    "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
    "grantId": "448157689",
    "operationState": "AUTHORIZED"
  }
]
}
2019-01-30T21:27:11.351Z - INFO - Time interval between two heartbeat request
messages is: 49.239, limit is: 65.0
2019-01-30T21:27:11.382Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "448157689",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:30:31Z"
    }
  ]
}
}
2019-01-30T21:27:12.898Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T21:27:12.914Z - INFO - the question is : Did the CBSD1 transmit
power prior to AUTHORIZED state (first successful HBT response)? please
choose one of the answers :
2019-01-30T21:27:40.102Z - INFO - for the question : Did the CBSD1 transmit
power prior to AUTHORIZED state (first successful HBT response)? , the user
choose n
2019-01-30T21:27:40.118Z - INFO - the question is : Did the CBSD2 transmit
power prior to AUTHORIZED state (first successful HBT response)? please
choose one of the answers :
2019-01-30T21:27:44.368Z - INFO - for the question : Did the CBSD2 transmit
power prior to AUTHORIZED state (first successful HBT response)? , the user
choose n
2019-01-30T21:28:06.447Z - INFO - The final result of the test :
WINNF.FT.D.HBT.2 is - passed and :the additional comments for the current
test are : No Tx Power transmitted prior to Heartbeat 1

```

10.17 Log file for test case ID: WINNF.FT.C.HBT.3 for device - 48-00:24:48:0e:f5:27

2019-01-30T21:34:18.387Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T21:34:18.387Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.3 is starting now

2019-01-30T21:34:31.982Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T21:34:32.029Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-01-30T21:34:33.131Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T21:34:33.164Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T21:34:34.178Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T21:34:34.194Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T21:34:34Z",
            "grantId": "968635643",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T21:34:35.210Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "968635643",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T21:34:35.226Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "968635643",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-30T21:37:55Z"
        }
    ]
}
2019-01-30T21:35:17.345Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "968635643",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-01-30T21:35:17.345Z - INFO - Time interval between two heartbeat request
messages is: 42.134, limit is: 65.0
2019-01-30T21:35:17.361Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "968635643",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:38:37Z"
    }
  ]
}
2019-01-30T21:35:49.950Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "968635643",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T21:35:49.950Z - INFO - Time interval between two heartbeat request
messages is: 32.606, limit is: 65.0
2019-01-30T21:35:49.967Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "968635643",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:39:09Z"
    }
  ]
}
2019-01-30T21:36:22.076Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "968635643",
      "operationState": "AUTHORIZED"
    }
  ]
}

```



```

}
2019-01-30T21:36:22.076Z - INFO - Time interval between two heartbeat request
messages is: 32.126, limit is: 65.0
2019-01-30T21:36:22.092Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "968635643",
      "response": {
        "responseCode": 105
      },
      "transmitExpireTime": "2019-01-30T21:36:22Z"
    }
  ]
}
}
2019-01-30T21:36:23.483Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T21:36:23.483Z - INFO - the question is : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 105? please choose one of the answers :
2019-01-30T21:36:28.779Z - INFO - for the question : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 105? , the user choose y
2019-01-30T21:36:56.000Z - INFO - The final result of the test :
WINNF.FT.C.HBT.3 is - passed and :the additional comments for the current
test are : Verified. No Tx within 60 secs after response code 105.

```

10.18 Log file for test case ID: WINNF.FT.C.HBT.3 for device - 49-00:24:48:0e:e1:47

2019-01-30T21:37:59.736Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T21:37:59.736Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.3 is starting now

2019-01-30T21:38:13.354Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T21:38:13.479Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```

    }
  ]
}
2019-01-30T21:38:14.529Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T21:38:14.559Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T21:38:15.565Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T21:38:15.596Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T21:38:15Z",
            "grantId": "399930597",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T21:38:16.601Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "399930597",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T21:38:16.614Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "399930597",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-30T21:41:36Z"
        }
    ]
}
2019-01-30T21:39:06.253Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "399930597",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-01-30T21:39:06.253Z - INFO - Time interval between two heartbeat request
messages is: 49.652, limit is: 65.0
2019-01-30T21:39:06.269Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "399930597",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:42:26Z"
    }
  ]
}
2019-01-30T21:39:51.443Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "399930597",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T21:39:51.443Z - INFO - Time interval between two heartbeat request
messages is: 45.189, limit is: 65.0
2019-01-30T21:39:51.457Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "399930597",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:43:11Z"
    }
  ]
}
2019-01-30T21:40:24.082Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "399930597",
      "operationState": "AUTHORIZED"
    }
  ]
}

```



```

}
2019-01-30T21:40:24.082Z - INFO - Time interval between two heartbeat request
messages is: 32.639, limit is: 65.0
2019-01-30T21:40:24.112Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "399930597",
      "response": {
        "responseCode": 105
      },
      "transmitExpireTime": "2019-01-30T21:40:24Z"
    }
  ]
}
}
2019-01-30T21:40:26.049Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T21:40:26.065Z - INFO - the question is : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 105? please choose one of the answers :
2019-01-30T21:40:41.930Z - INFO - for the question : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 105? , the user choose y
2019-01-30T21:40:56.336Z - INFO - The final result of the test :
WINNF.FT.C.HBT.3 is - passed and :the additional comments for the current
test are : No Tx power after code 105.

```

10.19 Log file for test case ID: WINNF.FT.C.HBT.5 for device - 48-00:24:48:0e:f5:27

```

2019-01-30T21:46:44.262Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T21:46:44.262Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.5 is starting now
2019-01-30T21:46:59.240Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T21:46:59.288Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-01-30T21:46:59.849Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T21:46:59.865Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T21:47:00.881Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T21:47:00.913Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T21:47:00Z",
            "grantId": "813281658",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T21:47:01.413Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "813281658",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T21:47:01.427Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "813281658",
            "response": {
                "responseCode": 501
            },
            "transmitExpireTime": "2019-01-30T21:47:01Z"
        }
    ]
}
2019-01-30T21:47:05.016Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "813281658"
        }
    ]
}

```

```
    ]
  }
2019-01-30T21:47:05.046Z - INFO - engine sent successfully, the response to
CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "813281658",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-01-30T21:47:06.470Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T21:47:06.470Z - INFO - the question is : Did the CBSD transmit at
any time during the test? please choose one of the answers :
2019-01-30T21:47:09.477Z - INFO - for the question : Did the CBSD transmit at
any time during the test? , the user choose n
2019-01-30T21:47:19.025Z - INFO - The final result of the test :
WINNF.FT.C.HBT.5 is - passed and :the additional comments for the current
test are : Verified.
```

 10.20 Log file for test case ID: WINNF.FT.C.HBT.5 for device - 49-00:24:48:0e:e1:47

2019-01-30T21:42:28.290Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T21:42:28.290Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.5 is starting now

2019-01-30T21:42:42.336Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T21:42:42.461Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2019-01-30T21:42:43.566Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T21:42:43.598Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T21:42:44.605Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T21:42:44.619Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T21:42:44Z",
            "grantId": "336056882",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T21:42:45.631Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "336056882",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T21:42:45.647Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "336056882",
            "response": {
                "responseCode": 501
            },
            "transmitExpireTime": "2019-01-30T21:42:45Z"
        }
    ]
}
2019-01-30T21:42:49.207Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "336056882"
        }
    ]
}

```

```
    ]
  }
2019-01-30T21:42:49.253Z - INFO - engine sent successfully, the response to
CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "336056882",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-01-30T21:42:50.486Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T21:42:50.486Z - INFO - the question is : Did the CBSD transmit at
any time during the test? please choose one of the answers :
2019-01-30T21:43:26.710Z - INFO - for the question : Did the CBSD transmit at
any time during the test? , the user choose n
2019-01-30T21:43:33.571Z - INFO - The final result of the test :
WINNF.FT.C.HBT.5 is - passed and :the additional comments for the current
test are : No.
```

10.21 Log file for test case ID: WINNF.FT.C.HBT.6 for device - 48-00:24:48:0e:f5:27

```

2019-01-30T21:48:51.461Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T21:48:51.461Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.6 is starting now
2019-01-30T21:49:07.200Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T21:49:07.325Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```




```

    }
  ]
}
2019-01-30T21:49:08.372Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T21:49:08.404Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T21:49:09.404Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T21:49:09.436Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T21:49:09Z",
            "grantId": "629653924",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T21:49:10.450Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "629653924",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T21:49:10.467Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "629653924",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-30T21:52:30Z"
        }
    ]
}
2019-01-30T21:49:46.128Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "629653924",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-01-30T21:49:46.128Z - INFO - Time interval between two heartbeat request
messages is: 35.677, limit is: 65.0
2019-01-30T21:49:46.144Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "629653924",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:53:06Z"
    }
  ]
}
2019-01-30T21:50:28.257Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "629653924",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T21:50:28.257Z - INFO - Time interval between two heartbeat request
messages is: 42.13, limit is: 65.0
2019-01-30T21:50:28.273Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "629653924",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:53:48Z"
    }
  ]
}
2019-01-30T21:51:02.382Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "629653924",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

}
2019-01-30T21:51:02.382Z - INFO - Time interval between two heartbeat request
messages is: 34.125, limit is: 65.0
2019-01-30T21:51:02.414Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "629653924",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2019-01-30T21:51:02Z"
    }
  ]
}
}
2019-01-30T21:51:05.979Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "629653924"
    }
  ]
}
}
2019-01-30T21:51:05.994Z - INFO - engine sent successfully, the response to
CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "629653924",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
}
2019-01-30T21:51:07.726Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T21:51:07.742Z - INFO - the question is : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 501? please choose one of the answers :
2019-01-30T21:51:18.206Z - INFO - for the question : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 501? , the user choose y
2019-01-30T21:51:22.770Z - INFO - The final result of the test :
WINNF.FT.C.HBT.6 is - passed and :the additional comments for the current
test are : Verified.

```

10.22 Log file for test case ID: WINNF.FT.C.HBT.6 for device - 49-00:24:48:0e:e1:47

2019-01-30T21:53:27.048Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T21:53:27.048Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.6 is starting now

2019-01-30T21:53:44.217Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T21:53:44.263Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```




```
    }
  ]
}
2019-01-30T21:53:45.372Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T21:53:45.404Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T21:53:46.404Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T21:53:46.436Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T21:53:46Z",
            "grantId": "347395768",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T21:53:47.436Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "347395768",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T21:53:47.467Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "347395768",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-30T21:57:07Z"
        }
    ]
}
2019-01-30T21:54:27.082Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "347395768",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-01-30T21:54:27.082Z - INFO - Time interval between two heartbeat request
messages is: 39.646, limit is: 65.0
2019-01-30T21:54:27.096Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "347395768",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:57:47Z"
    }
  ]
}
2019-01-30T21:55:02.197Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "347395768",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T21:55:02.197Z - INFO - Time interval between two heartbeat request
messages is: 35.116, limit is: 65.0
2019-01-30T21:55:02.213Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "347395768",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T21:58:22Z"
    }
  ]
}
2019-01-30T21:55:41.319Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "347395768",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

}
2019-01-30T21:55:41.319Z - INFO - Time interval between two heartbeat request
messages is: 39.122, limit is: 65.0
2019-01-30T21:55:41.351Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "347395768",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2019-01-30T21:55:41Z"
    }
  ]
}
2019-01-30T21:55:45.372Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "347395768"
    }
  ]
}
2019-01-30T21:55:45.388Z - INFO - engine sent successfully, the response to
CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "347395768",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-01-30T21:55:47.348Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T21:55:47.364Z - INFO - the question is : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 501? please choose one of the answers :
2019-01-30T21:55:54.885Z - INFO - for the question : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 501? , the user choose y
2019-01-30T21:56:01.306Z - INFO - The final result of the test :
WINNF.FT.C.HBT.6 is - passed and :the additional comments for the current
test are : Verified.

```

10.23 Log file for test case ID: WINNF.FT.C.HBT.7 for device - 48-00:24:48:0e:f5:27

2019-01-30T22:06:43.355Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T22:06:43.355Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.7 is starting now

2019-01-30T22:06:56.200Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T22:06:56.325Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```




```
    }
  ]
}
2019-01-30T22:06:57.372Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T22:06:57.404Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T22:06:58.407Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T22:06:58.438Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T22:06:58Z",
            "grantId": "399079158",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T22:06:59.444Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "399079158",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T22:06:59.460Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "399079158",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-30T22:10:19Z"
        }
    ]
}
2019-01-30T22:07:42.092Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "399079158",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-01-30T22:07:42.092Z - INFO - Time interval between two heartbeat request
messages is: 42.648, limit is: 65.0
2019-01-30T22:07:42.107Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "399079158",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T22:11:02Z"
    }
  ]
}
2019-01-30T22:08:23.226Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "399079158",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T22:08:23.226Z - INFO - Time interval between two heartbeat request
messages is: 41.134, limit is: 65.0
2019-01-30T22:08:23.242Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "399079158",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T22:11:43Z"
    }
  ]
}
2019-01-30T22:09:12.371Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "399079158",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

}
2019-01-30T22:09:12.371Z - INFO - Time interval between two heartbeat request
messages is: 49.146, limit is: 65.0
2019-01-30T22:09:12.403Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "399079158",
      "response": {
        "responseCode": 502
      },
      "transmitExpireTime": "2019-01-30T22:09:12Z"
    }
  ]
}
2019-01-30T22:09:13.424Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "399079158"
    }
  ]
}
2019-01-30T22:09:13.457Z - INFO - engine sent successfully, the response to
CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "399079158",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-01-30T22:09:14.676Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T22:09:14.690Z - INFO - the question is : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 502? please choose one of the answers :
2019-01-30T22:09:19.349Z - INFO - for the question : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 502? , the user choose y
2019-01-30T22:09:23.801Z - INFO - The final result of the test :
WINNF.FT.C.HBT.7 is - passed and :the additional comments for the current
test are : Verified.

```

10.24 Log file for test case ID: WINNF.FT.C.HBT.7 for device - 49-00:24:48:0e:e1:47

```

2019-01-30T22:01:42.269Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-30T22:01:42.269Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.7 is starting now
2019-01-30T22:01:57.069Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-30T22:01:57.131Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```




```
    }
  ]
}
2019-01-30T22:01:58.236Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T22:01:58.266Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T22:01:59.273Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T22:01:59.289Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T22:01:59Z",
            "grantId": "492749756",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T22:02:00.306Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "492749756",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T22:02:00.322Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "492749756",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-30T22:05:20Z"
        }
    ]
}
2019-01-30T22:02:31.926Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "492749756",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-01-30T22:02:31.926Z - INFO - Time interval between two heartbeat request
messages is: 31.619, limit is: 65.0
2019-01-30T22:02:31.940Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "492749756",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T22:05:51Z"
    }
  ]
}
2019-01-30T22:03:13.108Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "492749756",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T22:03:13.108Z - INFO - Time interval between two heartbeat request
messages is: 41.182, limit is: 65.0
2019-01-30T22:03:13.122Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "492749756",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T22:06:33Z"
    }
  ]
}
2019-01-30T22:03:53.286Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "492749756",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

}
2019-01-30T22:03:53.286Z - INFO - Time interval between two heartbeat request
messages is: 40.178, limit is: 65.0
2019-01-30T22:03:53.316Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "492749756",
      "response": {
        "responseCode": 502
      },
      "transmitExpireTime": "2019-01-30T22:03:53Z"
    }
  ]
}
2019-01-30T22:03:54.335Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "492749756"
    }
  ]
}
2019-01-30T22:03:54.367Z - INFO - engine sent successfully, the response to
CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "492749756",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-01-30T22:03:55.483Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T22:03:55.497Z - INFO - the question is : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 502? please choose one of the answers :
2019-01-30T22:04:06.076Z - INFO - for the question : Did the CBSD stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 502? , the user choose y
2019-01-30T22:04:10.448Z - INFO - The final result of the test :
WINNF.FT.C.HBT.7 is - passed and :the additional comments for the current
test are : Verified.

```

10.25 Log file for test case ID: WINNF.FT.D.HBT.8

2019-01-30T22:24:01.536Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-01-30T22:24:01.536Z - INFO - the selected test from the user :
WINNF.FT.D.HBT.8 is starting now

2019-01-30T22:24:16.138Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-01-30T22:24:16.186Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```




```

    }
  ]
}
2019-01-30T22:24:17.236Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-30T22:24:17.266Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-30T22:24:18.286Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-30T22:24:18.302Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-06T22:24:18Z",
            "grantId": "527622083",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-30T22:24:19.315Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "527622083",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-30T22:24:19.331Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "527622083",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-30T22:27:39Z"
        }
    ]
}
2019-01-30T22:24:21.845Z - INFO - registration request from CBRS : {
    "registrationRequest": [
        {
            "airInterface": {
                "radioTechnology": "E_UTRA"
            },

```

```

    "cbsdCategory": "A",
    "cbsdInfo": {
      "model": "RN-330",
      "vendor": "Spidercloud"
    },
    "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
    "fccId": "SCW-Temp",
    "groupingParam": [
      {
        "groupId": "zone2",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaGain": 3,
      "eirpCapability": 28,
      "height": 5,
      "heightType": "AGL",
      "indoorDeployment": true,
      "latitude": 39.56318664550781,
      "longitude": -104.8172378540039
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "NPLxLI"
  }
]
}
2019-01-30T22:24:21.907Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-30T22:24:22.917Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        }
      ],
    }
  ]
}

```



```
    "highFrequency": 3580000000,  
    "lowFrequency": 3560000000  
  },  
  {  
    "highFrequency": 3590000000,  
    "lowFrequency": 3570000000  
  },  
  {  
    "highFrequency": 3600000000,  
    "lowFrequency": 3580000000  
  },  
  {  
    "highFrequency": 3610000000,  
    "lowFrequency": 3590000000  
  },  
  {  
    "highFrequency": 3620000000,  
    "lowFrequency": 3600000000  
  },  
  {  
    "highFrequency": 3630000000,  
    "lowFrequency": 3610000000  
  },  
  {  
    "highFrequency": 3640000000,  
    "lowFrequency": 3620000000  
  },  
  {  
    "highFrequency": 3650000000,  
    "lowFrequency": 3630000000  
  },  
  {  
    "highFrequency": 3660000000,  
    "lowFrequency": 3640000000  
  },  
  {  
    "highFrequency": 3670000000,  
    "lowFrequency": 3650000000  
  },  
  {  
    "highFrequency": 3680000000,  
    "lowFrequency": 3660000000  
  },  
  {  
    "highFrequency": 3690000000,  
    "lowFrequency": 3670000000  
  },  
  {  
    "highFrequency": 3700000000,  
    "lowFrequency": 3680000000  
  }
```

```

    }
  ]
}
2019-01-30T22:24:22.948Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3600000000,
            "lowFrequency": 3580000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3610000000,
            "lowFrequency": 3590000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}

```



```

{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3620000000,
    "lowFrequency": 3600000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3630000000,
    "lowFrequency": 3610000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3640000000,
    "lowFrequency": 3620000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3650000000,
    "lowFrequency": 3630000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3660000000,
    "lowFrequency": 3640000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3670000000,
    "lowFrequency": 3650000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",

```

```

        "frequencyRange": {
            "highFrequency": 3680000000,
            "lowFrequency": 3660000000
        },
        "ruleApplied": "FCC_PART_96"
    },
    {
        "channelType": "GAA",
        "frequencyRange": {
            "highFrequency": 3690000000,
            "lowFrequency": 3670000000
        },
        "ruleApplied": "FCC_PART_96"
    },
    {
        "channelType": "GAA",
        "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3680000000
        },
        "ruleApplied": "FCC_PART_96"
    }
],
"cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
    "responseCode": 0
}
}
]
}
2019-01-30T22:24:23.960Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "operationParam": {
                "maxEirp": 18,
                "operationFrequencyRange": {
                    "highFrequency": 3630000000,
                    "lowFrequency": 3610000000
                }
            }
        }
    ]
}
2019-01-30T22:24:23.990Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",

```

```

    "grantExpireTime": "2019-02-06T22:24:23Z",
    "grantId": "284934047",
    "heartbeatInterval": 60,
    "response": {
      "responseCode": 0
    }
  }
]
}
2019-01-30T22:24:25.015Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "284934047",
      "operationState": "GRANTED"
    }
  ]
}
2019-01-30T22:24:25.030Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "284934047",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T22:27:45Z"
    }
  ]
}
2019-01-30T22:24:56.109Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "527622083",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T22:24:56.109Z - INFO - Time interval between two heartbeat request
messages is: 36.795, limit is: 65.0
2019-01-30T22:24:56.125Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "527622083",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    },
    "transmitExpireTime": "2019-01-30T22:28:16Z"
  }
]
}
2019-01-30T22:25:13.197Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "284934047",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T22:25:13.197Z - INFO - Time interval between two heartbeat request
messages is: 48.182, limit is: 65.0
2019-01-30T22:25:13.227Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "284934047",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T22:28:33Z"
    }
  ]
}
}
2019-01-30T22:25:35.328Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "527622083",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-30T22:25:35.345Z - INFO - Time interval between two heartbeat request
messages is: 39.219, limit is: 65.0
2019-01-30T22:25:35.361Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "527622083",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T22:28:55Z"
    }
  ]
}

```

```

    }
  ]
}
2019-01-30T22:25:48.914Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "284934047",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T22:25:48.914Z - INFO - Time interval between two heartbeat request
messages is: 35.717, limit is: 65.0
2019-01-30T22:25:48.928Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "284934047",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T22:29:08Z"
    }
  ]
}
}
2019-01-30T22:26:16.059Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "527622083",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-30T22:26:16.075Z - INFO - Time interval between two heartbeat request
messages is: 40.731, limit is: 65.0
2019-01-30T22:26:16.091Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "527622083",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-30T22:29:36Z"
    }
  ]
}
]

```

```

}
2019-01-30T22:26:34.138Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "284934047",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-30T22:26:34.153Z - INFO - Time interval between two heartbeat request
messages is: 45.224, limit is: 65.0
2019-01-30T22:26:34.168Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "284934047",
      "response": {
        "responseCode": 500
      },
      "transmitExpireTime": "2019-01-30T22:26:34Z"
    }
  ]
}
2019-01-30T22:26:35.900Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-30T22:26:35.914Z - INFO - the question is : Did the CBSD1 transmit
power prior to AUTHORIZED state (first successful HBT response)? please
choose one of the answers :
2019-01-30T22:27:06.831Z - INFO - for the question : Did the CBSD1 transmit
power prior to AUTHORIZED state (first successful HBT response)? , the user
choose n
2019-01-30T22:27:06.846Z - INFO - the question is : Did the CBSD2 stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 500? please choose one of the answers :
2019-01-30T22:27:14.664Z - INFO - for the question : Did the CBSD2 stop RF
transmission within 60 seconds of receiving Heartbeat response with
responseCode = 500? , the user choose y
2019-01-30T22:27:20.811Z - INFO - The final result of the test :
WINNF.FT.D.HBT.8 is - passed and :the additional comments for the current
test are : verified.

```

10.26 Log file for test case ID: WINNF.FT.C.HBT.9 for device - 48-00:24:48:0e:f5:27

```

2019-02-01T01:43:04.805Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-02-01T01:43:04.805Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.9 is starting now
2019-02-01T01:43:19.836Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 5,
        "eirpCapability": 24,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-02-01T01:43:19.961Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-02-01T01:43:21.009Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```



```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
2019-02-01T01:43:21.023Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-02-01T01:43:22.039Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 14,
        "operationFrequencyRange": {

```

```

        "highFrequency": 3570000000,
        "lowFrequency": 3550000000
    }
}
]
}
2019-02-01T01:43:22.055Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-08T01:43:22Z",
            "grantId": "205544903",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-02-01T01:43:23.071Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "205544903",
            "operationState": "GRANTED"
        }
    ]
}
2019-02-01T01:46:43.158Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "205544903",
            "response": {
                "responseCode": 501
            },
            "transmitExpireTime": "2019-02-01T01:46:43Z"
        }
    ]
}
2019-02-01T01:46:45.033Z - INFO - arrived to nstep starting question answer
session with the technician
2019-02-01T01:46:45.033Z - INFO - the question is : Were there RF
transmissions from the CBSD during the test? please choose one of the answers
:
```

2019-02-01T01:47:33.457Z - INFO - for the question : Were there RF transmissions from the CBSD during the test? , the user choose n
2019-02-01T01:48:13.911Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed and :the additional comments for the current test are : No RF Tx from CBSD1 from start of test to 60 sec.

10.27 Log file for test case ID: WINNF.FT.C.HBT.9 for device - 49-00:24:48:0e:e1:47

2019-02-01T19:09:41.565Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-02-01T19:09:41.565Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.9 is starting now

2019-02-01T19:10:04.460Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 5,
        "eirpCapability": 24,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-02-01T19:10:04.507Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-02-01T19:10:05.553Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-02-01T19:10:05.585Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```



```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
  "responseCode": 0
}
}
]
}
2019-02-01T19:10:06.601Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "operationParam": {
        "maxEirp": 14,
        "operationFrequencyRange": {

```

```

                "highFrequency": 3570000000,
                "lowFrequency": 3550000000
            }
        }
    ]
}
2019-02-01T19:10:06.618Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-08T19:10:06Z",
            "grantId": "264915568",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-02-01T19:10:07.624Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "264915568",
            "operationState": "GRANTED"
        }
    ]
}
2019-02-01T19:13:27.713Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "264915568",
            "response": {
                "responseCode": 501
            },
            "transmitExpireTime": "2019-02-01T19:13:27Z"
        }
    ]
}
2019-02-01T19:13:29.697Z - INFO - arrived to nstep starting question answer
session with the technician
2019-02-01T19:13:29.697Z - INFO - the question is : Were there RF
transmissions from the CBSD during the test? please choose one of the answers
:
```

2019-02-01T19:13:41.684Z - INFO - for the question : Were there RF transmissions from the CBSD during the test? , the user choose n
2019-02-01T19:13:48.464Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed and :the additional comments for the current test are : Verified.

10.28 Log file for test case ID: WINNF.FT.C.HBT.10 for device - 48-00:24:48:0e:f5:27

2019-02-01T02:01:54.778Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-02-01T02:01:54.778Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.10 is starting now

2019-02-01T02:02:17.545Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 5,
        "eirpCapability": 24,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-02-01T02:02:17.670Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```
    }
  ]
}
2019-02-01T02:02:18.717Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,
```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-02-01T02:02:18.747Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```



```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-02-01T02:02:19.763Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 14,
        "operationFrequencyRange": {

```

```

                "highFrequency": 3570000000,
                "lowFrequency": 3550000000
            }
        }
    ]
}
2019-02-01T02:02:19.779Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-08T02:02:19Z",
            "grantId": "364365862",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-02-01T02:02:20.795Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "364365862",
            "operationState": "GRANTED"
        }
    ]
}
2019-02-01T02:02:20.811Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "364365862",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-02-01T02:05:40Z"
        }
    ]
}
2019-02-01T02:02:53.437Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "364365862",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-02-01T02:02:53.437Z - INFO - Time interval between two heartbeat request
messages is: 32.642, limit is: 65.0
2019-02-01T02:02:53.453Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "364365862",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T02:06:13Z"
    }
  ]
}
2019-02-01T02:03:36.579Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "364365862",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T02:03:36.595Z - INFO - Time interval between two heartbeat request
messages is: 43.143, limit is: 65.0
2019-02-01T02:03:36.595Z - INFO - LAST HBT RESPONSE THAT SET
TRANSMIT_EXPIRE_TIME WAS AT: 2019-02-01 02:02:53.437000
2019-02-01T02:05:02.414Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "364365862",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T02:05:02.414Z - INFO - request message received while HBT is
absent, sleep 119 sec before responding
2019-02-01T02:05:44.479Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "364365862",
      "operationState": "AUTHORIZED"
    }
  ]
}
]

```

```

}
2019-02-01T02:05:44.479Z - INFO - request message received while HBT is
absent, sleep 77 sec before responding
2019-02-01T02:06:56.607Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "364365862",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2019-02-01T02:06:56Z"
    }
  ]
}
}
2019-02-01T02:06:58.075Z - INFO - arrived to nstep starting question answer
session with the technician
2019-02-01T02:06:58.075Z - INFO - the question is : Did the CBSD stop RF
transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat
response? please choose one of the answers :
2019-02-01T02:11:09.476Z - INFO - engine sent successfully, the response to
CBRS : "list index out of range"
2019-02-01T02:11:09.476Z - INFO - engine sent successfully, the response to
CBRS : "list index out of range"
2019-02-01T02:11:09.476Z - INFO - for the question : Did the CBSD stop RF
transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat
response? , the user choose y
2019-02-01T02:12:46.793Z - INFO - The final result of the test :
WINNF.FT.C.HBT.10 is - passed and :the additional comments for the current
test are : the additional comments for the current test are : Exception
happened during processing of request from-----
-----HB request before HB response code 501

```

10.29 Log file for test case ID: WINNF.FT.C.HBT.10 for device - 49-00:24:48:0e:e1:47

2019-02-01T19:15:23.364Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-02-01T19:15:23.364Z - INFO - the selected test from the user :
WINNF.FT.C.HBT.10 is starting now

2019-02-01T19:15:42.163Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "E_UTRA"
        },
        "cbsdCategory": "A",
        "cbsdInfo": {
          "model": "RN-330",
          "vendor": "Spidercloud"
        },
        "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
        "fccId": "SCW-Temp",
        "groupingParam": [
          {
            "groupId": "zone2",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaGain": 5,
          "eirpCapability": 24,
          "height": 5,
          "heightType": "AGL",
          "indoorDeployment": true,
          "latitude": 39.56318664550781,
          "longitude": -104.8172378540039
        },
        "measCapability": [
          "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "NPLxLI"
      }
    ]
  }

```

2019-02-01T19:15:42.288Z - INFO - engine sent successfully, the response to
CBRS : {

```

    "registrationResponse": [
      {
        "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }

```



```

    }
  ]
}
2019-02-01T19:15:43.345Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-02-01T19:15:43.361Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```



```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
  "responseCode": 0
}
}
]
}
2019-02-01T19:15:44.375Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "operationParam": {
        "maxEirp": 14,
        "operationFrequencyRange": {

```

```

                "highFrequency": 3570000000,
                "lowFrequency": 3550000000
            }
        }
    ]
}
2019-02-01T19:15:44.391Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-08T19:15:44Z",
            "grantId": "344704651",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-02-01T19:15:45.413Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "344704651",
            "operationState": "GRANTED"
        }
    ]
}
2019-02-01T19:15:45.428Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "344704651",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-02-01T19:19:05Z"
        }
    ]
}
2019-02-01T19:16:28.035Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "344704651",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2019-02-01T19:16:28.051Z - INFO - Time interval between two heartbeat request
messages is: 42.622, limit is: 65.0
2019-02-01T19:16:28.066Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "344704651",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-02-01T19:19:48Z"
    }
  ]
}
2019-02-01T19:17:08.693Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "344704651",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T19:17:08.693Z - INFO - Time interval between two heartbeat request
messages is: 40.658, limit is: 65.0
2019-02-01T19:17:08.709Z - INFO - LAST HBT RESPONSE THAT SET
TRANSMIT_EXPIRE_TIME WAS AT: 2019-02-01 19:16:28.035000
2019-02-01T19:18:35.088Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "344704651",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-02-01T19:18:35.088Z - INFO - request message received while HBT is
absent, sleep 118 sec before responding
2019-02-01T19:19:18.105Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "344704651",
      "operationState": "AUTHORIZED"
    }
  ]
}
]

```

```

}
2019-02-01T19:19:18.105Z - INFO - request message received while HBT is
absent, sleep 75 sec before responding
2019-02-01T19:20:28.734Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "344704651",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2019-02-01T19:20:28Z"
    }
  ]
}
}
2019-02-01T19:20:30.641Z - INFO - arrived to nstep starting question answer
session with the technician
2019-02-01T19:20:30.641Z - INFO - the question is : Did the CBSD stop RF
transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat
response? please choose one of the answers :
2019-02-01T19:20:42.048Z - INFO - engine sent successfully, the response to
CBRS : "list index out of range"
2019-02-01T19:20:42.048Z - INFO - engine sent successfully, the response to
CBRS : "list index out of range"
2019-02-01T19:20:42.048Z - INFO - for the question : Did the CBSD stop RF
transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat
response? , the user choose y
2019-02-01T19:20:49.736Z - INFO - The final result of the test :
WINNF.FT.C.HBT.10 is - passed

```

10.30 Log file for test case ID: WINNF.FT.D.MES.2

2019-02-01T19:00:55.283Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-May-24

2019-02-01T19:00:55.283Z - INFO - the selected test from the user :
WINNF.FT.D.MES.2 is starting now

2019-02-01T19:03:26.543Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 5,
        "eirpCapability": 24,
        "height": 5,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}

```

2019-02-01T19:03:26.591Z - INFO - Response message contains measReportConfig

2019-02-01T19:03:26.591Z - INFO - engine sent successfully, the response to
CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "measReportConfig": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ]
    }
  ]
}

```

```

    ],
    "response": {
      "responseCode": 0
    }
  ]
}
2019-02-01T19:03:27.707Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,

```

```

    "lowFrequency": 3640000000
  },
  {
    "highFrequency": 3670000000,
    "lowFrequency": 3650000000
  },
  {
    "highFrequency": 3680000000,
    "lowFrequency": 3660000000
  },
  {
    "highFrequency": 3690000000,
    "lowFrequency": 3670000000
  },
  {
    "highFrequency": 3700000000,
    "lowFrequency": 3680000000
  }
],
"measReport": {
  "rcvdPowerMeasReports": [
    {
      "measBandwidth": 1400000,
      "measFrequency": 3550000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3551400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3552800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3554200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3555600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3557000000,
      "measRcvdPower": -100
    }
  ]
}

```



```
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3558400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3559800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3561200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3562600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3564000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3565400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3566800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3568200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3569600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3571000000,
      "measRcvdPower": -100
    }
  ],
  {
    "measBandwidth": 1400000,
    "measFrequency": 3571000000,
    "measRcvdPower": -100
  }
}
```




```
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3572400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3573800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3575200000,
      "measRcvdPower": -100
    },
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3576600000,
      "measRcvdPower": -100
    },
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3578000000,
      "measRcvdPower": -100
    },
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3579400000,
      "measRcvdPower": -100
    },
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3580800000,
      "measRcvdPower": -100
    },
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3582200000,
      "measRcvdPower": -100
    },
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3583600000,
      "measRcvdPower": -100
    },
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3585000000,
      "measRcvdPower": -100
    }
  ]
}
```



```
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3586400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3587800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3589200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3590600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3592000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3593400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3594800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3596200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3597600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3599000000,
      "measRcvdPower": -100
    }
  ],
  {
    "measBandwidth": 1400000,
    "measFrequency": 3599000000,
    "measRcvdPower": -100
  }
}
```



```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3600400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3601800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3603200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3604600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3606000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3607400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3608800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3610200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3611600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3613000000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```



```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3614400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3615800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3617200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3618600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3620000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3621400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3622800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3624200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3625600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3627000000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```



```
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3628400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3629800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3631200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3632600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3634000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3635400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3636800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3638200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3639600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3641000000,
      "measRcvdPower": -100
    }
  ],
  {
    "measBandwidth": 1400000,
    "measFrequency": 3641000000,
    "measRcvdPower": -100
  }
}
```



```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3642400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3643800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3645200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3646600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3648000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3649400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3650800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3652200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3653600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3655000000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```



```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3656400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3657800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3659200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3660600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3662000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3663400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3664800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3666200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3667600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3669000000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```



```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3670400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3671800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3673200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3674600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3676000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3677400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3678800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3680200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3681600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3683000000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```




```
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3684400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3685800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3687200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3688600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3690000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3691400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3692800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3694200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3695600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3697000000,
      "measRcvdPower": -100
    }
  ]
}
```



```

    "frequencyRange": {
      "highFrequency": 3610000000,
      "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3620000000,
      "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3630000000,
      "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3640000000,
      "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3650000000,
      "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3660000000,
      "lowFrequency": 3640000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3680000000,
        "lowFrequency": 3660000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3690000000,
        "lowFrequency": 3670000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3700000000,
        "lowFrequency": 3680000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
  "response": {
    "responseCode": 0
  }
}
]
}
}
2019-02-01T19:03:28.770Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 1400000,
            "measFrequency": 3550000000,
            "measRcvdPower": -100
          },
          {
            "measBandwidth": 1400000,
            "measFrequency": 3551400000,

```



```
"measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3552800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3554200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3555600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3557000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3558400000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3559800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3561200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3562600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3564000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3565400000,
```

```
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3566800000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3568200000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3569600000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3571000000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3572400000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3573800000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3575200000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3576600000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3578000000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3579400000,
```



```
"measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3580800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3582200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3583600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3585000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3586400000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3587800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3589200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3590600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3592000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3593400000,
```

```

    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3594800000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3596200000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3597600000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3599000000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3600400000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3601800000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3603200000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3604600000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3606000000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3607400000,

```



```
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3608800000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3610200000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3611600000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3613000000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3614400000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3615800000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3617200000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3618600000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3620000000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3621400000,
```



```
"measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3622800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3624200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3625600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3627000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3628400000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3629800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3631200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3632600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3634000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3635400000,
```



```
"measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3636800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3638200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3639600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3641000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3642400000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3643800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3645200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3646600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3648000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3649400000,
```



```
"measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3650800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3652200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3653600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3655000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3656400000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3657800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3659200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3660600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3662000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3663400000,
```



```
"measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3664800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3666200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3667600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3669000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3670400000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3671800000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3673200000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3674600000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3676000000,
  "measRcvdPower" : -100
},
{
  "measBandwidth" : 1400000,
  "measFrequency" : 3677400000,
```

```

    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3678800000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3680200000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3681600000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3683000000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3684400000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3685800000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3687200000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3688600000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3690000000,
    "measRcvdPower" : -100
  },
  {
    "measBandwidth" : 1400000,
    "measFrequency" : 3691400000,

```

```

        "measRcvdPower": -100
      },
      {
        "measBandwidth": 1400000,
        "measFrequency": 3692800000,
        "measRcvdPower": -100
      },
      {
        "measBandwidth": 1400000,
        "measFrequency": 3694200000,
        "measRcvdPower": -100
      },
      {
        "measBandwidth": 1400000,
        "measFrequency": 3695600000,
        "measRcvdPower": -100
      },
      {
        "measBandwidth": 1400000,
        "measFrequency": 3697000000,
        "measRcvdPower": -100
      },
      {
        "measBandwidth": 1600000,
        "measFrequency": 3698400000,
        "measRcvdPower": -100
      }
    ]
  },
  "operationParam": {
    "maxEirp": 14,
    "operationFrequencyRange": {
      "highFrequency": 3570000000,
      "lowFrequency": 3550000000
    }
  }
}
]
}
2019-02-01T19:03:28.802Z - INFO - engine sent successfully, the response to
CBRS : {
  "grantResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "channelType": "GAA",
      "grantExpireTime": "2019-02-08T19:03:28Z",
      "grantId": "791244007",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2019-02-01T19:03:29.920Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "791244007",
      "operationState": "GRANTED"
    }
  ]
}
2019-02-01T19:03:29.920Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "791244007",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2019-02-01T19:03:29Z"
    }
  ]
}
2019-02-01T19:03:50.984Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone2",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 5,
        "eirpCapability": 24,
        "height": 5,
        "heightType": "AGL",

```



```

        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "NPLxLI"
}
]
}
2019-02-01T19:03:51.032Z - INFO - Response message contains measReportConfig
2019-02-01T19:03:51.046Z - INFO - engine sent successfully, the response to
CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "measReportConfig": [
                "RECEIVED_POWER_WITHOUT_GRANT"
            ],
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}
2019-02-01T19:03:52.062Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3570000000,
                    "lowFrequency": 3550000000
                },
                {
                    "highFrequency": 3580000000,
                    "lowFrequency": 3560000000
                },
                {
                    "highFrequency": 3590000000,
                    "lowFrequency": 3570000000
                },
                {
                    "highFrequency": 3600000000,
                    "lowFrequency": 3580000000
                },
                {
                    "highFrequency": 3610000000,
                    "lowFrequency": 3590000000
                }
            ]
        }
    ]
}

```

```

    },
    {
      "highFrequency": 3620000000,
      "lowFrequency": 3600000000
    },
    {
      "highFrequency": 3630000000,
      "lowFrequency": 3610000000
    },
    {
      "highFrequency": 3640000000,
      "lowFrequency": 3620000000
    },
    {
      "highFrequency": 3650000000,
      "lowFrequency": 3630000000
    },
    {
      "highFrequency": 3660000000,
      "lowFrequency": 3640000000
    },
    {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ],
  "measReport": {
    "rcvdPowerMeasReports": [
      {
        "measBandwidth": 1400000,
        "measFrequency": 3550000000,
        "measRcvdPower": -100
      },
      {
        "measBandwidth": 1400000,
        "measFrequency": 3551400000,
        "measRcvdPower": -100
      }
    ]
  }
}

```

```
{
  "measBandwidth": 1400000,
  "measFrequency": 3552800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3554200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3555600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3557000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3558400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3559800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3561200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3562600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3564000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3565400000,
  "measRcvdPower": -100
},
},
```



```
{
  "measBandwidth": 1400000,
  "measFrequency": 3566800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3568200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3569600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3571000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3572400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3573800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3575200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3576600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3578000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3579400000,
  "measRcvdPower": -100
},
},
```



```
{
  "measBandwidth": 1400000,
  "measFrequency": 3580800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3582200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3583600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3585000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3586400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3587800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3589200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3590600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3592000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3593400000,
  "measRcvdPower": -100
},
},
```



```
{
  "measBandwidth": 1400000,
  "measFrequency": 3594800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3596200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3597600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3599000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3600400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3601800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3603200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3604600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3606000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3607400000,
  "measRcvdPower": -100
},
},
```



```
{
  "measBandwidth": 1400000,
  "measFrequency": 3608800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3610200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3611600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3613000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3614400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3615800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3617200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3618600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3620000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3621400000,
  "measRcvdPower": -100
},
},
```



```
{
  "measBandwidth": 1400000,
  "measFrequency": 3622800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3624200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3625600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3627000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3628400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3629800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3631200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3632600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3634000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3635400000,
  "measRcvdPower": -100
},
},
```




```
{
  "measBandwidth": 1400000,
  "measFrequency": 3636800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3638200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3639600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3641000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3642400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3643800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3645200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3646600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3648000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3649400000,
  "measRcvdPower": -100
},
},
```

```

{
  "measBandwidth": 1400000,
  "measFrequency": 3650800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3652200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3653600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3655000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3656400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3657800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3659200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3660600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3662000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3663400000,
  "measRcvdPower": -100
},
},

```

```
{
  "measBandwidth": 1400000,
  "measFrequency": 3664800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3666200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3667600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3669000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3670400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3671800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3673200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3674600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3676000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3677400000,
  "measRcvdPower": -100
},
},
```

```
{
  "measBandwidth": 1400000,
  "measFrequency": 3678800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3680200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3681600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3683000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3684400000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3685800000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3687200000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3688600000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3690000000,
  "measRcvdPower": -100
},
{
  "measBandwidth": 1400000,
  "measFrequency": 3691400000,
  "measRcvdPower": -100
},
},
```

```

    {
      "measBandwidth": 1400000,
      "measFrequency": 3692800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3694200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3695600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3697000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1600000,
      "measFrequency": 3698400000,
      "measRcvdPower": -100
    }
  ]
}
]
}
}
2019-02-01T19:03:52.078Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ]
}

```

```

    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3590000000,
        "lowFrequency": 3570000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {

```

```

    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3650000000,
      "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3660000000,
      "lowFrequency": 3640000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbstdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {

```

```

        "responseCode": 0
      }
    ]
  }
}
2019-02-01T19:03:53.109Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 1400000,
            "measFrequency": 3550000000,
            "measRcvdPower": -100
          },
          {
            "measBandwidth": 1400000,
            "measFrequency": 3551400000,
            "measRcvdPower": -100
          },
          {
            "measBandwidth": 1400000,
            "measFrequency": 3552800000,
            "measRcvdPower": -100
          },
          {
            "measBandwidth": 1400000,
            "measFrequency": 3554200000,
            "measRcvdPower": -100
          },
          {
            "measBandwidth": 1400000,
            "measFrequency": 3555600000,
            "measRcvdPower": -100
          },
          {
            "measBandwidth": 1400000,
            "measFrequency": 3557000000,
            "measRcvdPower": -100
          },
          {
            "measBandwidth": 1400000,
            "measFrequency": 3558400000,
            "measRcvdPower": -100
          },
          {
            "measBandwidth": 1400000,
            "measFrequency": 3559800000,
            "measRcvdPower": -100
          }
        ]
      }
    }
  ]
}

```




```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3561200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3562600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3564000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3565400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3566800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3568200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3569600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3571000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3572400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3573800000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```



```
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3575200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3576600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3578000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3579400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3580800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3582200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3583600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3585000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3586400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3587800000,
      "measRcvdPower": -100
    }
  ]
}
```



```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3589200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3590600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3592000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3593400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3594800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3596200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3597600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3599000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3600400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3601800000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```



```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3603200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3604600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3606000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3607400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3608800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3610200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3611600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3613000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3614400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3615800000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```



```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3617200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3618600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3620000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3621400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3622800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3624200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3625600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3627000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3628400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3629800000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```



```
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3631200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3632600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3634000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3635400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3636800000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3638200000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3639600000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3641000000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3642400000,  
      "measRcvdPower": -100  
    },  
    {  
      "measBandwidth": 1400000,  
      "measFrequency": 3643800000,  
      "measRcvdPower": -100  
    }  
  ]  
}
```



```
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3645200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3646600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3648000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3649400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3650800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3652200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3653600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3655000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3656400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3657800000,
      "measRcvdPower": -100
    }
  ],
  {
    "measBandwidth": 1400000,
    "measFrequency": 3657800000,
    "measRcvdPower": -100
  }
}
```



```
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3659200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3660600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3662000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3663400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3664800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3666200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3667600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3669000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3670400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3671800000,
      "measRcvdPower": -100
    }
  ],
  {
    "measBandwidth": 1400000,
    "measFrequency": 3671800000,
    "measRcvdPower": -100
  }
}
```




```
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3673200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3674600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3676000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3677400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3678800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3680200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3681600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3683000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3684400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3685800000,
      "measRcvdPower": -100
    }
  ],
  {
    "measBandwidth": 1400000,
    "measFrequency": 3685800000,
    "measRcvdPower": -100
  }
}
```

```

    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3687200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3688600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3690000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3691400000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3692800000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3694200000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3695600000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1400000,
      "measFrequency": 3697000000,
      "measRcvdPower": -100
    },
    {
      "measBandwidth": 1600000,
      "measFrequency": 3698400000,
      "measRcvdPower": -100
    }
  ]
},
"operationParam": {
  "maxEirp": 14,

```

```

        "operationFrequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
        }
    }
}
]
}
2019-02-01T19:03:53.141Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-08T19:03:53Z",
            "grantId": "251929036",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}
2019-02-01T19:03:54.907Z - INFO - arrived to nstep starting question answer
session with the technician
2019-02-01T19:04:01.141Z - INFO - The final result of the test :
WINNF.FT.D.MES.2 is - passed and :the additional comments for the current
test are : Verified.

```

10.31 Log file for test case ID: WINNF.FT.D.RLQ.2

```
2019-01-31T00:12:10.410Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
```

```
2019-01-31T00:12:10.410Z - INFO - the selected test from the user :
WINNF.FT.D.RLQ.2 is starting now
```

```
2019-01-31T00:12:27.161Z - INFO - registration request from CBRS : {
```

```
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
```

```
2019-01-31T00:12:27.286Z - INFO - engine sent successfully, the response to
CBRS : {
```

```
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```



```

    }
  ]
}
2019-01-31T00:12:28.332Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
2019-01-31T00:12:28.364Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```

```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-31T00:12:29.378Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbidId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```



```

        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    }
}
]
}
2019-01-31T00:12:29.394Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-07T00:12:29Z",
            "grantId": "397510996",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-31T00:12:30.411Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "397510996",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-31T00:12:30.426Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "397510996",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-31T00:15:50Z"
        }
    ]
}
2019-01-31T00:12:34.941Z - INFO - registration request from CBRS : {
    "registrationRequest": [
        {
            "airInterface": {
                "radioTechnology": "E_UTRA"
            },

```

```

    "cbsdCategory": "A",
    "cbsdInfo": {
      "model": "RN-330",
      "vendor": "Spidercloud"
    },
    "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
    "fccId": "SCW-Temp",
    "groupingParam": [
      {
        "groupId": "zone2",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaGain": 3,
      "eirpCapability": 28,
      "height": 5,
      "heightType": "AGL",
      "indoorDeployment": true,
      "latitude": 39.56318664550781,
      "longitude": -104.8172378540039
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "NPLxLI"
  }
]
}
2019-01-31T00:12:35.066Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-31T00:12:36.082Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        }
      ],
    }
  ]
}

```



```
    "highFrequency": 3580000000,  
    "lowFrequency": 3560000000  
  },  
  {  
    "highFrequency": 3590000000,  
    "lowFrequency": 3570000000  
  },  
  {  
    "highFrequency": 3600000000,  
    "lowFrequency": 3580000000  
  },  
  {  
    "highFrequency": 3610000000,  
    "lowFrequency": 3590000000  
  },  
  {  
    "highFrequency": 3620000000,  
    "lowFrequency": 3600000000  
  },  
  {  
    "highFrequency": 3630000000,  
    "lowFrequency": 3610000000  
  },  
  {  
    "highFrequency": 3640000000,  
    "lowFrequency": 3620000000  
  },  
  {  
    "highFrequency": 3650000000,  
    "lowFrequency": 3630000000  
  },  
  {  
    "highFrequency": 3660000000,  
    "lowFrequency": 3640000000  
  },  
  {  
    "highFrequency": 3670000000,  
    "lowFrequency": 3650000000  
  },  
  {  
    "highFrequency": 3680000000,  
    "lowFrequency": 3660000000  
  },  
  {  
    "highFrequency": 3690000000,  
    "lowFrequency": 3670000000  
  },  
  {  
    "highFrequency": 3700000000,  
    "lowFrequency": 3680000000  
  }
```

```

    }
  ]
}
2019-01-31T00:12:36.098Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3600000000,
            "lowFrequency": 3580000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3610000000,
            "lowFrequency": 3590000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}

```

```

{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3620000000,
    "lowFrequency": 3600000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3630000000,
    "lowFrequency": 3610000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3640000000,
    "lowFrequency": 3620000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3650000000,
    "lowFrequency": 3630000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3660000000,
    "lowFrequency": 3640000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3670000000,
    "lowFrequency": 3650000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",

```

```

        "frequencyRange": {
            "highFrequency": 3680000000,
            "lowFrequency": 3660000000
        },
        "ruleApplied": "FCC_PART_96"
    },
    {
        "channelType": "GAA",
        "frequencyRange": {
            "highFrequency": 3690000000,
            "lowFrequency": 3670000000
        },
        "ruleApplied": "FCC_PART_96"
    },
    {
        "channelType": "GAA",
        "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3680000000
        },
        "ruleApplied": "FCC_PART_96"
    }
],
"cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
    "responseCode": 0
}
}
]
}
2019-01-31T00:12:37.114Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "operationParam": {
                "maxEirp": 18,
                "operationFrequencyRange": {
                    "highFrequency": 3630000000,
                    "lowFrequency": 3610000000
                }
            }
        }
    ]
}
2019-01-31T00:12:37.130Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",

```

```

    "grantExpireTime": "2019-02-07T00:12:37Z",
    "grantId": "107293308",
    "heartbeatInterval": 60,
    "response": {
      "responseCode": 0
    }
  }
]
}
2019-01-31T00:12:38.144Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "operationState": "GRANTED"
    }
  ]
}
2019-01-31T00:12:38.161Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:15:58Z"
    }
  ]
}
2019-01-31T00:13:08.786Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:13:08.786Z - INFO - Time interval between two heartbeat request
messages is: 38.376, limit is: 65.0
2019-01-31T00:13:08.802Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    },
    "transmitExpireTime": "2019-01-31T00:16:28Z"
  }
]
}
2019-01-31T00:13:16.834Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:13:16.834Z - INFO - Time interval between two heartbeat request
messages is: 38.689, limit is: 65.0
2019-01-31T00:13:16.849Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:16:36Z"
    }
  ]
}
}
2019-01-31T00:13:49.976Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-31T00:13:49.976Z - INFO - Time interval between two heartbeat request
messages is: 41.189, limit is: 65.0
2019-01-31T00:13:50.039Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:17:10Z"
    }
  ]
}

```



```

    }
  ]
}
2019-01-31T00:14:01.069Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:14:01.085Z - INFO - Time interval between two heartbeat request
messages is: 44.236, limit is: 65.0
2019-01-31T00:14:01.101Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:17:21Z"
    }
  ]
}
}
2019-01-31T00:14:27.211Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-31T00:14:27.211Z - INFO - Time interval between two heartbeat request
messages is: 37.236, limit is: 65.0
2019-01-31T00:14:27.226Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:17:47Z"
    }
  ]
}
]

```

```

}
2019-01-31T00:14:43.775Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:14:43.775Z - INFO - Time interval between two heartbeat request
messages is: 42.705, limit is: 65.0
2019-01-31T00:14:43.790Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:18:03Z"
    }
  ]
}
}
2019-01-31T00:15:05.915Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-31T00:15:05.915Z - INFO - Time interval between two heartbeat request
messages is: 38.704, limit is: 65.0
2019-01-31T00:15:05.931Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:18:25Z"
    }
  ]
}
}
}
2019-01-31T00:15:14.979Z - INFO - heartbeat request from CBRS : {

```

```

    "heartbeatRequest": [
      {
        "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
        "grantId": "107293308",
        "operationState": "AUTHORIZED"
      }
    ]
  }
}
2019-01-31T00:15:14.979Z - INFO - Time interval between two heartbeat request
messages is: 31.204, limit is: 65.0
2019-01-31T00:15:14.994Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:18:34Z"
    }
  ]
}
}
2019-01-31T00:15:55.121Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-31T00:15:55.121Z - INFO - Time interval between two heartbeat request
messages is: 49.205, limit is: 65.0
2019-01-31T00:15:55.137Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:19:15Z"
    }
  ]
}
}
}
2019-01-31T00:15:55.262Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {

```

```

    "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
    "grantId": "107293308",
    "operationState": "AUTHORIZED"
  }
]
}
2019-01-31T00:15:55.262Z - INFO - Time interval between two heartbeat request
messages is: 40.283, limit is: 65.0
2019-01-31T00:15:55.278Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:19:15Z"
    }
  ]
}
2019-01-31T00:16:33.904Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:16:33.920Z - INFO - Time interval between two heartbeat request
messages is: 38.783, limit is: 65.0
2019-01-31T00:16:33.934Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:19:53Z"
    }
  ]
}
2019-01-31T00:16:34.950Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",

```

```

        "operationState": "AUTHORIZED"
    }
]
}
2019-01-31T00:16:34.950Z - INFO - Time interval between two heartbeat request
messages is: 39.689, limit is: 65.0
2019-01-31T00:16:34.950Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "107293308",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-31T00:19:54Z"
        }
    ]
}
2019-01-31T00:17:16.092Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "107293308",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-01-31T00:17:16.092Z - INFO - Time interval between two heartbeat request
messages is: 41.142, limit is: 65.0
2019-01-31T00:17:16.108Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "grantId": "107293308",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-31T00:20:36Z"
        }
    ]
}
2019-01-31T00:17:18.124Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "397510996",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    ]
  }
2019-01-31T00:17:18.124Z - INFO - Time interval between two heartbeat request
messages is: 44.22, limit is: 65.0
2019-01-31T00:17:18.140Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:20:38Z"
    }
  ]
}
2019-01-31T00:18:03.766Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:18:03.766Z - INFO - Time interval between two heartbeat request
messages is: 47.674, limit is: 65.0
2019-01-31T00:18:03.782Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:21:23Z"
    }
  ]
}
2019-01-31T00:18:07.798Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "operationState": "AUTHORIZED"
    }
  ]
}
}

```

2019-01-31T00:18:07.798Z - INFO - Time interval between two heartbeat request messages is: 49.674, limit is: 65.0

2019-01-31T00:18:07.813Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
    "grantId": "397510996",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2019-01-31T00:21:27Z"
  }
]
```

2019-01-31T00:18:36.940Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
    "grantId": "107293308",
    "operationState": "AUTHORIZED"
  }
]
```

2019-01-31T00:18:36.940Z - INFO - Time interval between two heartbeat request messages is: 33.173, limit is: 65.0

2019-01-31T00:18:36.954Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
    "grantId": "107293308",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2019-01-31T00:21:56Z"
  }
]
```

2019-01-31T00:18:42.986Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
    "grantId": "397510996",
    "operationState": "AUTHORIZED"
  }
]
```

2019-01-31T00:18:42.986Z - INFO - Time interval between two heartbeat request messages is: 35.189, limit is: 65.0

```

2019-01-31T00:18:43.002Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:22:02Z"
    }
  ]
}
2019-01-31T00:19:17.128Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:19:17.128Z - INFO - Time interval between two heartbeat request
messages is: 40.189, limit is: 65.0
2019-01-31T00:19:17.144Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:22:37Z"
    }
  ]
}
2019-01-31T00:19:30.691Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:19:30.707Z - INFO - Time interval between two heartbeat request
messages is: 47.705, limit is: 65.0
2019-01-31T00:19:30.723Z - INFO - engine sent successfully, the response to
CBRS : {

```



```

    "heartbeatResponse": [
      {
        "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
        "grantId": "397510996",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2019-01-31T00:22:50Z"
      }
    ]
  }
}
2019-01-31T00:20:05.848Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-31T00:20:05.848Z - INFO - Time interval between two heartbeat request
messages is: 48.72, limit is: 65.0
2019-01-31T00:20:05.880Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:23:25Z"
    }
  ]
}
}
2019-01-31T00:20:15.911Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "397510996",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-01-31T00:20:15.911Z - INFO - Time interval between two heartbeat request
messages is: 45.22, limit is: 65.0
2019-01-31T00:20:15.943Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {

```

```

        "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
        "grantId": "397510996",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2019-01-31T00:23:35Z"
    }
]
}
2019-01-31T00:20:50.069Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "397510996",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-01-31T00:20:50.069Z - INFO - Time interval between two heartbeat request
messages is: 34.158, limit is: 65.0
2019-01-31T00:20:50.085Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "397510996",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-31T00:24:10Z"
        }
    ]
}
}
2019-01-31T00:20:51.615Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "397510996"
        }
    ]
}
}
2019-01-31T00:20:51.631Z - INFO - engine sent successfully, the response to
CBRS : {
    "relinquishmentResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "397510996",
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

```

    }
  ]
}
2019-01-31T00:20:52.663Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
    }
  ]
}
2019-01-31T00:20:52.663Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:20:52.663Z - INFO - Time interval between two heartbeat request
messages is: 46.814, limit is: 65.0
2019-01-31T00:20:52.678Z - INFO - engine sent successfully, the response to
CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-01-31T00:20:52.678Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:24:12Z"
    }
  ]
}
2019-01-31T00:20:54.210Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308"
    }
  ]
}

```

```

    }
  ]
}
2019-01-31T00:20:54.226Z - INFO - engine sent successfully, the response to
CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "107293308",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-31T00:20:55.492Z - INFO - arrived to nstep starting question answer
session with the technician
2019-01-31T00:20:55.506Z - INFO - the question is : Did the CBSD1 stop RF
transmission upon sending Relinquishment request? please choose one of the
answers :
2019-01-31T00:21:22.569Z - INFO - for the question : Did the CBSD1 stop RF
transmission upon sending Relinquishment request? , the user choose y
2019-01-31T00:21:22.585Z - INFO - the question is : Did the CBSD2 stop RF
transmission upon sending Relinquishment request? please choose one of the
answers :
2019-01-31T00:21:26.444Z - INFO - for the question : Did the CBSD2 stop RF
transmission upon sending Relinquishment request? , the user choose y
2019-01-31T00:21:32.615Z - INFO - The final result of the test :
WINNF.FT.D.RLQ.2 is - passed and :the additional comments for the current
test are : Verified.

```

10.32 Log file for test case ID: WINNF.FT.D.DRG.2

```

2019-01-31T00:24:55.249Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.2 - 2018-
May-24
2019-01-31T00:24:55.249Z - INFO - the selected test from the user :
WINNF.FT.D.DRG.2 is starting now
2019-01-31T00:25:11.140Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "cbsdCategory": "A",
      "cbsdInfo": {
        "model": "RN-330",
        "vendor": "Spidercloud"
      },
      "cbsdSerialNumber": "48-00:24:48:0e:f5:27",
      "fccId": "SCW-Temp",
      "groupingParam": [
        {
          "groupId": "zone1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaGain": 3,
        "eirpCapability": 28,
        "height": 3,
        "heightType": "AGL",
        "indoorDeployment": true,
        "latitude": 39.56318664550781,
        "longitude": -104.8172378540039
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "NPLxLI"
    }
  ]
}
2019-01-31T00:25:11.265Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```

    }
  ]
}
2019-01-31T00:25:12.312Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {
          "highFrequency": 3580000000,
          "lowFrequency": 3560000000
        },
        {
          "highFrequency": 3590000000,
          "lowFrequency": 3570000000
        },
        {
          "highFrequency": 3600000000,
          "lowFrequency": 3580000000
        },
        {
          "highFrequency": 3610000000,
          "lowFrequency": 3590000000
        },
        {
          "highFrequency": 3620000000,
          "lowFrequency": 3600000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3610000000
        },
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3670000000,

```

```

        "lowFrequency": 3650000000
      },
    {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    }
  ]
}
]
}
}
2019-01-31T00:25:12.342Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {

```

```

        "highFrequency": 3600000000,
        "lowFrequency": 3580000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3610000000,
        "lowFrequency": 3590000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3620000000,
        "lowFrequency": 3600000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3630000000,
        "lowFrequency": 3610000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3620000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3650000000,
        "lowFrequency": 3630000000
    },
    "ruleApplied": "FCC_PART_96"
},
{
    "channelType": "GAA",
    "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3640000000
    }
}

```



```

    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3670000000,
      "lowFrequency": 3650000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3680000000,
      "lowFrequency": 3660000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3690000000,
      "lowFrequency": 3670000000
    },
    "ruleApplied": "FCC_PART_96"
  },
  {
    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3700000000,
      "lowFrequency": 3680000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
"response": {
  "responseCode": 0
}
}
]
}
2019-01-31T00:25:13.358Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "operationParam": {
        "maxEirp": 18,
        "operationFrequencyRange": {

```

```

                "highFrequency": 3630000000,
                "lowFrequency": 3610000000
            }
        }
    ]
}
2019-01-31T00:25:13.375Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "channelType": "GAA",
            "grantExpireTime": "2019-02-07T00:25:13Z",
            "grantId": "844994310",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-01-31T00:25:14.390Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "844994310",
            "operationState": "GRANTED"
        }
    ]
}
2019-01-31T00:25:14.405Z - INFO - engine sent successfully, the response to
CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
            "grantId": "844994310",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-01-31T00:28:34Z"
        }
    ]
}
2019-01-31T00:25:17.921Z - INFO - registration request from CBRS : {
    "registrationRequest": [
        {
            "airInterface": {
                "radioTechnology": "E_UTRA"
            },
        }
    ]
}

```

```

    "cbsdCategory": "A",
    "cbsdInfo": {
      "model": "RN-330",
      "vendor": "Spidercloud"
    },
    "cbsdSerialNumber": "49-00:24:48:0e:e1:47",
    "fccId": "SCW-Temp",
    "groupingParam": [
      {
        "groupId": "zone2",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaGain": 3,
      "eirpCapability": 28,
      "height": 5,
      "heightType": "AGL",
      "indoorDeployment": true,
      "latitude": 39.56318664550781,
      "longitude": -104.8172378540039
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "NPLxLI"
  }
]
}
2019-01-31T00:25:17.969Z - INFO - engine sent successfully, the response to
CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-31T00:25:18.983Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "inquiredSpectrum": [
        {
          "highFrequency": 3570000000,
          "lowFrequency": 3550000000
        },
        {

```



```
    "highFrequency": 3580000000,  
    "lowFrequency": 3560000000  
  },  
{  
    "highFrequency": 3590000000,  
    "lowFrequency": 3570000000  
  },  
{  
    "highFrequency": 3600000000,  
    "lowFrequency": 3580000000  
  },  
{  
    "highFrequency": 3610000000,  
    "lowFrequency": 3590000000  
  },  
{  
    "highFrequency": 3620000000,  
    "lowFrequency": 3600000000  
  },  
{  
    "highFrequency": 3630000000,  
    "lowFrequency": 3610000000  
  },  
{  
    "highFrequency": 3640000000,  
    "lowFrequency": 3620000000  
  },  
{  
    "highFrequency": 3650000000,  
    "lowFrequency": 3630000000  
  },  
{  
    "highFrequency": 3660000000,  
    "lowFrequency": 3640000000  
  },  
{  
    "highFrequency": 3670000000,  
    "lowFrequency": 3650000000  
  },  
{  
    "highFrequency": 3680000000,  
    "lowFrequency": 3660000000  
  },  
{  
    "highFrequency": 3690000000,  
    "lowFrequency": 3670000000  
  },  
{  
    "highFrequency": 3700000000,  
    "lowFrequency": 3680000000
```

```

    }
  ]
}
2019-01-31T00:25:19.016Z - INFO - engine sent successfully, the response to
CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3570000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3580000000,
            "lowFrequency": 3560000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3590000000,
            "lowFrequency": 3570000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3600000000,
            "lowFrequency": 3580000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3610000000,
            "lowFrequency": 3590000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}

```

```

{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3620000000,
    "lowFrequency": 3600000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3630000000,
    "lowFrequency": 3610000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3640000000,
    "lowFrequency": 3620000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3650000000,
    "lowFrequency": 3630000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3660000000,
    "lowFrequency": 3640000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",
  "frequencyRange": {
    "highFrequency": 3670000000,
    "lowFrequency": 3650000000
  },
  "ruleApplied": "FCC_PART_96"
},
{
  "channelType": "GAA",

```

```

        "frequencyRange": {
            "highFrequency": 3680000000,
            "lowFrequency": 3660000000
        },
        "ruleApplied": "FCC_PART_96"
    },
    {
        "channelType": "GAA",
        "frequencyRange": {
            "highFrequency": 3690000000,
            "lowFrequency": 3670000000
        },
        "ruleApplied": "FCC_PART_96"
    },
    {
        "channelType": "GAA",
        "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3680000000
        },
        "ruleApplied": "FCC_PART_96"
    }
],
"cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
"response": {
    "responseCode": 0
}
}
]
}
2019-01-31T00:25:20.016Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "operationParam": {
                "maxEirp": 18,
                "operationFrequencyRange": {
                    "highFrequency": 3630000000,
                    "lowFrequency": 3610000000
                }
            }
        }
    ]
}
2019-01-31T00:25:20.046Z - INFO - engine sent successfully, the response to
CBRS : {
    "grantResponse": [
        {
            "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
            "channelType": "GAA",

```

```

    "grantExpireTime": "2019-02-07T00:25:20Z",
    "grantId": "936613113",
    "heartbeatInterval": 60,
    "response": {
      "responseCode": 0
    }
  }
]
}
2019-01-31T00:25:21.046Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "936613113",
      "operationState": "GRANTED"
    }
  ]
}
2019-01-31T00:25:21.078Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "936613113",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:28:41Z"
    }
  ]
}
2019-01-31T00:25:59.706Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "844994310",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:25:59.706Z - INFO - Time interval between two heartbeat request
messages is: 45.316, limit is: 65.0
2019-01-31T00:25:59.720Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "844994310",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```



```

    },
    "transmitExpireTime": "2019-01-31T00:29:19Z"
  }
]
}
2019-01-31T00:26:03.736Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "936613113",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-01-31T00:26:03.736Z - INFO - Time interval between two heartbeat request
messages is: 42.69, limit is: 65.0
2019-01-31T00:26:03.767Z - INFO - engine sent successfully, the response to
CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "936613113",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-01-31T00:29:23Z"
    }
  ]
}
}
2019-01-31T00:26:17.299Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "844994310"
    }
  ]
}
}
2019-01-31T00:26:17.331Z - INFO - engine sent successfully, the response to
CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "grantId": "844994310",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-31T00:26:18.346Z - INFO - deregistration request from CBRS : {

```

```

    "deregistrationRequest": [
      {
        "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27"
      }
    ]
  }
}
2019-01-31T00:26:18.471Z - INFO - engine sent successfully, the response to
CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS48-00:24:48:0e:f5:27",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-01-31T00:26:20.503Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "936613113"
    }
  ]
}
}
2019-01-31T00:26:21.065Z - INFO - engine sent successfully, the response to
CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "grantId": "936613113",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
}
2019-01-31T00:26:22.082Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47"
    }
  ]
}
}
}
2019-01-31T00:26:22.096Z - INFO - engine sent successfully, the response to
CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "SCW-TempMock-SAS49-00:24:48:0e:e1:47",
      "response": {

```

```
        "responseCode": 0
    }
}
]
```

2019-01-31T00:26:23.596Z - INFO - arrived to nstep starting question answer session with the technician
2019-01-31T00:26:23.596Z - INFO - the question is : Did the CBSD stop RF transmissions upon sending the Deregister request? please choose one of the answers :
2019-01-31T00:26:36.644Z - INFO - for the question : Did the CBSD stop RF transmissions upon sending the Deregister request? , the user choose y
2019-01-31T00:26:36.644Z - INFO - the question is : Did the CBSD stop RF transmissions upon sending the Deregister request? please choose one of the answers :
2019-01-31T00:26:37.598Z - INFO - for the question : Did the CBSD stop RF transmissions upon sending the Deregister request? , the user choose y
2019-01-31T00:26:41.269Z - INFO - The final result of the test : WINNF.FT.D.DRG.2 is - passed and :the additional comments for the current test are : Verified.



10.33 Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.1

The screenshot displays a Wireshark capture of an SSL/TLS session. The packet list pane shows 36 packets, with the 5th packet (3101 bytes) selected. The packet details pane shows the structure of this packet: Ethernet II, Internet Protocol Version 4, Transmission Control Protocol, and Secure Sockets Layer. The packet bytes pane shows the raw hex and ASCII data of the selected packet.

No.	Time	Source	Destination	Protocol	Length	Info
4	0.001744	192.168.10.6	192.168.10.5	TLSv1.2	224	Client Hello
5	0.002097	192.168.10.5	192.168.10.6	TLSv1.2	3101	Server Hello, Certificate, Certificate Request, Server Hello Done
9	0.146510	192.168.10.6	192.168.10.5	TLSv1.2	1514	Certificate
10	0.146512	192.168.10.6	192.168.10.5	TLSv1.2	505	Client Key Exchange, Certificate Verify, Change Cipher Spec, Encrypted Handshake Message
12	0.169374	192.168.10.5	192.168.10.6	TLSv1.2	117	Change Cipher Spec, Encrypted Handshake Message
14	0.170370	192.168.10.6	192.168.10.5	TLSv1.2	728	Application Data
16	0.287053	192.168.10.5	192.168.10.6	TLSv1.2	112	Application Data
18	0.328010	192.168.10.5	192.168.10.6	TLSv1.2	559	Application Data, Application Data, Application Data, Application Data, Application Data, Application Data, Application Data, Application Data
20	1.331247	192.168.10.6	192.168.10.5	TLSv1.2	1076	Application Data
22	1.394976	192.168.10.5	192.168.10.6	TLSv1.2	112	Application Data
24	1.395403	192.168.10.5	192.168.10.6	TLSv1.2	127	Application Data
26	1.395767	192.168.10.5	192.168.10.6	TLSv1.2	281	Application Data, Application Data, Application Data, Application Data
28	1.395934	192.168.10.5	192.168.10.6	TLSv1.2	541	Application Data, Application Data
30	2.399275	192.168.10.6	192.168.10.5	TLSv1.2	282	Application Data
31	2.416310	192.168.10.5	192.168.10.6	TLSv1.2	112	Application Data
33	2.416681	192.168.10.5	192.168.10.6	TLSv1.2	245	Application Data, Application Data, Application Data
35	2.417788	192.168.10.5	192.168.10.6	TLSv1.2	382	Application Data, Application Data, Application Data, Application Data

Frame 5: 3101 bytes on wire (24800 bits), 3101 bytes captured (24800 bits) on interface 0
> Ethernet II, Src: Dell_37:69:b6 (f0:1f:af:37:69:b6), Dst: Spiderc1_00:36:c0 (00:24:48:00:36:c0)
> Internet Protocol Version 4, Src: 192.168.10.5, Dst: 192.168.10.6
> Transmission Control Protocol, Src Port: 443, Dst Port: 55367, Seq: 1, Ack: 159, Len: 3035
> Secure Sockets Layer

Secure Sockets Layer (ssl), 3035 bytes | Packets: 36 · Displayed: 17 (47.2%) | Profile: Default



10.34 Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.2

The screenshot shows a Wireshark capture of network traffic. The interface includes a menu bar (File, Edit, View, Go, Capture, Analyze, Statistics, Telephony, Wireless, Tools, Help), a toolbar, and a display filter field set to 'Apply a display filter ... <Ctrl-/>'. The packet list pane shows 14 packets, with the first three highlighted in red. The details pane for the selected packet (No. 1) shows Ethernet II, Src: Spidercl_00:36:c0, Dst: Broadcast (ff:ff:ff:ff:ff:ff), and Address Resolution Protocol (request).

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	Spidercl_00:36:c0	Broadcast	ARP	60	Who has 192.168.10.5? Tell 192.168.10.6
2	0.000074	Dell_37:69:b6	Spidercl_00:36:c0	ARP	42	192.168.10.5 is at f0:1f:af:37:69:b6
3	0.000249	192.168.10.6	192.168.10.5	TCP	74	48207 → 443 [SYN] Seq=0 Win=5840 Len=0 MSS=1460 SACK_PERM=1 TSval=227409029 TSecr=0 WS=256
4	0.000524	192.168.10.5	192.168.10.6	TCP	74	443 → 48207 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1460 WS=256 SACK_PERM=1 TSval=90815361 TSecr=227409029
5	0.000809	192.168.10.6	192.168.10.5	TCP	66	48207 → 443 [ACK] Seq=1 Ack=1 Win=5888 Len=0 TSval=227409030 TSecr=90815361
6	0.041200	192.168.10.6	192.168.10.5	TLSv1.2	224	Client Hello
7	0.041733	192.168.10.5	192.168.10.6	TLSv1.2	3244	Server Hello, Certificate, Certificate Request, Server Hello Done
8	0.041968	192.168.10.6	192.168.10.5	TCP	66	48207 → 443 [ACK] Seq=159 Ack=1449 Win=8960 Len=0 TSval=227409072 TSecr=90815402
9	0.042044	192.168.10.6	192.168.10.5	TCP	66	48207 → 443 [ACK] Seq=159 Ack=2897 Win=11776 Len=0 TSval=227409072 TSecr=90815402
10	0.042046	192.168.10.6	192.168.10.5	TCP	66	48207 → 443 [ACK] Seq=159 Ack=3179 Win=14592 Len=0 TSval=227409072 TSecr=90815402
11	0.078702	192.168.10.6	192.168.10.5	TLSv1.2	73	Alert (Level: Fatal, Description: Certificate Revoked)
12	0.079343	192.168.10.5	192.168.10.6	TCP	66	443 → 48207 [FIN, ACK] Seq=3179 Ack=166 Win=532736 Len=0 TSval=90815439 TSecr=227409108
13	0.079401	192.168.10.6	192.168.10.5	TCP	66	48207 → 443 [RST, ACK] Seq=166 Ack=3179 Win=14592 Len=0 TSval=227409109 TSecr=90815402
14	0.079511	192.168.10.6	192.168.10.5	TCP	60	48207 → 443 [RST] Seq=166 Win=0 Len=0

> Frame 1: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface 0
> Ethernet II, Src: Spidercl_00:36:c0 (00:24:48:00:36:c0), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
> Address Resolution Protocol (request)

Ready to load or capture | Packets: 14 · Displayed: 14 (100.0%) | Profile: Default



10.35 Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.3

The screenshot shows a Wireshark capture of a network session. The packet list pane at the top shows 14 packets. Packet 11 is highlighted in red, indicating a fatal alert. The details pane below shows the structure of this packet: Ethernet II, Internet Protocol Version 4, and Transmission Control Protocol (TCP). The TCP segment is a RST (Reset) packet with Seq=166, Ack=3037, Win=14592, Len=0, and TSval=226275766. The status bar at the bottom indicates that 14 packets are displayed (100.0%) and the current layer is Secure Sockets Layer (SSL).

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	Spidercl_00:36...	Broadcast	ARP	60	Who has 192.168.10.5? Tell 192.168.10.6
2	0.000070	Dell_37:69:b6	Spidercl_00:36:c0	ARP	42	192.168.10.5 is at f0:1f:af:37:69:b6
3	0.000826	192.168.10.6	192.168.10.5	TCP	74	34490 → 443 [SYN] Seq=0 Win=5840 Len=0 MSS=1460 SACK_PERM=1 TSval=226275736 TSecr=0 WS=256
4	0.001069	192.168.10.5	192.168.10.6	TCP	74	443 → 34490 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1460 WS=256 SACK_PERM=1 TSval=89682075 TSecr=226275736
5	0.001394	192.168.10.6	192.168.10.5	TCP	66	34490 → 443 [ACK] Seq=1 Ack=1 Win=5888 Len=0 TSval=226275738 TSecr=89682075
6	0.002610	192.168.10.6	192.168.10.5	TLSv1.2	224	Client Hello
7	0.003025	192.168.10.5	192.168.10.6	TLSv1.2	3102	Server Hello, Certificate, Certificate Request, Server Hello Done
8	0.003262	192.168.10.6	192.168.10.5	TCP	66	34490 → 443 [ACK] Seq=159 Ack=1449 Win=8960 Len=0 TSval=226275740 TSecr=89682077
9	0.003263	192.168.10.6	192.168.10.5	TCP	66	34490 → 443 [ACK] Seq=159 Ack=2897 Win=11776 Len=0 TSval=226275740 TSecr=89682077
10	0.003340	192.168.10.6	192.168.10.5	TCP	66	34490 → 443 [ACK] Seq=159 Ack=3037 Win=14592 Len=0 TSval=226275740 TSecr=89682077
11	0.028413	192.168.10.6	192.168.10.5	TLSv1.2	73	Alert (Level: Fatal, Description: Certificate Expired)
12	0.028834	192.168.10.6	192.168.10.5	TCP	66	34490 → 443 [RST, ACK] Seq=166 Ack=3037 Win=14592 Len=0 TSval=226275766 TSecr=89682077
13	0.028895	192.168.10.5	192.168.10.6	TCP	66	443 → 34490 [FIN, ACK] Seq=3037 Ack=166 Win=532736 Len=0 TSval=89682103 TSecr=226275765
14	0.029035	192.168.10.6	192.168.10.5	TCP	60	34490 → 443 [RST] Seq=166 Win=0 Len=0

> Frame 11: 73 bytes on wire (584 bits), 73 bytes captured (584 bits) on interface 0
> Ethernet II, Src: Spidercl_00:36:c0 (00:24:48:00:36:c0), Dst: Dell_37:69:b6 (f0:1f:af:37:69:b6)
> Internet Protocol Version 4, Src: 192.168.10.6, Dst: 192.168.10.5
> Transmission Control Protocol, Src Port: 34490, Dst Port: 443, Seq: 159, Ack: 3037, Len: 7
> Secure Sockets Layer

Secure Sockets Layer (ssl), 7 bytes | Packets: 14 · Displayed: 14 (100.0%) | Profile: Default



10.36 Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.4

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	Spidercl_00:36...	Broadcast	ARP	60	Who has 192.168.10.5? Tell 192.168.10.6
2	0.000070	Dell_37:69:b6	Spidercl_00:36:c0	ARP	42	192.168.10.5 is at f0:1f:af:37:69:b6
3	0.000253	192.168.10.6	192.168.10.5	TCP	74	42439 → 443 [SYN] Seq=0 Win=5840 Len=0 MSS=1460 SACK_PERM=1 TSval=226848262 TSecr=0 WS=256
4	0.000492	192.168.10.5	192.168.10.6	TCP	74	443 → 42439 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1460 WS=256 SACK_PERM=1 TSval=90254597 TSecr=226848262
5	0.000857	192.168.10.6	192.168.10.5	TCP	66	42439 → 443 [ACK] Seq=1 Ack=1 Win=5888 Len=0 TSval=226848264 TSecr=90254597
6	0.002175	192.168.10.6	192.168.10.5	TLsv1.2	224	Client Hello
7	0.002533	192.168.10.5	192.168.10.6	TLsv1.2	3088	Server Hello, Certificate, Certificate Request, Server Hello Done
8	0.002752	192.168.10.6	192.168.10.5	TCP	66	42439 → 443 [ACK] Seq=159 Ack=1449 Win=8960 Len=0 TSval=226848266 TSecr=90254598
9	0.002814	192.168.10.6	192.168.10.5	TCP	66	42439 → 443 [ACK] Seq=159 Ack=2897 Win=11776 Len=0 TSval=226848266 TSecr=90254598
10	0.002814	192.168.10.6	192.168.10.5	TCP	66	42439 → 443 [ACK] Seq=159 Ack=3023 Win=11776 Len=0 TSval=226848266 TSecr=90254598
11	0.003513	192.168.10.6	192.168.10.5	TLsv1.2	73	Alert (Level: Fatal, Description: Unknown CA)
12	0.003887	192.168.10.5	192.168.10.6	TCP	66	443 → 42439 [FIN, ACK] Seq=3023 Ack=166 Win=532736 Len=0 TSval=90254598 TSecr=226848266
13	0.003949	192.168.10.6	192.168.10.5	TCP	66	42439 → 443 [RST, ACK] Seq=166 Ack=3023 Win=11776 Len=0 TSval=226848267 TSecr=90254598
14	0.004070	192.168.10.6	192.168.10.5	TCP	60	42439 → 443 [RST] Seq=166 Win=0 Len=0

The bottom pane shows details for the selected packet (No. 13):

- > Frame 1: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface 0
- > Ethernet II, Src: Spidercl_00:36:c0 (00:24:48:00:36:c0), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
- > Address Resolution Protocol (request)

At the bottom of the window, the status bar indicates: Ready to load or capture | Packets: 14 · Displayed: 14 (100.0%) · Dropped: 0 (0.0%) | Profile: Default



10.37 Wireshark capture screenshot for test case ID: WINNF.FT.C.SCS.5

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	Spidercl_00:36:...	Broadcast	ARP	60	Who has 192.168.10.5? Tell 192.168.10.6
2	0.000070	Dell_37:69:b6	Spidercl_00:36:c0	ARP	42	192.168.10.5 is at f0:1f:af:37:69:b6
3	0.000249	192.168.10.6	192.168.10.5	TCP	74	48270 → 443 [SYN] Seq=0 Win=5840 Len=0 MSS=1460 SACK_PERM=1 TSval=227629999 TSecr=0 WS=256
4	0.000481	192.168.10.5	192.168.10.6	TCP	74	443 → 48270 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1460 WS=256 SACK_PERM=1 TSval=91036329 TSecr=227629999
5	0.000757	192.168.10.6	192.168.10.5	TCP	66	48270 → 443 [ACK] Seq=1 Ack=1 Win=5888 Len=0 TSval=227630000 TSecr=91036329
6	0.043335	192.168.10.6	192.168.10.5	TLSv1.2	224	Client Hello
7	0.043907	192.168.10.5	192.168.10.6	TLSv1.2	3101	Server Hello, Certificate, Certificate Request, Server Hello Done
8	0.044142	192.168.10.6	192.168.10.5	TCP	66	48270 → 443 [ACK] Seq=159 Ack=1449 Win=8960 Len=0 TSval=227630044 TSecr=91036373
9	0.044200	192.168.10.6	192.168.10.5	TCP	78	[TCP Dup ACK #1] 48270 → 443 [ACK] Seq=159 Ack=1449 Win=8960 Len=0 TSval=227630044 TSecr=91036373 SLE=2897 SRE=3036
10	0.044204	192.168.10.6	192.168.10.5	TCP	66	48270 → 443 [ACK] Seq=159 Ack=3036 Win=11776 Len=0 TSval=227630044 TSecr=91036373
11	0.100596	192.168.10.6	192.168.10.5	TLSv1.2	73	Alert (Level: Fatal, Description: Decrypt Error)
12	0.101246	192.168.10.5	192.168.10.6	TCP	66	443 → 48270 [FIN, ACK] Seq=3036 Ack=166 Win=532736 Len=0 TSval=91036430 TSecr=227630100
13	0.101304	192.168.10.6	192.168.10.5	TCP	66	48270 → 443 [RST, ACK] Seq=166 Ack=3036 Win=11776 Len=0 TSval=227630101 TSecr=91036373
14	0.101422	192.168.10.6	192.168.10.5	TCP	60	48270 → 443 [RST] Seq=166 Win=0 Len=0

> Frame 11: 73 bytes on wire (584 bits), 73 bytes captured (584 bits) on interface 0
 > Ethernet II, Src: Spidercl_00:36:c0 (00:24:48:00:36:c0), Dst: Dell_37:69:b6 (f0:1f:af:37:69:b6)
 > Internet Protocol Version 4, Src: 192.168.10.6, Dst: 192.168.10.5
 > Transmission Control Protocol, Src Port: 48270, Dst Port: 443, Seq: 159, Ack: 3036, Len: 7
 > Secure Sockets Layer

Secure Sockets Layer (ssl), 7 bytes | Packets: 14 · Displayed: 14 (100.0%) | Profile: Default

Thank you for choosing

