



FCC Test Report

FCC ID : TE7KH300
Equipment : Kasa Smart Camera Hub
Brand Name : tp-link
Model Name : KH300
Applicant : TP-Link Technologies Co., Ltd.
Building 24 (floors 1,3,4,5) and 28 (floors1-4),
Central Science and Technology
Park,Nanshan Shenzhen, 518057 China
Manufacturer : TP-Link Technologies Co., Ltd.
Building 24 (floors 1,3,4,5) and 28 (floors1-4),
Central Science and Technology
Park,Nanshan Shenzhen, 518057 China
Standard : 47 CFR FCC Part 15.247

The product was received on Jul. 16, 2018, and testing was started from Aug. 24, 2018 and completed on Dec. 21, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Phoenix Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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PHOTOGRAPHS OF EUT V01



Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	FCC 15.203
3.1	15.207	AC Power-line Conducted Emissions	PASS	FCC 15.207
3.2	15.247(a)	DTS Bandwidth	PASS	≥500kHz
3.3	15.247(b)	Maximum Conducted Output Power	PASS	Power [dBm]:30
3.4	15.247(e)	Power Spectral Density	PASS	PSD [dBm/3kHz]:8
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	Non-Restricted Bands: > 30 dBc
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	Restricted Bands: FCC 15.209

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and explanations:

None

Reviewed by: Jackson Tsai

Report Producer: Jenny Yang



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Modulation	Ch. Frequency (MHz)	Channel Number
902-928MHz	DSSS	904-924	11

Band	Mode	BWch (MHz)	Nant
902-928MHz	DSSS	0.5	1TX

Note:

- ♦ 902-928 MHz Band uses a combination of DSSS modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	TP-LINK	KH300	Dipole antenna	I-PEX
2	TP-LINK	KH300	Dipole antenna	I-PEX
3	TP-LINK	KH300	PIFA antenna	I-PEX

Ant.	Port	Gain (dBi)	
		2.4G	DSSS(902~928MHz)
1	1	3.5	-
2	2	3.5	-
3	1	-	2.124

Note 1: The EUT has three antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

For DSSS (902~928MHz):

Only Ant. 3 (port 1) can be used as transmitting/receiving antenna.



1.1.3 EUT Information

Operational Condition	
EUT Power Type	From AC Adapter
EUT Function	<input checked="" type="checkbox"/> Point-to-multipoint <input type="checkbox"/> Point-to-point
Type of EUT	
<input checked="" type="checkbox"/> Stand-alone	
<input type="checkbox"/> Combined (EUT where the radio part is fully integrated within another device)	
Combined Equipment - Brand Name / Model No.:	...
<input type="checkbox"/> Plug-in radio (EUT intended for a variety of host systems)	
Host System - Brand Name / Model No.:	...
<input type="checkbox"/> Other:	

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
DSSS	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013
- ◆ KDB 558074 D01 v05

1.3 Testing Location Information

Testing Location		
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456 FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.		
<input type="checkbox"/>	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.) TEL : 886-3-656-9065 FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.		

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Barry	24.1°C / 62%	18/Dec/2018
Radiated	03CH03-HY	Jeff	24.1°C / 53%	21/Dec/2018
AC Conduction	CO04-HY	Andy	23.6°C / 54.8%	24/Aug/2018

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode


Test Software	Dos

Mode	Power Setting
DSSS_Nss1_1TX	-
904MHz	14
914MHz	14
924MHz	14

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	Adapter mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	Adapter mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	Y Plane
	
Worst Planes of EUT	V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4GHz+DSSS(902~928MHz)
Refer to Sporton Test Report No.: FA871402 for Co-location RF Exposure Evaluation.	



2.4 Accessories

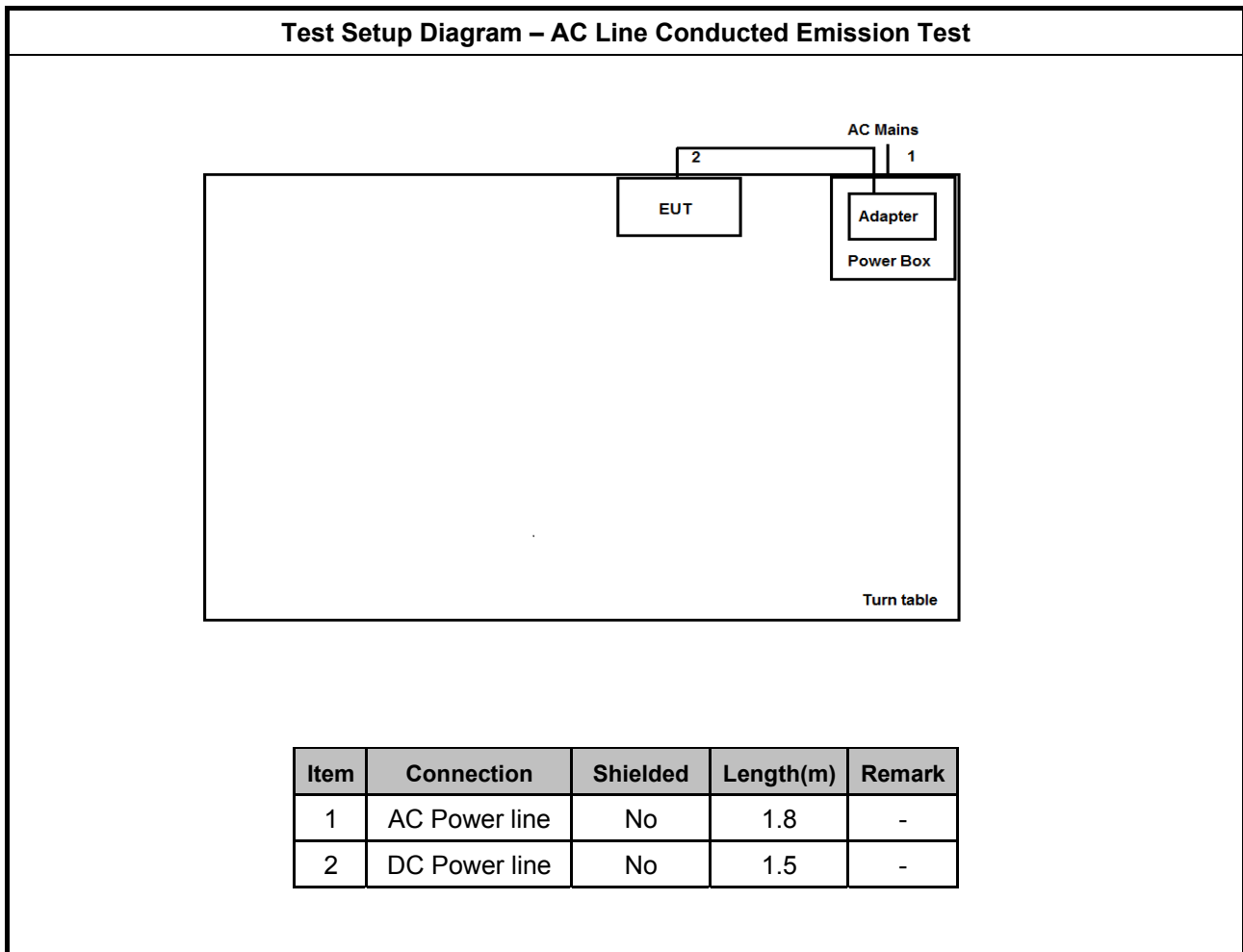
Accessories				
AC Adapter	Brand Name	AMIGO	Model Name	AMS159A-1201000FU
	Power Rating	I/P: 100-240Vac, 0.5A, O/P: 12 Vdc, 1A		
	Power Cord	1.5meter, non-shielded cable, w/o ferrite core		

Reminder: Regarding to more detail and other information, please refer to user manual.

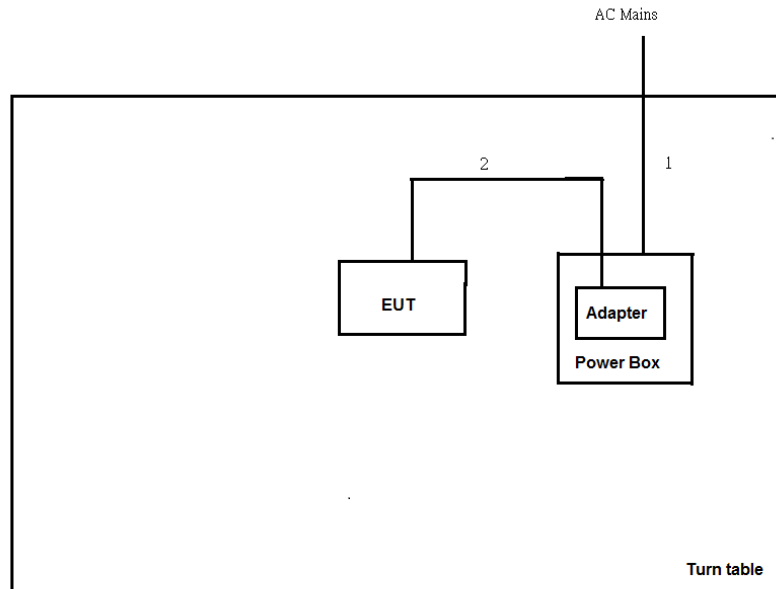
2.5 Support Equipment

Support Equipment - RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.8	-
2	DC Power line	No	1.5	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

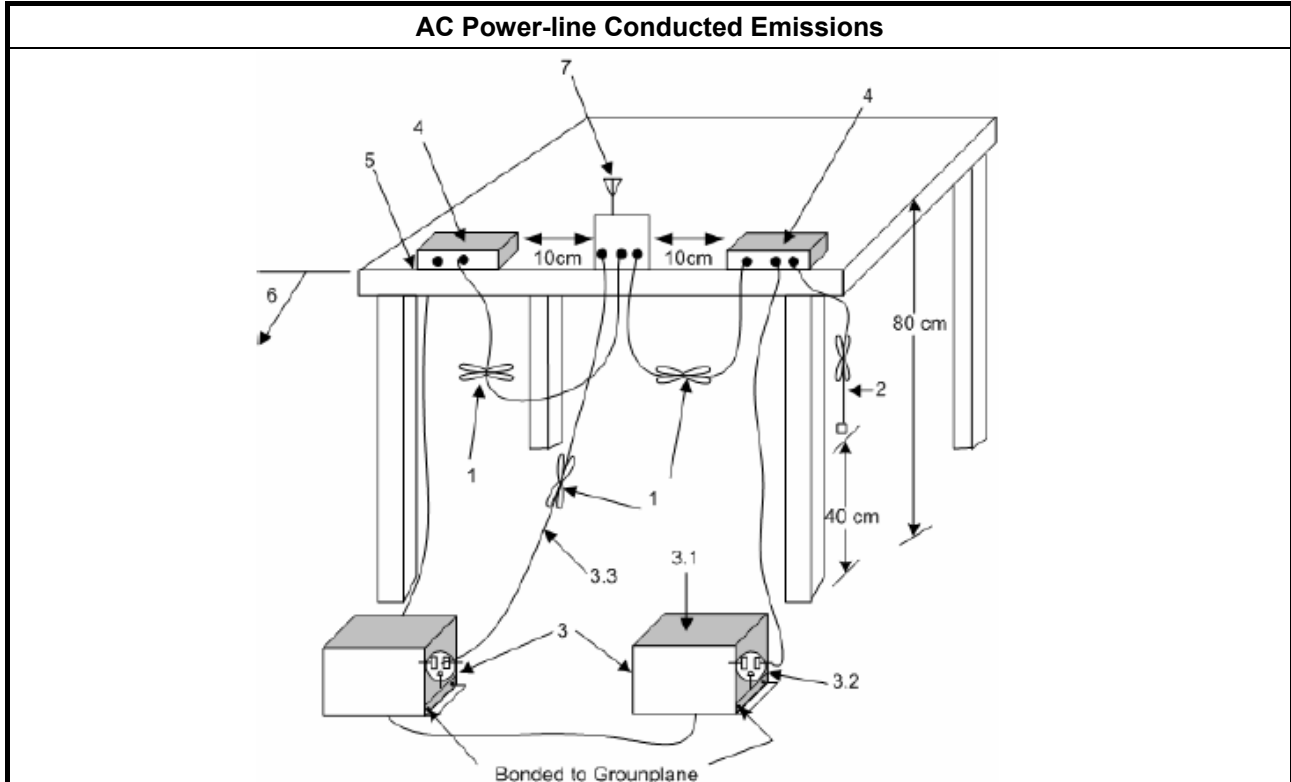
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
<ul style="list-style-type: none"> ▪ 6 dB bandwidth \geq 500 kHz. 	

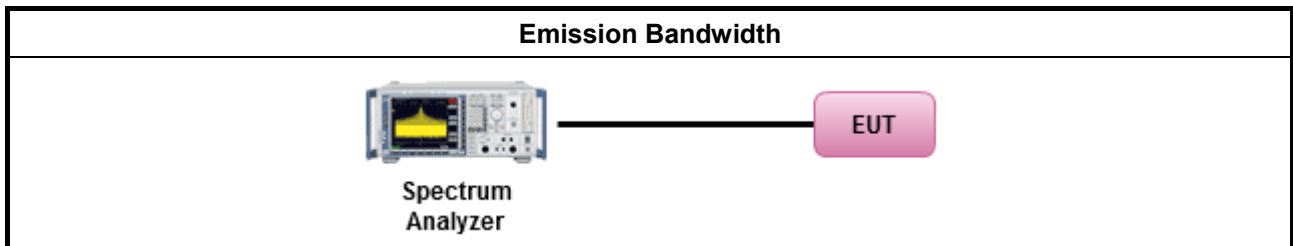
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below: 	
<input checked="" type="checkbox"/>	Refer as KDB 558074. clause 8.2 (11.9.2.2 of ANSI C63.10) DTS bandwidth measurement.
<input type="checkbox"/>	Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	<ul style="list-style-type: none"> ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS):
	<ul style="list-style-type: none"> - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dBm
e.i.r.p. Power Limit:	
	<ul style="list-style-type: none"> ▪ 2400-2483.5 MHz Band
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS)
	<ul style="list-style-type: none"> - Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
<p>P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.</p>	

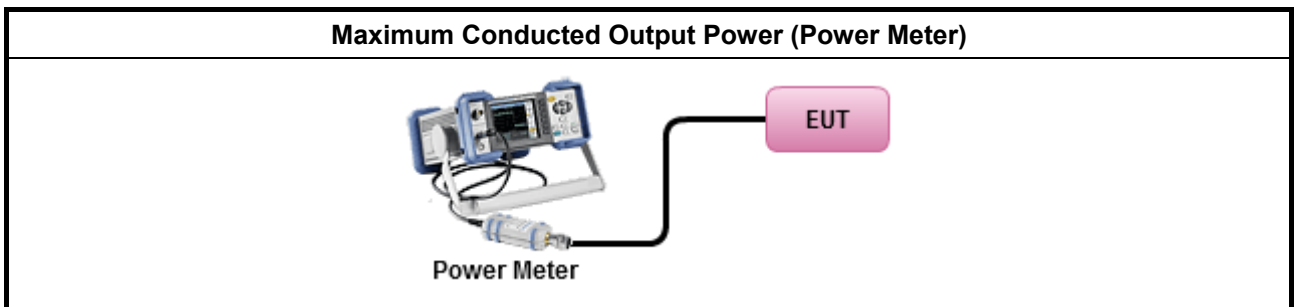
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Peak Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
<ul style="list-style-type: none"> ▪ Maximum Average Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. 	
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
<ul style="list-style-type: none"> Power Spectral Density (PSD) \leq 8 dBm/3kHz

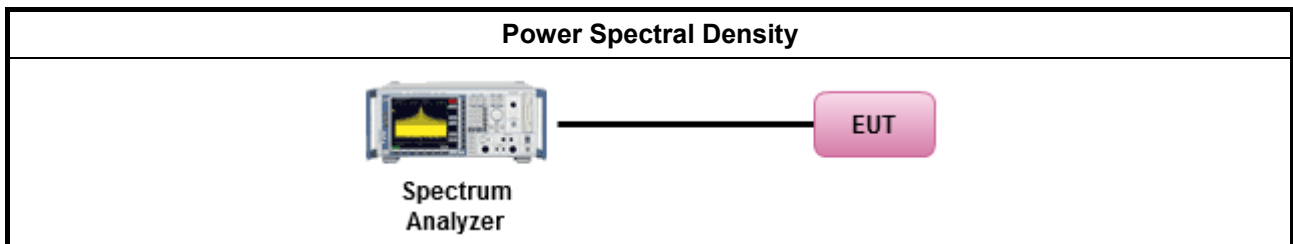
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Method PKPSD.
	<ul style="list-style-type: none"> For conducted measurement.
	<ul style="list-style-type: none"> If The EUT supports multiple transmit chains using options given below:
	<ul style="list-style-type: none"> Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

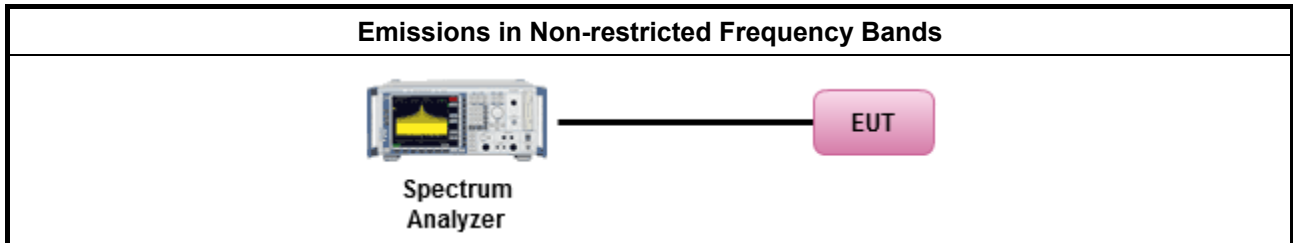
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

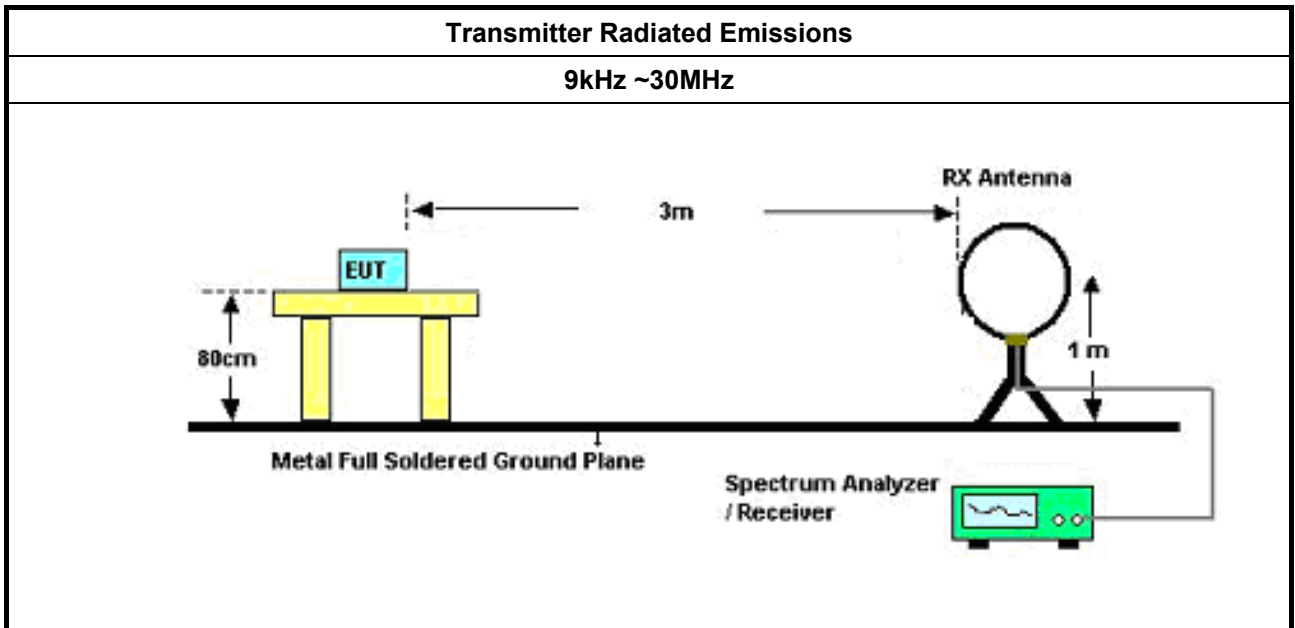
3.6.2 Measuring Instruments

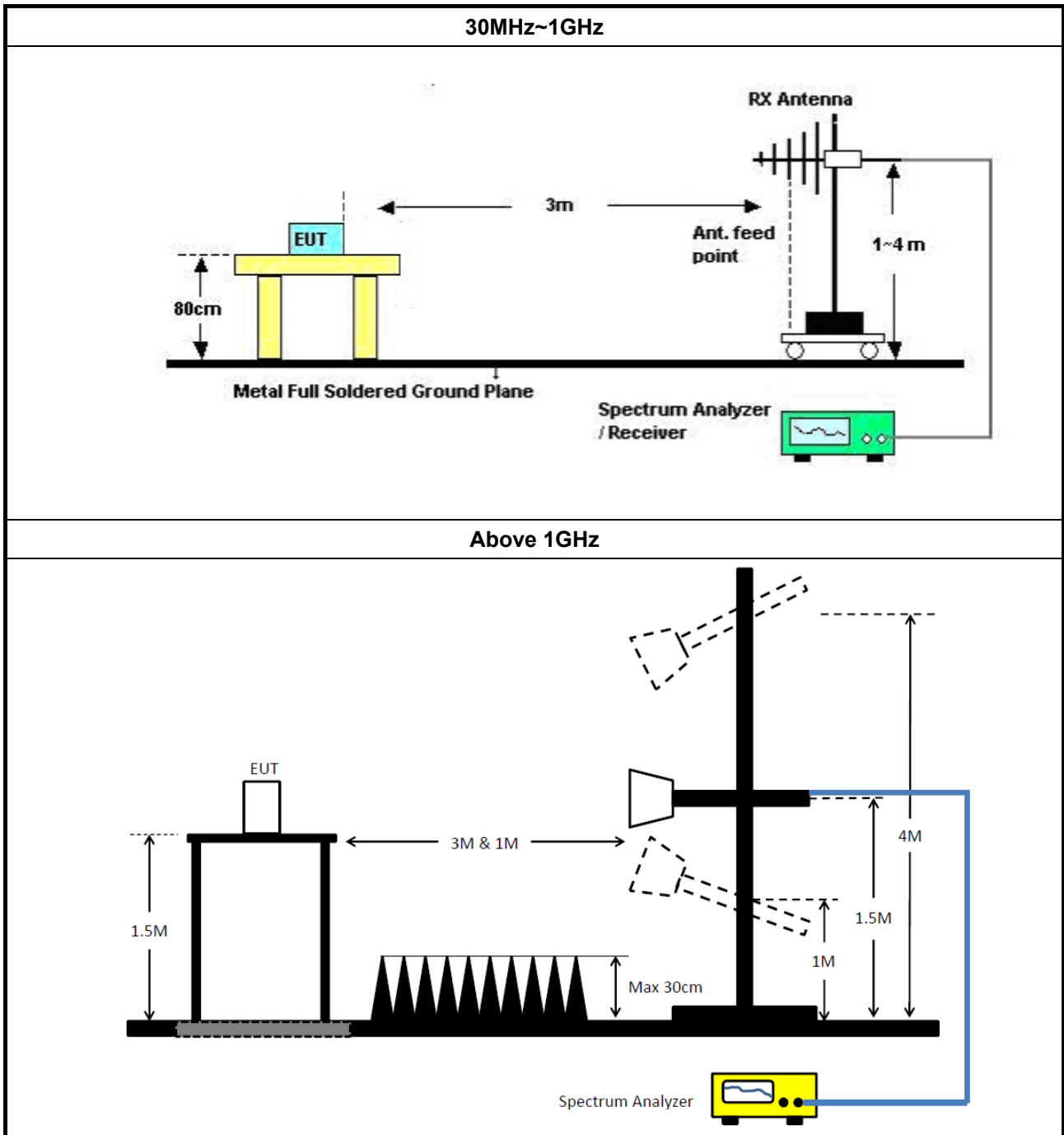
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
	<ul style="list-style-type: none"> Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
	<ul style="list-style-type: none"> For the transmitter unwanted emissions shall be measured using following options below: <ul style="list-style-type: none"> Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
	<ul style="list-style-type: none"> For the transmitter band-edge emissions shall be measured using following options below: <ul style="list-style-type: none"> Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below. Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements. Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).

3.6.4 Test Setup





3.6.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.6.6 Test Result of Transmitter Radiated Unwanted Emissions

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	17/Nov/2017	16/Nov/2018
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	06/Oct/2017	05/Oct/2018
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2017	11/Oct/2018

NCR : Non-Calibration Require

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	30/Oct/2018	29/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	30/Oct/2018	29/Oct/2019
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	23/Apr/2018	19/Apr/2019
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	05/Sep/2018	04/Sep/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	29/Jan/2018	28/Jan/2019
RF Cable-high	SUHNER	SUCOFLEX 106	CB222	1GHz ~ 40GHz	29/Jan/2018	28/Jan/2019
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz ~ 40GHz	06/Feb/2018	05/Feb/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	18/Apr/2018	17/Apr/2019
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	28/Mar/2018	27/Mar/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	10/Apr/2018	09/Apr/2019

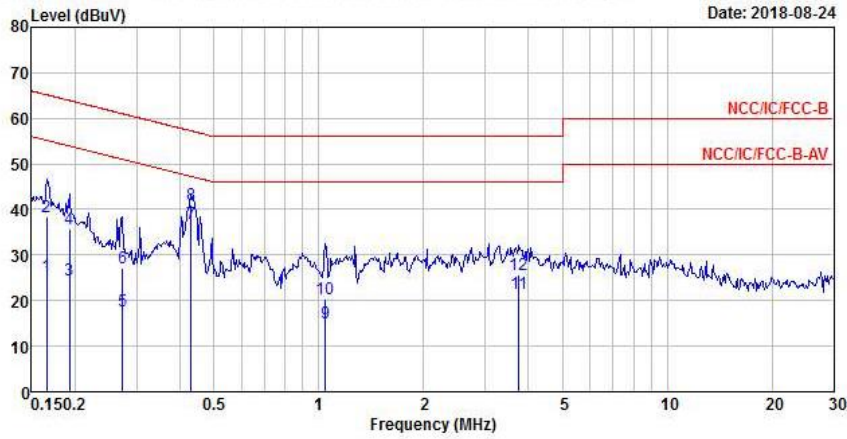


Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	05/Feb/2018	04/Feb/2019
Signal Generator	R&S	SMB100A	175727	100kHz~40GHz	26/Oct/2017	25/Oct/2018
Pulse Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
CABLE 0.2m	HUBER	MY37960/4	RF Cable - 17	1 to 18GHz	17/Jan/2018	16/Jan/2019
CABLE 0.2m	HUBER	MY37960/4	RF Cable - 17	30 to 1000MHz	17/Jan/2018	16/Jan/2019
CABLE 0.5m	HUBER	MY37963/4	RF Cable - 22	1 to 18GHz	17/Jan/2018	16/Jan/2019

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17	25.26	-29.90	55.16	15.60	9.63	0.03	Average
2	0.17	38.45	-26.71	65.16	28.79	9.63	0.03	QP
3	0.19	24.49	-29.44	53.93	14.86	9.62	0.01	Average
4	0.19	35.73	-28.20	63.93	26.10	9.62	0.01	QP
5	0.27	17.61	-33.42	51.03	7.95	9.62	0.04	Average
6	0.27	27.20	-33.83	61.03	17.54	9.62	0.04	QP
7 MAX	0.43	36.89	-10.35	47.24	27.19	9.61	0.09	Average
8	0.43	40.98	-16.26	57.24	31.28	9.61	0.09	QP
9	1.04	15.04	-30.96	46.00	5.42	9.62	0.00	Average
10	1.04	20.24	-35.76	56.00	10.62	9.62	0.00	QP
11	3.76	21.52	-24.48	46.00	11.80	9.64	0.08	Average
12	3.76	25.67	-30.33	56.00	15.95	9.64	0.08	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
 Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)



AC Power-line Conducted Emissions Result																																																																																																																																	
Operating Mode	1	Power Phase	Line																																																																																																																														
Operating Function	Adapter mode																																																																																																																																
<div style="display: flex; justify-content: space-between;"> Level (dBuV) Date: 2018-08-24 </div> <p>The graph displays the AC power-line conducted emissions. The y-axis represents Level in dBuV, ranging from 0 to 80. The x-axis represents Frequency in MHz, ranging from 0.150.2 to 30. Two red lines indicate the limits: NCC/IC/FCC-B (upper) and NCC/IC/FCC-B-AV (lower). A blue line shows the measured emission levels, with several peaks marked by vertical lines and numbered 1 through 12. The measured levels are generally below the NCC/IC/FCC-B-AV limit, except for peak 2 which exceeds it significantly.</p>																																																																																																																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Freq</th> <th>Level</th> <th>Over Limit</th> <th>Limit Line</th> <th>Read Level</th> <th>LISM Factor</th> <th>Cable Loss</th> <th>Remark</th> </tr> <tr> <th></th> <th>MHz</th> <th>dBuV</th> <th>dB</th> <th>dBuV</th> <th>dBuV</th> <th>dB</th> <th>dB</th> <th></th> </tr> </thead> <tbody> <tr><td>1</td><td>0.15</td><td>24.30</td><td>-31.70</td><td>56.00</td><td>14.64</td><td>9.62</td><td>0.04</td><td>Average</td></tr> <tr><td>2 MAX</td><td>0.15</td><td>39.56</td><td>-26.44</td><td>66.00</td><td>29.90</td><td>9.62</td><td>0.04</td><td>QP</td></tr> <tr><td>3</td><td>0.21</td><td>20.00</td><td>-33.36</td><td>53.36</td><td>10.38</td><td>9.62</td><td>0.00</td><td>Average</td></tr> <tr><td>4</td><td>0.21</td><td>33.53</td><td>-29.83</td><td>63.36</td><td>23.91</td><td>9.62</td><td>0.00</td><td>QP</td></tr> <tr><td>5</td><td>0.24</td><td>18.00</td><td>-34.13</td><td>52.13</td><td>8.35</td><td>9.62</td><td>0.03</td><td>Average</td></tr> <tr><td>6</td><td>0.24</td><td>29.69</td><td>-32.44</td><td>62.13</td><td>20.04</td><td>9.62</td><td>0.03</td><td>QP</td></tr> <tr><td>7</td><td>0.44</td><td>20.50</td><td>-26.65</td><td>47.15</td><td>10.80</td><td>9.61</td><td>0.09</td><td>Average</td></tr> <tr><td>8</td><td>0.44</td><td>29.51</td><td>-27.64</td><td>57.15</td><td>19.81</td><td>9.61</td><td>0.09</td><td>QP</td></tr> <tr><td>9</td><td>1.97</td><td>14.42</td><td>-31.58</td><td>46.00</td><td>4.80</td><td>9.62</td><td>0.00</td><td>Average</td></tr> <tr><td>10</td><td>1.97</td><td>16.90</td><td>-39.10</td><td>56.00</td><td>7.28</td><td>9.62</td><td>0.00</td><td>QP</td></tr> <tr><td>11</td><td>3.64</td><td>18.22</td><td>-27.78</td><td>46.00</td><td>8.52</td><td>9.63</td><td>0.07</td><td>Average</td></tr> <tr><td>12</td><td>3.64</td><td>22.52</td><td>-33.48</td><td>56.00</td><td>12.82</td><td>9.63</td><td>0.07</td><td>QP</td></tr> </tbody> </table>					Freq	Level	Over Limit	Limit Line	Read Level	LISM Factor	Cable Loss	Remark		MHz	dBuV	dB	dBuV	dBuV	dB	dB		1	0.15	24.30	-31.70	56.00	14.64	9.62	0.04	Average	2 MAX	0.15	39.56	-26.44	66.00	29.90	9.62	0.04	QP	3	0.21	20.00	-33.36	53.36	10.38	9.62	0.00	Average	4	0.21	33.53	-29.83	63.36	23.91	9.62	0.00	QP	5	0.24	18.00	-34.13	52.13	8.35	9.62	0.03	Average	6	0.24	29.69	-32.44	62.13	20.04	9.62	0.03	QP	7	0.44	20.50	-26.65	47.15	10.80	9.61	0.09	Average	8	0.44	29.51	-27.64	57.15	19.81	9.61	0.09	QP	9	1.97	14.42	-31.58	46.00	4.80	9.62	0.00	Average	10	1.97	16.90	-39.10	56.00	7.28	9.62	0.00	QP	11	3.64	18.22	-27.78	46.00	8.52	9.63	0.07	Average	12	3.64	22.52	-33.48	56.00	12.82	9.63	0.07	QP
	Freq	Level	Over Limit	Limit Line	Read Level	LISM Factor	Cable Loss	Remark																																																																																																																									
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Summary

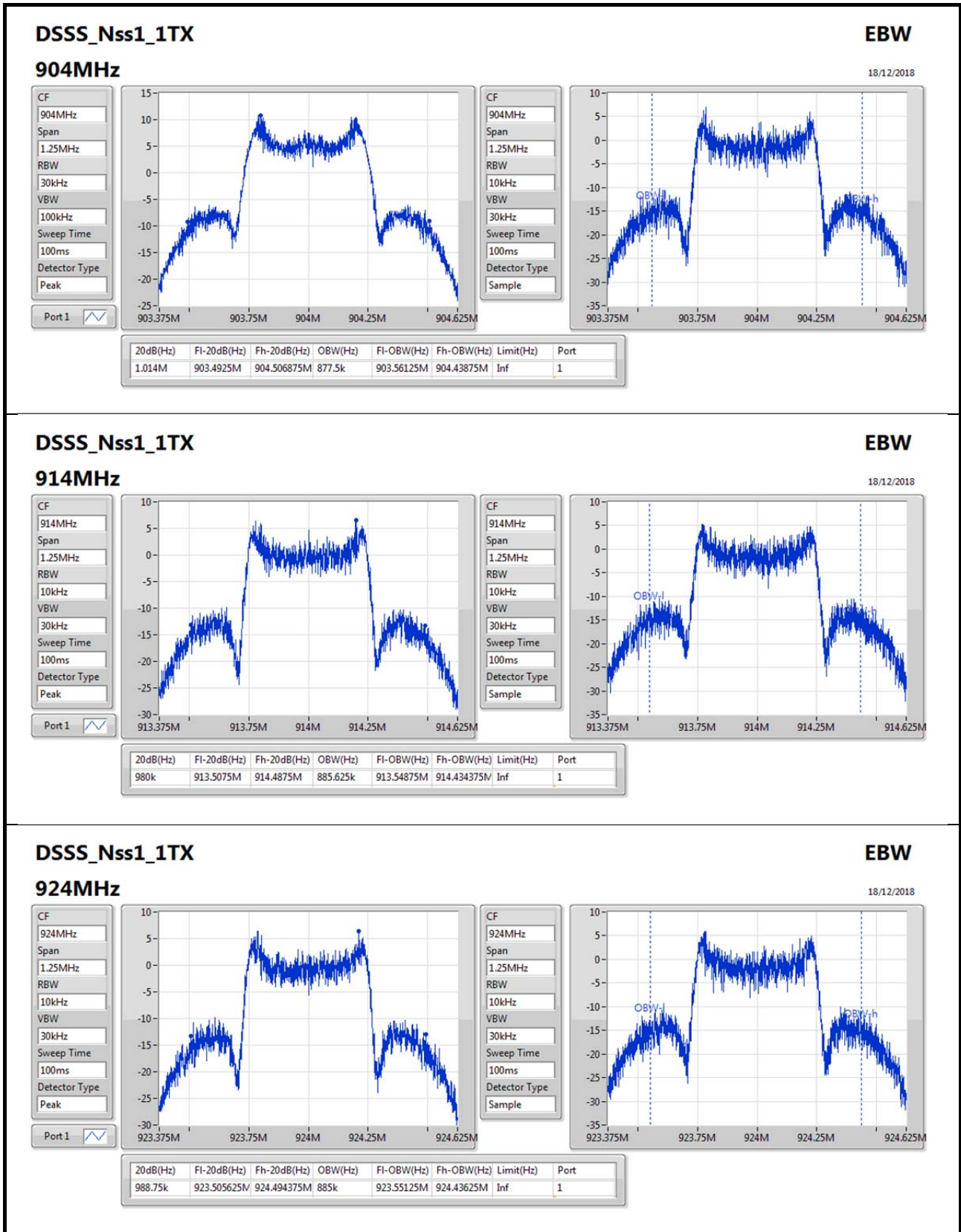
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
902-928MHz	-	-	-	-	-
DSSS_Nss1_1TX	1.014M	885.625k	886KF1D	980k	877.5k

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
DSSS_Nss1_1TX	-	-	-	-
904MHz_TnomVnom	Pass	Inf	1.014M	877.5k
914MHz_TnomVnom	Pass	Inf	980k	885.625k
924MHz_TnomVnom	Pass	Inf	988.75k	885k

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;





Summary

Mode	Power (dBm)	Power (W)
902-928MHz	-	-
DSSS_Nss1_1TX	12.34	0.01714

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
DSSS_Nss1_1TX	-	-	-	-
904MHz_TnomVnom	Pass	2.124	12.34	30.00
914MHz_TnomVnom	Pass	2.124	12.27	30.00
924MHz_TnomVnom	Pass	2.124	12.15	30.00



Summary

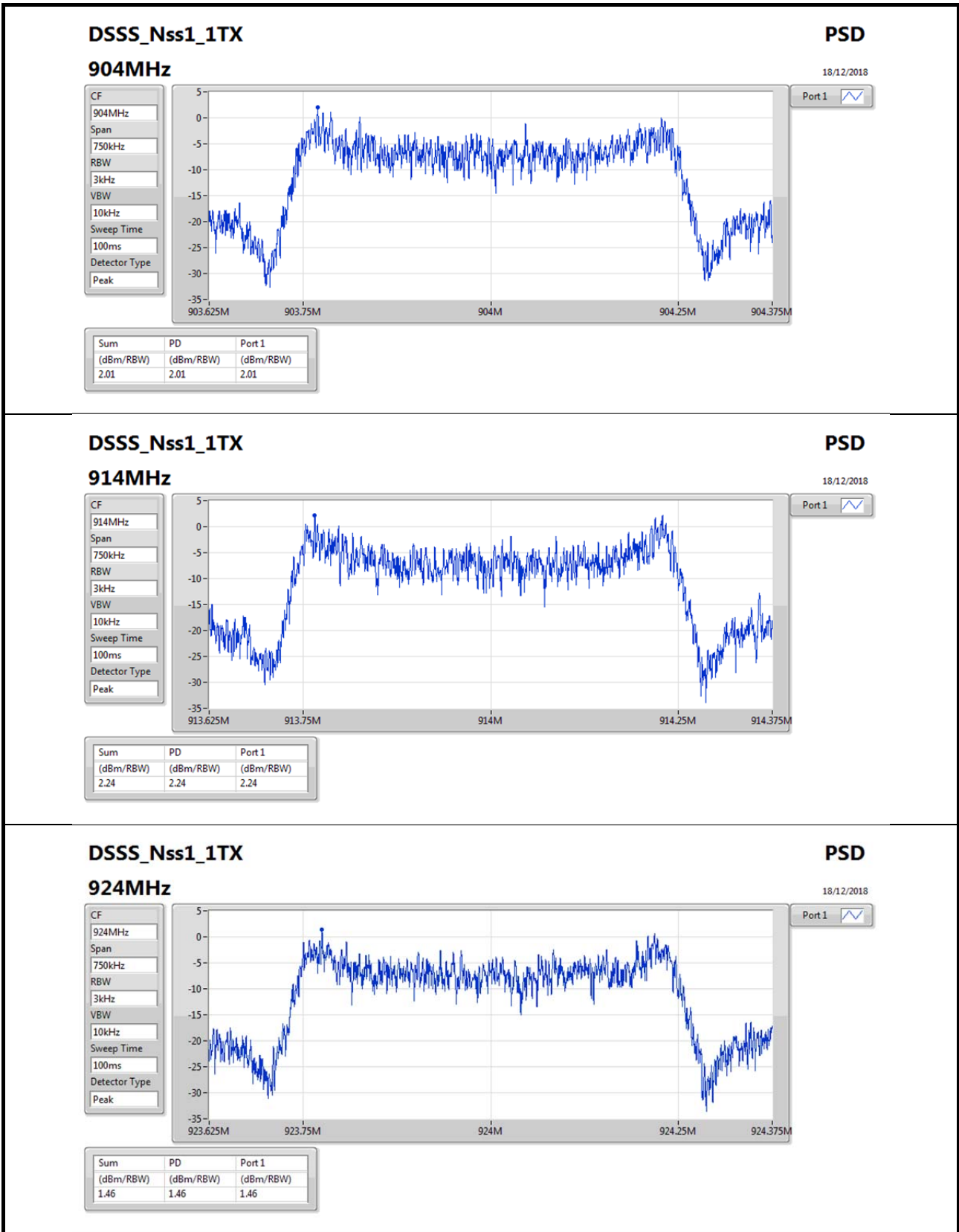
Mode	PD (dBm/RBW)
902-928MHz	-
DSSS_Nss1_1TX	2.24

RBW=3kHz.

Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
DSSS_Nss1_1TX	-	-	-	-
904MHz_TnomVnom	Pass	2.124	2.01	8.00
914MHz_TnomVnom	Pass	2.124	2.24	8.00
924MHz_TnomVnom	Pass	2.124	1.46	8.00

RBW=3kHz.



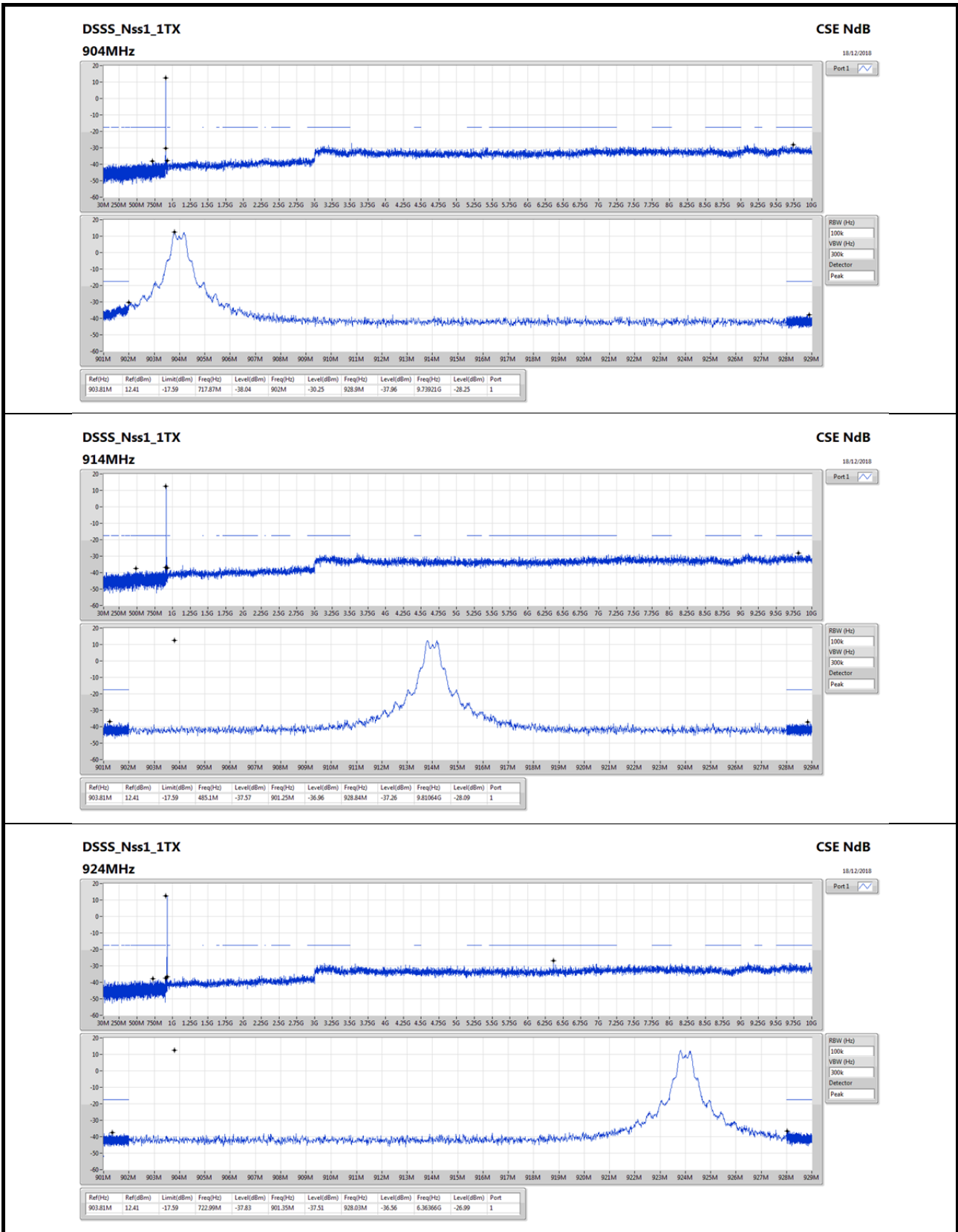


Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-	-
DSSS_Nss1_1TX	Pass	903.81M	12.41	-17.59	722.99M	-37.83	901.35M	-37.51	928.03M	-36.56	6.36366G	-26.99	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
DSSS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
904MHz_TnomVnom	Pass	903.81M	12.41	-17.59	717.87M	-38.04	902M	-30.25	928.9M	-37.96	9.73921G	-28.25	1
914MHz_TnomVnom	Pass	903.81M	12.41	-17.59	485.1M	-37.57	901.25M	-36.96	928.84M	-37.26	9.81064G	-28.09	1
924MHz_TnomVnom	Pass	903.81M	12.41	-17.59	722.99M	-37.83	901.35M	-37.51	928.03M	-36.56	6.36366G	-26.99	1





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-
DSSS_Nss1_1TX	Pass	QP	951.5M	44.30	46.00	-1.70	-4.77	3	Vertical	0	2.00	-



Result

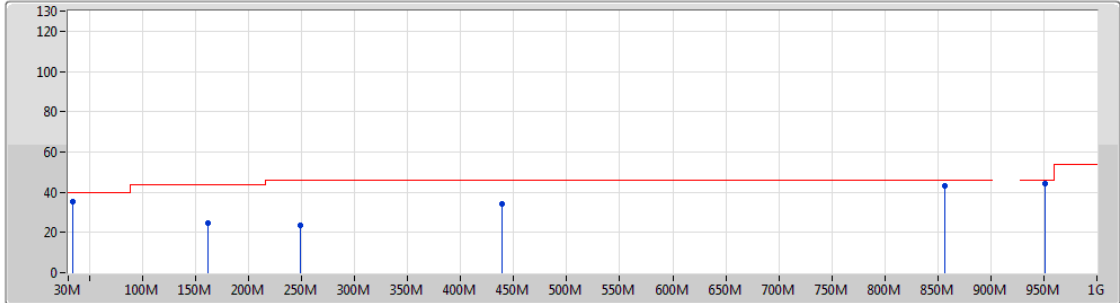
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
DSSS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
904MHz	Pass	PK	33.88M	35.36	40.00	-4.64	-15.32	3	Vertical	0	1.00	-
904MHz	Pass	PK	161.92M	24.79	43.50	-18.71	-20.11	3	Vertical	0	1.00	-
904MHz	Pass	PK	249.22M	23.44	46.00	-22.56	-17.26	3	Vertical	0	1.00	-
904MHz	Pass	PK	439.34M	34.23	46.00	-11.77	-13.05	3	Vertical	0	1.00	-
904MHz	Pass	PK	856.44M	43.01	46.00	-3.09	-7.01	3	Vertical	0	1.00	-
904MHz	Pass	QP	951.5M	44.30	46.00	-1.70	-4.77	3	Vertical	0	2.00	-
904MHz	Pass	PK	74.62M	25.12	40.00	-14.88	-24.77	3	Horizontal	0	1.00	-
904MHz	Pass	PK	181.32M	28.57	43.50	-14.93	-21.32	3	Horizontal	0	1.00	-
904MHz	Pass	PK	249.22M	24.68	46.00	-21.32	-17.26	3	Horizontal	0	1.00	-
904MHz	Pass	PK	439.34M	34.71	46.00	-11.29	-13.05	3	Horizontal	0	1.00	-
904MHz	Pass	PK	856.44M	42.93	46.00	-3.07	-7.01	3	Horizontal	0	1.00	-
904MHz	Pass	QP	951.5M	43.45	46.00	-2.55	-4.77	3	Horizontal	240	2.00	-
914MHz	Pass	PK	37.76M	36.83	40.00	-3.17	-17.22	3	Vertical	0	1.00	-
914MHz	Pass	PK	121.18M	30.70	43.50	-12.80	-19.26	3	Vertical	0	1.00	-
914MHz	Pass	PK	231.76M	39.53	46.00	-6.47	-19.58	3	Vertical	0	1.00	-
914MHz	Pass	PK	439.34M	34.90	46.00	-11.10	-13.05	3	Vertical	0	1.00	-
914MHz	Pass	PK	866.14M	39.51	46.00	-6.49	-6.97	3	Vertical	0	1.00	-
914MHz	Pass	PK	961.2M	47.86	54.00	-6.14	-4.53	3	Vertical	0	1.00	-
914MHz	Pass	PK	53.28M	28.53	40.00	-11.47	-23.72	3	Horizontal	360	1.00	-
914MHz	Pass	PK	123.12M	30.69	43.50	-12.81	-18.90	3	Horizontal	360	1.00	-
914MHz	Pass	PK	439.34M	33.56	46.00	-12.44	-12.51	3	Horizontal	360	1.00	-
914MHz	Pass	PK	672.14M	32.83	46.00	-13.17	-8.41	3	Horizontal	360	1.00	-
914MHz	Pass	PK	866.14M	41.38	46.00	-4.62	-4.95	3	Horizontal	360	1.00	-
914MHz	Pass	PK	963.14M	41.07	54.00	-12.93	-2.78	3	Horizontal	360	1.00	-
924MHz	Pass	PK	35.82M	36.63	40.00	-3.37	-16.28	3	Vertical	360	1.00	-
924MHz	Pass	PK	121.18M	31.50	43.50	-12.00	-19.26	3	Vertical	360	1.00	-
924MHz	Pass	PK	243.4M	38.16	46.00	-7.84	-18.13	3	Vertical	360	1.00	-
924MHz	Pass	PK	439.34M	35.70	46.00	-10.30	-13.05	3	Vertical	360	1.00	-
924MHz	Pass	PK	875.84M	37.02	46.00	-8.98	-6.98	3	Vertical	360	1.00	-
924MHz	Pass	PK	970.9M	49.91	54.00	-4.09	-4.58	3	Vertical	360	1.00	-
924MHz	Pass	PK	123.12M	36.11	43.50	-7.39	-18.90	3	Horizontal	0	1.00	-
924MHz	Pass	PK	282.2M	41.07	46.00	-4.93	-17.09	3	Horizontal	0	1.00	-
924MHz	Pass	PK	439.34M	34.59	46.00	-11.41	-12.51	3	Horizontal	0	1.00	-
924MHz	Pass	PK	677.96M	33.32	46.00	-12.68	-8.38	3	Horizontal	0	1.00	-
924MHz	Pass	PK	875.84M	39.01	46.00	-6.99	-4.96	3	Horizontal	0	1.00	-
924MHz	Pass	PK	970.9M	43.00	54.00	-11.00	-2.85	3	Horizontal	0	1.00	-



DSSS_Nss1_1TX

21/12/2018

904MHz_Adapter



Lim.PK
 PK
 Lim.AV
 AV

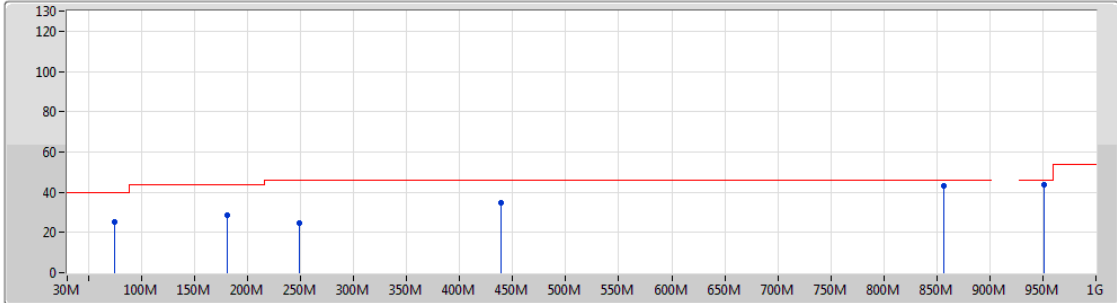
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	33.88M	35.36	40.00	-4.64	-15.32	3	Vertical	0	1.00	-
PK	161.92M	24.79	43.50	-18.71	-20.11	3	Vertical	0	1.00	-
PK	249.22M	23.44	46.00	-22.56	-17.26	3	Vertical	0	1.00	-
PK	439.34M	34.23	46.00	-11.77	-13.05	3	Vertical	0	1.00	-
PK	856.44M	43.01	46.00	-3.09	-7.01	3	Vertical	0	1.00	-
QP	951.5M	44.30	46.00	-1.70	-4.77	3	Vertical	0	2.00	-



DSSS_Nss1_1TX

21/12/2018

904MHz_Adapter



Lim.PK
 PK
 Lim.AV
 AV

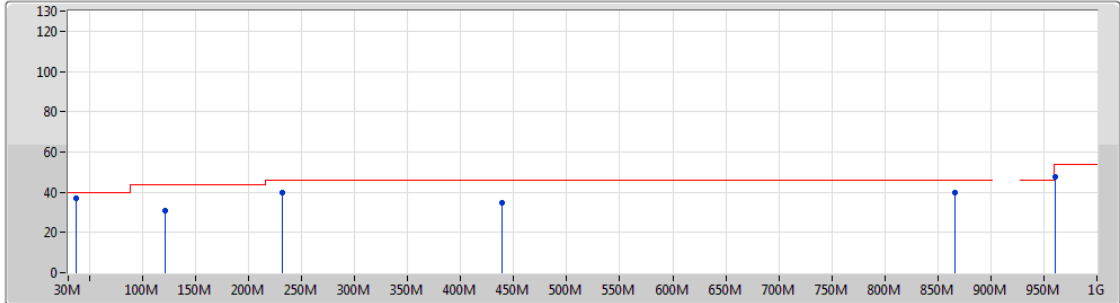
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	74.62M	25.12	40.00	-14.88	-24.77	3	Horizontal	0	1.00	-
PK	181.32M	28.57	43.50	-14.93	-21.32	3	Horizontal	0	1.00	-
PK	249.22M	24.68	46.00	-21.32	-17.26	3	Horizontal	0	1.00	-
PK	439.34M	34.71	46.00	-11.29	-13.05	3	Horizontal	0	1.00	-
PK	856.44M	42.93	46.00	-3.07	-7.01	3	Horizontal	0	1.00	-
QP	951.5M	43.45	46.00	-2.55	-4.77	3	Horizontal	240	2.00	-



DSSS_Nss1_1TX

21/12/2018

914MHz_Adapter



Lim.PK
 PK
 Lim.AV
 AV

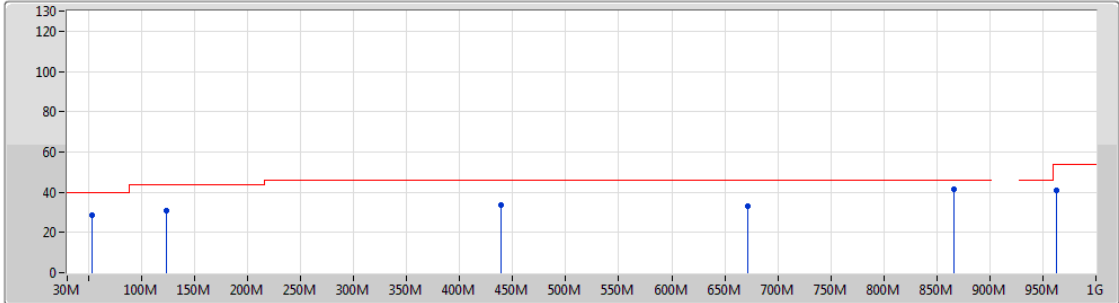
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	37.76M	36.83	40.00	-3.17	-17.22	3	Vertical	0	1.00	-
PK	121.18M	30.70	43.50	-12.80	-19.26	3	Vertical	0	1.00	-
PK	231.76M	39.53	46.00	-6.47	-19.58	3	Vertical	0	1.00	-
PK	439.34M	34.90	46.00	-11.10	-13.05	3	Vertical	0	1.00	-
PK	866.14M	39.51	46.00	-6.49	-6.97	3	Vertical	0	1.00	-
PK	961.2M	47.86	54.00	-6.14	-4.53	3	Vertical	0	1.00	-



DSSS_Nss1_1TX

21/12/2018

914MHz_Adapter



Legend for the plot:

- Lim.PK
- PK
- Lim.AV
- AV

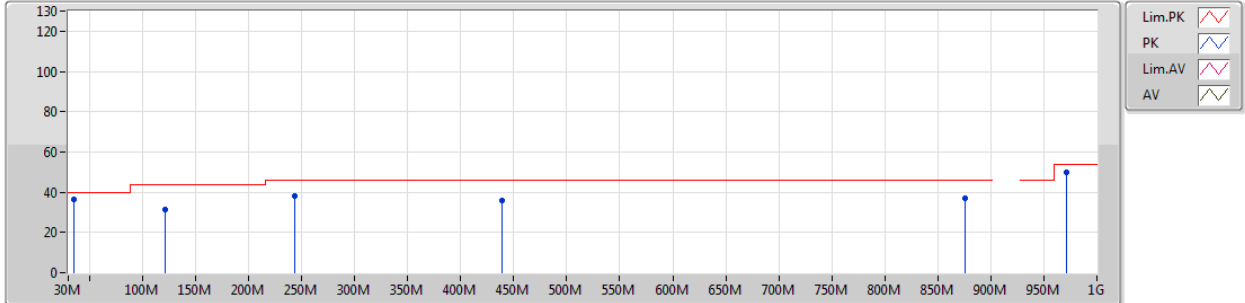
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	53.28M	28.53	40.00	-11.47	-23.72	3	Horizontal	360	1.00	-
PK	123.12M	30.69	43.50	-12.81	-18.90	3	Horizontal	360	1.00	-
PK	439.34M	33.56	46.00	-12.44	-12.51	3	Horizontal	360	1.00	-
PK	672.14M	32.83	46.00	-13.17	-8.41	3	Horizontal	360	1.00	-
PK	866.14M	41.38	46.00	-4.62	-4.95	3	Horizontal	360	1.00	-
PK	963.14M	41.07	54.00	-12.93	-2.78	3	Horizontal	360	1.00	-



DSSS_Nss1_1TX

21/12/2018

924MHz_Adapter



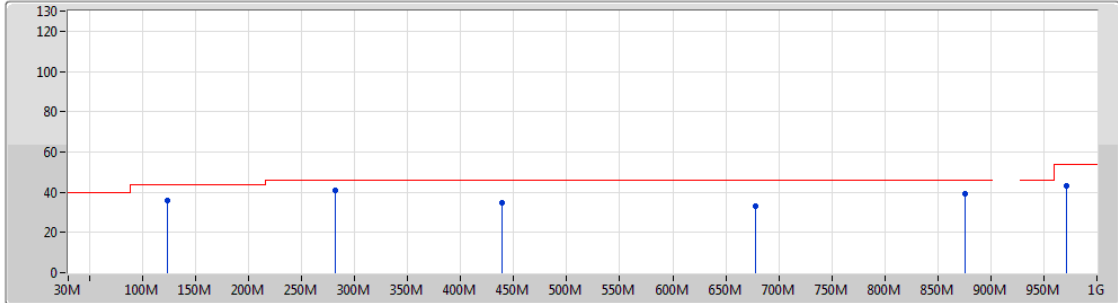
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	35.82M	36.63	40.00	-3.37	-16.28	3	Vertical	360	1.00	-
PK	121.18M	31.50	43.50	-12.00	-19.26	3	Vertical	360	1.00	-
PK	243.4M	38.16	46.00	-7.84	-18.13	3	Vertical	360	1.00	-
PK	439.34M	35.70	46.00	-10.30	-13.05	3	Vertical	360	1.00	-
PK	875.84M	37.02	46.00	-8.98	-6.98	3	Vertical	360	1.00	-
PK	970.9M	49.91	54.00	-4.09	-4.58	3	Vertical	360	1.00	-



DSSS_Nss1_1TX

21/12/2018

924MHz_Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	123.12M	36.11	43.50	-7.39	-18.90	3	Horizontal	0	1.00	-
PK	282.2M	41.07	46.00	-4.93	-17.09	3	Horizontal	0	1.00	-
PK	439.34M	34.59	46.00	-11.41	-12.51	3	Horizontal	0	1.00	-
PK	677.96M	33.32	46.00	-12.68	-8.38	3	Horizontal	0	1.00	-
PK	875.84M	39.01	46.00	-6.99	-4.96	3	Horizontal	0	1.00	-
PK	970.9M	43.00	54.00	-11.00	-2.85	3	Horizontal	0	1.00	-



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-
DSSS_Nss1_1TX	Pass	AV	1.808G	52.91	54.00	-1.09	-5.28	3	Horizontal	52	1.31	-



Result

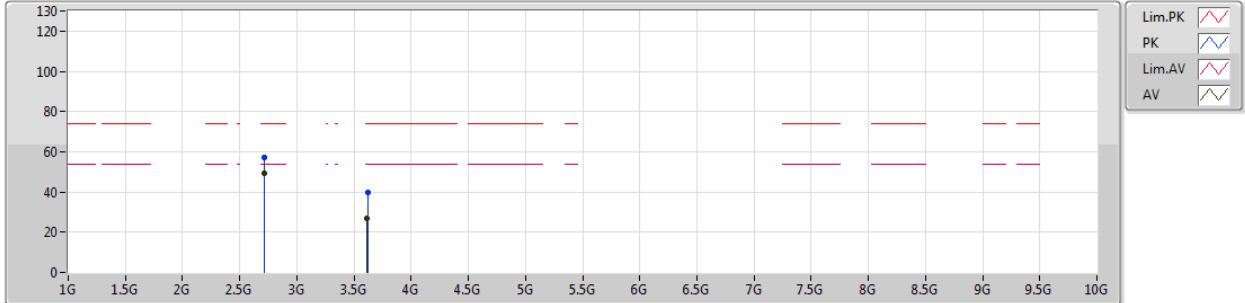
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
DSSS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
904MHz	Pass	AV	1.808G	52.83	54.00	-1.17	-5.28	3	Vertical	359	2.17	-
904MHz	Pass	AV	2.712G	49.14	54.00	-4.86	-2.76	3	Vertical	205	1.01	-
904MHz	Pass	PK	1.80764G	56.71	74.00	-17.29	-5.28	3	Vertical	359	2.17	-
904MHz	Pass	PK	2.7126G	57.13	74.00	-16.87	-2.75	3	Vertical	205	1.01	-
904MHz	Pass	AV	1.808G	52.91	54.00	-1.09	-5.28	3	Horizontal	52	1.31	-
904MHz	Pass	AV	2.712G	48.07	54.00	-5.93	-2.76	3	Horizontal	339	1.14	-
904MHz	Pass	PK	1.80764G	56.84	74.00	-17.16	-5.28	3	Horizontal	52	1.31	-
904MHz	Pass	PK	2.7114G	55.70	74.00	-18.30	-2.76	3	Horizontal	339	1.14	-
914MHz	Pass	AV	2.742G	46.99	54.00	-7.01	-2.69	3	Vertical	143	1.67	-
914MHz	Pass	AV	3.65516G	28.87	54.00	-25.13	-1.00	3	Vertical	189	1.92	-
914MHz	Pass	PK	2.7426G	55.79	74.00	-18.21	-2.68	3	Vertical	143	1.67	-
914MHz	Pass	PK	3.67082G	40.35	74.00	-33.65	-0.96	3	Vertical	189	1.92	-
914MHz	Pass	AV	2.742G	45.49	54.00	-8.51	-2.69	3	Horizontal	330	1.15	-
914MHz	Pass	AV	3.65528G	27.93	54.00	-26.07	-1.00	3	Horizontal	84	2.49	-
914MHz	Pass	PK	2.7426G	54.44	74.00	-19.56	-2.68	3	Horizontal	330	1.15	-
914MHz	Pass	PK	3.66302G	39.66	74.00	-34.34	-0.98	3	Horizontal	84	2.49	-
924MHz	Pass	AV	2.772G	47.71	54.00	-6.29	-2.61	3	Vertical	148	1.61	-
924MHz	Pass	AV	3.69522G	27.53	54.00	-26.47	-0.89	3	Vertical	200	1.03	-
924MHz	Pass	PK	2.77134G	56.63	74.00	-17.37	-2.61	3	Vertical	148	1.61	-
924MHz	Pass	PK	3.69552G	40.36	74.00	-33.64	-0.89	3	Vertical	200	1.03	-
924MHz	Pass	AV	2.772G	44.68	54.00	-9.32	-2.61	3	Horizontal	324	1.01	-
924MHz	Pass	AV	3.69672G	28.54	54.00	-25.46	-0.89	3	Horizontal	54	2.96	-
924MHz	Pass	PK	2.7714G	54.02	74.00	-19.98	-2.61	3	Horizontal	324	1.01	-
924MHz	Pass	PK	3.6966G	40.89	74.00	-33.11	-0.89	3	Horizontal	54	2.96	-



DSSS_Nss1_1TX

21/12/2018

904MHz_TX



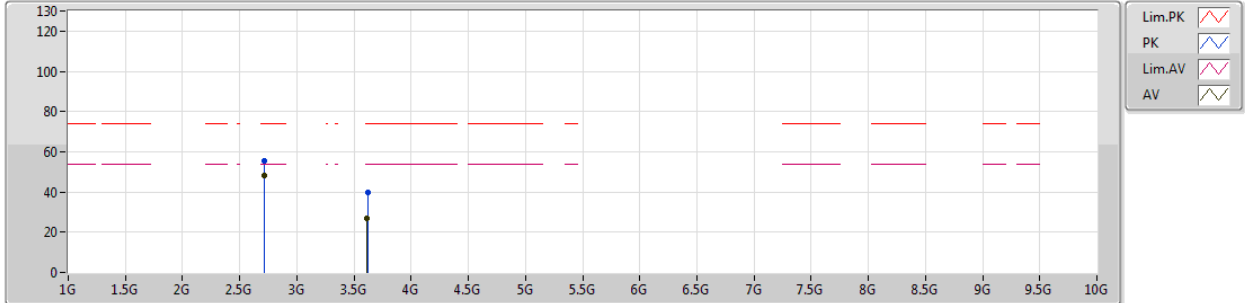
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.712G	49.14	54.00	-4.86	-2.76	3	Vertical	205	1.01	-
AV	3.61672G	26.68	54.00	-27.32	-1.10	3	Vertical	194	1.57	-
PK	2.7126G	57.13	74.00	-16.87	-2.75	3	Vertical	205	1.01	-
PK	3.62596G	39.71	74.00	-34.29	-1.07	3	Vertical	194	1.57	-



DSSS_Nss1_1TX

21/12/2018

904MHz_TX

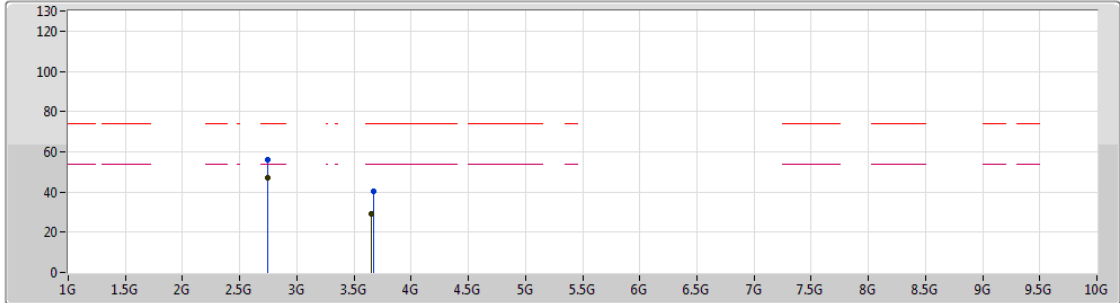


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.712G	48.07	54.00	-5.93	-2.76	3	Horizontal	339	1.14	-
AV	3.61666G	27.08	54.00	-26.92	-1.10	3	Horizontal	86	1.00	-
PK	2.7114G	55.70	74.00	-18.30	-2.76	3	Horizontal	339	1.14	-
PK	3.61864G	39.70	74.00	-34.30	-1.10	3	Horizontal	86	1.00	-



DSSS_Nss1_1TX

21/12/2018

914MHz_TX



Legend for plot:

- Lim.PK 
- PK 
- Lim.AV 
- AV 

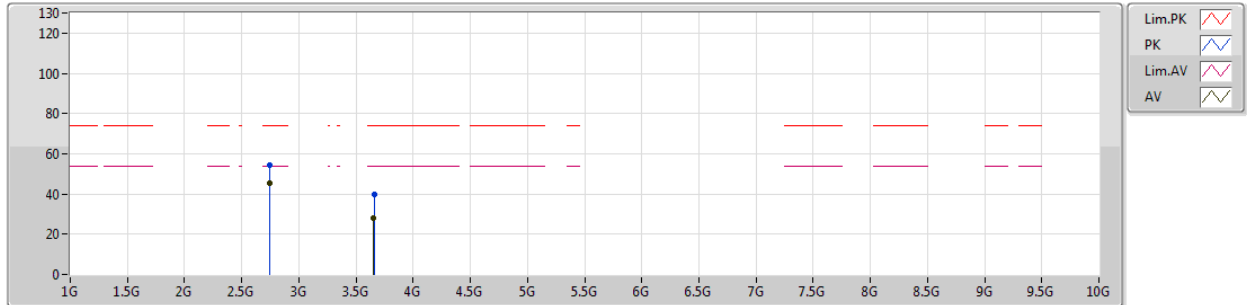
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.742G	46.99	54.00	-7.01	-2.69	3	Vertical	143	1.67	-
AV	3.65516G	28.87	54.00	-25.13	-1.00	3	Vertical	189	1.92	-
PK	2.7426G	55.79	74.00	-18.21	-2.68	3	Vertical	143	1.67	-
PK	3.67082G	40.35	74.00	-33.65	-0.96	3	Vertical	189	1.92	-



DSSS_Nss1_1TX

21/12/2018

914MHz_TX

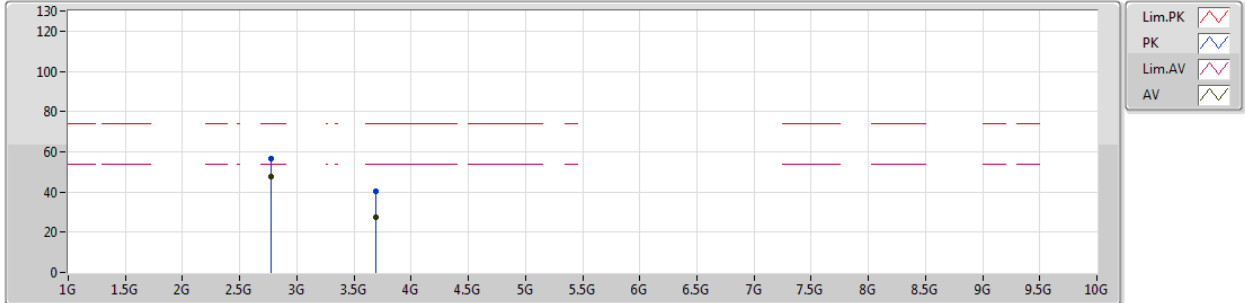


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.742G	45.49	54.00	-8.51	-2.69	3	Horizontal	330	1.15	-
AV	3.65528G	27.93	54.00	-26.07	-1.00	3	Horizontal	84	2.49	-
PK	2.7426G	54.44	74.00	-19.56	-2.68	3	Horizontal	330	1.15	-
PK	3.66302G	39.66	74.00	-34.34	-0.98	3	Horizontal	84	2.49	-

DSSS_Nss1_1TX

21/12/2018

924MHz_TX



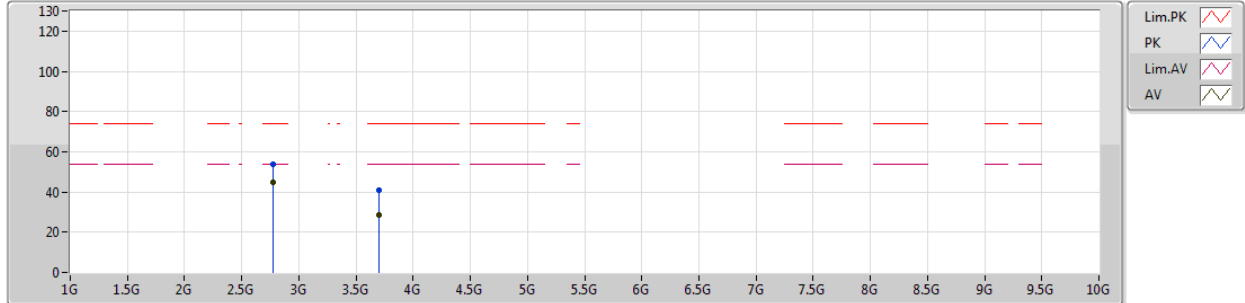
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.772G	47.71	54.00	-6.29	-2.61	3	Vertical	148	1.61	-
AV	3.69522G	27.53	54.00	-26.47	-0.89	3	Vertical	200	1.03	-
PK	2.77134G	56.63	74.00	-17.37	-2.61	3	Vertical	148	1.61	-
PK	3.69552G	40.36	74.00	-33.64	-0.89	3	Vertical	200	1.03	-



DSSS_Nss1_1TX

21/12/2018

924MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.772G	44.68	54.00	-9.32	-2.61	3	Horizontal	324	1.01	-
AV	3.69672G	28.54	54.00	-25.46	-0.89	3	Horizontal	54	2.96	-
PK	2.7714G	54.02	74.00	-19.98	-2.61	3	Horizontal	324	1.01	-
PK	3.6966G	40.89	74.00	-33.11	-0.89	3	Horizontal	54	2.96	-