

Report No.: SZEM171001055103

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TEST REPORT

Application No.: SZEM1710010551CR **Applicant:** Powervision Tech Inc.

Address of Applicant: Fifth floor, Building NO.33 YUNGU park, No.79 SHUANGYING west road,

Technology Park, Changping District, Beijing

Manufacturer: Powervision Tech Inc.

Address of Manufacturer: Fifth floor, Building NO.33 YUNGU park, No.79 SHUANGYING west road,

Technology Park, Changping District, Beijing

Factory: Powervision Tech Inc.

Address of Factory: Fifth floor, Building NO.33 YUNGU park, No.79 SHUANGYING west road,

Technology Park, Changping District, Beijing

Equipment Under Test (EUT):

EUT Name: Remote Controller **Model No.:** PRC10, PRC20♣

Please refer to section 2 of this report which indicates which model was

actually tested and which were electrically identical.

Trade mark: PowerVision
Trade mark: 2AKBMPRC10

Standard(s): 47 CFR Part 15, Subpart E 15.407

Date of Receipt: 2017-10-11

Date of Test: 2018-11-03 to 2019-01-08

Date of Issue: 2019-01-10

Test Result: Pass*

Keny Xu EMC Laboratory Manager

Ceny. Ku



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^{*} In the configuration tested, the EUT complied with the standards specified above.



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	Revision Record						
Version	Chapter	Date	Modifier	Remark			
01		2019-01-10		Original			

Authorized for issue by:		
	Hank Yan	
	Hank Yan /Project Engineer	-
	EvicFu	
	Eric Fu /Reviewer	



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Test Summary

Radio Spectrum Technical Requirement							
Item	Standard	Method	Requirement	Result			
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass			
Transmission in the Absence of Data	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.407 (c)	Pass			

N/A: Not applicable

Radio Spectrum Matter Part							
Item	Standard	Method	Requirement	Result			
99% Bandwidth	47 CFR Part 15, Subpart E 15.407	KDB 789033 II D	N/A	Pass			
Minimum 6 dB bandwidth (5.725- 5.85 GHz band)	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II C 2	' '				
Maximum Conducted output power	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II E	47 CFR Part 15, Subpart C 15.407 (a)	Pass			
Peak Power spectrum density	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II F	47 CFR Part 15, Subpart C 15.407 (a)	Pass			
Radiated Emissions	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass			
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass			
Frequency Stability	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart C 15.407 (g)	Pass			

N/A: Not applicable

Declaration of EUT Family Grouping:

Model No.: PRC10, PRC20

Only the model PRC10 was tested, since the electrical circuit design, layout, components used and internal wiring and functions were identical for the above models. The only difference is model number.



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General Information

4.1 Details of E.U.T.

Power supply:	DC 3.7V Li-ion Battery Battery charged by DC 5.0V via Micro-USB port.					
Operation Frequency:	Band	Frequency Range(MHz)	Number of channels			
	UNII Band III IEEE 802.11a		5745-5825	5		
		IEEE 802.11n 20MHz	5745-5825	5		
Modulation Type:	802.11a: OFDM (E	BPSK, QPSK, 16QAM, 64QA	AM)			
	802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM)					
Antenna Type	PCB Antenna					
Antenna Gain	3dBi					

Channel list for 802.11a/n(HT20)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745MHz	153	5765MHz	157	5785MHz	161	5805MHz
165	5825MHz						

Selected Test Channel for 802.11a/n(HT20)					
Band Channel Frequency					
U-NII Band III	The lowest channel (CH149)	5745MHz			
	The middle channel (CH157)	5785MHz			
	The highest channel (CH165)	5825MHz			



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4.2 Description of Support Units

The EUT has been tested as an independent unit.

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	± 7.25 x 10 ⁻⁸
2	Duty cycle	± 0.37%
3	Occupied Bandwidth	± 3%
4	RF conducted power	± 0.75dB
5	RF power density	± 2.84dB
6	Conducted Spurious emissions	± 0.75dB
7	DE Dadiated newer	± 4.5dB (below 1GHz)
/	RF Radiated power	± 4.8dB (above 1GHz)
8	Redicted Courieus emission test	± 4.5dB (Below 1GHz)
0	Radiated Spurious emission test	± 4.8dB (Above 1GHz)
9	Temperature test	± 1 ℃
10	Humidity test	± 3%
11	Supply voltages	± 1.5%
12	Time	± 3%



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4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

FCC –Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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Equipment List

99% Bandwidth							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2018-09-25	2019-09-24		
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2018-09-27	2019-09-26		
Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.	N/A	N/A	N/A		
Coaxial Cable	SGS	N/A	SEM031-02	2018-07-12	2019-07-11		
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A		
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2018-09-27	2019-09-26		
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2018-09-25	2019-09-24		

Minimum 6 dB bandwidth (5.725-5.85 GHz band)								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2018-09-25	2019-09-24			
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2018-09-27	2019-09-26			
Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.	N/A	N/A	N/A			
Coaxial Cable	SGS	N/A	SEM031-02	2018-07-12	2019-07-11			
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A			
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2018-09-27	2019-09-26			
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2018-09-25	2019-09-24			

Maximum Conducted output power											
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date						
DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2018-09-25	2019-09-24						
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2018-09-27	2019-09-26						
Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.	N/A	N/A	N/A						
Coaxial Cable	SGS	N/A	SEM031-02	2018-07-12	2019-07-11						
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A						
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2018-09-27	2019-09-26						
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2018-09-25	2019-09-24						

Peak Power spectrum density											
Equipment	Cal Date	Cal Due Date									
DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2018-09-25	2019-09-24						
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2018-09-27	2019-09-26						



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Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-02	2018-07-12	2019-07-11
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A
Signal Generator	Signal Generator KEYSIGHT		SEM006-05	2018-09-27	2019-09-26
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2018-09-25	2019-09-24

Radiated Emissions which fall in the restricted bands										
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date					
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018-03-13	2021-03-12					
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A					
Coaxial Cable	SGS	N/A	SEM026-01	2018-07-12	2019-07-11					
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2018-04-02	2019-04-01					
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017-06-27	2020-06-26					
Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2018-04-13	2021-04-12					
Horn Antenna (15GHz-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017-10-17	2020-10-16					
Pre-amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2018-09-25	2019-09-24					
Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEM004-11	2018-09-27	2019-09-26					
Pre-amplifier(18-26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2018-04-02	2019-04-01					
Pre-amplifier (26GHz-40GHz) Compliance Directions Systems Inc.		PAP-2640-50	SEM005-08	2018-04-02	2019-04-01					
DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2018-09-25	2019-09-24					
Active Loop Antenna	ETS-Lindgren	6502	SEM003-08	2017-08-22	2020-08-21					
Band filter	N/A	N/A	SEM023-01	N/A	N/A					



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Radiated Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018-03-13	2021-03-12
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2018-07-12	2019-07-11
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2018-04-02	2019-04-01
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017-06-27	2020-06-26
Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907 SEM003-07		2018-04-13	2021-04-12
Horn Antenna (15GHz-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017-10-17	2020-10-16
Pre-amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2018-09-25	2019-09-24
Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEM004-11	2018-09-27	2019-09-26
Pre-amplifier(18-26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2018-04-02	2019-04-01
Pre-amplifier (26GHz-40GHz)	I Directions Systems		SEM005-08	2018-04-02	2019-04-01
DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2018-09-25	2019-09-24
Active Loop Antenna	ETS-Lindgren	6502	SEM003-08	2017-08-22	2020-08-21
Band filter	N/A	N/A	SEM023-01	N/A	N/A

Radiated Spurious Emissions											
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date						
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2017-08-05	2020-08-04						
MXE EMI Receiver (20Hz-8.4GHz)	Agilent Technologies	N9038A	SEM004-05	2018-09-25	2019-09-24						
BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEM003-01	2017-06-27	2020-06-26						
Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEM005-01	2018-04-02	2019-04-01						
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A						
Coaxial Cable	SGS	N/A	SEM025-01	2018-07-12	2019-07-11						



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General used equipmen	t				
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-03	2018-09-27	2019-09-26
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-04	2018-09-27	2019-09-26
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2018-09-27	2019-09-26
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2018-04-08	2019-04-07



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Radio Spectrum Technical Requirement 6

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best-case gain of the antenna is 3dBi.

Antenna location: Refer to Internal photos.





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6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (c)

6.2.2 Conclusion

Standard Requirement:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information, or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

Applicants shall include in their application for equipment authorization a description of how this requirement is met.

EUT Details:

WIFI chip (AR9342) support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detects absence of information to transmit or operational failure, it will be automatically shut off.



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Radio Spectrum Matter Test Results

7.1 99% Bandwidth

Test Requirement N/A

Test Method: KDB 789033 II D

7.1.1 E.U.T. Operation

Operating Environment:

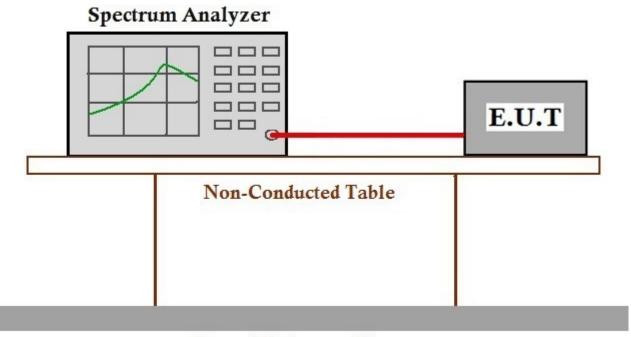
Temperature: Atmospheric Pressure: 1010 mbar Humidity: 55 % RH

Test mode a:TX mode (Band 3)_Keep the EUT in continuously transmitting mode with all

modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is

recorded in the report.

7.1.2 Test Setup Diagram



Ground Reference Plane

7.1.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.407



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7.2 Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart C 15.407 (e)

Test Method: KDB 789033 D02 II C 2

Limit: ≥500 kHz

7.2.1 E.U.T. Operation

Operating Environment:

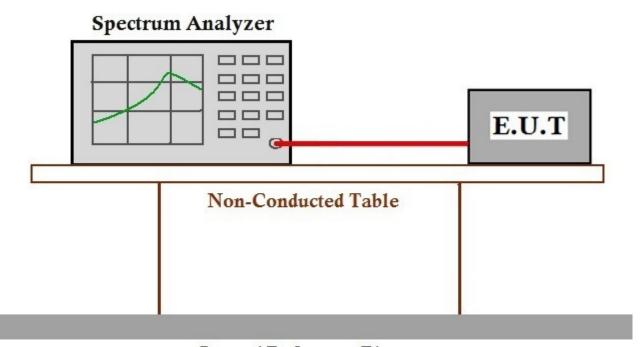
Temperature: 25 °C Humidity: 55 % RH Atmospheric Pressure: 1010 mbar

Test mode a:TX mode (Band 3) Keep the EUT in continuously transmitting mode with all

modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is

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7.2.2 Test Setup Diagram



Ground Reference Plane

7.2.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.407



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7.3 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

Frequenc	y band(MHz)	Limit				
5150 5	250	≤1W(30dBm) for master device				
5150-5	250	≤250mW(24dBm) for client device				
5250-5	350	≤250mW(24dBm) for client device or 11dBm+10logB*				
5470-5	725	≤250mW(24dBm) for client device or 11dBm+10logB*				
5725-5	850	≤1W(30dBm)				
Remark:	* Where B is tl	ne 26dB emission bandwidth in MHz.				
		n conducted output power must be measured over any interval of unsmission using instrumentation calibrated in terms of an rms-equivalent				





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7.3.1 E.U.T. Operation

Operating Environment:

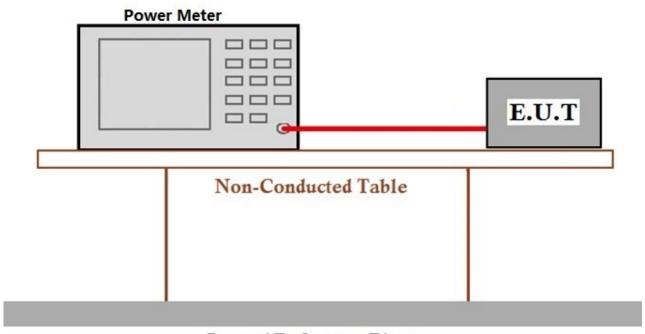
Atmospheric Pressure: 1010 mbar Temperature: Humidity: 55 % RH

Test mode a:TX mode (Band 3) Keep the EUT in continuously transmitting mode with all

> modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is

recorded in the report.

7.3.2 Test Setup Diagram



Ground Reference Plane

7.3.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.407



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7.4 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II F

Limit:

Frequenc	y band(MHz)	Limit				
E150 5	:0E0	≤17dBm in 1MHz for master device				
5150-5	0250	≤11dBm in 1MHz for client device				
5250-5	350	≤11dBm in 1MHz for client device				
5470-5	725	≤11dBm in 1MHz for client device				
5725-5	850	≤30dBm in 500 kHz				
Remark:		power spectral density is measured as a conducted emission by direct a calibrated test instrument to the equipment under test.				



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7.4.1 E.U.T. Operation

Operating Environment:

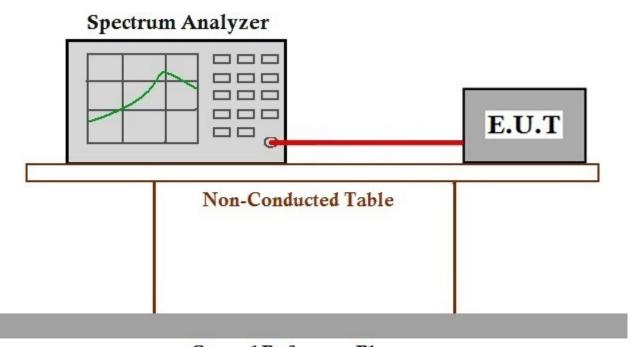
Temperature: Humidity: 55 % RH Atmospheric Pressure: 1010 mbar

Test mode a:TX mode (Band 3) Keep the EUT in continuously transmitting mode with all

> modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is

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7.4.2 Test Setup Diagram



Ground Reference Plane

7.4.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.407



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7.5 Radiated Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.407(b)

Test Method: KDB 789033 D02 II G

Measurement Distance: 3m

7.5.1 E.U.T. Operation

Operating Environment:

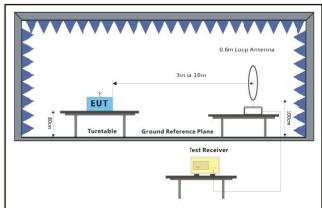
Temperature: 23.5 °C Humidity: 70.1 % RH Atmospheric Pressure: 1020 mbar

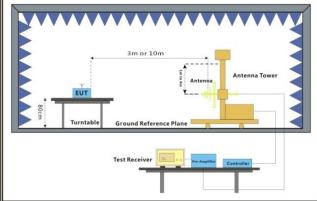
Test mode a:TX mode (Band 3)_Keep the EUT in continuously transmitting mode with all

modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is

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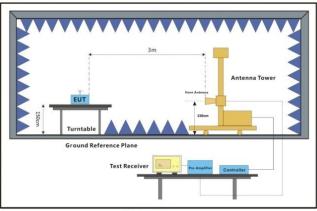
7.5.2 Test Setup Diagram





Below 30MHz

30MHz-1GHz



Above 1GHz



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7.5.3 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
- 3. Scan from 9kHz to 40GHz, the disturbance above 18GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 4. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



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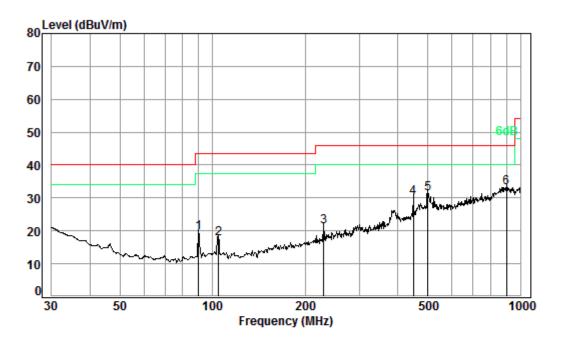


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30MHz~1GHz (QP value):

Mode:a; Polarization:Horizontal; Modulation:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL Job No. : 10551CR/10552CR

Test mode: a

			Ant Preamp Factor Factor					
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	90.22	1.10	13.12	27.36	32.51	19.37	43.50	-24.13
2	104.54	1.21	13.78	27.32	30.02	17.69	43.50	-25.81
3	230.10	1.57	18.03	26.81	28.61	21.40	46.00	-24.60
4	449.56	2.41	23.55	27.40	31.50	30.06	46.00	-15.94
5	501.18	2.60	24.63	27.61	31.66	31.28	46.00	-14.72
6 pp	900.15	3.60	29.80	27.05	26.86	33.21	46.00	-12.79



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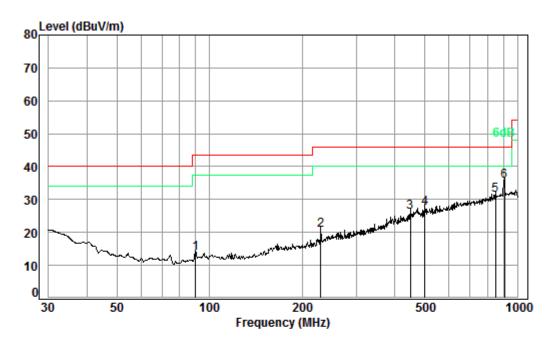
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Mode:a; Polarization:Vertical; Modulation:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL Job No. : 10551CR/10552CR

Test mode: a

		Cable	Ant	Preamp	Read		Limit	0ver
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	90.22	1.10	13.12	27.36	26.84	13.70	43.50	-29.80
2	230.10	1.57	18.03	26.81	27.98	20.77	46.00	-25.23
3	449.56	2.41	23.55	27.40	27.56	26.12	46.00	-19.88
4	501.18	2.60	24.63	27.61	27.84	27.46	46.00	-18.54
5	848.06	3.40	29.14	27.35	26.18	31.37	46.00	-14.63
6 p	p 906.48	3.61	29.83	27.02	29.11	35.53	46.00	-10.47



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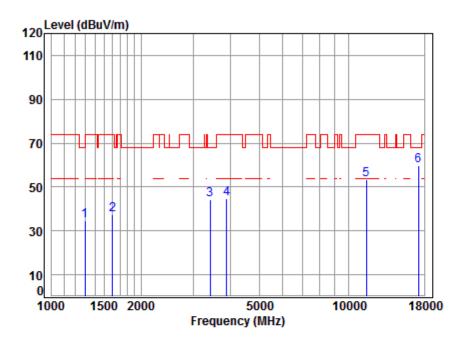


Report No.: SZEM171001055103

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Above 1GHz

Mode:a; Polarization:Horizontal; Modulation:802.11a; bandwidth:20MHz; Channel:Low



Site : chamber

Condition: 3m HORIZONTAL Job No : 10551CR/10552CR

Mode : 5745 TX RSE Note : 5G WIFI 11A

	Cable	Ant	Preamp	Read		Limit	0ver	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1297.103	4.79	25.01	40.56	45.50	34.74	68.20	-33.46	peak
1601.804	5.35	26.26	40.77	46.60	37.44	74.00	-36.56	peak
3415.787	6.38	31.57	42.01	48.14	44.08	68.20	-24.12	peak
3890.255	6.87	32.49	42.62	47.98	44.72	74.00	-29.28	peak
11490.000	12.13	37.90	38.49	41.78	53.32	74.00	-20.68	peak
17235.000	16.18	42.74	40.32	41.01	59.61	68.20	-8.59	peak
	MHz 1297.103 1601.804 3415.787 3890.255 11490.000	Freq Loss MHz dB 1297.103 4.79 1601.804 5.35 3415.787 6.38 3890.255 6.87 11490.000 12.13	Freq Loss Factor MHz dB dB/m 1297.103 4.79 25.01 1601.804 5.35 26.26 3415.787 6.38 31.57 3890.255 6.87 32.49 11490.000 12.13 37.90	Freq Loss Factor Factor MHz dB dB/m dB 1297.103 4.79 25.01 40.56 1601.804 5.35 26.26 40.77 3415.787 6.38 31.57 42.01 3890.255 6.87 32.49 42.62 11490.000 12.13 37.90 38.49	Freq Loss Factor Factor Level MHz dB dB/m dB dBuV 1297.103 4.79 25.01 40.56 45.50 1601.804 5.35 26.26 40.77 46.60 3415.787 6.38 31.57 42.01 48.14 3890.255 6.87 32.49 42.62 47.98 11490.000 12.13 37.90 38.49 41.78	Freq Loss Factor Factor Level Level MHz dB dB/m Level Level MHz dB dBuV dBuV/m 1297.103 4.79 25.01 40.56 45.50 34.74 1601.804 5.35 26.26 40.77 46.60 37.44 3415.787 6.38 31.57 42.01 48.14 44.08 3890.255 6.87 32.49 42.62 47.98 44.72 11490.000 12.13 37.90 38.49 41.78 53.32	Freq Loss Factor Factor Level Level Level Line MHz dB dB/m dB dBuV dBuV/m dBuV/m 1297.103 4.79 25.01 40.56 45.50 34.74 68.20 1601.804 5.35 26.26 40.77 46.60 37.44 74.00 3415.787 6.38 31.57 42.01 48.14 44.08 68.20 3890.255 6.87 32.49 42.62 47.98 44.72 74.00 11490.000 12.13 37.90 38.49 41.78 53.32 74.00	Cable Ant Preamp Read Limit Over Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m dBuV/m dB 1297.103 4.79 25.01 40.56 45.50 34.74 68.20 -33.46 1601.804 5.35 26.26 40.77 46.60 37.44 74.00 -36.56 3415.787 6.38 31.57 42.01 48.14 44.08 68.20 -24.12 3890.255 6.87 32.49 42.62 47.98 44.72 74.00 -29.28 11490.000 12.13 37.90 38.49 41.78 53.32 74.00 -20.68 17235.000 16.18 42.74 40.32 41.01 59.61 68.20 -8.59



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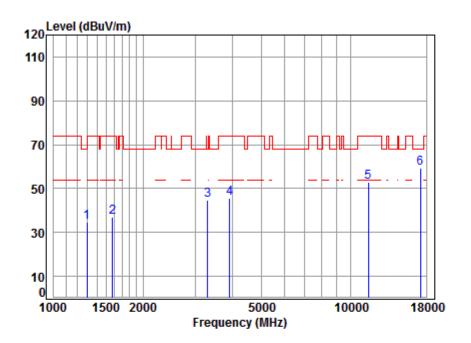
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Report No.: SZEM171001055103

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Mode:a; Polarization:Vertical; Modulation:802.11a; bandwidth:20MHz; Channel:Low



Site : chamber Condition: 3m VERTICAL

Job No : 10551CR/10552CR

Mode : 5745 TX RSE Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1297.103	4.79	25.01	40.56	45.57	34.81	68.20	-33.39	peak
2	1578.822	5.38	26.16	40.76	46.40	37.18	74.00	-36.82	peak
3	3308.894	6.29	31.41	41.86	48.77	44.61	68.20	-23.59	peak
4	3924.135	6.91	32.56	42.66	48.70	45.51	74.00	-28.49	peak
5	11490.000	12.13	37.90	38.49	41.28	52.82	74.00	-21.18	peak
6	17235.000	16.18	42.74	40.32	40.92	59.52	68.20	-8.68	peak



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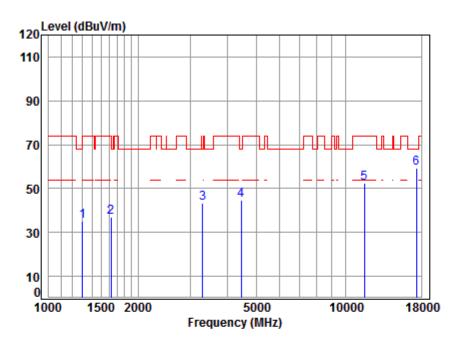
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Report No.: SZEM171001055103

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Mode:a; Polarization:Horizontal; Modulation:802.11a; bandwidth:20MHz; Channel:middle



Site : chamber

Condition: 3m HORIZONTAL Job No : 10551CR/10552CR

: 5785 TX RSE Mode Note : 5G WIFI 11A

IO CC	. 50	MATI T	117						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1300.858	4.80	25.03	40.56	46.05	35.32	74.00	-38.68	peak
2	1620.431	5.32	26.34	40.78	46.09	36.97	74.00	-37.03	peak
3	3308.894	6.29	31.41	41.86	47.67	43.51	68.20	-24.69	peak
4	4456.315	7.51	33.53	43.26	46.94	44.72	68.20	-23.48	peak
5	11570.000	12.17	37.87	38.52	40.93	52.45	74.00	-21.55	peak
6	17355.000	15.92	42.81	40.30	40.78	59.21	68.20	-8.99	peak



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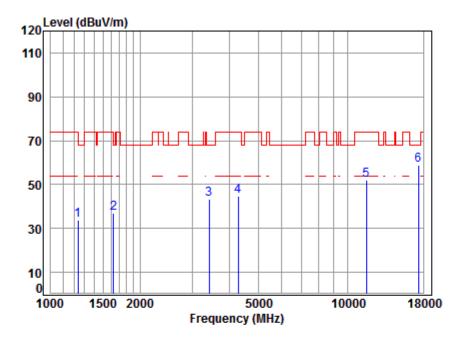
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Report No.: SZEM171001055103

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Mode:a; Polarization:Vertical; Modulation:802.11a; bandwidth:20MHz; Channel:middle



Site : chamber Condition: 3m VERTICAL

Job No : 10551CR/10552CR

Mode : 5785 TX RSE Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1238.483	4.57	24.76	40.51	44.94	33.76	74.00	-40.24	peak
2	1629.825	5.31	26.38	40.79	46.14	37.04	68.20	-31.16	peak
3	3415.787	6.38	31.57	42.01	47.63	43.57	68.20	-24.63	peak
4	4279.589	7.31	33.22	43.07	47.06	44.52	74.00	-29.48	peak
5	11570.000	12.17	37.87	38.52	40.54	52.06	74.00	-21.94	peak
6	17355.000	15.92	42.81	40.30	40.37	58.80	68.20	-9.40	peak



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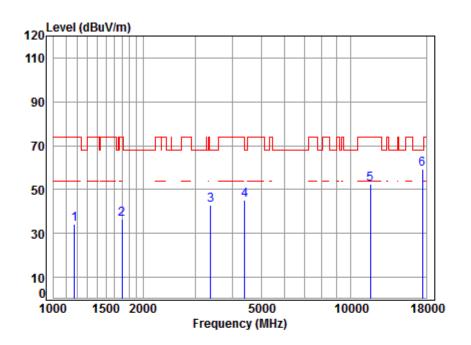
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Mode:a; Polarization:Horizontal; Modulation:802.11a; bandwidth:20MHz; Channel:High



Site : chamber

Condition: 3m HORIZONTAL Job No : 10551CR/10552CR

: 5825 TX RSE Mode Note : 5G WTFT 11A

iore	. 50	MILI	IIA						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1175.697	4.32	24.48	40.46	46.04	34.38	74.00	-39.62	peak
2	1697.129	5.23	26.66	40.83	45.62	36.68	74.00	-37.32	peak
3	3376.523	6.35	31.51	41.96	46.97	42.87	68.20	-25.33	peak
4	4405.090	7.46	33.44	43.20	47.56	45.26	68.20	-22.94	peak
5	11650.000	12.20	37.84	38.55	40.91	52.40	74.00	-21.60	peak
6	17475.000	15.65	42.89	40.28	41.13	59.39	68.20	-8.81	peak



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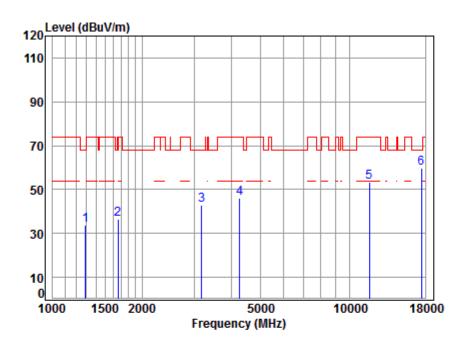
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Report No.: SZEM171001055103

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Mode:a; Polarization: Vertical; Modulation: 802.11a; bandwidth: 20MHz; Channel: High



Site : chamber Condition: 3m VERTICAL

Job No : 10551CR/10552CR

Mode : 5825 TX RSE Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1289.627	4.76	24.98	40.55	44.39	33.58	68.20	-34.62	peak
2	1663.137	5.27	26.52	40.81	45.67	36.65	74.00	-37.35	peak
3	3177.672	6.16	31.20	41.67	47.30	42.99	68.20	-25.21	peak
4	4267.237	7.30	33.19	43.06	48.67	46.10	74.00	-27.90	peak
5	11650.000	12.20	37.84	38.55	41.75	53.24	74.00	-20.76	peak
6	17475.000	15.65	42.89	40.28	41.38	59.64	68.20	-8.56	peak



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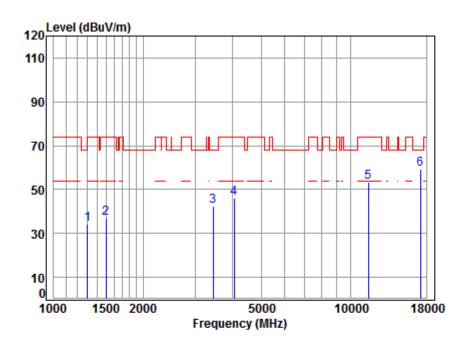
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Mode:a; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:Low



Site : chamber

Condition: 3m HORIZONTAL Job No : 10551CR/10552CR

Mode : 5745 TX RSE Note : 5G WIFI 11N20

			11.11						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1300.858	4.80	25.03	40.56	45.11	34.38	74.00	-39.62	peak
2	1498.781	5.48	25.80	40.71	46.53	37.10	74.00	-36.90	peak
3	3445.535	6.41	31.62	42.05	46.64	42.62	68.20	-25.58	peak
4	4062.629	7.06	32.82	42.82	48.84	45.90	74.00	-28.10	peak
5	11490.000	12.13	37.90	38.49	41.85	53.39	74.00	-20.61	peak
6	17235.000	16.18	42.74	40.32	40.83	59.43	68.20	-8.77	peak



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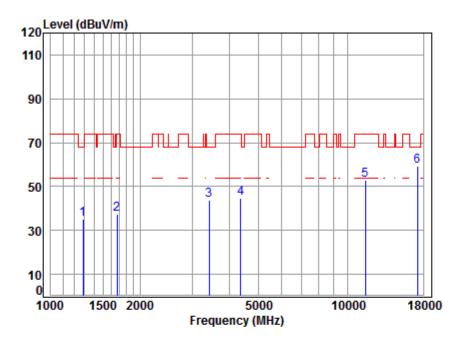
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Report No.: SZEM171001055103

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Mode:a; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:Low



Site : chamber Condition: 3m VERTICAL

Job No : 10551CR/10552CR

Mode : 5745 TX RSE Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1285.904	4.75	24.96	40.55	46.14	35.30	68.20	-32.90	peak
2	1672.779	5.26	26.56	40.82	46.47	37.47	74.00	-36.53	peak
3	3425.675	6.39	31.59	42.02	47.86	43.82	68.20	-24.38	peak
4	4367.058	7.41	33.37	43.16	47.05	44.67	74.00	-29.33	peak
5	11490.000	12.13	37.90	38.49	41.35	52.89	74.00	-21.11	peak
6	17235.000	16.18	42.74	40.32	40.84	59.44	68.20	-8.76	peak



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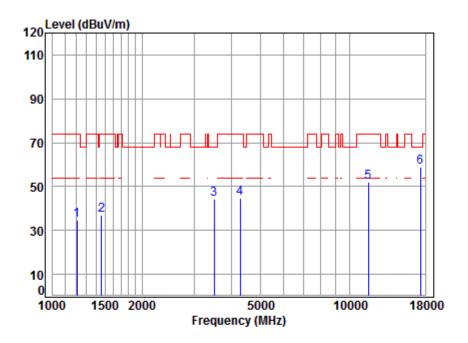
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Mode:a; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:middle



Site : chamber

Condition: 3m HORIZONTAL Job No : 10551CR/10552CR

Mode : 5785 TX RSE Note : 5G WIFI 11N20

		****	111120						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1206.682	4.44	24.62	40.49	46.06	34.63	74.00	-39.37	peak
2	1460.295	5.35	25.65	40.68	46.76	37.08	74.00	-36.92	peak
3	3495.691	6.46	31.69	42.12	48.24	44.27	68.20	-23.93	peak
4	4291.977	7.33	33.24	43.08	47.45	44.94	74.00	-29.06	peak
5	11570.000	12.17	37.87	38.52	40.69	52.21	74.00	-21.79	peak
6	17355.000	15.92	42.81	40.30	40.52	58.95	68.20	-9.25	peak



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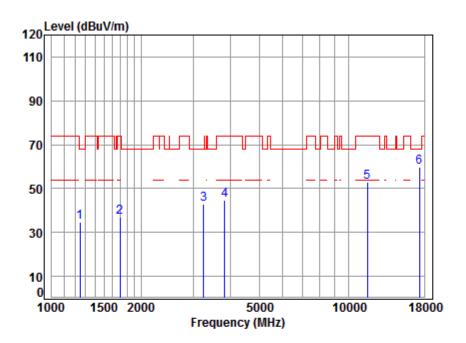
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Mode:a; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:middle



Site : chamber Condition: 3m VERTICAL

Job No : 10551CR/10552CR

Mode : 5785 TX RSE Note : 5G WIFI 11N20

		****	111120						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1245.663	4.60	24.79	40.52	45.83	34.70	68.20	-33.50	peak
2	1697.129	5.23	26.66	40.83	46.00	37.06	74.00	-36.94	peak
3	3252.005	6.23	31.32	41.78	47.17	42.94	68.20	-25.26	peak
4	3834.438	6.82	32.38	42.55	48.07	44.72	74.00	-29.28	peak
5	11570.000	12.17	37.87	38.52	41.39	52.91	74.00	-21.09	peak
6	17355.000	15.92	42.81	40.30	41.20	59.63	68.20	-8.57	peak



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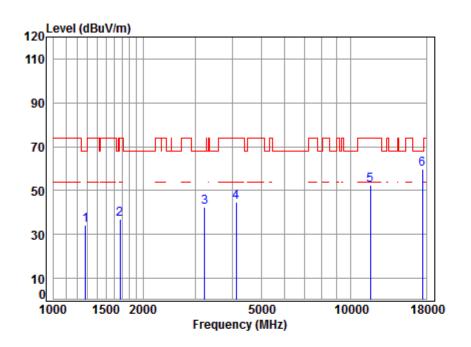
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Mode:a; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:High



Site : chamber

Condition: 3m HORIZONTAL Job No : 10551CR/10552CR

Mode : 5825 TX RSE Note : 5G WIFI 11N20

			11.11						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1278.492	4.72	24.93	40.55	45.03	34.13	68.20	-34.07	peak
2	1672.779	5.26	26.56	40.82	45.91	36.91	74.00	-37.09	peak
3	3223.928	6.20	31.27	41.74	46.73	42.46	68.20	-25.74	peak
4	4121.768	7.13	32.93	42.89	47.50	44.67	74.00	-29.33	peak
5	11650.000	12.20	37.84	38.55	40.93	52.42	74.00	-21.58	peak
6	17475.000	15.65	42.89	40.28	41.33	59.59	68.20	-8.61	peak



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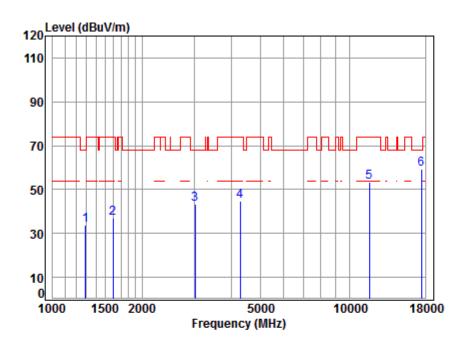
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Mode:a; Polarization: Vertical; Modulation: 802.11n; bandwidth: 20MHz; Channel: High



Site : chamber Condition: 3m VERTICAL

Job No : 10551CR/10552CR

: 5825 TX RSE Mode Note : 5G WIFI 11N20

IO CC	. 50	AATI T	111120						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1289.627	4.76	24.98	40.55	44.38	33.57	68.20	-34.63	peak
2	1597.181	5.35	26.24	40.77	46.15	36.97	74.00	-37.03	peak
3	3016.575	6.00	30.93	41.43	47.90	43.40	68.20	-24.80	peak
4	4291.977	7.33	33.24	43.08	47.31	44.80	74.00	-29.20	peak
5	11650.000	12.20	37.84	38.55	41.78	53.27	74.00	-20.73	peak
6	17475.000	15.65	42.89	40.28	41.23	59.49	68.20	-8.71	peak



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7.6 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15. Subpart C 15.209 & 15.407(b)

Test Method: KDB 789033 D02 II G

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.





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7.6.1 E.U.T. Operation

Operating Environment:

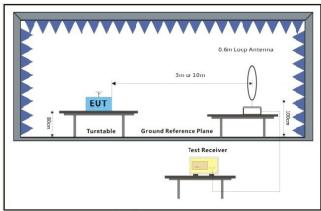
Temperature: 21.2 °C Humidity: 50.7 % RH Atmospheric Pressure: 1020 mbar

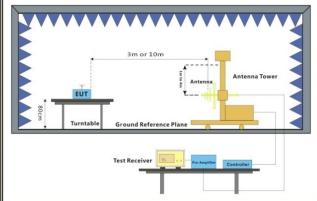
a:TX mode (Band 3) Keep the EUT in continuously transmitting mode with all Test mode

modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is

recorded in the report.

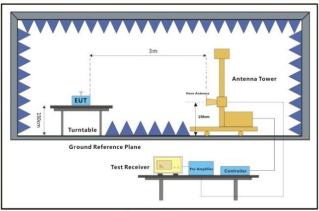
7.6.2 Test Setup Diagram





Below 30MHz

30MHz-1GHz



Above 1GHz



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7.6.3 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

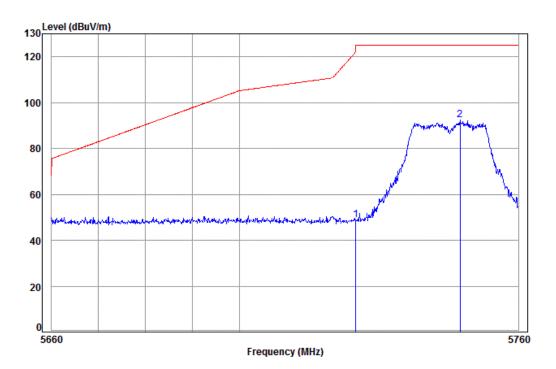




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Mode:a; Polarization:Horizontal; Modulation:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL Job No : 10551CR/10552CR : 5745 Band edge Mode:

Freq			Preamp Factor					Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
5725.000 5747.404								



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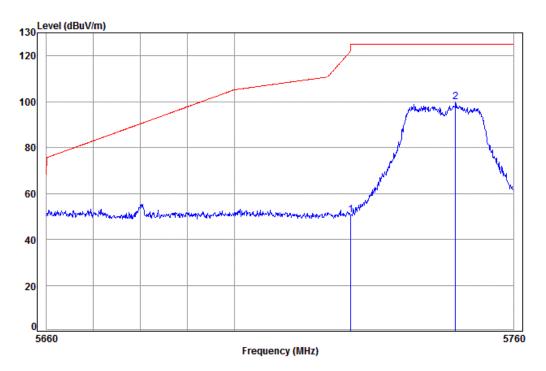
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Mode:a; Polarization:Vertical; Modulation:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL Job No : 10551CR/10552CR Mode: : 5745 Band edge

Freq			Preamp Factor					Remark	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
5725.000 5747.505									



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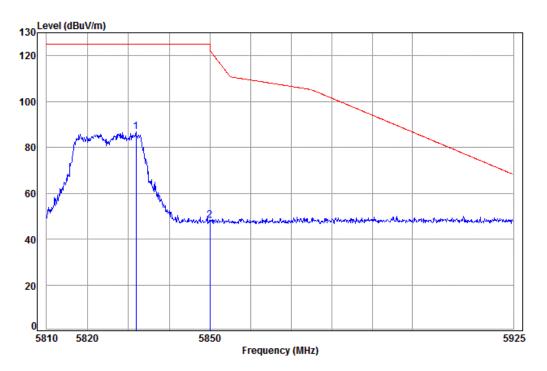
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Mode:a; Polarization:Horizontal; Modulation:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL Job No : 10551CR/10552CR Mode: : 5825 Band edge

Freq			Preamp Factor					Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
 5831.905 5850.000								



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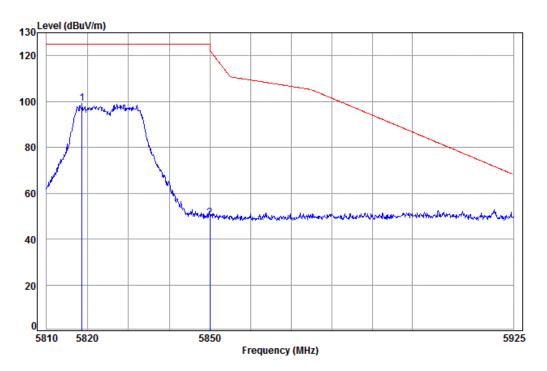
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Mode:a; Polarization:Vertical; Modulation:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL Job No : 10551CR/10552CR Mode: : 5825 Band edge

Freq			Preamp Factor					Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
 5818.661 5850.000								



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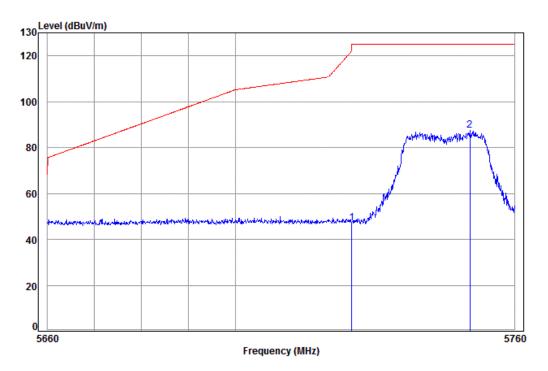
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Mode:a; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL Job No : 10551CR/10552CR Mode: : 5745 Band edge

Freq			Preamp Factor					Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
5725.000 5750.424								



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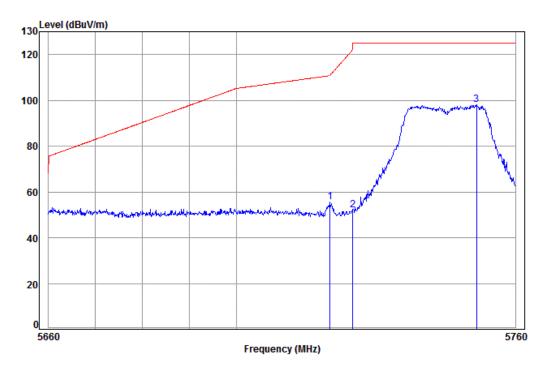
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Mode:a; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL Job No : 10551CR/10552CR Mode: : 5745 Band edge

	Freq			Preamp Factor					Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 2 3 pp	5720.090 5725.000 5751.633	8.48	34.54	39.03	48.02	52.01	122.20	-70.19	



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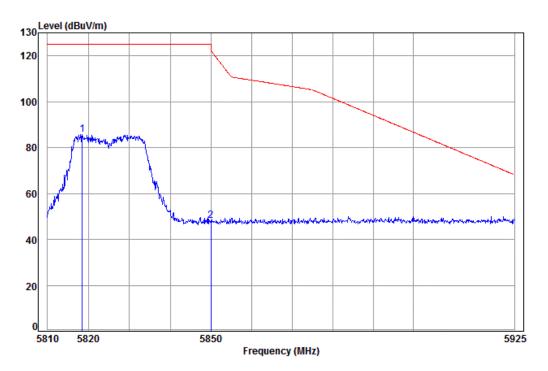
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Mode:a; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL Job No : 10551CR/10552CR Mode: : 5825 Band edge

Freq			Preamp Factor					Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
 5818.433 5850.000								



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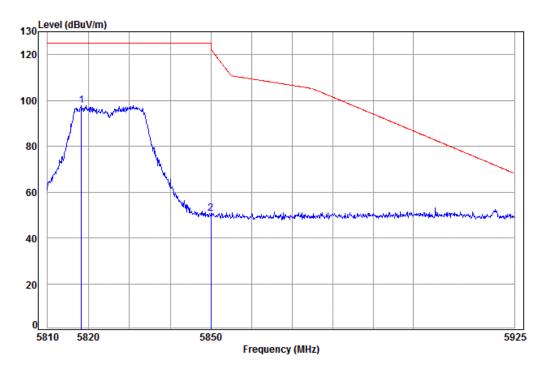
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Mode:a; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL Job No : 10551CR/10552CR Mode: : 5825 Band edge

Freq			Preamp Factor					Remark	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		-
 5818.319 5850.000									



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7.7 Frequency Stability

Test Requirement 47 CFR Part 15, Subpart C 15.407 (g) Test Method: ANSI C63.10 (2013) Section 6.8

Limit: The frequency tolerance shall be maintained within the band of operation

> frequency over a temperature variation of 0 degrees to 35 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

Pass. Conclusion:

> The applicant declares that the emissions are maintained within the band of operation under all conditions of normal operation as specified in the user's

manual.



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Photographs 8

8.1 Test Setup

Please refer to setup photos.

8.2 EUT Constructional Details (EUT Photos)

Please Refer to external and internal photos for details.



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9 **Appendix**

9.1 Appendix 15.407

1.Emission Bandwidth Measurement

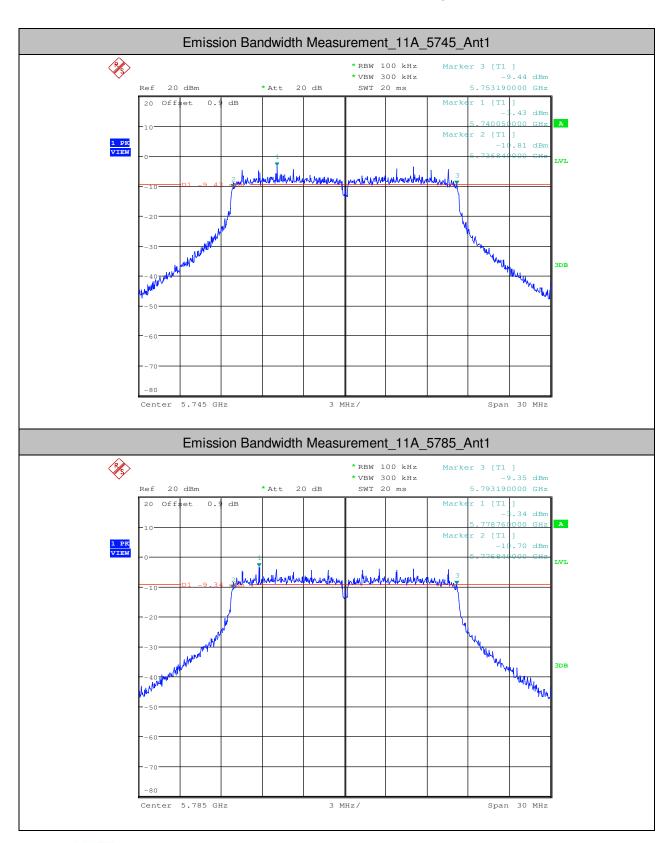
Test Mode	Test Channel	Ant	EBW[MHz]	Limit[MHz]	Verdict
11A	5745	Ant1	16.350	>=0.5	PASS
11A	5785	Ant1	16.350	>=0.5	PASS
11A	5825	Ant1	16.380	>=0.5	PASS
11N20	5745	Ant1	17.130	>=0.5	PASS
11N20	5785	Ant1	17.100	>=0.5	PASS
11N20	5825	Ant1	17.340	>=0.5	PASS





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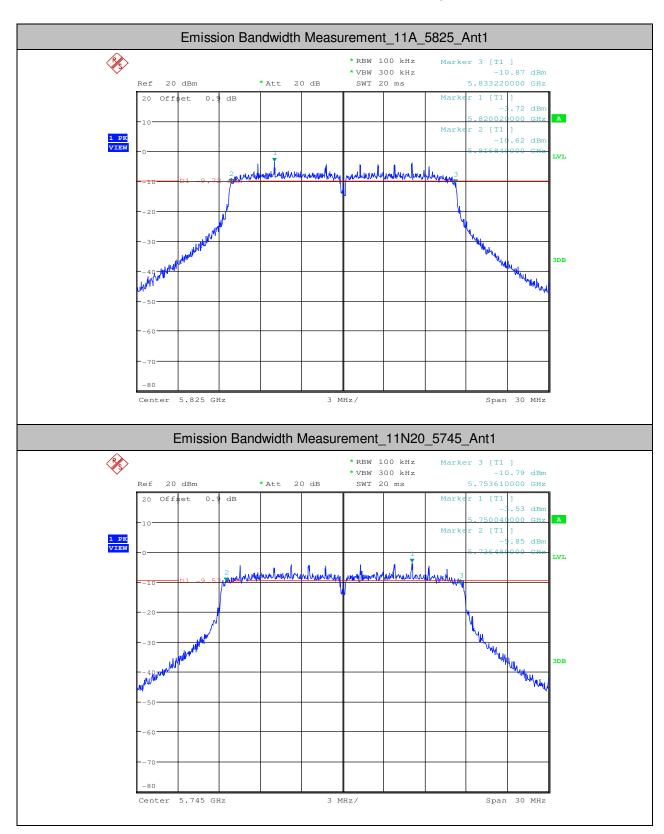
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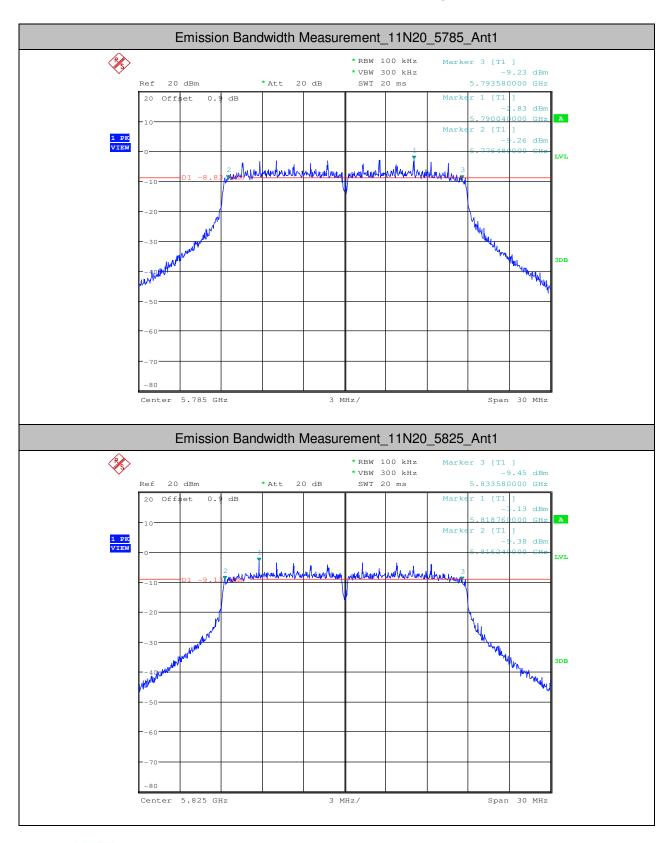
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2.Occupied Bandwidth Measurement

Test Mode	Test Channel	Ant	OBW[MHz]	Limit[MHz]	Verdict
11A	5745	Ant1	17.040		PASS
11A	5785	Ant1	17.010		PASS
11A	5825	Ant1	17.010		PASS
11N20	5745	Ant1	18.090		PASS
11N20	5785	Ant1	18.090		PASS
11N20	5825	Ant1	18.090		PASS



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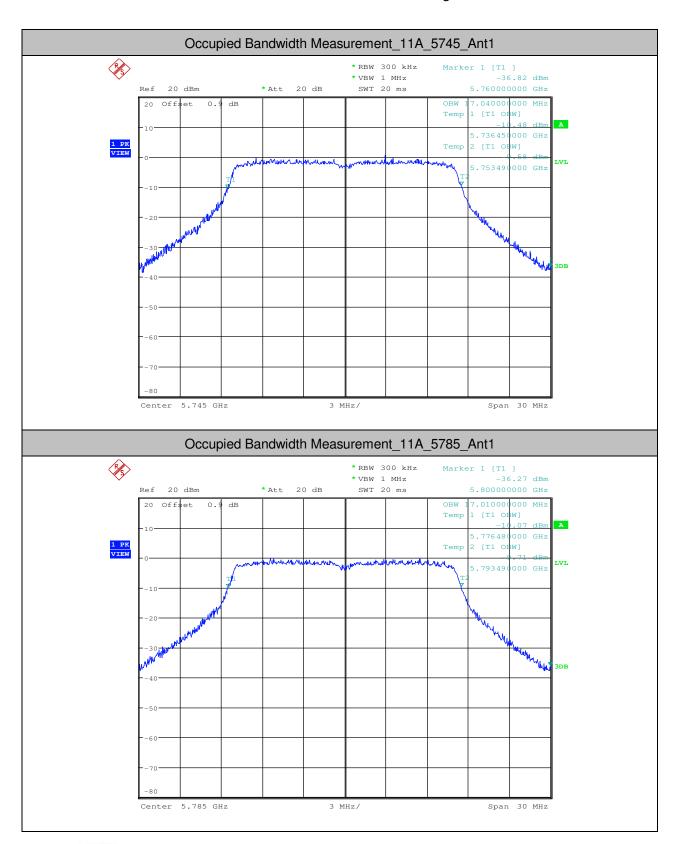
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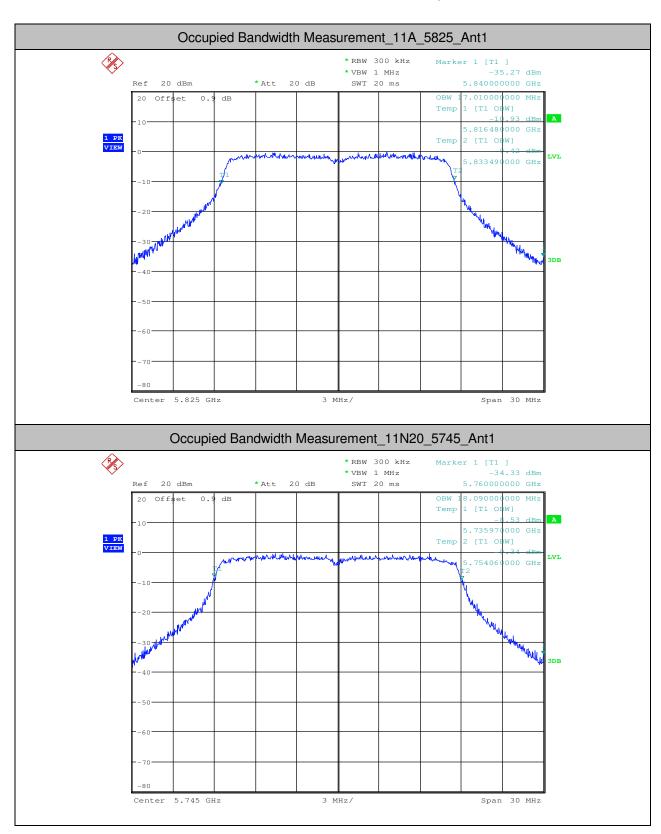
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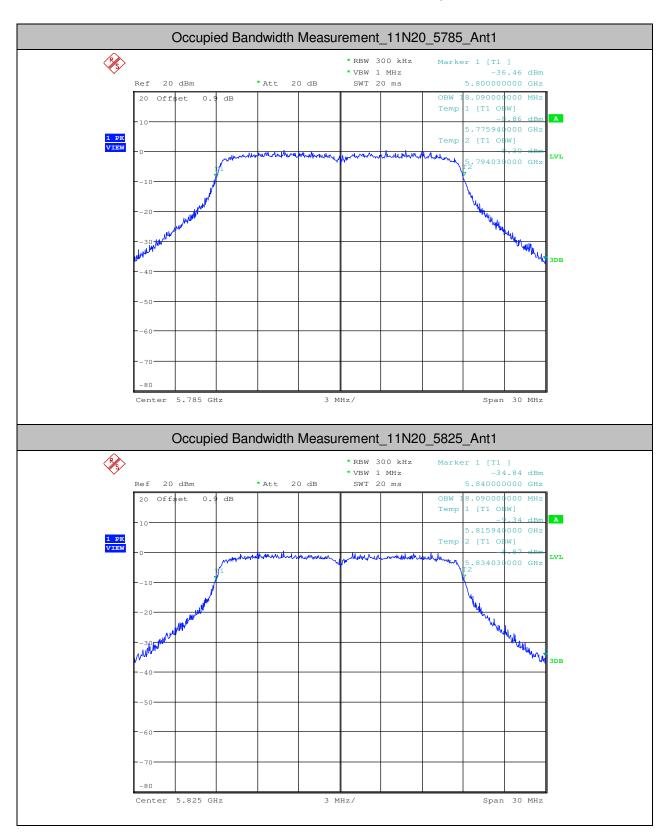
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3. Maximum Conduct Output Power

Test Mode	Test Channel	Ant	Level [dBm]	10log(1/x) Factor [dB]	Power [dBm]	Limit [dBm]	Verdict
11A	5745	Ant1	8.79	0.08	8.87	<30.00	PASS
11A	5785	Ant1	8.77	0.06	8.83	<30.00	PASS
11A	5825	Ant1	8.35	0.06	8.41	<30.00	PASS
11N20	5745	Ant1	8.6	0.07	8.67	<30.00	PASS
11N20	5785	Ant1	8.75	0.07	8.82	<30.00	PASS
11N20	5825	Ant1	8.4	0.09	8.49	<30.00	PASS



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4. Maximum Power Spectral Density

Test Mode	Test Channel	Ant	Level [dBm/500kHz]	10log(1/x) Factor[dB]	10log(500kHz/RBW) Factor [dB]		Limit [dBm/500kHz]	Verdict
11A	5745	Ant1	-3.51	0.08	0	-3.43	<17.00	PASS
11A	5785	Ant1	-3.42	0.06	0	-3.36	<17.00	PASS
11A	5825	Ant1	-3.81	0.06	0	-3.75	<17.00	PASS
11N20	5745	Ant1	-3.78	0.07	0	-3.71	<17.00	PASS
11N20	5785	Ant1	-3.34	0.07	0	-3.27	<17.00	PASS
11N20	5825	Ant1	-3.75	0.09	0	-3.66	<17.00	PASS



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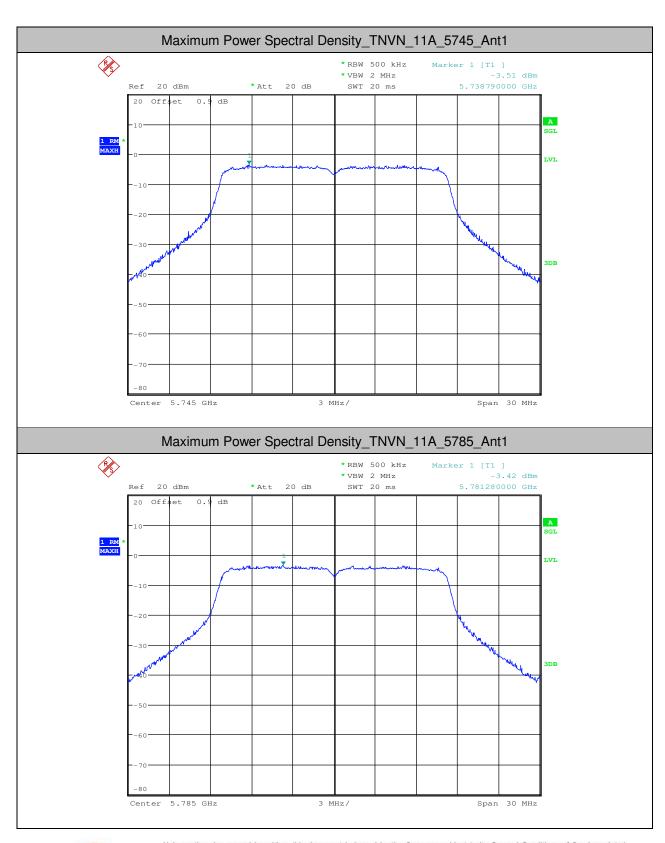
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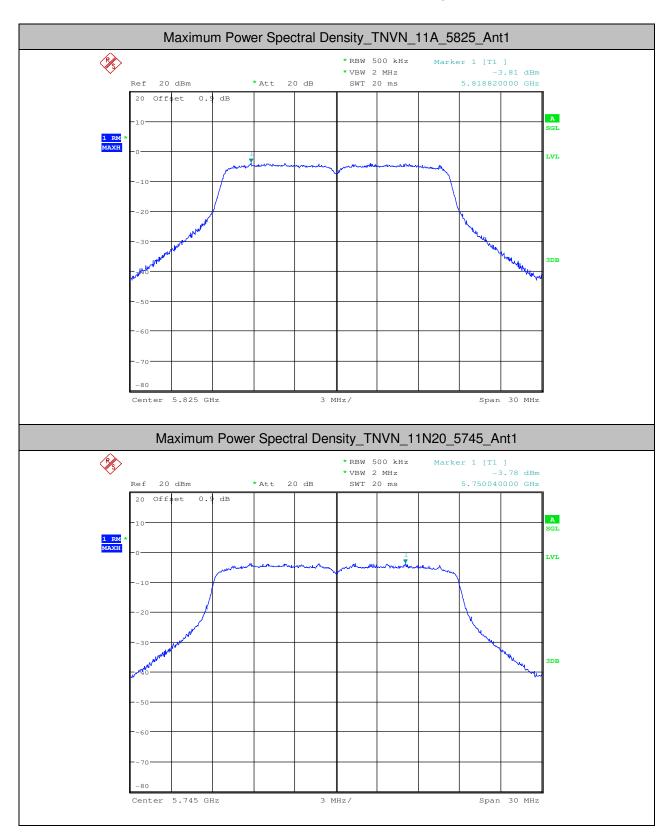
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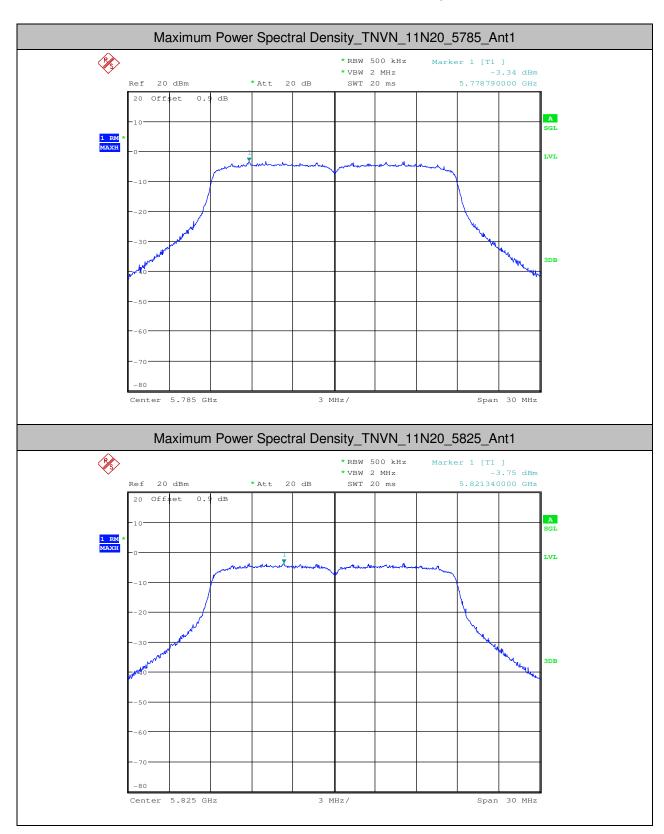
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5.Duty Cycle (x)

Test Mode	Test Channel	Ant	Duty Cycle[%]	10log(1/x) Factor[dB]
11A	5745	Ant1	98.15	0.08
11A	5785	Ant1	98.52	0.06
11A	5825	Ant1	98.52	0.06
11N20	5745	Ant1	98.41	0.07
11N20	5785	Ant1	98.41	0.07
11N20	5825	Ant1	98.01	0.09



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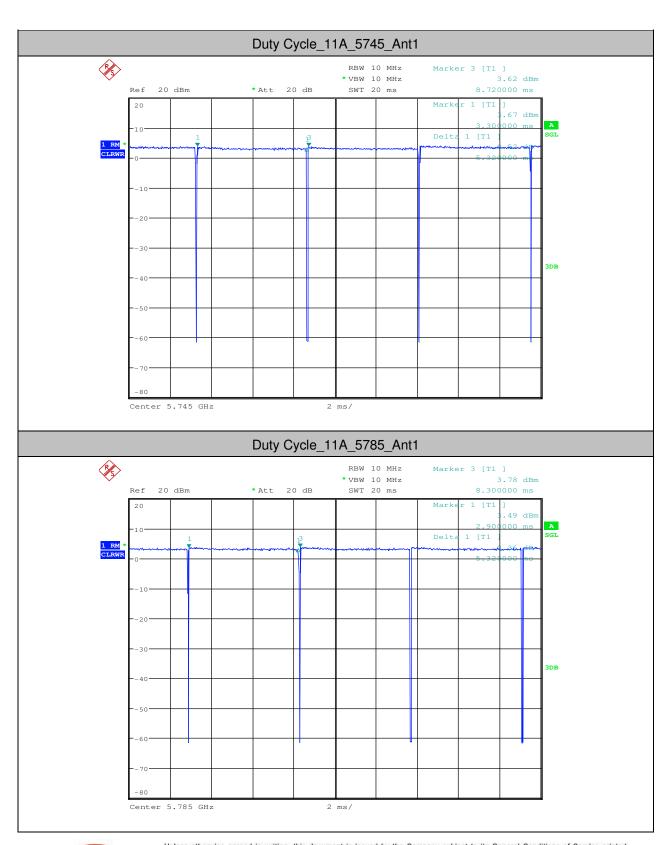
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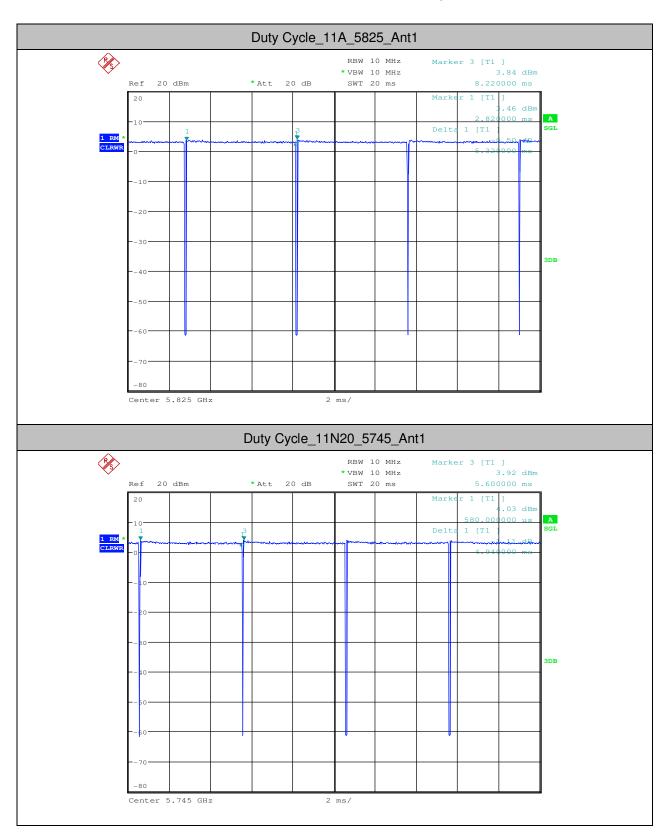
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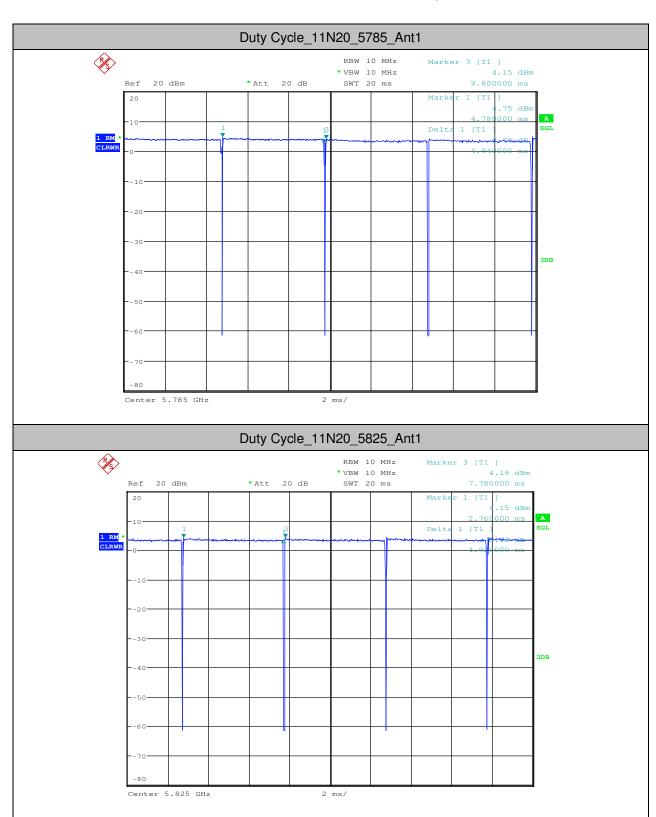
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