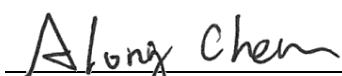


FCC Test Report

FCC ID : 2AWC2-AIRH201
Equipment : NUWA ROBOT
Model No. : AIR-H201
Brand Name : NUWAROBOTICS
Applicant : NUWA ROBOTICS (HK) LIMITED TAIWAN
BRANCH
Address : 9F., No. 101, Sec. 3, Nanjing E. Rd., Zhongshan
Dist., Taipei City 104, Taiwan (R.O.C.)
Standard : 47 CFR FCC Part 15.407
Received Date : Mar. 03, 2020
Tested Date : Mar. 05 ~ Mar. 13, 2020

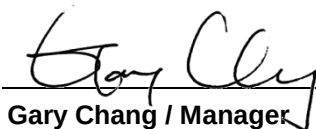
We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:



Along Chen / Assistant Manager

Approved by:



Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR030301-02AN	Rev. 01	Initial issue	Jun. 01, 2020

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.727MHz 44.66 (Margin -11.34dB) - QP	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5150.00MHz 52.90 (Margin -1.10dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: 5150-5250MHz: 20.90 5725-5850MHz: 20.98	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

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:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

Test results can be referred to ICC report no. TR030301AN.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5150-5250	a	5180-5240	36-48 [4]	1	6-54 Mbps
5150-5250	n (HT20)	5180-5240	36-48 [4]	1	MCS 0-7
5150-5250	n (HT40)	5190-5230	38-46 [2]	1	MCS 0-7

Note 1: RF output power specifies that Maximum Conducted Output Power.
Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5725-5850	a	5745-5825	149-165 [5]	1	6-54 Mbps
5725-5850	n (HT20)	5745-5825	149-165 [5]	1	MCS 0-7
5725-5850	n (HT40)	5755-5795	151-159 [2]	1	MCS 0-7

Note 1: RF output power specifies that Maximum Conducted Output Power.
Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

1.1.2 Antenna Details

Ant. No.	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)	
				5150~5250	5725~5850
1	NUWA	PIFA	No	-1.4	1.3

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	DC 3.7V from battery DC 5V=3A / 9V=2A 12V=1.5A from adapter
-------------------	--

1.1.4 Accessories

No.	Equipment	Description
1	Adapter	Brand: NUWA Model: KA1803A-TW I/P: 100-240V, 50/60Hz, 0.5A Max O/P: 5V=3A / 9V=2A / 12V=1.5A
2	Li-ion Battery	Brand: SCUD (FUJIAN) ELECTRONICS CO. LTD. Model: NB1 Rating: 3.7Vdc, 9100mA, 33.67Wh
3	USB charger Cable	1.20m non-shielded without core.

1.1.5 Channel List

For Frequency band 5150-5250 MHz			
802.11 a / HT20		HT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	---	---
48	5240	---	---

For Frequency band 5725~5850 MHz			
802.11 a / HT20		HT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
149	5745	151	5755
153	5765	159	5795
157	5785	---	---
161	5805	---	---
165	5825	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	QRCT, v3.0-00249		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11a	100.00	0.00
	HT20	100.00	0.00
	HT40	100.00	0.00

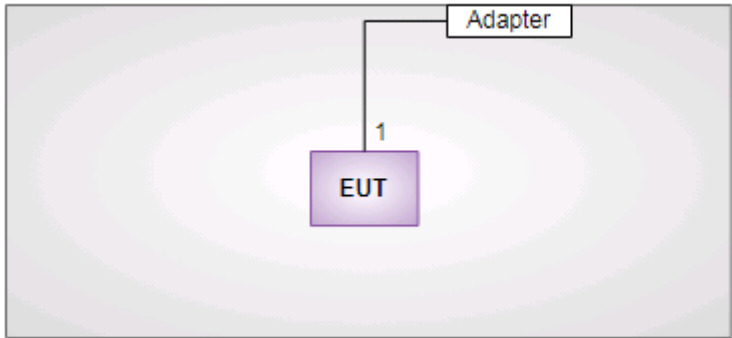
1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index
11a	5180	20
11a	5200	20.5
11a	5240	20.5
11a	5745	21
11a	5785	21
11a	5825	21
HT20	5180	20
HT20	5200	20.5
HT20	5240	20.5
HT20	5745	20.5
HT20	5785	21
HT20	5825	21
HT40	5190	15.5
HT40	5230	19.5
HT40	5755	19
HT40	5795	19

1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E6430	DoC	Provided by applicant.

1.3 Test Setup Chart

Test Setup Diagram	
	
No.	Signal cable / Length (m)
1	USB, 1.20m non-shielded without core

Note: The notebook is disconnected from EUT and removed from test table when EUT is set to transmit continuously.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Mar. 13, 2020				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101658	Dec. 12, 2019	Dec. 11, 2020
LISN	R&S	ENV216	100003	Sep. 23, 2019	Sep. 22, 2020
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 22, 2019	Oct. 21, 2020
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Mar. 05 ~ Mar. 12, 2020				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101498	Dec. 17, 2019	Dec. 16, 2020
Receiver	Agilent	N9038A	MY53290044	Sep. 17, 2019	Sep. 16, 2020
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 12, 2019	Jul. 11, 2020
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 12, 2019	Dec. 11, 2020
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 15, 2019	Nov. 14, 2020
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 13, 2019	Nov. 12, 2020
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 07, 2019	Oct. 06, 2020
Preamplifier	EMC	EMC02325	980225	Jul. 09, 2019	Jul. 08, 2020
Preamplifier	Agilent	83017A	MY39501308	Oct. 08, 2019	Oct. 07, 2020
Preamplifier	EMC	EMC184045B	980192	Aug. 01, 2019	Jul. 31, 2020
RF Cable	EMC	EMC104-SM-SM-8000	181106	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Oct. 07, 2019	Oct. 06, 2020
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 07, 2019	Oct. 06, 2020
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 07, 2019	Oct. 06, 2020
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Oct. 07, 2019	Oct. 06, 2020
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Mar. 10 ~ Mar. 13, 2020				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Apr. 17, 2019	Apr. 16, 2020
Power Meter	Anritsu	ML2495A	1241002	Oct. 23, 2019	Oct. 22, 2020
Power Sensor	Anritsu	MA2411B	1207366	Oct. 23, 2019	Oct. 22, 2020
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 12, 2019	Dec. 11, 2020
DC POWER SOURCE	GW INSTEK	GPC-6030D	GES855395	Oct. 29, 2019	Oct. 28, 2020
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 02, 2019	Dec. 01, 2020
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

According to the specification of EUT, the EUT must comply with following standards and KDB documents.

47 CFR FCC Part 15.407

ANSI C63.10-2013

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Deviation from Test Standard and Measurement Procedure

None

1.7 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$)).

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.130 Hz
Conducted power	± 0.808 dB
Frequency error	$\pm 1 \times 10^{-9}$
Power density	± 0.583 dB
Conducted emission	± 2.715 dB
AC conducted emission	± 2.92 dB
Radiated emission ≤ 1 GHz	± 3.41 dB
Radiated emission > 1 GHz	± 4.59 dB
Time	$\pm 0.1\%$
Temperature	± 0.6 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	22°C / 61%	Alex Tsai
Radiated Emissions	03CH01-WS	20-23°C / 65-66%	Akun Chung Roger Lu
RF Conducted	TH01-WS	20-21°C / 63-65%	Aska Huang Roger Lu

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

2.2 The Worst Test Modes and Channel Details

For Frequency band 5150-5250 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Mode
Conducted Emissions	HT20	5200	MCS 0	-
Radiated Emissions ≤ 1 GHz	HT20	5200	MCS 0	-
RF Output Power	11a	5180 / 5200 / 5240	6 Mbps	-
	HT20	5180 / 5200 / 5240	MCS 0	
	HT40	5190 / 5230	MCS 0	
Radiated Emissions > 1 GHz Emission Bandwidth Peak Power Spectral Density	11a	5180 / 5200 / 5240	6 Mbps	-
	HT20	5180 / 5200 / 5240	MCS 0	
	HT40	5190 / 5230	MCS 0	
Frequency Stability	Un-modulation	5200	---	-

For Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Mode
Conducted Emissions	11a	5745	6 Mbps	-
Radiated Emissions ≤ 1 GHz	11a	5745	6 Mbps	-
RF Output Power	11a	5745 / 5785 / 5825	6 Mbps	-
	HT20	5745 / 5785 / 5825	MCS 0	
	HT40	5755 / 5795	MCS 0	
Radiated Emissions > 1 GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a	5745 / 5785 / 5825	6 Mbps	-
	HT20	5745 / 5785 / 5825	MCS 0	
	HT40	5755 / 5795	MCS 0	
Frequency Stability	Un-modulation	5785	---	-

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

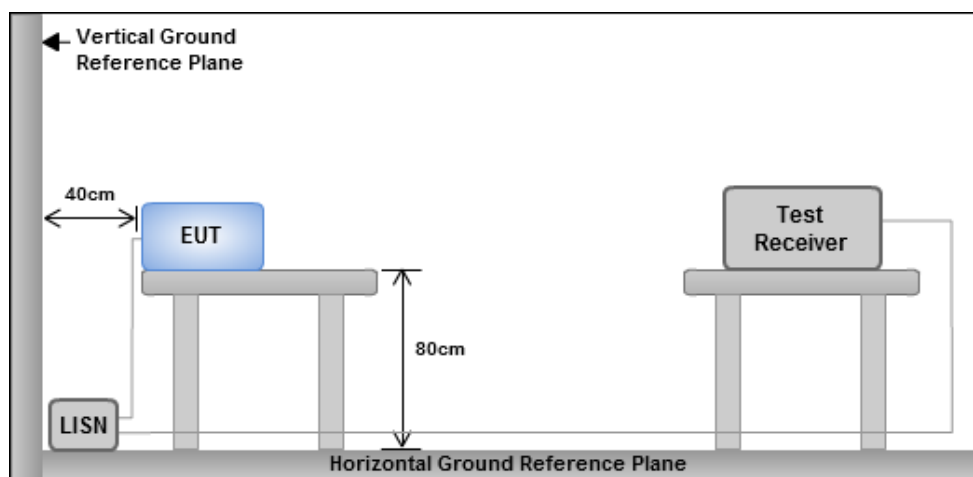
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

3.1.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V / 60Hz.

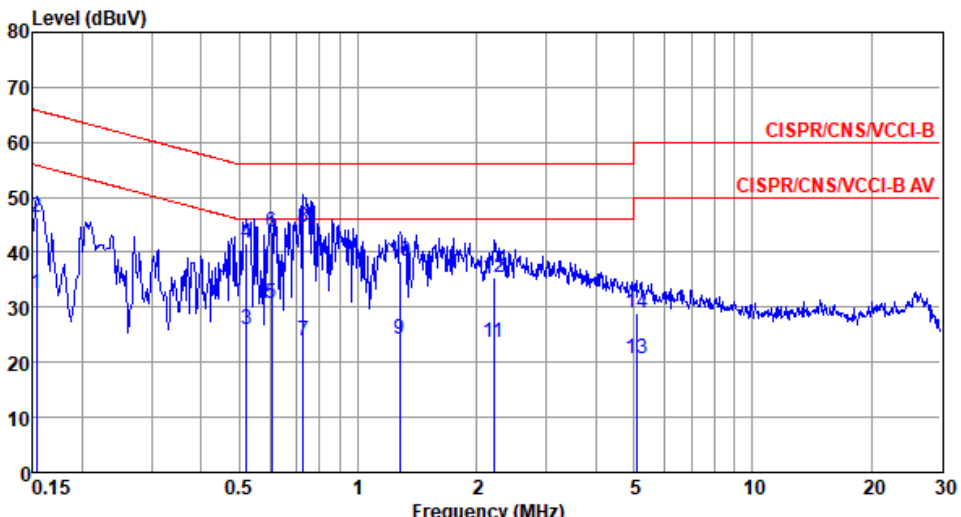
3.1.3 Test Setup



- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

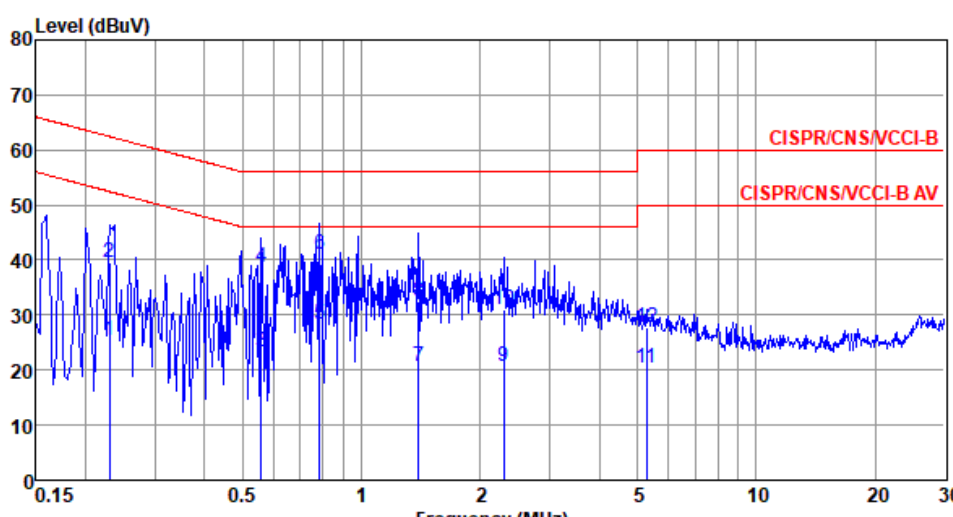
Modulation	HT20	Test Freq. (MHz)	5200
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	32.40	55.82	-23.42	22.66	9.53	0.05	Average
2	0.153	46.29	65.82	-19.53	36.55	9.53	0.05	QP
3	0.521	25.95	46.00	-20.05	16.01	9.58	0.09	Average
4	0.521	41.48	56.00	-14.52	31.54	9.58	0.09	QP
5	0.604	30.58	46.00	-15.42	20.62	9.58	0.10	Average
6	0.604	43.82	56.00	-12.18	33.86	9.58	0.10	QP
7	0.727	23.84	46.00	-22.16	13.84	9.59	0.11	Average
8*	0.727	44.66	56.00	-11.34	34.66	9.59	0.11	QP
9	1.276	24.18	46.00	-21.82	14.11	9.60	0.14	Average
10	1.276	38.32	56.00	-17.68	28.25	9.60	0.14	QP
11	2.213	23.60	46.00	-22.40	13.46	9.60	0.20	Average
12	2.213	35.56	56.00	-20.44	25.42	9.60	0.20	QP
13	5.085	20.58	50.00	-29.42	10.26	9.62	0.32	Average
14	5.085	28.81	60.00	-31.19	18.49	9.62	0.32	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

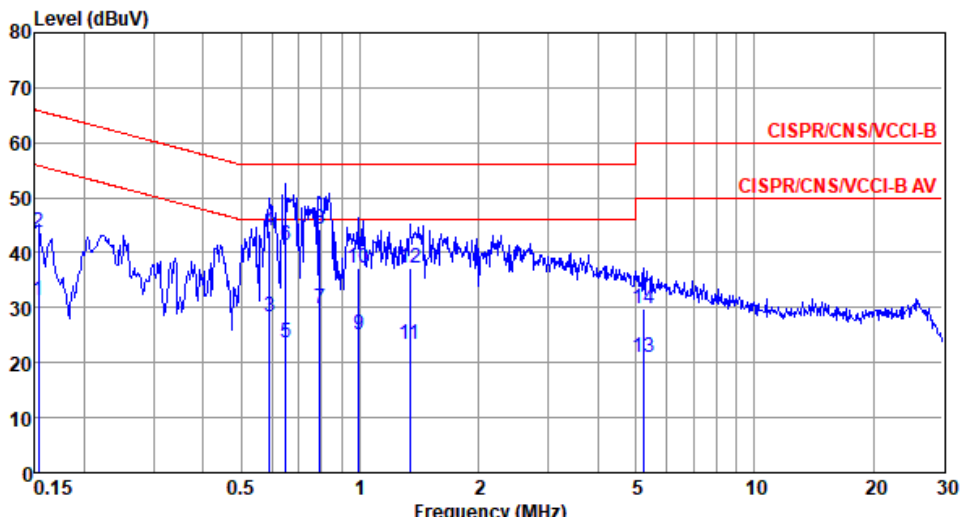
Modulation	HT20	Test Freq. (MHz)	5200
Power Phase	Neutral		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.230	25.39	52.44	-27.05	15.59	9.59	0.06	Average
2	0.230	39.70	62.44	-22.74	29.90	9.59	0.06	QP
3	0.558	23.33	46.00	-22.67	13.44	9.62	0.09	Average
4	0.558	38.69	56.00	-17.31	28.80	9.62	0.09	QP
5	0.783	28.23	46.00	-17.77	18.30	9.63	0.11	Average
6*	0.783	40.92	56.00	-15.08	30.99	9.63	0.11	QP
7	1.396	20.75	46.00	-25.25	10.73	9.64	0.15	Average
8	1.396	32.59	56.00	-23.41	22.57	9.64	0.15	QP
9	2.297	20.80	46.00	-25.20	10.69	9.65	0.20	Average
10	2.297	30.89	56.00	-25.11	20.78	9.65	0.20	QP
11	5.277	20.48	50.00	-29.52	10.20	9.68	0.32	Average
12	5.277	27.67	60.00	-32.33	17.39	9.68	0.32	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation	11a	Test Freq. (MHz)	5745
Power Phase	Line		

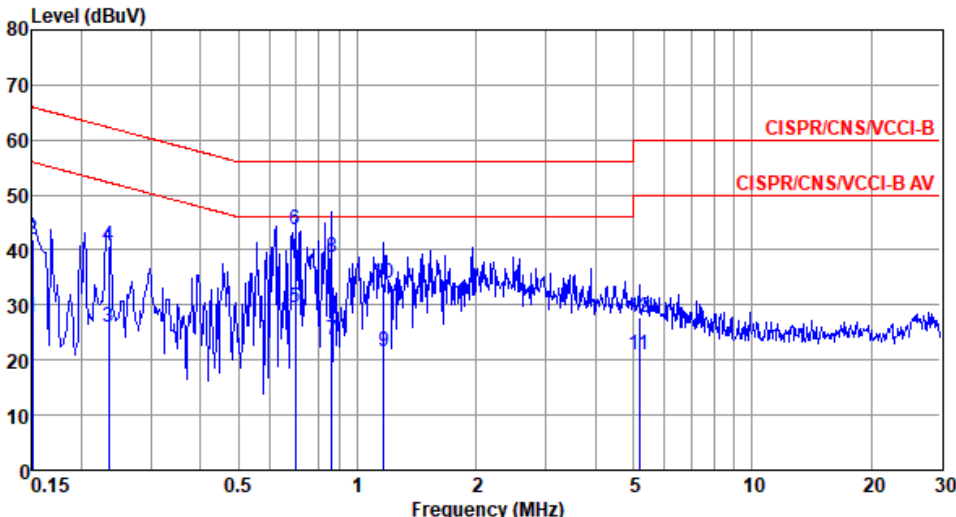


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	31.24	55.82	-24.58	21.50	9.53	0.05	Average
2	0.153	43.62	65.82	-22.20	33.88	9.53	0.05	QP
3	0.589	28.32	46.00	-17.68	18.36	9.58	0.10	Average
4	0.589	43.91	56.00	-12.09	33.95	9.58	0.10	QP
5	0.647	23.75	46.00	-22.25	13.77	9.59	0.10	Average
6	0.647	41.25	56.00	-14.75	31.27	9.59	0.10	QP
7	0.792	29.91	46.00	-16.09	19.91	9.59	0.11	Average
8*	0.792	44.36	56.00	-11.64	34.36	9.59	0.11	QP
9	0.994	25.04	46.00	-20.96	15.00	9.60	0.12	Average
10	0.994	37.26	56.00	-18.74	27.22	9.60	0.12	QP
11	1.338	23.33	46.00	-22.67	13.25	9.60	0.15	Average
12	1.338	37.25	56.00	-18.75	27.17	9.60	0.15	QP
13	5.221	20.86	50.00	-29.14	10.54	9.62	0.32	Average
14	5.221	29.68	60.00	-30.32	19.36	9.62	0.32	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation	11a	Test Freq. (MHz)	5745
Power Phase	Neutral		



	Freq MHz	Level dBuV	Limit dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	27.74	56.00	-28.26	18.00	9.57	0.05	Average
2	0.150	42.02	66.00	-23.98	32.28	9.57	0.05	QP
3	0.234	25.89	52.30	-26.41	16.09	9.59	0.06	Average
4	0.234	40.75	62.30	-21.55	30.95	9.59	0.06	QP
5	0.697	29.40	46.00	-16.60	19.48	9.63	0.10	Average
6*	0.697	43.55	56.00	-12.45	33.63	9.63	0.10	QP
7	0.862	23.59	46.00	-22.41	13.64	9.64	0.11	Average
8	0.862	38.57	56.00	-17.43	28.62	9.64	0.11	QP
9	1.166	21.45	46.00	-24.55	11.47	9.64	0.13	Average
10	1.166	33.94	56.00	-22.06	23.96	9.64	0.13	QP
11	5.166	21.02	50.00	-28.98	10.75	9.67	0.32	Average
12	5.166	27.75	60.00	-32.25	17.48	9.67	0.32	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

Note 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

3.2 Emission Bandwidth

3.2.1 Limit of Emission bandwidth

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

3.2.2 Test Procedures

26dB Bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW, Detector = Peak.
3. Trace mode = max hold.
4. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

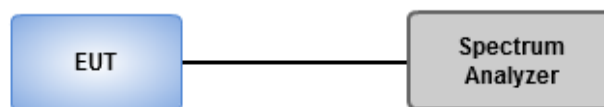
Occupied Bandwidth

1. Set RBW = 1 % to 5 % of the OBW.
2. Set VBW $\geq$ 3 RBW.
3. Sample detection and single sweep mode shall be used.
4. Use the 99 % power bandwidth function of the instrument.

6dB Bandwidth

1. Set RBW = 100kHz, VBW = 300kHz.
2. Detector = Peak, Trace mode = max hold.
3. Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.2.3 Test Setup



3.2.4 Test Result of Emission Bandwidth

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	39.493M	17.656M	17M7D1D	34.203M	17.149M
802.11n HT20_Nss1,(MCS0)_1TX	42.536M	18.741M	18M7D1D	39.058M	18.162M
802.11n HT40_Nss1,(MCS0)_1TX	82.754M	37.482M	37M5D1D	43.768M	36.324M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.594M	17.728M	17M7D1D	16.377M	17.656M
802.11n HT20_Nss1,(MCS0)_1TX	17.826M	18.669M	18M7D1D	17.609M	18.379M
802.11n HT40_Nss1,(MCS0)_1TX	35.362M	36.758M	36M8D1D	35.217M	36.758M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	34.203M	17.149M
5200MHz	Pass	Inf	39.493M	17.511M
5240MHz	Pass	Inf	38.986M	17.656M
5745MHz	Pass	500k	16.594M	17.656M
5785MHz	Pass	500k	16.449M	17.656M
5825MHz	Pass	500k	16.377M	17.728M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	39.058M	18.162M
5200MHz	Pass	Inf	40.652M	18.524M
5240MHz	Pass	Inf	42.536M	18.741M
5745MHz	Pass	500k	17.609M	18.379M
5785MHz	Pass	500k	17.826M	18.669M
5825MHz	Pass	500k	17.609M	18.452M
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	43.768M	36.324M
5230MHz	Pass	Inf	82.754M	37.482M
5755MHz	Pass	500k	35.362M	36.758M
5795MHz	Pass	500k	35.217M	36.758M

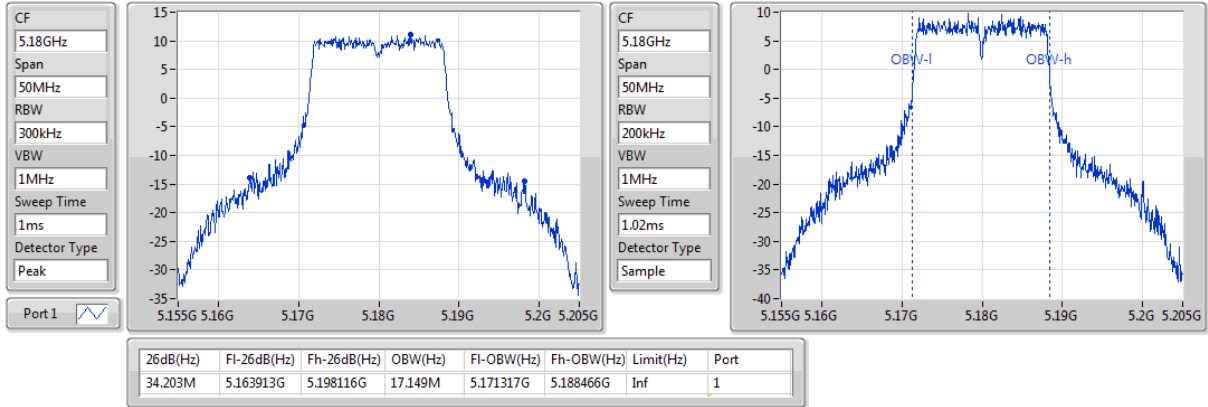
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_1TX

EBW

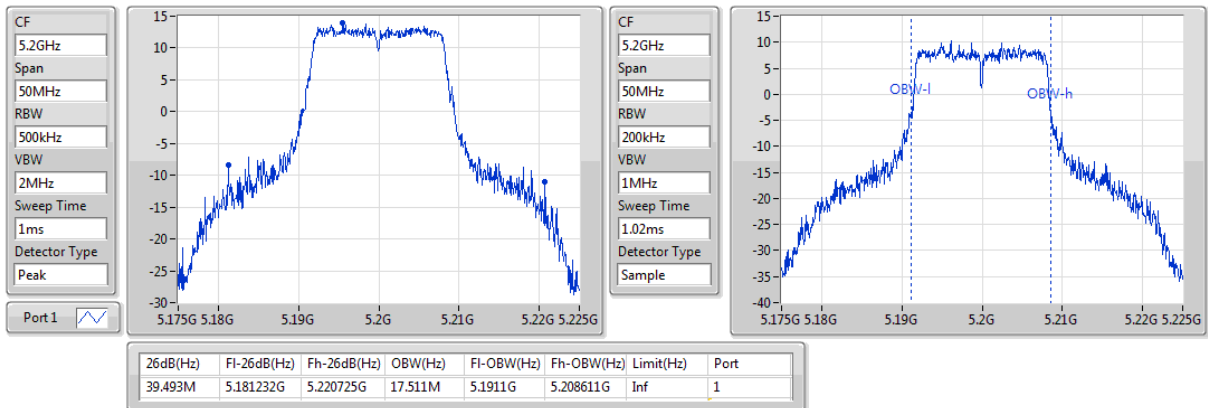
5180MHz



802.11a_Nss1,(6Mbps)_1TX

EBW

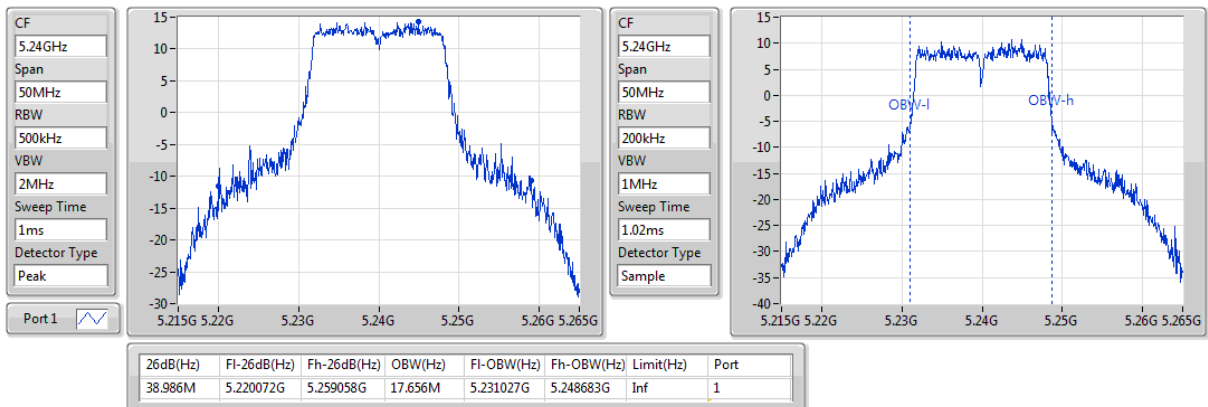
5200MHz



802.11a_Nss1,(6Mbps)_1TX

EBW

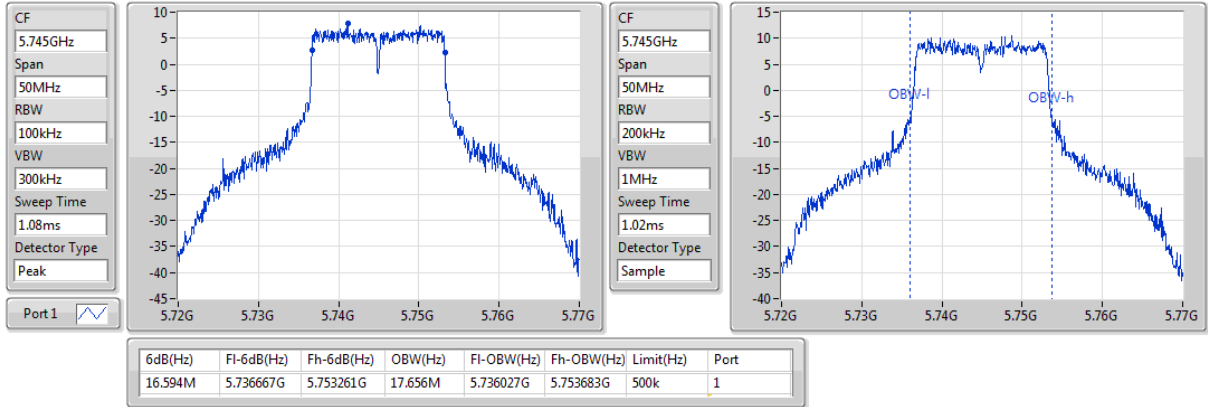
5240MHz



802.11a_Nss1,(6Mbps)_1TX

EBW

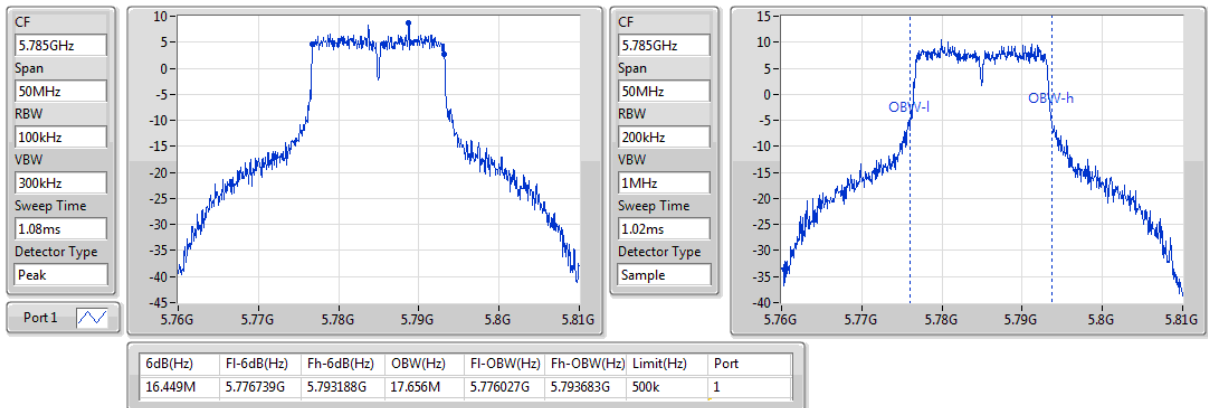
5745MHz



802.11a_Nss1,(6Mbps)_1TX

EBW

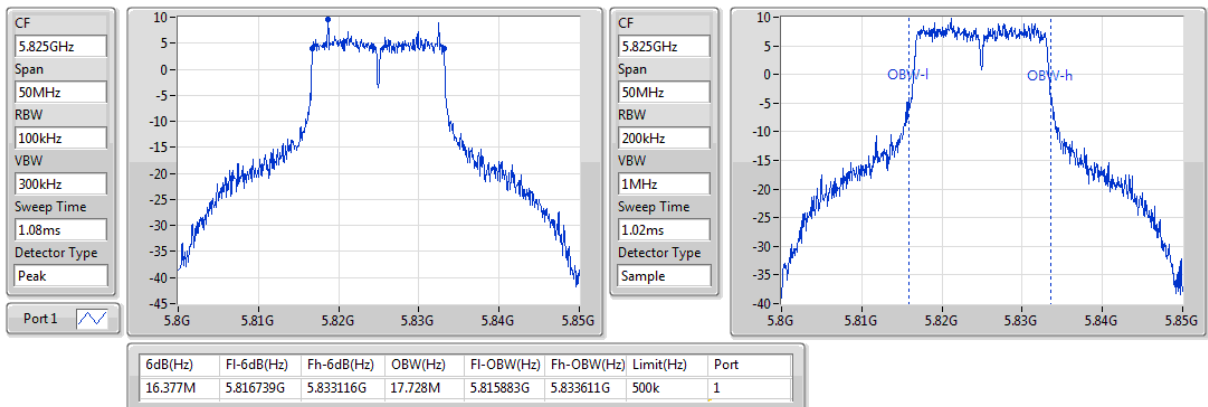
5785MHz



802.11a_Nss1,(6Mbps)_1TX

EBW

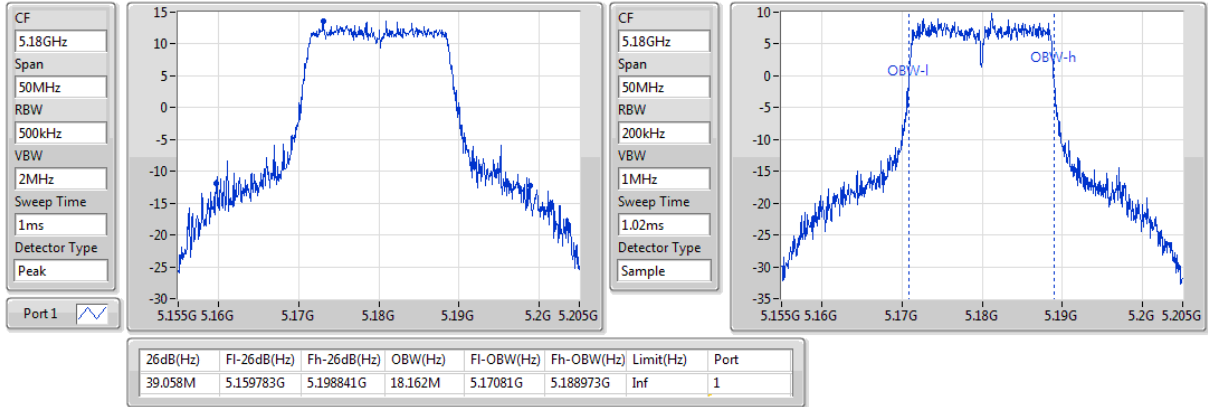
5825MHz



802.11n HT20_Nss1,(MCS0)_1TX

EBW

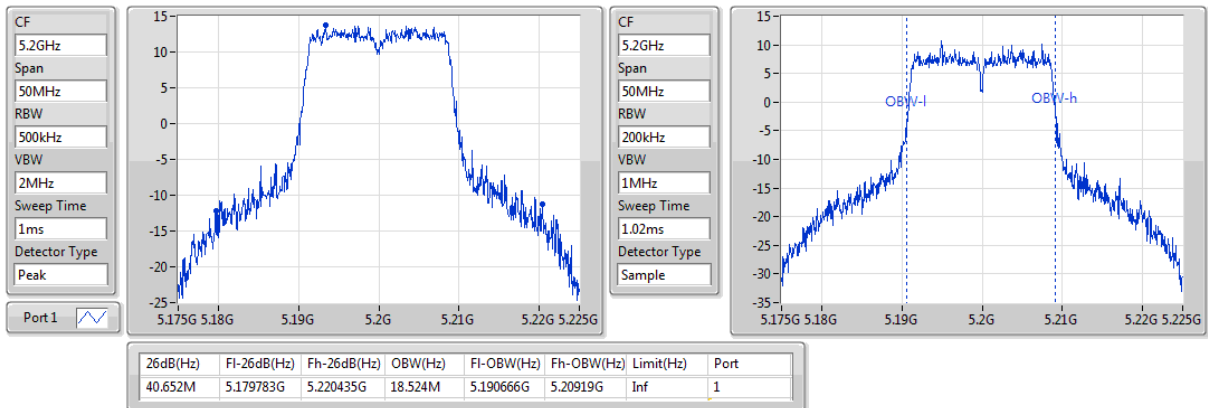
5180MHz



802.11n HT20_Nss1,(MCS0)_1TX

EBW

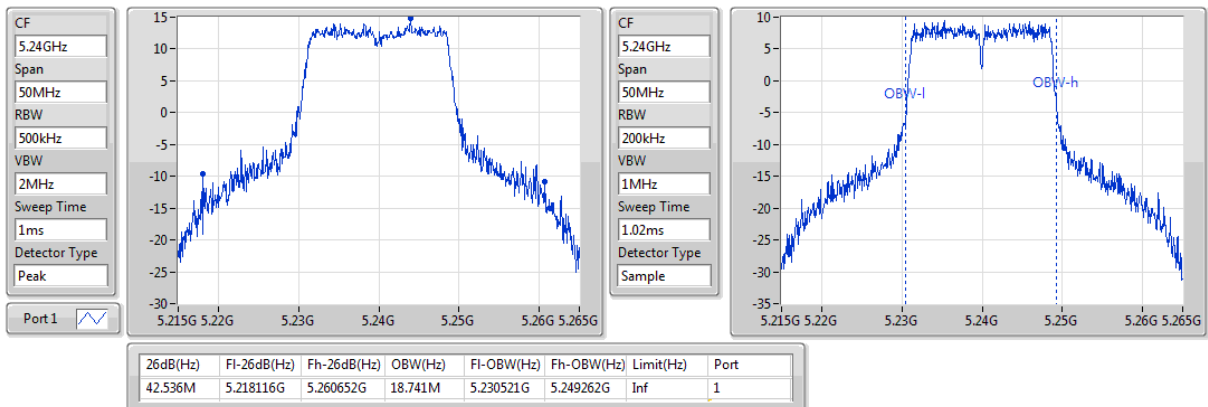
5200MHz



802.11n HT20_Nss1,(MCS0)_1TX

EBW

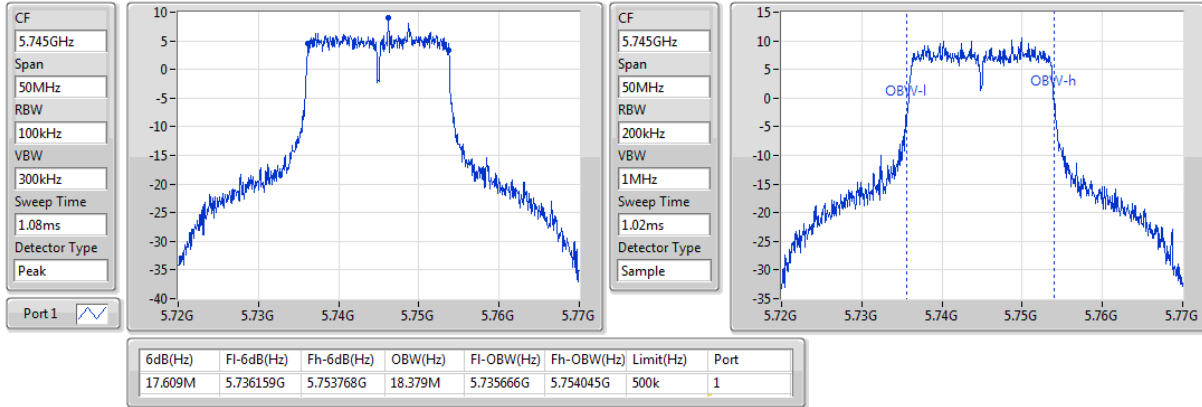
5240MHz



802.11n HT20_Nss1,(MCS0)_1TX

EBW

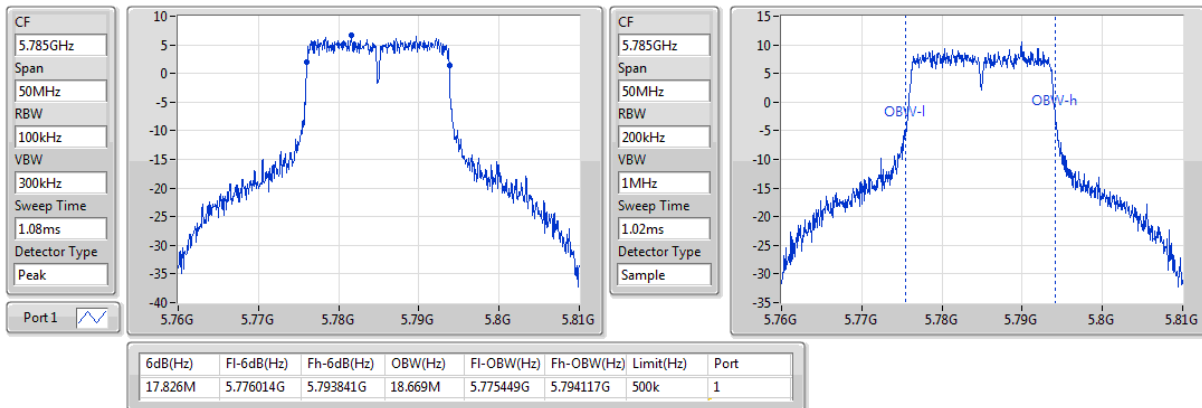
5745MHz



802.11n HT20_Nss1,(MCS0)_1TX

EBW

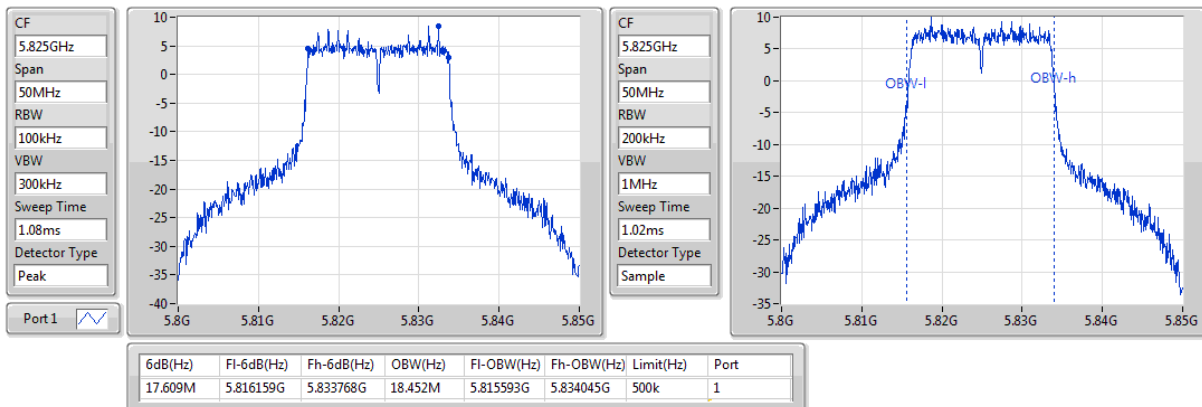
5785MHz



802.11n HT20_Nss1,(MCS0)_1TX

EBW

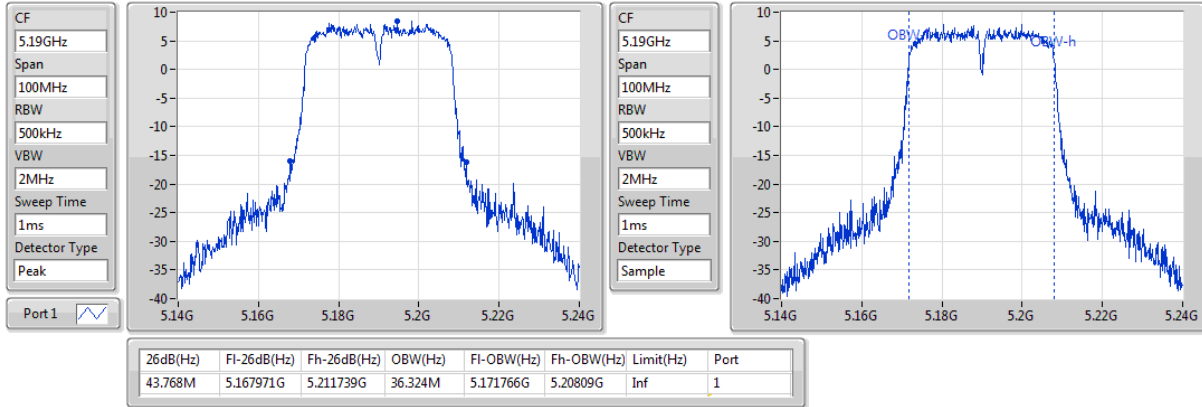
5825MHz



802.11n HT40_Nss1,(MCS0)_1TX

EBW

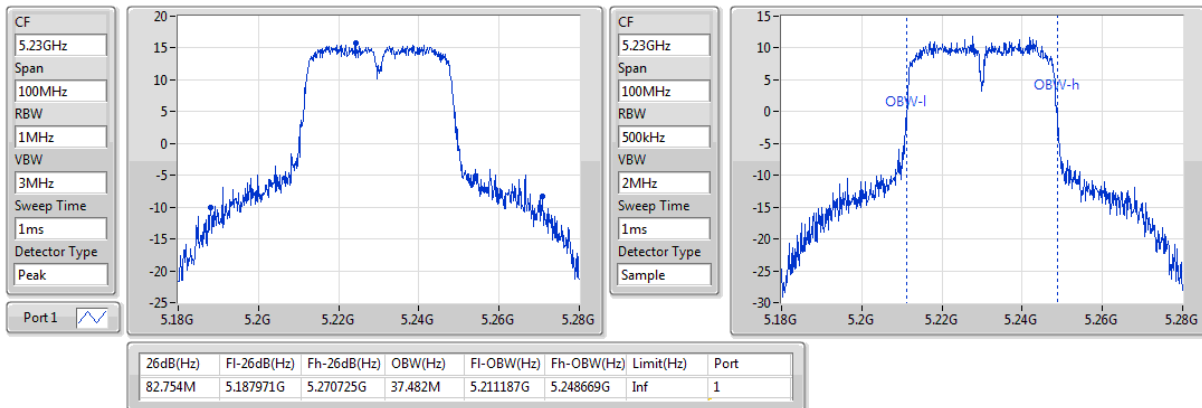
5190MHz



802.11n HT40_Nss1,(MCS0)_1TX

EBW

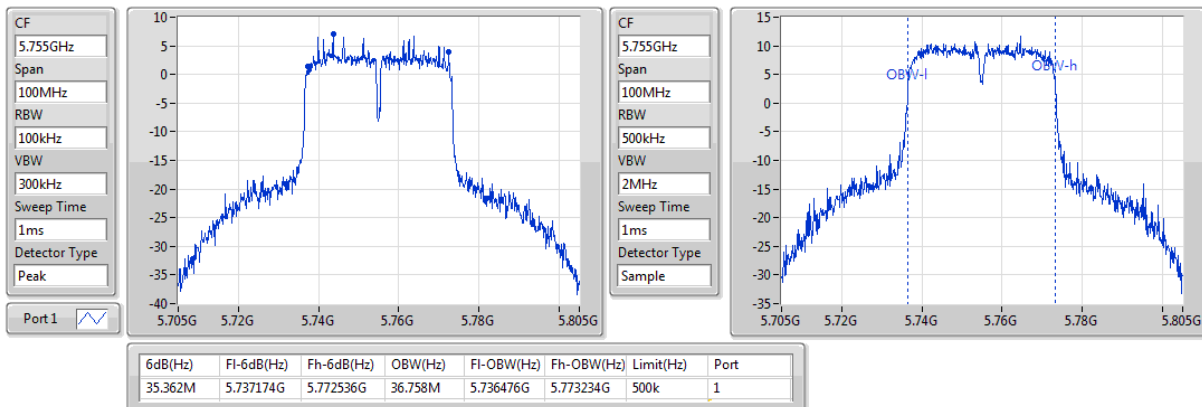
5230MHz



802.11n HT40_Nss1,(MCS0)_1TX

EBW

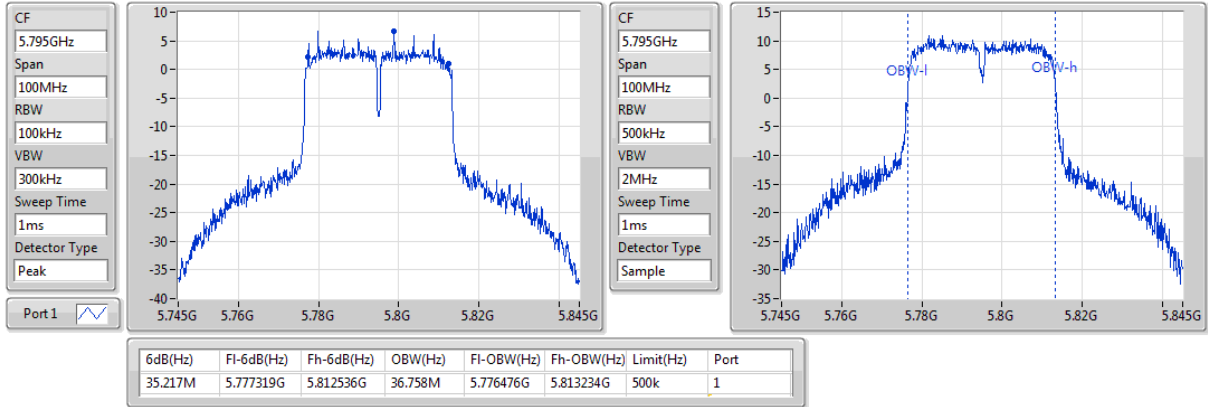
5755MHz



802.11n HT40_Nss1,(MCS0)_1TX

EBW

5795MHz



3.3 RF Output Power

3.3.1 Limit of RF Output Power

Frequency band 5150-5250 MHz	
Operating Mode	Limit
Client devices	Conducted Power: 250 mW

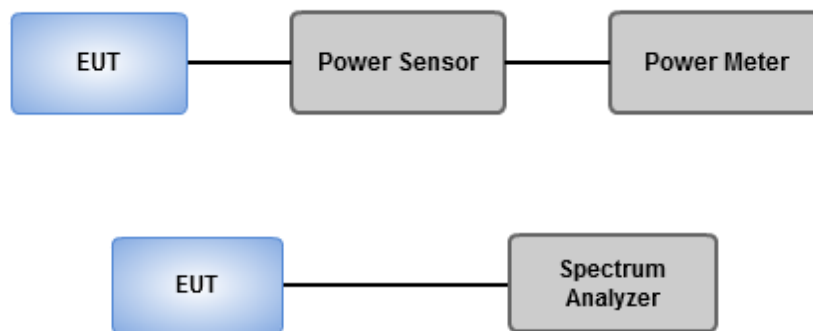
Frequency Band (MHz)	Limit
5725 ~ 5850	1 W
Note: "B" is the 26dB emission bandwidth in MHz.	

3.3.2 Test Procedures

Method PM-G (Measurement using a gated RF average power meter)

Measurements is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	20.88	0.12246	19.48	0.08872
802.11n HT20_Nss1,(MCS0)_1TX	20.90	0.12303	19.50	0.08913
802.11n HT40_Nss1,(MCS0)_1TX	20.68	0.11695	19.28	0.08472
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	20.98	0.12531	22.28	0.16904
802.11n HT20_Nss1,(MCS0)_1TX	20.95	0.12445	22.25	0.16788
802.11n HT40_Nss1,(MCS0)_1TX	20.97	0.12503	22.27	0.16866

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
5180MHz	Pass	-1.40	20.36	20.36	24.00	18.96	30.00
5200MHz	Pass	-1.40	20.88	20.88	24.00	19.48	30.00
5240MHz	Pass	-1.40	20.71	20.71	24.00	19.31	30.00
5745MHz	Pass	1.30	20.98	20.98	30.00	22.28	36.00
5785MHz	Pass	1.30	20.89	20.89	30.00	22.19	36.00
5825MHz	Pass	1.30	20.74	20.74	30.00	22.04	36.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5180MHz	Pass	-1.40	20.50	20.50	24.00	19.10	30.00
5200MHz	Pass	-1.40	20.90	20.90	24.00	19.50	30.00
5240MHz	Pass	-1.40	20.75	20.75	24.00	19.35	30.00
5745MHz	Pass	1.30	20.68	20.68	30.00	21.98	36.00
5785MHz	Pass	1.30	20.95	20.95	30.00	22.25	36.00
5825MHz	Pass	1.30	20.84	20.84	30.00	22.14	36.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5190MHz	Pass	-1.40	17.49	17.49	24.00	16.09	30.00
5230MHz	Pass	-1.40	20.68	20.68	24.00	19.28	30.00
5755MHz	Pass	1.30	20.97	20.97	30.00	22.27	36.00
5795MHz	Pass	1.30	20.76	20.76	30.00	22.06	36.00

DG = Directional Gain; **Port X** = Port X output power

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

Frequency band 5150-5250 MHz	
Operating Mode	Limit
Client devices	11 dBm / MHz

Frequency Band (MHz)	Limit
5725 ~ 5850	30 dBm /500 kHz

3.4.2 Test Procedures

For 5150 ~ 5250 MHz / 5250 ~ 5350 MHz / 5470 ~ 5725 MHz

Duty cycle $\geq 98\%$

1. Set RBW = 1 MHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
2. Trace average 100 traces.
3. Use the peak marker function to determine the maximum amplitude level.

Duty cycle $< 98\%$

1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$.
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add $10 \log(1/x)$, where x is the duty cycle.

For 5725 ~ 5850 MHz

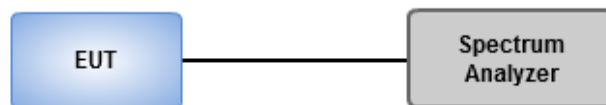
Duty cycle $\geq 98\%$

1. Set RBW = 500 kHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
2. Trace average 100 traces.
3. Use the peak marker function to determine the maximum amplitude level.

Duty cycle $< 98\%$

1. Set RBW = 500 kHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$.
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add $10 \log(1/x)$, where x is the duty cycle.

3.4.3 Test Setup



3.4.4 Test Result of Peak Power Spectral Density

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	8.35	6.95
802.11n HT20_Nss1,(MCS0)_1TX	8.18	6.78
802.11n HT40_Nss1,(MCS0)_1TX	5.48	4.08
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	6.77	8.07
802.11n HT20_Nss1,(MCS0)_1TX	6.56	7.86
802.11n HT40_Nss1,(MCS0)_1TX	3.69	4.99

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

Result

Mode	Result	DG (dBi)	Port 1 (dBm/R BW)	PD (dBm/R BW)	PD Limit (dBm/R BW)	EIRP PD (dBm/R BW)	EIRP PD Limit (dBm/R BW)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
5180MHz	Pass	-1.40	7.72	7.72	11.00	6.32	17.00
5200MHz	Pass	-1.40	8.35	8.35	11.00	6.95	17.00
5240MHz	Pass	-1.40	8.31	8.31	11.00	6.91	17.00
5745MHz	Pass	1.30	6.77	6.77	30.00	8.07	36.00
5785MHz	Pass	1.30	6.49	6.49	30.00	7.79	36.00
5825MHz	Pass	1.30	6.30	6.30	30.00	7.60	36.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5180MHz	Pass	-1.40	7.50	7.50	11.00	6.10	17.00
5200MHz	Pass	-1.40	8.18	8.18	11.00	6.78	17.00
5240MHz	Pass	-1.40	8.01	8.01	11.00	6.61	17.00
5745MHz	Pass	1.30	6.18	6.18	30.00	7.48	36.00
5785MHz	Pass	1.30	6.56	6.56	30.00	7.86	36.00
5825MHz	Pass	1.30	6.29	6.29	30.00	7.59	36.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5190MHz	Pass	-1.40	2.25	2.25	11.00	0.85	17.00
5230MHz	Pass	-1.40	5.48	5.48	11.00	4.08	17.00
5755MHz	Pass	1.30	3.69	3.69	30.00	4.99	36.00
5795MHz	Pass	1.30	3.66	3.66	30.00	4.96	36.00

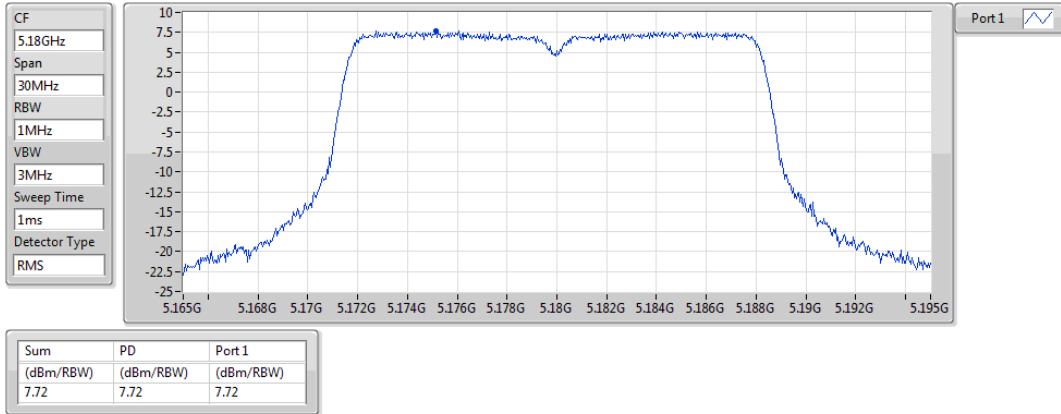
DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11a_Nss1,(6Mbps)_1TX

PSD

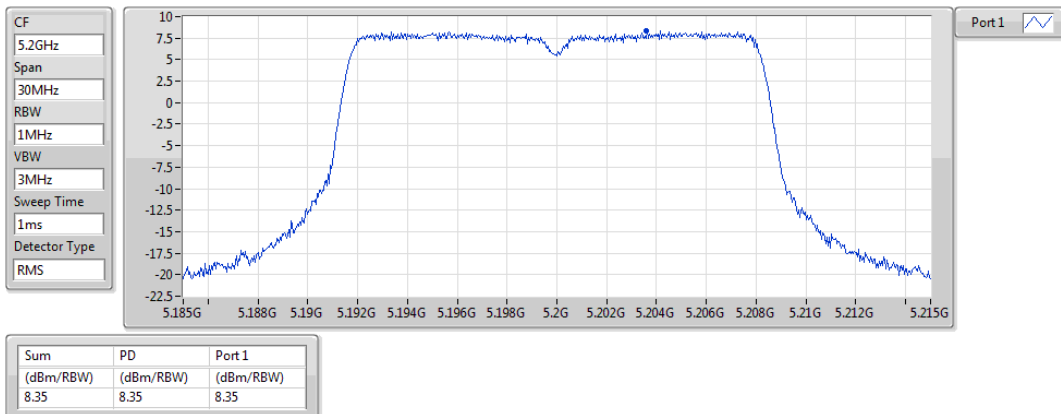
5180MHz



802.11a_Nss1,(6Mbps)_1TX

PSD

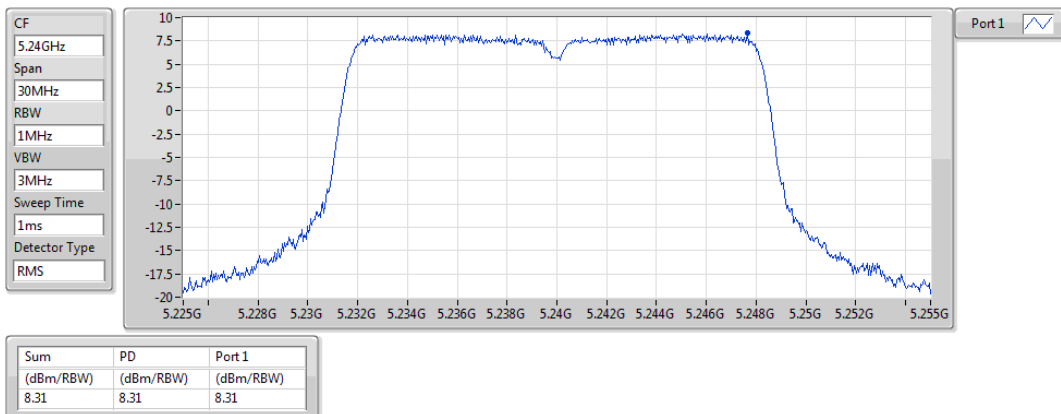
5200MHz



802.11a_Nss1,(6Mbps)_1TX

PSD

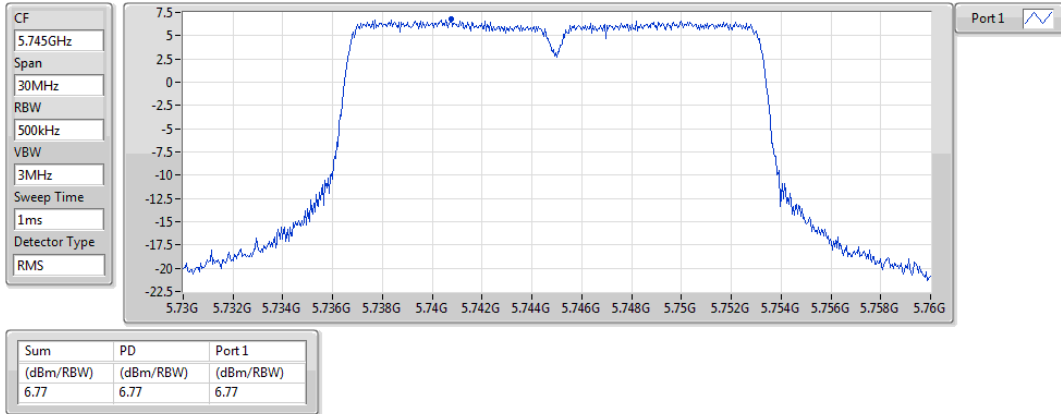
5240MHz



802.11a_Nss1,(6Mbps)_1TX

PSD

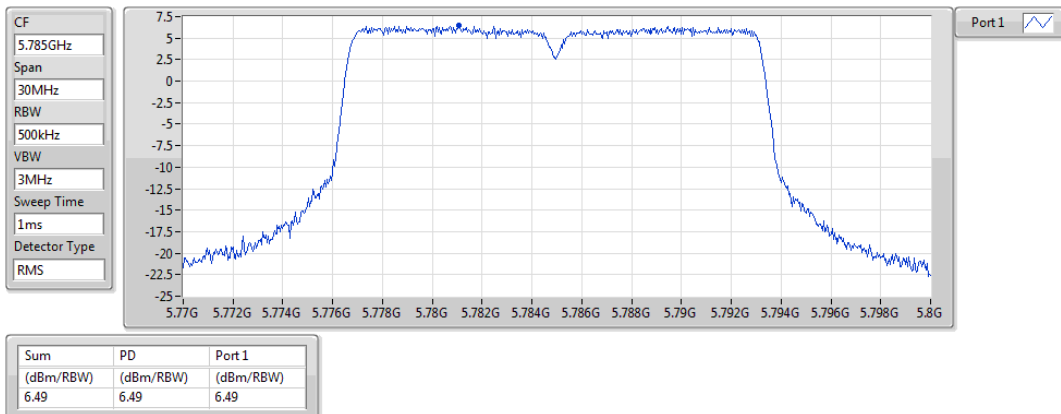
5745MHz



802.11a_Nss1,(6Mbps)_1TX

PSD

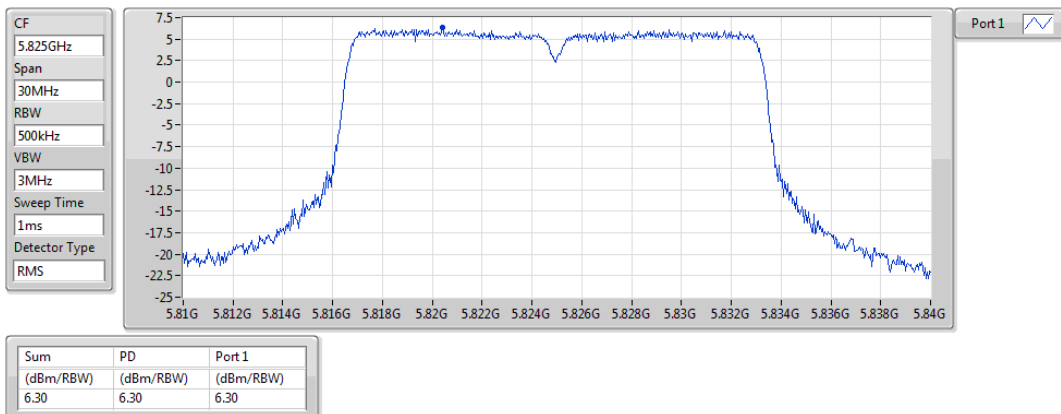
5785MHz



802.11a_Nss1,(6Mbps)_1TX

PSD

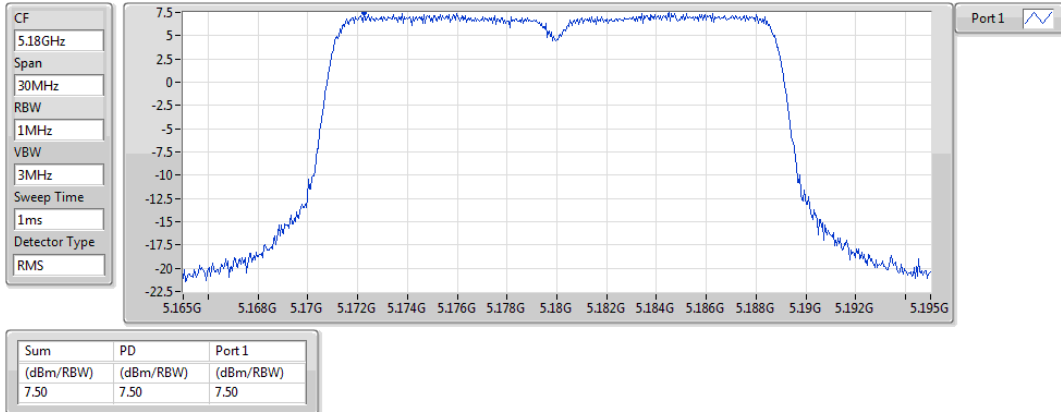
5825MHz



802.11n HT20_Nss1,(MCS0)_1TX

PSD

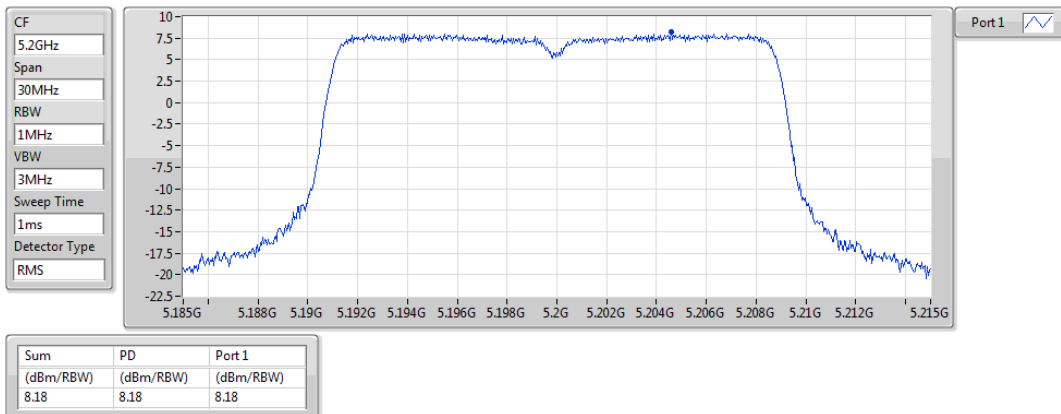
5180MHz



802.11n HT20_Nss1,(MCS0)_1TX

PSD

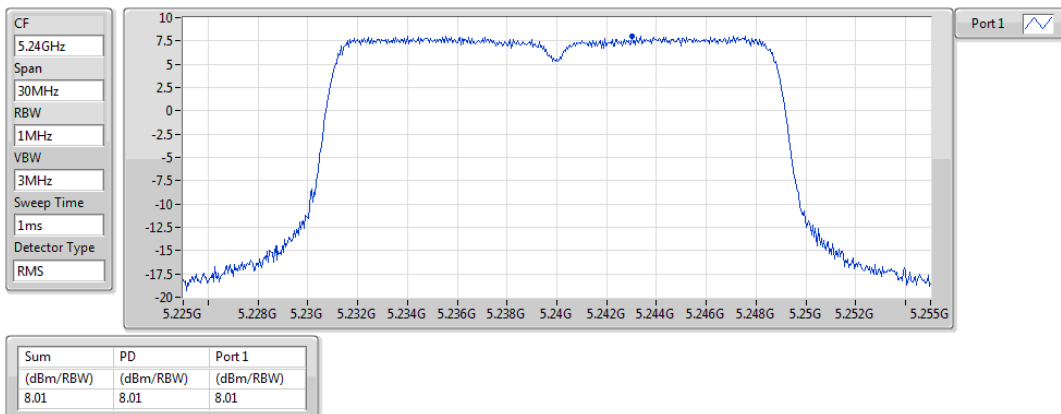
5200MHz



802.11n HT20_Nss1,(MCS0)_1TX

PSD

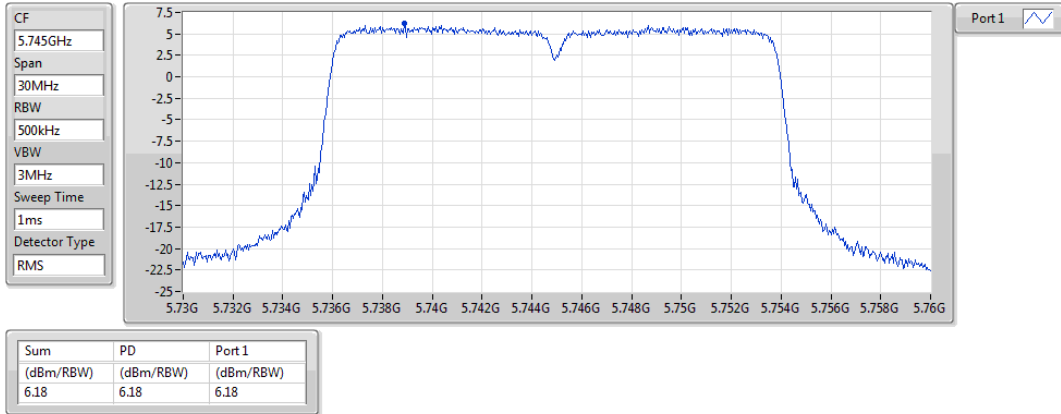
5240MHz



802.11n HT20_Nss1,(MCS0)_1TX

PSD

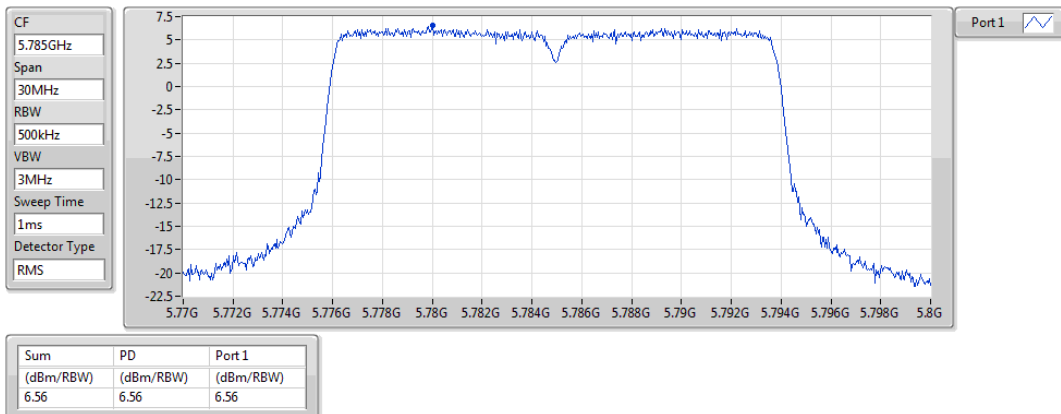
5745MHz



802.11n HT20_Nss1,(MCS0)_1TX

PSD

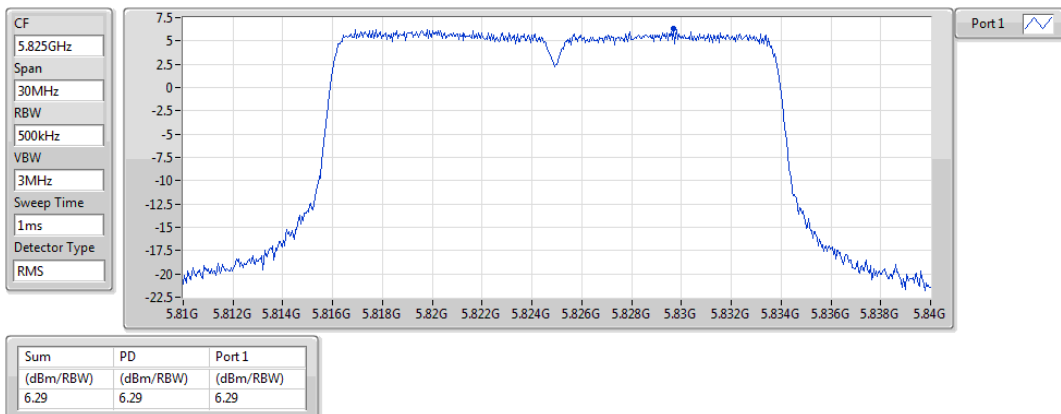
5785MHz



802.11n HT20_Nss1,(MCS0)_1TX

PSD

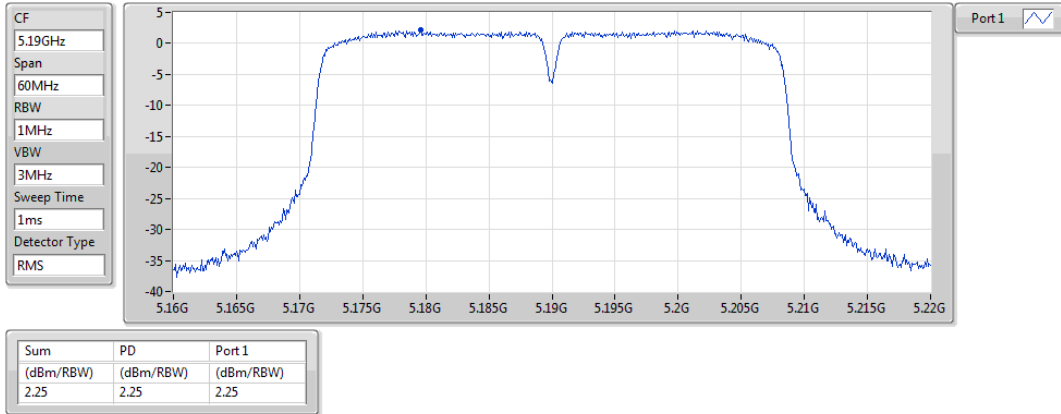
5825MHz



802.11n HT40_Nss1,(MCS0)_1TX

PSD

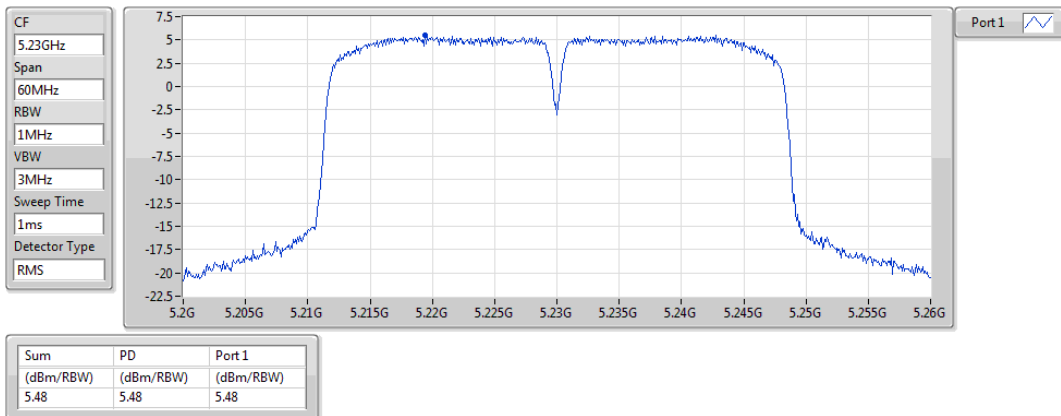
5190MHz



802.11n HT40_Nss1,(MCS0)_1TX

PSD

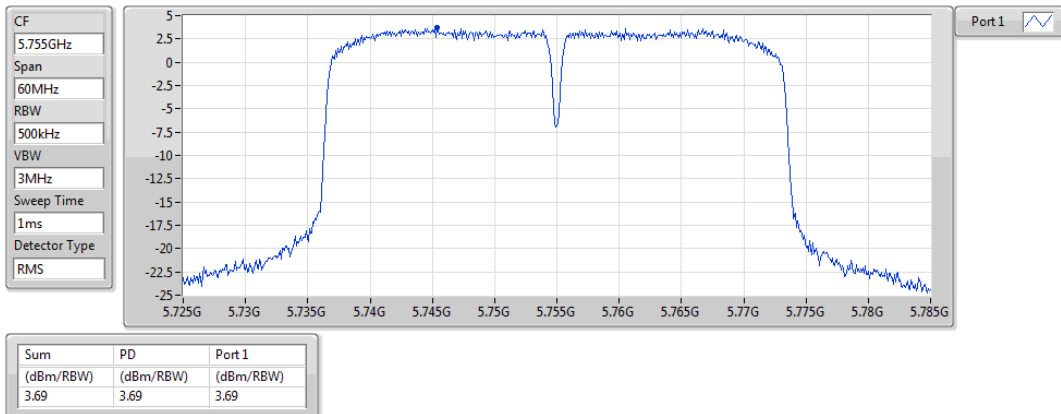
5230MHz



802.11n HT40_Nss1,(MCS0)_1TX

PSD

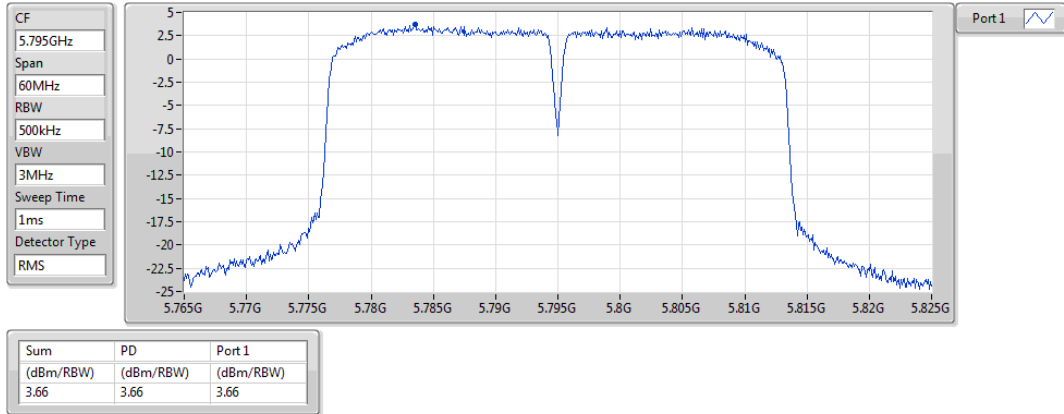
5755MHz



802.11n HT40_Nss1,(MCS0)_1TX

PSD

5795MHz



3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note 1: 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).

3.5.2 Test Procedures

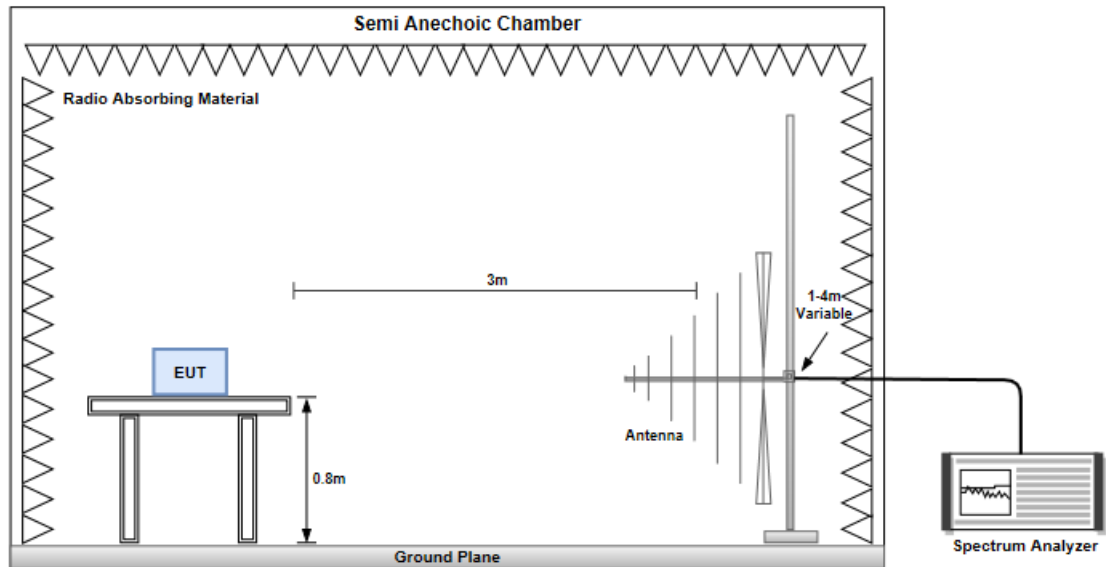
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

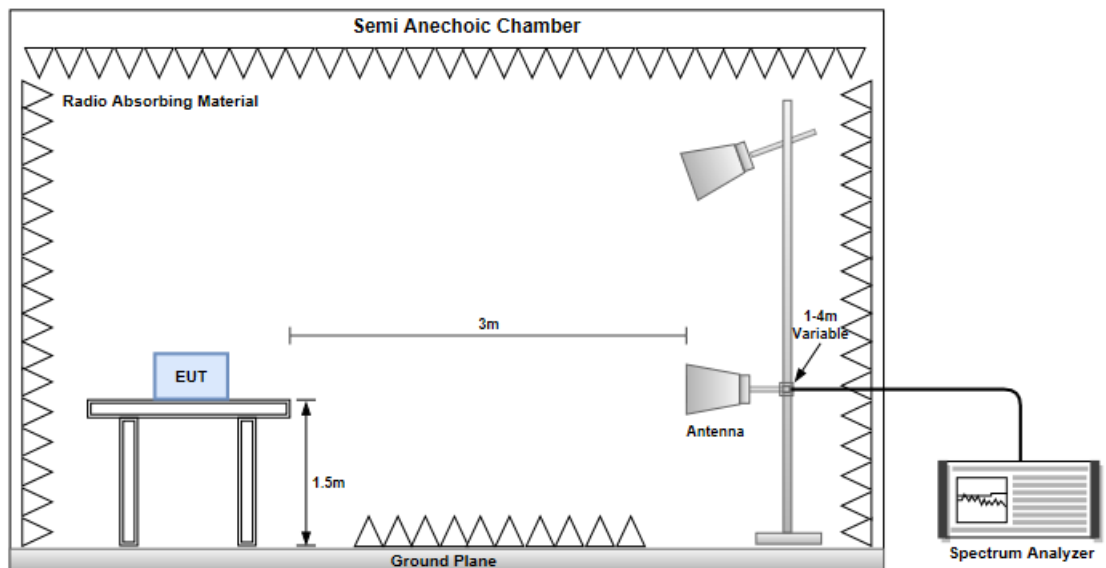
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

3.5.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	HT20	Test Freq. (MHz)	5200
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	HT20	Test Freq. (MHz)	5200
Polarization	Vertical		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		
Level (dBuV/m)			

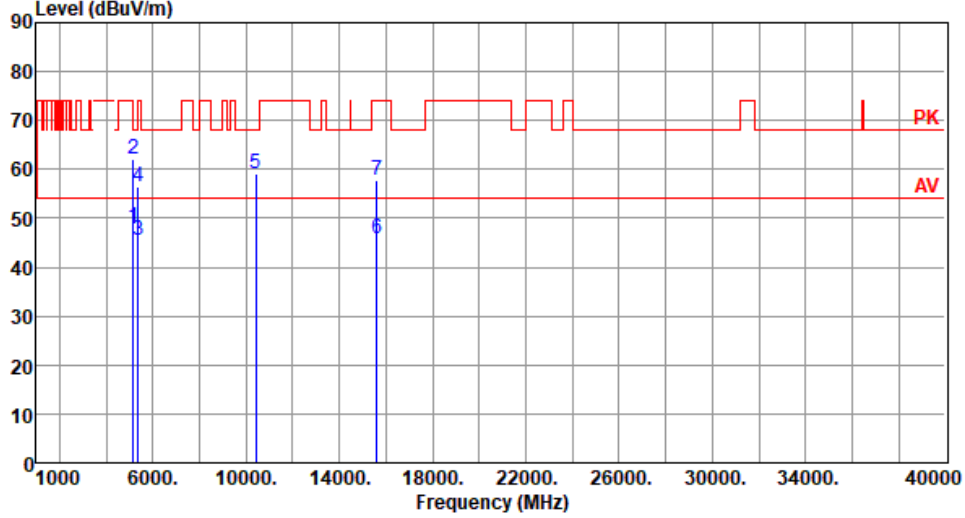
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		
 </			

3.5.5 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11a

Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		

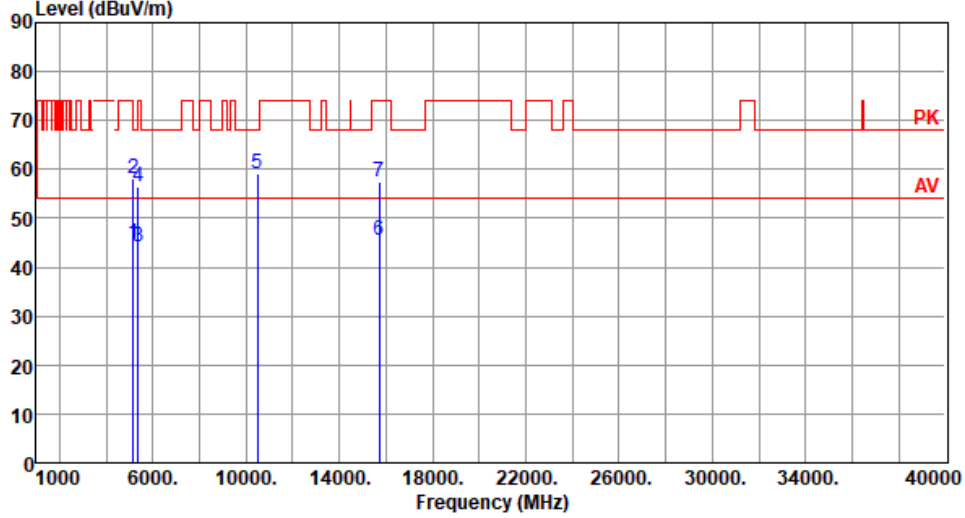


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.28	54.00	-5.72	43.64	4.64	Average	179	17
2	5150.00	62.11	74.00	-11.89	57.47	4.64	Peak	179	17
3	5350.00	45.60	54.00	-8.40	41.66	3.94	Average	179	17
4	5350.00	56.60	74.00	-17.40	52.66	3.94	Peak	179	17
5	10400.00	59.13	68.20	-9.07	44.83	14.30	Peak	100	135
6	15600.00	45.92	54.00	-8.08	31.28	14.64	Average	100	50
7	15600.00	57.80	74.00	-16.20	43.16	14.64	Peak	100	50

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		
Level (dBuV/m)			

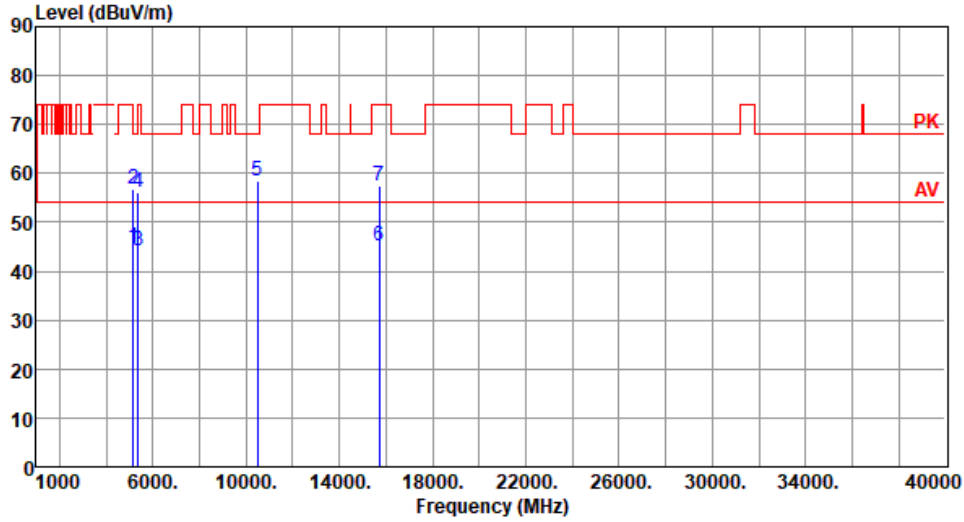
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.86	54.00	-9.14	40.22	4.64	Average	180	16
2	5150.00	58.23	74.00	-15.77	53.59	4.64	Peak	180	16
3	5350.00	44.27	54.00	-9.73	40.33	3.94	Average	180	16
4	5350.00	56.60	74.00	-17.40	52.66	3.94	Peak	180	16
5	10480.00	59.11	68.20	-9.09	44.65	14.46	Peak	100	133
6	15720.00	45.52	54.00	-8.48	31.31	14.21	Average	100	40
7	15720.00	57.47	74.00	-16.53	43.26	14.21	Peak	100	40

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

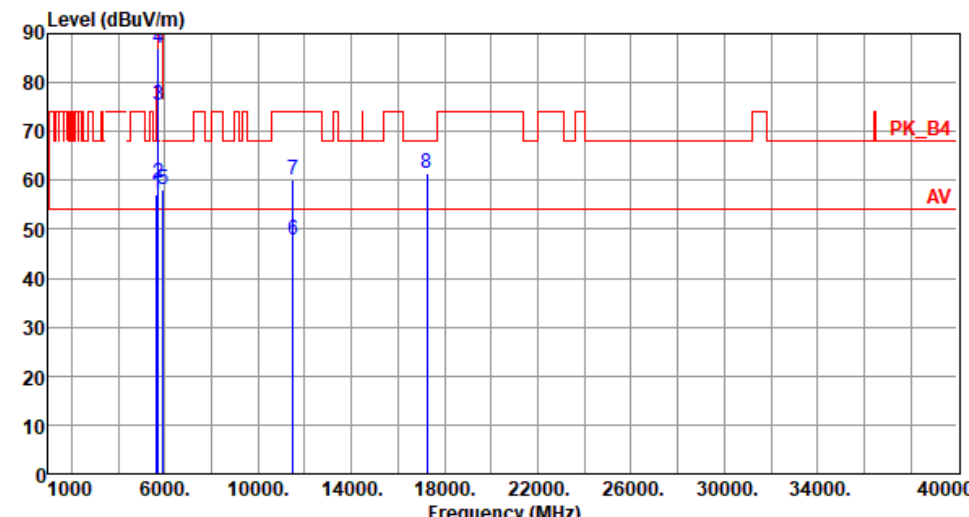
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.87	54.00	-9.13	40.23	4.64	Average	100	184
2	5150.00	56.84	74.00	-17.16	52.20	4.64	Peak	100	184
3	5350.00	44.19	54.00	-9.81	40.25	3.94	Average	100	184
4	5350.00	56.15	74.00	-17.85	52.21	3.94	Peak	100	184
5	10480.00	58.35	68.20	-9.85	43.89	14.46	Peak	100	222
6	15720.00	45.23	54.00	-8.77	31.02	14.21	Average	100	227
7	15720.00	57.33	74.00	-16.67	43.12	14.21	Peak	100	227

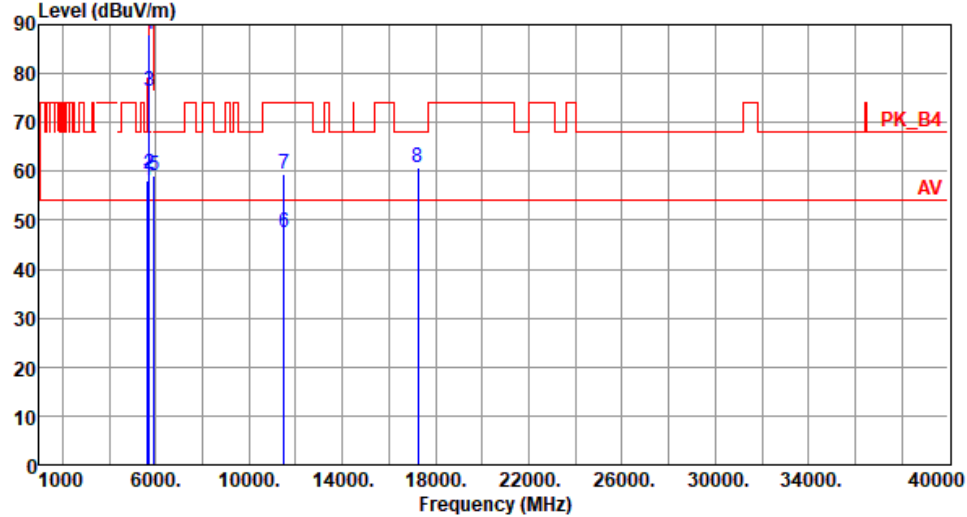
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		

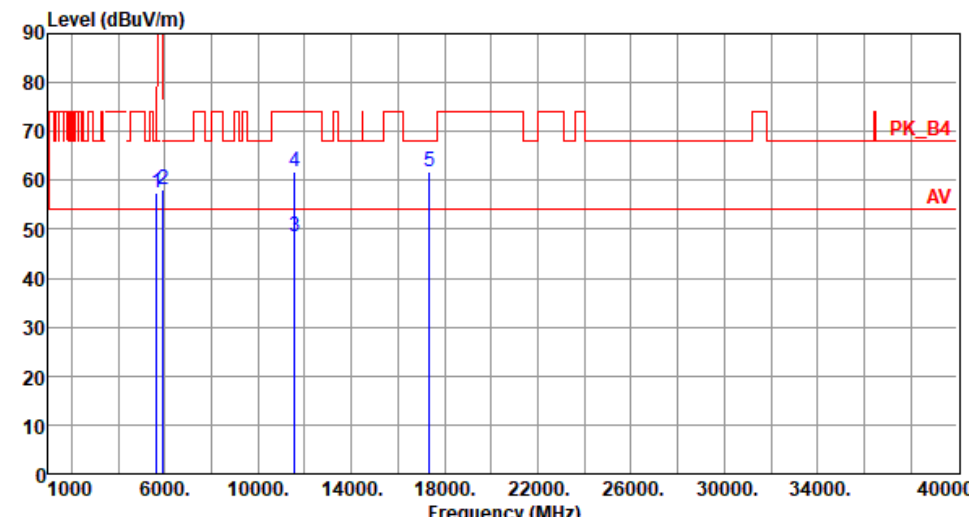


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.06	68.20	-11.14	52.52	4.54	Peak	111	152
2	5700.00	59.42	105.20	-45.78	54.74	4.68	Peak	111	152
3	5720.00	75.36	110.80	-35.44	70.55	4.81	Peak	111	152
4	5725.00	87.10	122.20	-35.10	82.25	4.85	Peak	111	152
5	5925.00	58.28	68.20	-9.92	52.85	5.43	Peak	111	152
6	11490.00	47.82	54.00	-6.18	33.19	14.63	Average	106	206
7	11490.00	60.01	74.00	-13.99	45.38	14.63	Peak	106	206
8	17235.00	61.31	68.20	-6.89	43.55	17.76	Peak	100	30

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5745						
Polarization	Vertical								
									
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.12	68.20	-10.08	53.58	4.54	Peak	288	210
2	5700.00	59.50	105.20	-45.70	54.82	4.68	Peak	288	210
3	5720.00	76.40	110.80	-34.40	71.59	4.81	Peak	288	210
4	5725.00	87.90	122.20	-34.30	83.05	4.85	Peak	288	210
5	5925.00	58.98	68.20	-9.22	53.55	5.43	Peak	288	210
6	11490.00	47.49	54.00	-6.51	32.86	14.63	Average	100	158
7	11490.00	59.48	74.00	-14.52	44.85	14.63	Peak	100	158
8	17235.00	60.66	68.20	-7.54	42.90	17.76	Peak	100	154
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).									

Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		

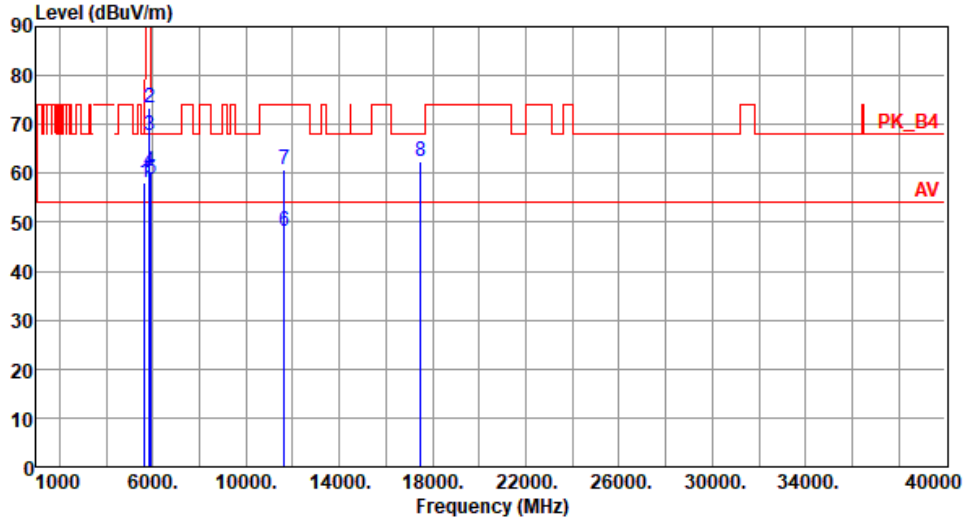


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.51	68.20	-10.69	52.97	4.54	Peak	108	152
2	5925.00	58.28	68.20	-9.92	52.85	5.43	Peak	108	152
3	11570.00	48.40	54.00	-5.60	33.90	14.50	Average	105	206
4	11570.00	61.66	74.00	-12.34	47.16	14.50	Peak	105	206
5	17355.00	61.84	68.20	-6.36	43.48	18.36	Peak	100	60

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		
Level (dBuV/m)			

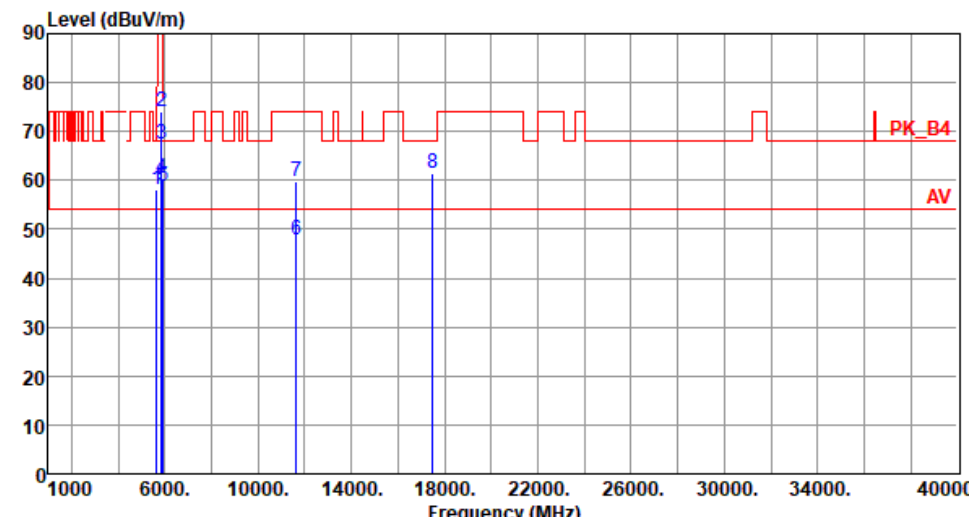
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.10	68.20	-10.10	53.56	4.54	Peak	118	148
2	5850.00	73.34	122.20	-48.86	67.89	5.45	Peak	118	148
3	5855.00	67.64	110.80	-43.16	62.20	5.44	Peak	118	148
4	5875.00	60.31	105.20	-44.89	54.87	5.44	Peak	118	148
5	5925.00	58.85	68.20	-9.35	53.42	5.43	Peak	118	148
6	11650.00	48.27	54.00	-5.73	34.06	14.21	Average	105	204
7	11650.00	60.80	74.00	-13.20	46.59	14.21	Peak	105	204
8	17475.00	62.41	68.20	-5.79	43.55	18.86	Peak	100	40

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.12	68.20	-10.08	53.58	4.54	Peak	286	211
2	5850.00	74.22	122.20	-47.98	68.77	5.45	Peak	286	211
3	5855.00	67.44	110.80	-43.36	62.00	5.44	Peak	286	211
4	5875.00	60.37	105.20	-44.83	54.93	5.44	Peak	286	211
5	5925.00	58.88	68.20	-9.32	53.45	5.43	Peak	286	211
6	11650.00	47.78	54.00	-6.22	33.57	14.21	Average	100	157
7	11650.00	59.78	74.00	-14.22	45.57	14.21	Peak	100	157
8	17475.00	61.43	68.20	-6.77	42.57	18.86	Peak	100	165

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

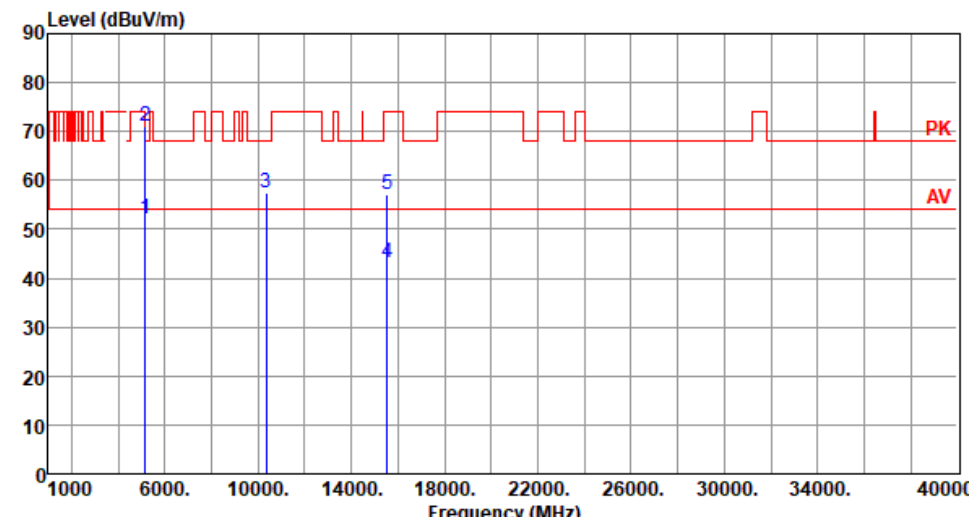
3.5.6 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT20

Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		

Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.79	54.00	-1.21	48.15	4.64	Average	178
2	5150.00	71.61	74.00	-2.39	66.97	4.64	Peak	178
3	10360.00	58.14	68.20	-10.06	43.95	14.19	Peak	100
4	15540.00	45.13	54.00	-8.87	30.22	14.91	Average	100
5	15540.00	58.12	74.00	-15.88	43.21	14.91	Peak	100

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

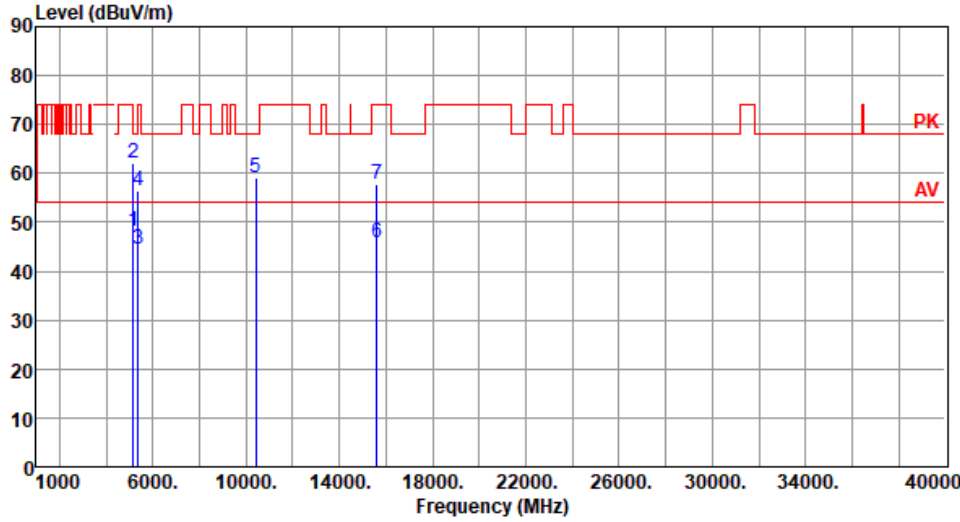
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.09	54.00	-1.91	47.45	4.64	Average	100	177
2	5150.00	70.95	74.00	-3.05	66.31	4.64	Peak	100	177
3	10360.00	57.41	68.20	-10.79	43.22	14.19	Peak	100	232
4	15540.00	43.08	54.00	-10.92	28.17	14.91	Average	100	232
5	15540.00	57.21	74.00	-16.79	42.30	14.91	Peak	100	232

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

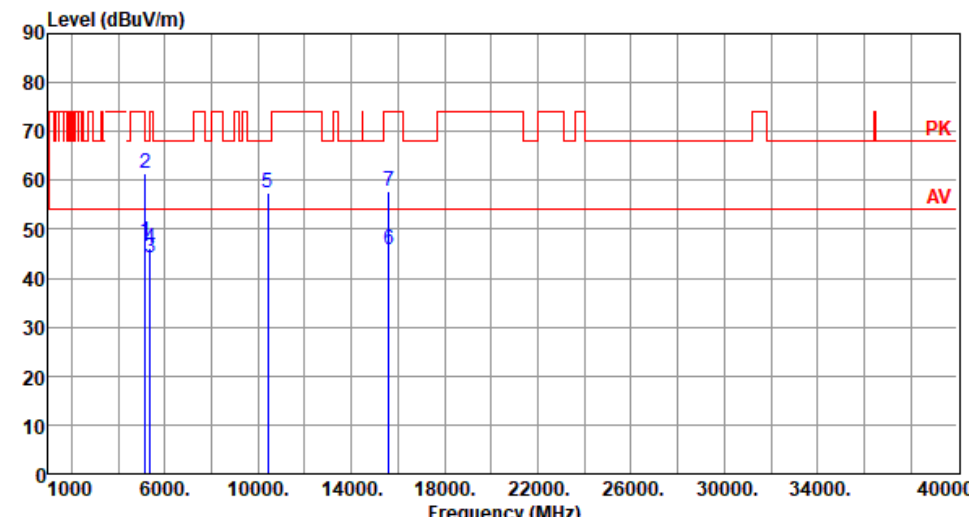
Modulation	HT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.22	54.00	-5.78	43.58	4.64	Average	175	15
2	5150.00	62.10	74.00	-11.90	57.46	4.64	Peak	175	15
3	5350.00	44.44	54.00	-9.56	40.50	3.94	Average	175	15
4	5350.00	56.50	74.00	-17.50	52.56	3.94	Peak	175	15
5	10400.00	59.19	68.20	-9.01	44.89	14.30	Peak	100	136
6	15600.00	45.96	54.00	-8.04	31.32	14.64	Average	100	60
7	15600.00	57.93	74.00	-16.07	43.29	14.64	Peak	100	60

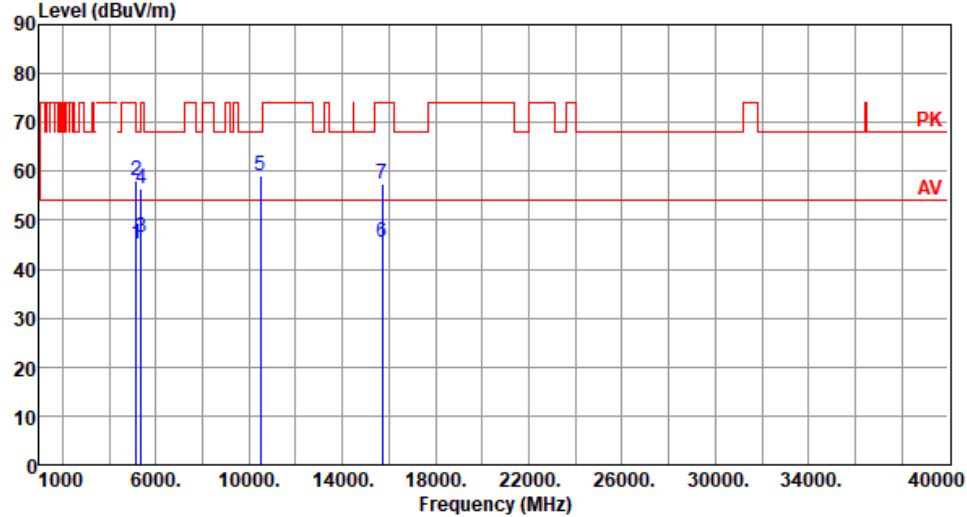
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	HT20	Test Freq. (MHz)	5200
Polarization	Vertical		

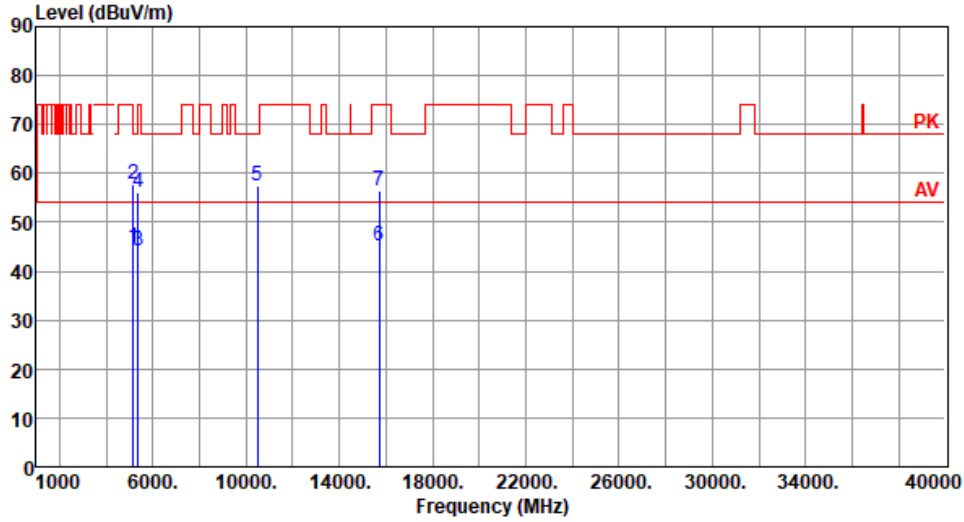


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.53	54.00	-6.47	42.89	4.64	Average	100	186
2	5150.00	61.49	74.00	-12.51	56.85	4.64	Peak	100	186
3	5350.00	44.05	54.00	-9.95	40.11	3.94	Average	100	186
4	5350.00	46.14	74.00	-27.86	42.20	3.94	Peak	100	186
5	10400.00	57.56	68.20	-10.64	43.26	14.30	Peak	100	231
6	15600.00	45.67	54.00	-8.33	31.03	14.64	Average	100	135
7	15600.00	57.67	74.00	-16.33	43.03	14.64	Peak	100	135

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	HT20	Test Freq. (MHz)	5240						
Polarization	Horizontal								
									
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.00	54.00	-9.00	40.36	4.64	Average	181	18
2	5150.00	58.10	74.00	-15.90	53.46	4.64	Peak	181	18
3	5350.00	46.51	54.00	-7.49	42.57	3.94	Average	181	18
4	5350.00	56.54	74.00	-17.46	52.60	3.94	Peak	181	18
5	10480.00	59.01	68.20	-9.19	44.55	14.46	Peak	100	134
6	15720.00	45.47	54.00	-8.53	31.26	14.21	Average	100	30
7	15720.00	57.48	74.00	-16.52	43.27	14.21	Peak	100	30
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).									

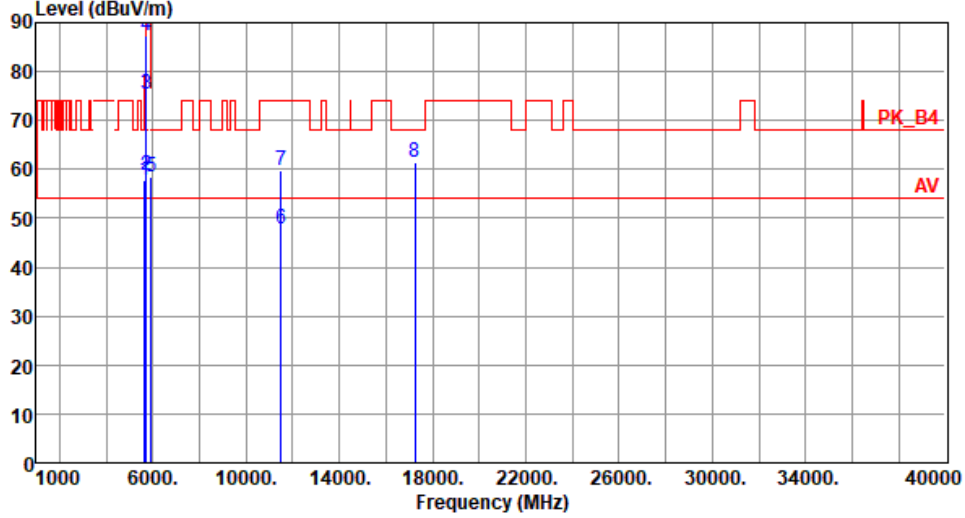
Modulation	HT20	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.82	54.00	-9.18	40.18	4.64	Average	100	182
2	5150.00	57.78	74.00	-16.22	53.14	4.64	Peak	100	182
3	5350.00	44.05	54.00	-9.95	40.11	3.94	Average	100	182
4	5350.00	56.19	74.00	-17.81	52.25	3.94	Peak	100	182
5	10480.00	57.56	68.20	-10.64	43.10	14.46	Peak	100	230
6	15720.00	45.32	54.00	-8.68	31.11	14.21	Average	100	235
7	15720.00	56.53	74.00	-17.47	42.32	14.21	Peak	100	235

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

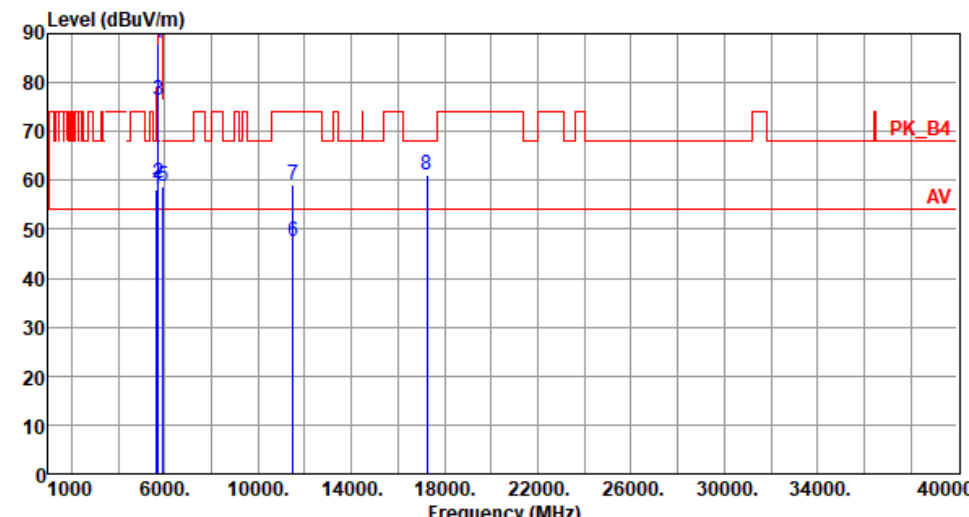
Modulation	HT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.76	68.20	-10.44	53.22	4.54	Peak	118	153
2	5700.00	58.68	105.20	-46.52	54.00	4.68	Peak	118	153
3	5720.00	75.31	110.80	-35.49	70.50	4.81	Peak	118	153
4	5725.00	87.43	122.20	-34.77	82.58	4.85	Peak	118	153
5	5925.00	58.42	68.20	-9.78	52.99	5.43	Peak	118	153
6	11490.00	47.78	54.00	-6.22	33.15	14.63	Average	105	206
7	11490.00	59.89	74.00	-14.11	45.26	14.63	Peak	105	206
8	17235.00	61.38	68.20	-6.82	43.62	17.76	Peak	100	40

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

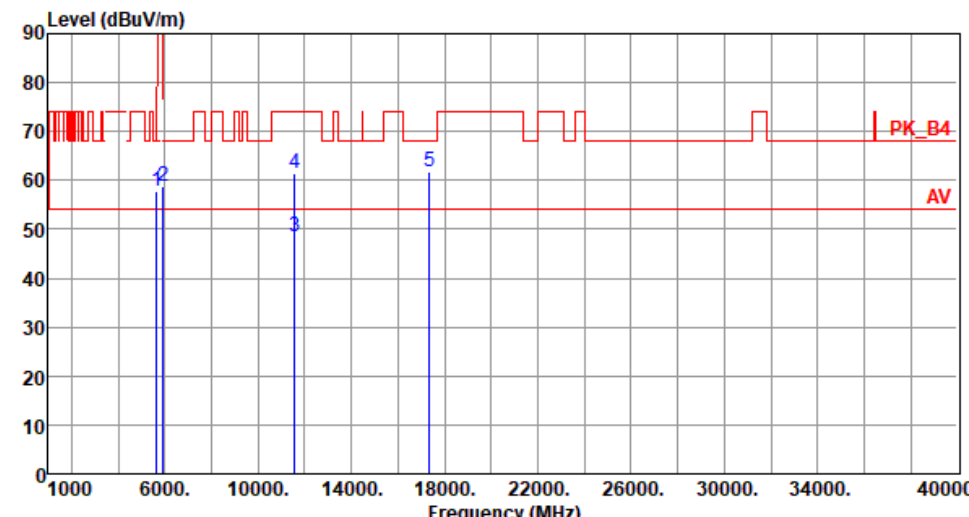
Modulation	HT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.99	68.20	-10.21	53.45	4.54	Peak	287	211
2	5700.00	59.29	105.20	-45.91	54.61	4.68	Peak	287	211
3	5720.00	76.25	110.80	-34.55	71.44	4.81	Peak	287	211
4	5725.00	88.11	122.20	-34.09	83.26	4.85	Peak	287	211
5	5925.00	58.88	68.20	-9.32	53.45	5.43	Peak	287	211
6	11490.00	47.64	54.00	-6.36	33.01	14.63	Average	100	158
7	11490.00	58.97	74.00	-15.03	44.34	14.63	Peak	100	158
8	17235.00	61.02	68.20	-7.18	43.26	17.76	Peak	100	152

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

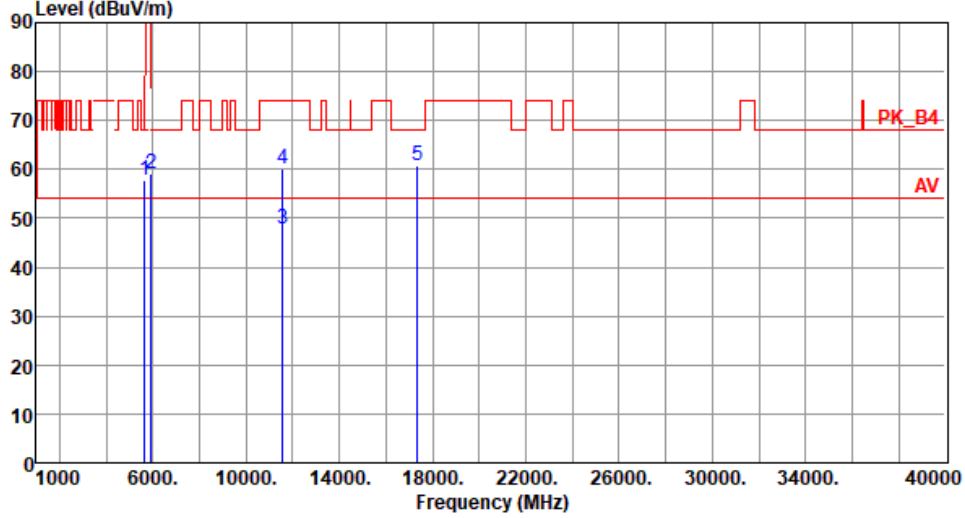
Modulation	HT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.76	68.20	-10.44	53.22	4.54	Peak	117	159
2	5925.00	58.77	68.20	-9.43	53.34	5.43	Peak	117	159
3	11570.00	48.34	54.00	-5.66	33.84	14.50	Average	104	203
4	11570.00	61.53	74.00	-12.47	47.03	14.50	Peak	104	203
5	17355.00	61.87	68.20	-6.33	43.51	18.36	Peak	100	40

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

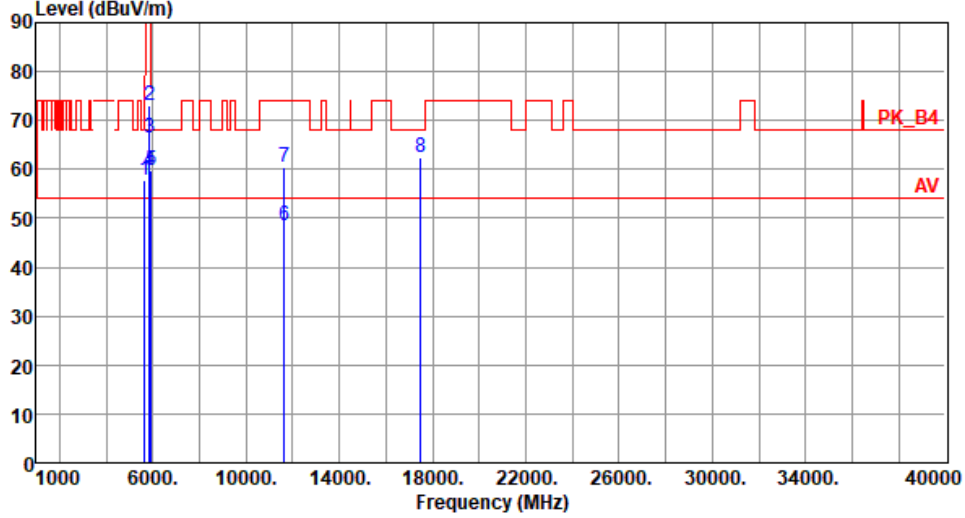
Modulation	HT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.80	68.20	-10.40	53.26	4.54	Peak	286	212
2	5925.00	58.97	68.20	-9.23	53.54	5.43	Peak	286	212
3	11570.00	47.97	54.00	-6.03	33.47	14.50	Average	100	153
4	11570.00	60.02	74.00	-13.98	45.52	14.50	Peak	100	153
5	17355.00	60.61	68.20	-7.59	42.25	18.36	Peak	100	163

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

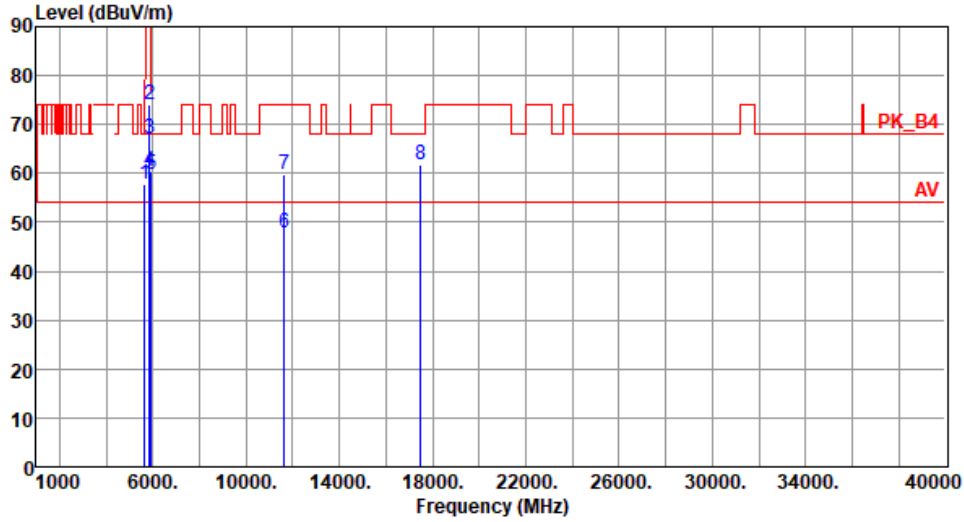
Modulation	HT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.80	68.20	-10.40	53.26	4.54	Peak	122	153
2	5850.00	73.18	122.20	-49.02	67.73	5.45	Peak	122	153
3	5855.00	66.33	110.80	-44.47	60.89	5.44	Peak	122	153
4	5875.00	59.69	105.20	-45.51	54.25	5.44	Peak	122	153
5	5925.00	59.68	68.20	-8.52	54.25	5.43	Peak	122	153
6	11650.00	48.35	54.00	-5.65	34.14	14.21	Average	103	204
7	11650.00	60.38	74.00	-13.62	46.17	14.21	Peak	103	204
8	17475.00	62.33	68.20	-5.87	43.47	18.86	Peak	100	60

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT20	Test Freq. (MHz)	5825
Polarization	Vertical		

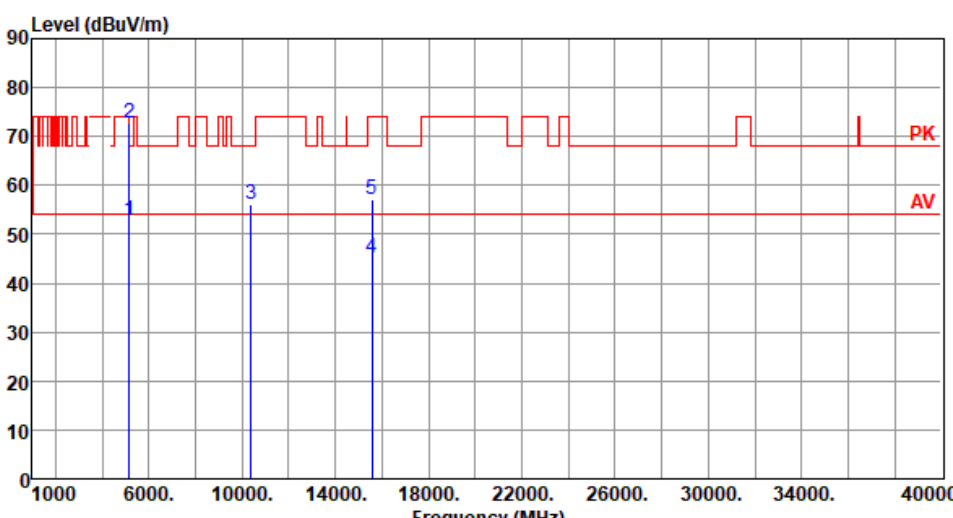


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.94	68.20	-10.26	53.40	4.54	Peak	283	207
2	5850.00	74.09	122.20	-48.11	68.64	5.45	Peak	283	207
3	5855.00	67.00	110.80	-43.80	61.56	5.44	Peak	283	207
4	5875.00	60.30	105.20	-44.90	54.86	5.44	Peak	283	207
5	5925.00	59.82	68.20	-8.38	54.39	5.43	Peak	283	207
6	11650.00	47.95	54.00	-6.05	33.74	14.21	Average	100	152
7	11650.00	59.78	74.00	-14.22	45.57	14.21	Peak	100	152
8	17475.00	61.70	68.20	-6.50	42.84	18.86	Peak	100	155

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

3.5.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT40

Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Horizontal		

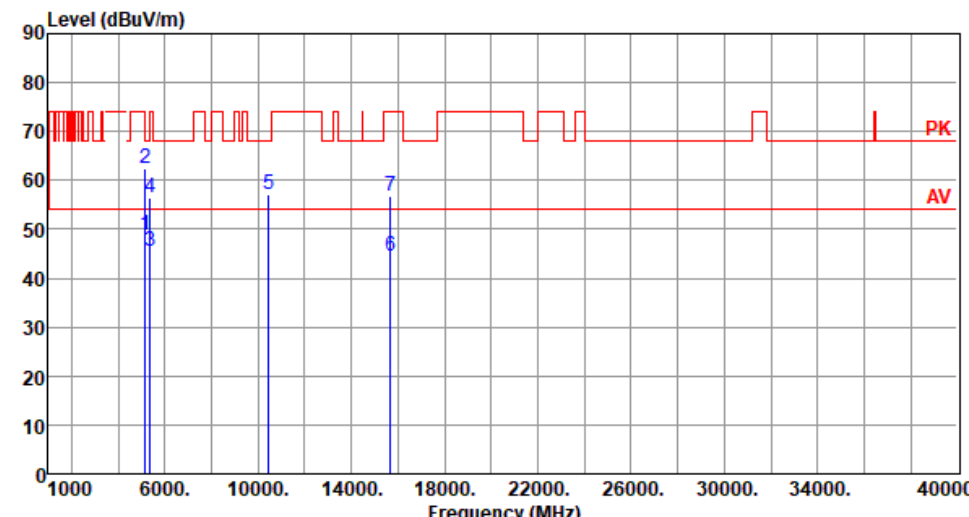


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.90	54.00	-1.10	48.26	4.64	Average	171	18
2	5150.00	72.72	74.00	-1.28	68.08	4.64	Peak	171	18
3	10380.00	56.25	68.20	-11.95	42.01	14.24	Peak	100	137
4	15570.00	45.08	54.00	-8.92	30.30	14.78	Average	100	138
5	15570.00	57.01	74.00	-16.99	42.23	14.78	Peak	100	138

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Vertical		
Level (dBuV/m) </			

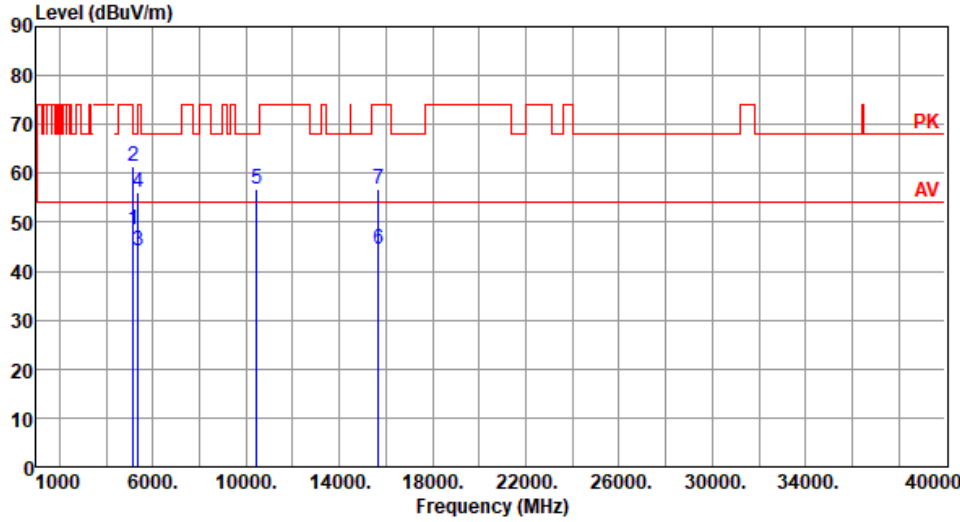
Modulation	HT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.79	54.00	-5.21	44.15	4.64	Average	169	18
2	5150.00	62.43	74.00	-11.57	57.79	4.64	Peak	169	18
3	5350.00	45.44	54.00	-8.56	41.50	3.94	Average	169	18
4	5350.00	56.54	74.00	-17.46	52.60	3.94	Peak	169	18
5	10460.00	57.01	68.20	-11.19	42.59	14.42	Peak	100	30
6	15690.00	44.51	54.00	-9.49	30.25	14.26	Average	100	40
7	15690.00	56.84	74.00	-17.16	42.58	14.26	Peak	100	40

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

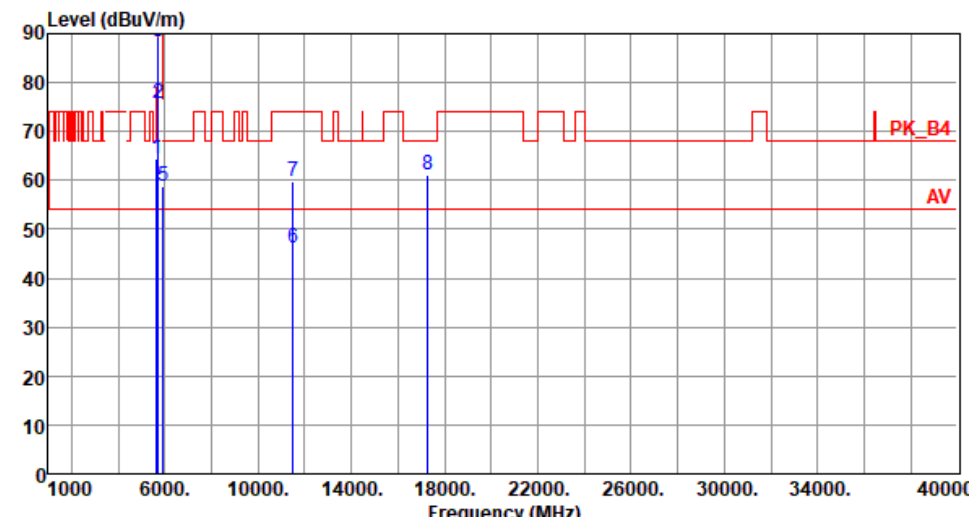
Modulation	HT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.53	54.00	-5.47	43.89	4.64	Average	100	184
2	5150.00	61.52	74.00	-12.48	56.88	4.64	Peak	100	184
3	5350.00	44.05	54.00	-9.95	40.11	3.94	Average	100	184
4	5350.00	56.16	74.00	-17.84	52.22	3.94	Peak	100	184
5	10460.00	56.67	68.20	-11.53	42.25	14.42	Peak	100	238
6	15690.00	44.40	54.00	-9.60	30.14	14.26	Average	100	237
7	15690.00	56.68	74.00	-17.32	42.42	14.26	Peak	100	237

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

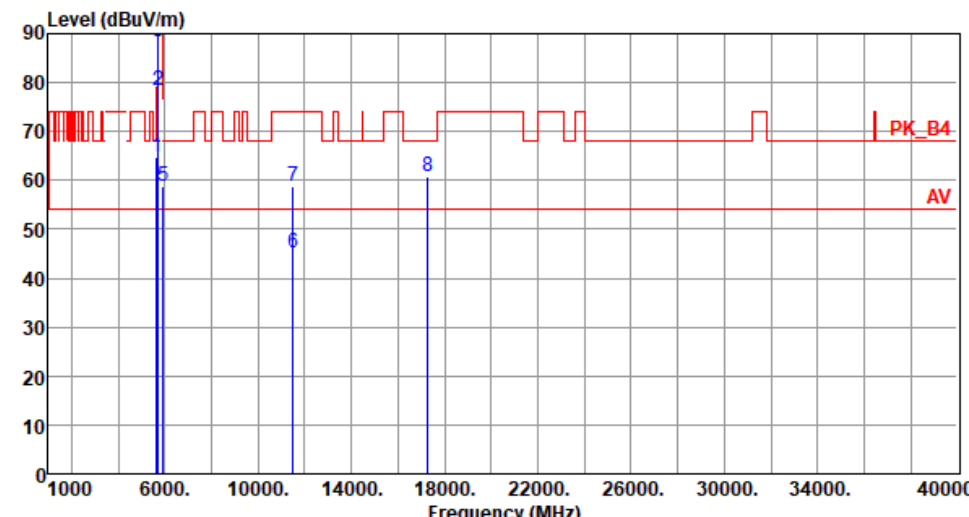
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	64.32	68.20	-3.88	59.78	4.54	Peak	124	152
2	5700.00	75.87	105.20	-29.33	71.19	4.68	Peak	124	152
3	5720.00	88.29	110.80	-22.51	83.48	4.81	Peak	124	152
4	5725.00	89.28	122.20	-32.92	84.43	4.85	Peak	124	152
5	5925.00	58.89	68.20	-9.31	53.46	5.43	Peak	124	152
6	11510.00	46.17	54.00	-7.83	31.56	14.61	Average	100	205
7	11510.00	59.66	74.00	-14.34	45.05	14.61	Peak	100	205
8	17265.00	61.13	68.20	-7.07	43.26	17.87	Peak	100	50

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

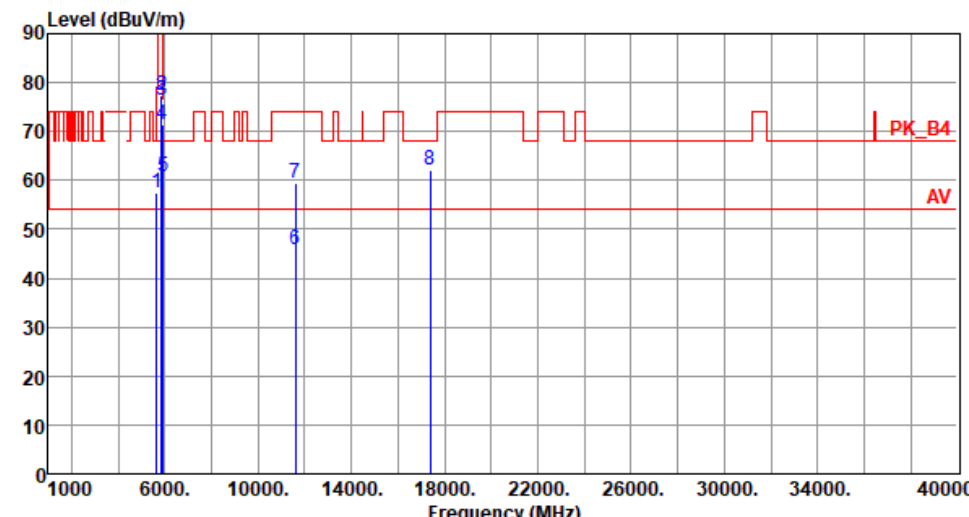
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	64.86	68.20	-3.34	60.32	4.54	Peak	288	209
2	5700.00	78.33	105.20	-26.87	73.65	4.68	Peak	288	209
3	5720.00	88.50	110.80	-22.30	83.69	4.81	Peak	288	209
4	5725.00	89.65	122.20	-32.55	84.80	4.85	Peak	288	209
5	5925.00	58.68	68.20	-9.52	53.25	5.43	Peak	288	209
6	11510.00	45.16	54.00	-8.84	30.55	14.61	Average	100	152
7	11510.00	58.86	74.00	-15.14	44.25	14.61	Peak	100	152
8	17265.00	60.72	68.20	-7.48	42.85	17.87	Peak	100	153

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.40	68.20	-10.80	52.86	4.54	Peak	112	158
2	5850.00	77.22	122.20	-44.98	71.77	5.45	Peak	112	158
3	5855.00	76.33	110.80	-34.47	70.89	5.44	Peak	112	158
4	5875.00	71.33	105.20	-33.87	65.89	5.44	Peak	112	158
5	5925.00	60.67	68.20	-7.53	55.24	5.43	Peak	112	158
6	11590.00	45.88	54.00	-8.12	31.42	14.46	Average	100	203
7	11590.00	59.49	74.00	-14.51	45.03	14.46	Peak	100	203
8	17385.00	61.95	68.20	-6.25	43.39	18.56	Peak	100	70

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	5795
Polarization	Vertical		
Level (dBUV/m)			

3.6 Frequency Stability

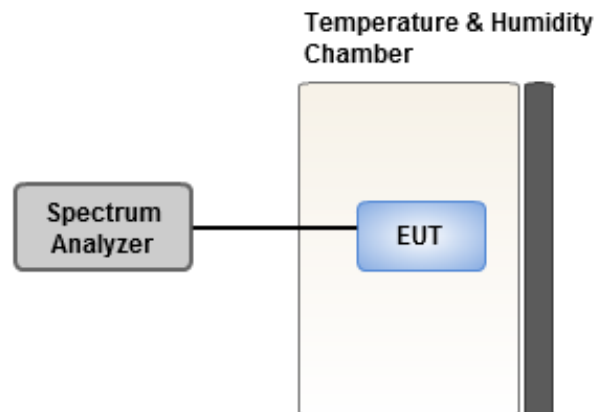
3.6.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

3.6.2 Test Procedures

1. The EUT is installed in an environment test chamber with external power source.
2. Set the chamber to operate at 20 centigrade and external power source to output at nominal voltage of EUT.
3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
4. When temperature is stabled, measure the frequency stability.
5. The test shall be performed under normal and extreme condition for temperature and voltage.

3.6.3 Test Setup



3.6.4 Test Result of Frequency Stability

Frequency: 5200 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	-0.75	-1.01	-1.01	-0.79
T20°C Vmin	-0.62	-0.36	-0.87	-0.59
T50°C Vnom	-2.90	-2.52	-2.70	-2.92
T40°C Vnom	-1.36	-1.43	-1.25	-1.30
T30°C Vnom	-0.40	-0.66	-0.57	-0.48
T20°C Vnom	-0.33	-0.44	-0.35	-0.37
T10°C Vnom	-1.13	-1.68	-1.86	-1.14
T0°C Vnom	-1.94	-2.66	-2.65	-2.33
T-10°C Vnom	-2.61	-2.17	-2.66	-2.70
T-20°C Vnom	-2.80	-3.85	-3.06	-3.73
T-30°C Vnom	-4.92	-5.46	-5.20	-5.68
Vnom [Vac]: 3.7		Vmax [Vac]: 4.2		Vmin [Vac]: 3.5
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	-0.47	-0.69	-0.50	-0.60
T20°C Vmin	-0.39	0.12	-0.40	-0.03
T50°C Vnom	-2.86	-2.71	-2.91	-2.33
T40°C Vnom	-1.05	-0.57	-0.45	-0.80
T30°C Vnom	-0.76	0.35	0.47	0.52
T20°C Vnom	-0.62	-0.32	-0.39	-0.33
T10°C Vnom	-1.15	-1.28	-0.71	-1.31
T0°C Vnom	-2.01	-2.24	-2.00	-1.20
T-10°C Vnom	-1.90	-1.24	-1.87	-1.32
T-20°C Vnom	-2.84	-2.46	-2.49	-2.64
T-30°C Vnom	-4.21	-4.13	-4.11	-4.32
Vnom [Vac]: 3.7		Vmax [Vac]: 4.2		Vmin [Vac]: 3.5
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

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333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd
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City 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information.

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