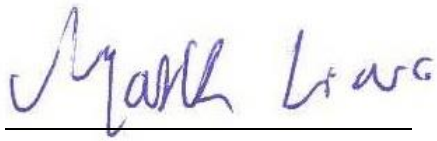
FCC RADIO TEST REPORT

Applicant	:	COMTREND CORPORATION
Address	:	3F-1, No. 10, Lane 609, Chung Hsin Road, Section 5, SanChung District, New Taipei City, Taiwan 241
Equipment	:	Home Gateway
Model No.	:	VR-3053
Trade Name	:	COMTREND
FCC ID	:	L9VVR3053

I HEREBY CERTIFY THAT :

The sample was received on Apr. 16, 2019 and the testing was completed on May. 11, 2019 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.

Approved by:



Mark Liao / Supervisor

Laboratory Accreditation:

Cerpass Technology Corporation Test Laboratory

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History of this test report

Report No.	Issue Date	Description
TEFE1901103	May. 13, 2019	Original

1. Summary of Test Procedure and Test Results

1.1. Applicable Standards

ANSI C63.4:2014

ANSI C63.10:2013

FCC Rules and Regulations Part 15 Subpart E §15.407

First R&O 14-30

KDB662911

KDB789033

KDB644545

FCC Rule	Description of Test	Result
15.203	Antenna Requirement	PASS
15.207(a)	AC Power Line Conducted Emission	PASS
15.407(b) 15.209	Radiated Spurious Emission	PASS
15.407(a)	26 dB & Occupied Bandwidth	PASS
15.407	6 dB Bandwidth	PASS
15.407 (a) & (a)(3)	Average Power	PASS
15.407(a)	Power Spectral Density	PASS
15.407(g)	Frequency Stability	PASS
2.1091	Radio Frequency Exposure	PASS

*The principle of judgment is made according to the laboratory's reporting control and measurement uncertainty standard procedures.

*This EUT has been also tested and compiled with the requirement of FCC Part 15, Subpart B, recorded in a separate test report(TEFD1901103).

2. Test Configuration of Equipment under Test

2.1. Feature of Equipment under Test

Model No.	VR-3053
Brand Name	COMTREND
Product Description	Please refer to User's Manual.
Connecting I/O Port(s)	Please refer to User's Manual.
AC ADAPTER	Adapter Brand: AMIGO Model No.: AMS115-1202000FU I/P: AC 100-240V~, 50-60Hz, 0.8A MAX. ; O/P: DC 12V, 2.0A
Frequency Range	802.11b/g/n: 2400MHz-2483.5MHz 802.11a/n/ac: 5150MHz-5250MHz,5725MHz-5850MHz
Modulation Type	OFDM, DSSS
Data Rate	2.4GHz: 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20/40 5GHz: 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20/40 802.11ac: MCS0 – MCS9, VHT20/40/80
Antenna Type	PCB Antenna
Antenna Gain	2400MHz-2483.5MHz: ANT A: 3.90 dBi ; ANT B: 3.58 dBi 5150MHz-5250MHz: ANT A: 3.53 dBi ; ANT B: 3.41 dBi 5725MHz-5850MHz: ANT A: 3.32 dBi ; ANT B: 3.59 dBi

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.2. Carrier Frequency of Channels

Band: 5150MHz-5250MHz

802.11a, 802.11n HT20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
***36**	**5180**	***44**	**5220**
40	5200	***48**	**5240**

802.11n HT40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
***38**	**5190**	***46**	**5230**

802.11ac VHT80

Channel	Frequency(MHz)
***42**	**5210**

Band: 5725MHz -5850MHz

802.11a, 802.11n HT20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
***149**	**5745**	161	5805
153	5765	***165**	**5825**
***157**	**5785**		

802.11n HT40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
***151**	**5755**	***159**	**5795**

802.11ac VHT80

Channel	Frequency(MHz)
***155**	**5775**

Note: Channels remarked * are selected to perform test.

2.3. Test Mode and Test Software

a. During testing, the interface cables and equipment positions were varied according to ANSI C63.10.
b. The complete test system included remote workstation and EUT for RF test. The remote workstation included Notebook.
   An executive program, ” Lantiq DUT v1.1” under WIN 7 was executed to transmit and receive data via WLAN.
c. The following test modes were performed for the test:

Conducted Emissions from the AC mains power ports	
Test Mode	Operating Description
1	802.11a (6Mbps)
2	802.11ac VHT20 (6.5Mbps)
3	802.11ac VHT40 (13.5Mbps)
4	802.11ac VHT80 (29.3Mbps)
caused “Test Mode 4” generated the worst case, it was reported as the final data.	
Radiation Emissions (30MHz ~ 1GHz)	
Test Mode	Operating Description
1	802.11a (6Mbps), Power from Adapter
2	802.11ac VHT20 (6.5Mbps), Power from Adapter
3	802.11ac VHT40 (13.5Mbps), Power from Adapter
4	802.11ac VHT80 (29.3Mbps), Power from Adapter
caused “Test Mode 4” generated the worst case, they were reported as the final data.	
Radiation Emissions (1GHz ~ 40GHz)	
Test Mode	Operating Description
1	802.11a (6Mbps), Power from Adapter
2	802.11ac VHT20 (6.5Mbps), Power from Adapter
3	802.11ac VHT40 (13.5Mbps), Power from Adapter
4	802.11ac VHT80 (29.3Mbps), Power from Adapter
caused “Test Mode 1~4” generated the worst case, they were reported as the final data.	

2.4. Description of Test System

RF Conducted						
Equipment	**Brand**	**Model**	**Serial No**	**Inspection mark**	**Length/Type**	**Power cord/Length/Type**
Notebook	ASUS	P2430U	GBNXCV13M066465	R31018	N/A	Adapter / 1.8m / NS
Network cable	N/A	N/A		N/A	1.2m / NS	N/A

Radiated Emissions						
Equipment	**Brand**	**Model**	**Serial No**	**Inspection mark**	**Length/Type**	**Power cord/Length/Type**
Notebook	ASUS	P2430U	GBNXCV13M066465	R31018	N/A	Adapter / 1.8m / NS
Network cable	N/A	N/A		N/A	1.2m / NS	N/A

AC Power Line Conducted Emission						
Equipment	**Brand**	**Model**	**Serial No**	**Inspection mark**	**Length/Type**	**Power cord/Length/Type**
Notebook	ASUS	P2430U	GBNXCV13M066465	R31018	N/A	Adapter / 1.8m / NS
Network cable	N/A	N/A		N/A	15m / NS	N/A

2.5. General Information of Test

Test Site	**Cerpass Technology Corporation Test Laboratory** Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel:+886-3-3226-888 Fax:+886-3-3226-881 Address: No.68-1, Shihbachongsi, Shihding Township, New Taipei City 223, Taiwan, R.O.C. Tel: +886-2-2663-8582	
	FCC	TW1079, TW1061, TW1439
	IC	4934E-1, 4934E-2
	VCCI	T-2205 for Telecommunication Test C-4663 for Conducted emission test R-4399, R-4218 for Radiated emission test G-10812, G-10813 for radiated disturbance above 1GHz
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz	
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.	

Test Item	Test Site	Tested Date	Environmental Conditions	Tested By
RF Conducted	RFCON01-NK	2019/05/11	23℃ / 60%	Nick Guan
Radiated Emissions	3M02-NK	2019/05/06	22℃ / 50%	Spree Yeh
RF Conduction	CON02-NK	2019/05/04	22℃ / 47%	Spree Yeh

2.6. Measurement Uncertainty

Measurement Item	Uncertainty
Radiated Spurious Emission(9KHz~30MHz)	±3.405dB
Radiated Spurious Emission(30MHz~1GHz)	±5.326dB
Radiated Spurious Emission(1GHz~40GHz)	±5.011dB
6dB Bandwidth	±4.407%
26dB Bandwidth	±4.459%
Occupied Bandwidth	±4.403%
Peak Output Power(Conducted Power Meter)	±1.31dB
Power Spectral Density	±2.106dB
Duty Cycle	±0.17%
Frequency Stability	±156.543Hz
Temperature	±1.2°C
Humidity	±2.7%

3. Test Equipment and Ancillaries Used for Tests

Test Item	Radiated Emissions				
Test Site	Semi Anechoic Room(3M02-NK)				
Instrument	**Manufacturer**	**Model No**	**Serial No**	**Calibration Date**	**Valid Date**
Bilog Antenna	Schwarzbeck	VULB9168	275	2018/09/17	2019/09/16
Active Loop Antenna	EMCO	6507	40855	2018/05/22	2019/05/21
Horn Antenna	EMCO	3115	31589	2019/04/01	2020/03/31
Horn Anrenna	EMCO	3116	31974	2018/09/07	2019/09/06
EMI Receiver	ROHDE & SCHWARZ	ESCI	101423	2018/06/11	2019/06/10
Spectrum Analyzer	ROHDE & SCHWARZ	FSP 40	100219	2018/07/03	2019/07/02
Preamplifier	EM Electronics corp.	EM330	60660	2019/03/11	2020/03/10
Preamplifier	EMC INSTRUMENTS	EMC051845SE	980333	2018/09/18	2019/09/17
Bluetooth Tester	ROHDE & SCHWARZ	CBT	101133	2019/04/07	2020/04/06
Cable-3in1(30M-1G)	HARBOUR INDUSTRIES	LL142	CCE1316	2018/09/12	2019/09/11
Cable-0.5m(1G-40G)	Rapidtek	40GHZ 50CM	38MS-38MS50314	2019/04/09	2020/04/08
Cable-3m(1G-40G)	Rapidtek	40GHZ 300CM	38MS-38MS300314	2019/04/09	2020/04/08
Cable-8m(1G-40G)	Rapidtek	40GHZ 800CM	38MS-38MS800314	2019/04/10	2020/04/09
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA

Test Item	RF Conducted				
Test Site	RFCON01-NK				
Instrument	**Manufacturer**	**Model No**	**Serial No**	**Calibration Date**	**Valid Date**
Spectrum Analyzer	ROHDE & SCHWARZ	FSP 40	100219	2018/07/03	2019/07/02
Bluetooth Tester	ROHDE & SCHWARZ	CBT	101133	2019/04/07	2020/04/06
Attenuator	KEYSIGHT	8491B	MY39250705	2018/09/04	2019/09/03
TEMP & HUMI CHAMBER	T-MACHINE	TMJ-9712	T-12-040111	2018/08/30	2019/08/29
Power Sensor	Anritsu	MA2411B	1207295	2019/04/11	2020/04/10

Test Item	AC Power Line Conducted Emission				
Test Site	CON02-NK				
Instrument	**Manufacturer**	**Model No**	**Serial No**	**Calibration Date**	**Valid Date**
EMI Receiver	ROHDE & SCHWARZ	ESCI	100821	2018/9/12	2019/09/11
Line Impedance Stabilization Network	Schwarzbeck	NSLK 8127	8127-740	2018/6/13	2019/06/12
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	101933	2018/9/4	2019/09/03
E3	AUDIX	v8.2014-8-6	RK-000531	NA	NA

4. Antenna Requirements

4.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, 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.

And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.2. Antenna Construction and Directional Gain

Antenna Type	PCB Antenna
Antenna Gain	2400MHz-2483.5MHz: ANT A: 3.90 dBi ; ANT B: 3.58 dBi 5150MHz-5250MHz: ANT A: 3.53 dBi ; ANT B: 3.41 dBi 5725MHz-5850MHz: ANT A: 3.32 dBi ; ANT B: 3.59 dBi

2412-2462MHz
802.11b
For Power directional gain= G_{ant}= 3.9 dBi
For PSD directional gain = G_{ant}= 3.9 dBi

802.11g/n
For Power directional gain= G_{ant}= 3.9 dBi
For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / NANT]$
= 6.75 (dBi)

5150MHz-5250MHz
For Power directional gain= G_{ant}= 3.53 dBi
For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / NANT]$
= 6.48 (dBi)
5725MHz -5850MHz
For Power directional gain= G_{ant}= 3.59 dBi
For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / NANT]$
= 6.47 (dBi)

5. Test of AC Power Line Conducted Emission

5.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz, according to the methods defined in ANSI C63.4-2014. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

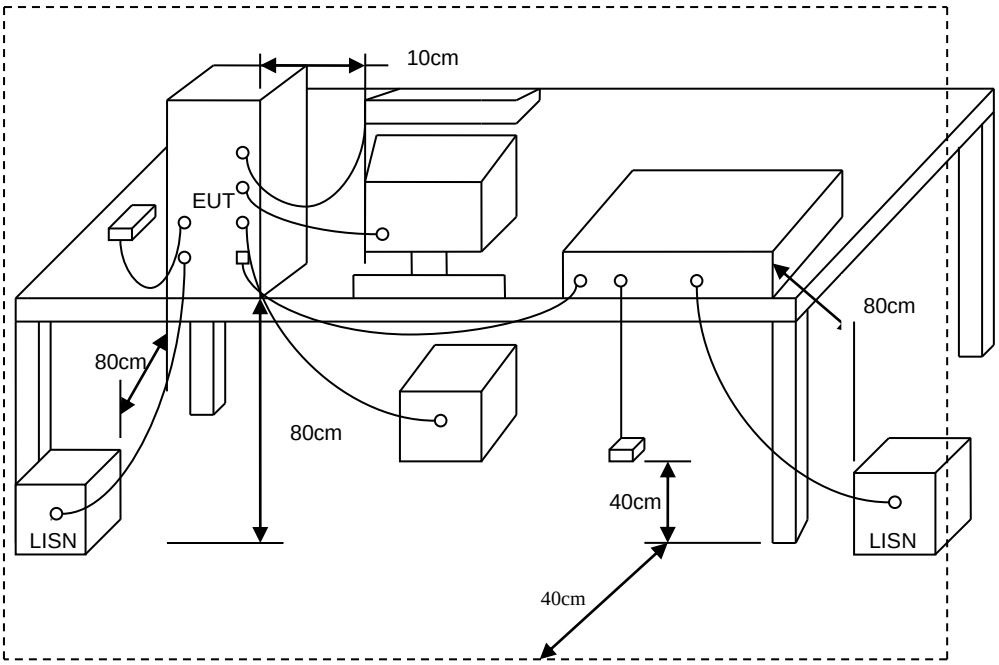
Frequency (MHz)	Quasi Peak (dBμV)	Average (dBμV)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

5.2. Test Procedures

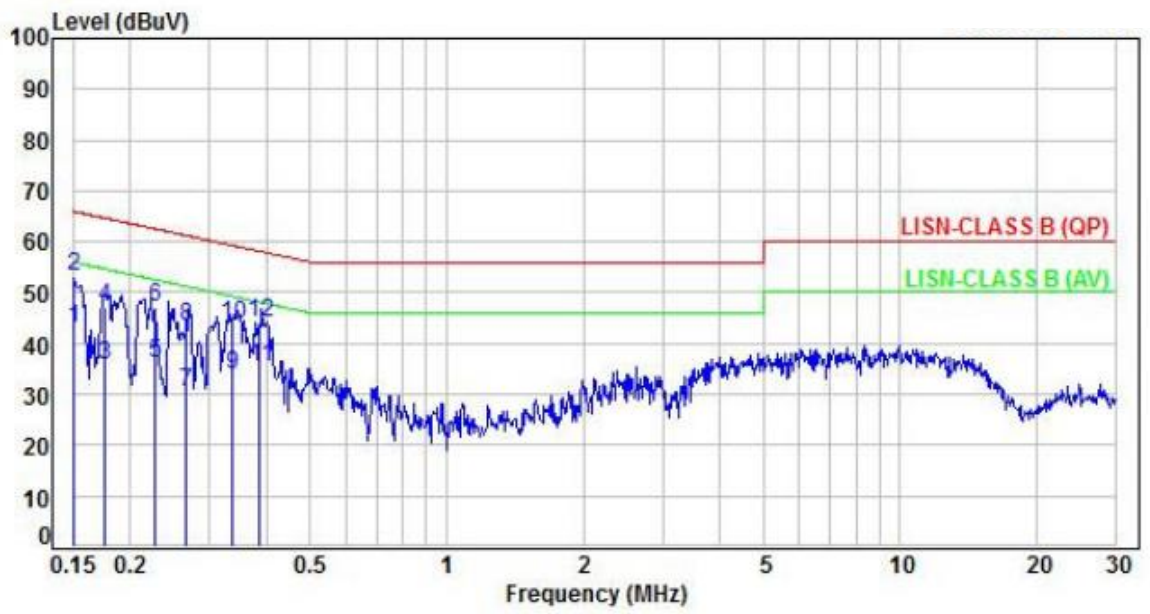
a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connecting to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

5.3. Typical Test Setup



5.4. Test Result and Data

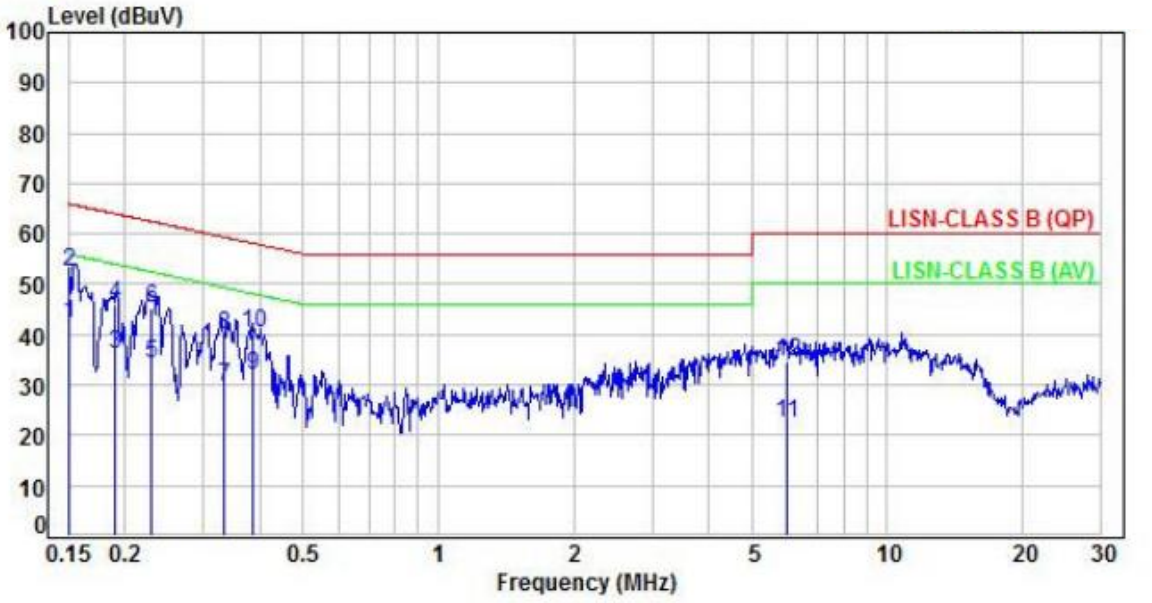
Power	:	AC 120V/60Hz	Pol/Phase	:	LINE
Test Mode	:	B1 Mode 4		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.92	33.03	42.95	55.96	-13.01	Average	P
2	0.15	9.92	43.46	53.38	65.96	-12.58	QP	P
3	0.18	9.92	25.71	35.63	54.69	-19.06	Average	P
4	0.18	9.92	37.30	47.22	64.69	-17.47	QP	P
5	0.23	9.92	26.14	36.06	52.54	-16.48	Average	P
6	0.23	9.92	37.31	47.23	62.54	-15.31	QP	P
7	0.27	9.92	20.58	30.50	51.27	-20.77	Average	P
8	0.27	9.92	33.46	43.38	61.27	-17.89	QP	P
9	0.34	9.94	23.94	33.88	49.28	-15.40	Average	P
10	0.34	9.94	33.87	43.81	59.28	-15.47	QP	P
11	0.39	9.94	25.28	35.22	48.11	-12.89	Average	P
12	0.39	9.94	34.03	43.97	58.11	-14.14	QP	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=(LISN or ISN or Current Probe)Factor + Cable Loss

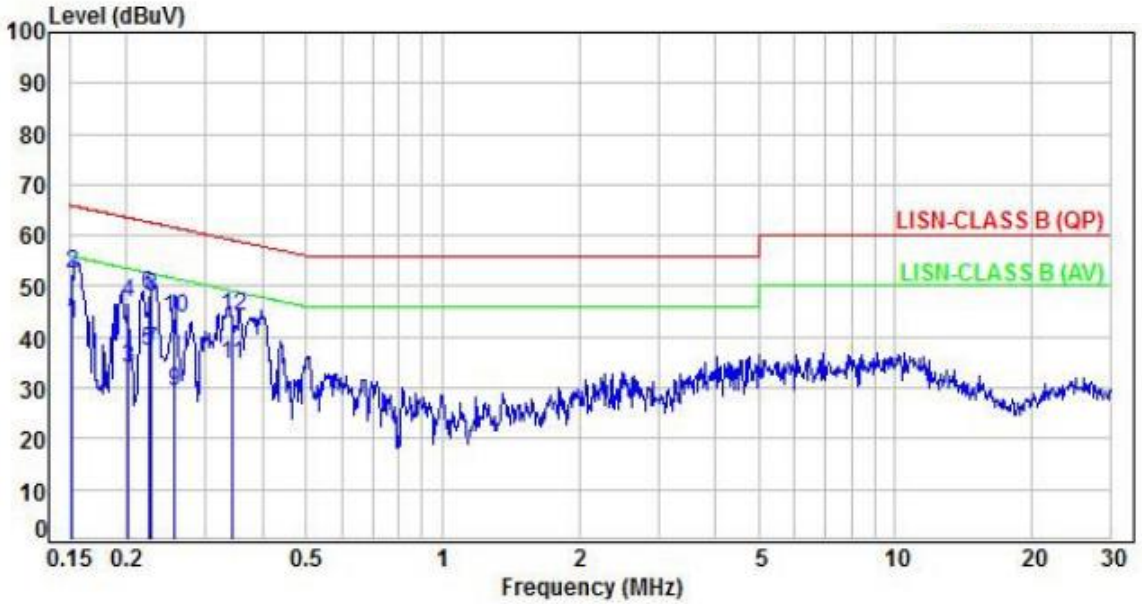
Power	:	AC 120V/60Hz	Pol/Phase	:	NEUTRAL
Test Mode	:	B1 Mode 4		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.95	32.25	42.20	55.94	-13.74	Average	P
2	0.15	9.95	42.37	52.32	65.94	-13.62	QP	P
3	0.19	9.95	26.26	36.21	54.03	-17.82	Average	P
4	0.19	9.95	36.00	45.95	64.03	-18.08	QP	P
5	0.23	9.95	24.11	34.06	52.45	-18.39	Average	P
6	0.23	9.95	35.31	45.26	62.45	-17.19	QP	P
7	0.33	9.96	19.68	29.64	49.36	-19.72	Average	P
8	0.33	9.96	30.03	39.99	59.36	-19.37	QP	P
9	0.39	9.96	21.95	31.91	48.13	-16.22	Average	P
10	0.39	9.96	30.52	40.48	58.13	-17.65	QP	P
11	5.98	10.20	12.35	22.55	50.00	-27.45	Average	P
12	5.98	10.20	24.33	34.53	60.00	-25.47	QP	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=(LISN or ISN or Current Probe)Factor + Cable Loss

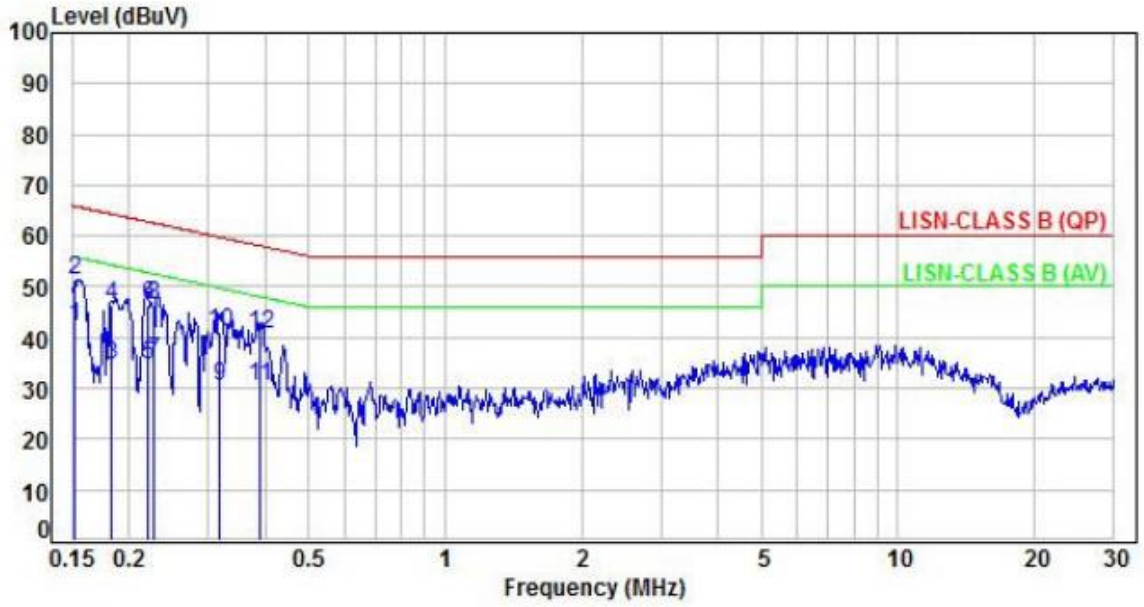
Power	:	AC 120V/60Hz	Pol/Phase	:	LINE
Test Mode	:	B4 Mode 4		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.92	32.70	42.62	55.91	-13.29	Average	P
2	0.15	9.92	42.55	52.47	65.91	-13.44	QP	P
3	0.20	9.92	23.86	33.78	53.55	-19.77	Average	P
4	0.20	9.92	36.91	46.83	63.55	-16.72	QP	P
5	0.22	9.92	27.44	37.36	52.68	-15.32	Average	P
6	0.22	9.92	38.20	48.12	62.68	-14.56	QP	P
7	0.23	9.92	27.35	37.27	52.53	-15.26	Average	P
8	0.23	9.92	38.08	48.00	62.53	-14.53	QP	P
9	0.26	9.92	19.36	29.28	51.56	-22.28	Average	P
10	0.26	9.92	33.86	43.78	61.56	-17.78	QP	P
11	0.34	9.94	24.59	34.53	49.12	-14.59	Average	P
12	0.34	9.94	34.35	44.29	59.12	-14.83	QP	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=(LISN or ISN or Current Probe)Factor + Cable Loss

Power	:	AC 120V/60Hz	Pol/Phase	:	NEUTRAL
Test Mode	:	B4 Mode 4		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.95	32.21	42.16	55.88	-13.72	Average	P
2	0.15	9.95	41.46	51.41	65.88	-14.47	QP	P
3	0.18	9.95	24.69	34.64	54.36	-19.72	Average	P
4	0.18	9.95	36.33	46.28	64.36	-18.08	QP	P
5	0.22	9.95	24.69	34.64	52.76	-18.12	Average	P
6	0.22	9.95	36.30	46.25	62.76	-16.51	QP	P
7	0.23	9.95	25.24	35.19	52.55	-17.36	Average	P
8	0.23	9.95	36.43	46.38	62.55	-16.17	QP	P
9	0.32	9.96	20.47	30.43	49.80	-19.37	Average	P
10	0.32	9.96	31.15	41.11	59.80	-18.69	QP	P
11	0.39	9.96	20.60	30.56	48.07	-17.51	Average	P
12	0.39	9.96	30.85	40.81	58.07	-17.26	QP	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=(LISN or ISN or Current Probe)Factor + Cable Loss

6. Test of Spurious Emission (Radiated)

6.1. Test Limit

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:
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 25MHz 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 27dBm/MHz at the band edge.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

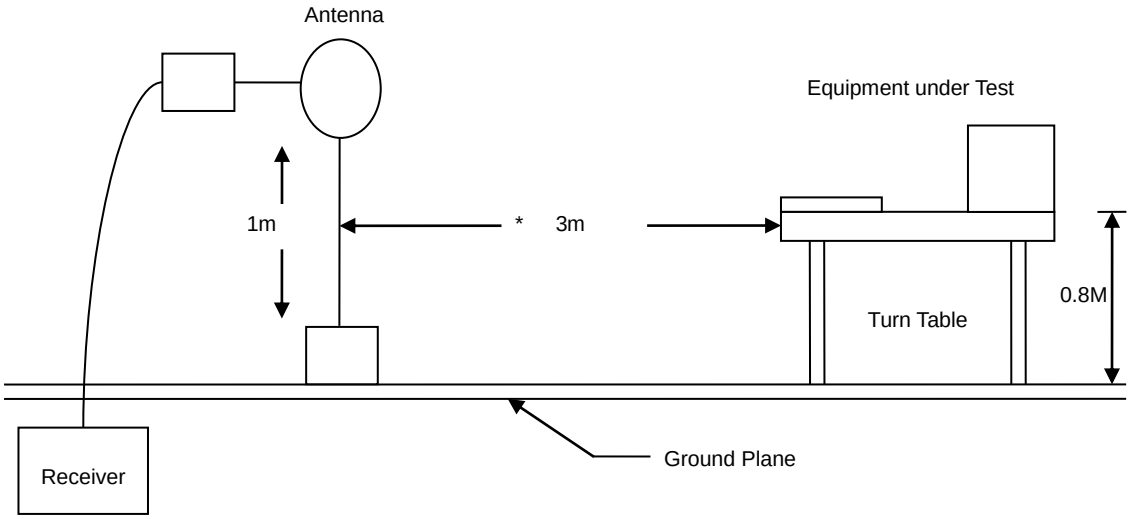
(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

6.2. Test Procedures

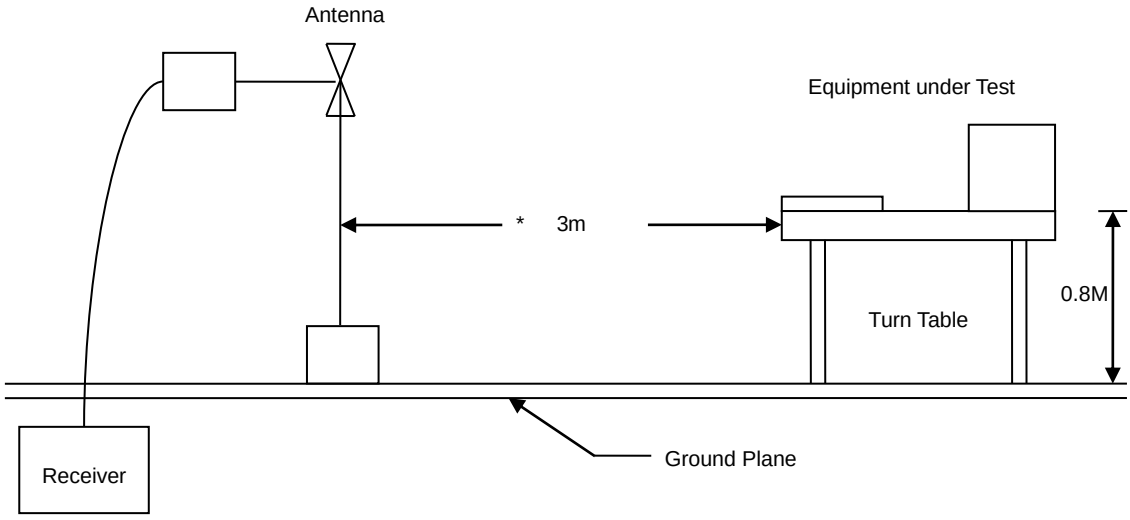
a. The EUT was placed on a rotatable table top 0.8 meter above ground.
b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
c. The table was rotated 360 degrees to determine the position of the highest radiation.
d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
i. “Cone of radiation” has been considered to be 3dB bandwidth of the measurement antenna.

6.3. Typical Test Setup

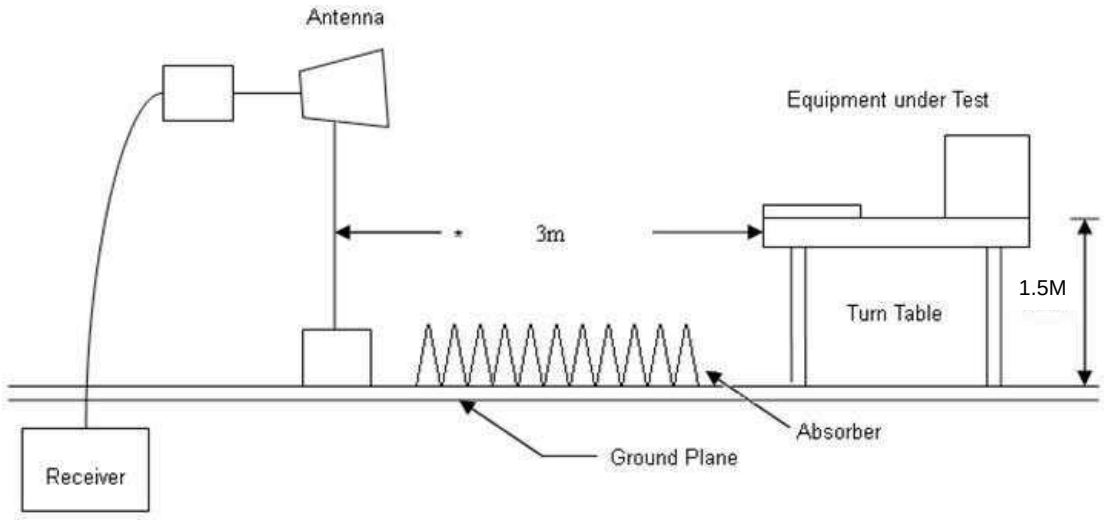
Below 30MHz test setup



30MHz- 1GHz Test Setup



Above 1GHz Test Setup

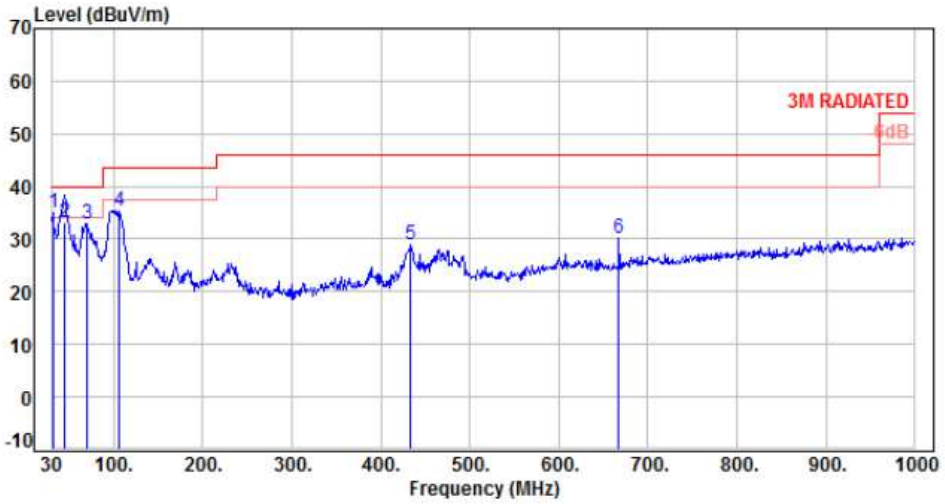


6.4. Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

6.5. Test Result and Data (30MHz ~ 1GHz)

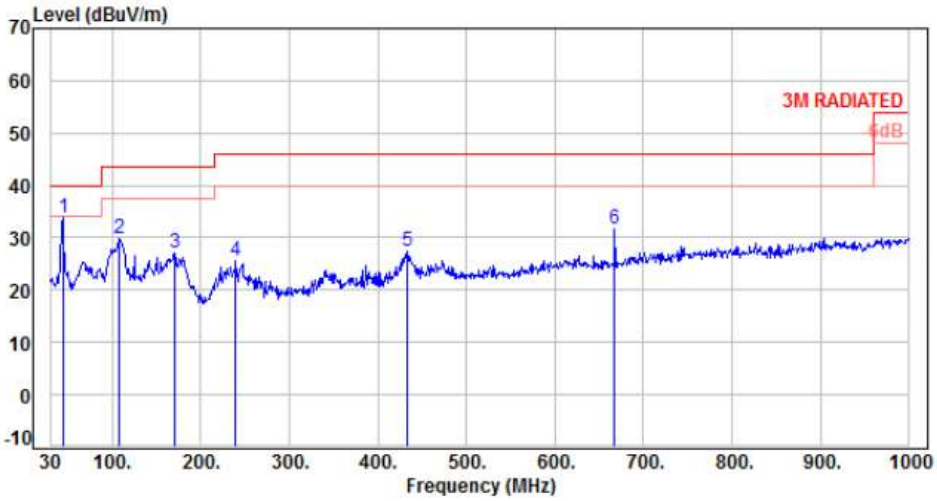
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 4		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	31.94	-10.57	45.72	35.15	40.00	-4.85	Peak	400	0	P
2	45.52	-9.40	42.60	33.20	40.00	-6.80	Peak	100	222	P
3	70.74	-11.81	44.67	32.86	40.00	-7.14	Peak	400	0	P
4	105.66	-13.44	48.78	35.34	43.50	-8.16	Peak	400	0	P
5	433.52	-5.16	33.98	28.82	46.00	-17.18	Peak	400	0	P
6	667.29	-0.84	31.12	30.28	46.00	-15.72	Peak	400	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

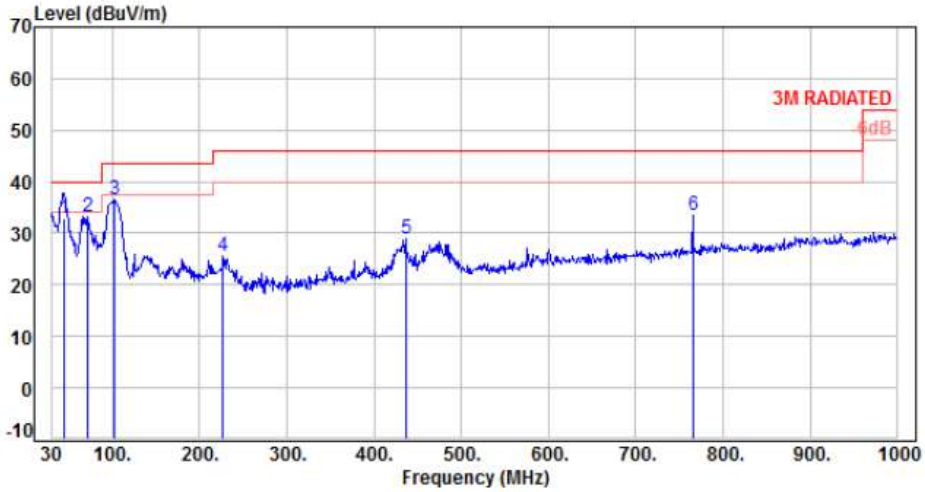
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 4		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	44.55	-9.44	43.11	33.67	40.00	-6.33	Peak	100	0	P
2	108.57	-13.05	42.84	29.79	43.50	-13.71	Peak	100	0	P
3	170.65	-9.72	36.97	27.25	43.50	-16.25	Peak	100	0	P
4	239.52	-10.74	36.28	25.54	46.00	-20.46	Peak	100	0	P
5	433.52	-5.16	32.43	27.27	46.00	-18.73	Peak	100	0	P
6	667.29	-0.84	32.47	31.63	46.00	-14.37	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

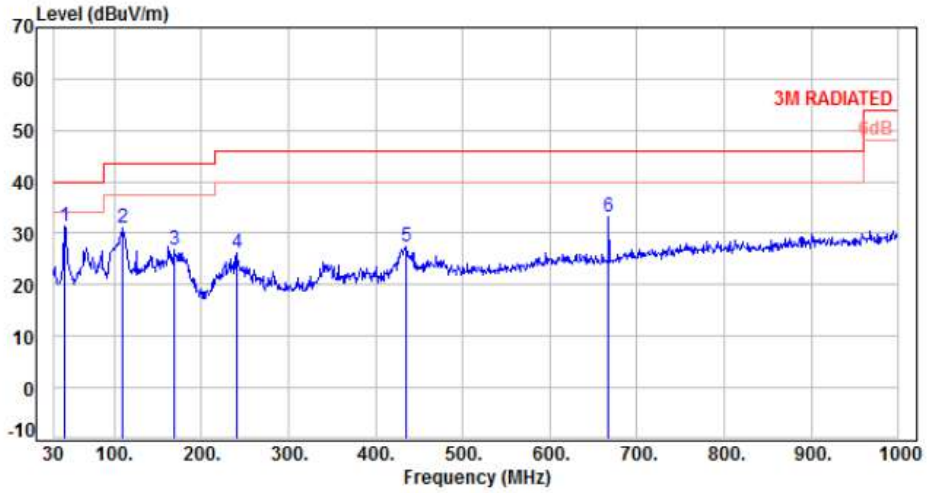
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 4		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	44.55	-9.44	42.24	32.80	40.00	-7.20	QP	100	208	P
2	71.71	-11.92	45.17	33.25	40.00	-6.75	Peak	400	0	P
3	102.75	-14.03	50.59	36.56	43.50	-6.94	Peak	400	0	P
4	226.91	-11.67	37.24	25.57	46.00	-20.43	Peak	400	0	P
5	436.43	-5.10	33.92	28.82	46.00	-17.18	Peak	400	0	P
6	765.26	0.95	32.48	33.43	46.00	-12.57	Peak	400	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 4		:	

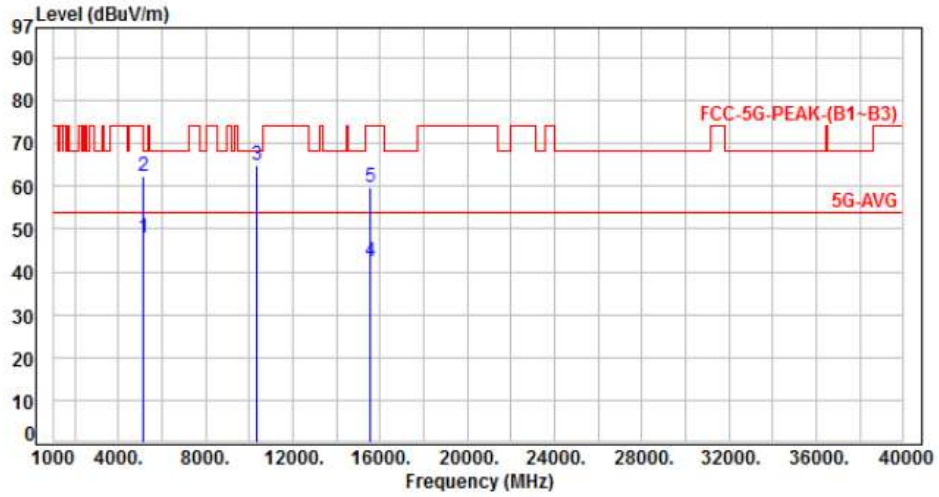


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	43.58	-9.43	40.76	31.33	40.00	-8.67	Peak	100	0	P
2	109.54	-12.91	43.94	31.03	43.50	-12.47	Peak	100	0	P
3	169.68	-9.62	36.51	26.89	43.50	-16.61	Peak	100	0	P
4	240.49	-10.68	36.82	26.14	46.00	-19.86	Peak	100	0	P
5	434.49	-5.14	32.40	27.26	46.00	-18.74	Peak	100	0	P
6	667.29	-0.84	33.92	33.08	46.00	-12.92	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

6.6. Test Result and Data (1GHz ~ 40GHz)

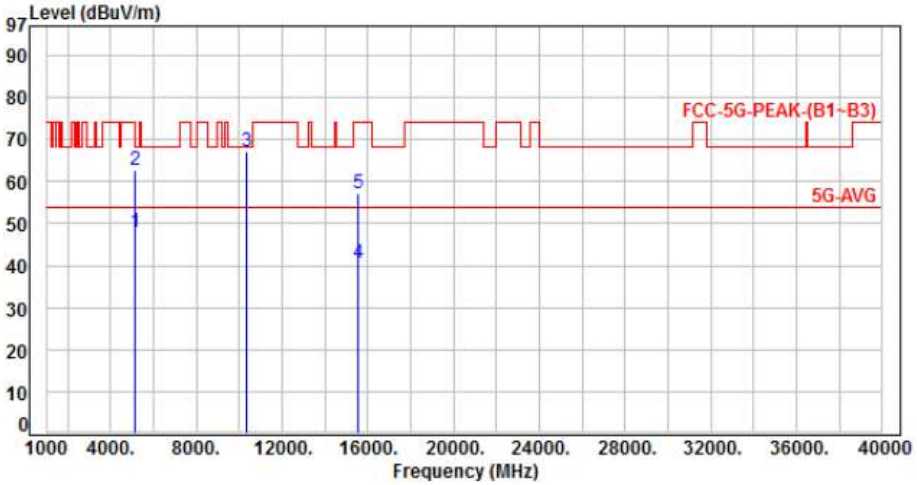
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 1 CH36		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	55.70	48.02	54.00	-5.98	Average	342	211	P
2	5150.00	-7.68	70.10	62.42	74.00	-11.58	Peak	342	211	P
3	10360.00	-0.12	65.10	64.98	68.20	-3.22	Peak	361	255	P
4	15540.00	5.24	37.20	42.44	54.00	-11.56	Average	328	243	P
5	15540.00	5.24	54.50	59.74	74.00	-14.26	Peak	328	243	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

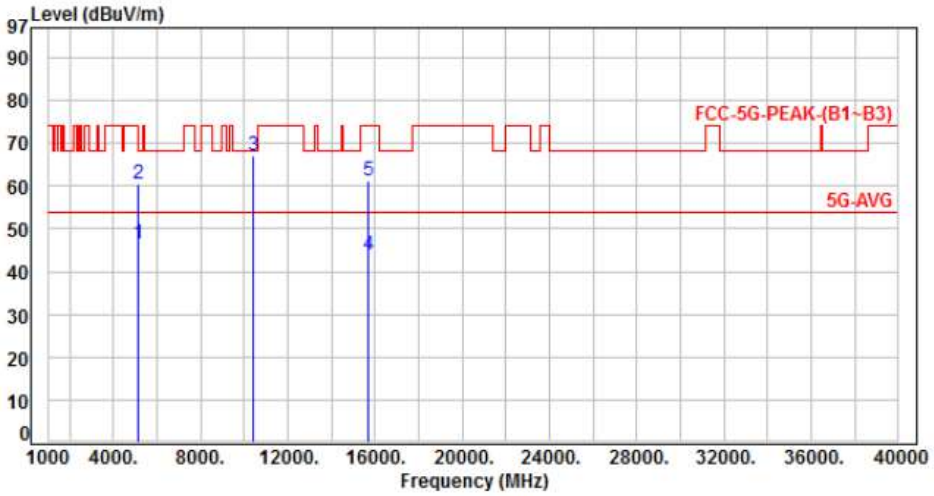
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 1 CH36		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	55.80	48.12	54.00	-5.88	Average	328	259	P
2	5150.00	-7.68	70.20	62.52	74.00	-11.48	Peak	328	259	P
3	10360.00	-0.12	67.20	67.08	68.20	-1.12	Peak	348	320	P
4	15540.00	5.24	35.20	40.44	54.00	-13.56	Average	330	313	P
5	15540.00	5.24	51.80	57.04	74.00	-16.96	Peak	330	313	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

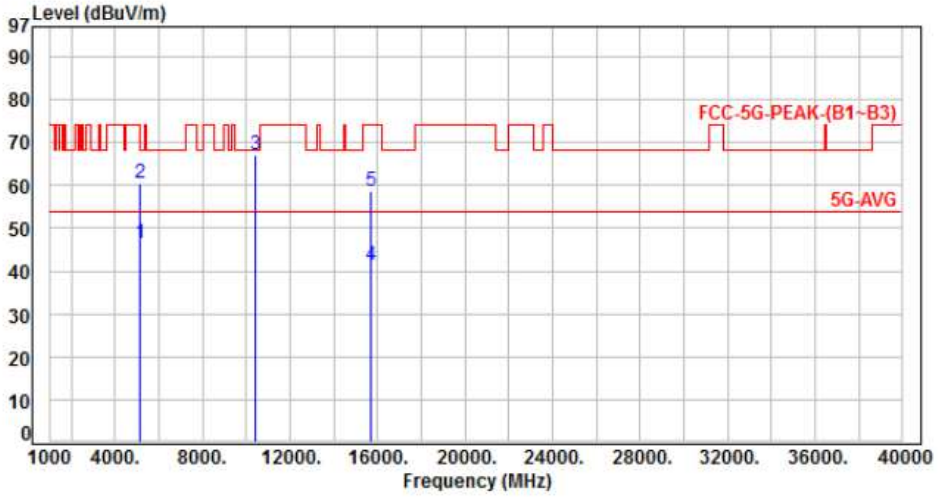
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 1 CH44		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	54.05	46.37	54.00	-7.63	Average	342	218	P
2	5150.00	-7.68	68.32	60.64	74.00	-13.36	Peak	342	218	P
3	10440.00	-0.03	67.10	67.07	68.20	-1.13	Peak	400	229	P
4	15660.00	5.32	38.40	43.72	54.00	-10.28	Average	339	245	P
5	15660.00	5.32	55.80	61.12	74.00	-12.88	Peak	339	245	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

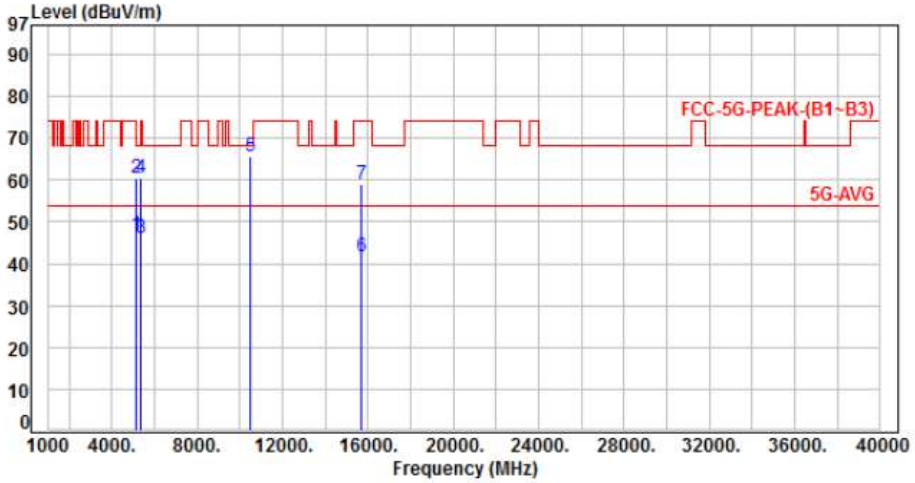
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 1 CH44		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	54.10	46.42	54.00	-7.58	Average	337	285	P
2	5150.00	-7.68	68.30	60.62	74.00	-13.38	Peak	337	285	P
3	10440.00	-0.03	67.21	67.18	68.20	-1.02	Peak	335	328	P
4	15660.00	5.32	36.10	41.42	54.00	-12.58	Average	331	311	P
5	15660.00	5.32	53.40	58.72	74.00	-15.28	Peak	331	311	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

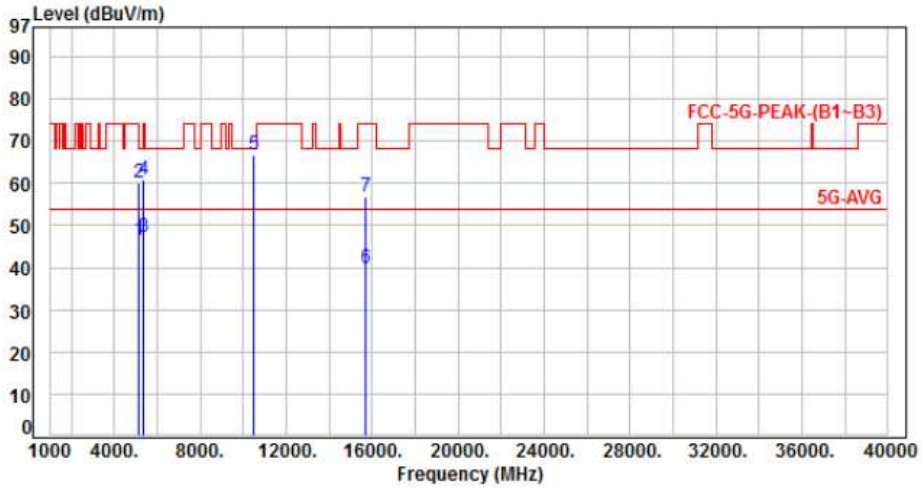
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 1 CH48		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	54.70	47.02	54.00	-6.98	Average	348	312	P
2	5150.00	-7.68	68.30	60.62	74.00	-13.38	Peak	348	312	P
3	5350.00	-7.30	53.53	46.23	54.00	-7.77	Average	348	312	P
4	5350.00	-7.30	67.90	60.60	74.00	-13.40	Peak	348	312	P
5	10480.00	0.01	65.50	65.51	68.20	-2.69	Peak	364	234	P
6	15720.00	5.36	36.44	41.80	54.00	-12.20	Average	342	247	P
7	15720.00	5.36	53.63	58.99	74.00	-15.01	Peak	342	247	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

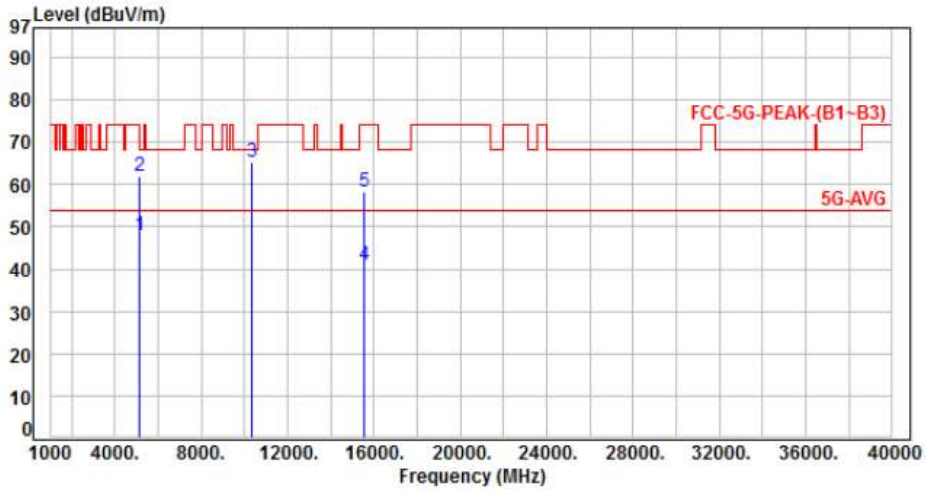
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 1 CH48		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	54.30	46.62	54.00	-7.38	Average	356	284	P
2	5150.00	-7.68	67.90	60.22	74.00	-13.78	Peak	356	284	P
3	5350.00	-7.30	54.50	47.20	54.00	-6.80	Average	356	284	P
4	5350.00	-7.30	68.20	60.90	74.00	-13.10	Peak	356	284	P
5	10480.00	0.01	66.80	66.81	68.20	-1.39	Peak	332	318	P
6	15720.00	5.36	34.30	39.66	54.00	-14.34	Average	331	318	P
7	15720.00	5.36	51.50	56.86	74.00	-17.14	Peak	331	318	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

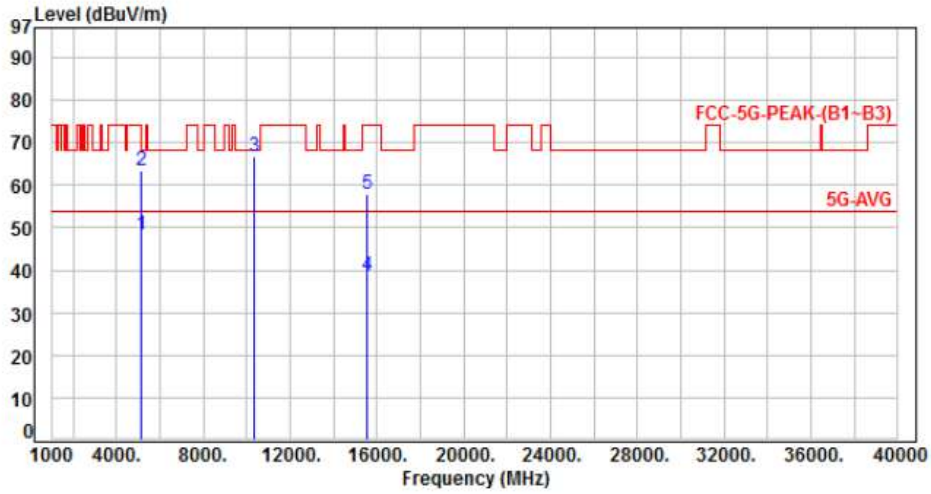
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 2 CH36		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	55.59	47.91	54.00	-6.09	Average	378	210	P
2	5150.00	-7.68	69.80	62.12	74.00	-11.88	Peak	378	210	P
3	10360.00	-0.12	65.56	65.44	68.20	-2.76	Peak	349	229	P
4	15540.00	5.24	35.52	40.76	54.00	-13.24	Average	332	245	P
5	15540.00	5.24	52.88	58.12	74.00	-15.88	Peak	332	245	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

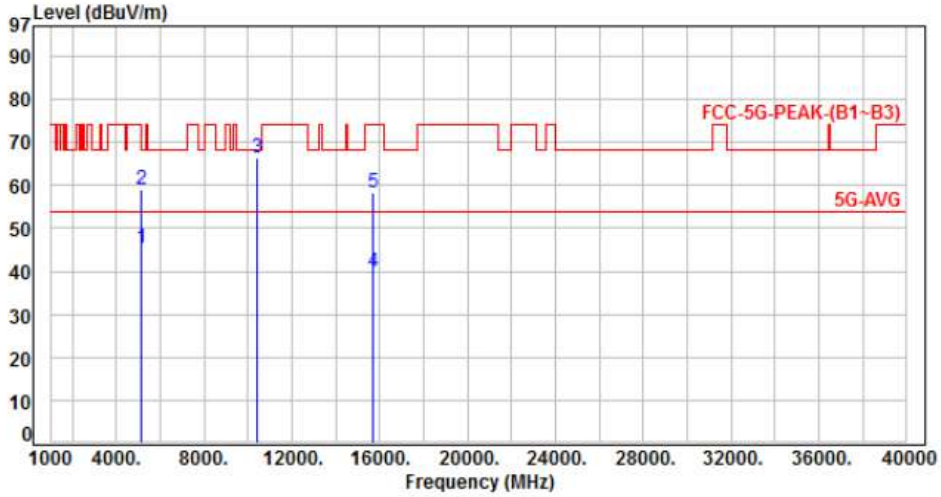
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 2 CH36		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	56.00	48.32	54.00	-5.68	Average	335	270	P
2	5150.00	-7.68	71.20	63.52	74.00	-10.48	Peak	335	270	P
3	10360.00	-0.12	66.80	66.68	68.20	-1.52	Peak	346	327	P
4	15540.00	5.24	33.50	38.74	54.00	-15.26	Average	333	312	P
5	15540.00	5.24	52.80	58.04	74.00	-15.96	Peak	333	312	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

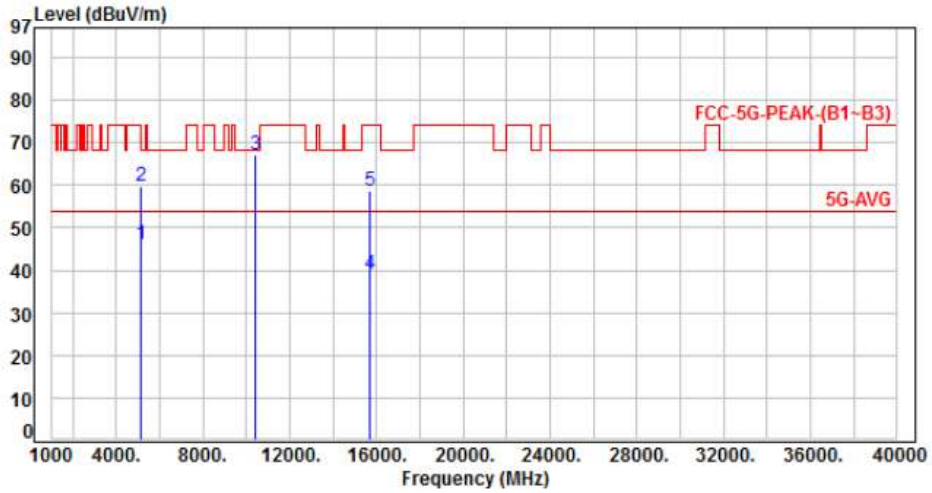
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 2 CH44		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	53.20	45.52	54.00	-8.48	Average	366	274	P
2	5150.00	-7.68	66.80	59.12	74.00	-14.88	Peak	366	274	P
3	10440.00	-0.03	66.30	66.27	68.20	-1.93	Peak	350	235	P
4	15660.00	5.32	34.63	39.95	54.00	-14.05	Average	347	255	P
5	15660.00	5.32	52.88	58.20	74.00	-15.80	Peak	347	255	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

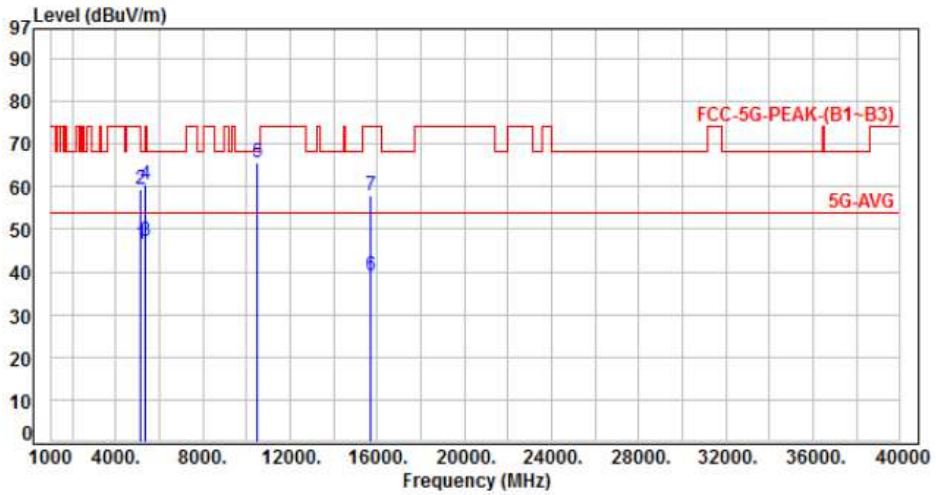
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 2 CH44		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	53.80	46.12	54.00	-7.88	Average	361	287	P
2	5150.00	-7.68	67.60	59.92	74.00	-14.08	Peak	361	287	P
3	10440.00	-0.03	67.20	67.17	68.20	-1.03	Peak	349	321	P
4	15660.00	5.32	33.84	39.16	54.00	-14.84	Average	326	320	P
5	15660.00	5.32	53.24	58.56	74.00	-15.44	Peak	326	320	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

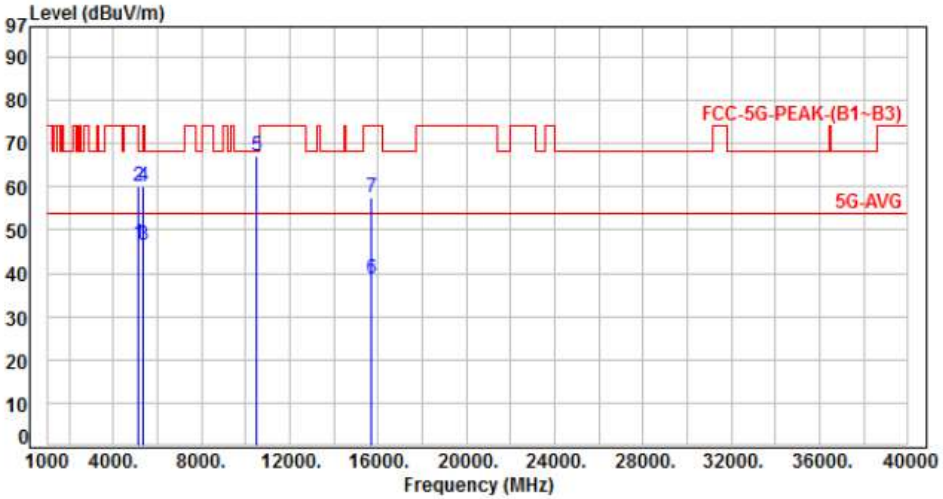
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 2 CH48		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	54.21	46.53	54.00	-7.47	Average	352	296	P
2	5150.00	-7.68	67.22	59.54	74.00	-14.46	Peak	352	296	P
3	5350.00	-7.30	54.56	47.26	54.00	-6.74	Average	352	296	P
4	5350.00	-7.30	67.88	60.58	74.00	-13.42	Peak	352	296	P
5	10480.00	0.01	65.50	65.51	68.20	-2.69	Peak	383	323	P
6	15720.00	5.36	33.58	38.94	54.00	-15.06	Average	328	251	P
7	15720.00	5.36	52.66	58.02	74.00	-15.98	Peak	328	251	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

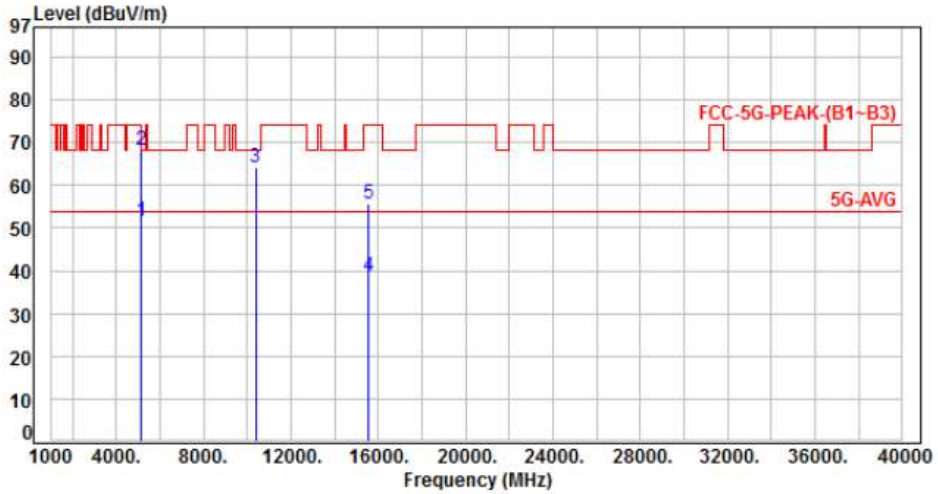
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 2 CH48		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	54.50	46.82	54.00	-7.18	Average	345	242	P
2	5150.00	-7.68	67.80	60.12	74.00	-13.88	Peak	345	242	P
3	5350.00	-7.30	53.60	46.30	54.00	-7.70	Average	345	242	P
4	5350.00	-7.30	67.51	60.21	74.00	-13.79	Peak	345	242	P
5	10480.00	0.01	67.11	67.12	68.20	-1.08	Peak	350	328	P
6	15720.00	5.36	33.48	38.84	54.00	-15.16	Average	334	312	P
7	15720.00	5.36	52.15	57.51	74.00	-16.49	Peak	334	312	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

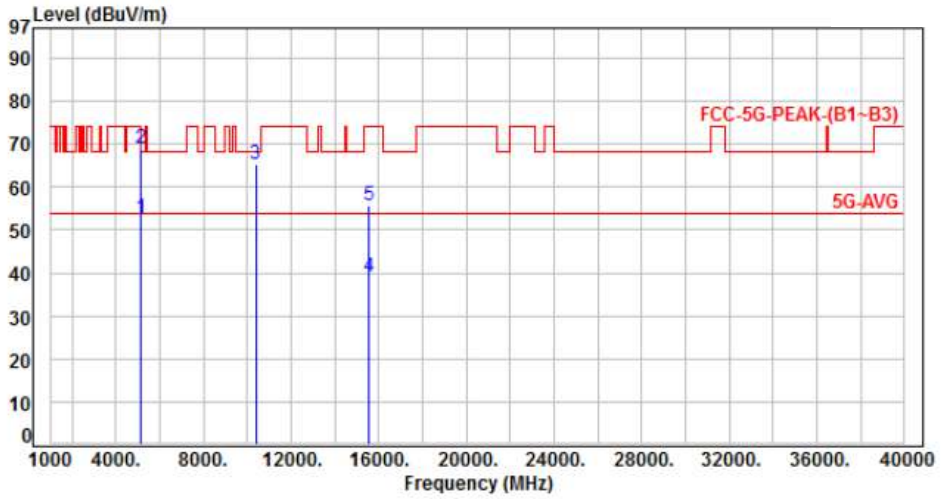
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 3 CH38		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	59.30	51.62	54.00	-2.38	Average	324	309	P
2	5150.00	-7.68	75.80	68.12	74.00	-5.88	Peak	324	309	P
3	10380.00	-0.10	64.36	64.26	68.20	-3.94	Peak	395	217	P
4	15570.00	5.26	33.47	38.73	54.00	-15.27	Average	332	249	P
5	15570.00	5.26	50.33	55.59	74.00	-18.41	Peak	332	249	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

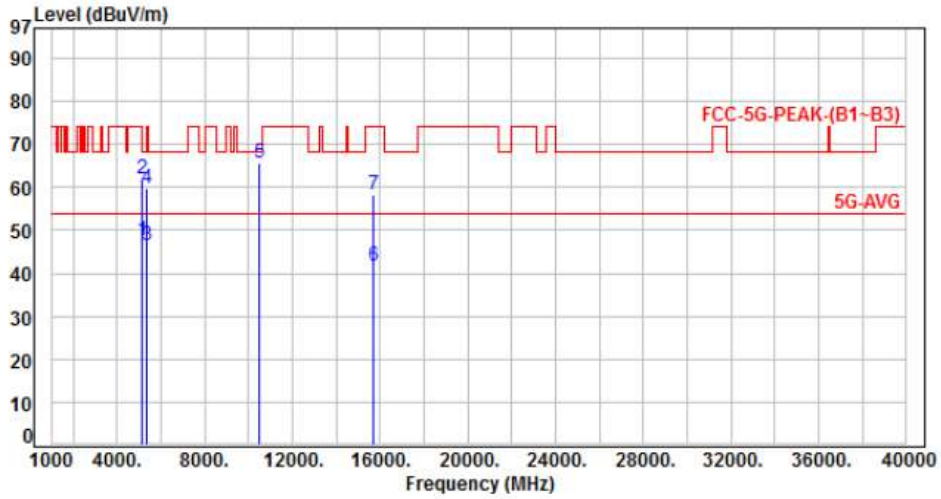
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 3 CH38		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	60.30	52.62	54.00	-1.38	Average	368	270	P
2	5150.00	-7.68	76.80	69.12	74.00	-4.88	Peak	368	270	P
3	10380.00	-0.10	65.30	65.20	68.20	-3.00	Peak	336	323	P
4	15570.00	5.26	33.80	39.06	54.00	-14.94	Average	332	314	P
5	15570.00	5.26	50.50	55.76	74.00	-18.24	Peak	332	314	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

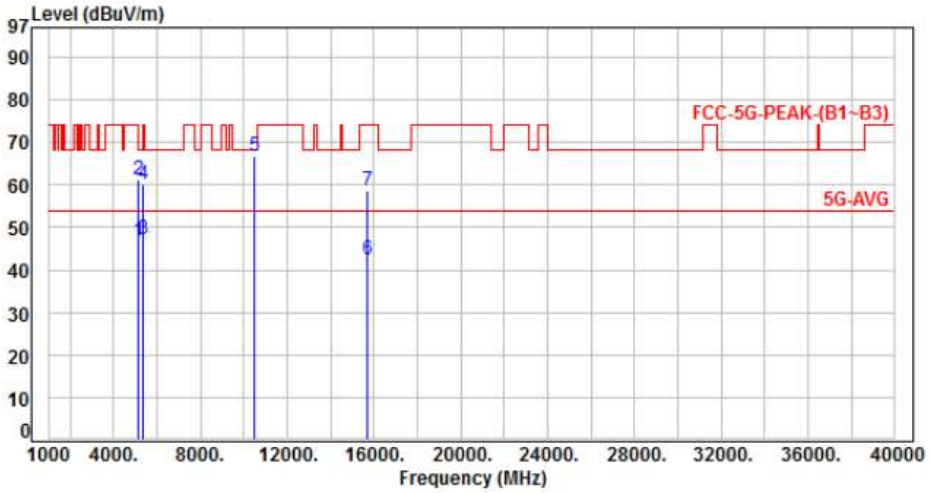
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 3 CH46		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	55.40	47.72	54.00	-6.28	Average	360	221	P
2	5150.00	-7.68	69.80	62.12	74.00	-11.88	Peak	360	221	P
3	5350.00	-7.30	53.70	46.40	54.00	-7.60	Average	360	221	P
4	5350.00	-7.30	66.90	59.60	74.00	-14.40	Peak	360	221	P
5	10460.00	-0.02	65.61	65.59	68.20	-2.61	Peak	350	231	P
6	15690.00	5.34	36.42	41.76	54.00	-12.24	Average	338	247	P
7	15690.00	5.34	53.10	58.44	74.00	-15.56	Peak	338	247	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

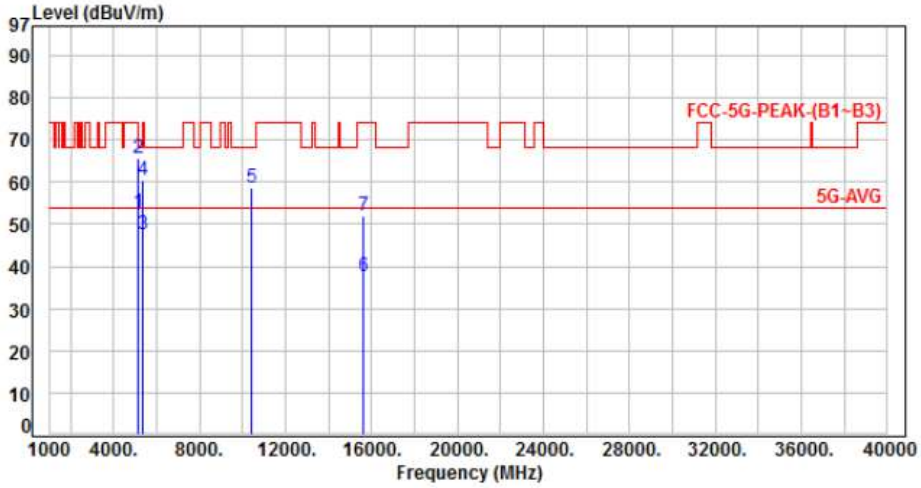
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 3 CH46		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	54.60	46.92	54.00	-7.08	Average	324	273	P
2	5150.00	-7.68	68.80	61.12	74.00	-12.88	Peak	324	273	P
3	5350.00	-7.30	54.50	47.20	54.00	-6.80	Average	324	273	P
4	5350.00	-7.30	67.60	60.30	74.00	-13.70	Peak	324	273	P
5	10460.00	-0.02	66.96	66.94	68.20	-1.26	Peak	331	322	P
6	15690.00	5.34	36.90	42.24	54.00	-11.76	Average	325	320	P
7	15690.00	5.34	53.30	58.64	74.00	-15.36	Peak	325	320	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

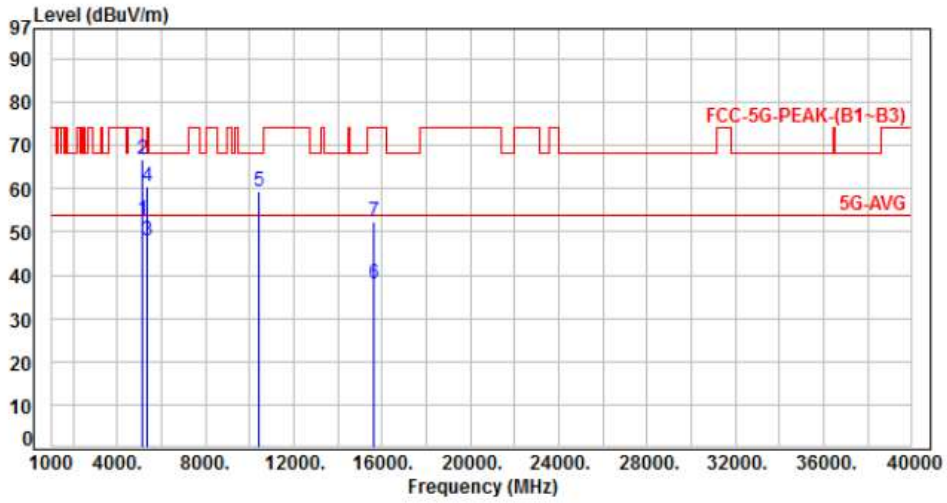
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B1 Mode 4 CH42		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	60.40	52.72	54.00	-1.28	Average	366	336	P
2	5150.00	-7.68	73.50	65.82	74.00	-8.18	Peak	366	336	P
3	5350.00	-7.30	54.85	47.55	54.00	-6.45	Average	366	336	P
4	5350.00	-7.30	67.90	60.60	74.00	-13.40	Peak	366	336	P
5	10420.00	-0.05	58.61	58.56	68.20	-9.64	Peak	344	263	P
6	15630.00	5.30	32.19	37.49	54.00	-16.51	Average	352	246	P
7	15630.00	5.30	46.88	52.18	74.00	-21.82	Peak	352	246	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

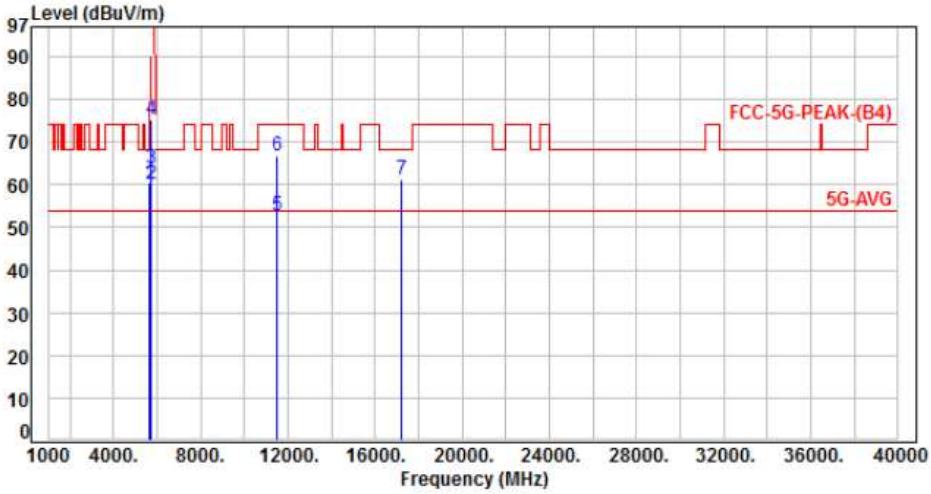
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B1 Mode 4 CH42		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-7.68	60.50	52.82	54.00	-1.18	Average	329	270	P
2	5150.00	-7.68	74.50	66.82	74.00	-7.18	Peak	329	270	P
3	5350.00	-7.30	55.20	47.90	54.00	-6.10	Average	329	270	P
4	5350.00	-7.30	67.90	60.60	74.00	-13.40	Peak	329	270	P
5	10420.00	-0.05	59.60	59.55	68.20	-8.65	Peak	330	312	P
6	15630.00	5.30	32.54	37.84	54.00	-16.16	Average	312	324	P
7	15630.00	5.30	47.22	52.52	74.00	-21.48	Peak	312	324	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

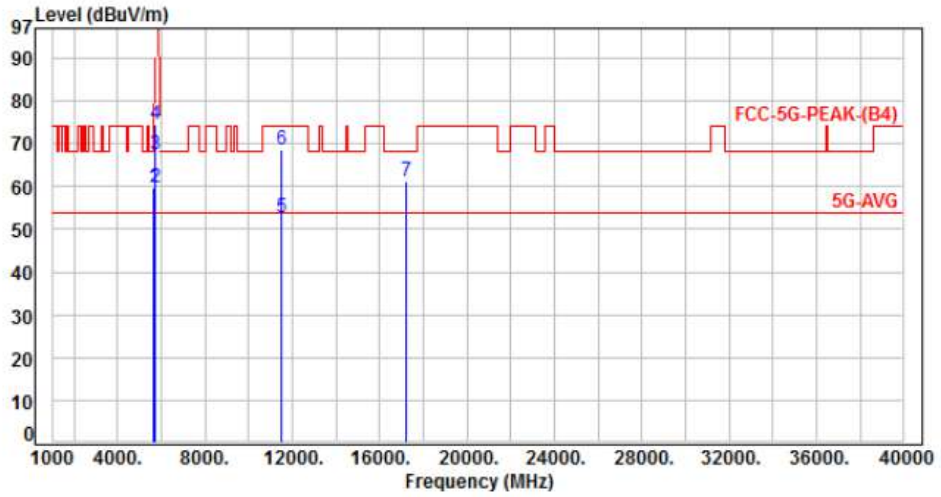
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 1 CH149		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	67.40	60.43	68.20	-7.77	Peak	100	290	P
2	5700.00	-6.95	67.20	60.25	105.20	-44.95	Peak	100	290	P
3	5720.00	-6.95	70.80	63.85	110.80	-46.95	Peak	100	290	P
4	5725.00	-6.95	82.31	75.36	122.20	-46.84	Peak	100	290	P
5	11490.00	1.18	51.69	52.87	54.00	-1.13	Average	210	254	P
6	11490.00	1.18	65.71	66.89	74.00	-7.11	Peak	210	254	P
7	17235.00	11.64	49.60	61.24	68.20	-6.96	Peak	170	250	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

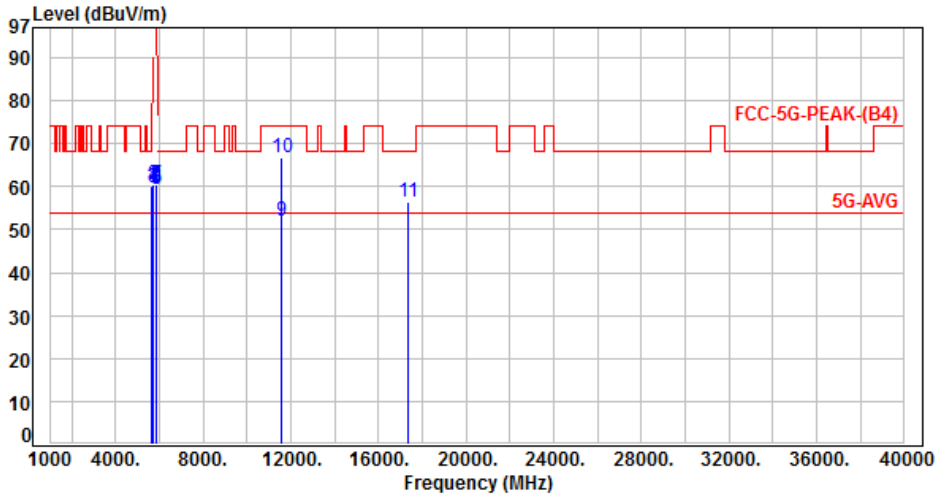
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 1 CH149		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	66.57	59.60	68.20	-8.60	Peak	115	274	P
2	5700.00	-6.95	66.80	59.85	105.20	-45.35	Peak	115	274	P
3	5720.00	-6.95	74.30	67.35	110.80	-43.45	Peak	115	274	P
4	5725.00	-6.95	81.61	74.66	122.20	-47.54	Peak	115	274	P
5	11490.00	1.18	51.51	52.69	54.00	-1.31	Average	100	334	P
6	11490.00	1.18	67.31	68.49	74.00	-5.51	Peak	100	334	P
7	17235.00	11.64	49.55	61.19	68.20	-7.01	Peak	100	310	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

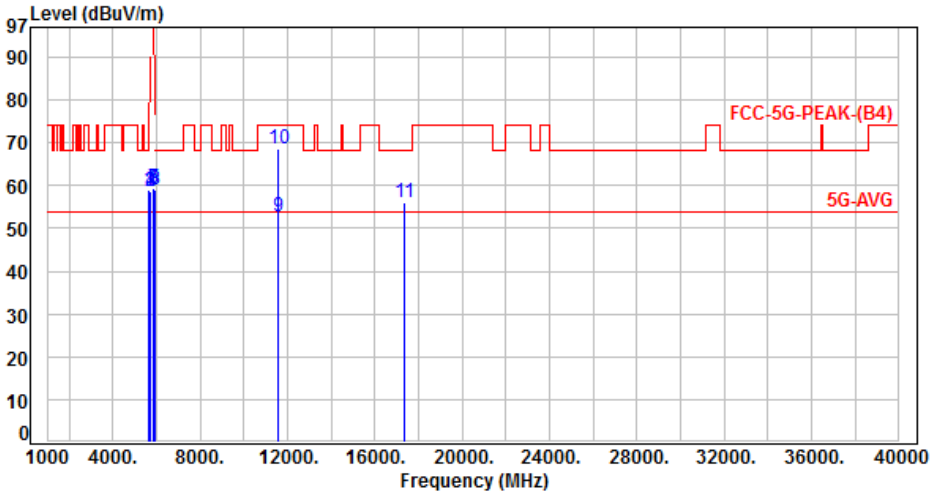
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 1 CH157		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	67.20	60.23	68.20	-7.97	Peak	100	284	P
2	5700.00	-6.95	67.30	60.35	105.20	-44.85	Peak	100	284	P
3	5720.00	-6.95	66.60	59.65	110.80	-51.15	Peak	100	284	P
4	5725.00	-6.95	66.91	59.96	122.20	-62.24	Peak	100	284	P
5	5850.00	-6.90	66.20	59.30	122.20	-62.90	Peak	100	284	P
6	5855.00	-6.90	66.98	60.08	110.80	-50.72	Peak	100	284	P
7	5875.00	-6.89	67.20	60.31	105.20	-44.89	Peak	100	284	P
8	5875.00	-6.89	66.70	59.81	105.20	-45.39	Peak	100	284	P
9	11570.00	1.28	50.80	52.08	54.00	-1.92	Average	210	260	P
10	11570.00	1.28	65.40	66.68	74.00	-7.32	Peak	210	260	P
11	17355.00	12.41	43.88	56.29	68.20	-11.91	Peak	152	246	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

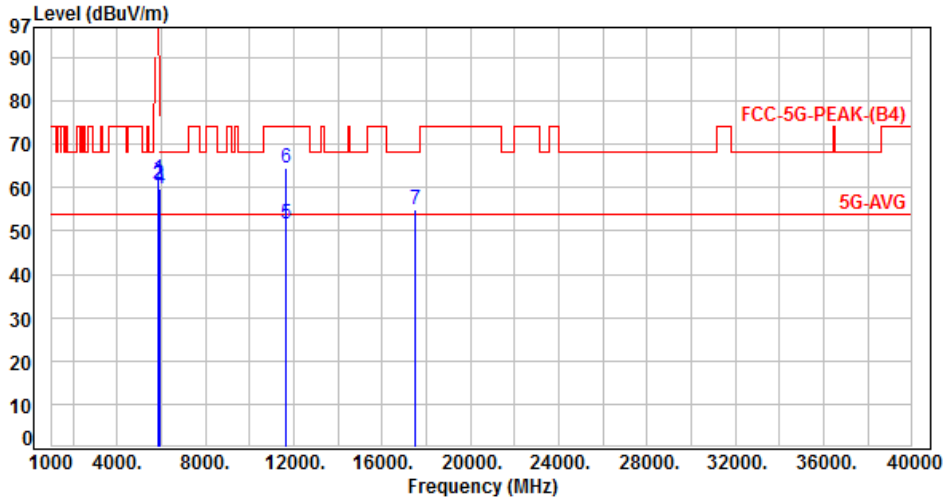
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 1 CH157		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	66.10	59.13	68.20	-9.07	Peak	228	264	P
2	5700.00	-6.95	65.60	58.65	105.20	-46.55	Peak	228	264	P
3	5720.00	-6.95	65.60	58.65	110.80	-52.15	Peak	228	264	P
4	5725.00	-6.95	65.51	58.56	122.20	-63.64	Peak	228	264	P
5	5850.00	-6.90	66.30	59.40	122.20	-62.80	Peak	228	264	P
6	5855.00	-6.90	66.40	59.50	110.80	-51.30	Peak	228	264	P
7	5875.00	-6.89	66.36	59.47	105.20	-45.73	Peak	228	264	P
8	5925.00	-6.88	65.80	58.92	68.20	-9.28	Peak	228	264	P
9	11570.00	1.28	51.60	52.88	54.00	-1.12	Average	100	334	P
10	11570.00	1.28	67.20	68.48	74.00	-5.52	Peak	100	334	P
11	17355.00	12.41	43.52	55.93	68.20	-12.27	Peak	100	327	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

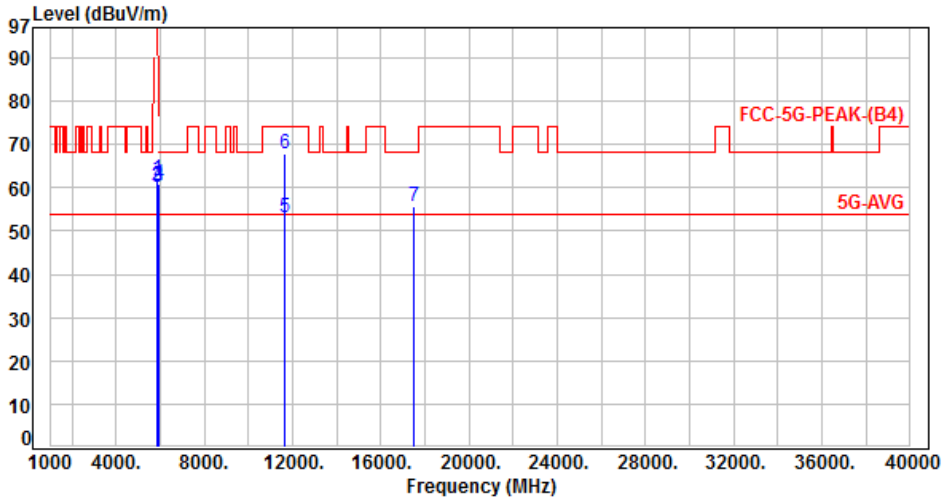
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 1 CH165		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5850.00	-6.90	68.70	61.80	122.20	-60.40	Peak	100	277	P
2	5855.00	-6.90	67.80	60.90	110.80	-49.90	Peak	100	277	P
3	5875.00	-6.89	67.20	60.31	105.20	-44.89	Peak	100	277	P
4	5925.00	-6.88	66.70	59.82	68.20	-8.38	Peak	100	277	P
5	11650.00	1.37	50.20	51.57	54.00	-2.43	Average	210	257	P
6	11650.00	1.37	63.30	64.67	74.00	-9.33	Peak	210	257	P
7	17475.00	13.18	41.86	55.04	68.20	-13.16	Peak	100	258	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

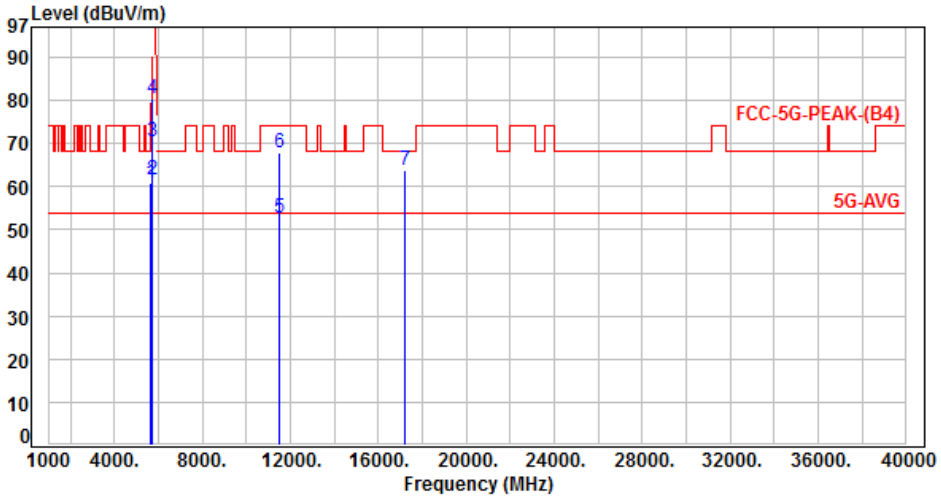
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 1 CH165		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5850.00	-6.90	68.70	61.80	122.20	-60.40	Peak	100	270	P
2	5855.00	-6.90	67.50	60.60	110.80	-50.20	Peak	100	270	P
3	5875.00	-6.89	67.10	60.21	105.20	-44.99	Peak	100	270	P
4	5925.00	-6.88	67.80	60.92	68.20	-7.28	Peak	100	270	P
5	11650.00	1.37	51.60	52.97	54.00	-1.03	Average	112	326	P
6	11650.00	1.37	66.40	67.77	74.00	-6.23	Peak	112	326	P
7	17475.00	13.18	42.44	55.62	68.20	-12.58	Peak	100	337	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

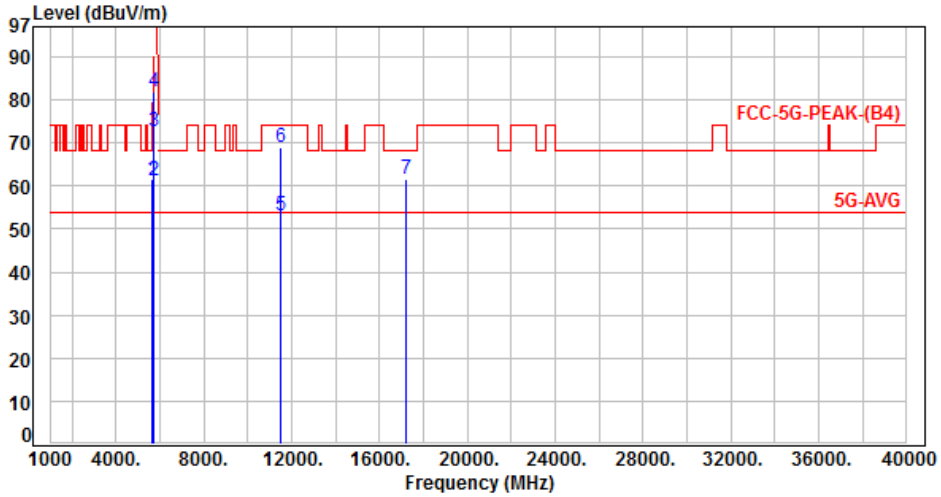
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 2 CH149		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	67.70	60.73	68.20	-7.47	Peak	100	280	P
2	5700.00	-6.95	68.50	61.55	105.20	-43.65	Peak	100	280	P
3	5720.00	-6.95	77.30	70.35	110.80	-40.45	Peak	100	280	P
4	5725.00	-6.95	87.36	80.41	122.20	-41.79	Peak	100	280	P
5	11490.00	1.18	51.61	52.79	54.00	-1.21	Average	214	261	P
6	11490.00	1.18	66.81	67.99	74.00	-6.01	Peak	214	261	P
7	17235.00	11.64	52.33	63.97	68.20	-4.23	Peak	150	243	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

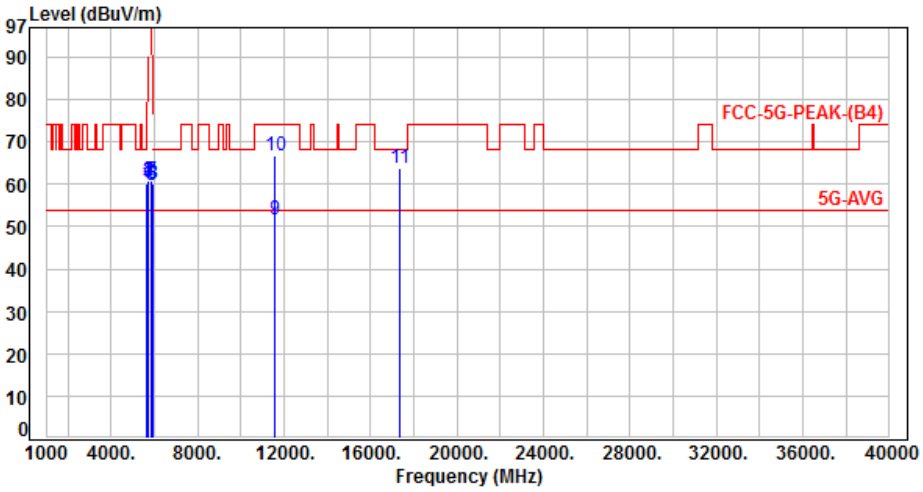
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 2 CH149		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	68.50	61.53	68.20	-6.67	Peak	232	270	P
2	5700.00	-6.95	68.30	61.35	105.20	-43.85	Peak	232	270	P
3	5720.00	-6.95	79.60	72.65	110.80	-38.15	Peak	232	270	P
4	5725.00	-6.95	88.91	81.96	122.20	-40.24	Peak	232	270	P
5	11490.00	1.18	51.77	52.95	54.00	-1.05	Average	122	335	P
6	11490.00	1.18	67.61	68.79	74.00	-5.21	Peak	122	335	P
7	17235.00	11.64	50.10	61.74	68.20	-6.46	Peak	180	312	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

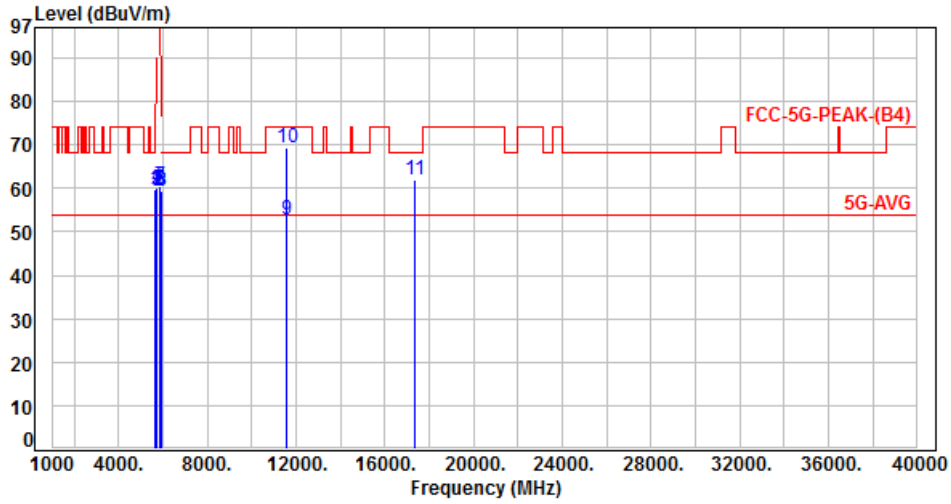
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 2 CH157		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	67.20	60.23	68.20	-7.97	Peak	103	285	P
2	5700.00	-6.95	67.80	60.85	105.20	-44.35	Peak	103	285	P
3	5720.00	-6.95	67.50	60.55	110.80	-50.25	Peak	103	285	P
4	5725.00	-6.95	67.91	60.96	122.20	-61.24	Peak	103	285	P
5	5850.00	-6.90	66.80	59.90	122.20	-62.30	Peak	103	285	P
6	5855.00	-6.90	66.53	59.63	110.80	-51.17	Peak	103	285	P
7	5875.00	-6.89	67.80	60.91	105.20	-44.29	Peak	103	285	P
8	5925.00	-6.88	67.10	60.22	68.20	-7.98	Peak	103	285	P
9	11570.00	1.28	50.53	51.81	54.00	-2.19	Average	208	254	P
10	11570.00	1.28	65.60	66.88	74.00	-7.12	Peak	208	254	P
11	17355.00	12.41	51.28	63.69	68.20	-4.51	Peak	136	258	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

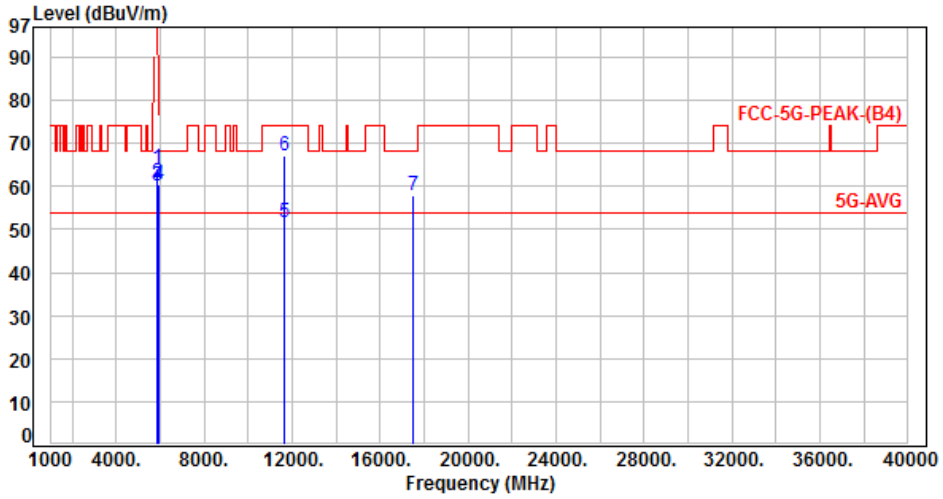
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 2 CH157		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	66.62	59.65	68.20	-8.55	Peak	232	274	P
2	5700.00	-6.95	66.60	59.65	105.20	-45.55	Peak	232	274	P
3	5720.00	-6.95	66.30	59.35	110.80	-51.45	Peak	232	274	P
4	5725.00	-6.95	67.21	60.26	122.20	-61.94	Peak	232	274	P
5	5850.00	-6.90	66.54	59.64	122.20	-62.56	Peak	232	274	P
6	5855.00	-6.90	66.30	59.40	110.80	-51.40	Peak	232	274	P
7	5875.00	-6.89	67.30	60.41	105.20	-44.79	Peak	232	274	P
8	5925.00	-6.88	66.23	59.35	68.20	-8.85	Peak	232	274	P
9	11570.00	1.28	51.40	52.68	54.00	-1.32	Average	100	330	P
10	11570.00	1.28	68.10	69.38	74.00	-4.62	Peak	100	330	P
11	17355.00	12.41	49.66	62.07	68.20	-6.13	Peak	173	322	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

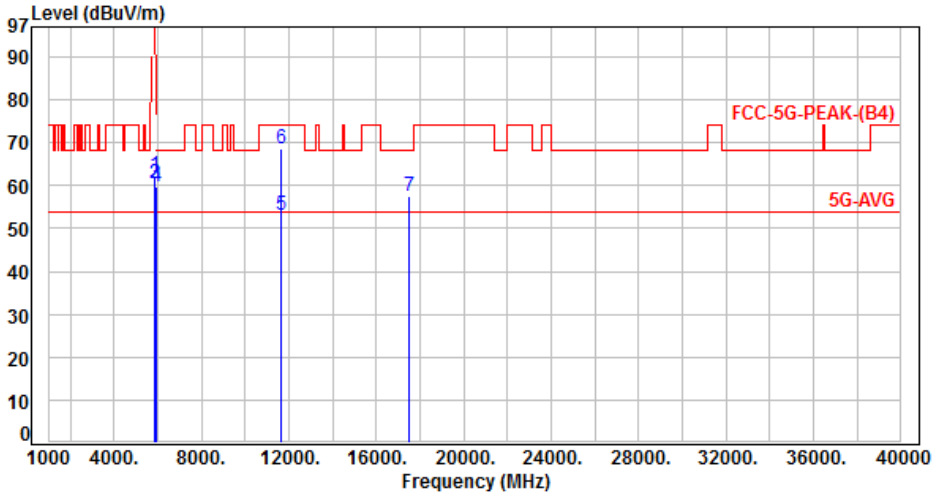
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 2 CH165		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5850.00	-6.90	71.20	64.30	122.20	-57.90	Peak	100	290	P
2	5855.00	-6.90	67.80	60.90	110.80	-49.90	Peak	100	290	P
3	5875.00	-6.89	66.90	60.01	105.20	-45.19	Peak	100	290	P
4	5925.00	-6.88	67.50	60.62	68.20	-7.58	Peak	100	290	P
5	11650.00	1.37	50.20	51.57	54.00	-2.43	Average	227	251	P
6	11650.00	1.37	65.60	66.97	74.00	-7.03	Peak	227	251	P
7	17475.00	13.18	44.90	58.08	68.20	-10.12	Peak	163	218	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

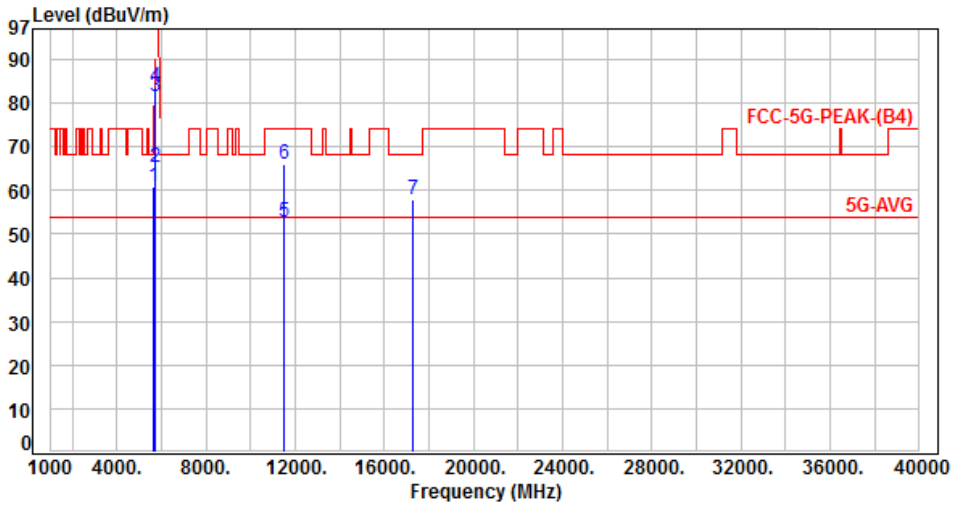
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 2 CH165		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5850.00	-6.90	69.20	62.30	122.20	-59.90	Peak	112	302	P
2	5855.00	-6.90	67.40	60.50	110.80	-50.30	Peak	112	302	P
3	5875.00	-6.89	67.30	60.41	105.20	-44.79	Peak	112	302	P
4	5925.00	-6.88	66.80	59.92	68.20	-8.28	Peak	112	302	P
5	11650.00	1.37	51.60	52.97	54.00	-1.03	Average	100	330	P
6	11650.00	1.37	67.10	68.47	74.00	-5.53	Peak	100	330	P
7	17475.00	13.18	44.24	57.42	68.20	-10.78	Peak	172	314	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

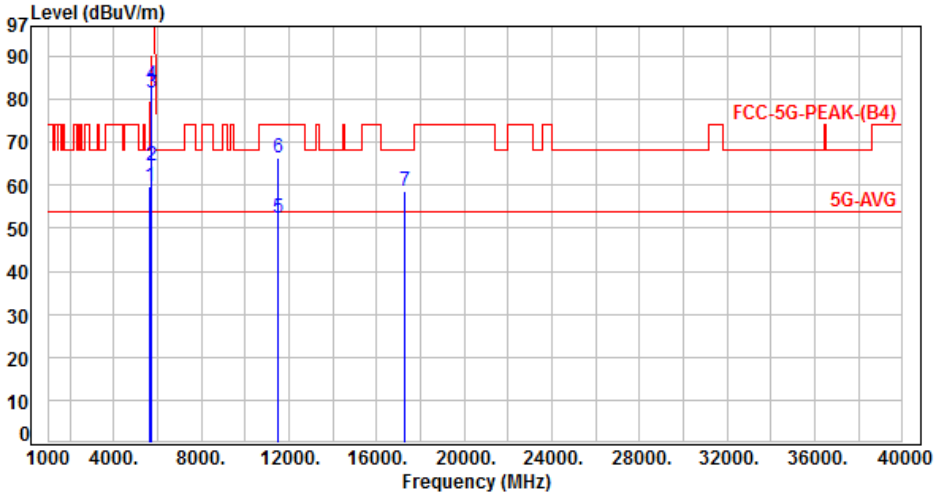
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 3 CH151		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	67.92	60.95	68.20	-7.25	Peak	112	271	P
2	5700.00	-6.95	72.30	65.35	105.20	-39.85	Peak	112	271	P
3	5720.00	-6.95	88.50	81.55	110.80	-29.25	Peak	112	271	P
4	5725.00	-6.95	90.81	83.86	122.20	-38.34	Peak	112	271	P
5	11510.00	1.22	51.49	52.71	54.00	-1.29	Average	219	256	P
6	11510.00	1.22	64.79	66.01	74.00	-7.99	Peak	219	256	P
7	17265.00	11.84	46.10	57.94	68.20	-10.26	Peak	108	246	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

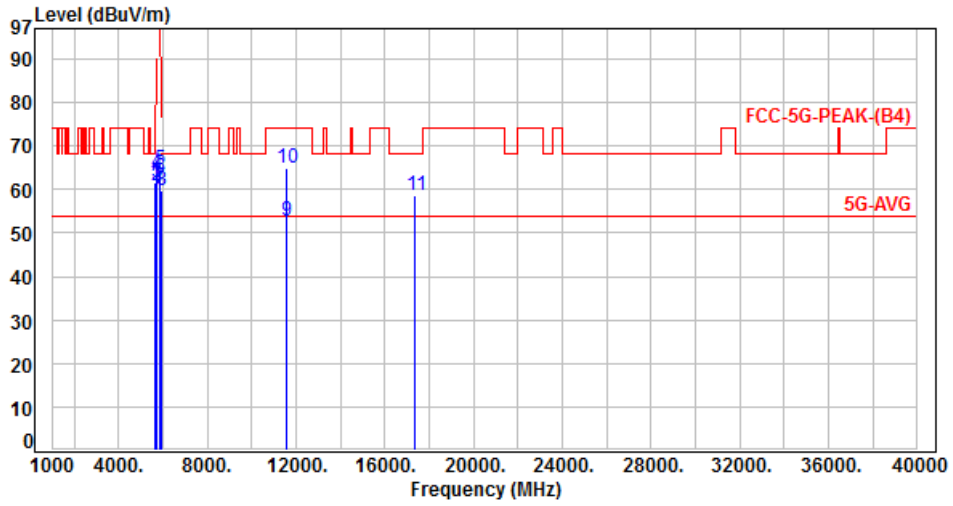
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 3 CH151		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	66.70	59.73	68.20	-8.47	Peak	100	272	P
2	5700.00	-6.95	71.60	64.65	105.20	-40.55	Peak	100	272	P
3	5720.00	-6.95	88.60	81.65	110.80	-29.15	Peak	100	272	P
4	5725.00	-6.95	90.41	83.46	122.20	-38.74	Peak	100	272	P
5	11510.00	1.22	51.25	52.47	54.00	-1.53	Average	100	332	P
6	11510.00	1.22	65.29	66.51	74.00	-7.49	Peak	100	332	P
7	17265.00	11.84	46.65	58.49	68.20	-9.71	Peak	125	310	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

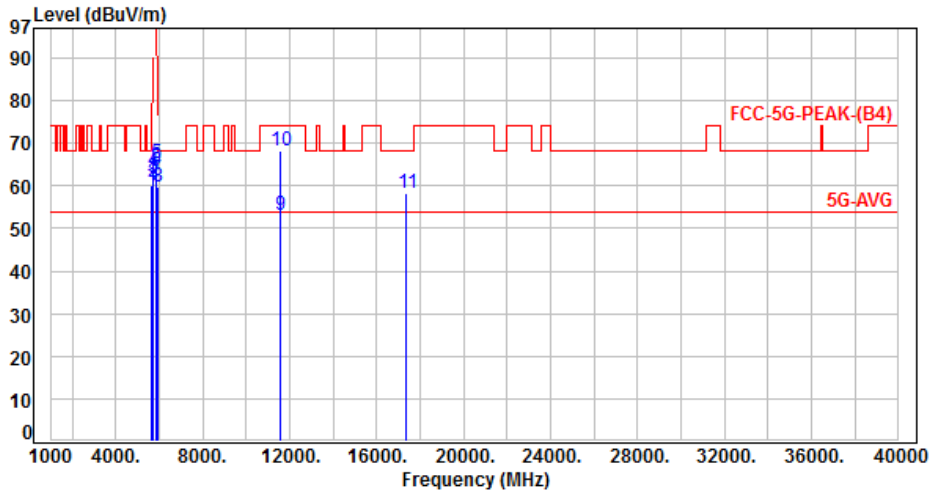
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 3 CH159		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	68.60	61.63	68.20	-6.57	Peak	100	290	P
2	5700.00	-6.95	67.68	60.73	105.20	-44.47	Peak	100	290	P
3	5720.00	-6.95	68.50	61.55	110.80	-49.25	Peak	100	290	P
4	5725.00	-6.95	70.81	63.86	122.20	-58.34	Peak	100	290	P
5	5850.00	-6.90	71.40	64.50	122.20	-57.70	Peak	100	290	P
6	5855.00	-6.90	69.70	62.80	110.80	-48.00	Peak	100	290	P
7	5875.00	-6.89	67.46	60.57	105.20	-44.63	Peak	100	290	P
8	5925.00	-6.88	66.70	59.82	68.20	-8.38	Peak	100	290	P
9	11590.00	1.29	51.46	52.75	54.00	-1.25	Average	220	250	P
10	11590.00	1.29	63.71	65.00	74.00	-9.00	Peak	220	250	P
11	17385.00	12.60	46.11	58.71	68.20	-9.49	Peak	100	253	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

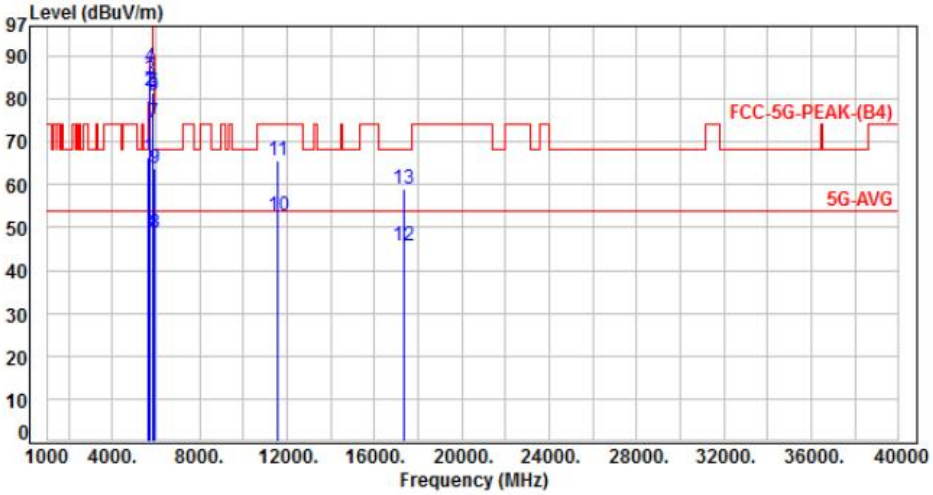
Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 3 CH159		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	67.00	60.03	68.20	-8.17	Peak	222	268	P
2	5700.00	-6.95	67.80	60.85	105.20	-44.35	Peak	222	268	P
3	5720.00	-6.95	68.90	61.95	110.80	-48.85	Peak	222	268	P
4	5725.00	-6.95	70.31	63.36	122.20	-58.84	Peak	222	268	P
5	5850.00	-6.90	72.10	65.20	122.20	-57.00	Peak	222	268	P
6	5855.00	-6.90	71.40	64.50	110.80	-46.30	Peak	222	268	P
7	5875.00	-6.89	68.60	61.71	105.20	-43.49	Peak	222	268	P
8	5925.00	-6.88	66.70	59.82	68.20	-8.38	Peak	222	268	P
9	11590.00	1.29	51.71	53.00	54.00	-1.00	Average	100	327	P
10	11590.00	1.29	66.81	68.10	74.00	-5.90	Peak	100	327	P
11	17385.00	12.60	45.67	58.27	68.20	-9.93	Peak	133	307	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

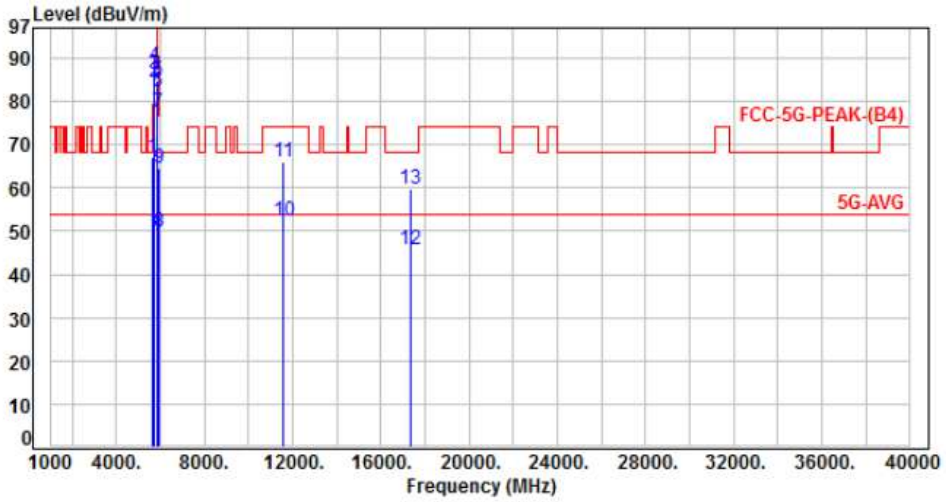
Power	:	AC 120V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	B4 Mode 4 CH155		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	73.50	66.53	68.20	-1.67	Peak	100	282	P
2	5700.00	-6.95	89.00	82.05	105.20	-23.15	Peak	100	282	P
3	5720.00	-6.95	91.40	84.45	110.80	-26.35	Peak	100	282	P
4	5725.00	-6.95	94.31	87.36	122.20	-34.84	Peak	100	282	P
5	5850.00	-6.90	88.40	81.50	122.20	-40.70	Peak	100	282	P
6	5855.00	-6.90	87.60	80.70	110.80	-30.10	Peak	100	282	P
7	5875.00	-6.89	81.30	74.41	105.20	-30.79	Peak	100	282	P
8	5925.00	-6.88	55.40	48.52	54.00	-5.48	Average	100	282	P
9	5925.00	-6.88	70.60	63.72	68.20	-4.48	Peak	100	282	P
10	11550.00	1.26	51.40	52.66	54.00	-1.34	Average	229	256	P
11	11550.00	1.26	64.40	65.66	74.00	-8.34	Peak	229	256	P
12	17325.00	12.22	33.35	45.57	54.00	-8.43	Average	100	247	P
13	17325.00	12.22	46.90	59.12	68.20	-9.08	Peak	100	247	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

Power	:	AC 120V / 60Hz	Pol/Phase	:	HORIZONTAL
Test Mode	:	B4 Mode 4 CH155		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-6.97	74.10	67.13	68.20	-1.07	Peak	203	277	P
2	5700.00	-6.95	91.50	84.55	105.20	-20.65	Peak	203	277	P
3	5720.00	-6.95	93.40	86.45	110.80	-24.35	Peak	203	277	P
4	5725.00	-6.95	95.21	88.26	122.20	-33.94	Peak	203	277	P
5	5850.00	-6.90	91.80	84.90	122.20	-37.30	Peak	203	277	P
6	5855.00	-6.90	89.20	82.30	110.80	-28.50	Peak	203	277	P
7	5875.00	-6.89	84.40	77.51	105.20	-27.69	Peak	203	277	P
8	5925.00	-6.88	56.70	49.82	54.00	-4.18	Average	203	277	P
9	5925.00	-6.88	71.30	64.42	68.20	-3.78	Peak	203	277	P
10	11550.00	1.26	51.30	52.56	54.00	-1.44	Average	103	326	P
11	11550.00	1.26	64.80	66.06	74.00	-7.94	Peak	103	326	P
12	17325.00	12.22	33.70	45.92	54.00	-8.08	Average	160	312	P
13	17325.00	12.22	47.50	59.72	68.20	-8.48	Peak	160	312	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.150
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

**: Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

7. On Time, Duty Cycle and Measurement methods

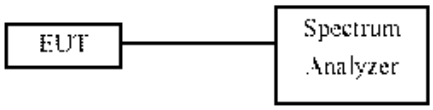
7.1. Test Limit

None; for reporting purposes only.

7.2. Test Procedure

KDB 789033 Zero-Span Spectrum Analyzer Method.

7.3. Test Setup Layout



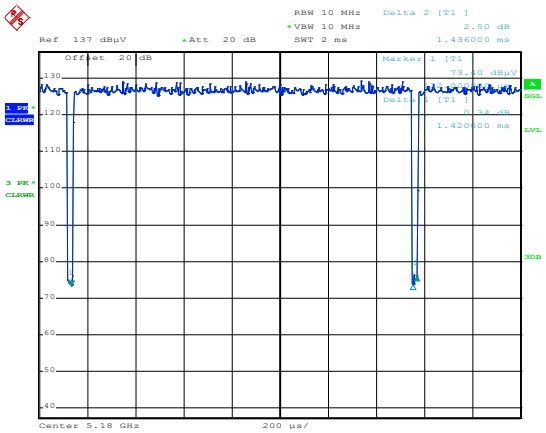
7.4. Test Result and Data

Modulation Mode	On Time (msec)	Period Time(msec)	Duty Cycle (%)
802.11a,6M	1.42	1.44	98.89%
802.11ac VHT20	1.34	1.35	98.82%
802.11ac VHT40	0.68	0.69	98.27%
802.11ac VHT80	0.33	0.35	94.35%

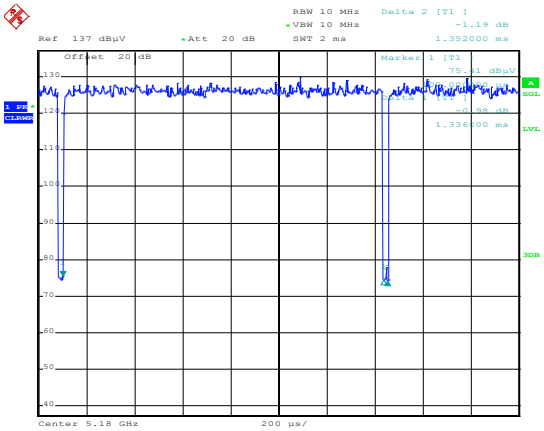
7.5. Measurement Methods

26 dB and 6dB Emission BW	KDB 789033 D02 v02r01, Section C
99% Occupied BW	KDB 789033 D02 v02r01, Section D
Conducted Output Power	KDB 789033 D02 v02r01, Section E.2.d and E.3.b (Method PM-G)
Power Spectral Density	KDB 789033 D02 v02r01, Section F
Unwanted emissions in restricted bands	KDB 789033 D02 v02r01, Sections G and H
Unwanted emissions in non-restricted bands	KDB 789033 D02 v02r01, Sections G and H

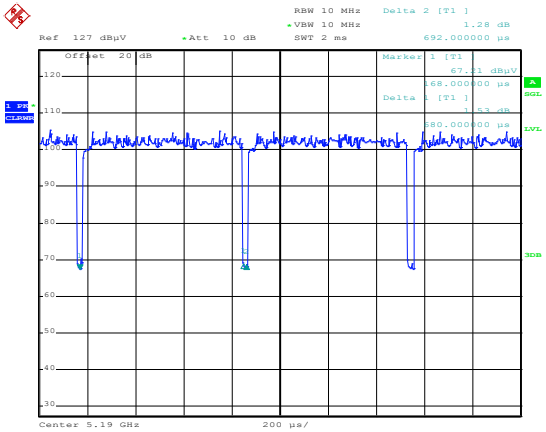
Modulation Type: 802.11a (6Mbps)



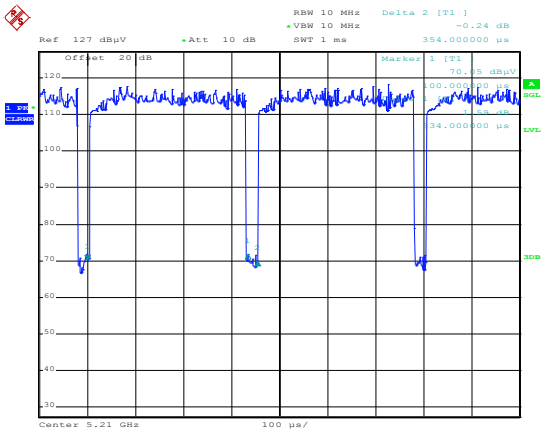
Modulation Type: 802.11ac VHT20 (6.5Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)



Modulation Type: 802.11ac VHT80 (29.3Mbps)



8. 6dB Bandwidth & 99% Occupied Bandwidth

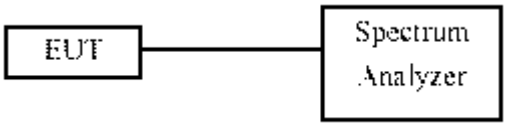
8.1. Test Limit

FCC §15.407
The minimum 6 dB bandwidth shall be at least 500 kHz.

8.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

8.3. Test Setup Layout



8.4. Test Result and Data (6dB Bandwidth)

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)
			ANT A	ANT B	
802.11a	149	5745	16.40	16.40	0.50
	157	5785	16.40	16.40	0.50
	165	5825	16.40	16.40	0.50
802.11ac VHT20	149	5745	17.50	17.50	0.50
	157	5785	17.50	17.50	0.50
	165	5825	17.60	17.30	0.50
802.11ac VHT40	151	5755	35.30	35.30	0.50
	159	5795	35.20	35.40	0.50
802.11ac VHT80	155	5775	**75.20**	**75.20**	0.50

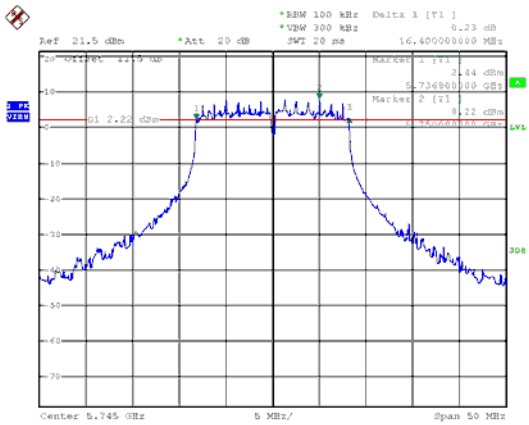
8.5. Test Result and Data (99% Occupied Bandwidth)

In the 5.8G Band

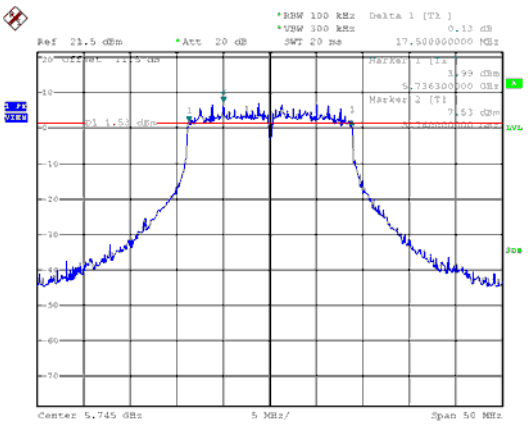
Modulation Type	Channel	Frequency (MHz)	99% Bandwidth (MHz)	
			ANT A	ANT B
802.11a	149	5745	16.70	16.70
	157	5785	16.70	16.60
	165	5825	16.80	16.80
802.11ac VHT20	149	5745	17.80	17.90
	157	5785	17.90	17.90
	165	5825	17.90	17.90
802.11ac VHT40	151	5755	36.60	37.00
	159	5795	36.60	37.00
802.11ac VHT80	155	5775	**75.84**	**76.16**

6dB Bandwidth
ANT A

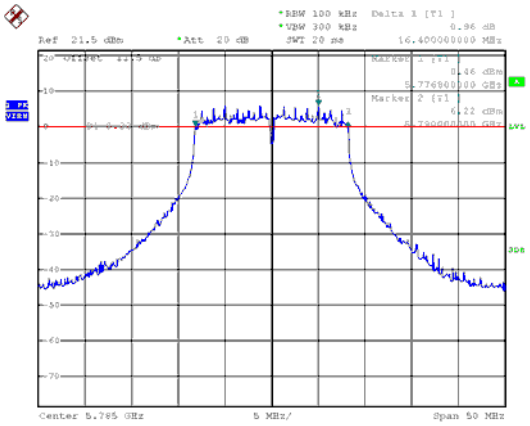
Modulation Type: 802.11a (6Mbps)
CH149



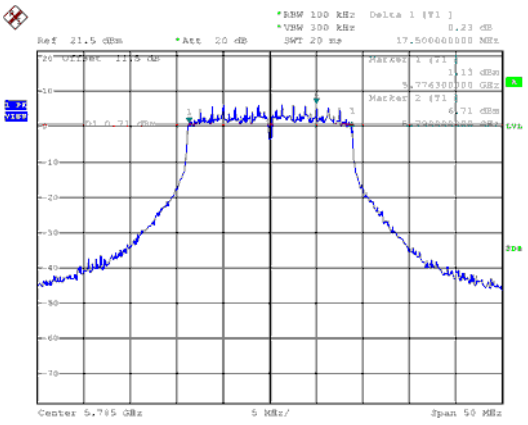
Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



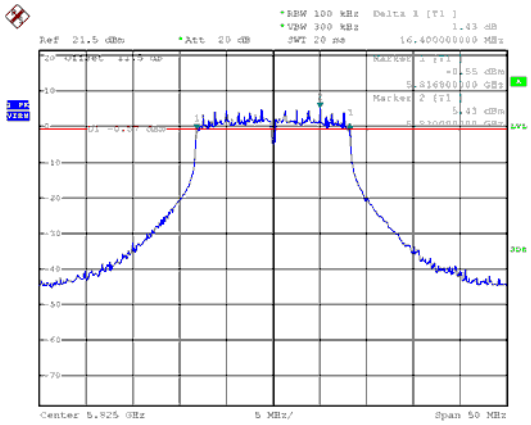
CH157



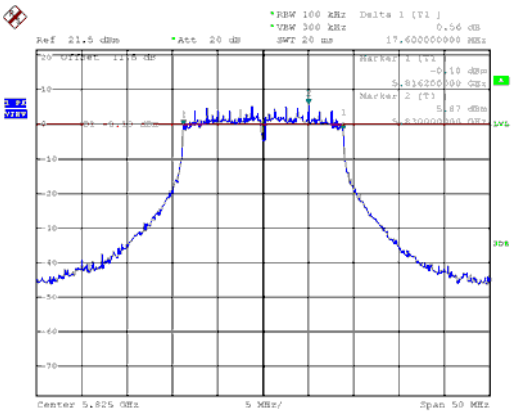
CH157



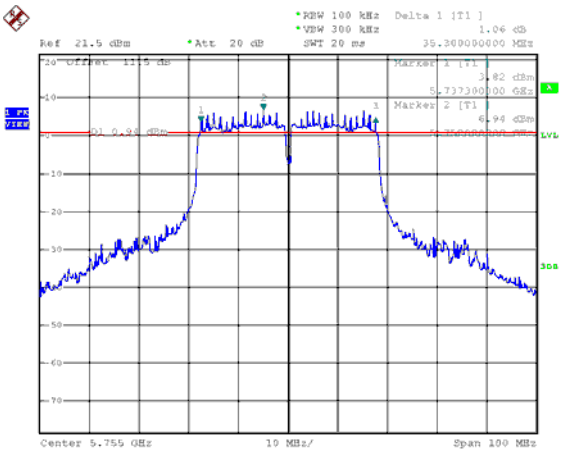
CH165



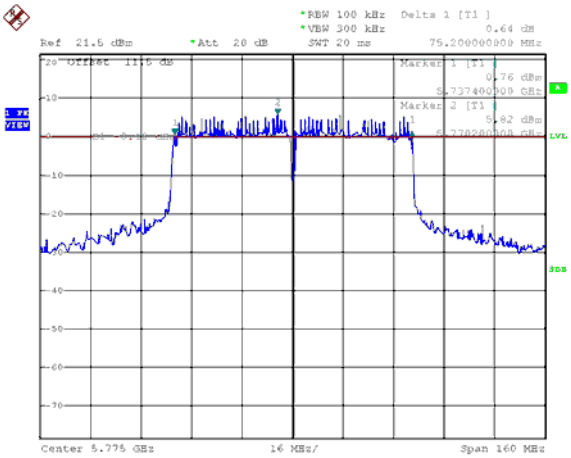
CH165



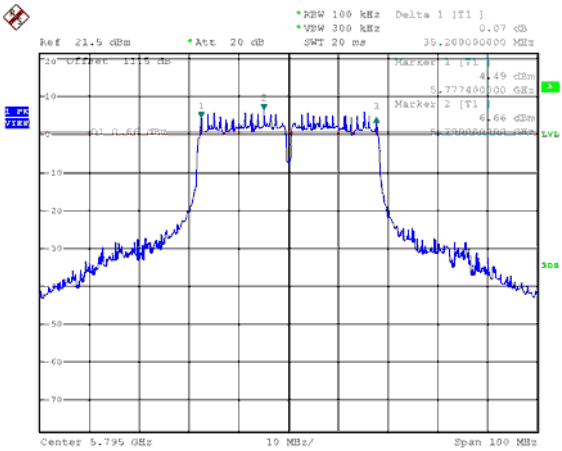
Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



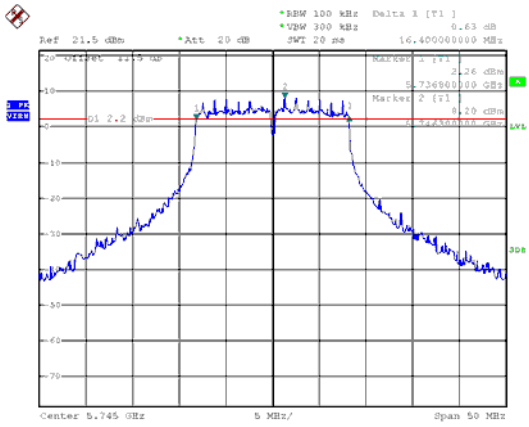
CH159



ANT B

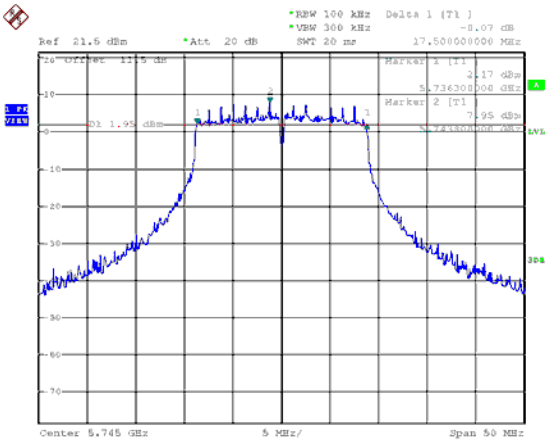
Modulation Type: 802.11a (6Mbps)

CH149

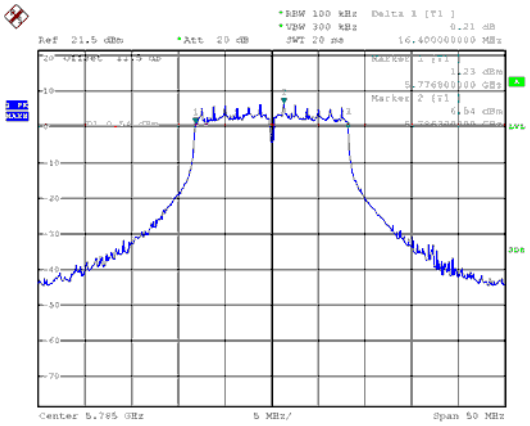


Modulation Type: 802.11ac, VHT20 (6.5Mbps)

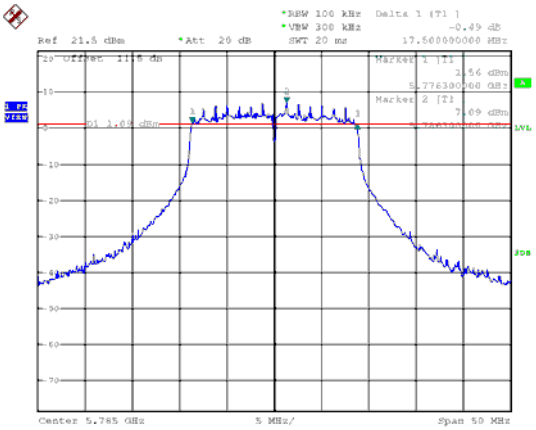
CH149



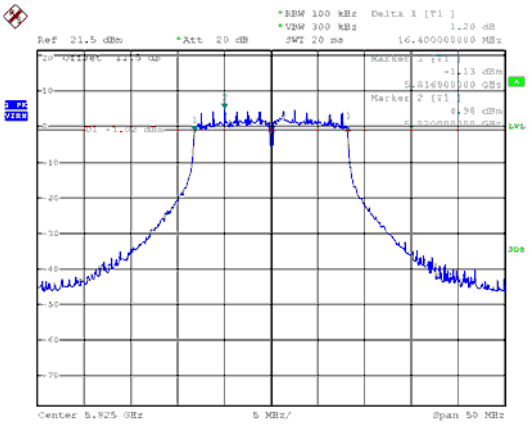
CH157



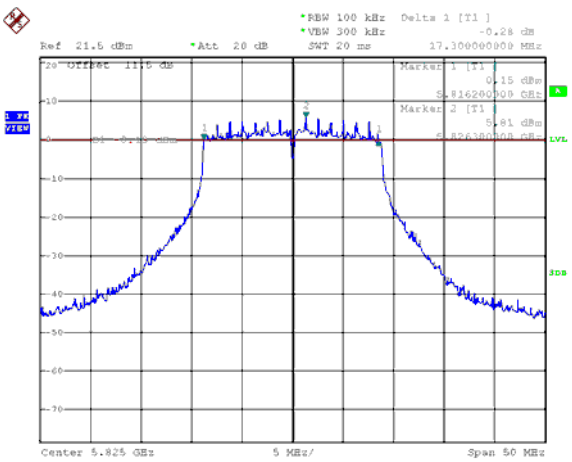
CH157



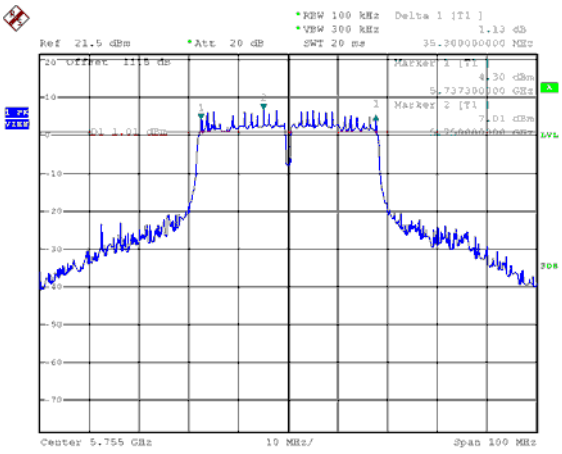
CH165



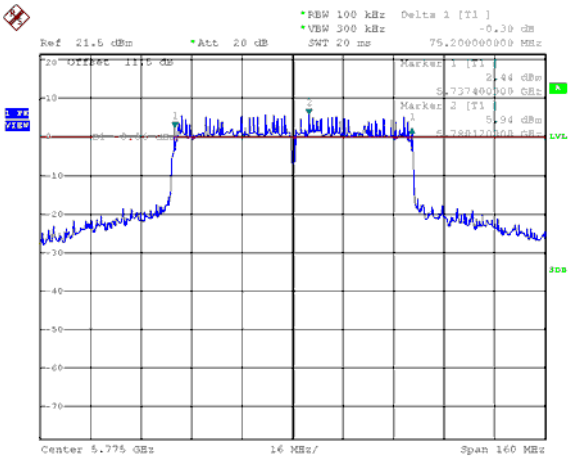
CH165



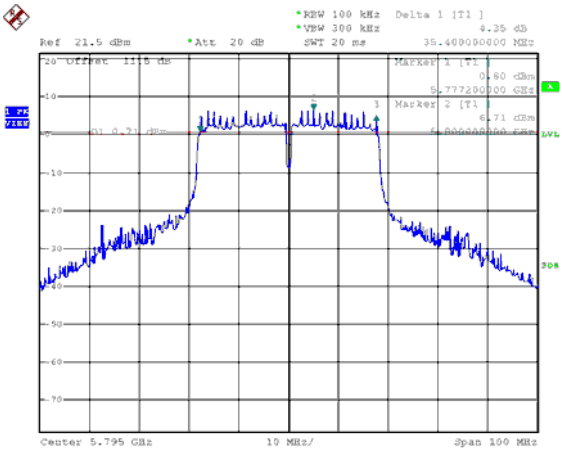
Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155

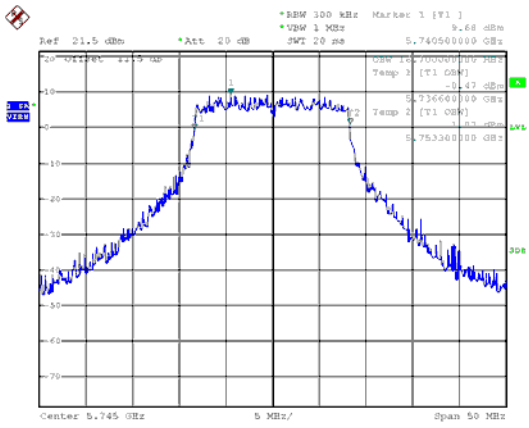


CH159

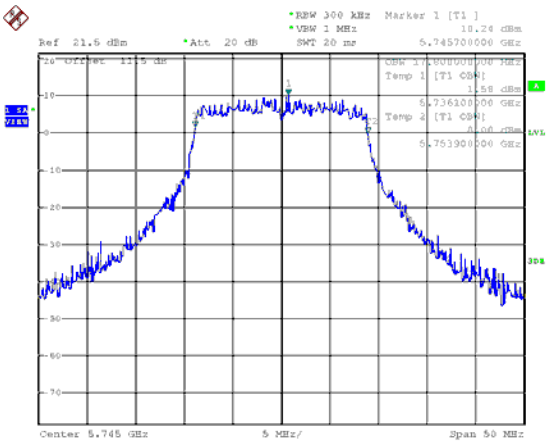


99% Occupied Bandwidth
ANT A

Modulation Type: 802.11a (6Mbps)
CH149



Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



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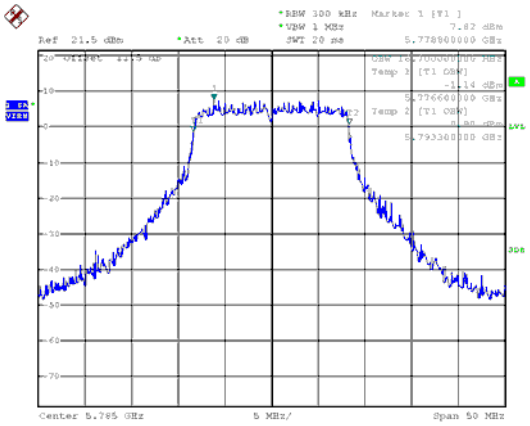

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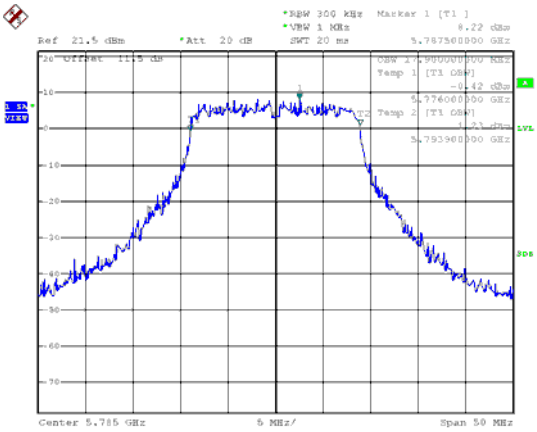

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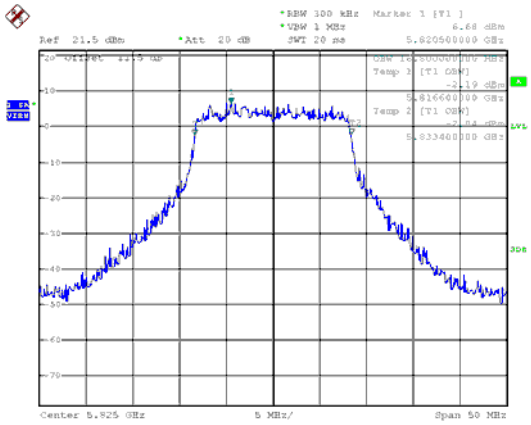
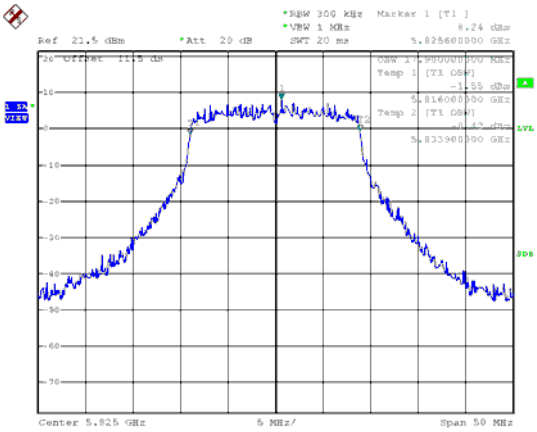
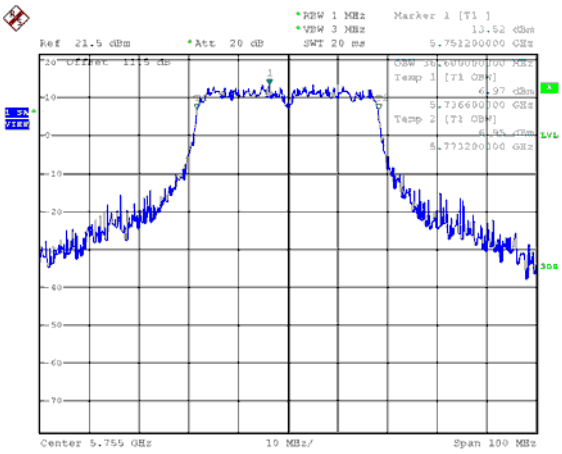


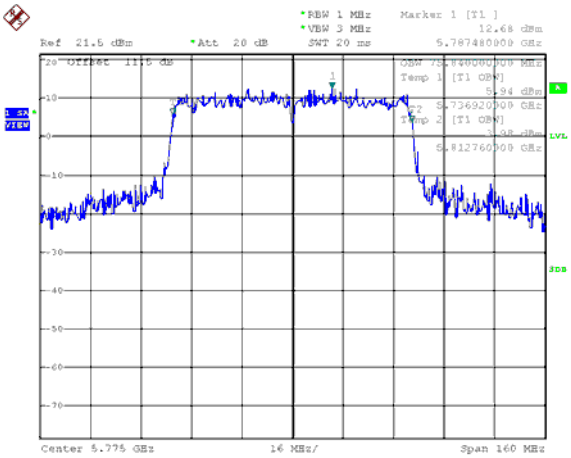
CH165



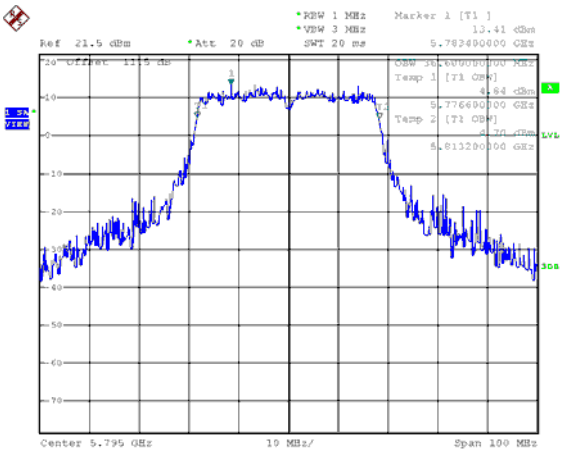
Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



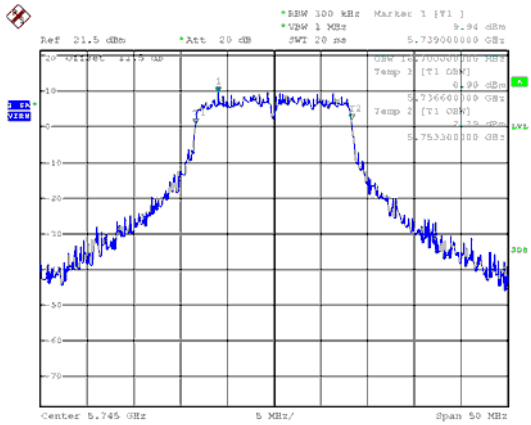
CH159



ANT B

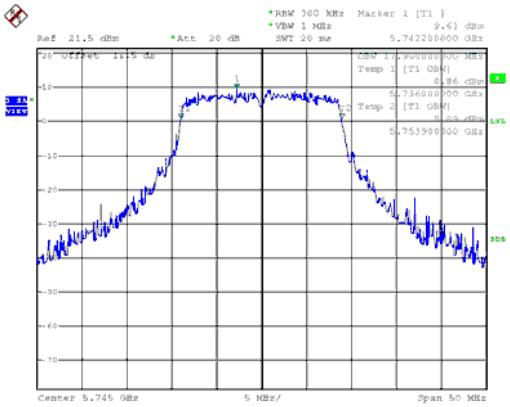
Modulation Type: 802.11a (6Mbps)

CH149



Modulation Type: 802.11ac, VHT20 (6.5Mbps)

CH149



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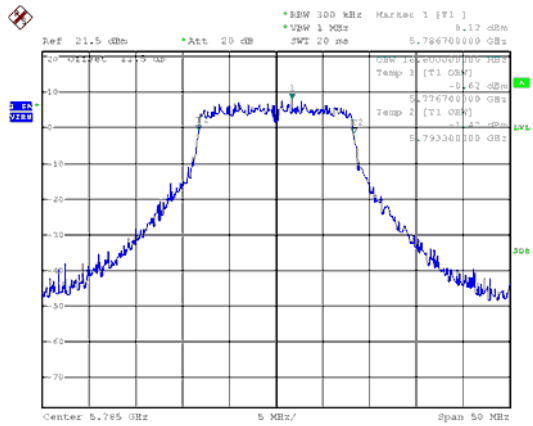
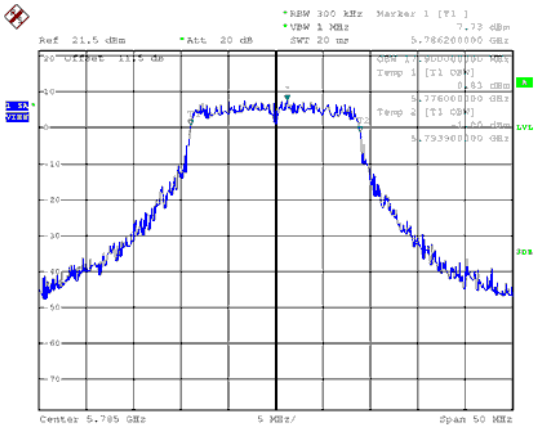
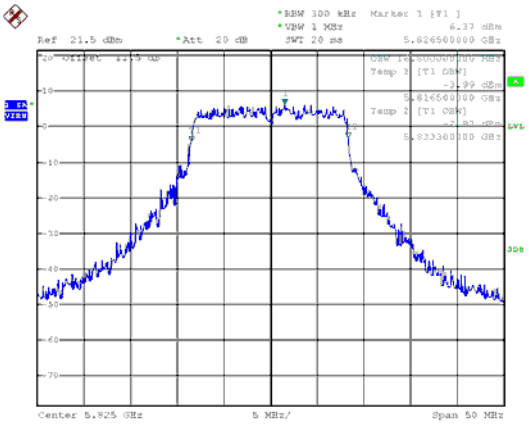


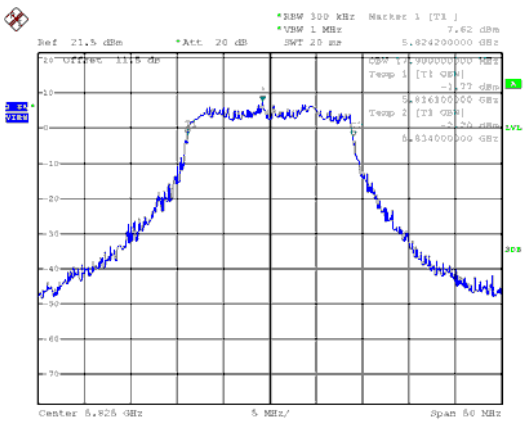
CH157



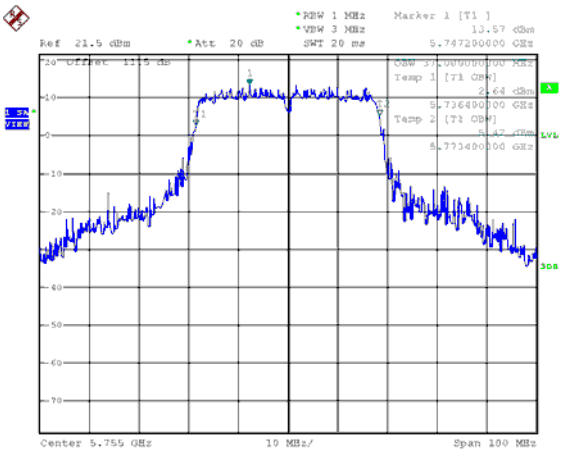
CH165



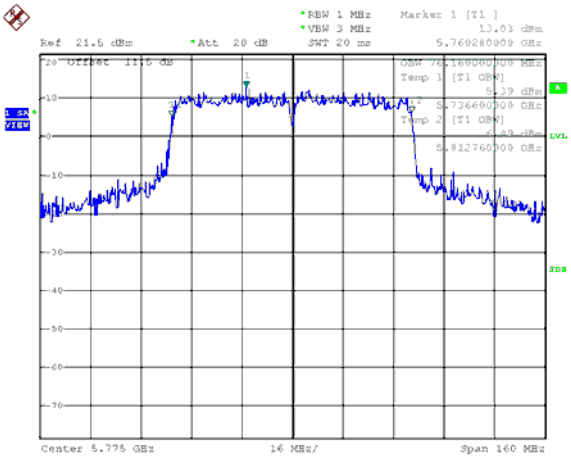
CH165



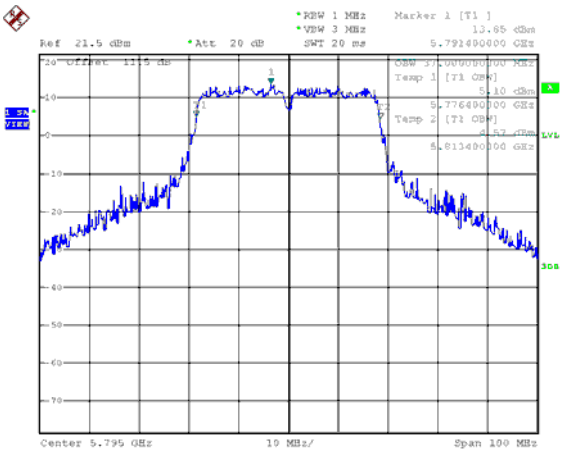
Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



CH159



9. 26dB Bandwidth & 99% Occupied Bandwidth

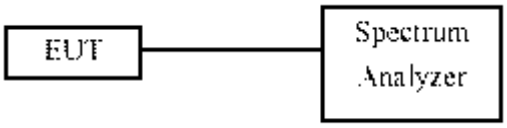
9.1. Test Limit

None; for reporting purposes only.

9.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW = approximately 1% of the emission bandwidth, the VBW >= 3 x RBW, peak detector and max hold.

9.3. Test Setup Layout



9.4. Test Result and Data (26dB Bandwidth)

In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
			ANT A	ANT B
802.11a	36	5180	22.50	22.50
	44	5220	22.50	23.04
	48	5240	22.44	23.40
802.11ac VHT20	36	5180	23.28	23.88
	44	5220	23.04	24.06
	48	5240	23.34	24.12
802.11ac VHT40	38	5190	47.16	48.12
	46	5230	47.64	48.72
802.11ac VHT80	42	5210	**86.72**	**90.24**

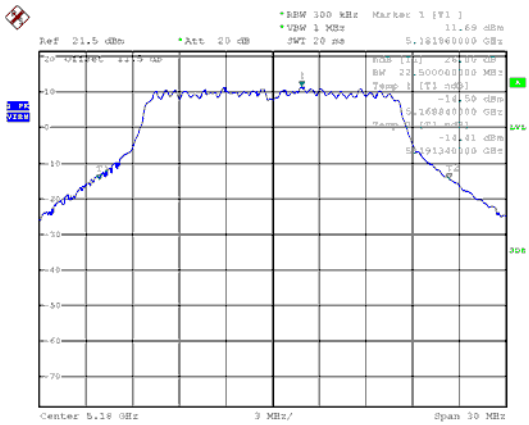
9.5. Test Result and Data (99% Occupied Bandwidth)

In the 5.2G Band

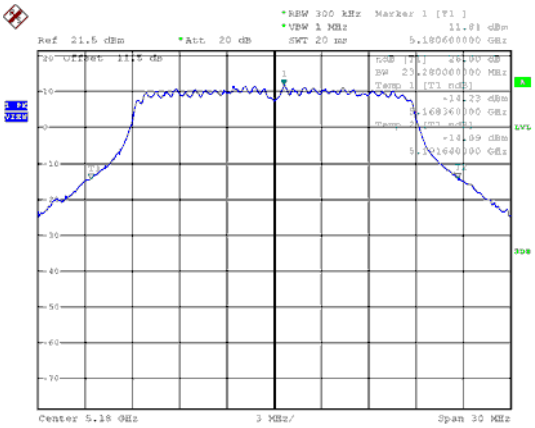
Modulation Type	Channel	Frequency (MHz)	99% Bandwidth (MHz)	
			ANT A	ANT B
802.11a	36	5180	16.68	16.80
	44	5220	16.74	16.86
	48	5240	16.80	16.86
802.11ac VHT20	36	5180	17.88	18.00
	44	5220	17.88	18.00
	48	5240	17.94	18.06
802.11ac VHT40	38	5190	36.72	36.84
	46	5230	36.84	36.84
802.11ac VHT80	42	5210	**75.52**	**75.52**

26dB Bandwidth
ANT A

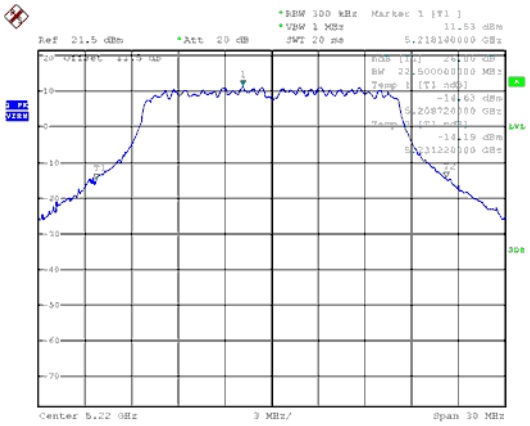
Modulation Type: 802.11a (6Mbps)
CH36



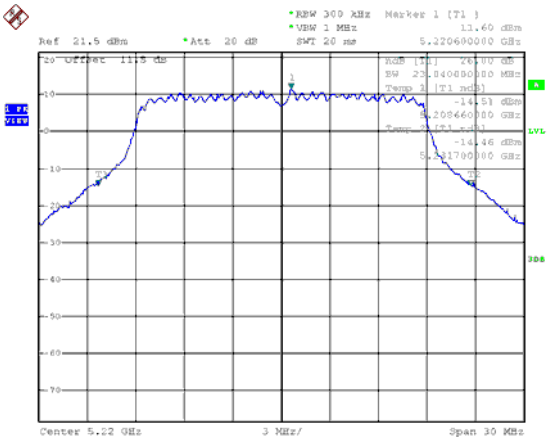
802.11ac VHT20 (6.5Mbps)
CH36



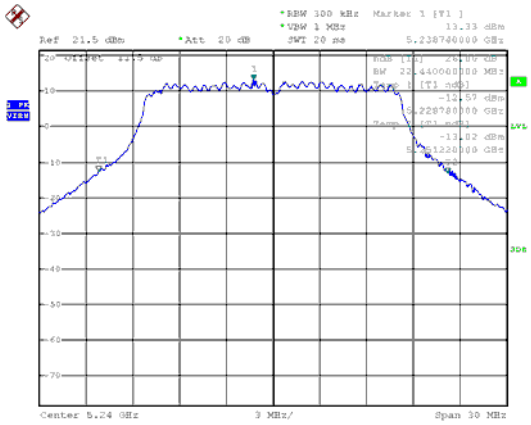
CH44



CH44



CH48



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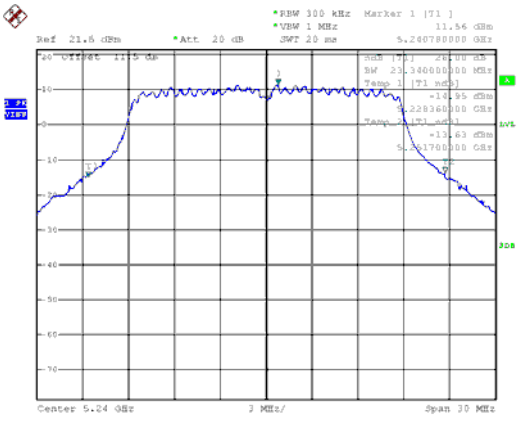
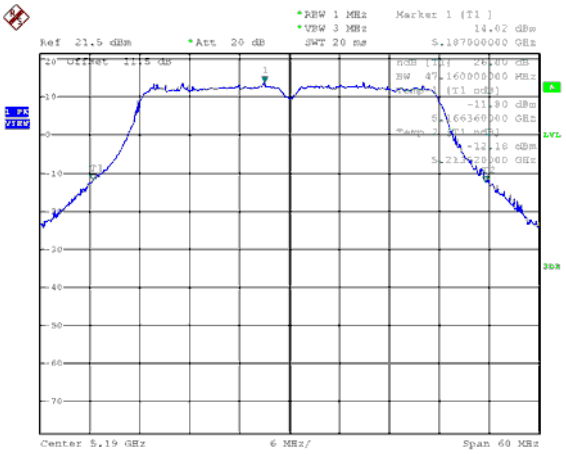
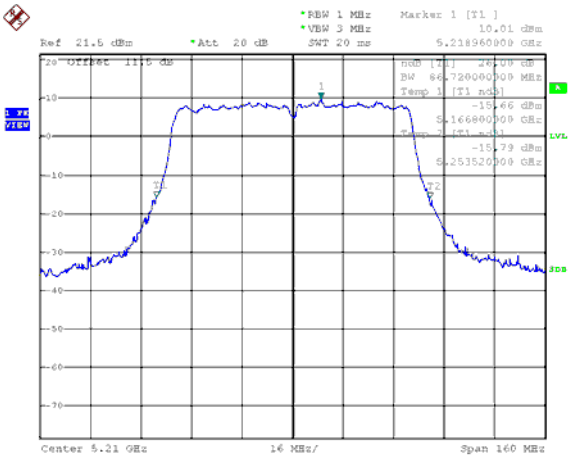


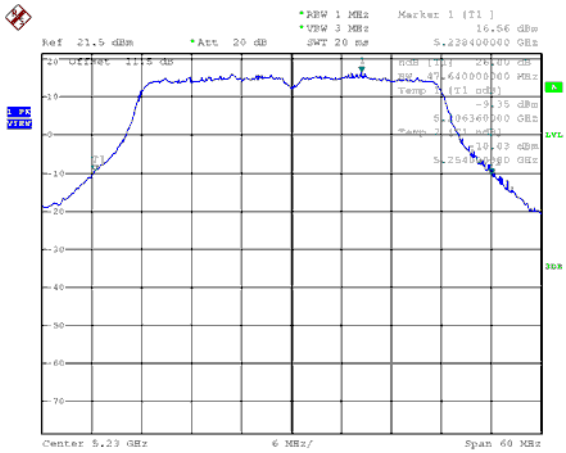
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



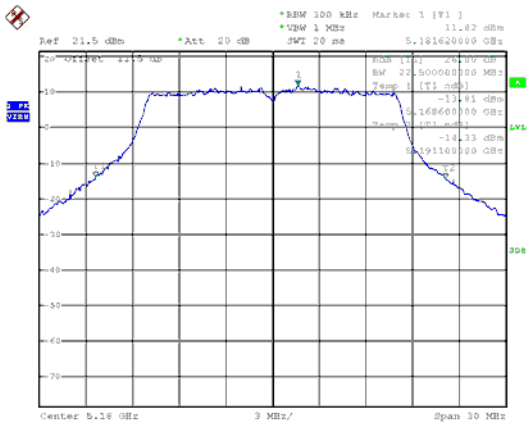
CH46



ANT B

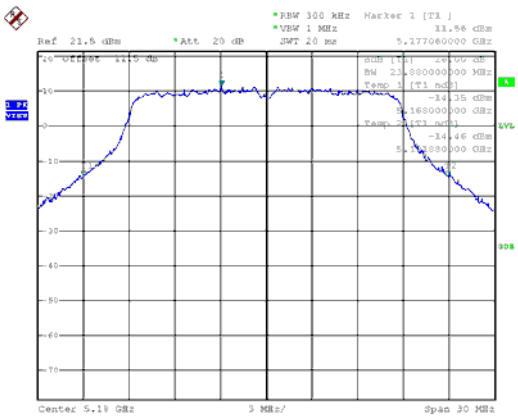
Modulation Type: 802.11a (6Mbps)

CH36

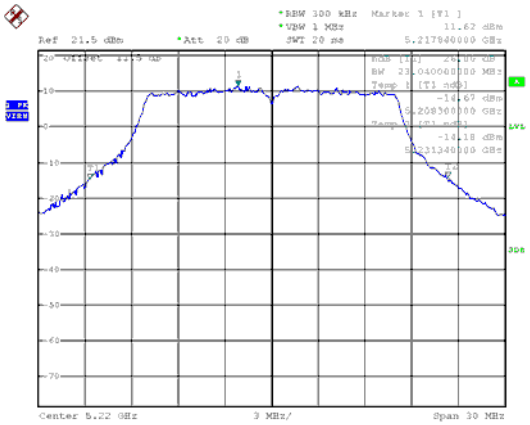


802.11ac VHT20 (6.5Mbps)

CH36



CH44



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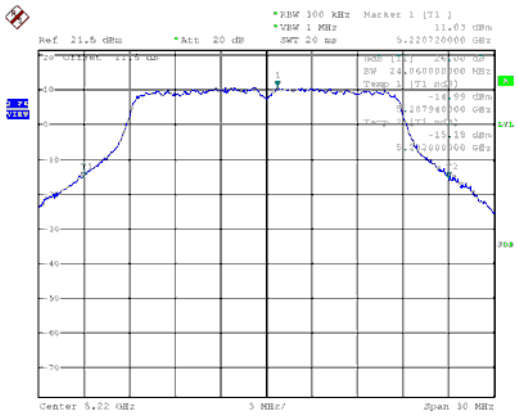
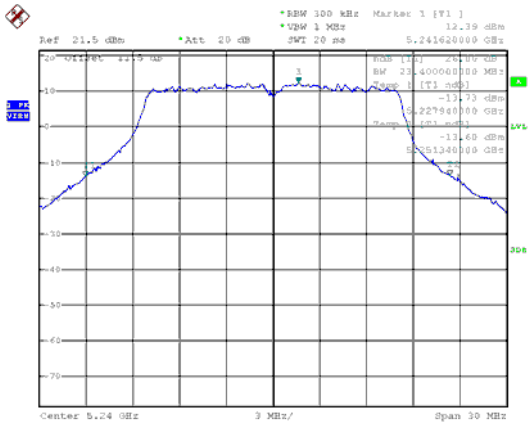


CH48



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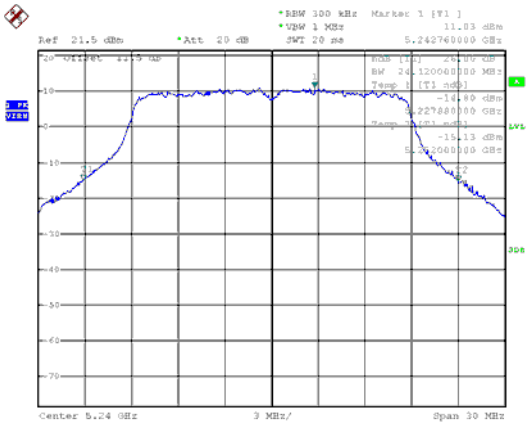
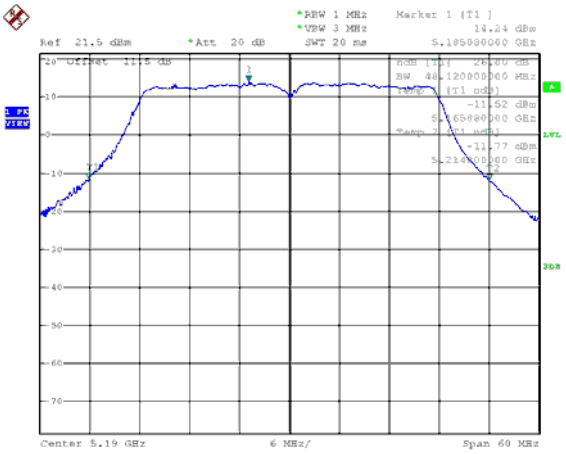
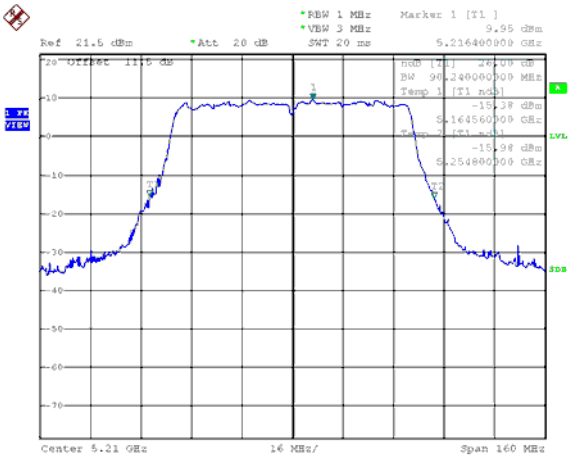


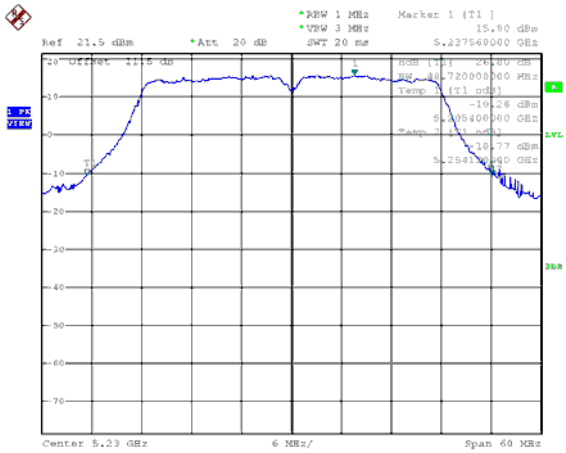
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42

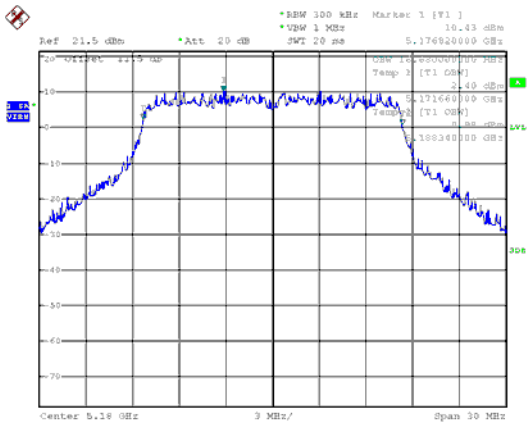


CH46

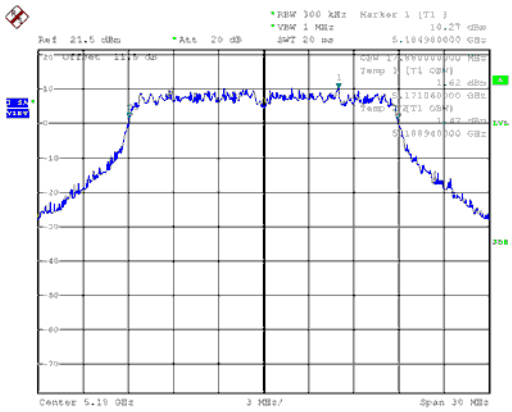


99% Occupied Bandwidth
ANT A

Modulation Type: 802.11a (6Mbps)
CH36



802.11ac VHT20 (6.5Mbps)
CH36



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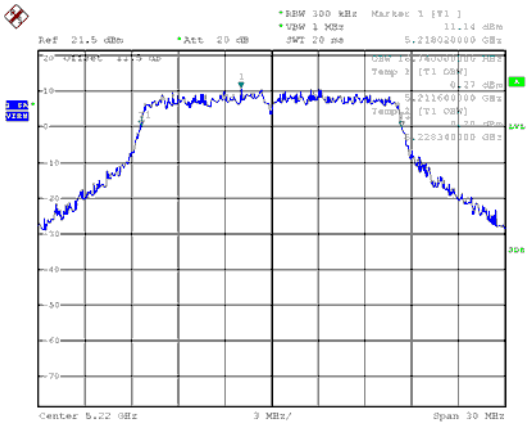

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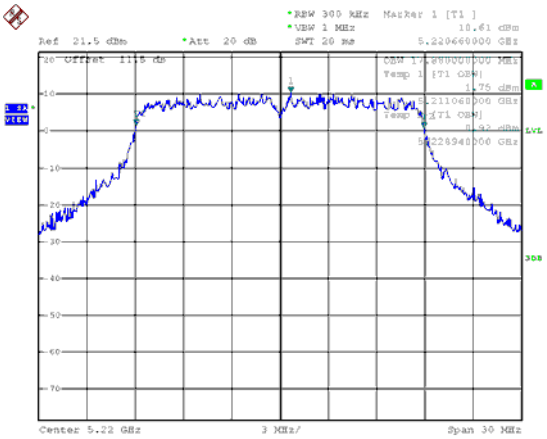

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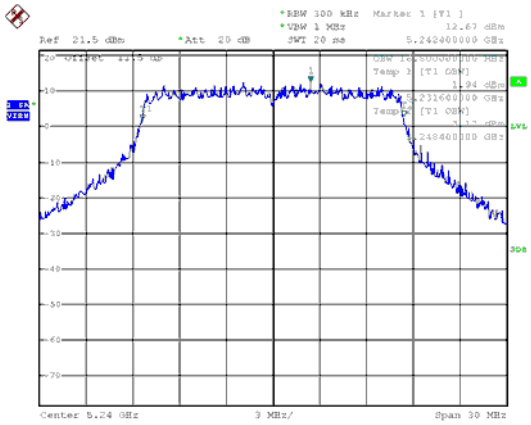

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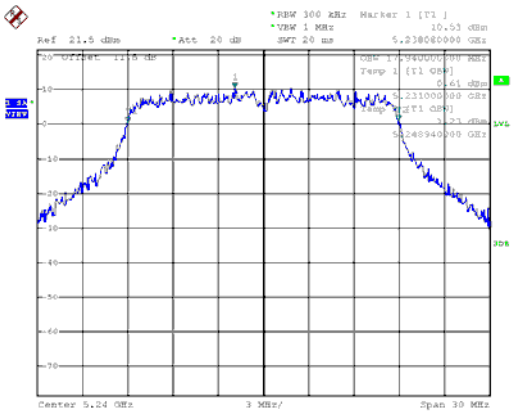
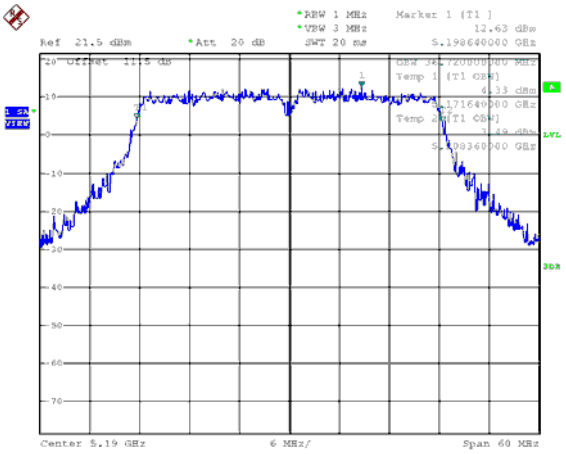
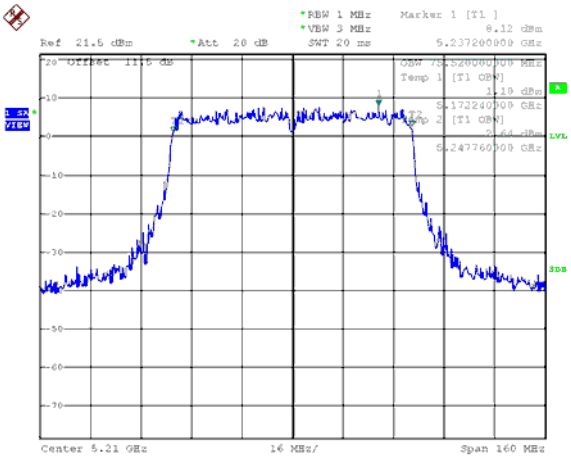


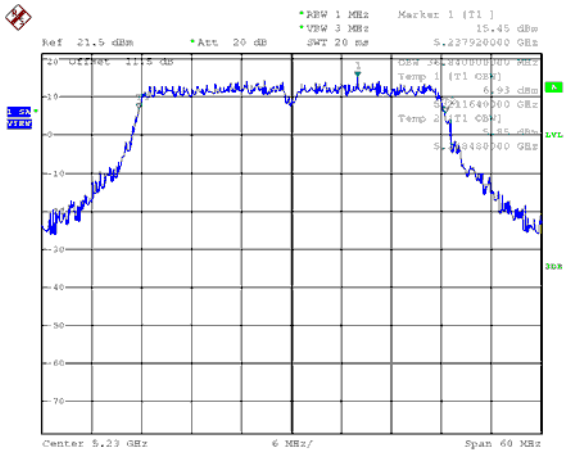
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



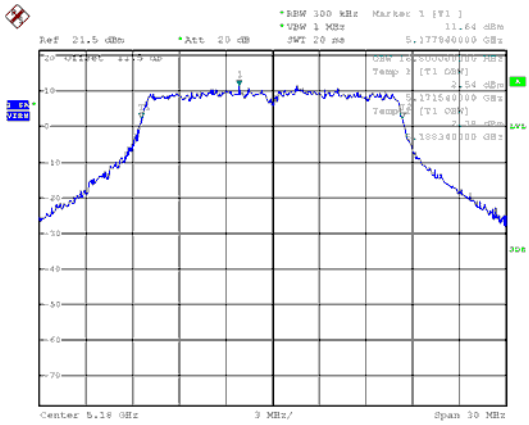
CH46



ANT B

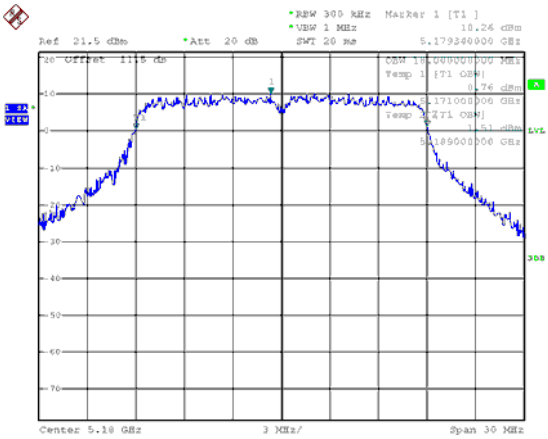
Modulation Type: 802.11a (6Mbps)

CH36



802.11ac VHT20 (6.5Mbps)

CH36



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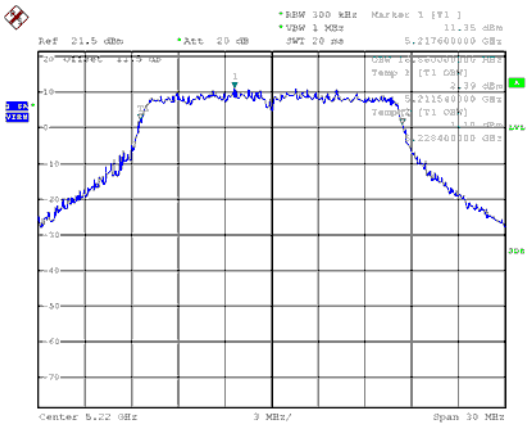

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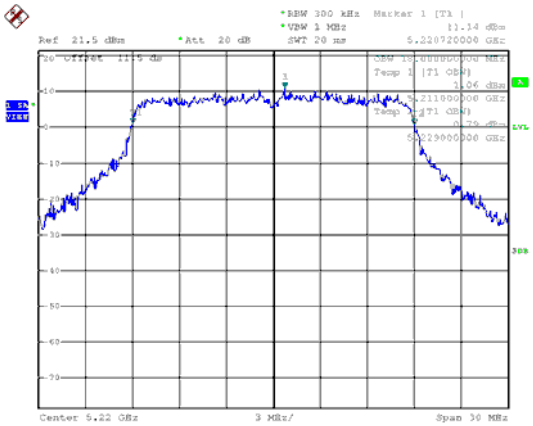

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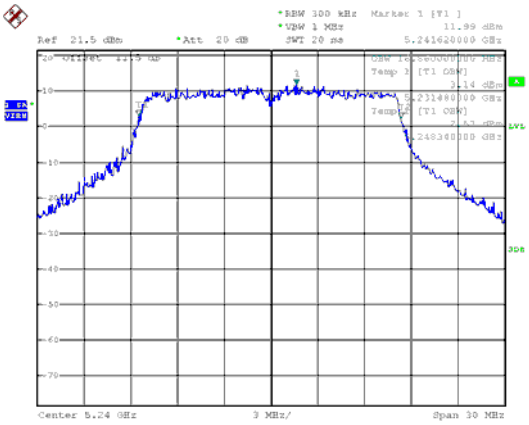

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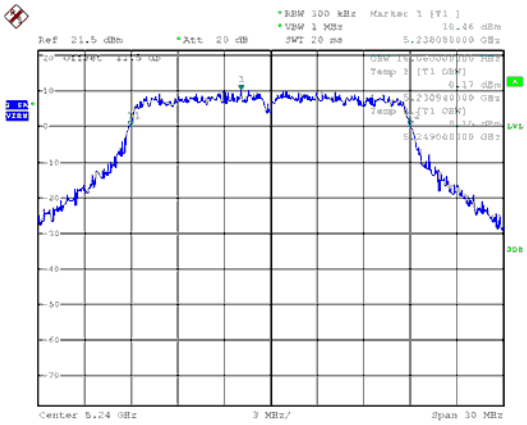
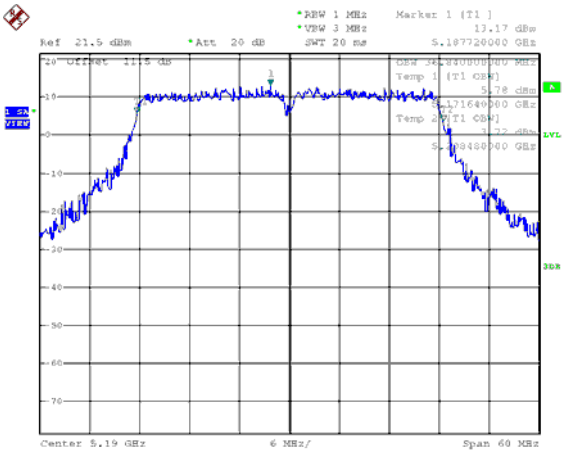
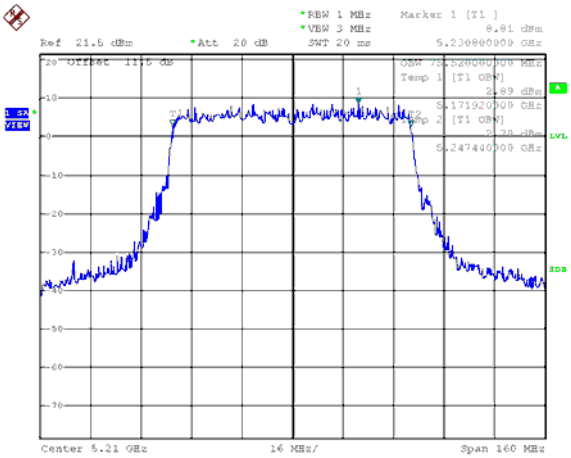


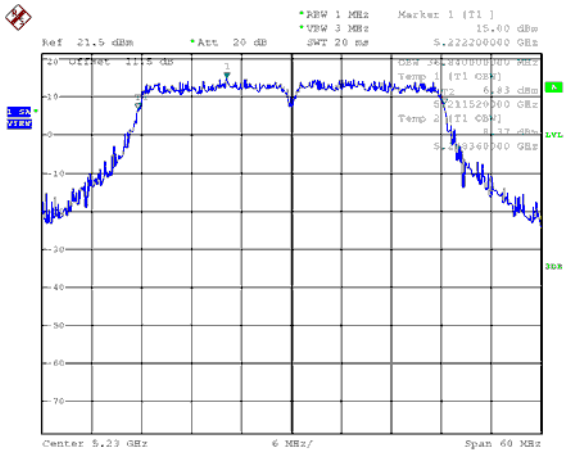
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46



10. Average Power

10.1. Test Limit

Output Power:

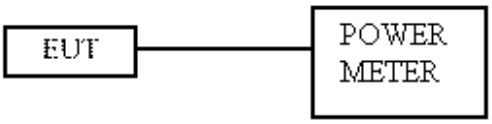
Frequency Band			Limit
☒	5.15~5.25GHz		
	Operating Mode		
	☐	Outdoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30degrees as measured from the horizon must not exceed125 mW (21 dBm).
	☒	Indoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
	☐	Fixed point-to-point access points	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.
	☐	client devices	The maximum conducted output power over the frequency band of operation shall not exceed 250 mW (24dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Frequency Band		Limit
☐	5.25-5.35 GHz	The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
☐	5.470-5.725 GHz	
☒	5.725~5.85 GHz	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power.

10.2.Test Procedure

The transmitter output is connected to a power meter.
The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

10.3.Test Setup Layout



10.4.Test Result and Data

Modulation Mode	Data Rate	Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A	ANT B			
11a	6 Mbps	19	36	5180	17.80	18.69	21.28	134.216	30.00
11a	6 Mbps	18	44	5220	17.71	18.35	21.05	127.411	30.00
11a	6 Mbps	19	48	5240	19.34	19.35	22.36	172.001	30.00
11n HT20	MCS 0	19	36	5180	17.86	18.62	21.27	133.872	30.00
11n HT20	MCS 0	19.5	44	5220	18.74	19.23	22.00	158.570	30.00
11n HT20	MCS 0	18	48	5240	17.85	18.29	21.09	128.406	30.00
11n HT40	MCS 0	18	38	5190	17.84	18.16	21.01	126.277	30.00
11n HT40	MCS 0	19	46	5230	17.92	18.58	21.27	134.055	30.00
11ac VHT20	MCS0-NSS1	19	36	5180	17.88	18.65	21.29	134.659	30.00
11ac VHT20	MCS0-NSS1	19.5	44	5220	18.78	19.25	22.03	159.649	30.00
11ac VHT20	MCS0-NSS1	18	48	5240	17.88	18.32	21.12	129.297	30.00
11ac VHT40	MCS0-NSS1	18	38	5190	17.87	18.21	21.05	127.457	30.00
11ac VHT40	MCS0-NSS1	19	46	5230	17.94	18.62	21.30	135.008	30.00
11ac VHT80	MCS0-NSS1	21.5	42	5210	20.13	20.68	**23.42**	219.989	30.00

Modulation Mode	Data Rate	Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A	ANT B			
11a	6 Mbps	19	149	5745	18.64	18.80	21.73	148.972	30.00
11a	6 Mbps	17.5	157	5785	16.89	16.74	19.83	96.072	30.00
11a	6 Mbps	16.5	165	5825	16.19	15.86	19.04	80.139	30.00
11n HT20	MCS 0	19	149	5745	18.60	18.74	21.68	147.261	30.00
11n HT20	MCS 0	18	157	5785	17.59	17.21	20.41	110.013	30.00
11n HT20	MCS 0	17	165	5825	16.69	16.40	19.56	90.318	30.00
11n HT40	MCS 0	21.5	151	5755	20.11	20.79	23.47	222.515	30.00
11n HT40	MCS 0	21.5	159	5795	20.24	20.67	23.47	222.363	30.00
11ac VHT20	MCS0-NSS1	19	149	5745	18.64	18.76	21.71	148.276	30.00
11ac VHT20	MCS0-NSS1	18	157	5785	17.62	17.26	20.45	111.020	30.00
11ac VHT20	MCS0-NSS1	17	165	5825	16.73	16.43	19.59	91.052	30.00
11ac VHT40	MCS0-NSS1	21.5	151	5755	20.14	20.82	23.50	224.058	30.00
11ac VHT40	MCS0-NSS1	21.5	159	5795	20.27	20.72	23.51	224.446	30.00
11ac VHT80	MCS0-NSS1	23	155	5775	21.92	22.13	**25.04**	318.902	30.00

11. Power Spectral Density

11.1.Test Limit

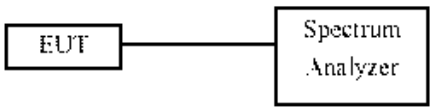
PSD:

Frequency Band			Limit
☒	5.15~5.25GHz		
	Operating Mode		
	☐	Outdoor access point	17 dBm/MHz
	☒	Indoor access point	17 dBm/MHz
	☐	Fixed point-to-point access points	17 dBm/MHz
	☐	Mobile and portable client devices	11 dBm/MHz
☐	5.725~5.85 GHz		11 dBm/MHz
☐	5.470-5.725 GHz		11 dBm/MHz
☒	5.725~5.85 GHz		30 dBm/500kHz

11.2.Test Procedure

Reference to KDB789033 D02 General UNII Test Procedures New Rules v02r01

11.3.Test Setup Layout



11.4. Test Result and Data

In the 5.2G Band

Modulation Mode	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			ANT A	ANT B				
11a	36	5180	7.64	8.74	11.24	0.00	11.24	16.52
11a	44	5220	6.62	7.14	9.90	0.00	9.90	16.52
11a	48	5240	8.40	9.13	11.79	0.00	11.79	16.52
11ac VHT20	36	5180	7.44	8.25	10.87	0.00	10.87	16.52
11ac VHT20	44	5220	7.28	7.85	10.58	0.00	10.58	16.52
11ac VHT20	48	5240	6.94	7.45	10.21	0.00	10.21	16.52
11ac VHT40	38	5190	4.08	4.98	7.56	0.00	7.56	16.52
11ac VHT40	46	5230	6.23	6.95	9.62	0.00	9.62	16.52
11ac VHT80	42	5210	-0.44	0.53	3.08	0.25	3.33	16.52

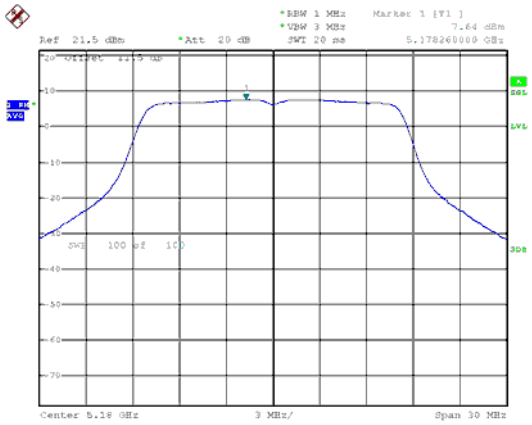
In the 5.8G Band

Modulation Mode	Channel (MHz)	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500KHz/ RBW) CF (dB)	Total Corr'd PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)
			ANT A	ANT B					
11a	149	5745	7.23	7.54	10.40	0.00	-3.01	7.39	29.53
11a	157	5785	5.32	5.62	8.48	0.00	-3.01	5.47	29.53
11a	165	5825	4.42	4.44	7.44	0.00	-3.01	4.43	29.53
11ac VHT20	149	5745	6.88	7.21	10.06	0.00	-3.01	7.05	29.53
11ac VHT20	157	5785	6.13	5.91	9.03	0.00	-3.01	6.02	29.53
11ac VHT20	165	5825	4.83	4.60	7.73	0.00	-3.01	4.72	29.53
11ac VHT40	151	5755	5.29	5.66	8.49	0.00	-3.01	5.48	29.53
11ac VHT40	159	5795	5.03	5.46	8.26	0.00	-3.01	5.25	29.53
11ac VHT80	155	5775	3.72	4.24	7.00	0.25	-3.01	4.24	29.53

5.2G Band 1, ANT A

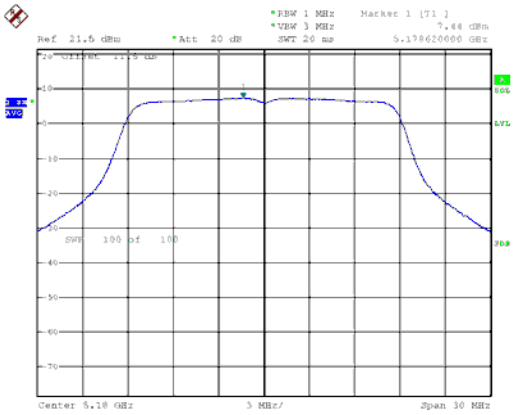
Modulation Type: 802.11a (6Mbps)

CH36

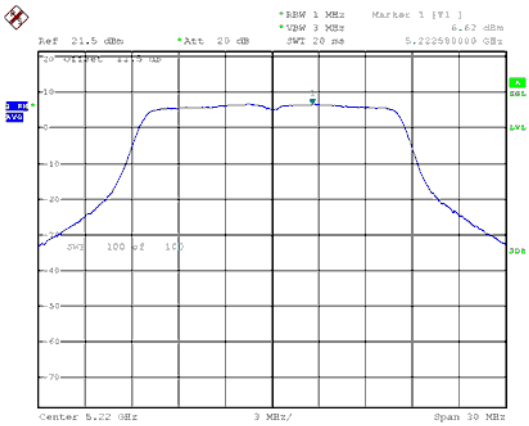


Modulation Type: 802.11ac VHT20 (6.5Mbps)

CH36



CH44



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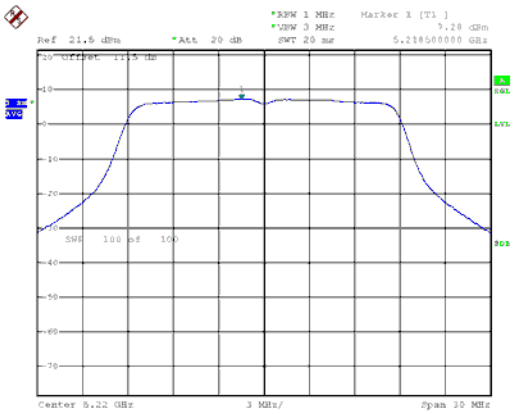
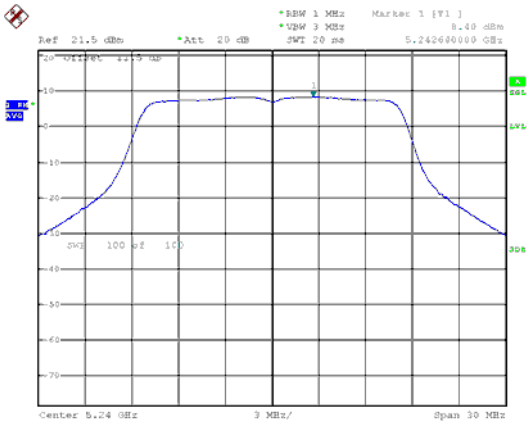


CH48



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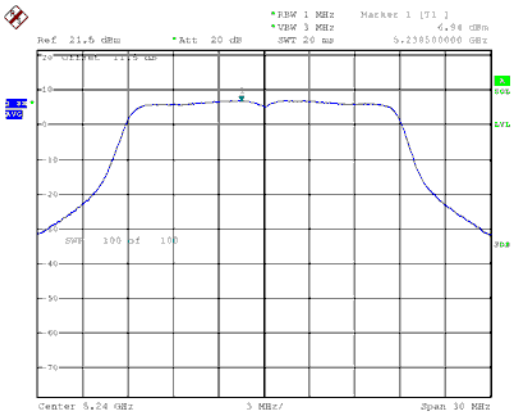
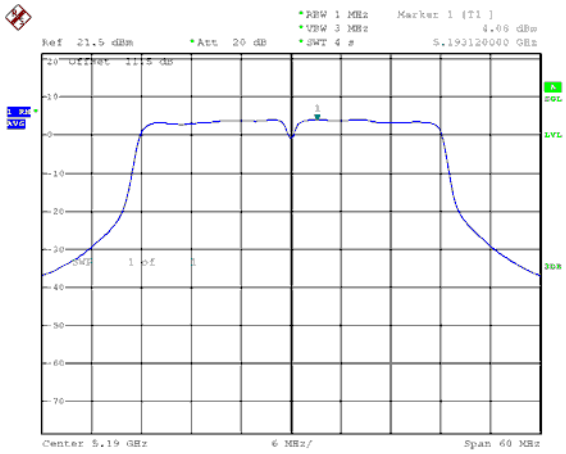
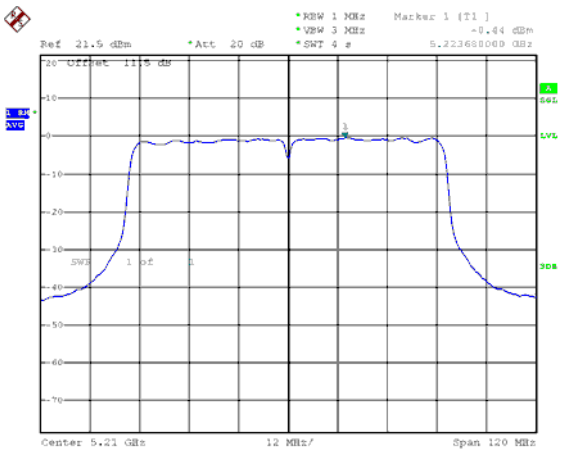


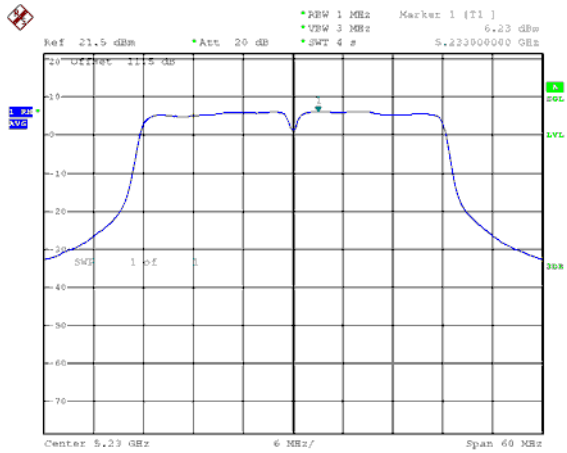
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46

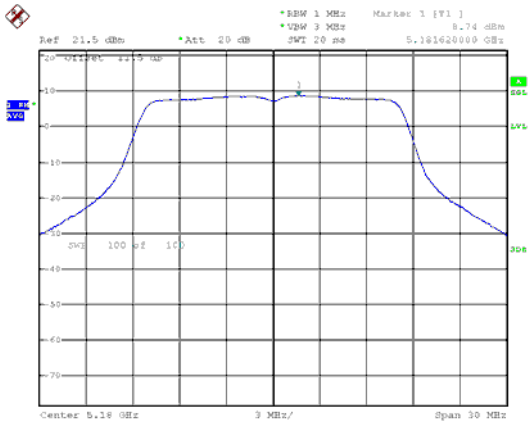


7:56

5.2G Band 1, ANT B

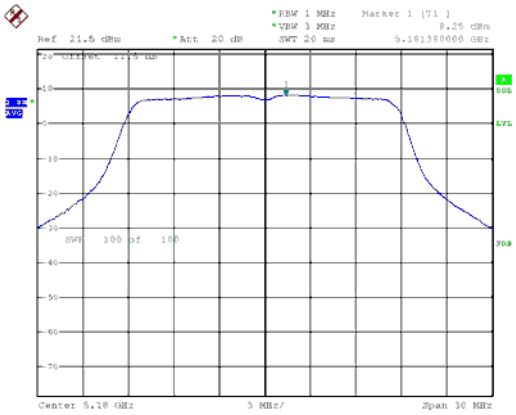
Modulation Type: 802.11a (6Mbps)

CH36

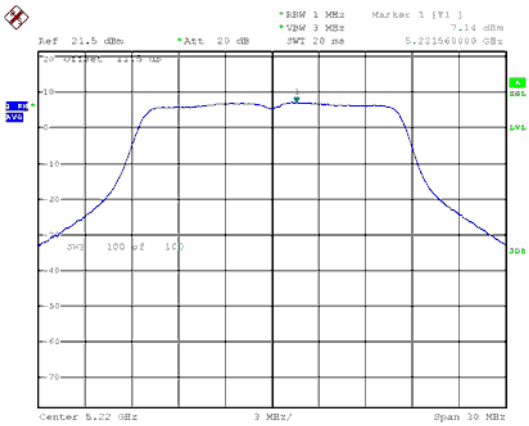


Modulation Type: 802.11ac VHT20 (6.5Mbps)

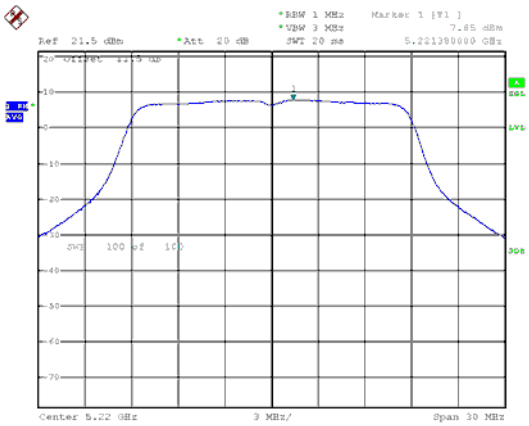
CH36



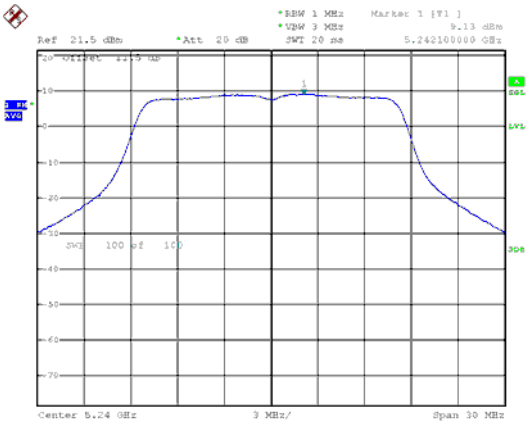
CH44



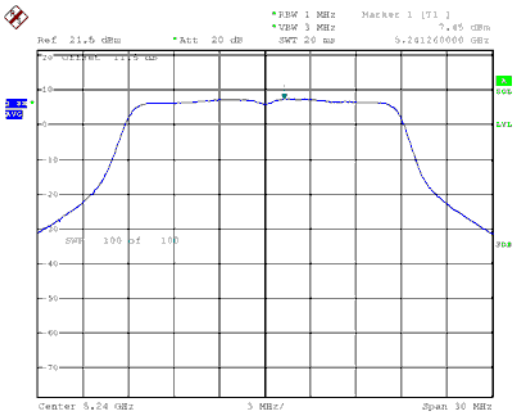
CH44



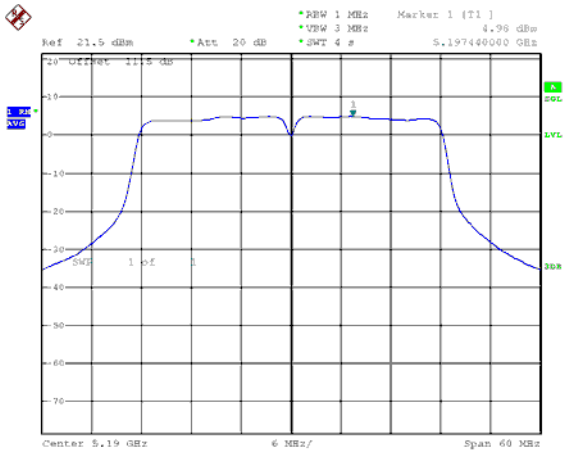
CH48



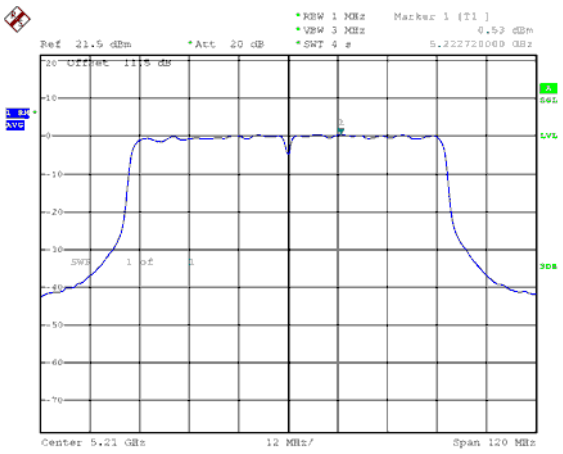
CH48



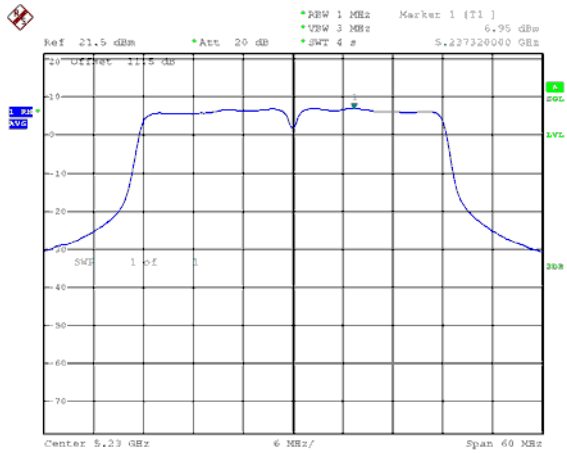
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



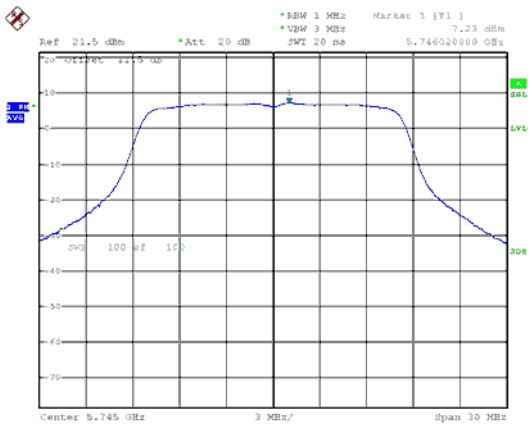
CH46



5.8G Band 4, ANT A

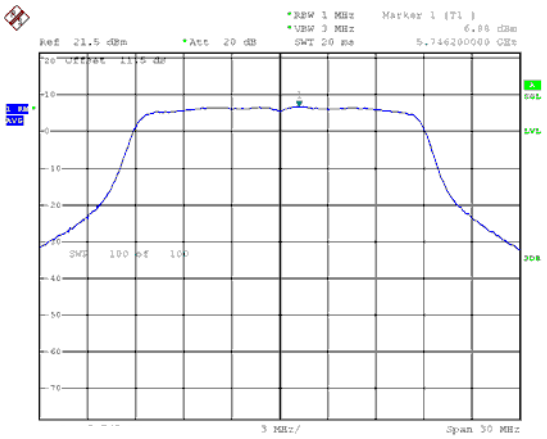
Modulation Type: 802.11a (6Mbps)

CH149



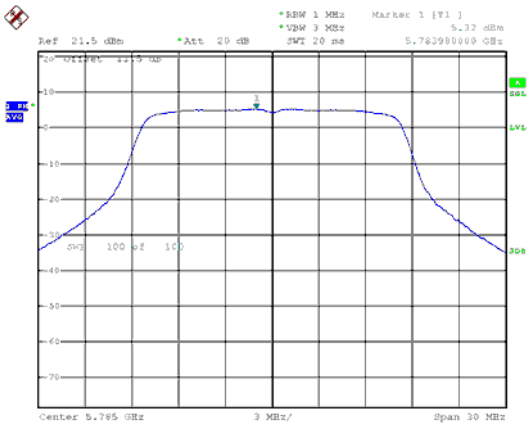
Modulation Type: 802.11ac VHT20 (6.5Mbps)

CH149

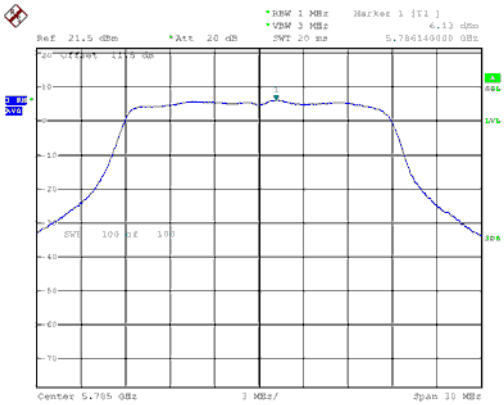


Date: 11.MAY.2019 10:45:53

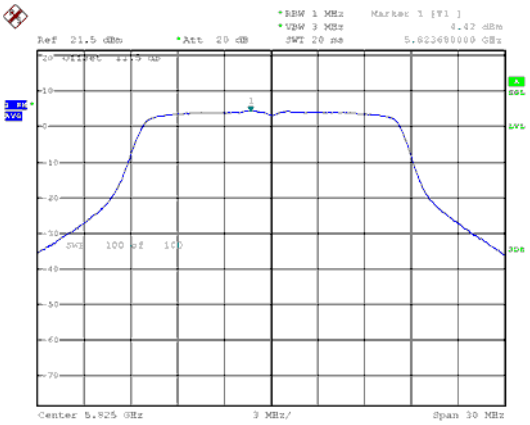
CH157



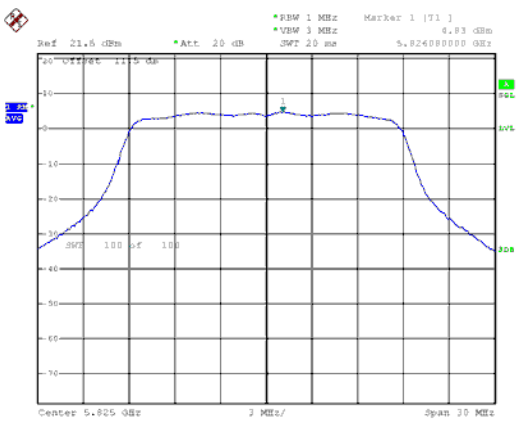
CH157



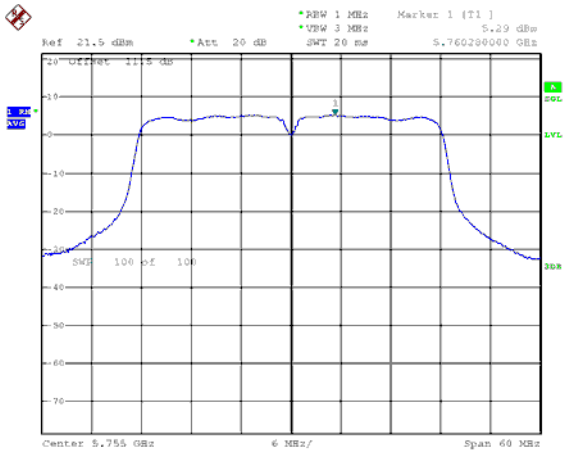
CH165



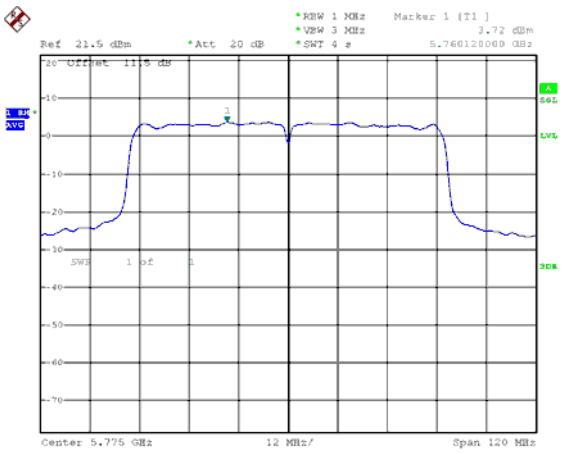
CH165



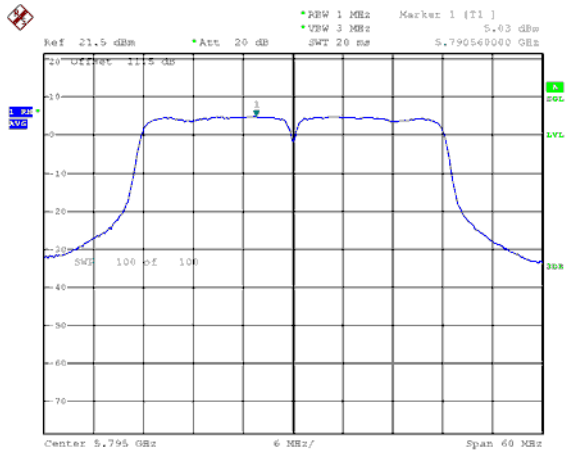
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH155



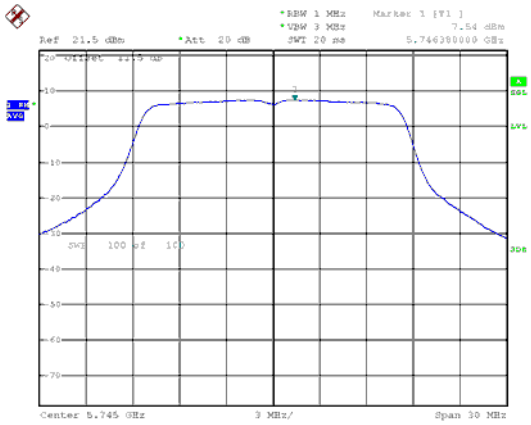
CH159



5.8G Band 4, ANT B

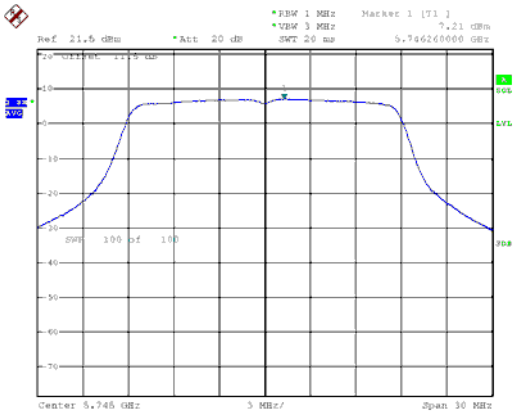
Modulation Type: 802.11a (6Mbps)

CH149

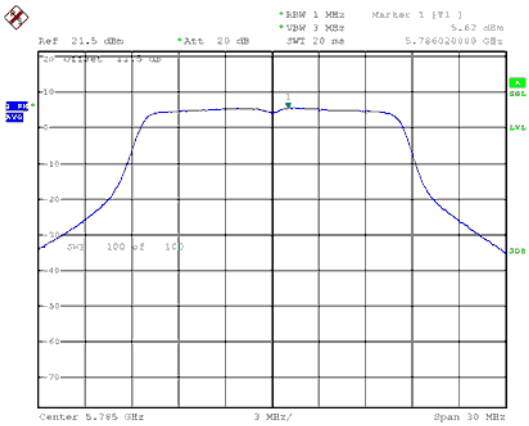


Modulation Type: 802.11ac VHT20 (6.5Mbps)

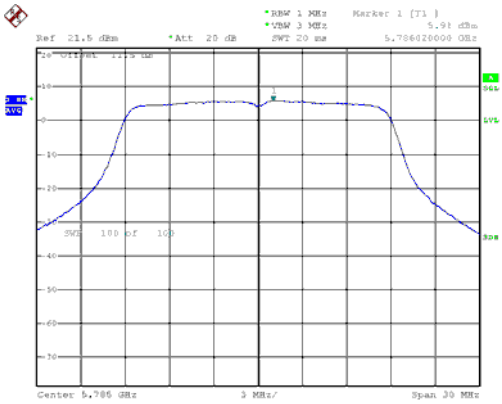
CH149



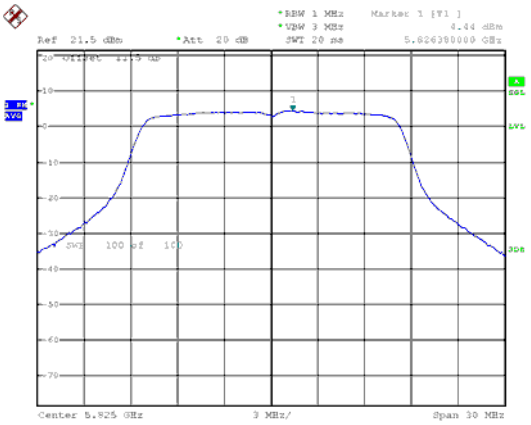
CH157



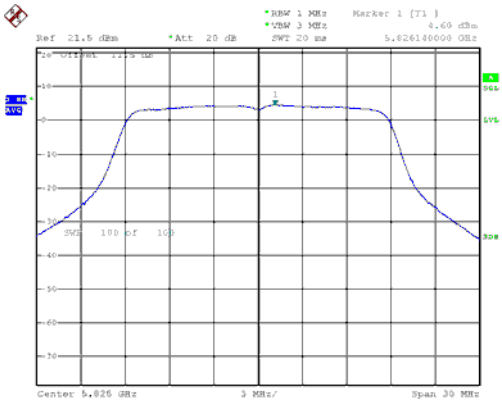
CH157



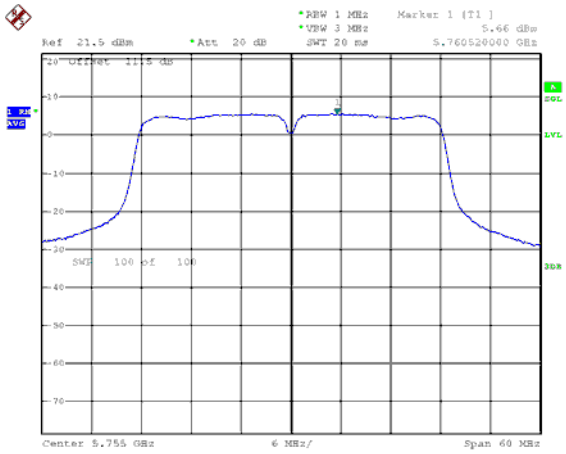
CH165



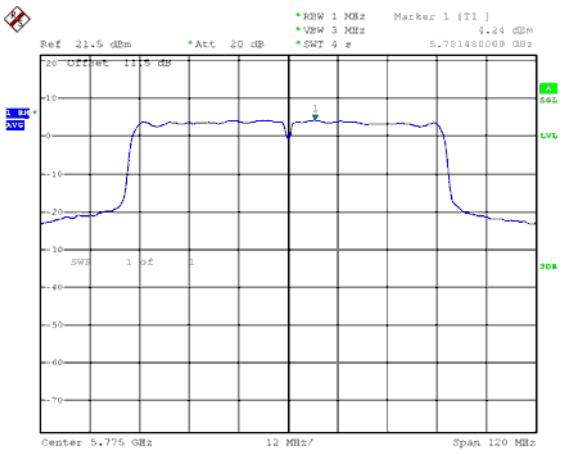
CH165



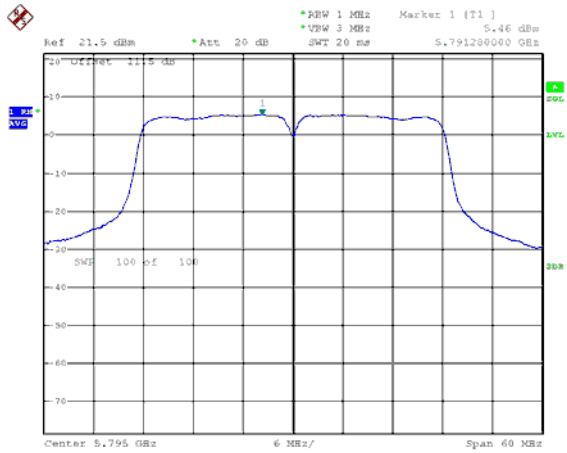
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH155



CH159

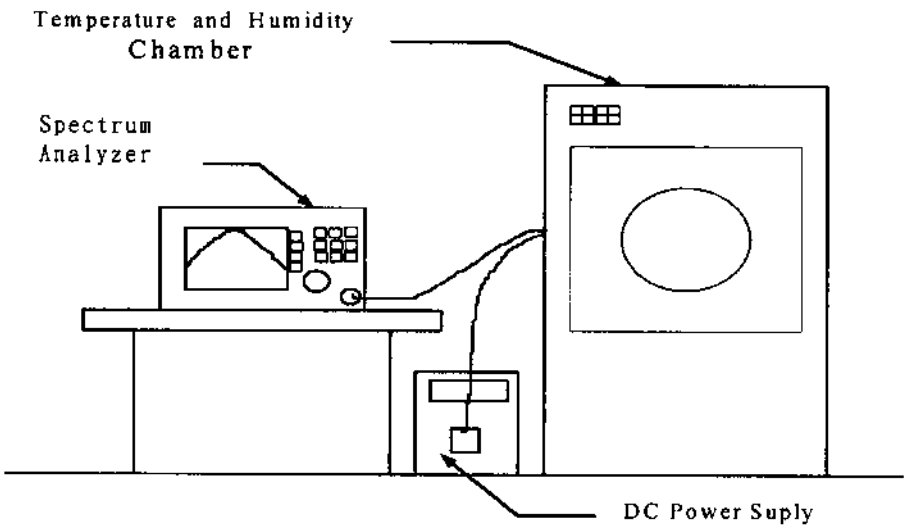


12. Frequency Stability

12.1.Test Procedure

1. The EUT was placed inside the Temperature and Humidity chamber.
2. The transmitter output was connected to spectrum analyzer.
3. Turn the EUT on and couple its output to a spectrum analyzer.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
6. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
7. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

12.2.Test Setup Layout



12.3.Test Result and Data

Operating frequency: 5240 MHz							
Temp	Power supply	2 minute		5 minute		10 minute	
(℃)	(V)	(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	102	5239.9663	-0.000644	5240.0131	0.000251	5239.9009	-0.001892
	120	5239.9877	-0.000234	5240.0347	0.000662	5240.0670	0.001279
	138	5240.0993	0.001894	5240.0780	0.001489	5240.0368	0.000702
40	102	5240.0607	0.001159	5240.0807	0.001541	5240.0093	0.000178
	120	5239.9395	-0.001154	5240.0087	0.000166	5240.0272	0.000519
	138	5239.9332	-0.001274	5240.0169	0.000322	5239.9027	-0.001857
30	102	5239.9990	-0.000018	5240.0739	0.001411	5240.0092	0.000176
	120	5239.9273	-0.001387	5240.0154	0.000293	5239.9021	-0.001868
	138	5239.9915	-0.000162	5240.0076	0.000146	5240.0493	0.000941
20	102	5240.0077	0.000147	5239.9253	-0.001425	5239.9881	-0.000228
	120	5240.0960	0.001831	5239.9710	-0.000554	5239.9033	-0.001845
	138	5240.0012	0.000023	5240.0131	0.000250	5240.0543	0.001037
10	102	5239.9567	-0.000827	5240.0298	0.000569	5239.9967	-0.000064
	120	5239.9260	-0.001413	5239.9594	-0.000775	5239.9187	-0.001551
	138	5240.0674	0.001286	5239.9344	-0.001252	5239.9080	-0.001756
0	102	5239.9468	-0.001015	5239.9751	-0.000476	5240.0310	0.000592
	120	5239.9650	-0.000669	5239.9496	-0.000962	5240.0813	0.001551
	138	5239.9484	-0.000985	5240.0029	0.000056	5239.9441	-0.001068
-10	102	5240.0966	0.001843	5239.9471	-0.001009	5239.9660	-0.000649
	120	5240.0228	0.000434	5240.0814	0.001553	5239.9375	-0.001194
	138	5239.9662	-0.000645	5239.9542	-0.000875	5239.9811	-0.000360
-20	102	5239.9925	-0.000144	5240.0452	0.000863	5239.9458	-0.001034
	120	5240.0566	0.001079	5240.0650	0.001240	5240.0737	0.001406
	138	5240.0715	0.001364	5239.9985	-0.000028	5240.0059	0.000112
-30	102	5240.0607	0.001158	5239.9578	-0.000805	5239.9754	-0.000469
	120	5240.0783	0.001495	5239.9077	-0.001762	5240.0614	0.001171
	138	5240.0966	0.001844	5239.9333	-0.001272	5240.0599	0.001143

Limit:
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 users manual.

13. Radio Frequency Exposure

13.1. Applicable Standards

The measurements shown in this test report were made in accordance with the procedures given in

FCC Part 2 (Section 2.1091)

KDB 447498

IEEE C95.1:2005

13.2. EUT Specification

Frequency band (Operating)	☒ WLAN: 2412MHz ~ 2462MHz ☒ WLAN: 5150MHz ~ 5250MHz ☐ WLAN: 5250MHz ~ 5350MHz ☐ WLAN: 5470MHz ~ 5725MHz ☒ WLAN: 5725MHz ~ 5850MHz ☐ Bluetooth: 2402MHz ~ 2480MHz
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation)
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm^2) ☒ General Population/Uncontrolled exposure (S=1mW/cm^2)
Antenna diversity	☐ Single antenna ☒ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☒ Tx/Rx diversity
Evaluation applied	☒ MPE Evaluation* ☐ SAR Evaluation ☐ N/A
Remark: *1. The maximum conducted output power is 25.04dBm (318.902mW) at 5775MHz (with 3.59 dBi antenna gain.)* *2. DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.* *3. For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is 1.0 mW/cm^2 even if the calculation indicates that the power density would be larger.*	

13.3. Test Results

No non-compliance noted.

13.4.Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{3770}$

Where *E = Field strength in Volts / meter*

P = Power in Watts
G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and
d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ ***Equation 1***

Where *d = Distance in cm*
P = Power in mW
G = Numeric antenna gain
S = Power density in mW / cm²

13.5.Maximum Permissible Exposure

Maximum Permissible Exposure

Channel Frequency (MHz)	Max. Conducted output power(dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
5180-5240	23.42	3.53	20	0.099	1
5745-5825	25.04	3.59	20	0.145	1

Maximum Permissible Exposure (Co-location)

Modulation Mode	Channel Frequency (MHz)	Max. Conducted output power (dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)	MPE Ratio
11n40	2412-2462	29.63	3.9	20	0.448	1.000	0.448
11ac80	5725-5850	25.04	3.59	20	0.145	1.000	0.145
Co-location Total							0.593
ΣMPE ratios Limit							1