CFR 47 FCC PART 15 SUBPART E
ISED RSS-247 ISSUE 2

TEST REPORT

For

Soundbar speaker

MODEL NUMBER FOR FCC: B95/37,B95/yy,B97/37,B97/yy (yy=00-99 or NiL ,for country code)
MODEL NUMBER FOR IC: B95/37, B97/37

FCC ID: 2AR2SB97

IC: 24589-B97

REPORT NUMBER: 4789548706-4

ISSUE DATE: August 31, 2020

Prepared for

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The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products.

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	08/31/2020	Initial Issue	

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Summary of Test Results			
Clause	Test Items	FCC/IC Rules	Test Results
1	6dB/26dB Bandwidth	FCC 15.407 (a)&(e) RSS-247 Clause 6.2	PASS
2	99% Occupied Bandwidth	RSS-Gen Clause 6.7	PASS
3	Maximum Conducted Output Power	FCC 15.407 (a) RSS-247 Clause 6.2	PASS
4	Power Spectral Density	FCC 15.407 (a) RSS-247 Clause 6.2	PASS
5	Radiated Bandedge and Spurious Emission	FCC 15.407 (b) FCC 15.209 FCC 15.205 RSS-247 Clause 6.2 RSS-GEN Clause 8.9	PASS
6	Conducted Emission Test For AC Power Port	FCC 15.207 RSS-GEN Clause 8.8	PASS
7	Frequency Stability	FCC 15.407 (g)	PASS
8	Antenna Requirement	FCC 15.203 RSS-GEN Clause 6.8	PASS
Note: 1. This test report is only published to and used by the applicant, and it is not for evidence purpose in China. 2. The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 15 SUBPART E >< ISED RSS-247 > when <Accuracy Method> decision rule is applied.			

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	MMD Hong Kong Holding Limited
Address:	Units 1006-1007, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Manufacturer Information

Company Name:	MMD Hong Kong Holding Limited
Address:	Units 1006-1007, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Factory Information

Company Name:	Eastech Electronics (Huiyang) Co.,Ltd.
Address:	XINXU,HUIYANG,HUIZHOU CITY GUANGDONG CHINA

EUT Information

EUT Name:	Soundbar speaker
Model for FCC:	B95/37,B95/yy,B97/37,B97/yy (yy=00-99 or NiL ,for country code)
Model for IC:	B95/37,B97/37
Brand:	PHILIPS or
Serial Model:	Please refer to clause 5.1. Description of EUT
Sample Received Date:	July 23, 2020
Sample Status:	Normal
Sample ID:	3230144
Date of Tested:	July 25, 2020~August 28, 2020

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 FCC PART 15 SUBPART C	PASS
ISED RSS-247 Issue 2	PASS
ISED RSS-GEN Issue 5	PASS

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, CFR 47 FCC Part 2, CFR 47 FCC Part 15, KDB 789033 D02 v02r01, RSS-GEN Issue 5, RSS-247 Issue 2, KDB414788 D01 Radiated Test Site v01r01.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4102.01)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1187)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Delcaration of Conformity (DoC) and Certification rules **ISED(Company No.: 21320)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320. **VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.

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4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognize national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Uncertainty for Conduction emission test	3.62dB
Uncertainty for Radiation Emission test(include Fundamental emission) (9KHz-30MHz)	2.2dB
Uncertainty for Radiation Emission test(include Fundamental emission) (30MHz-1GHz)	4.00dB
Uncertainty for Radiation Emission test (1GHz to 26GHz)(include Fundamental emission)	5.78dB (1GHz-18GHz)
	5.23dB (18GHz-26GHz)
	5.64dB (26GHz-40GHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	Soundbar speaker		
EUT Description	The EUT is a Soundbar.		
Test Model	B97/37		
Model for FCC	B95/37,B95/yy,B97/37,B97/yy (yy=00-99 or NiL ,for country code)		
Model for IC	B95/37, B97/37		
Model Difference	B95/yy (yy=00-99 or NiL ,for country code) have the same technical construction including circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction with B95/37. The difference lies only the model number. B97/yy (yy=00-99 or NiL ,for country code) have the same technical construction including circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction with B97/37. The difference lies only the model number. The difference between B95/37 with B97/37 is: B97/37 contains Sound bar: BT+2.4Gwifi+ 5G wifi (band 1+ band4)+ 5.8G wireless Surround (right): 5.8G wireless(only for receiving) Surround (left): 5.8G wireless(only for receiving) B95/37 contains Sound bar: BT+2.4Gwifi+ 5G wifi (band 1+ band4)+ 5.8G wireless		
Radio Technology	IEEE802.11a 20 IEEE802.11n HT20/n HT40 IEEE802.11ac HT20/HT40/HT80		
Operation frequency	UNII-1/UNII-3		
Modulation	OFDM(BPSK,QPSK,16QAM,64QAM,256QAM in ac mode only.)		
Power Supply	Power Adapter	Input	AC 120V, 60Hz
		Output	DC 19V, 6.32A

Note: The model B97/37 has the most attachments, so only this model has been tested in this report

5.2. MAXIMUM EIRP

UNII-1 BAND

IEE Std.	Frequency (MHz)	Max Power (dBm)	Max EIRP (dBm)
802.11a 20	5150-5250	9.85	14.85
802.11n HT20	5150-5250	9.28	14.28
802.11n HT40	5150-5250	9.54	14.54
802.11ac VHT20	5150-5250	8.79	13.79
802.11ac VHT40	5150-5250	9.51	14.51
802.11ac VHT80	5150-5250	7.55	12.55

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UNII-3 BAND

IEE Std. 802.11	Frequency (MHz)	Max Power (dBm)
802.11a 20	5725-5850	8.70
802.11n HT20	5725-5850	8.25
802.11n HT40	5725-5850	8.28
802.11ac VHT20	5725-5850	7.64
802.11ac VHT40	5725-5850	8.22
802.11ac VHT80	5725-5850	7.46

5.3. CHANNEL LIST

UNII-1 (For Bandwidth=20MHz)		UNII-1 (For Bandwidth=40MHz)		UNII-1 (For Bandwidth=80MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

UNII-3 (For Bandwidth=20MHz)		UNII-3 (For Bandwidth=40MHz)		UNII-3 (For Bandwidth=80MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

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5.4. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter			
Test Software	RF Tool		
Frequency Band	mode	channel	setting
UNII-1	802.11a 20	5180	37
		5200	37
		5240	37
	802.11n (20M)	5180	37
		5200	37
		5240	37
	802.11ac (20M)	5180	37
		5200	37
		5240	37
	802.11n (40M)	5190	37
		5230	37
	802.11ac (40M)	5190	37
		5230	37
	802.11ac (80M)	5210	35
UNII-3	802.11a 20	5745	37
		5785	37
		5825	37
	802.11n (20M)	5745	37
		5785	37
		5825	37
	802.11ac (20M)	5745	37
		5785	37
		5825	37
	802.11n (40M)	5755	37
		5795	37
	802.11ac (40M)	5755	37
		5795	37
	802.11ac (80M)	5775	35

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5.5. THE WORSE CASE CONFIGURATIONS

Worst-case data rates as provided by the client were:

802.11a 20 mode: 6 Mbps
802.11n HT20 mode: MCS0
802.11n HT40 mode: MCS0
802.11ac VHT20 mode: MCS0
802.11ac VHT40 mode: MCS0
802.11ac VHT80 mode: MCS0

802.11ac VHT20 and VHT40 mode are different from 802.11nHT20 and HT40 only in control messages, so for these 4 modes, only 802.11nHT20 and 802.11nHT40 worst case power modes data are recorded in the report .

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5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna No.	Frequency (MHz)	Antenna Type	Max Antenna Gain (dBi)
1	5150-5850	FPC antenna	5.0

IEE Std. 802.11	Transmit and Receive Mode	Description
802.11a 20	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11n HT20	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11n HT40	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11ac VHT20	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11ac VHT40	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11ac VHT80	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
Note: 1. The value of the antenna gain was declared by customer. 2. The customer declared that BT& 5.8G wireless can transmit simultaneously.		

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5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Remarks
1	PC	Dell	Vostro 3902	8KNDDB2
2	DVD	Pioneer	DV-410V-K	HGKD001867CN
3	LED TV	INSIGNIA	NS-24DR220NA18	HDMI(ARC)
4	Mobile Phone	HUAWEI	ALP-AL00	/
5	USB TO UART	/	/	/

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	/	/	1.0m	/
2	HDMI	/	Shielded	1.8m	/
3	HDMI	/	Shielded	1.0m	/
4	HDMI	/	Shielded	1.2m	/
5	Audio	/	/	1.0m	/
6	Optical	/	/	1.0m	/

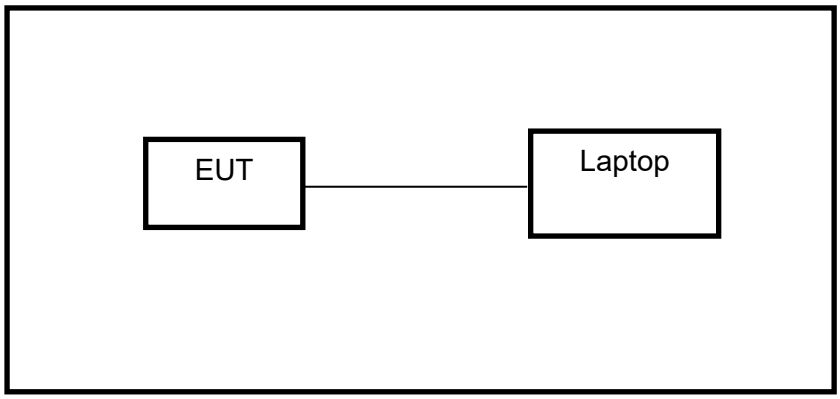
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
1	AC Adapter	/	NSA120EC-19063200	Input: AC 100~240V, 50/60Hz, 2.0A Output: DC 19V, 6.32A 120.0W

TEST SETUP

The EUT can work in engineering mode with a software through a Laptop.

SETUP DIAGRAM FOR TESTS



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6. MEASURING INSTRUMENT AND SOFTWARE USED

Conducted Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	EMI Test Receiver	R&S	ESR3	101961	Dec.05,2019	Dec.05,2020
☑	Two-Line V-Network	R&S	ENV216	101983	Dec.05,2019	Dec.05,2020
☑	Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Dec.05,2019	Dec.05,2020
Software						
Used	Description			Manufacturer	Name	Version
☑	Test Software for Conducted disturbance			Farad	EZ-EMC	Ver. UL-3A1
Radiated Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Dec.06,2019	Dec.06,2020
☑	Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Sep.17, 2018	Sep.17, 2021
☑	Preamplifier	HP	8447D	2944A09099	Dec.05,2019	Dec.05,2020
☑	EMI Measurement Receiver	R&S	ESR26	101377	Dec.05,2019	Dec.05,2020
☑	Horn Antenna	TDK	HRN-0118	130939	Sep.17, 2018	Sep.17, 2021
☑	High Gain Horn Antenna	Schwarzbeck	BBHA-9170	691	Aug.11, 2018	Aug.11, 2021
☑	Preamplifier	TDK	PA-02-0118	TRS-305-00066	Dec.05,2019	Dec.05,2020
☑	Preamplifier	TDK	PA-02-2	TRS-307-00003	Dec.05,2019	Dec.05,2020
☑	Preamplifier	TDK	PA-02-3	TRS-308-00002	Dec.05,2019	Dec.05,2020
☑	Loop antenna	Schwarzbeck	1519B	00008	Jan.07, 2019	Jan.07, 2022
☑	Band Reject Filter	Wainwright	WRCJV12-5695-5725-5850-5880-40SS	4	Dec.05,2019	Dec.05,2020
☑	Band Reject Filter	Wainwright	WRCJV20-5120-5150-5350-5380-60SS	2	Dec.05,2019	Dec.05,2020

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☑	Band Reject Filter	Wainwright	WRCJV20-5440-5470-5725-5755-60SS	1	Dec.05,2019	Dec.05,2020
☑	High Pass Filter	Wainwright	WHKX10-5850-6500-1800-40SS	4	Dec.05,2019	Dec.05,2020

Software				
Used	Description	Manufacturer	Name	Version
☑	Test Software for Radiated disturbance	Farad	EZ-EMC	Ver. UL-3A1

Other instruments						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	Spectrum Analyzer	Keysight	N9030A	MY55410512	Dec.06,2019	Dec.06,2020
☑	Power sensor, Power Meter	R&S	OSP120	100921	Dec.06,2019	Dec.06,2020

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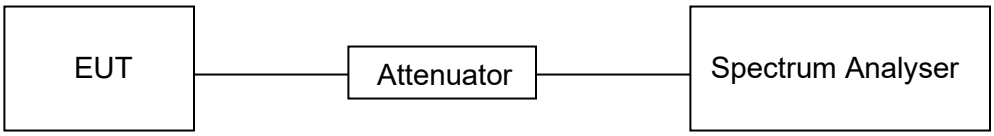
7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only

TEST SETUP



TEST ENVIRONMENT

Temperature	24.7°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz

RESULTS

Please refer to appendix D.

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7.2. 6/26/99% dB BANDWIDTH

LIMITS

CFR 47 FCC Part15, Subpart E ISED RSS-247		
Test Item	Limit	Frequency Range (MHz)
Bandwidth	26 dB Bandwidth	5150-5250
	26 dB Bandwidth	5250-5350
	26 dB Bandwidth	For FCC:5470-5725 For IC:5470-5600 5650-5725
	Minimum 500kHz 6dB Bandwidth	5725-5850

ISED RSS-247		
RSS-Gen Clause 6.7	99% Bandwidth	For reporting purposes only.

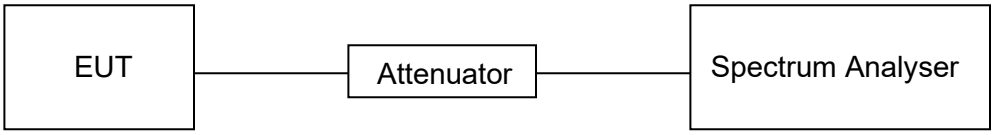
TEST PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 6dB Bandwidth: RBW=100kHz For 26dB Bandwidth: approximately 1%~5% of the emission bandwidth. For 99% Occupied Bandwidth: approximately 1%~5% of the emission bandwidth.
VBW	For 6dB Bandwidth : ≥3×RBW For 26dB Bandwidth : approximately 3×RBW For 99% Occupied Bandwidth: ≥3×RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6dB/26dB&99% Occupied Bandwidth relative to the maximum level measured in the fundamental emission.

TEST SETUP



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TEST ENVIRONMENT

Temperature	24.7°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz

RESULTS

Please refer to appendix A.

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7.3. MAXIMUM CONDUCTED OUTPUT POWER

LIMITS

CFR 47 FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	For FCC client devices:250mW (24dBm)	5150-5250
	1 Watt (30dBm)	5725-5850

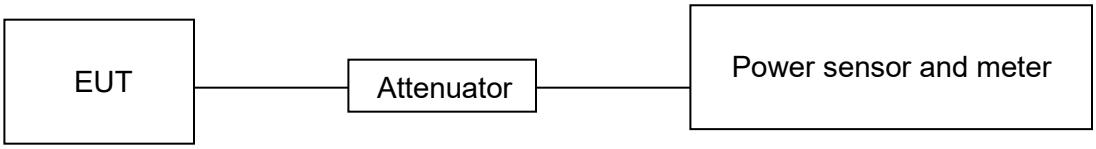
ISED RSS-247		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	Maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever is less where B is the 99% emission bandwidth in megahertz	5150-5250
	1 Watt (30dBm)	5725-5850

Note: If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

TEST PROCEDURE

Refer to KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Connect the EUT to the a broadband average RF power meter, the power meter shall have a video bandwidth that is greater than or equal to the bandwidth and shall utilize a fast-responding diode detector.

TEST SETUP



TEST ENVIRONMENT

Temperature	24.7°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz

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RESULTS

Please refer to appendix B.

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7.4. POWER SPECTRAL DENSITY

LIMITS

CFR 47 FCC Part15, Subpart E ISED RSS-247		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	For FCC: Other than Mobile and portable:17dBm/MHz Mobile and portable:11dBm/MHz	5150-5250
	For RSS: e.i.r.p. 10dBm/MHz	
	11dBm/MHz	5250-5350
	11dBm/MHz	For FCC:5470-5725 For IC:5470-5600 5650-5725
	30dBm/500kHz	5725-5850
Note: 1. 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 6dBi.		

TEST PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

For U-NII-1, U-NII-2A and U-NII-2C band:

Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	1MHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

For U-NII-3:

Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	500kHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

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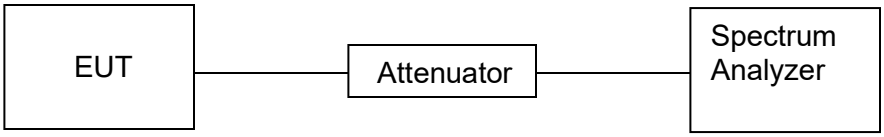
TEST SETUP



TEST ENVIRONMENT

Temperature	24.7°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz

RESULTS

Please refer to appendix C.

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8. RADIATED TEST RESULTS

LIMITS

Please refer to CFR 47 FCC §15.205, §15.209 and §15.407(b) (4)

Please refer to ISED RSS-GEN Clause 8.9

Radiation Disturbance Test Limit for FCC (Class B)(9kHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Note: 1) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

(2) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.

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IC Restricted bands please refer to ISED RSS-GEN Clause 8.10.
FCC Restricted bands please refer to CFR 47 FCC 15.209.

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1GHz)			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

Limits of unwanted emission out of the restricted bands

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1GHz)		
Frequency Range (MHz)	EIRP Limit	Field Strength Limit (dBuV/m) at 3 m
5150~5250 MHz	PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
5250~5350 MHz		
5470~5725 MHz		
5725~5850 MHz	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK:122.2 (dBμV/m) *4
Note: *1 beyond 75 MHz or more above of the band edge. *2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. *3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. *4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.		

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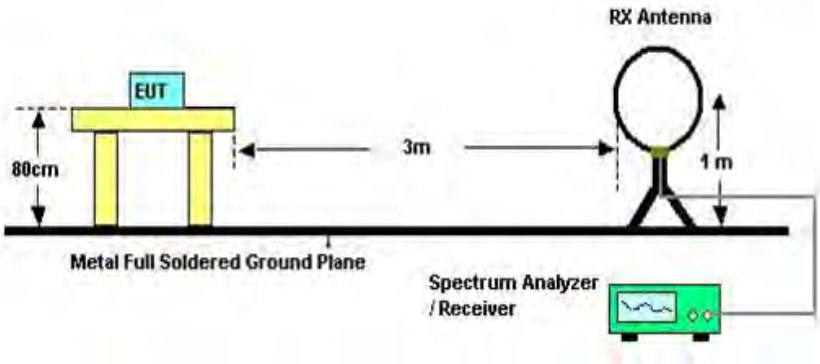
TEST SETUP AND PROCEDURE

Below 30MHz



The setting of the spectrum analyser

RBW	200Hz (From 9kHz to 0.15MHz)/ 9kHz (From 0.15MHz to 30MHz)
VBW	200Hz (From 9kHz to 0.15MHz)/ 9kHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 0.8 meter above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

6. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

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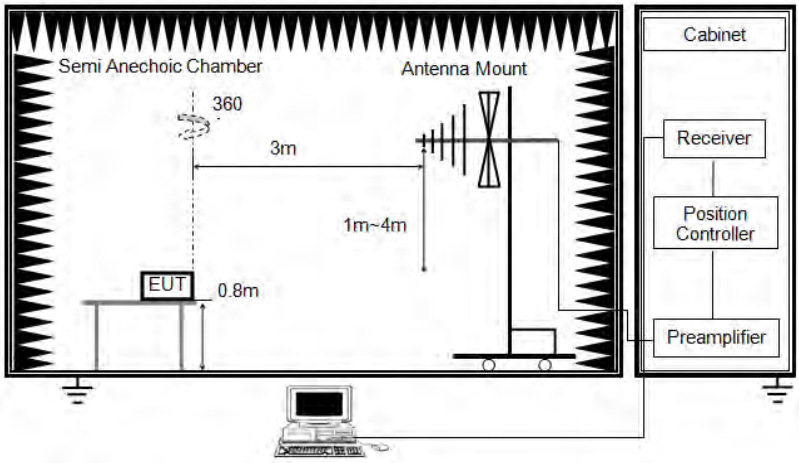
Below 1G



The setting of the spectrum analyser

RBW	120kHz
VBW	300kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 0.8 meter above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

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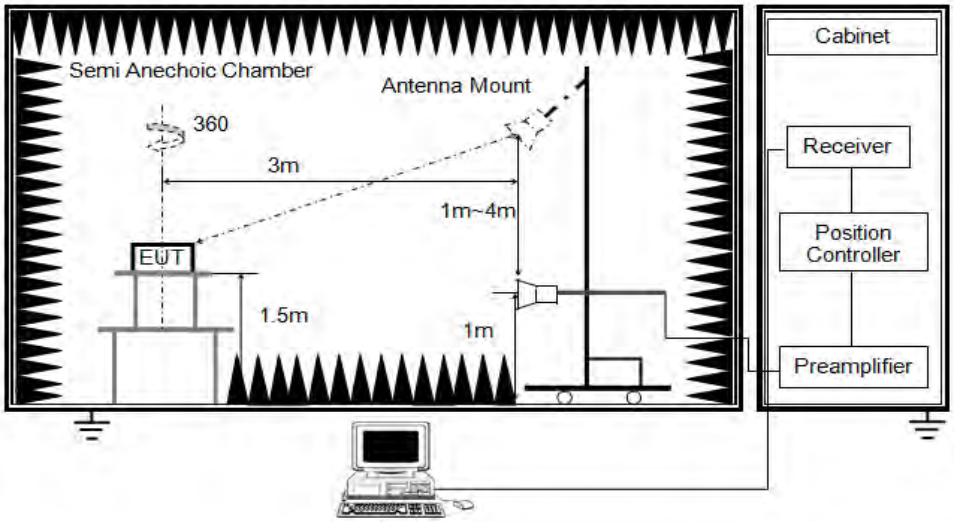
Above 1G



The setting of the spectrum analyser

RBW	1MHz
VBW	PEAK: 3MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 1.5m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

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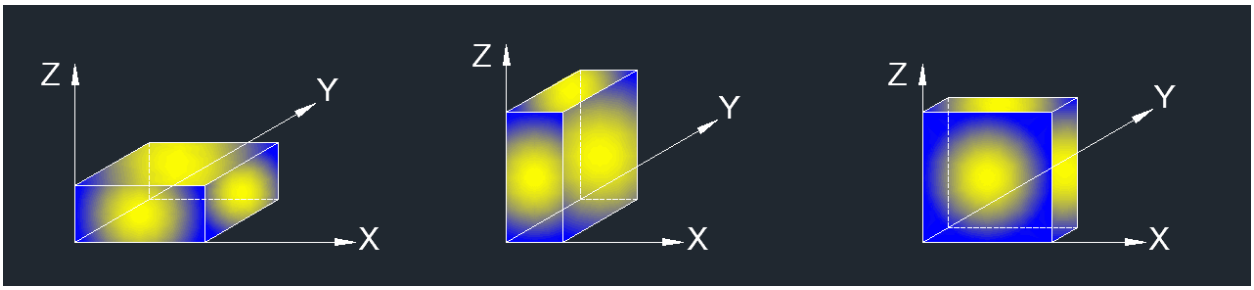
X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

Note 2: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

Note 3: Simultaneous transmission had been evaluated with the 5GHz WiFi and 5.8Gwiless transmitter and there were no any additional or worse emissions found. Only the worst data was recorded in the 5.8G wireless test report.

TEST ENVIRONMENT

Temperature	23.4°C	Relative Humidity	54%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz

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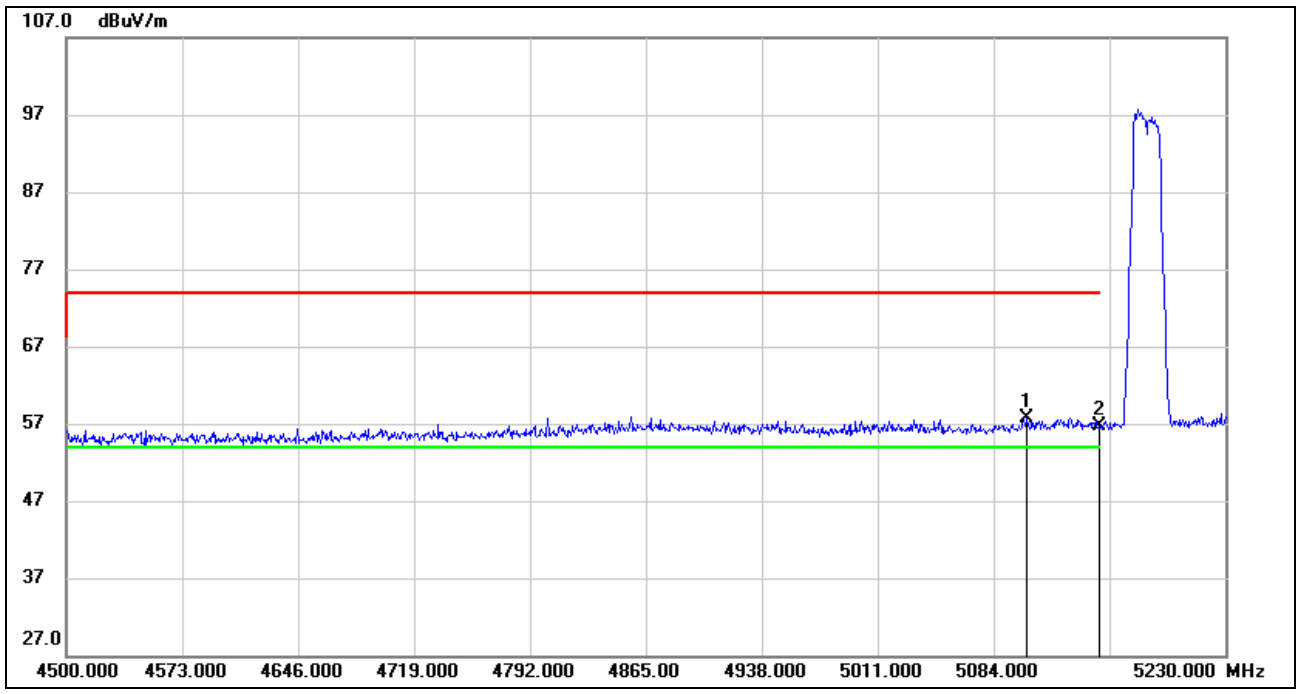
8.1. 802.11a MODE

8.1.1. UNII-1 BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5105.170	17.53	40.21	57.74	74.00	-16.26	peak
2	5150.000	16.26	40.46	56.72	74.00	-17.28	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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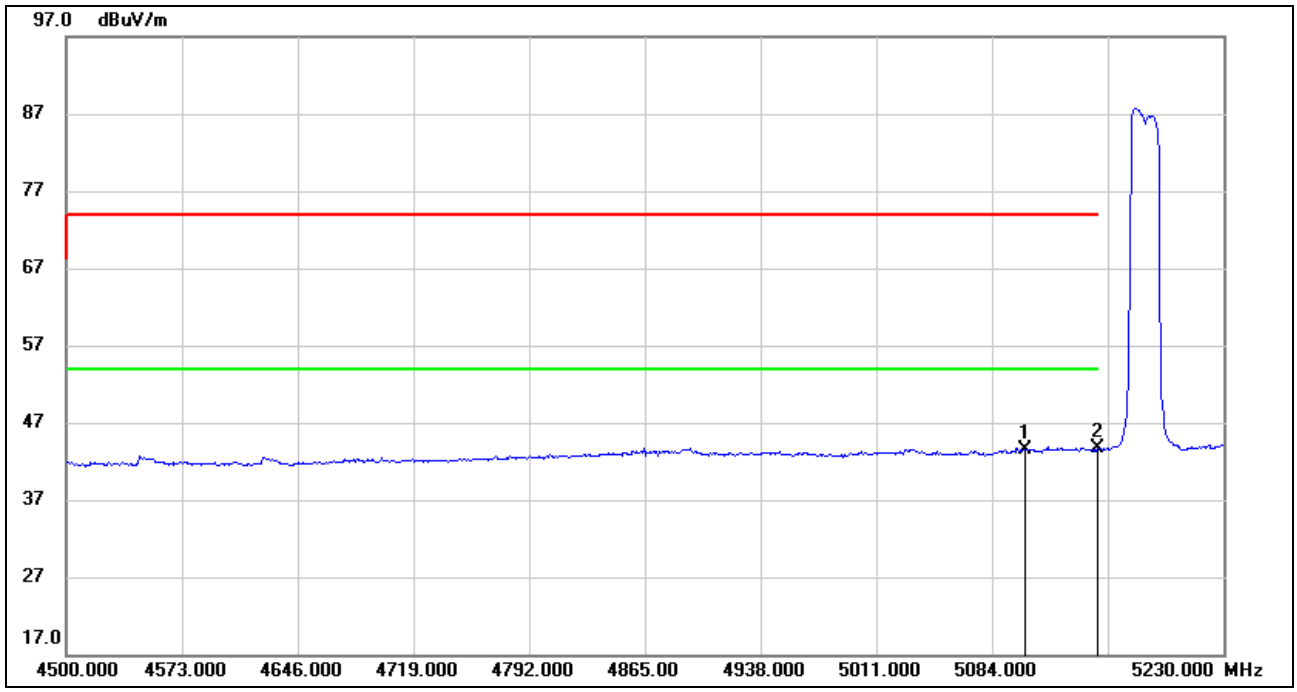
AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5105.170	3.20	40.21	43.41	54.00	-10.59	AVG
2	5150.000	3.15	40.46	43.61	54.00	-10.39	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton where: ton is transmit duration.
3. For duty cycle, please refer to clause 7.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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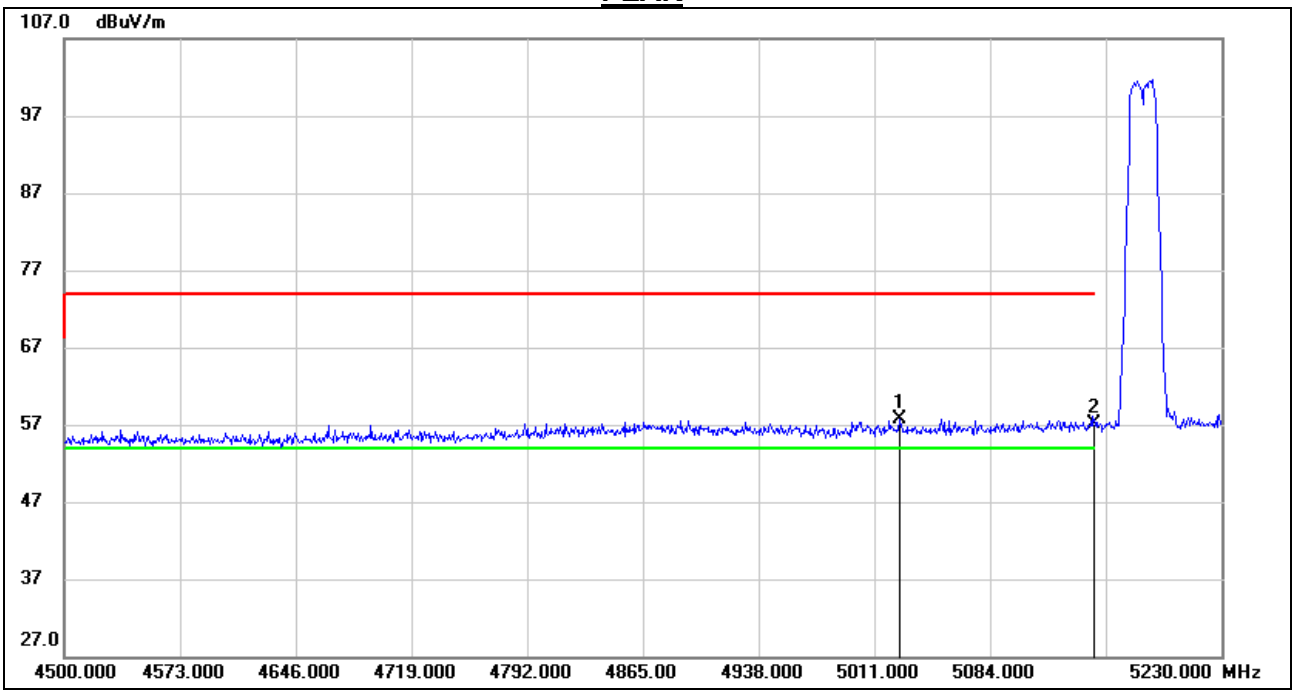
VERTICAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5027.060	17.70	40.10	57.80	74.00	-16.20	peak
2	5150.000	16.72	40.46	57.18	74.00	-16.82	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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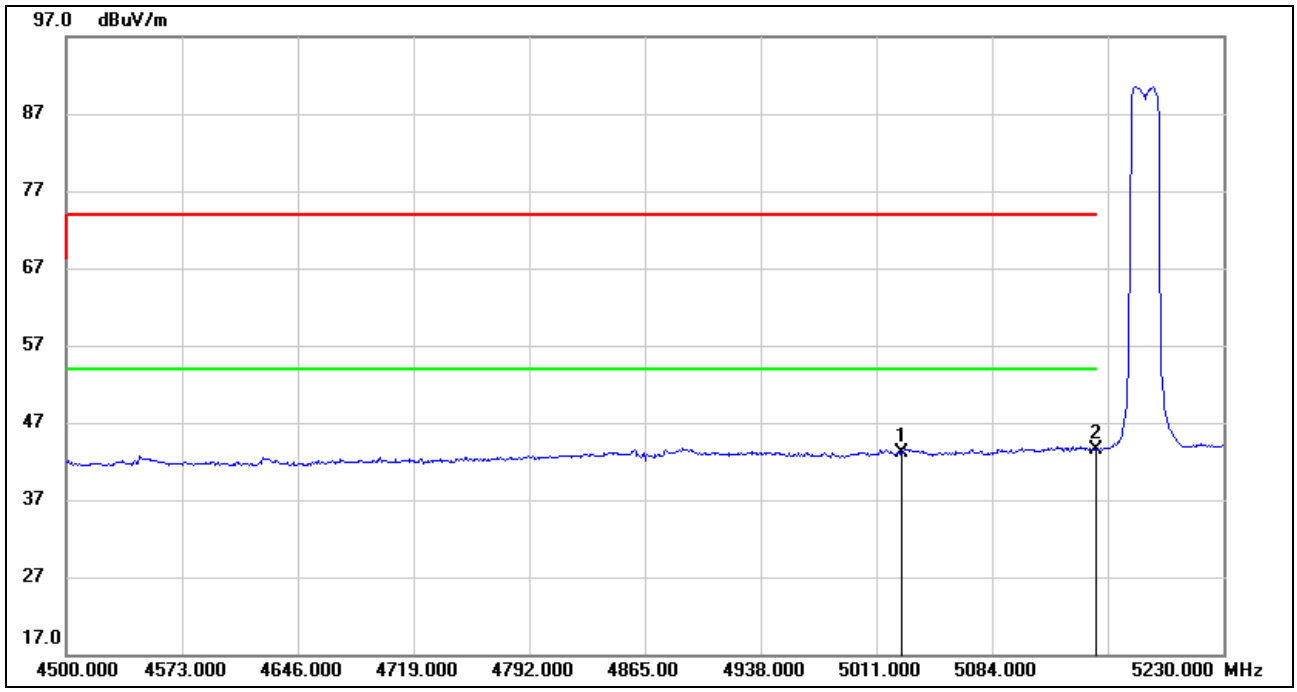
AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5027.060	2.97	40.10	43.07	54.00	-10.93	AVG
2	5150.000	2.99	40.46	43.45	54.00	-10.55	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton where: ton is transmit duration.
3. For duty cycle, please refer to clause 7.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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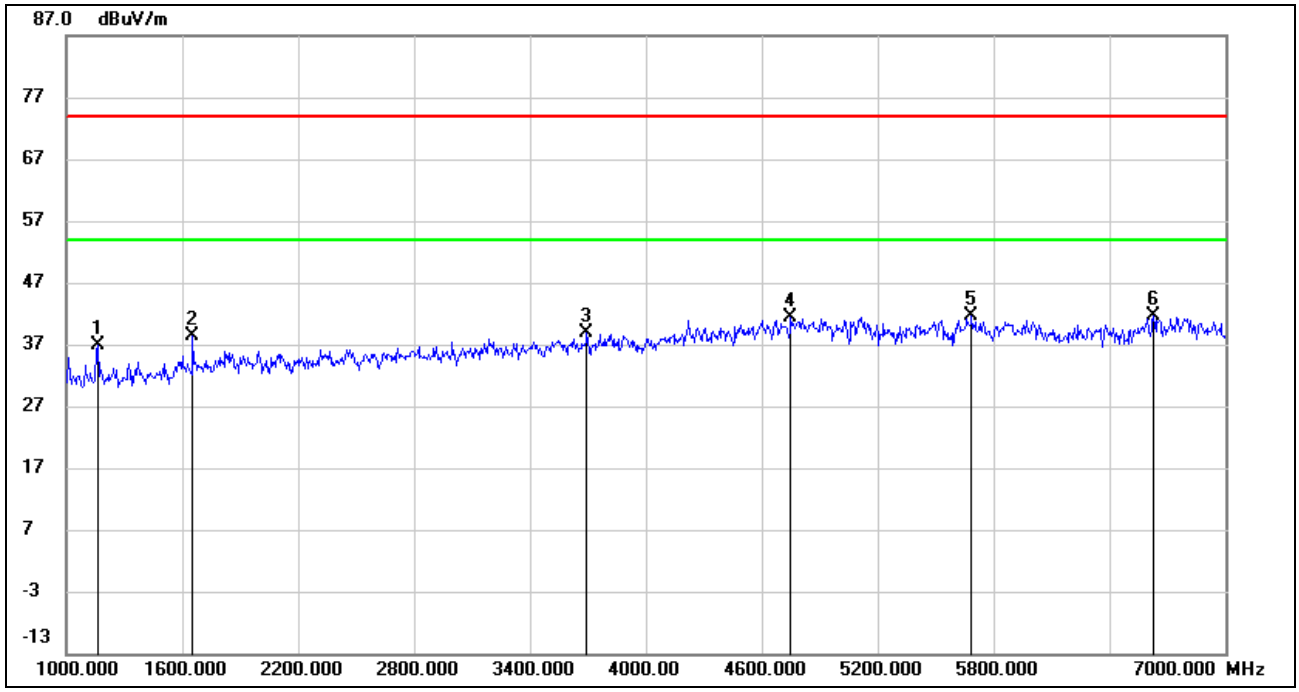
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1162.000	50.20	-13.26	36.94	74.00	-37.06	peak
2	1654.000	49.56	-11.21	38.35	74.00	-35.65	peak
3	3694.000	42.83	-3.99	38.84	74.00	-35.16	peak
4	4750.000	41.26	0.23	41.49	74.00	-32.51	peak
5	5686.000	39.66	1.98	41.64	74.00	-32.36	peak
6	6628.000	37.08	4.47	41.55	74.00	-32.45	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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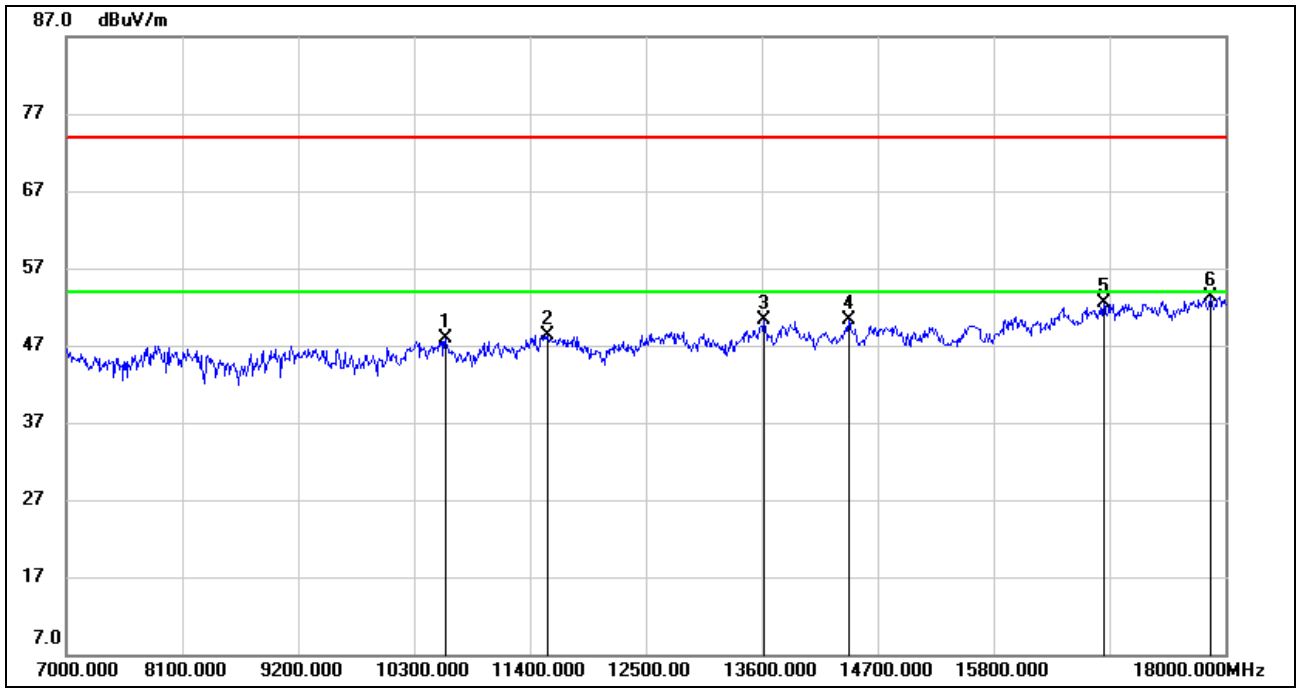
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10597.000	35.40	12.43	47.83	74.00	-26.17	peak
2	11565.000	34.91	13.47	48.38	74.00	-25.62	peak
3	13622.000	34.21	16.08	50.29	74.00	-23.71	peak
4	14425.000	33.67	16.65	50.32	74.00	-23.68	peak
5	16845.000	32.41	20.15	52.56	74.00	-21.44	peak
6	17857.000	29.97	23.41	53.38	74.00	-20.62	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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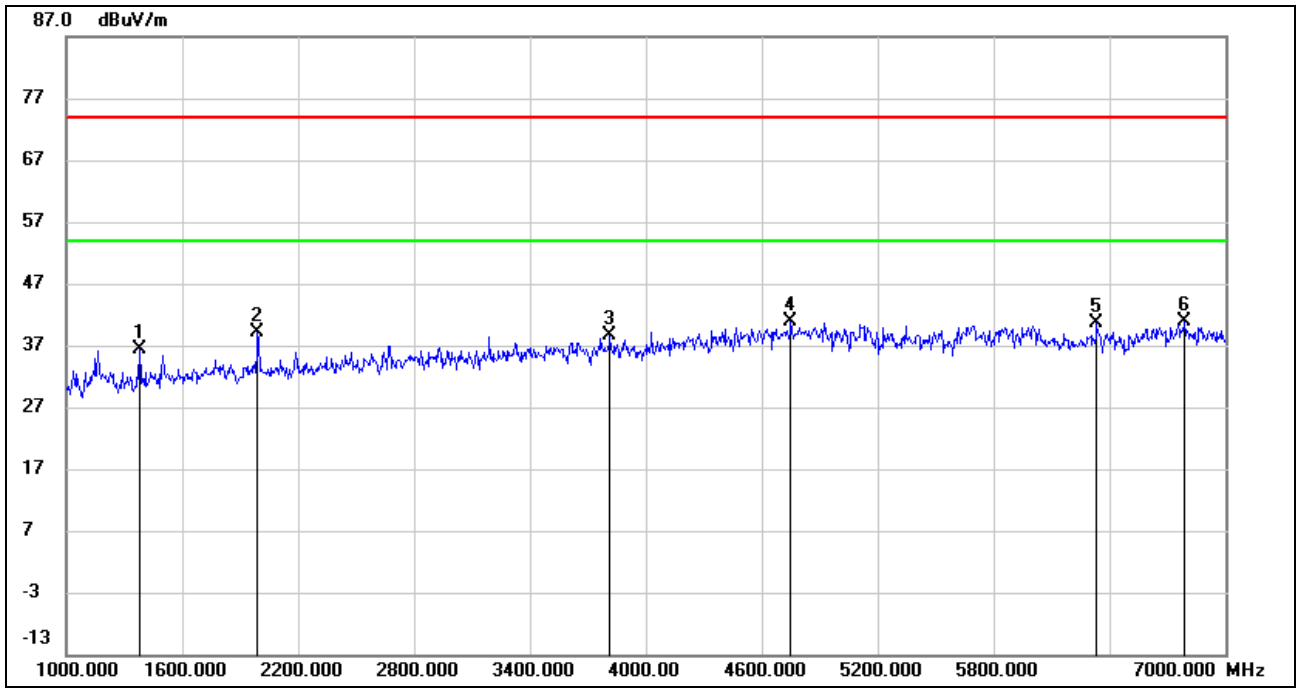
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1378.000	49.09	-12.81	36.28	74.00	-37.72	peak
2	1990.000	49.42	-10.24	39.18	74.00	-34.82	peak
3	3814.000	42.19	-3.47	38.72	74.00	-35.28	peak
4	4750.000	40.58	0.23	40.81	74.00	-33.19	peak
5	6334.000	37.60	3.13	40.73	74.00	-33.27	peak
6	6790.000	36.50	4.44	40.94	74.00	-33.06	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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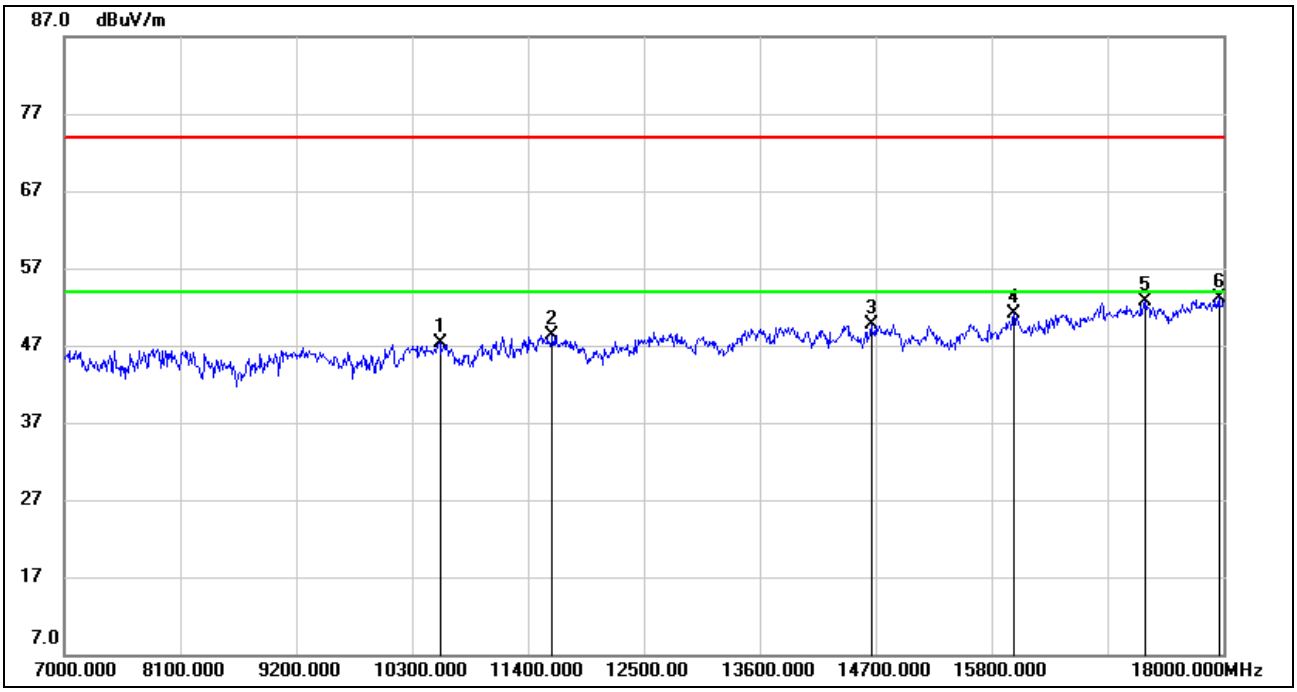
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10564.000	35.25	12.06	47.31	74.00	-26.69	peak
2	11631.000	34.97	13.38	48.35	74.00	-25.65	peak
3	14656.000	33.53	16.13	49.66	74.00	-24.34	peak
4	16009.000	33.35	17.85	51.20	74.00	-22.80	peak
5	17263.000	31.14	21.64	52.78	74.00	-21.22	peak
6	17956.000	29.72	23.48	53.20	74.00	-20.80	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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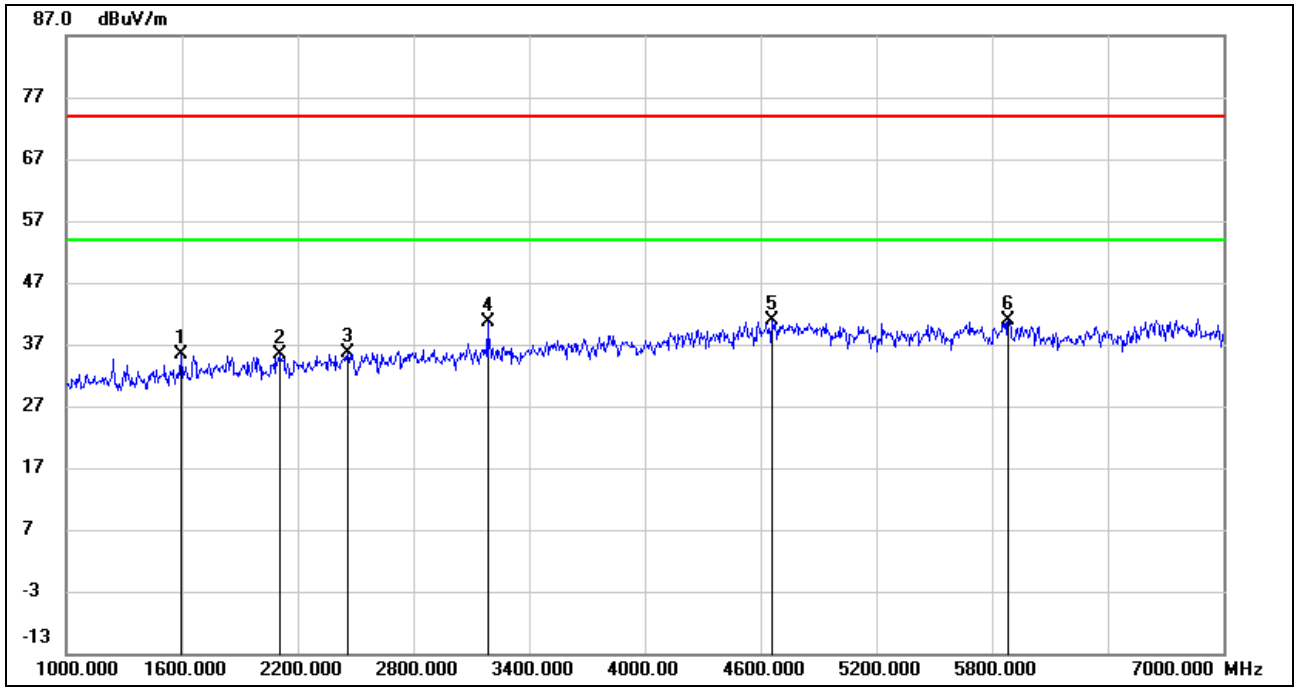
HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1594.000	47.11	-11.66	35.45	74.00	-38.55	peak
2	2110.000	45.14	-9.66	35.48	74.00	-38.52	peak
3	2458.000	44.14	-8.55	35.59	74.00	-38.41	peak
4	3184.000	46.23	-5.70	40.53	74.00	-33.47	peak
5	4660.000	41.17	-0.30	40.87	74.00	-33.13	peak
6	5884.000	38.63	2.23	40.86	74.00	-33.14	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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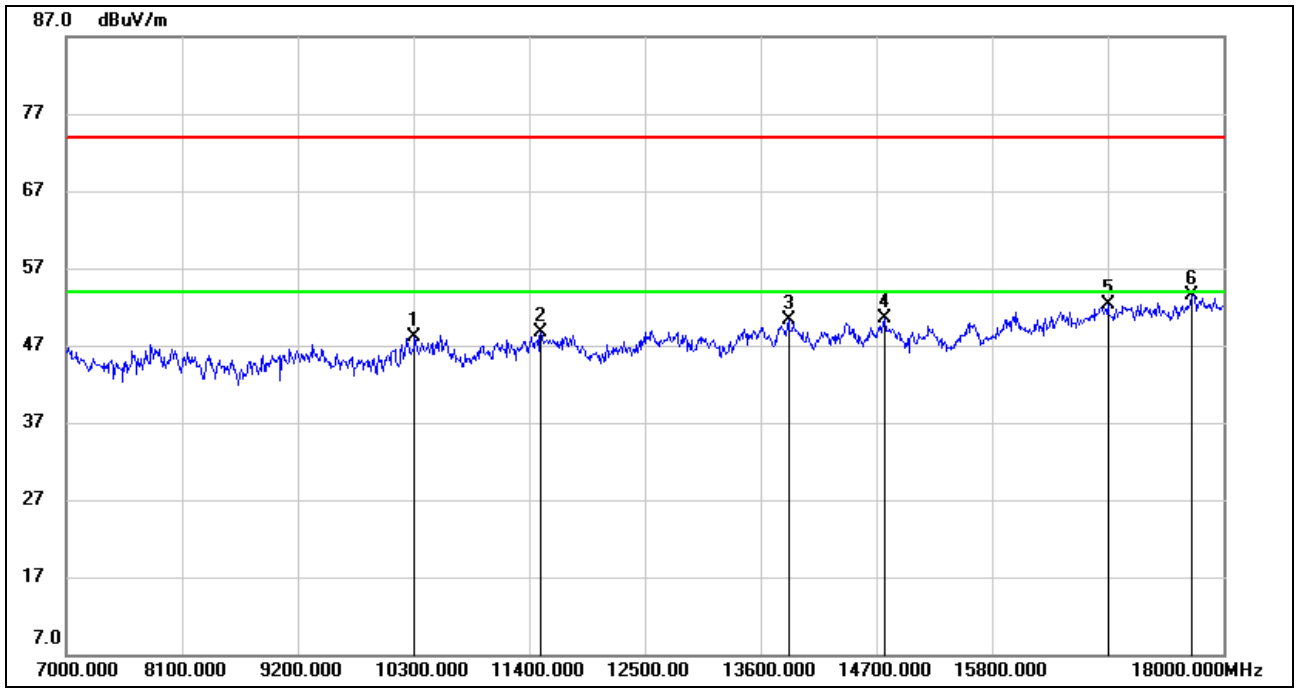
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10311.000	36.79	11.29	48.08	74.00	-25.92	peak
2	11510.000	35.35	13.39	48.74	74.00	-25.26	peak
3	13864.000	33.78	16.48	50.26	74.00	-23.74	peak
4	14777.000	34.48	16.10	50.58	74.00	-23.42	peak
5	16900.000	32.17	20.10	52.27	74.00	-21.73	peak
6	17692.000	31.07	22.44	53.51	74.00	-20.49	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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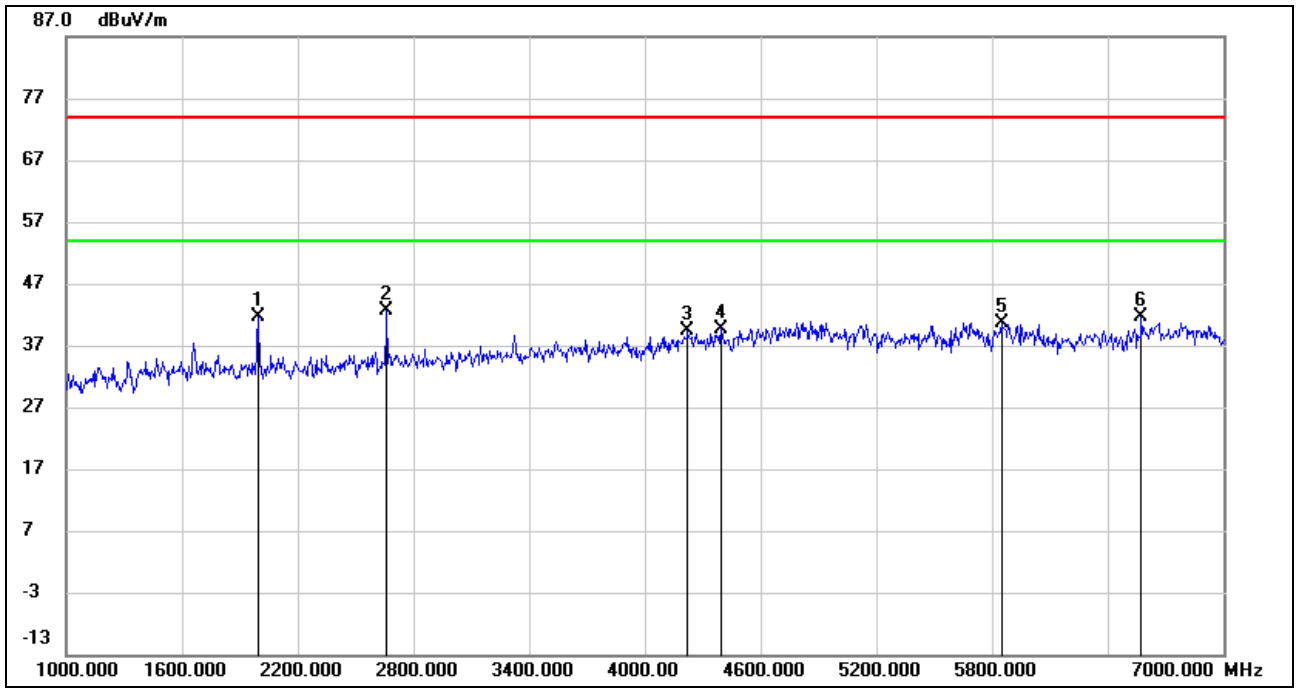
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1996.000	51.75	-10.24	41.51	74.00	-32.49	peak
2	2662.000	50.47	-7.80	42.67	74.00	-31.33	peak
3	4222.000	41.20	-1.80	39.40	74.00	-34.60	peak
4	4396.000	41.71	-1.96	39.75	74.00	-34.25	peak
5	5848.000	38.62	2.11	40.73	74.00	-33.27	peak
6	6574.000	37.27	4.34	41.61	74.00	-32.39	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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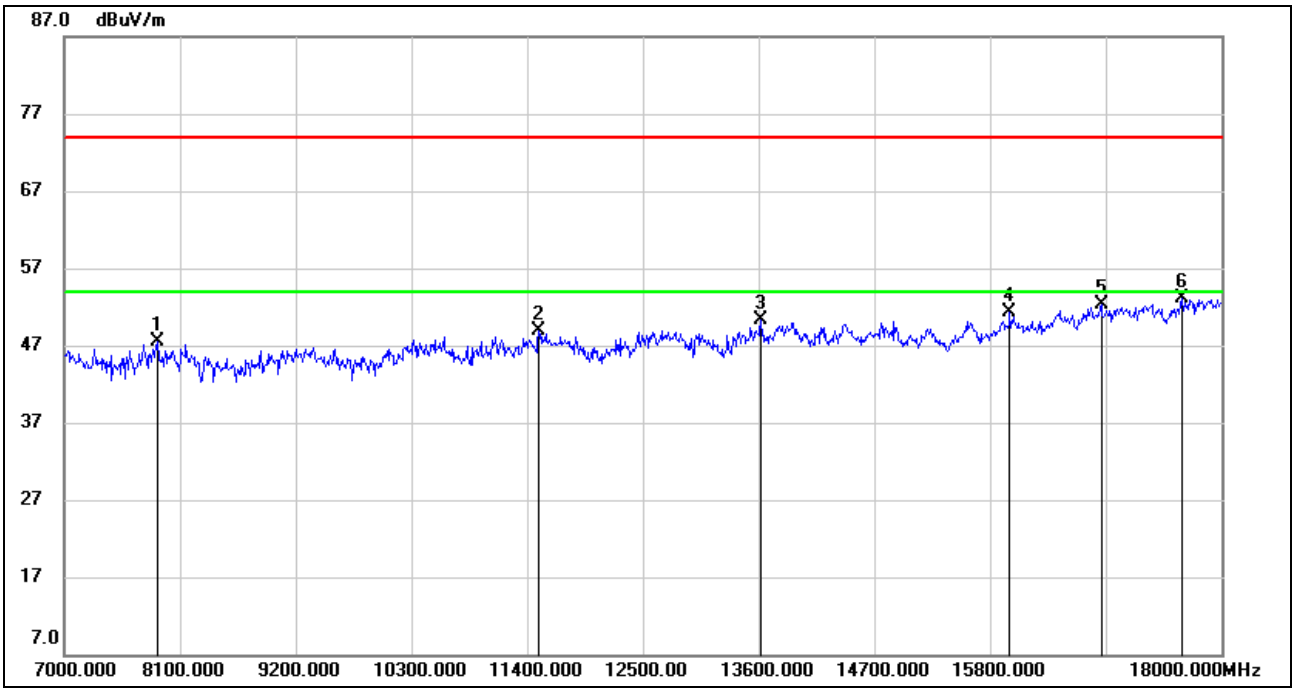
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7891.000	39.78	7.66	47.44	74.00	-26.56	peak
2	11510.000	35.53	13.39	48.92	74.00	-25.08	peak
3	13622.000	34.27	16.08	50.35	74.00	-23.65	peak
4	15987.000	33.48	17.79	51.27	74.00	-22.73	peak
5	16856.000	32.13	20.13	52.26	74.00	-21.74	peak
6	17626.000	31.03	22.02	53.05	74.00	-20.95	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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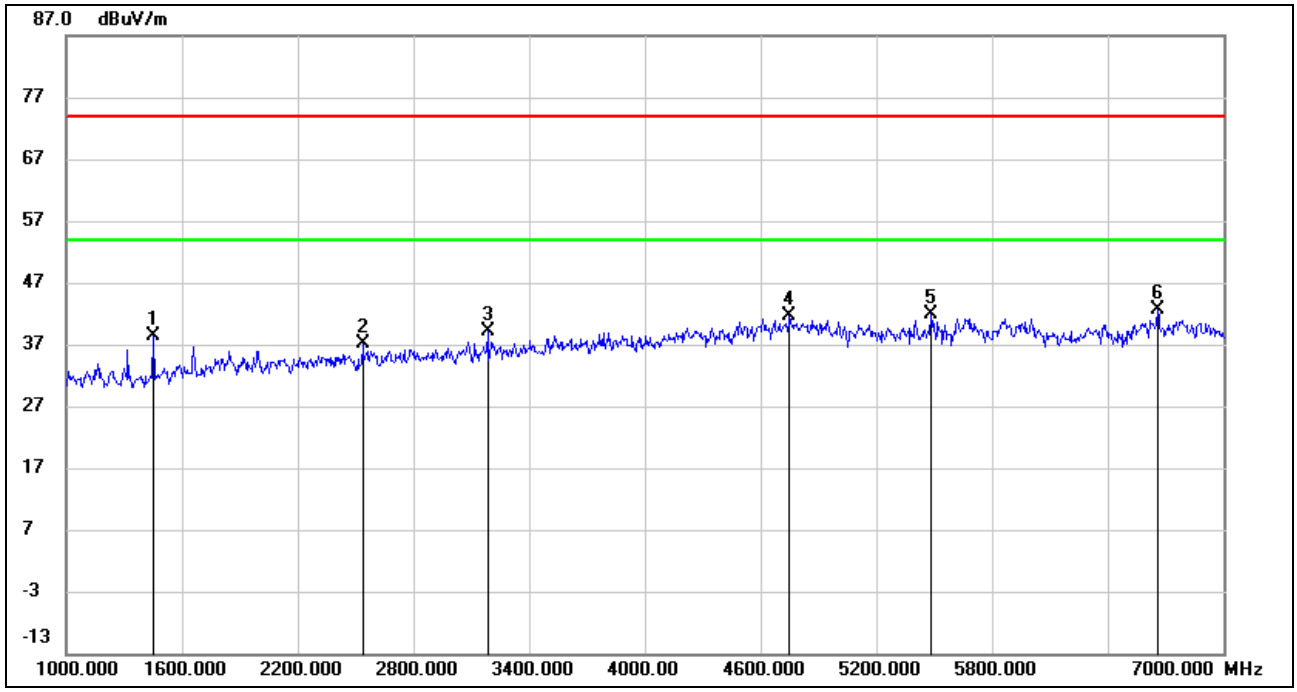
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1450.000	50.86	-12.53	38.33	74.00	-35.67	peak
2	2536.000	45.43	-8.38	37.05	74.00	-36.95	peak
3	3184.000	44.83	-5.70	39.13	74.00	-34.87	peak
4	4750.000	41.48	0.23	41.71	74.00	-32.29	peak
5	5482.000	40.13	1.75	41.88	74.00	-32.12	peak
6	6658.000	38.10	4.46	42.56	74.00	-31.44	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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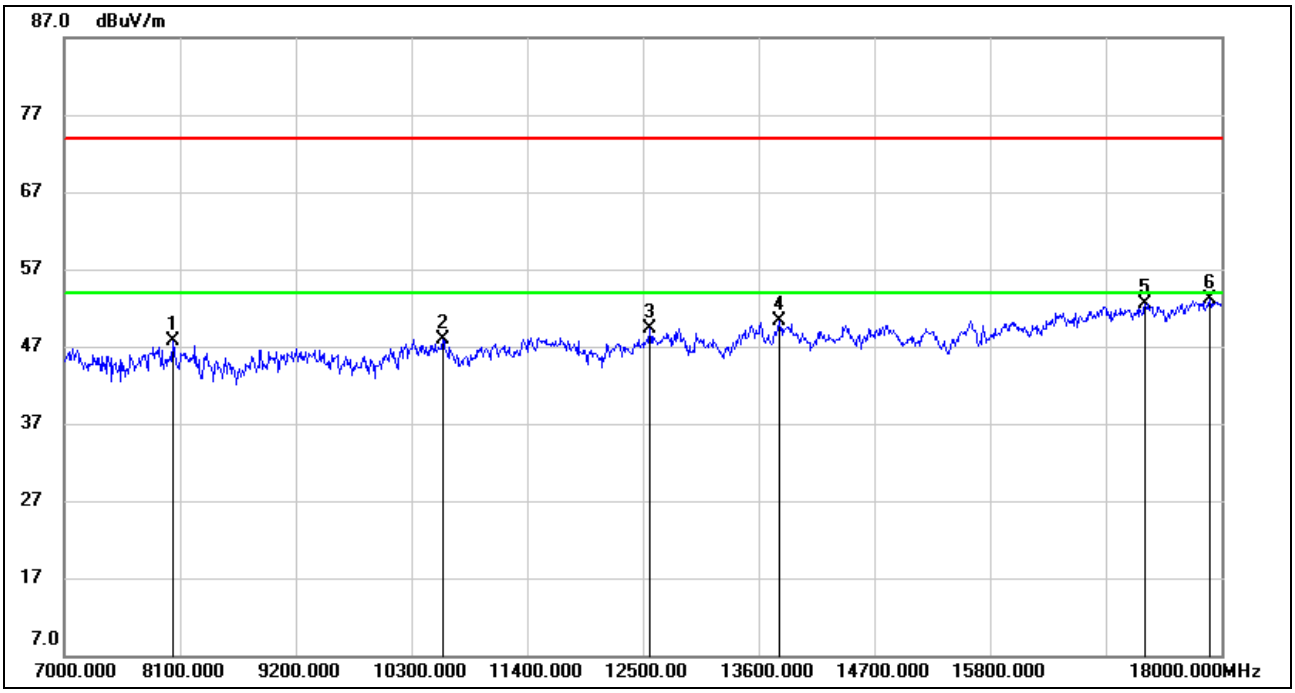
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8034.000	39.98	7.67	47.65	74.00	-26.35	peak
2	10597.000	35.54	12.43	47.97	74.00	-26.03	peak
3	12566.000	34.84	14.42	49.26	74.00	-24.74	peak
4	13798.000	33.28	17.05	50.33	74.00	-23.67	peak
5	17274.000	30.80	21.71	52.51	74.00	-21.49	peak
6	17890.000	29.61	23.41	53.02	74.00	-20.98	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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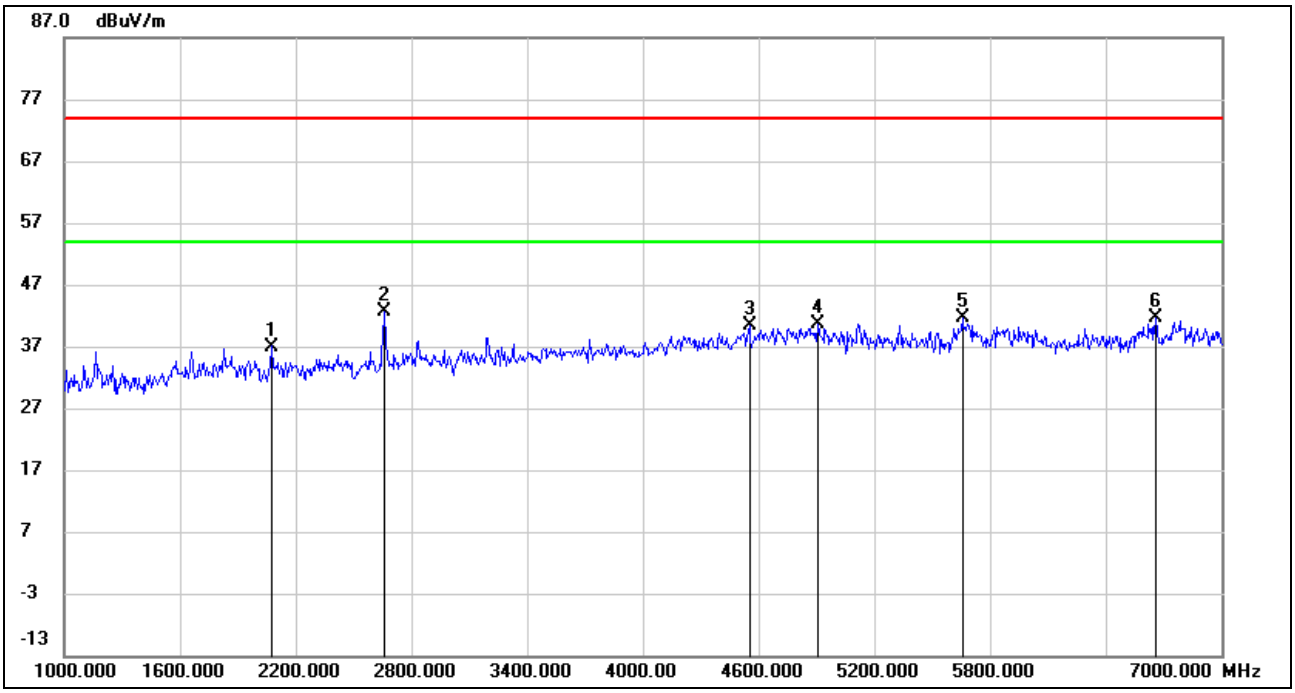
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2074.000	46.85	-9.85	37.00	74.00	-37.00	peak
2	2662.000	50.52	-7.80	42.72	74.00	-31.28	peak
3	4552.000	41.40	-0.98	40.42	74.00	-33.58	peak
4	4906.000	39.87	0.69	40.56	74.00	-33.44	peak
5	5656.000	39.69	2.00	41.69	74.00	-32.31	peak
6	6658.000	37.07	4.46	41.53	74.00	-32.47	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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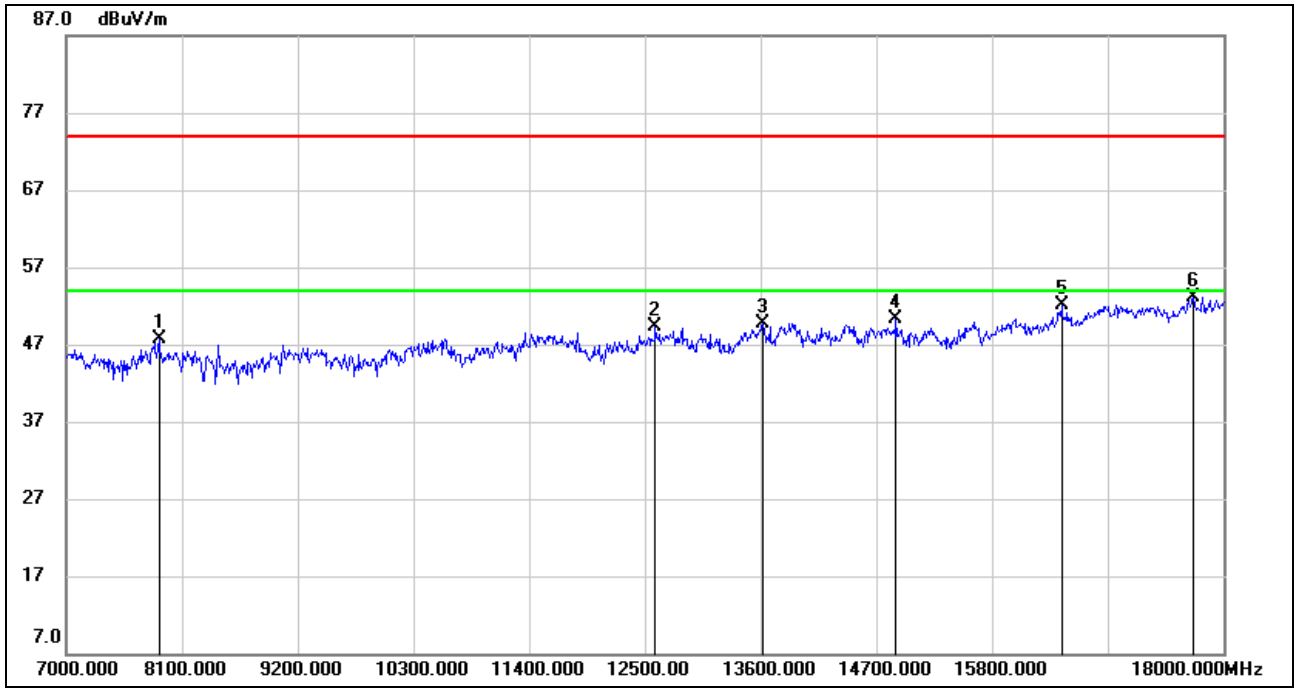
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7880.000	39.92	7.72	47.64	74.00	-26.36	peak
2	12599.000	35.03	14.19	49.22	74.00	-24.78	peak
3	13622.000	33.66	16.08	49.74	74.00	-24.26	peak
4	14887.000	34.21	16.16	50.37	74.00	-23.63	peak
5	16460.000	32.60	19.49	52.09	74.00	-21.91	peak
6	17714.000	30.54	22.62	53.16	74.00	-20.84	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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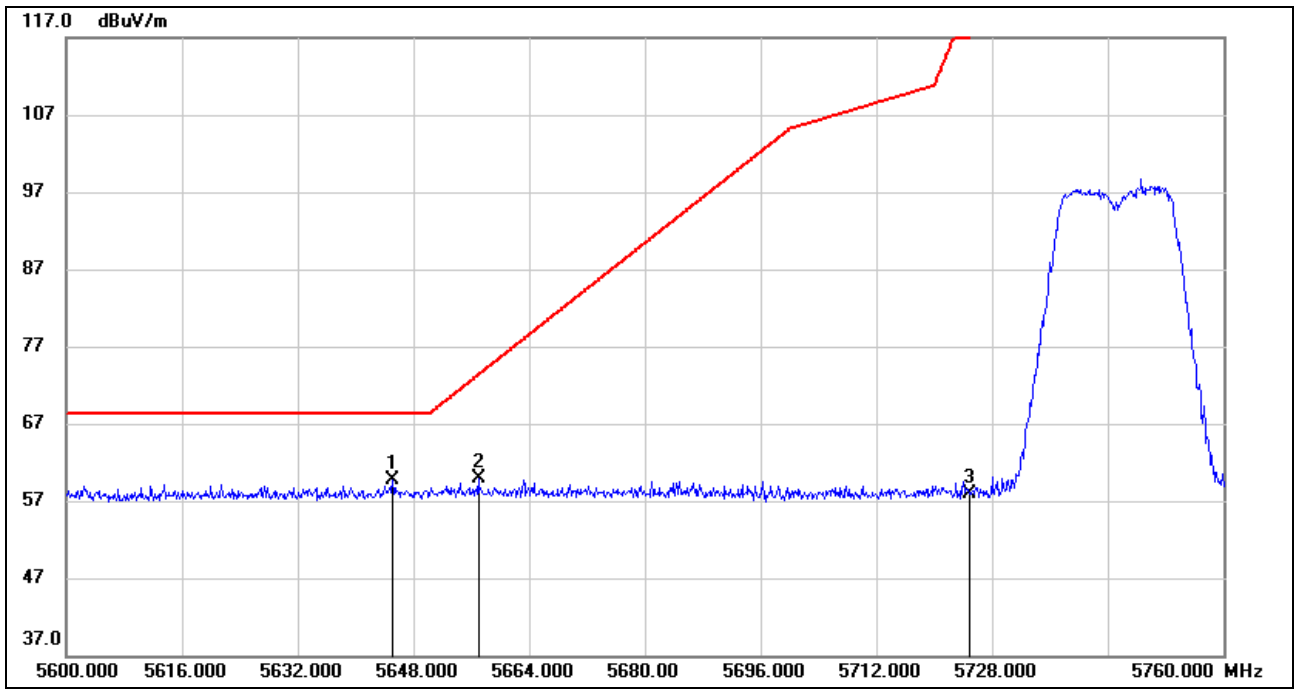
8.1.2. UNII-3 BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5645.120	18.31	41.47	59.78	68.20	-8.42	peak
2	5656.960	18.51	41.48	59.99	73.37	-13.38	peak
3	5725.000	16.37	41.61	57.98	122.20	-64.22	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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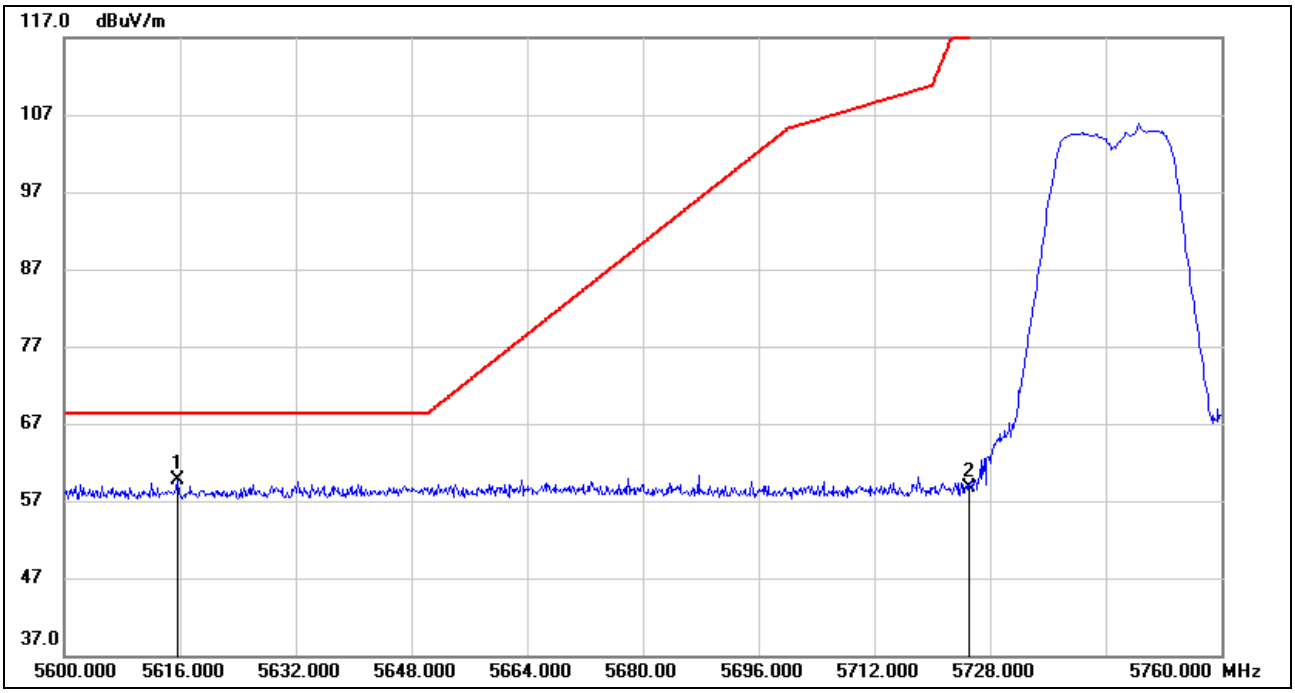
VERTICAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5615.680	18.30	41.47	59.77	68.20	-8.43	peak
2	5725.000	17.18	41.61	58.79	122.20	-63.41	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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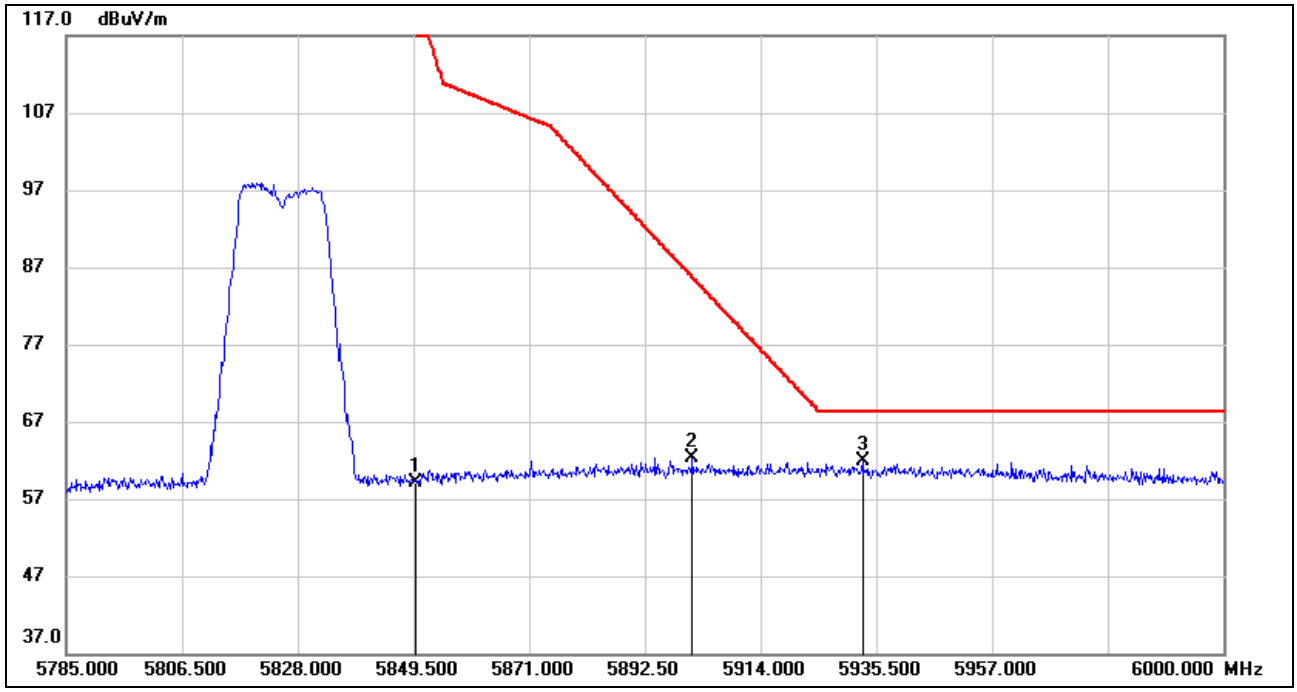
RESTRICTED BANDEDGE HIGH CHANNEL

HORIZONTAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	16.17	42.89	59.06	122.20	-63.14	peak
2	5901.315	18.46	43.83	62.29	85.69	-23.40	peak
3	5932.920	18.55	43.29	61.84	68.20	-6.36	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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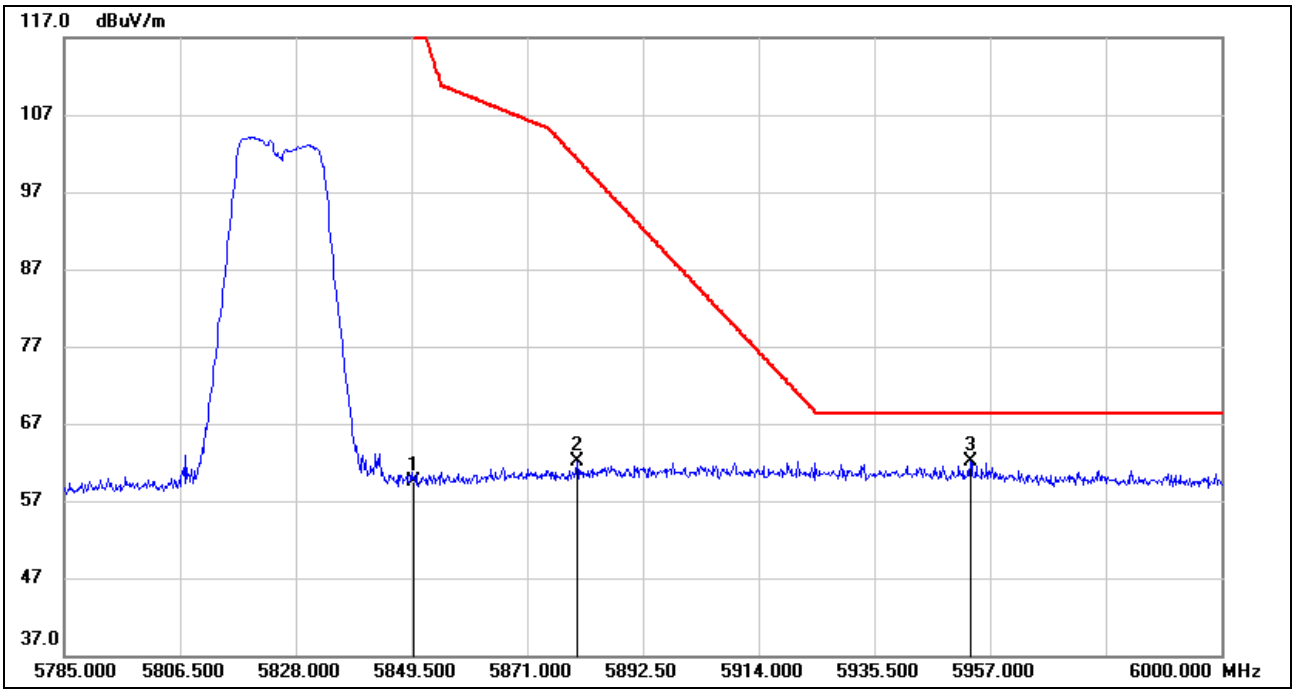
VERTICAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	16.66	42.89	59.55	122.20	-62.65	peak
2	5880.245	18.71	43.47	62.18	101.30	-39.12	peak
3	5953.345	19.24	42.93	62.17	68.20	-6.03	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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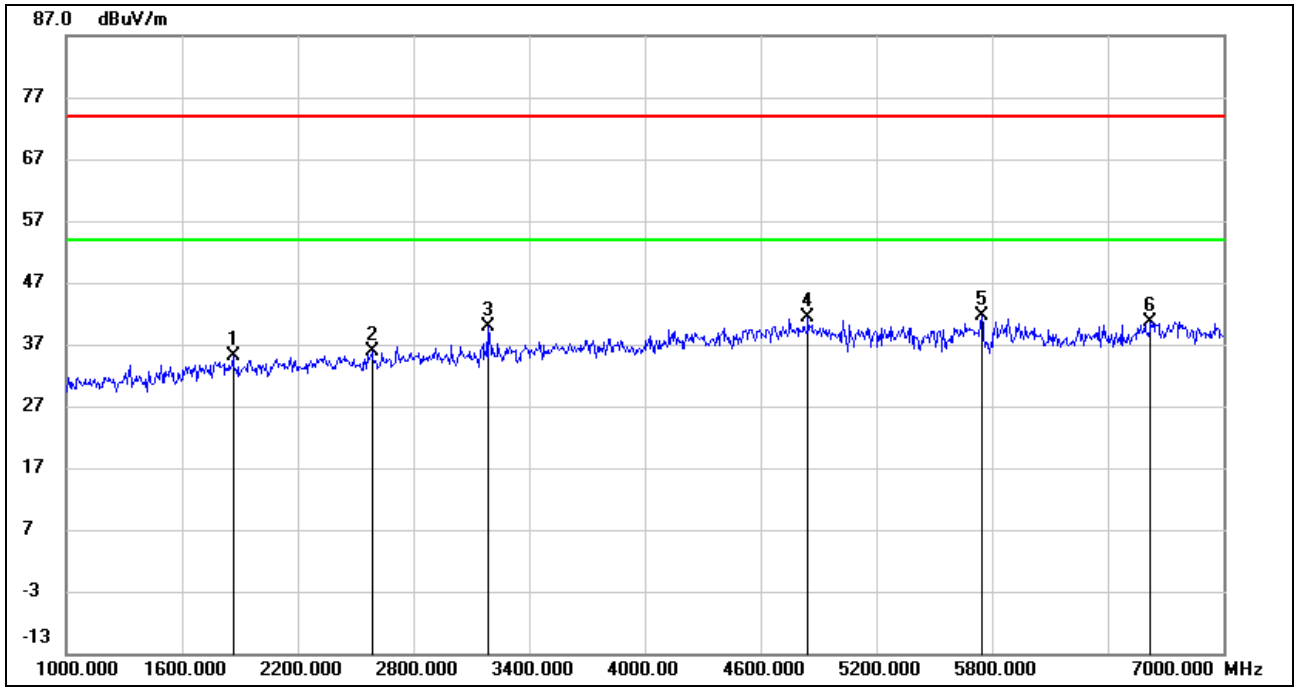
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1864.000	45.25	-10.16	35.09	74.00	-38.91	peak
2	2584.000	44.06	-8.22	35.84	74.00	-38.16	peak
3	3184.000	45.55	-5.70	39.85	74.00	-34.15	peak
4	4846.000	40.79	0.60	41.39	74.00	-32.61	peak
5	5745.000	39.73	1.96	41.69	/	/	fundamental
6	6622.000	36.20	4.48	40.68	74.00	-33.32	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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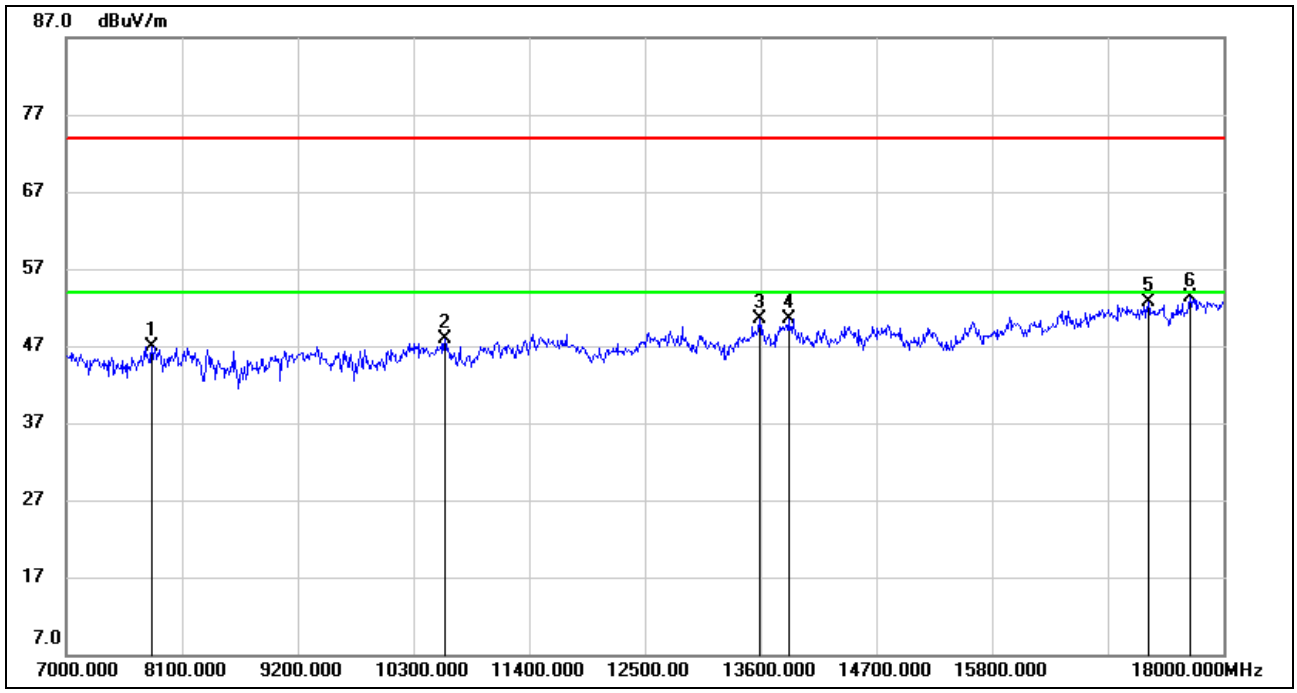
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7814.000	38.87	8.10	46.97	74.00	-27.03	peak
2	10597.000	35.44	12.43	47.87	74.00	-26.13	peak
3	13589.000	34.42	16.08	50.50	74.00	-23.50	peak
4	13864.000	34.07	16.48	50.55	74.00	-23.45	peak
5	17285.000	30.83	21.79	52.62	74.00	-21.38	peak
6	17681.000	30.84	22.37	53.21	74.00	-20.79	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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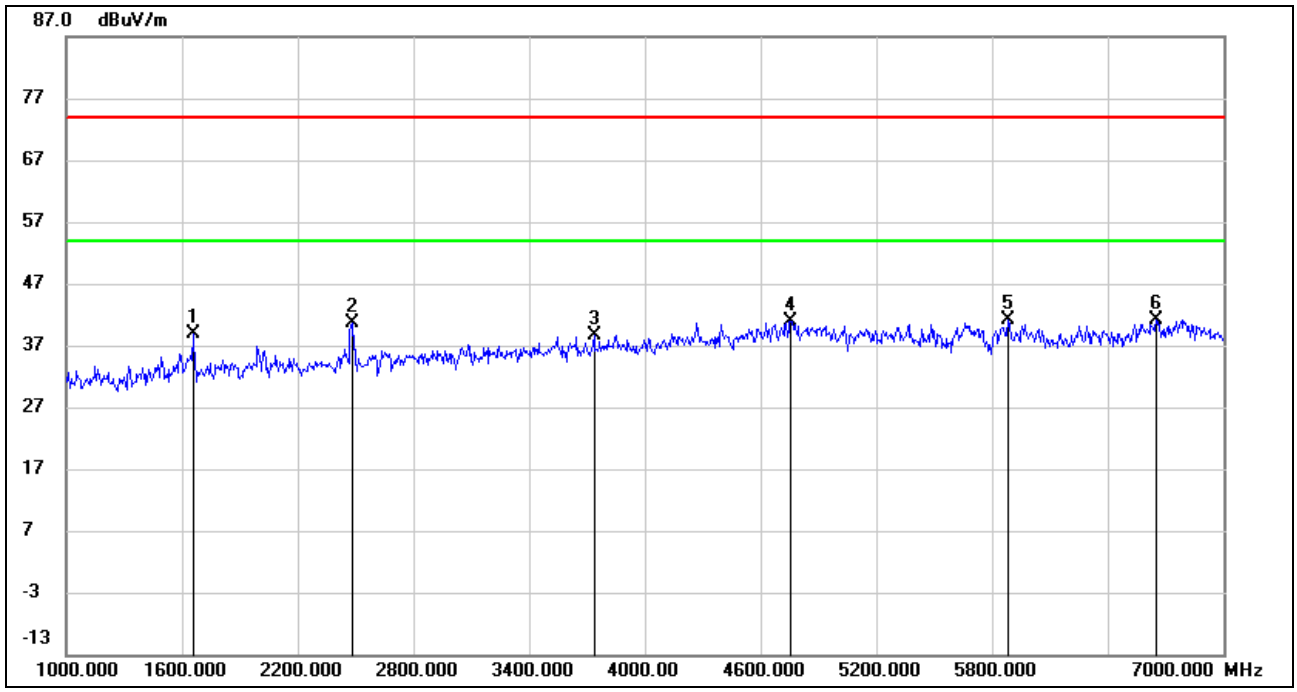
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1660.000	50.14	-11.16	38.98	74.00	-35.02	peak
2	2482.000	49.11	-8.50	40.61	74.00	-33.39	peak
3	3736.000	42.43	-3.78	38.65	74.00	-35.35	peak
4	4756.000	40.65	0.26	40.91	74.00	-33.09	peak
5	5884.000	38.78	2.23	41.01	74.00	-32.99	peak
6	6652.000	36.63	4.47	41.10	74.00	-32.90	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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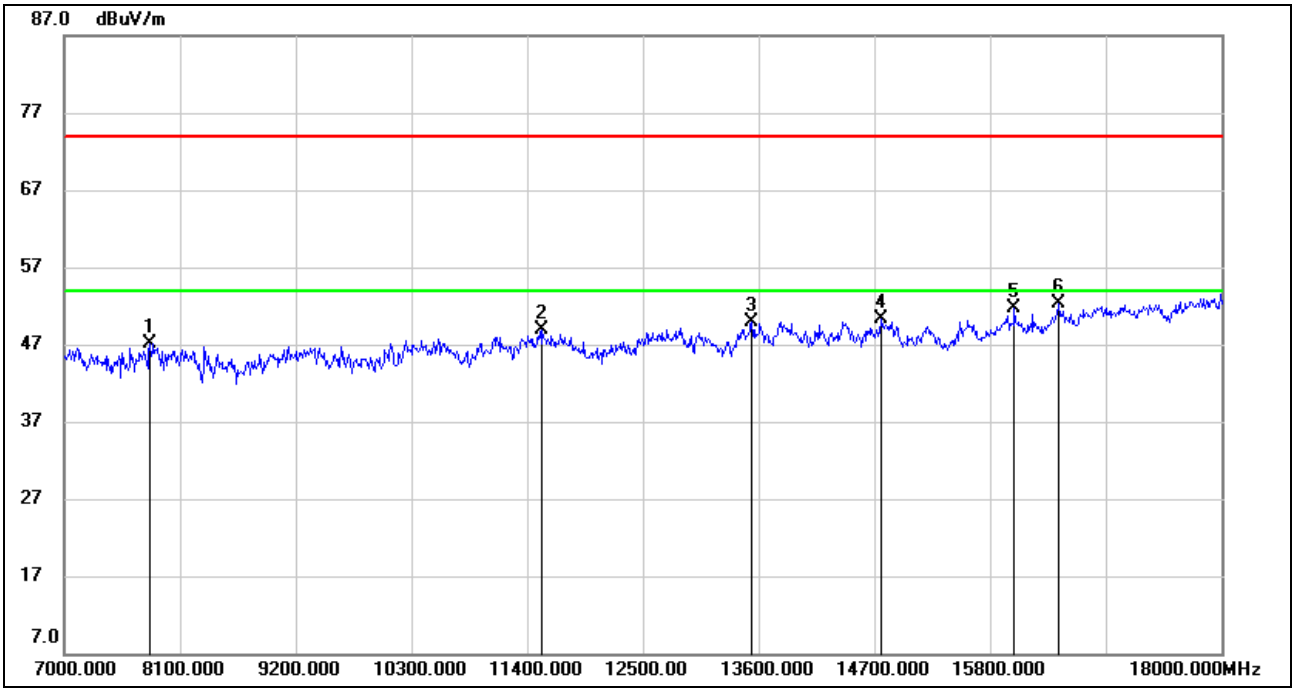
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7814.000	39.03	8.10	47.13	74.00	-26.87	peak
2	11543.000	35.40	13.44	48.84	74.00	-25.16	peak
3	13534.000	33.97	15.97	49.94	74.00	-24.06	peak
4	14766.000	34.22	16.11	50.33	74.00	-23.67	peak
5	16031.000	33.73	17.97	51.70	74.00	-22.30	peak
6	16449.000	32.83	19.45	52.28	74.00	-21.72	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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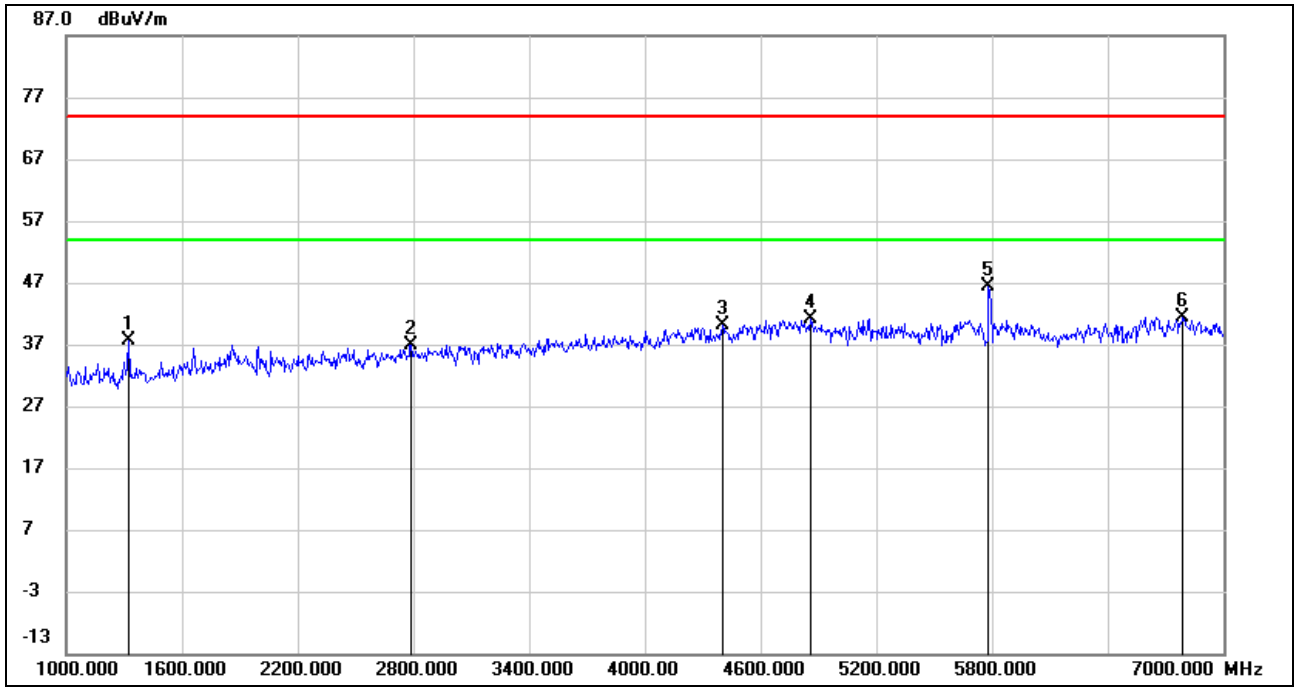
HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1324.000	50.59	-12.89	37.70	74.00	-36.30	peak
2	2788.000	43.90	-7.01	36.89	74.00	-37.11	peak
3	4402.000	42.04	-1.95	40.09	74.00	-33.91	peak
4	4858.000	40.44	0.62	41.06	74.00	-32.94	peak
5	5785.000	44.47	1.95	46.42	/	/	fundamental
6	6790.000	36.94	4.44	41.38	74.00	-32.62	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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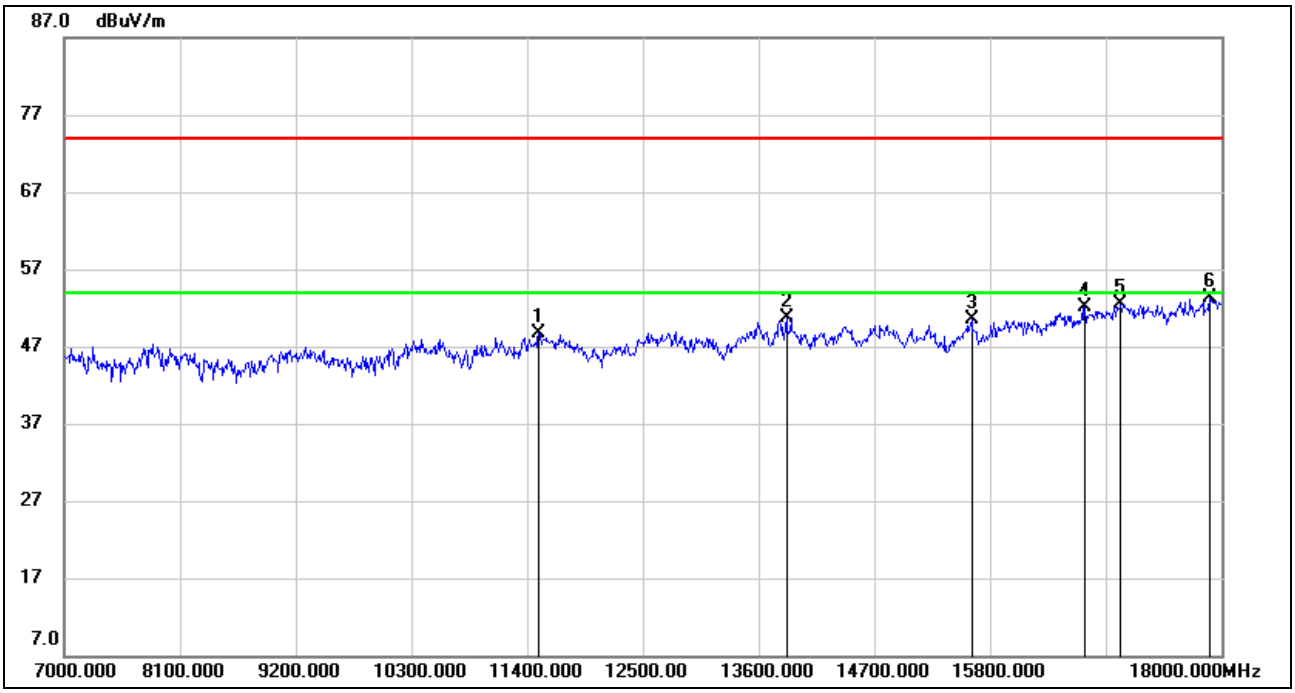
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11510.000	35.27	13.39	48.66	74.00	-25.34	peak
2	13864.000	34.26	16.48	50.74	74.00	-23.26	peak
3	15624.000	33.45	17.05	50.50	74.00	-23.50	peak
4	16702.000	32.09	20.06	52.15	74.00	-21.85	peak
5	17043.000	31.67	20.74	52.41	74.00	-21.59	peak
6	17890.000	29.81	23.41	53.22	74.00	-20.78	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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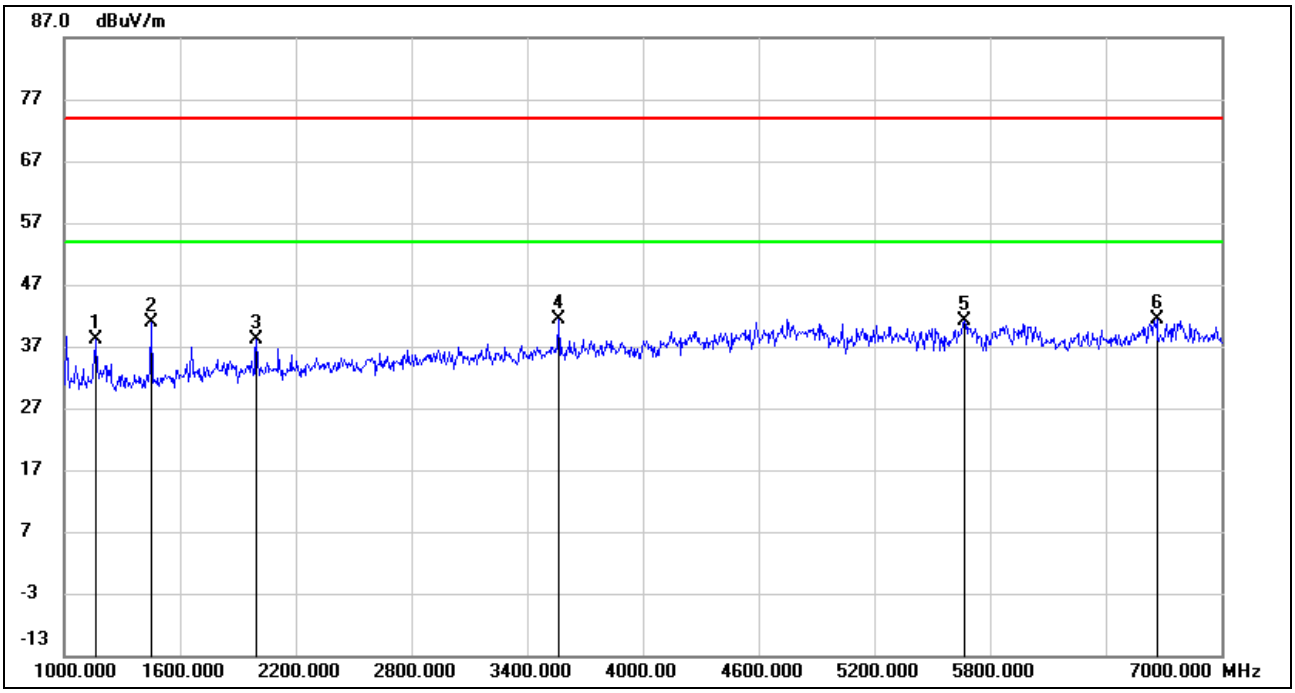
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1162.000	51.37	-13.26	38.11	74.00	-35.89	peak
2	1450.000	53.48	-12.53	40.95	74.00	-33.05	peak
3	1996.000	48.39	-10.24	38.15	74.00	-35.85	peak
4	3562.000	46.15	-4.67	41.48	74.00	-32.52	peak
5	5668.000	39.14	1.99	41.13	74.00	-32.87	peak
6	6664.000	36.97	4.47	41.44	74.00	-32.56	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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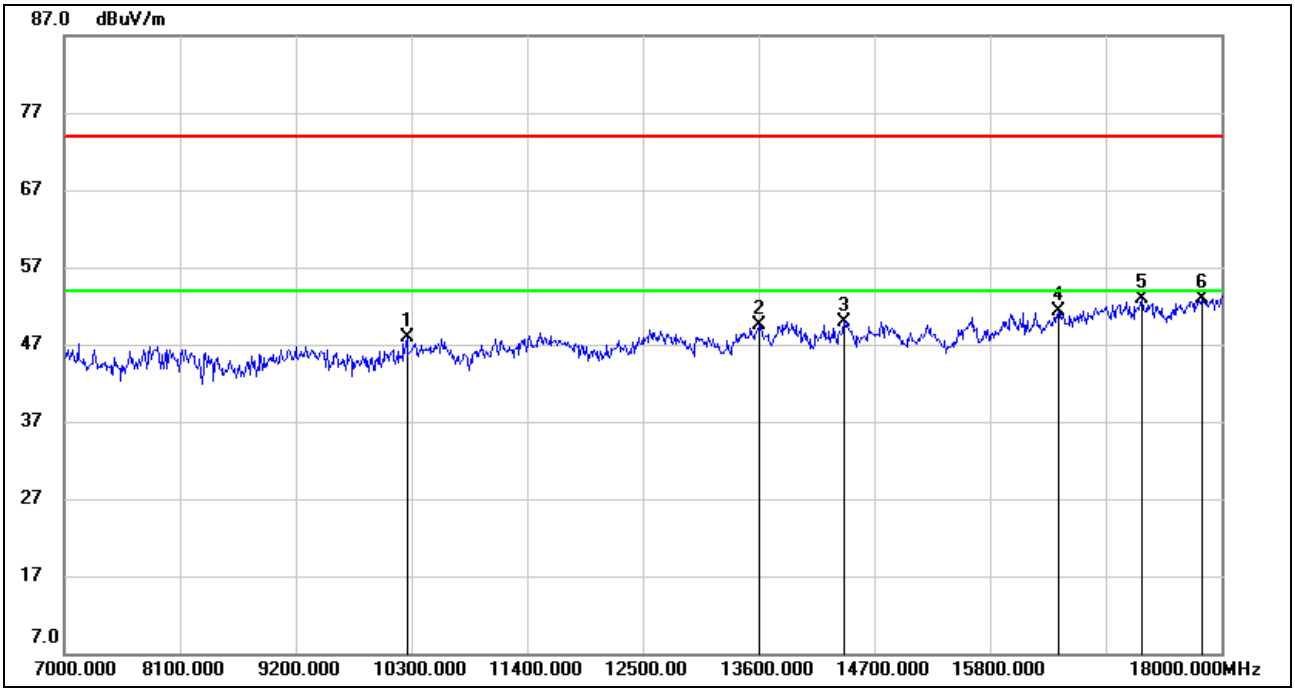
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10256.000	37.03	10.91	47.94	74.00	-26.06	peak
2	13611.000	33.31	16.10	49.41	74.00	-24.59	peak
3	14414.000	33.34	16.66	50.00	74.00	-24.00	peak
4	16449.000	31.80	19.45	51.25	74.00	-22.75	peak
5	17241.000	31.33	21.48	52.81	74.00	-21.19	peak
6	17813.000	29.44	23.41	52.85	74.00	-21.15	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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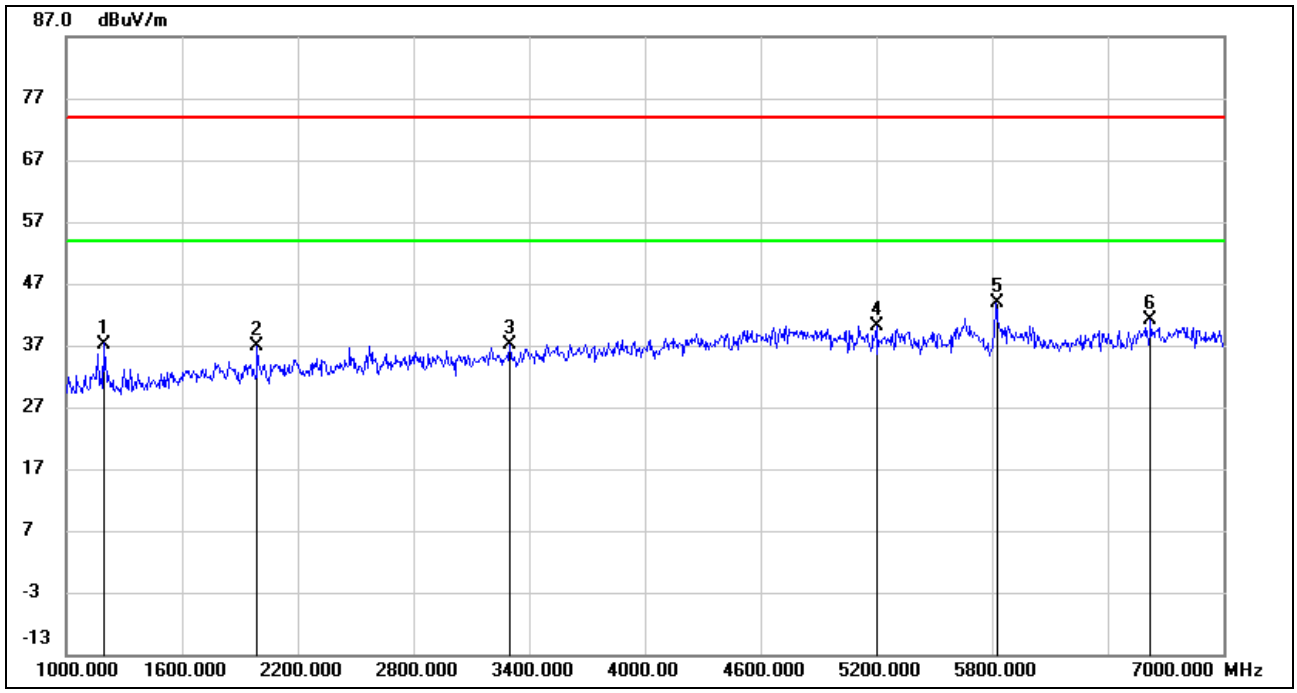
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1192.000	50.35	-13.10	37.25	74.00	-36.75	peak
2	1990.000	47.02	-10.24	36.78	74.00	-37.22	peak
3	3298.000	42.57	-5.56	37.01	74.00	-36.99	peak
4	5200.000	38.23	1.92	40.15	74.00	-33.85	peak
5	5825.000	41.75	2.03	43.78	/	/	fundamental
6	6622.000	36.69	4.48	41.17	74.00	-32.83	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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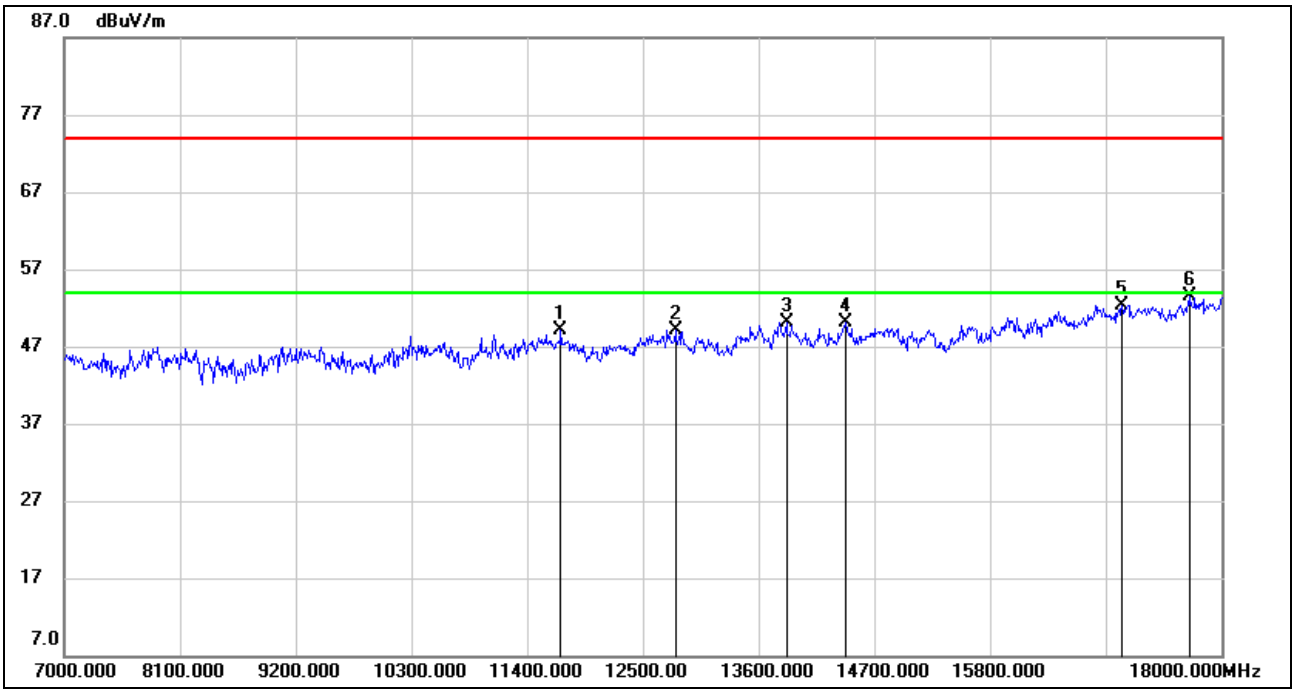
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11719.000	35.94	13.09	49.03	74.00	-24.97	peak
2	12808.000	33.04	16.09	49.13	74.00	-24.87	peak
3	13864.000	33.61	16.48	50.09	74.00	-23.91	peak
4	14425.000	33.47	16.65	50.12	74.00	-23.88	peak
5	17054.000	31.61	20.76	52.37	74.00	-21.63	peak
6	17703.000	31.04	22.52	53.56	74.00	-20.44	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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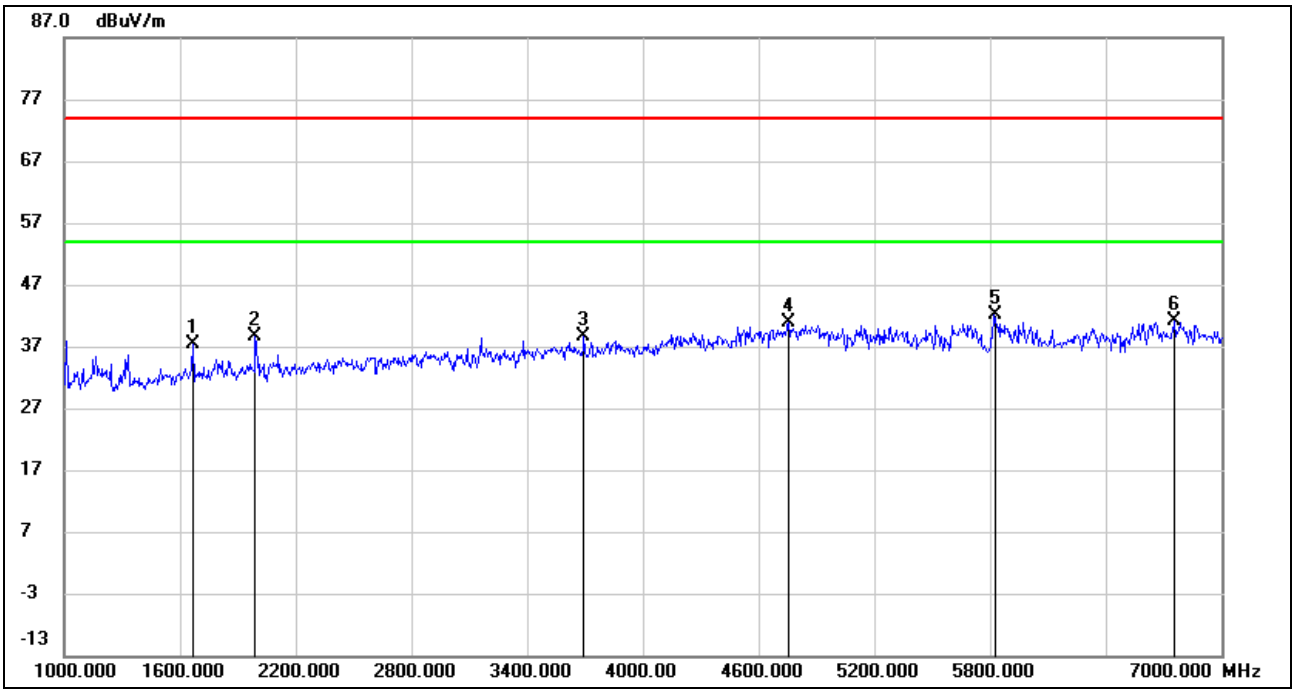
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1666.000	48.55	-11.12	37.43	74.00	-36.57	peak
2	1990.000	48.82	-10.24	38.58	74.00	-35.42	peak
3	3694.000	42.53	-3.99	38.54	74.00	-35.46	peak
4	4756.000	40.57	0.26	40.83	74.00	-33.17	peak
5	5825.000	40.12	2.03	42.15	/	/	fundamental
6	6754.000	36.58	4.45	41.03	74.00	-32.97	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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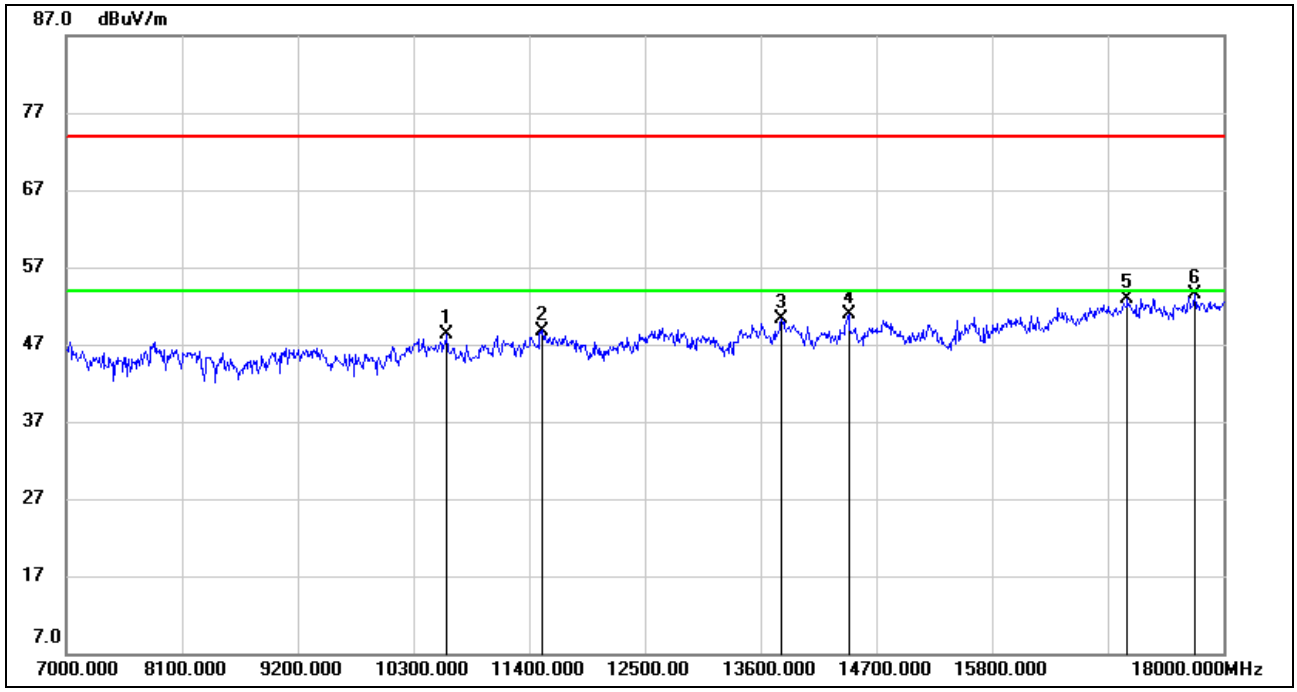
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10619.000	35.90	12.32	48.22	74.00	-25.78	peak
2	11521.000	35.40	13.40	48.80	74.00	-25.20	peak
3	13798.000	33.28	17.05	50.33	74.00	-23.67	peak
4	14436.000	34.20	16.64	50.84	74.00	-23.16	peak
5	17087.000	32.02	20.85	52.87	74.00	-21.13	peak
6	17725.000	30.87	22.72	53.59	74.00	-20.41	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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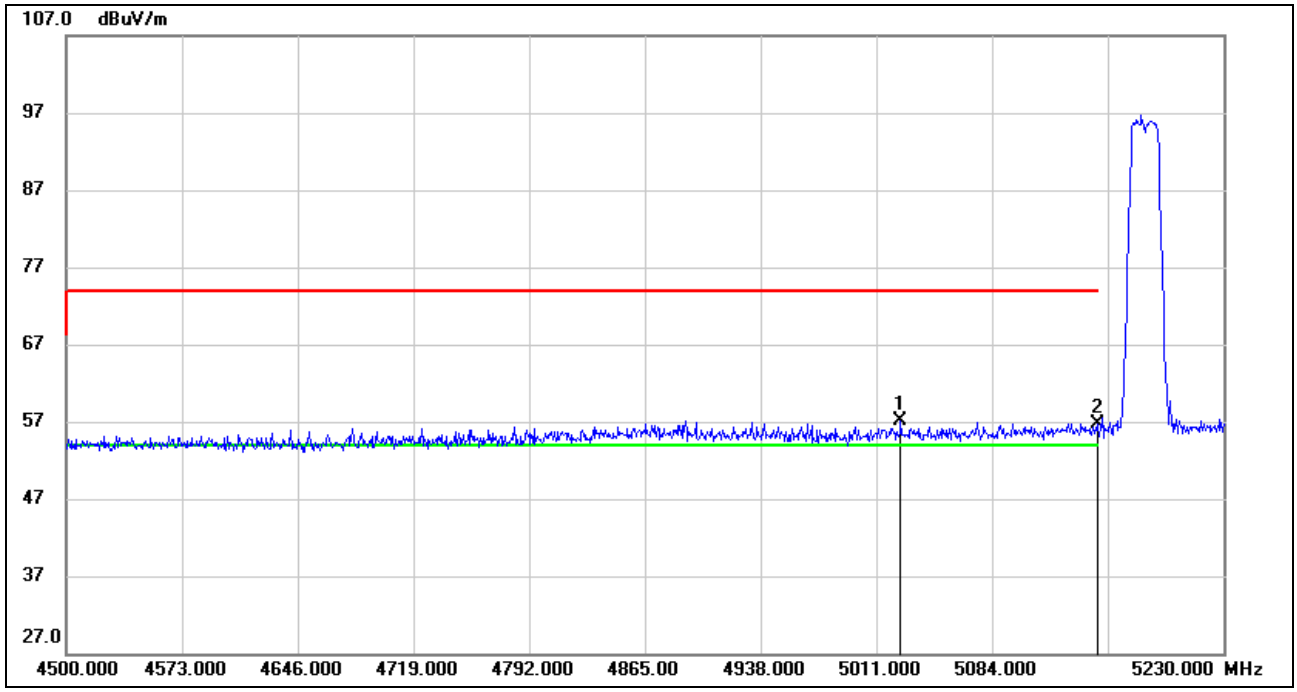
8.2. 802.11n HT20 MODE

8.2.1. UNII-1 BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5026.330	17.01	40.10	57.11	74.00	-16.89	peak
2	5150.000	16.21	40.46	56.67	74.00	-17.33	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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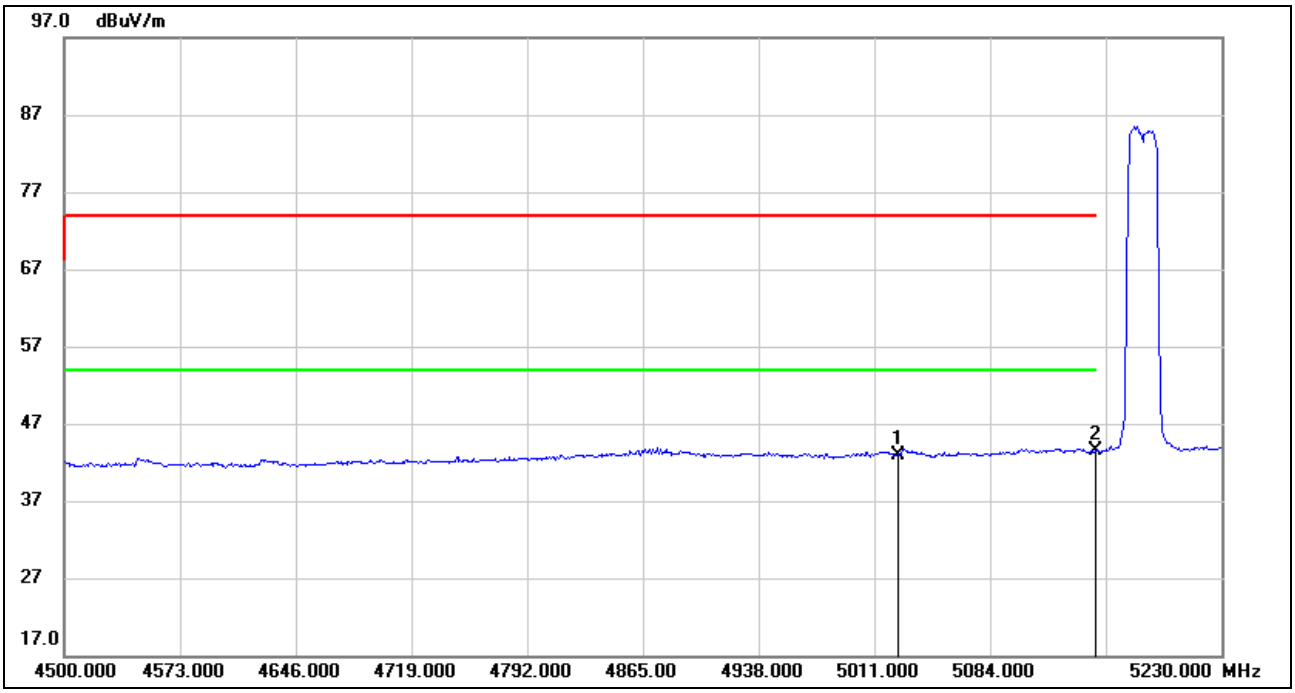
AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5026.330	2.86	40.10	42.96	54.00	-11.04	AVG
2	5150.000	2.97	40.46	43.43	54.00	-10.57	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton where: ton is transmit duration.
3. For duty cycle, please refer to clause 7.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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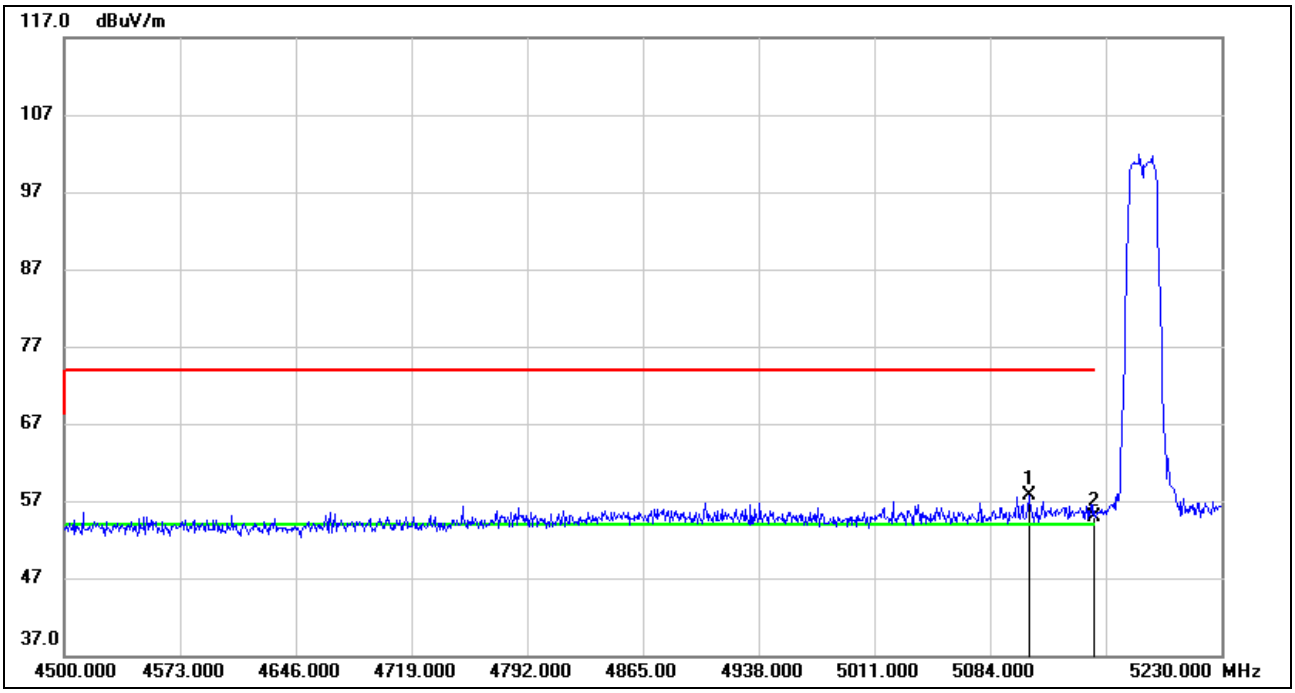
VERTICAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5108.820	17.39	40.23	57.62	74.00	-16.38	peak
2	5150.000	14.41	40.46	54.87	74.00	-19.13	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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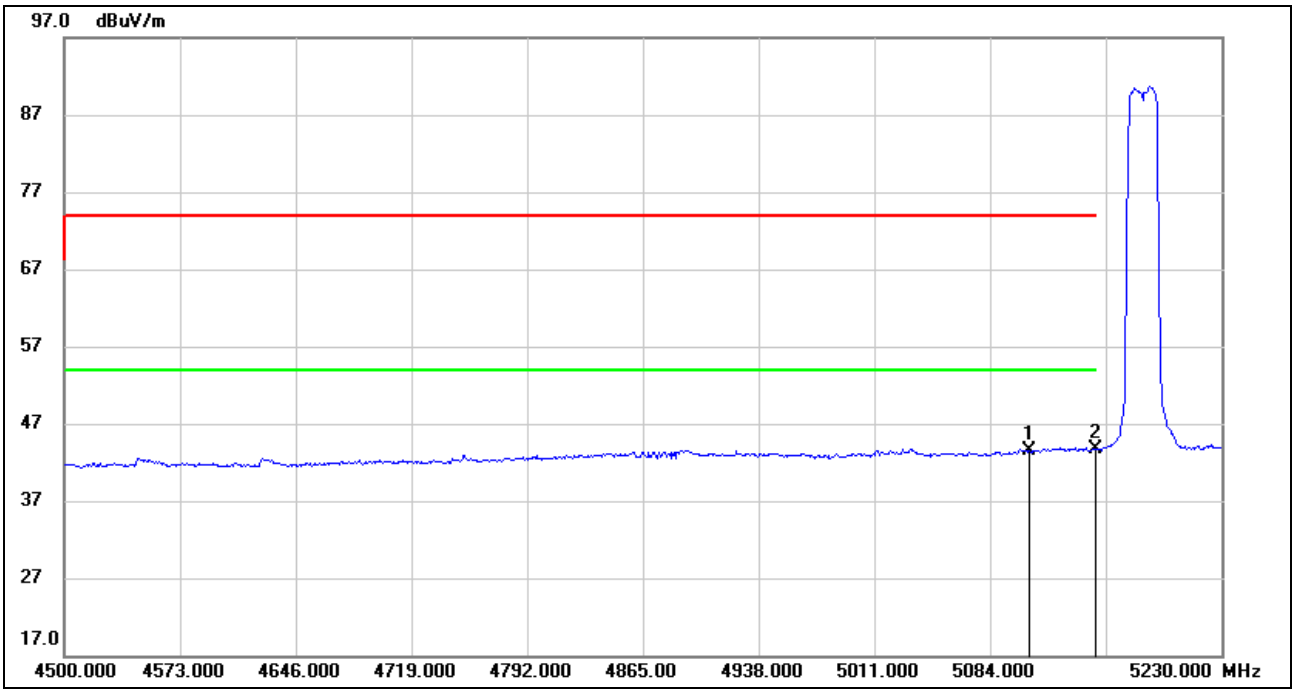
AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5108.820	3.19	40.23	43.42	54.00	-10.58	AVG
2	5150.000	3.26	40.46	43.72	54.00	-10.28	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton where: ton is transmit duration.
3. For duty cycle, please refer to clause 7.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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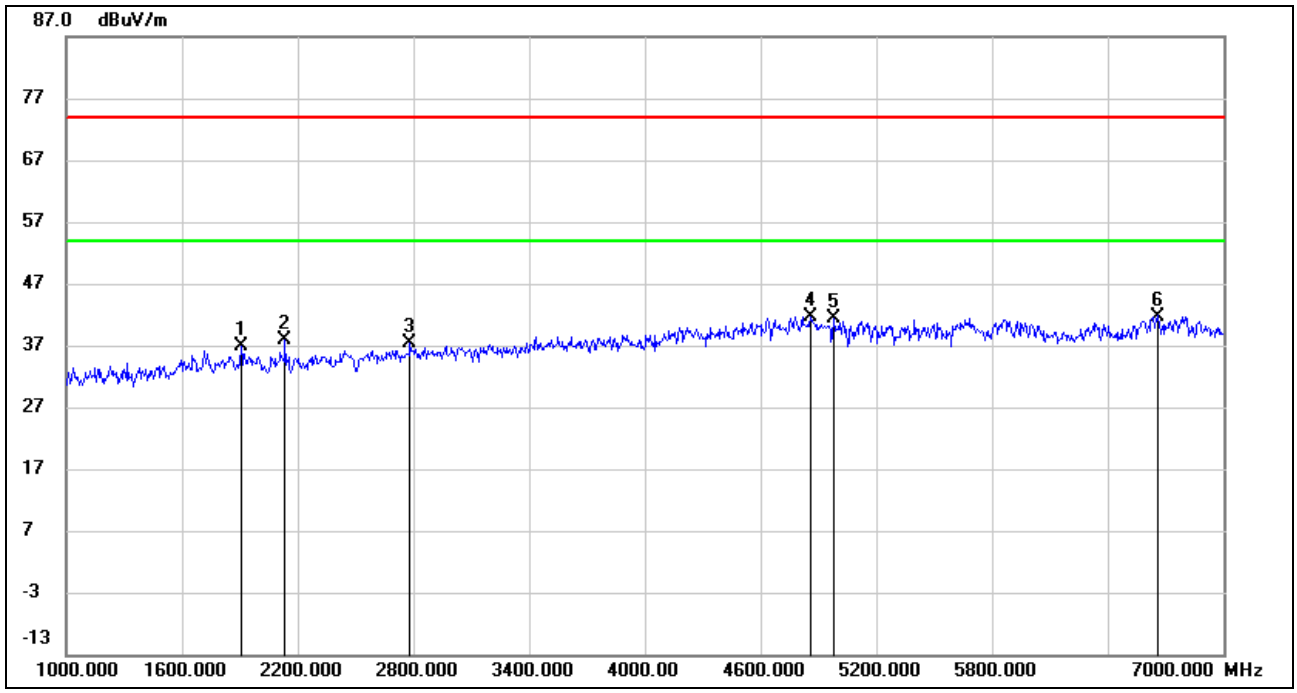
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1906.000	47.11	-10.18	36.93	74.00	-37.07	peak
2	2134.000	47.42	-9.53	37.89	74.00	-36.11	peak
3	2782.000	44.39	-7.06	37.33	74.00	-36.67	peak
4	4858.000	41.05	0.62	41.67	74.00	-32.33	peak
5	4978.000	40.56	0.81	41.37	74.00	-32.63	peak
6	6658.000	37.29	4.46	41.75	74.00	-32.25	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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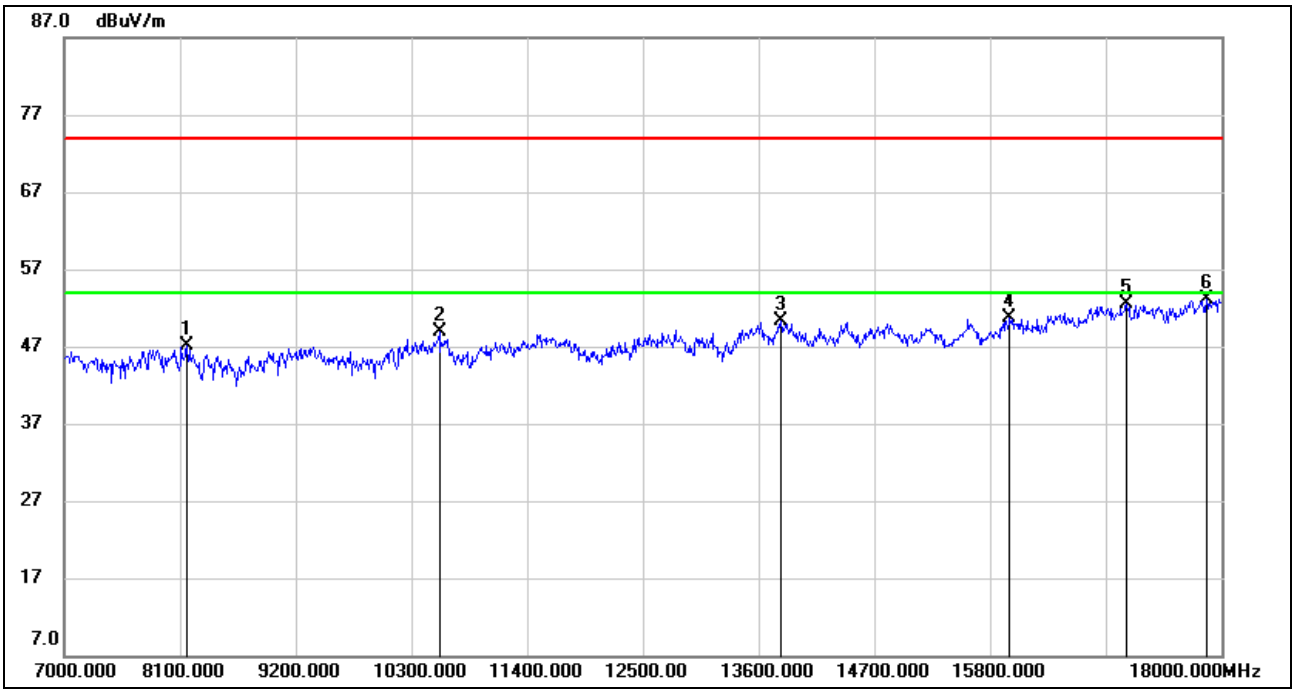
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8166.000	38.46	8.60	47.06	74.00	-26.94	peak
2	10564.000	36.78	12.06	48.84	74.00	-25.16	peak
3	13809.000	33.25	16.99	50.24	74.00	-23.76	peak
4	15987.000	32.82	17.79	50.61	74.00	-23.39	peak
5	17098.000	31.58	20.88	52.46	74.00	-21.54	peak
6	17857.000	29.60	23.41	53.01	74.00	-20.99	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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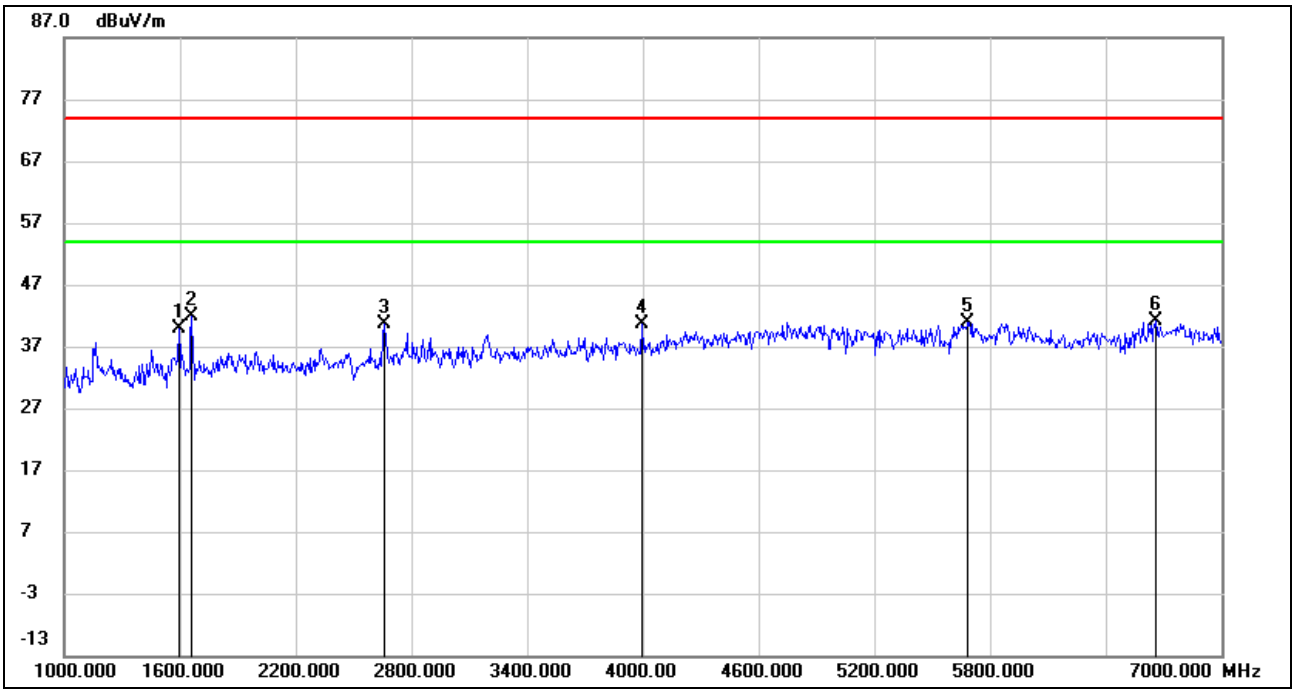
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1594.000	51.53	-11.66	39.87	74.00	-34.13	peak
2	1660.000	52.96	-11.16	41.80	74.00	-32.20	peak
3	2656.000	48.44	-7.83	40.61	74.00	-33.39	peak
4	3994.000	44.46	-3.73	40.73	74.00	-33.27	peak
5	5686.000	38.97	1.98	40.95	74.00	-33.05	peak
6	6658.000	36.57	4.46	41.03	74.00	-32.97	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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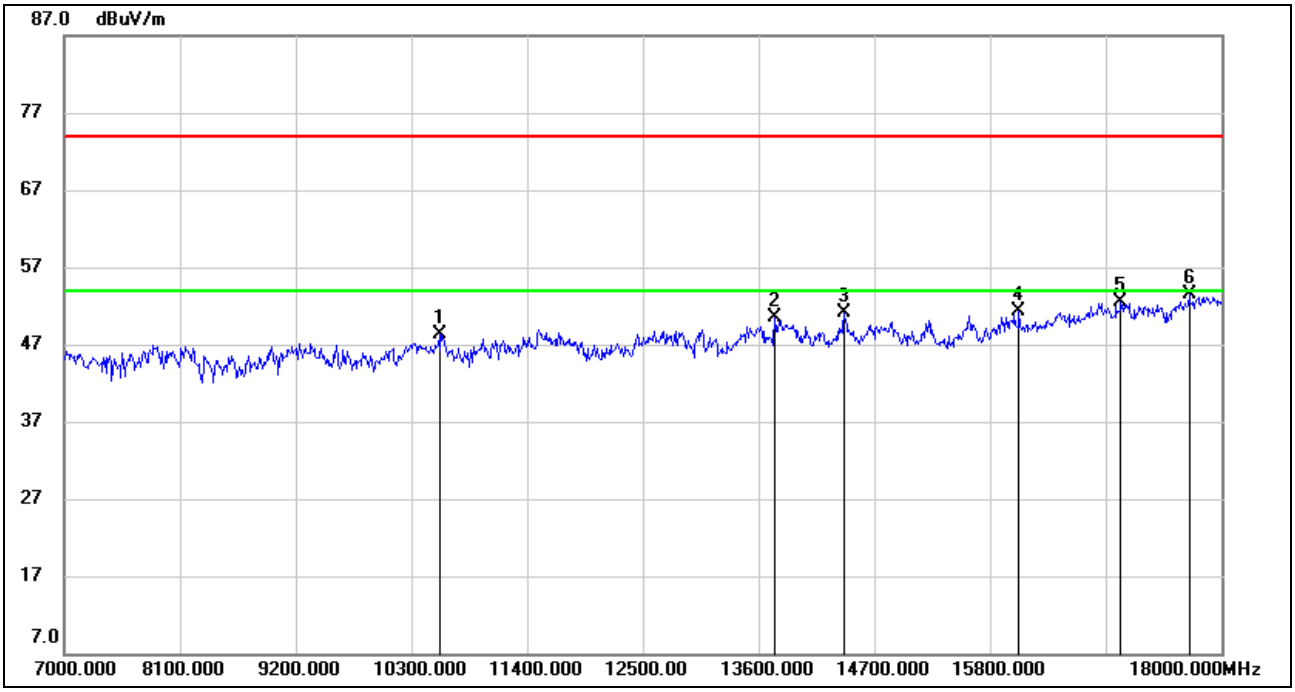
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10564.000	36.31	12.06	48.37	74.00	-25.63	peak
2	13754.000	33.91	16.60	50.51	74.00	-23.49	peak
3	14414.000	34.40	16.66	51.06	74.00	-22.94	peak
4	16075.000	33.02	18.20	51.22	74.00	-22.78	peak
5	17043.000	31.78	20.74	52.52	74.00	-21.48	peak
6	17692.000	31.05	22.44	53.49	74.00	-20.51	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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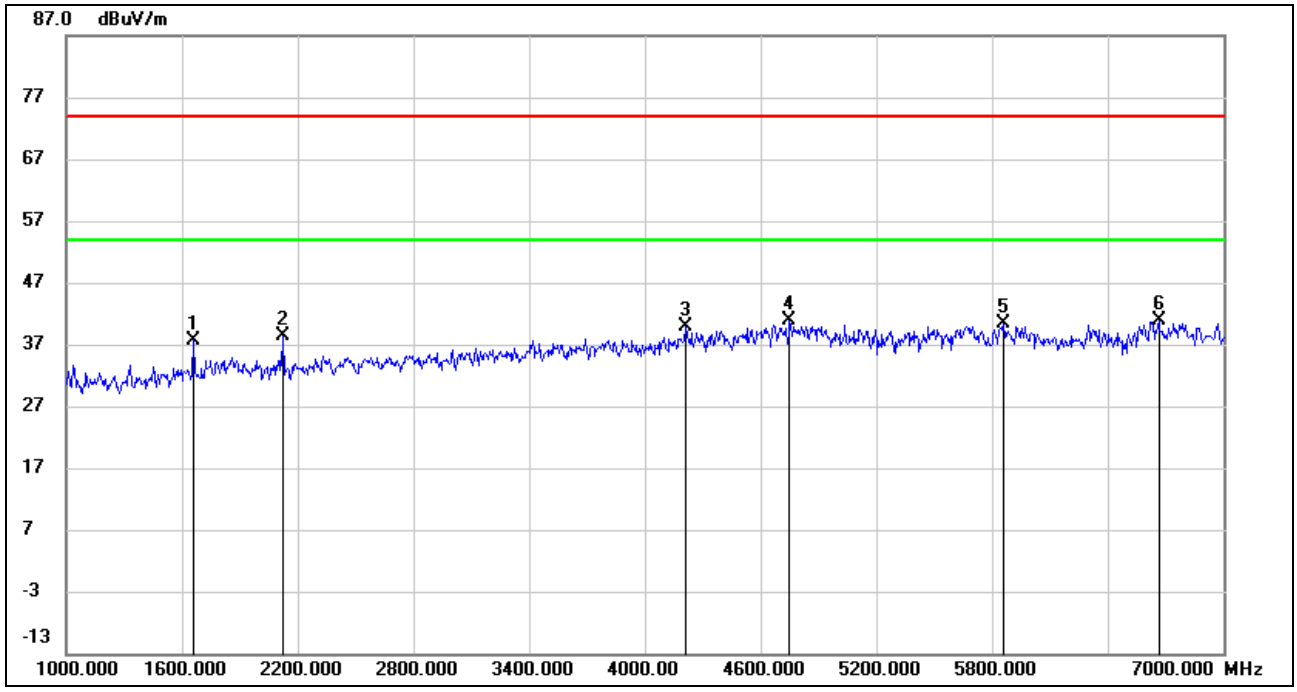
HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1660.000	48.85	-11.16	37.69	74.00	-36.31	peak
2	2122.000	47.91	-9.60	38.31	74.00	-35.69	peak
3	4210.000	41.63	-1.79	39.84	74.00	-34.16	peak
4	4750.000	40.60	0.23	40.83	74.00	-33.17	peak
5	5860.000	38.21	2.15	40.36	74.00	-33.64	peak
6	6664.000	36.39	4.47	40.86	74.00	-33.14	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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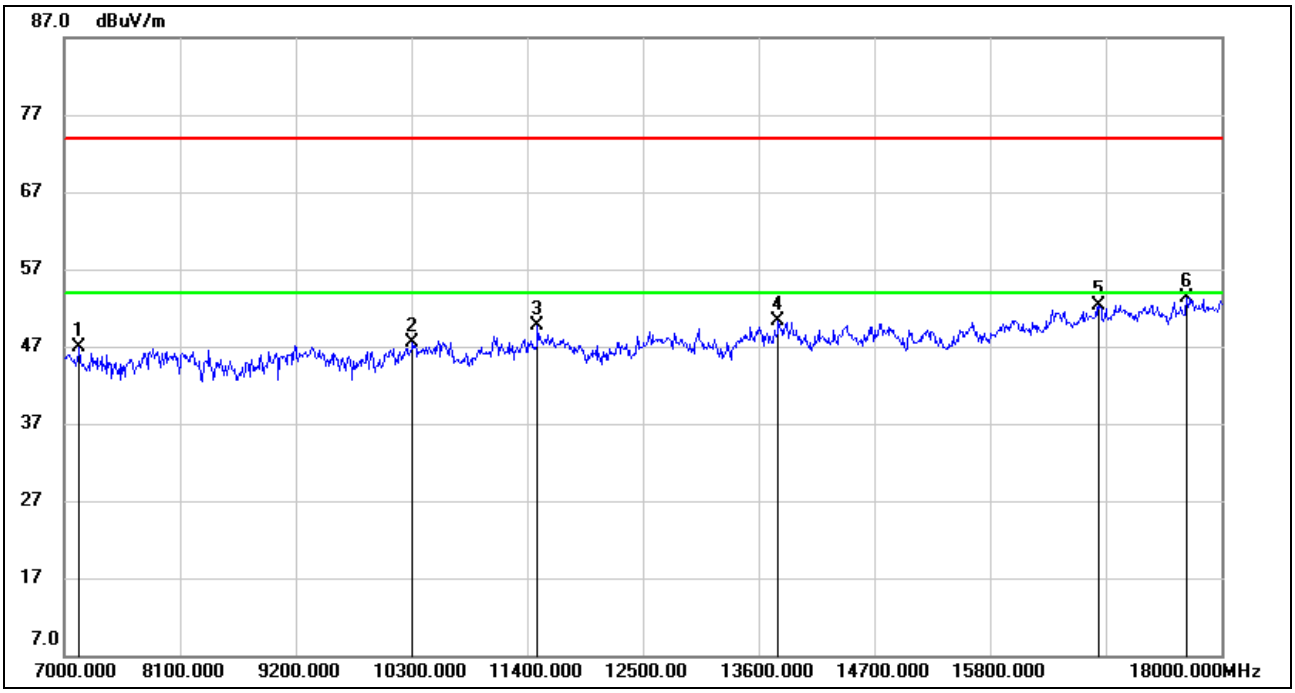
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7143.000	40.24	6.58	46.82	74.00	-27.18	peak
2	10311.000	36.22	11.29	47.51	74.00	-26.49	peak
3	11499.000	36.31	13.35	49.66	74.00	-24.34	peak
4	13787.000	33.31	16.94	50.25	74.00	-23.75	peak
5	16834.000	32.18	20.15	52.33	74.00	-21.67	peak
6	17670.000	31.03	22.30	53.33	74.00	-20.67	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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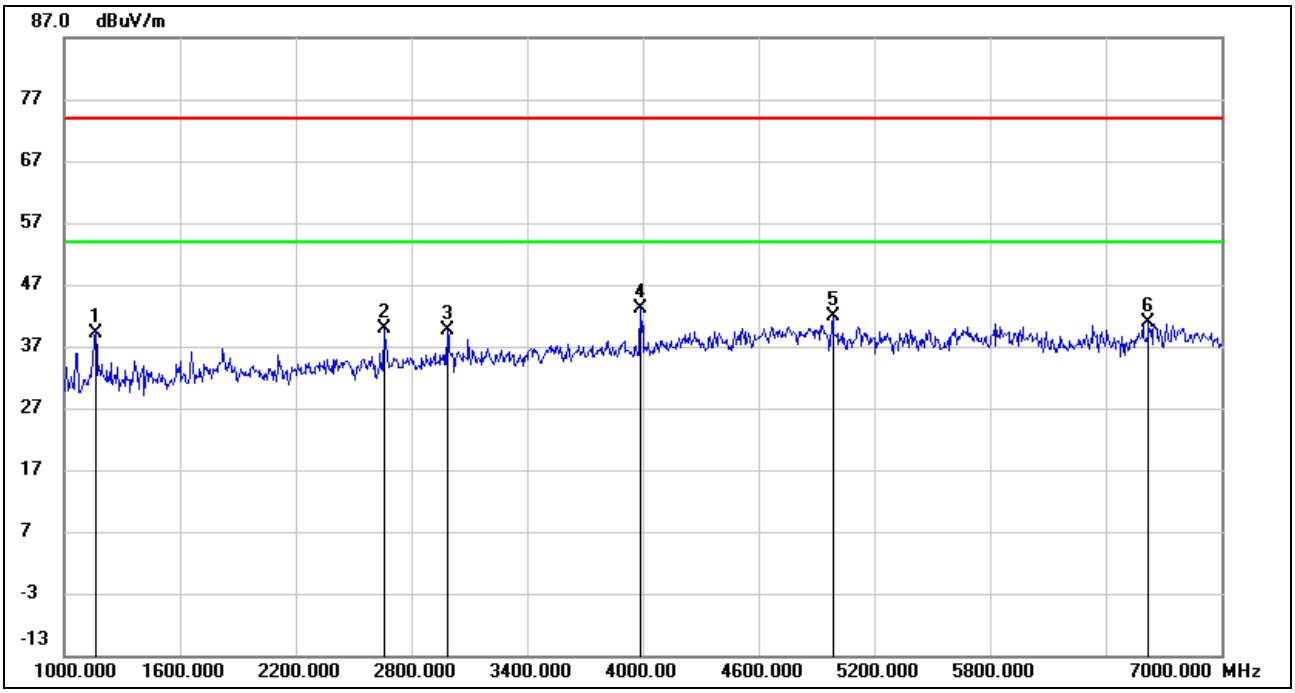
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1162.000	52.51	-13.26	39.25	74.00	-34.75	peak
2	2656.000	47.65	-7.83	39.82	74.00	-34.18	peak
3	2986.000	45.76	-6.13	39.63	74.00	-34.37	peak
4	3988.000	46.78	-3.72	43.06	74.00	-30.94	peak
5	4984.000	41.13	0.82	41.95	74.00	-32.05	peak
6	6622.000	36.41	4.48	40.89	74.00	-33.11	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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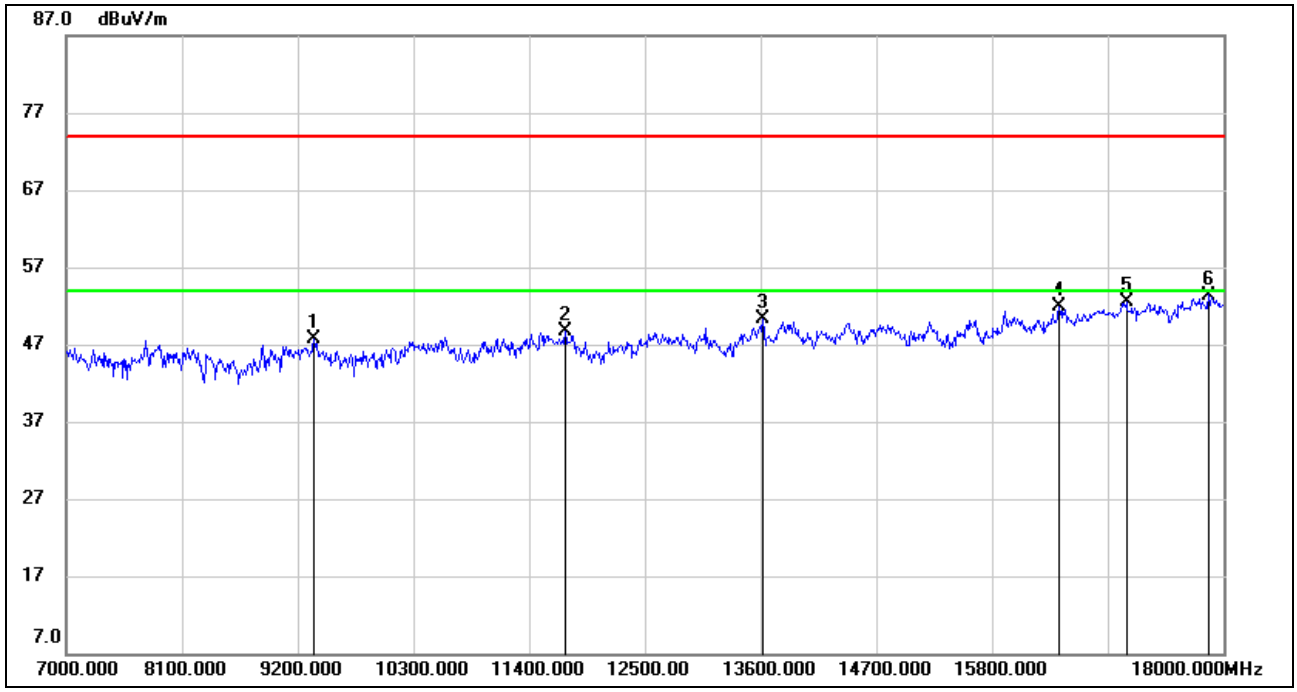
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9354.000	37.98	9.64	47.62	74.00	-26.38	peak
2	11741.000	35.55	13.13	48.68	74.00	-25.32	peak
3	13622.000	34.22	16.08	50.30	74.00	-23.70	peak
4	16438.000	32.47	19.41	51.88	74.00	-22.12	peak
5	17076.000	31.72	20.82	52.54	74.00	-21.46	peak
6	17857.000	29.99	23.41	53.40	74.00	-20.60	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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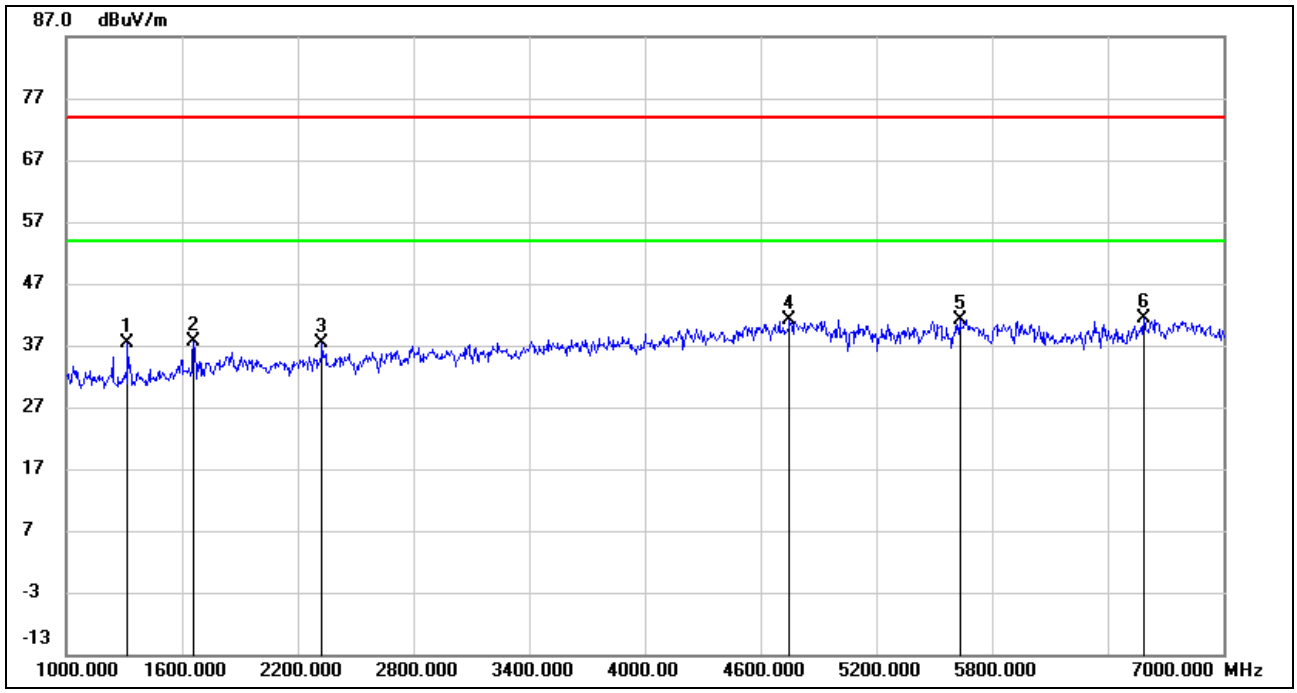
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1318.000	50.40	-12.90	37.50	74.00	-36.50	peak
2	1660.000	48.71	-11.16	37.55	74.00	-36.45	peak
3	2326.000	46.09	-8.83	37.26	74.00	-36.74	peak
4	4750.000	40.91	0.23	41.14	74.00	-32.86	peak
5	5632.000	39.09	2.01	41.10	74.00	-32.90	peak
6	6586.000	36.86	4.40	41.26	74.00	-32.74	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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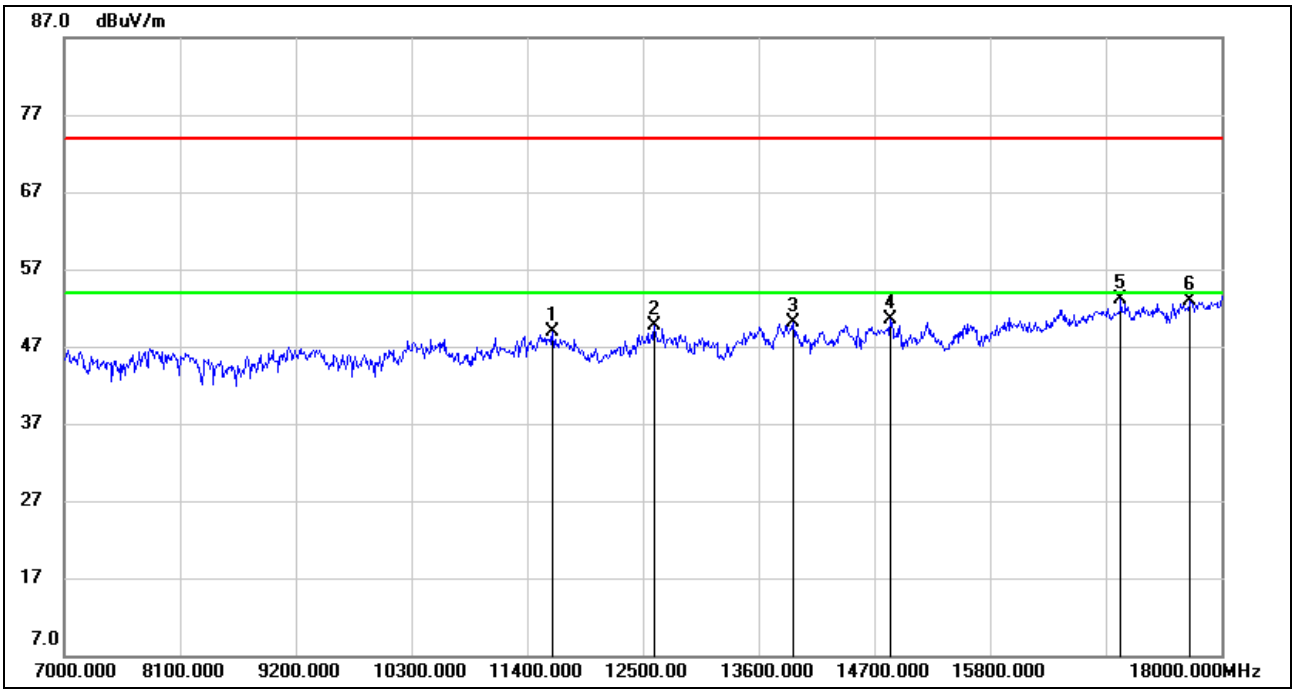
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11642.000	35.56	13.33	48.89	74.00	-25.11	peak
2	12610.000	35.55	14.21	49.76	74.00	-24.24	peak
3	13930.000	33.89	16.17	50.06	74.00	-23.94	peak
4	14854.000	34.28	16.13	50.41	74.00	-23.59	peak
5	17043.000	32.28	20.74	53.02	74.00	-20.98	peak
6	17703.000	30.43	22.52	52.95	74.00	-21.05	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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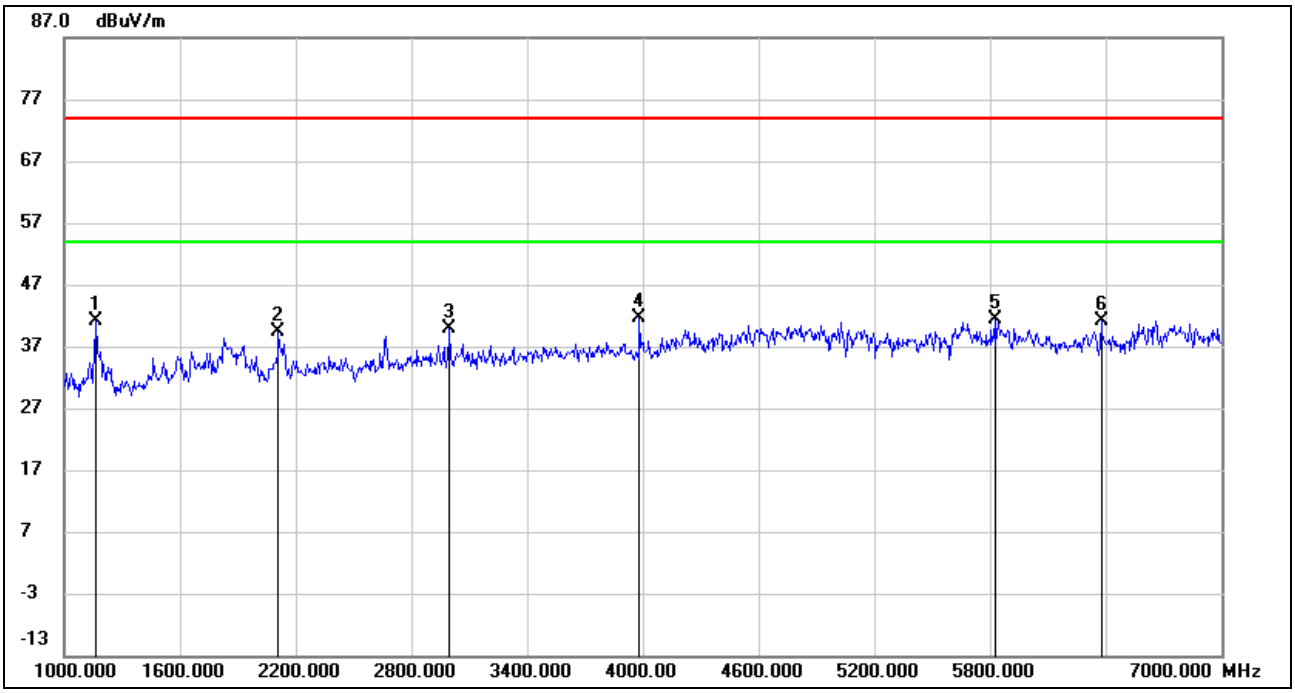
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1162.000	54.39	-13.26	41.13	74.00	-32.87	peak
2	2110.000	49.11	-9.66	39.45	74.00	-34.55	peak
3	2998.000	46.02	-6.08	39.94	74.00	-34.06	peak
4	3982.000	45.42	-3.71	41.71	74.00	-32.29	peak
5	5824.000	39.36	2.03	41.39	74.00	-32.61	peak
6	6376.000	37.88	3.34	41.22	74.00	-32.78	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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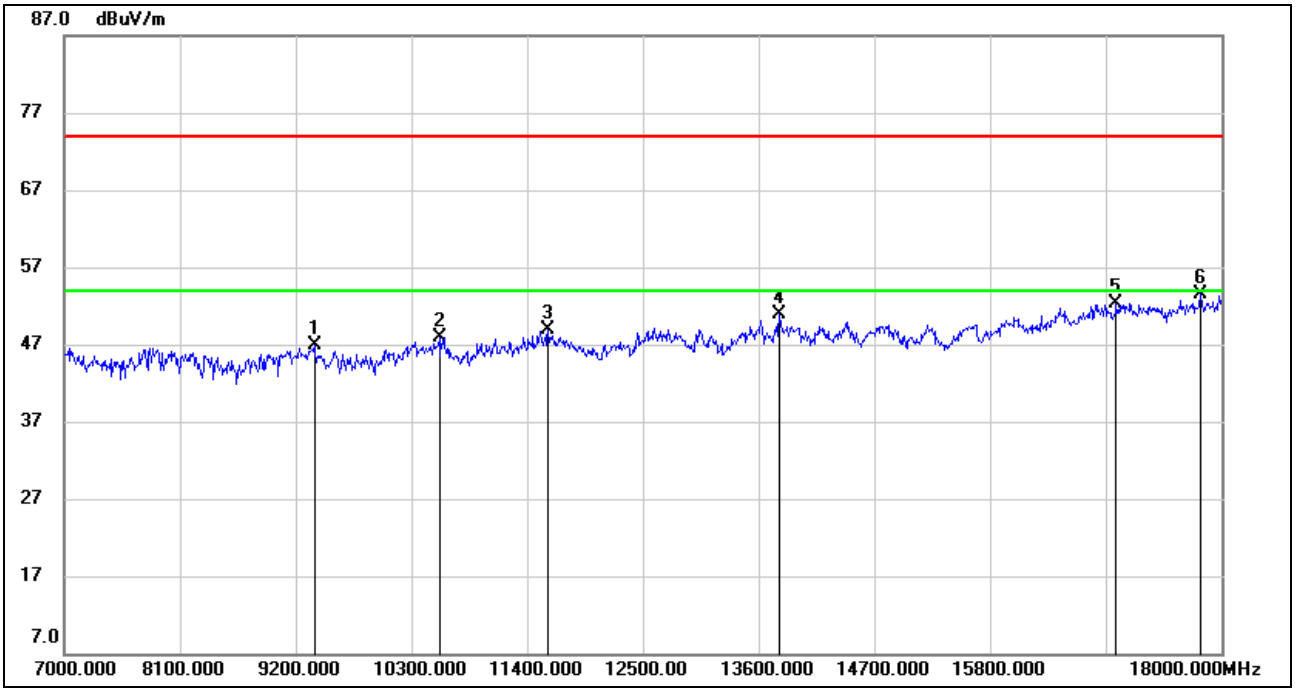
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9376.000	37.11	9.79	46.90	74.00	-27.10	peak
2	10564.000	35.84	12.06	47.90	74.00	-26.10	peak
3	11598.000	35.34	13.54	48.88	74.00	-25.12	peak
4	13798.000	33.84	17.05	50.89	74.00	-23.11	peak
5	16999.000	31.71	20.64	52.35	74.00	-21.65	peak
6	17802.000	30.03	23.41	53.44	74.00	-20.56	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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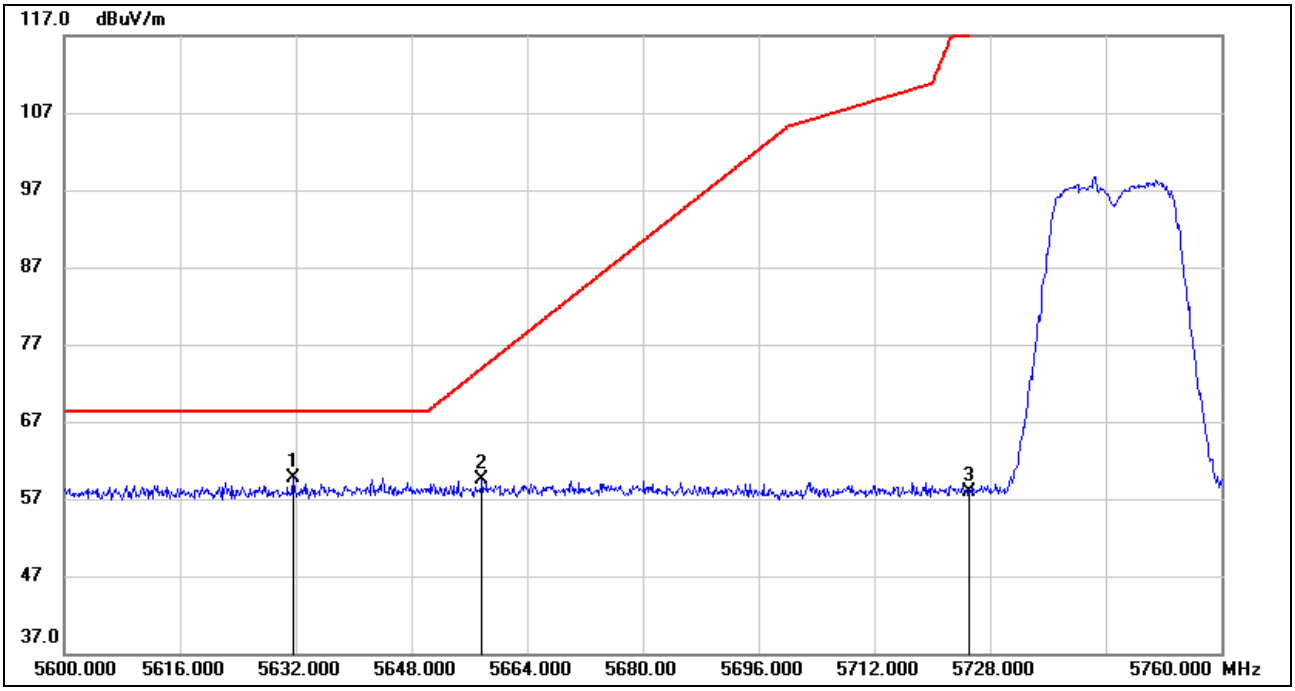
8.2.2. UNII-3 BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5631.680	18.17	41.47	59.64	68.20	-8.56	peak
2	5657.760	18.02	41.48	59.50	73.96	-14.46	peak
3	5725.000	16.30	41.61	57.91	122.20	-64.29	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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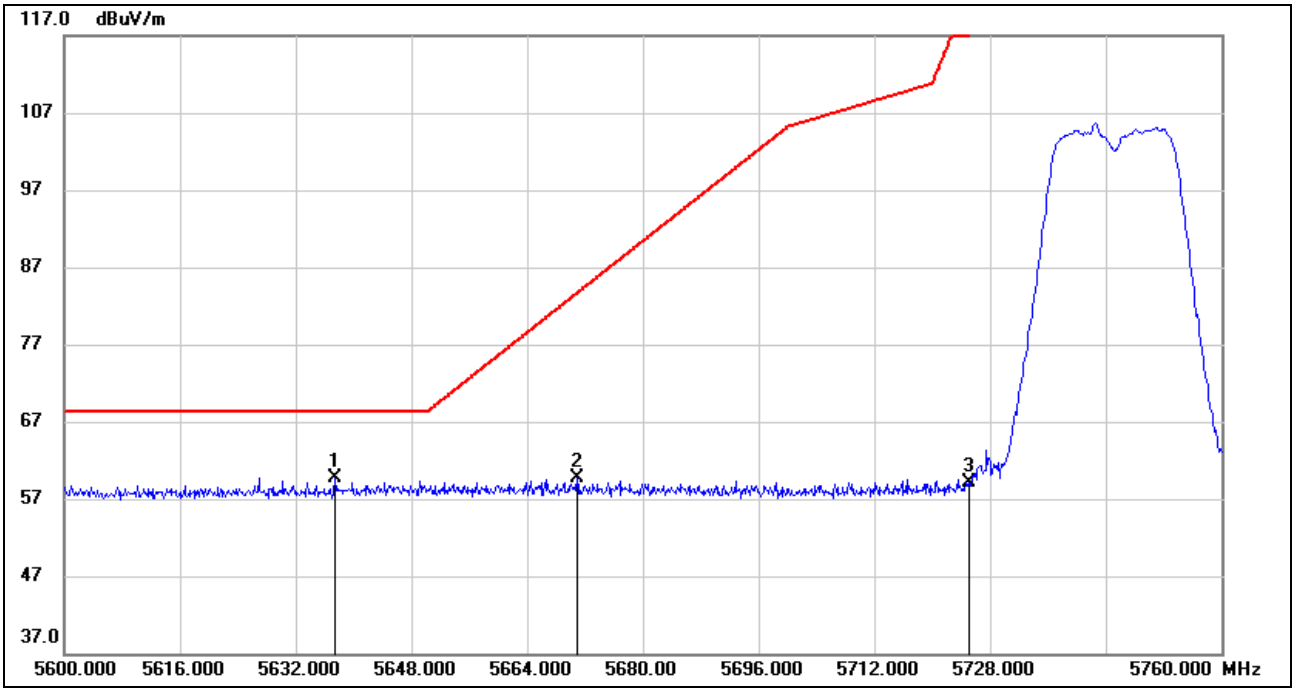
VERTICAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5637.440	18.33	41.47	59.80	68.20	-8.40	peak
2	5670.880	18.13	41.49	59.62	83.69	-24.07	peak
3	5725.000	17.47	41.61	59.08	122.20	-63.12	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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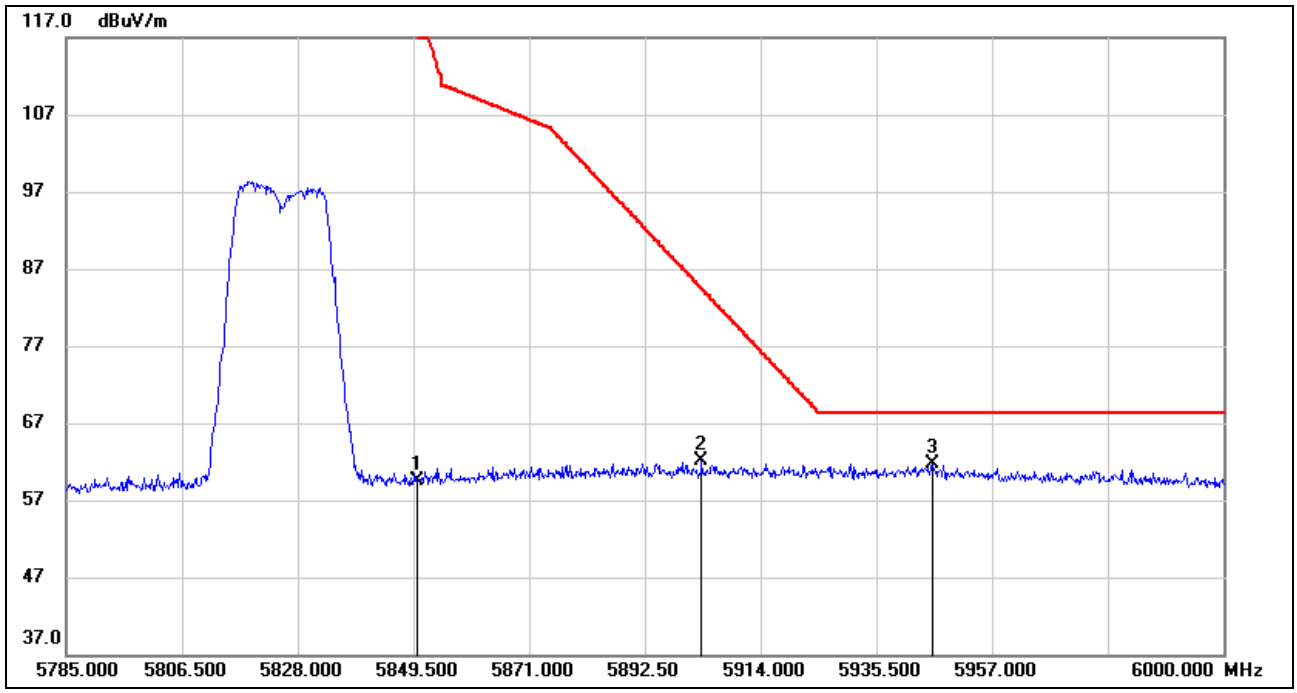
RESTRICTED BANDEDGE HIGH CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	16.68	42.89	59.57	122.20	-62.63	peak
2	5903.035	18.34	43.79	62.13	84.42	-22.29	peak
3	5945.820	18.64	43.06	61.70	68.20	-6.50	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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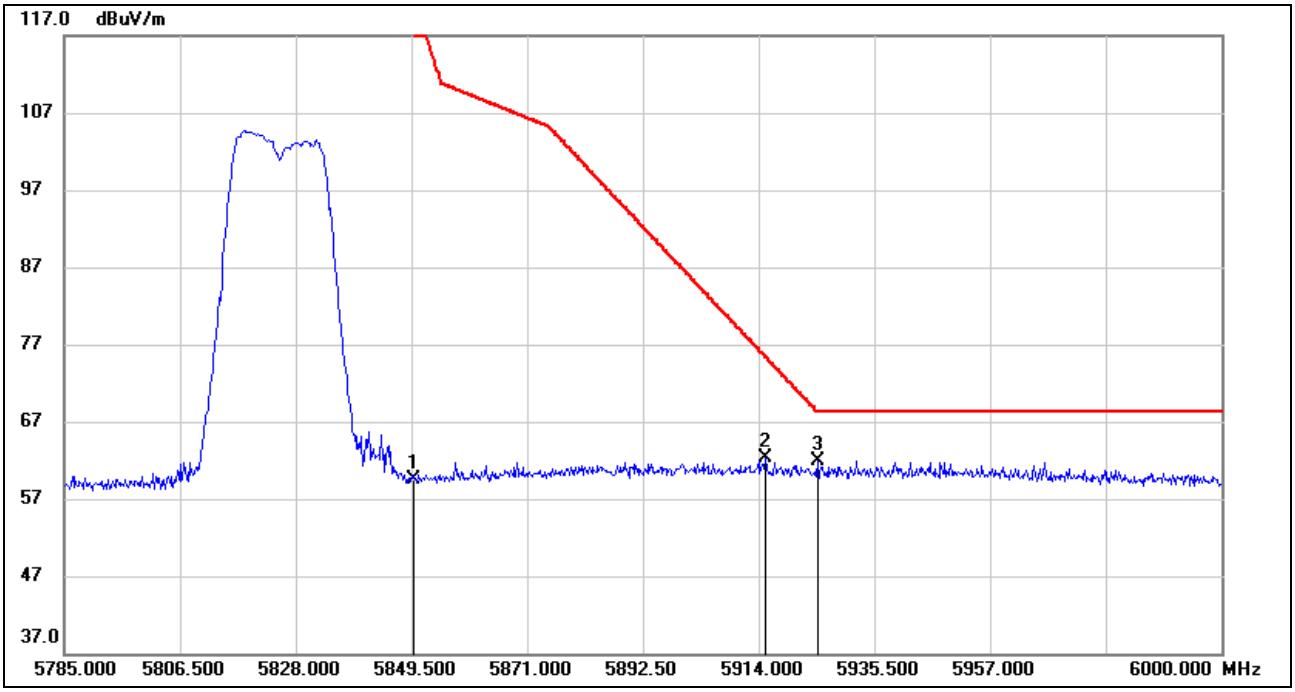
VERTICAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	16.58	42.89	59.47	122.20	-62.73	peak
2	5915.290	18.73	43.59	62.32	75.36	-13.04	peak
3	5924.965	18.45	43.42	61.87	68.23	-6.36	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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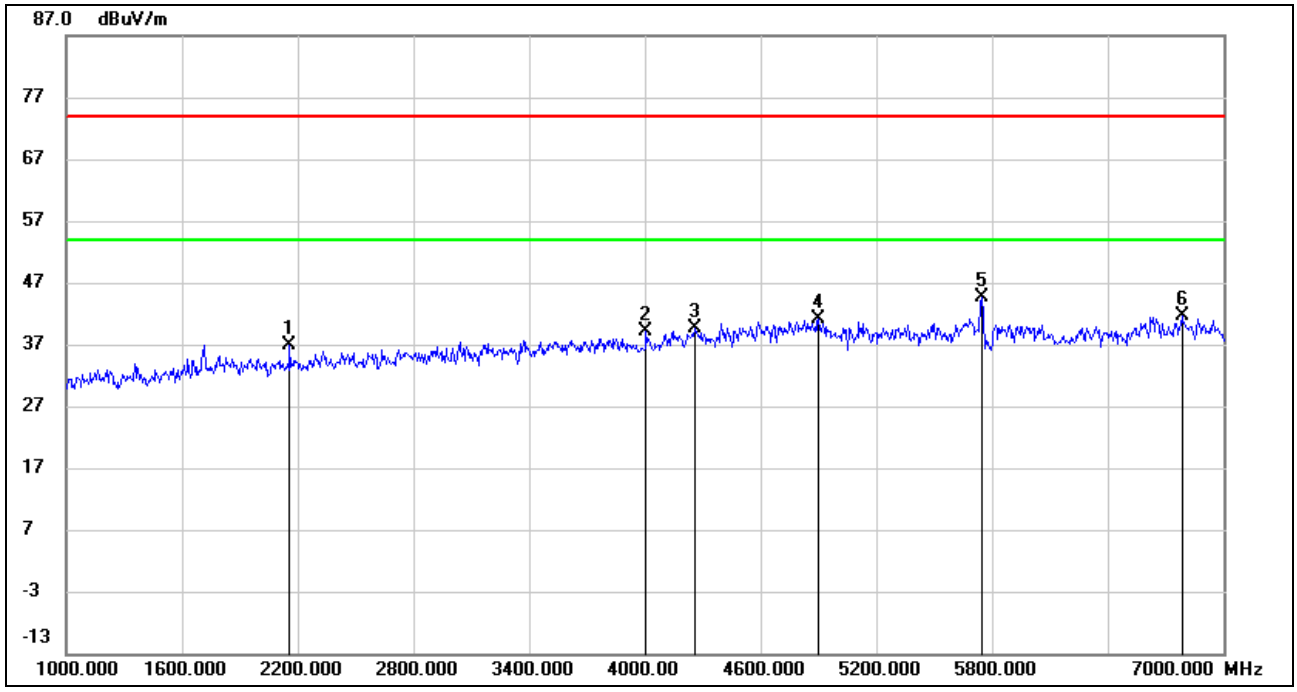
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2158.000	46.38	-9.41	36.97	74.00	-37.03	peak
2	4006.000	42.73	-3.68	39.05	74.00	-34.95	peak
3	4258.000	41.54	-1.84	39.70	74.00	-34.30	peak
4	4900.000	40.45	0.69	41.14	74.00	-32.86	peak
5	5745.000	42.68	1.96	44.64	/	/	fundamental
6	6784.000	37.23	4.44	41.67	74.00	-32.33	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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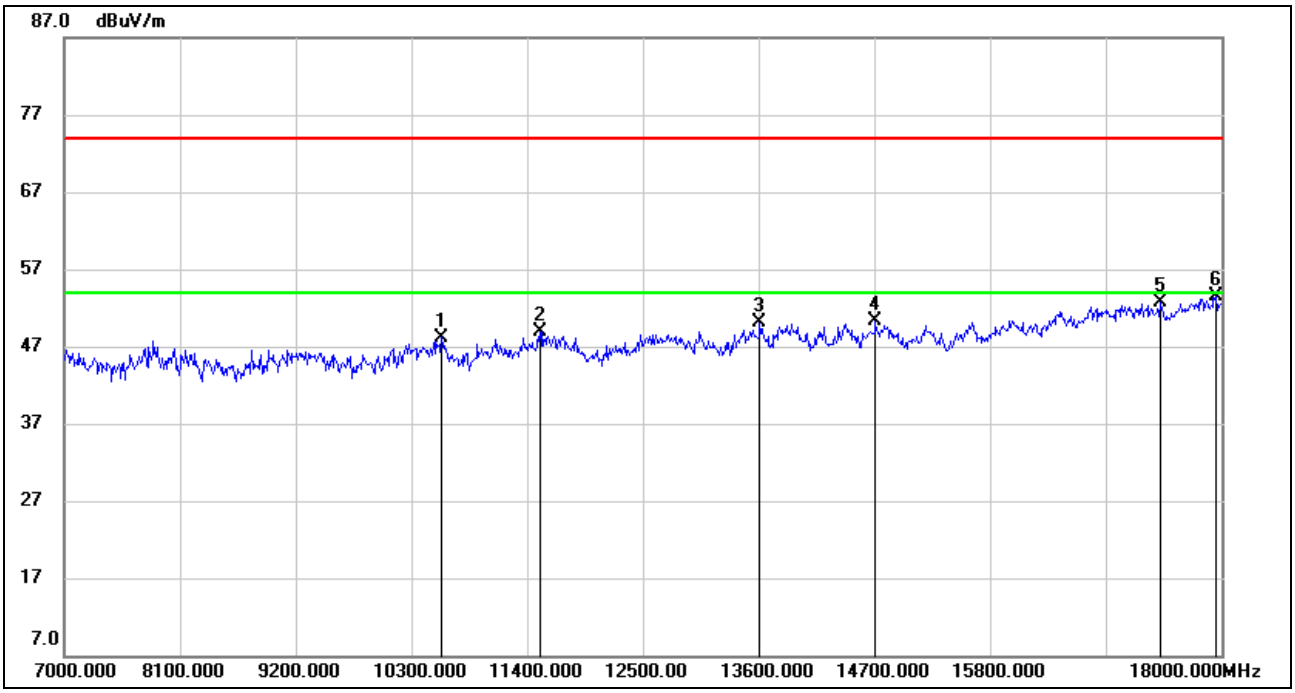
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10586.000	35.90	12.30	48.20	74.00	-25.80	peak
2	11521.000	35.48	13.40	48.88	74.00	-25.12	peak
3	13611.000	33.96	16.10	50.06	74.00	-23.94	peak
4	14711.000	34.01	16.21	50.22	74.00	-23.78	peak
5	17417.000	31.19	21.52	52.71	74.00	-21.29	peak
6	17945.000	29.96	23.46	53.42	74.00	-20.58	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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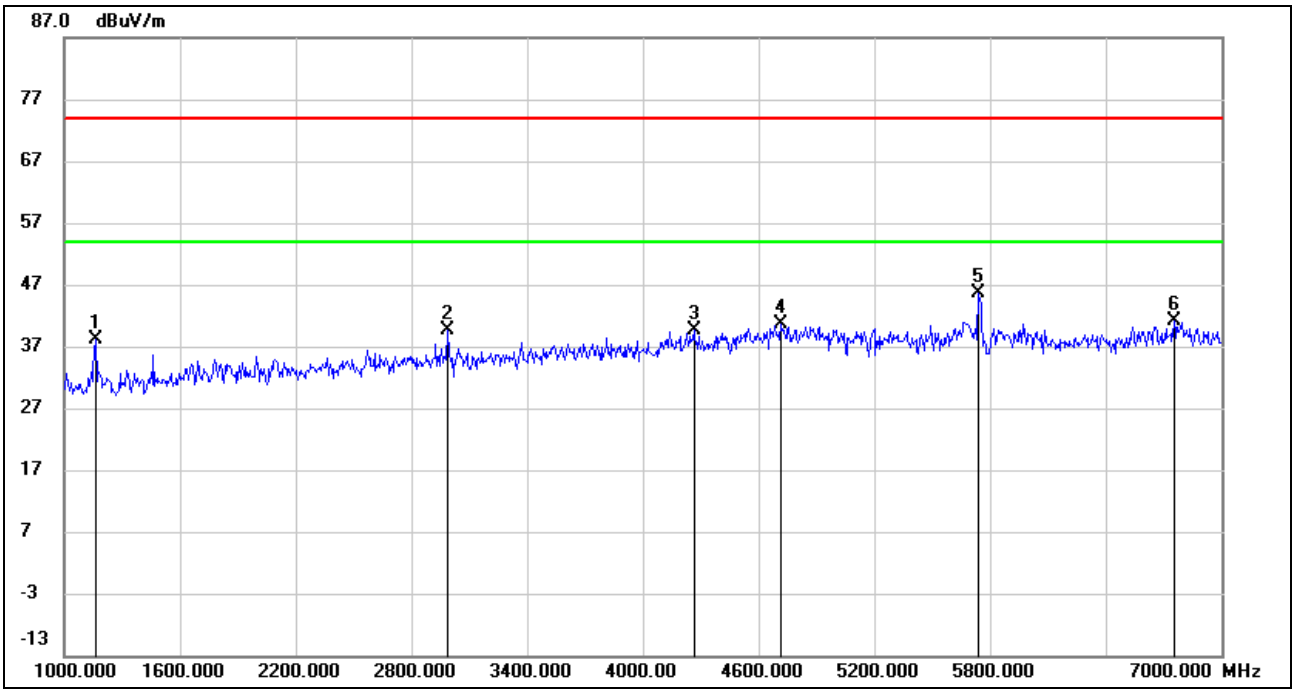
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1162.000	51.45	-13.26	38.19	74.00	-35.81	peak
2	2986.000	45.72	-6.13	39.59	74.00	-34.41	peak
3	4264.000	41.41	-1.84	39.57	74.00	-34.43	peak
4	4714.000	40.61	0.02	40.63	74.00	-33.37	peak
5	5745.000	43.55	1.96	45.51	/	/	fundamental
6	6754.000	36.60	4.45	41.05	74.00	-32.95	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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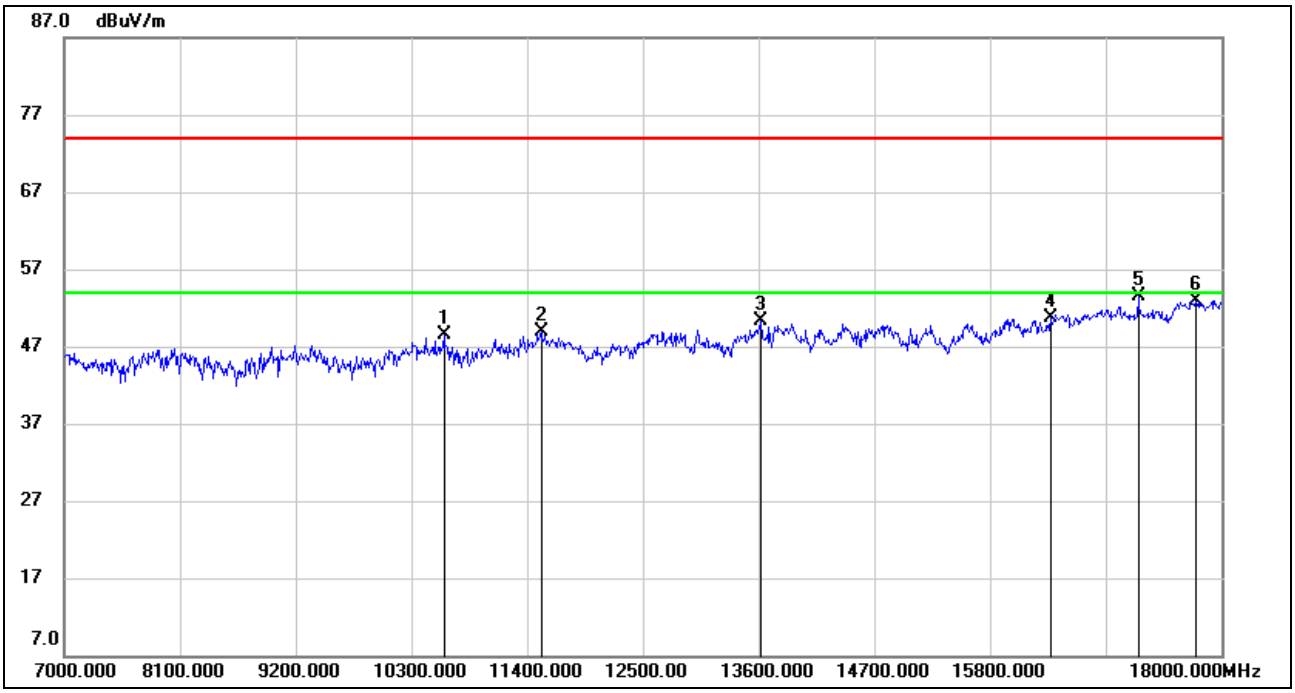
VERTICAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10608.000	36.05	12.39	48.44	74.00	-25.56	peak
2	11532.000	35.50	13.42	48.92	74.00	-25.08	peak
3	13622.000	34.13	16.08	50.21	74.00	-23.79	peak
4	16372.000	31.67	19.05	50.72	74.00	-23.28	peak
5	17208.000	32.33	21.26	53.59	74.00	-20.41	peak
6	17758.000	29.96	23.03	52.99	74.00	-21.01	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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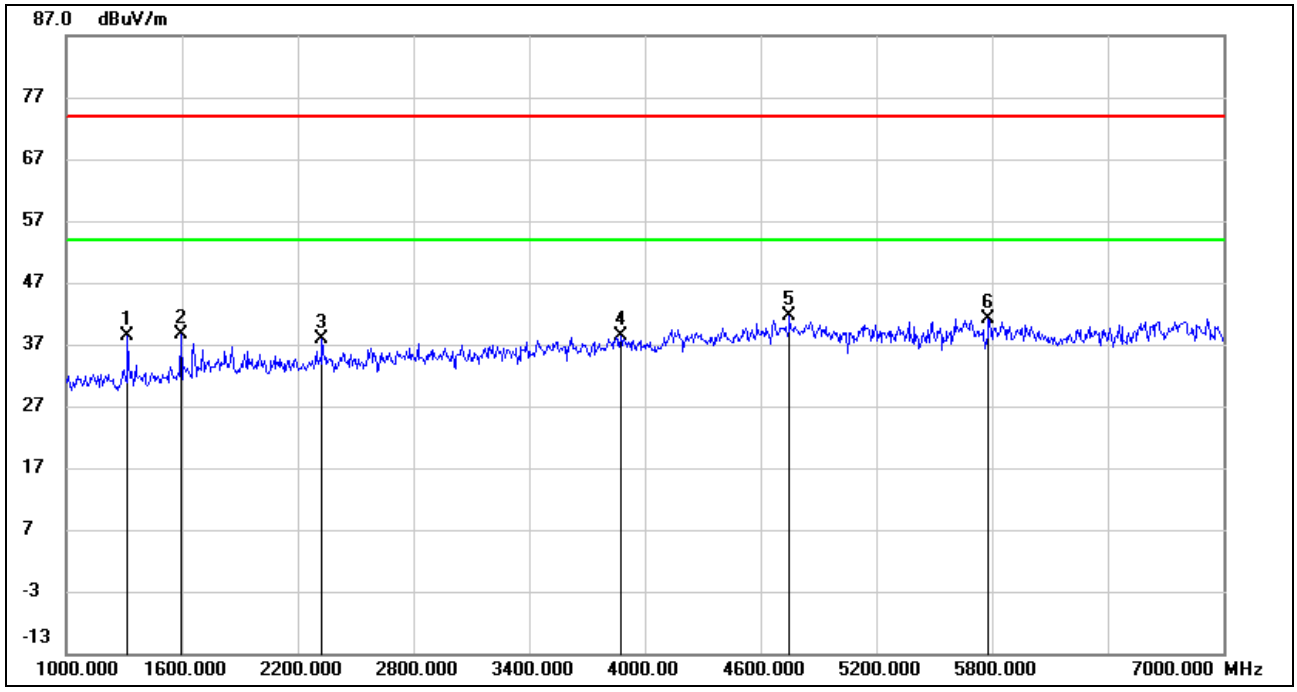
HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1318.000	51.27	-12.90	38.37	74.00	-35.63	peak
2	1594.000	50.34	-11.66	38.68	74.00	-35.32	peak
3	2326.000	46.62	-8.83	37.79	74.00	-36.21	peak
4	3874.000	41.87	-3.56	38.31	74.00	-35.69	peak
5	4750.000	41.32	0.23	41.55	74.00	-32.45	peak
6	5785.000	39.26	1.95	41.21	/	/	fundamental

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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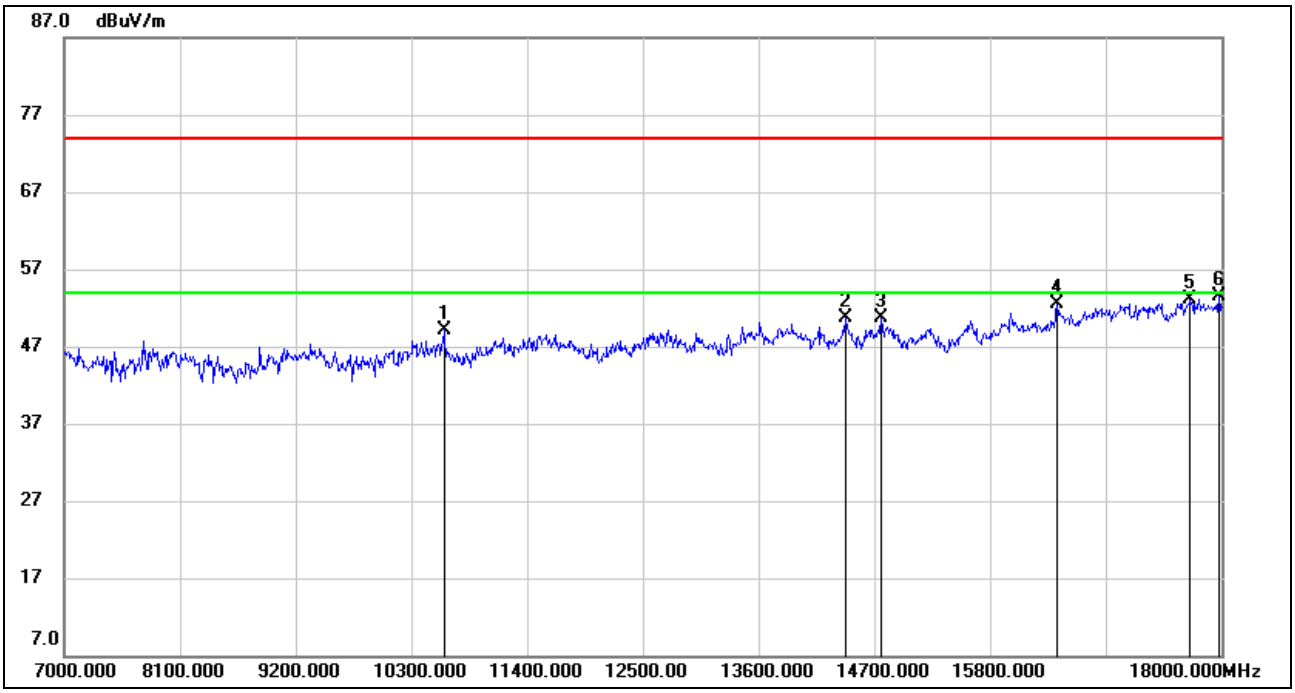
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10608.000	36.69	12.39	49.08	74.00	-24.92	peak
2	14425.000	34.09	16.65	50.74	74.00	-23.26	peak
3	14766.000	34.65	16.11	50.76	74.00	-23.24	peak
4	16438.000	33.07	19.41	52.48	74.00	-21.52	peak
5	17703.000	30.59	22.52	53.11	74.00	-20.89	peak
6	17978.000	29.99	23.51	53.50	74.00	-20.50	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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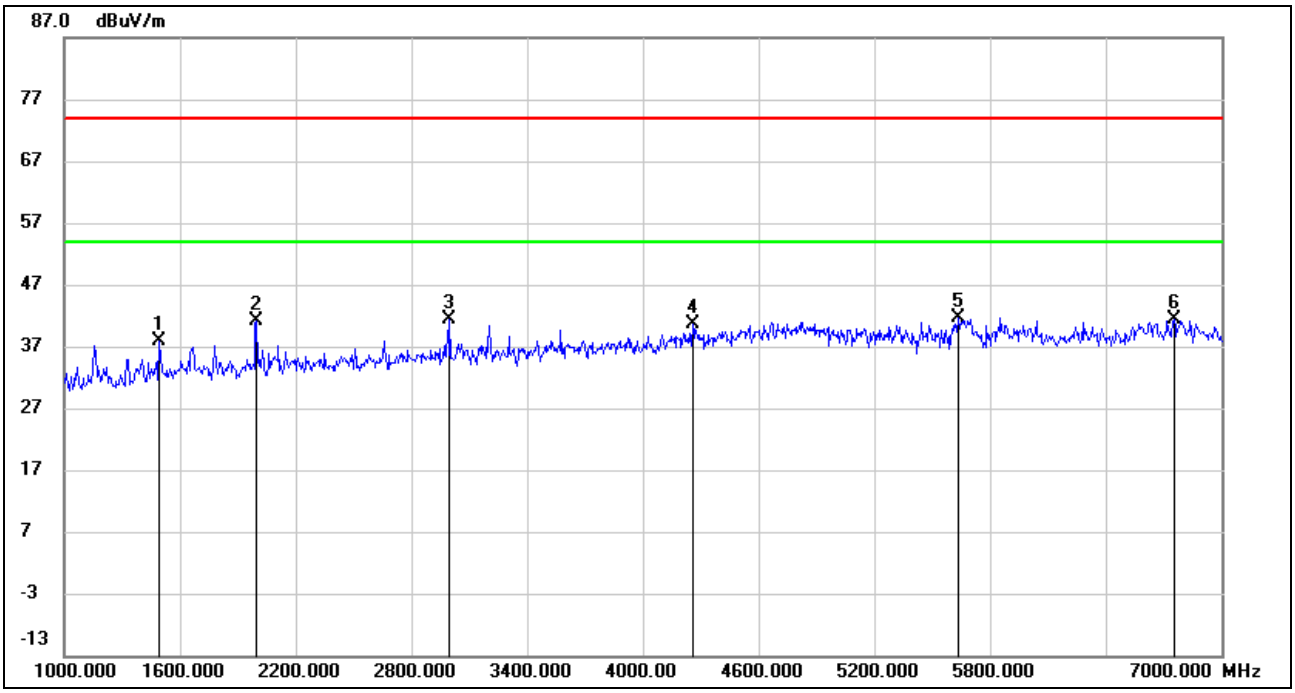
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1492.000	50.11	-12.33	37.78	74.00	-36.22	peak
2	1996.000	51.28	-10.24	41.04	74.00	-32.96	peak
3	2998.000	47.43	-6.08	41.35	74.00	-32.65	peak
4	4258.000	42.37	-1.84	40.53	74.00	-33.47	peak
5	5638.000	39.68	2.01	41.69	74.00	-32.31	peak
6	6754.000	36.94	4.45	41.39	74.00	-32.61	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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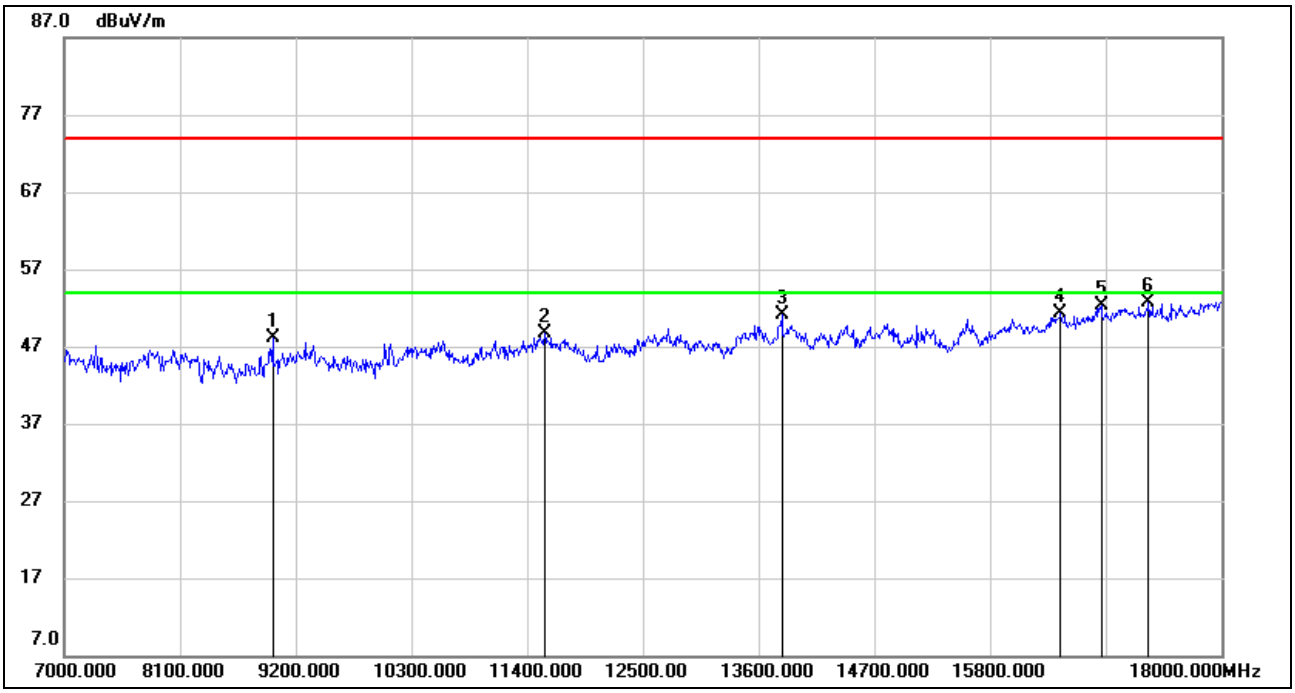
VERTICAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8980.000	38.80	9.23	48.03	74.00	-25.97	peak
2	11565.000	35.17	13.47	48.64	74.00	-25.36	peak
3	13820.000	34.12	16.89	51.01	74.00	-22.99	peak
4	16471.000	31.83	19.52	51.35	74.00	-22.65	peak
5	16856.000	32.11	20.13	52.24	74.00	-21.76	peak
6	17307.000	30.79	21.87	52.66	74.00	-21.34	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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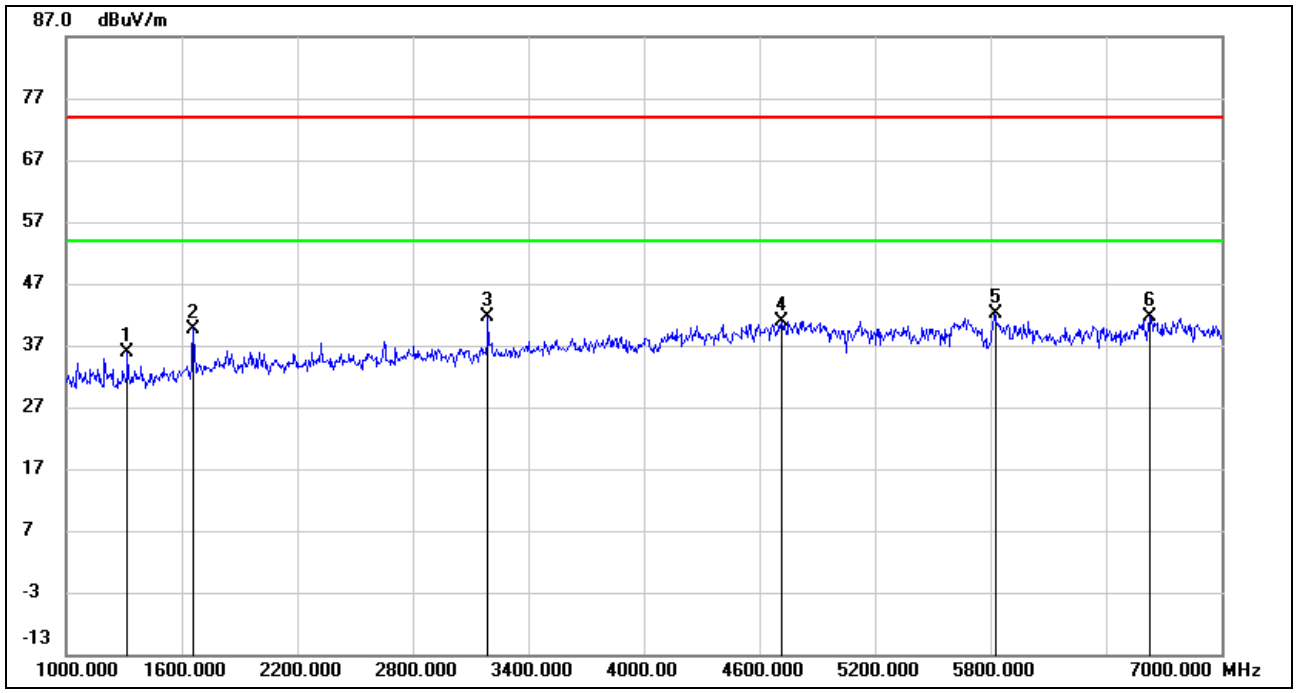
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1318.000	48.81	-12.90	35.91	74.00	-38.09	peak
2	1660.000	50.91	-11.16	39.75	74.00	-34.25	peak
3	3190.000	47.22	-5.69	41.53	74.00	-32.47	peak
4	4714.000	40.96	0.02	40.98	74.00	-33.02	peak
5	5825.000	39.99	2.03	42.02	/	/	fundamental
6	6628.000	37.18	4.47	41.65	74.00	-32.35	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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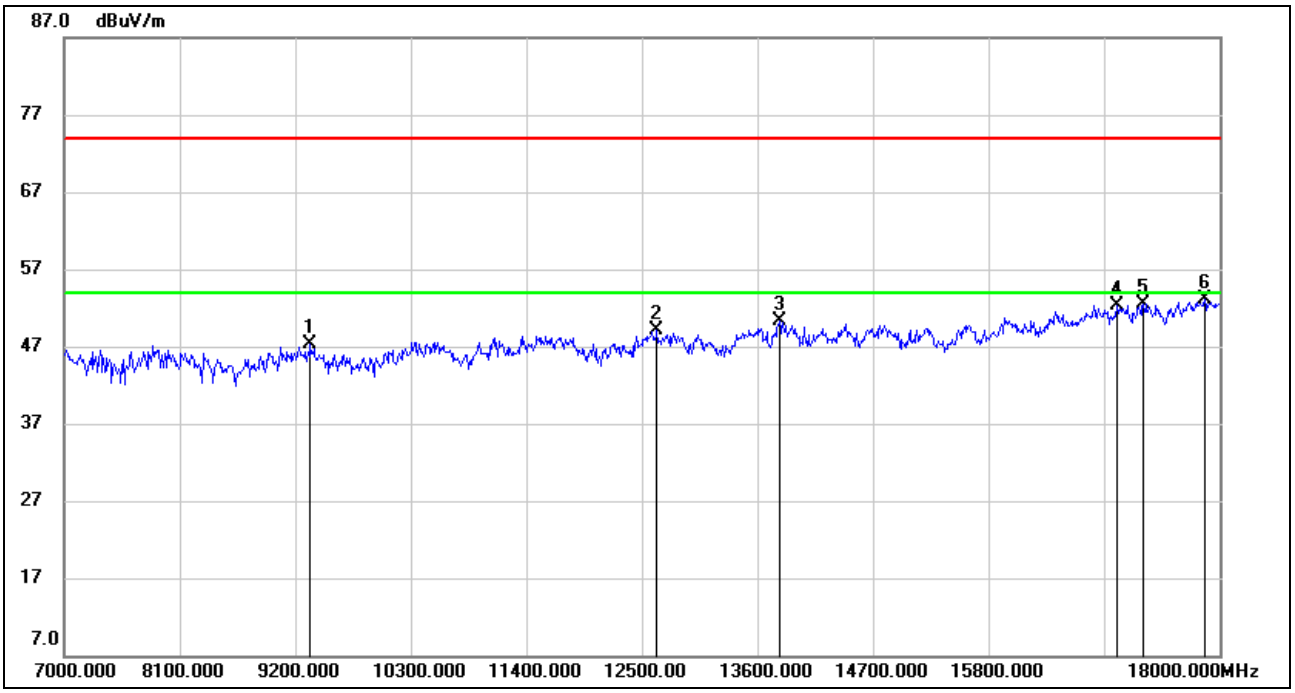
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9343.000	37.64	9.57	47.21	74.00	-26.79	peak
2	12643.000	34.79	14.29	49.08	74.00	-24.92	peak
3	13809.000	33.24	16.99	50.23	74.00	-23.77	peak
4	17021.000	31.63	20.69	52.32	74.00	-21.68	peak
5	17274.000	30.81	21.71	52.52	74.00	-21.48	peak
6	17857.000	29.60	23.41	53.01	74.00	-20.99	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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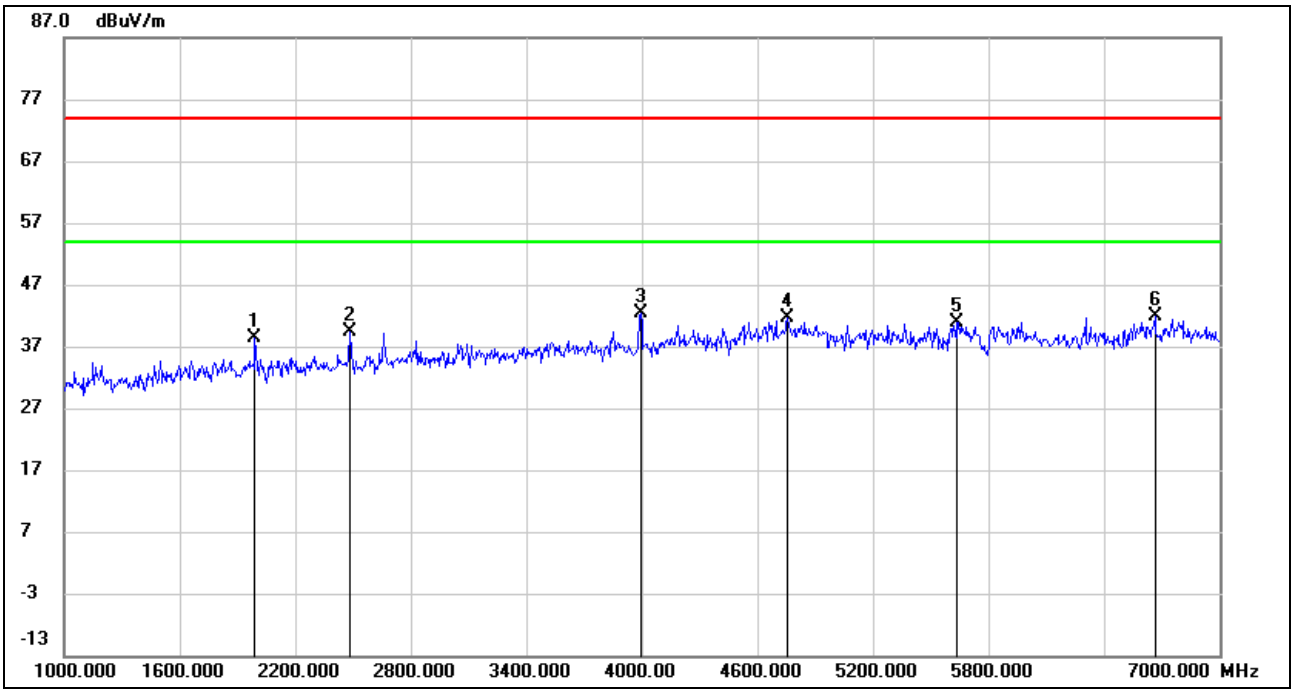
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1990.000	48.65	-10.24	38.41	74.00	-35.59	peak
2	2482.000	47.92	-8.50	39.42	74.00	-34.58	peak
3	3994.000	46.12	-3.73	42.39	74.00	-31.61	peak
4	4756.000	41.30	0.26	41.56	74.00	-32.44	peak
5	5632.000	38.83	2.01	40.84	74.00	-33.16	peak
6	6664.000	37.39	4.47	41.86	74.00	-32.14	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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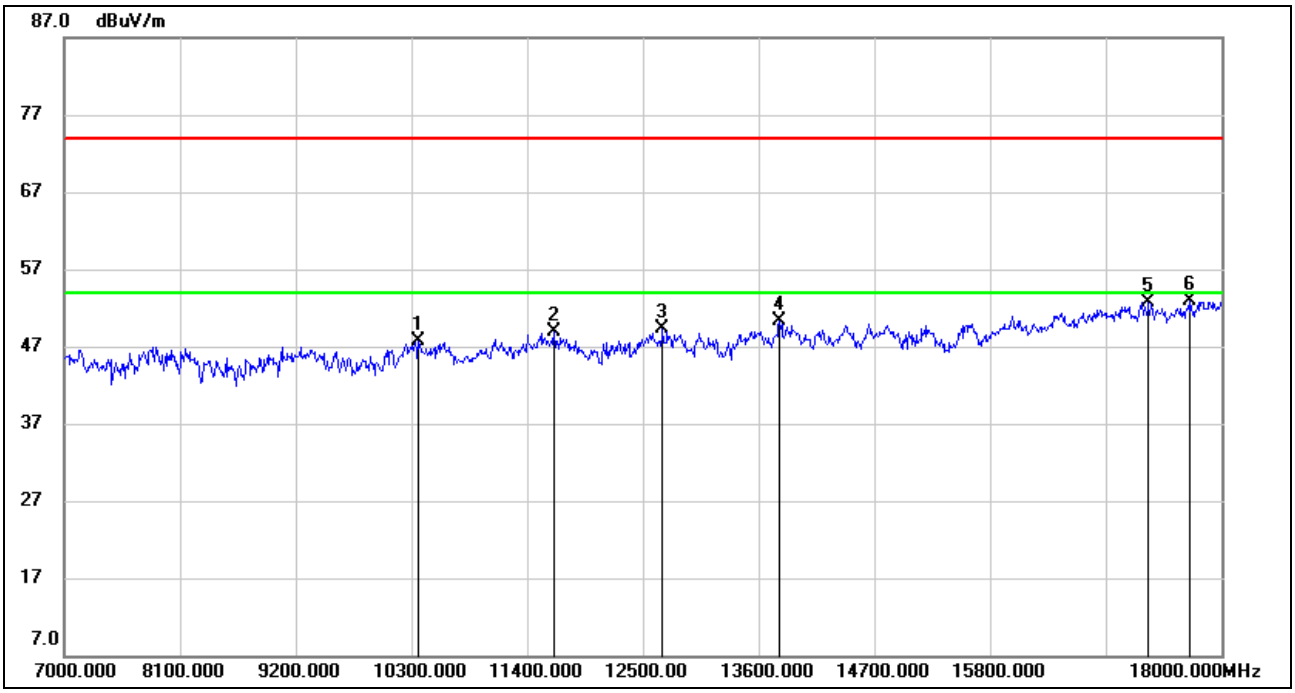
VERTICAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10366.000	36.57	11.22	47.79	74.00	-26.21	peak
2	11653.000	35.60	13.28	48.88	74.00	-25.12	peak
3	12687.000	34.81	14.40	49.21	74.00	-24.79	peak
4	13798.000	33.28	17.05	50.33	74.00	-23.67	peak
5	17307.000	30.85	21.87	52.72	74.00	-21.28	peak
6	17703.000	30.43	22.52	52.95	74.00	-21.05	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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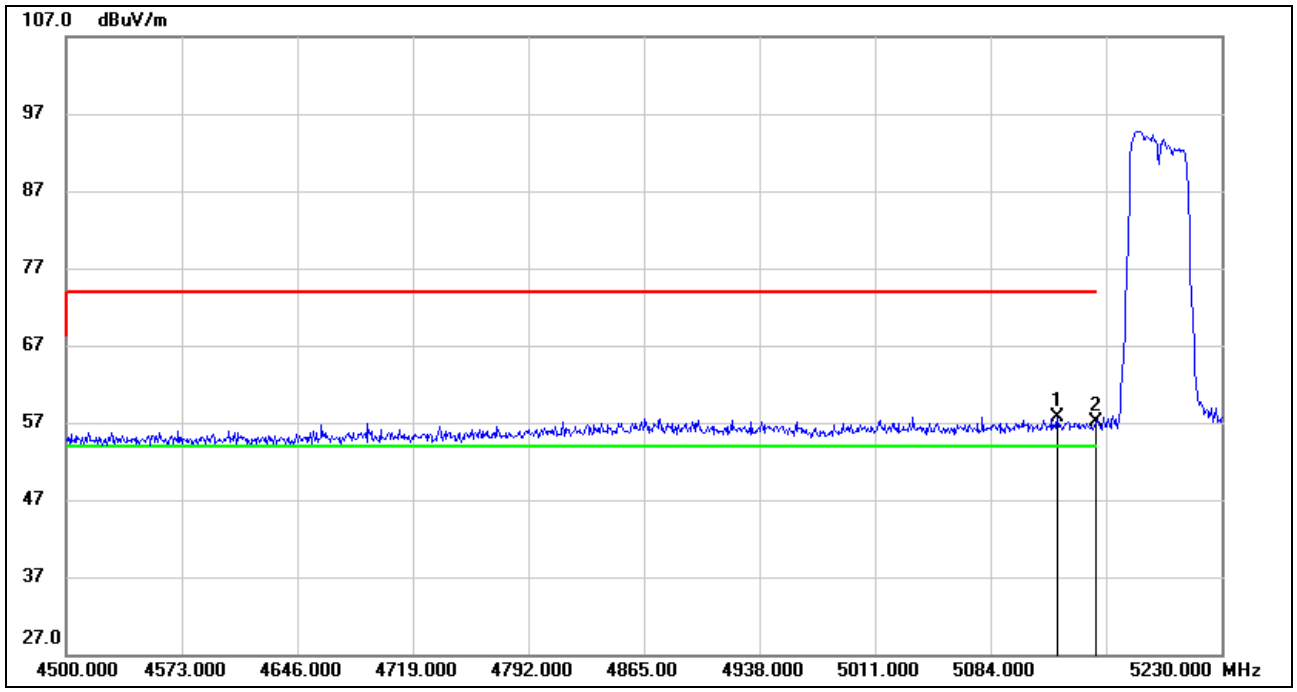
8.3. 802.11n HT40 MODE

8.3.1. UNII-1 BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5126.340	17.42	40.33	57.75	74.00	-16.25	peak
2	5150.000	16.63	40.46	57.09	74.00	-16.91	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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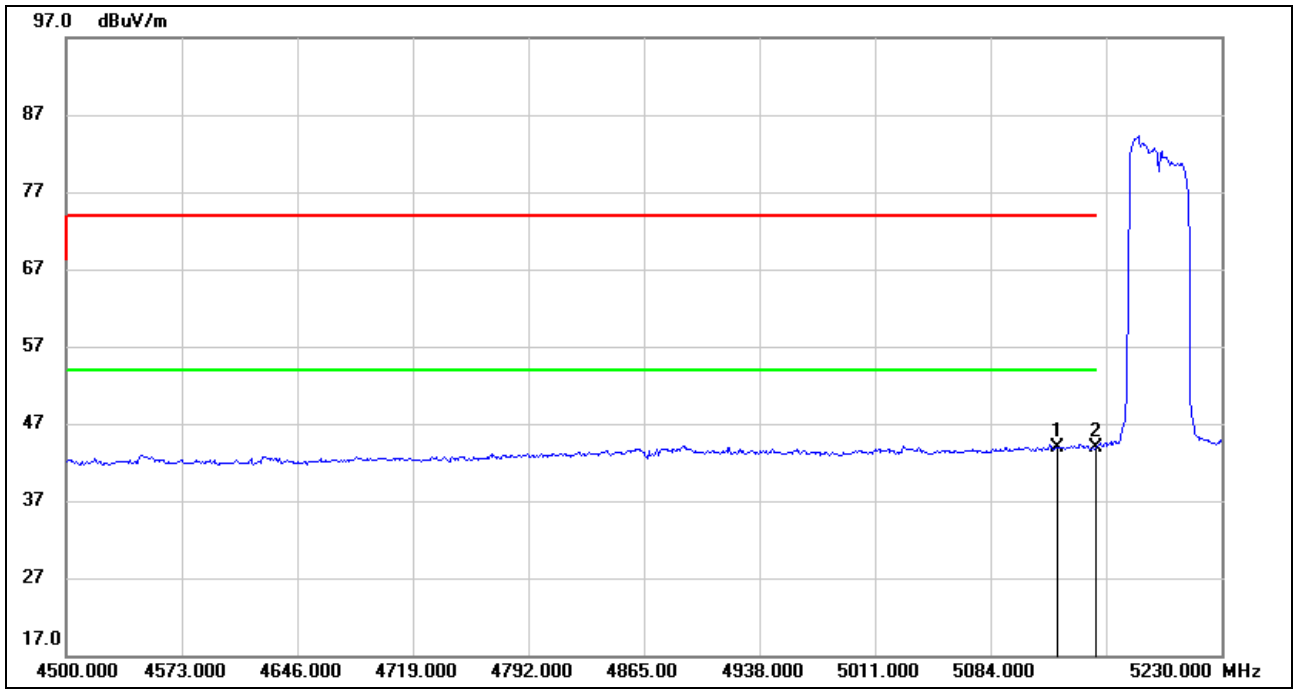
AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5126.340	3.53	40.33	43.86	54.00	-10.14	AVG
2	5150.000	3.46	40.46	43.92	54.00	-10.08	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton where: ton is transmit duration.
3. For duty cycle, please refer to clause 7.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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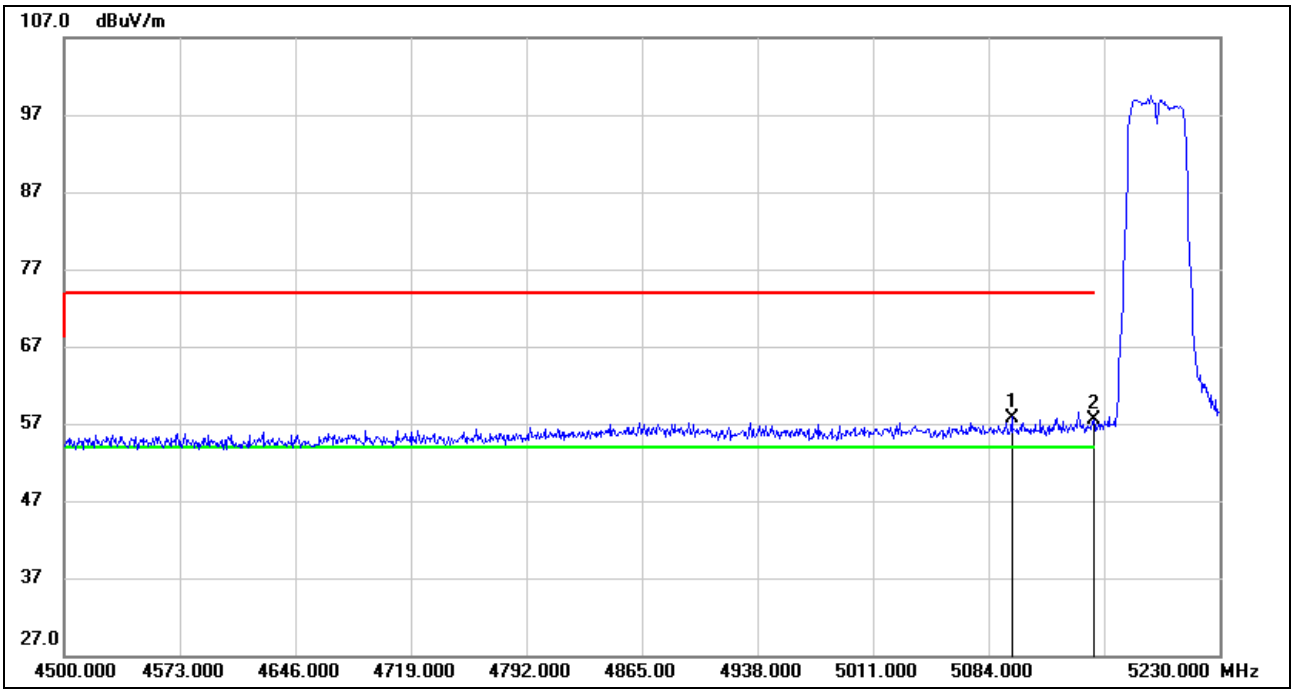
VERTICAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5098.600	17.62	40.18	57.80	74.00	-16.20	peak
2	5150.000	17.07	40.46	57.53	74.00	-16.47	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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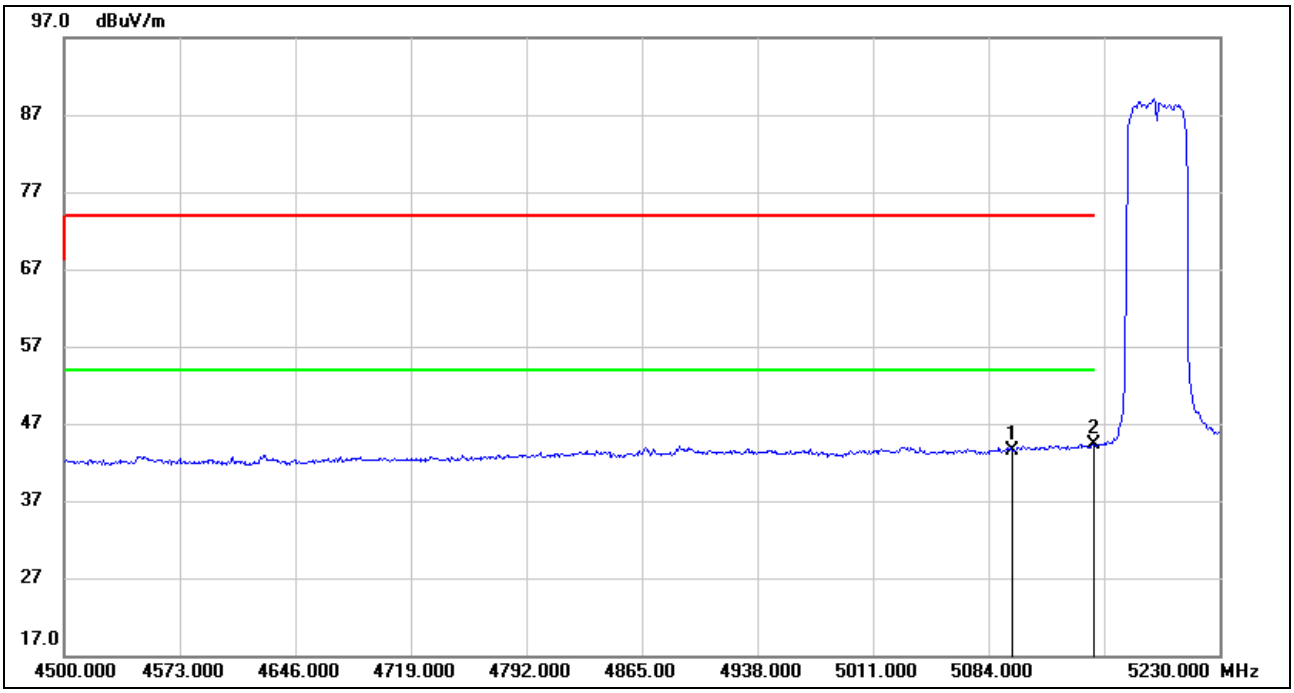
AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5098.600	3.40	40.18	43.58	54.00	-10.42	AVG
2	5150.000	3.90	40.46	44.36	54.00	-9.64	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton where: ton is transmit duration.
3. For duty cycle, please refer to clause 7.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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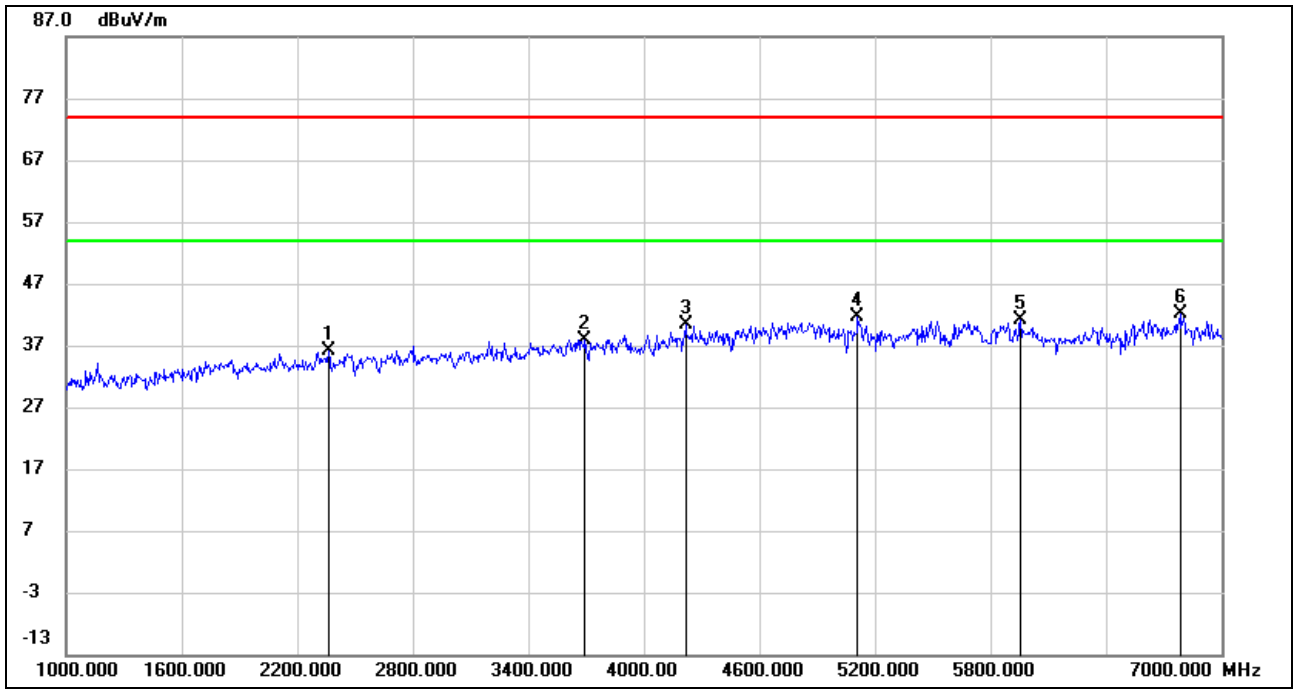
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.000	44.87	-8.73	36.14	74.00	-37.86	peak
2	3694.000	41.86	-3.99	37.87	74.00	-36.13	peak
3	4216.000	42.24	-1.80	40.44	74.00	-33.56	peak
4	5110.000	40.26	1.43	41.69	74.00	-32.31	peak
5	5956.000	38.74	2.46	41.20	74.00	-32.80	peak
6	6784.000	37.71	4.44	42.15	74.00	-31.85	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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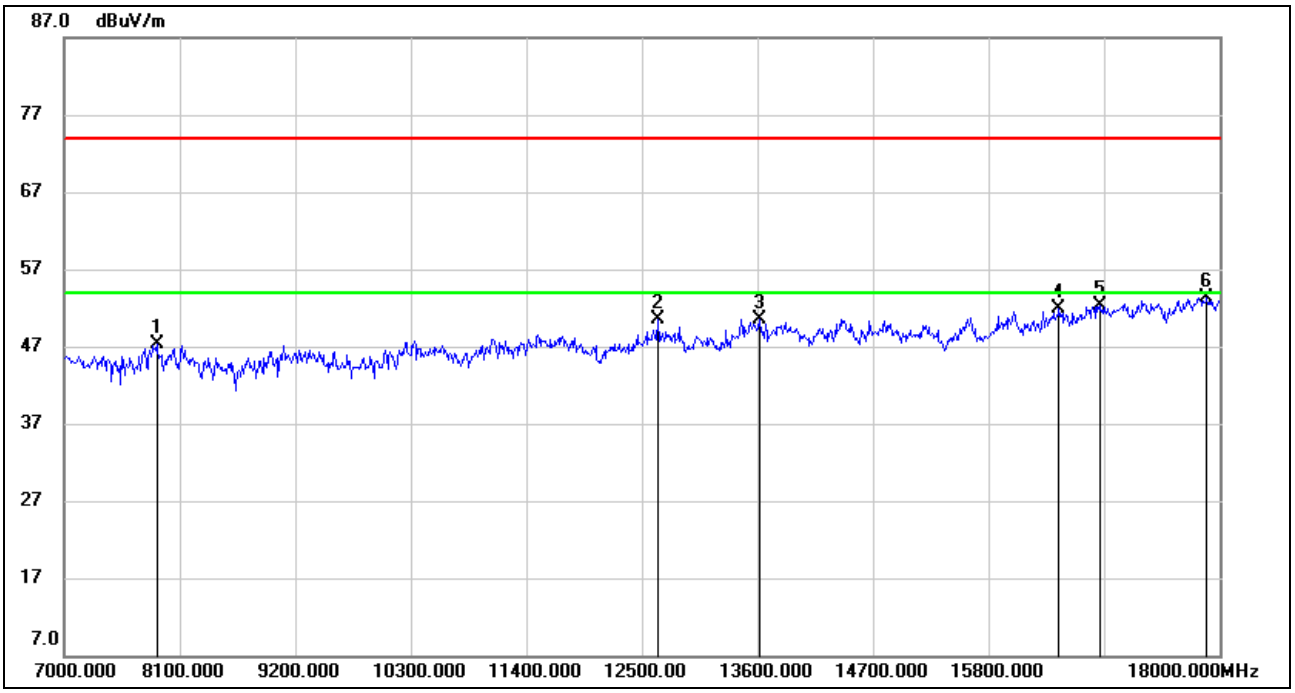
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7880.000	39.50	7.72	47.22	74.00	-26.78	peak
2	12654.000	36.17	14.31	50.48	74.00	-23.52	peak
3	13622.000	34.50	16.08	50.58	74.00	-23.42	peak
4	16471.000	32.46	19.52	51.98	74.00	-22.02	peak
5	16867.000	32.26	20.13	52.39	74.00	-21.61	peak
6	17879.000	29.91	23.40	53.31	74.00	-20.69	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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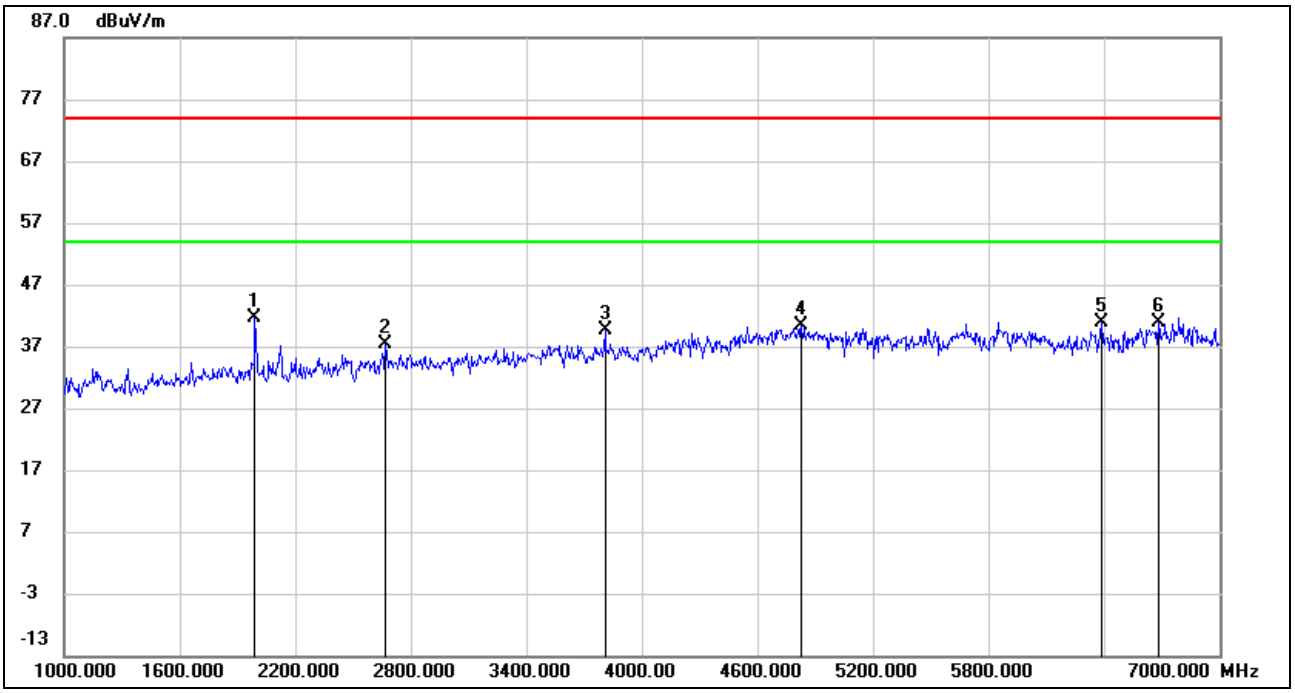
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1990.000	51.85	-10.24	41.61	74.00	-32.39	peak
2	2668.000	45.07	-7.76	37.31	74.00	-36.69	peak
3	3808.000	42.99	-3.46	39.53	74.00	-34.47	peak
4	4828.000	39.91	0.56	40.47	74.00	-33.53	peak
5	6388.000	37.49	3.40	40.89	74.00	-33.11	peak
6	6682.000	36.52	4.47	40.99	74.00	-33.01	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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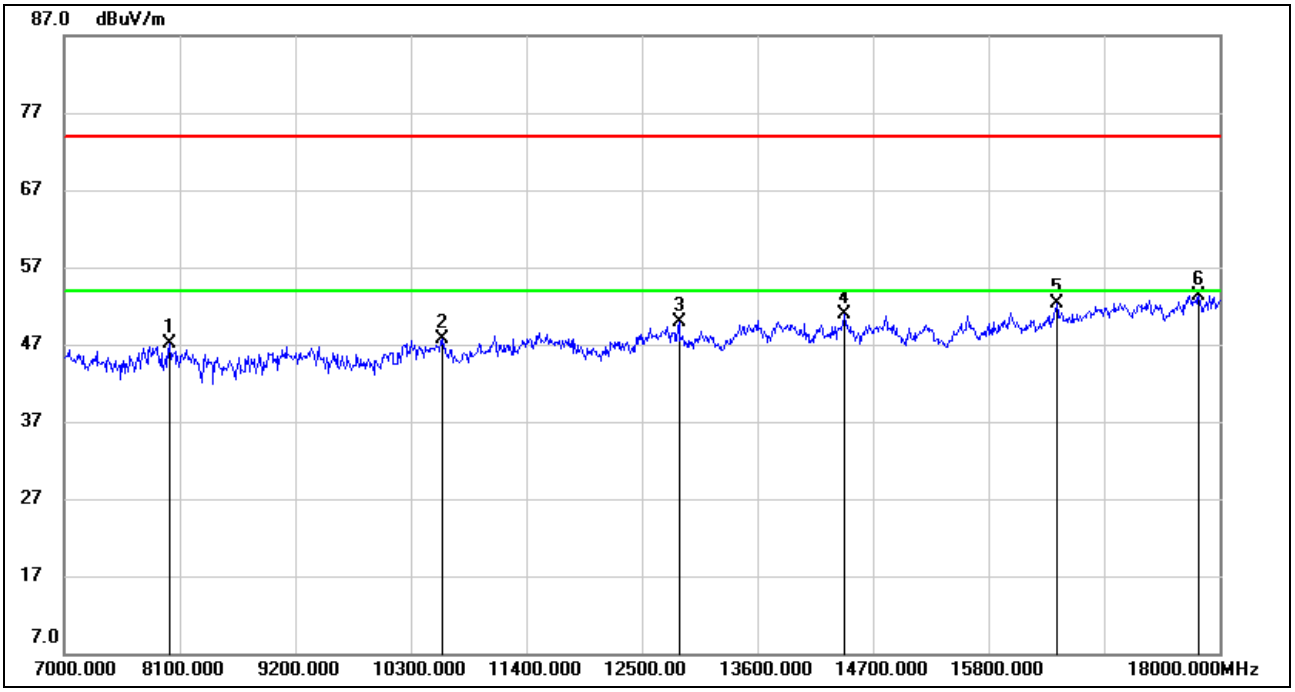
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8001.000	39.61	7.44	47.05	74.00	-26.95	peak
2	10597.000	35.34	12.43	47.77	74.00	-26.23	peak
3	12852.000	34.28	15.61	49.89	74.00	-24.11	peak
4	14425.000	34.20	16.65	50.85	74.00	-23.15	peak
5	16449.000	32.92	19.45	52.37	74.00	-21.63	peak
6	17802.000	29.87	23.41	53.28	74.00	-20.72	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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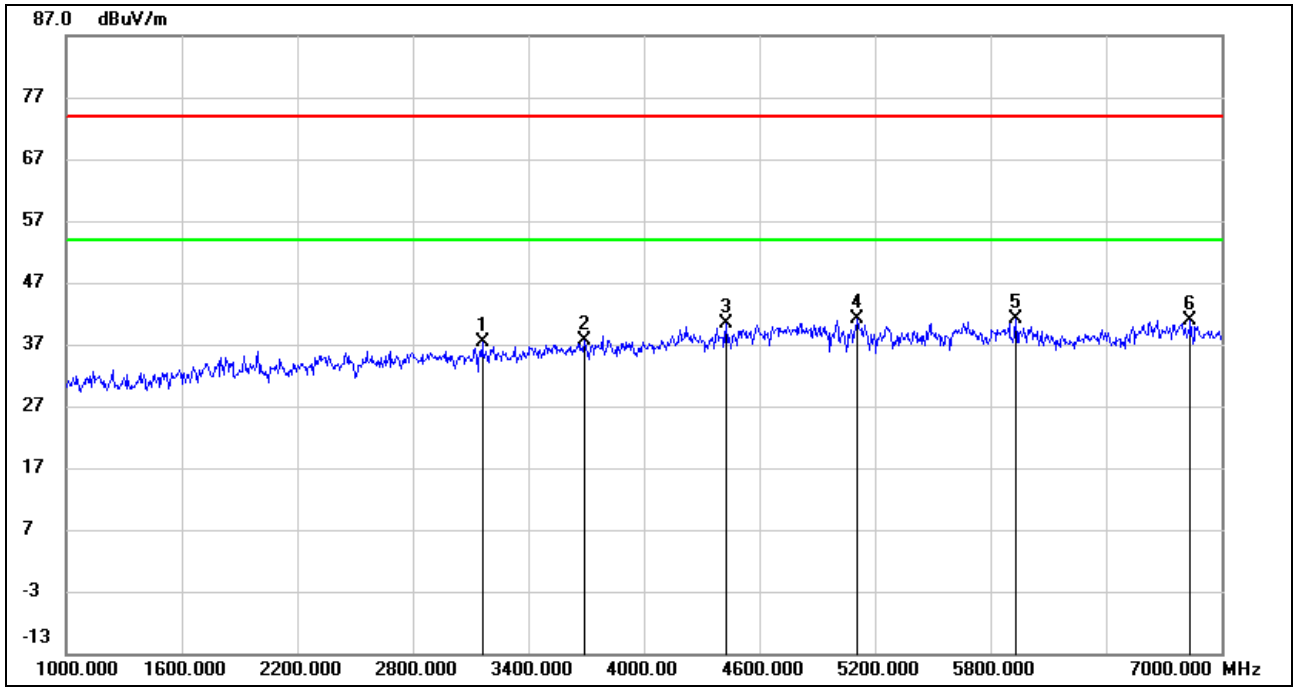
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3160.000	43.19	-5.75	37.44	74.00	-36.56	peak
2	3688.000	41.73	-4.02	37.71	74.00	-36.29	peak
3	4426.000	42.07	-1.80	40.27	74.00	-33.73	peak
4	5110.000	39.74	1.43	41.17	74.00	-32.83	peak
5	5932.000	38.81	2.38	41.19	74.00	-32.81	peak
6	6838.000	36.34	4.54	40.88	74.00	-33.12	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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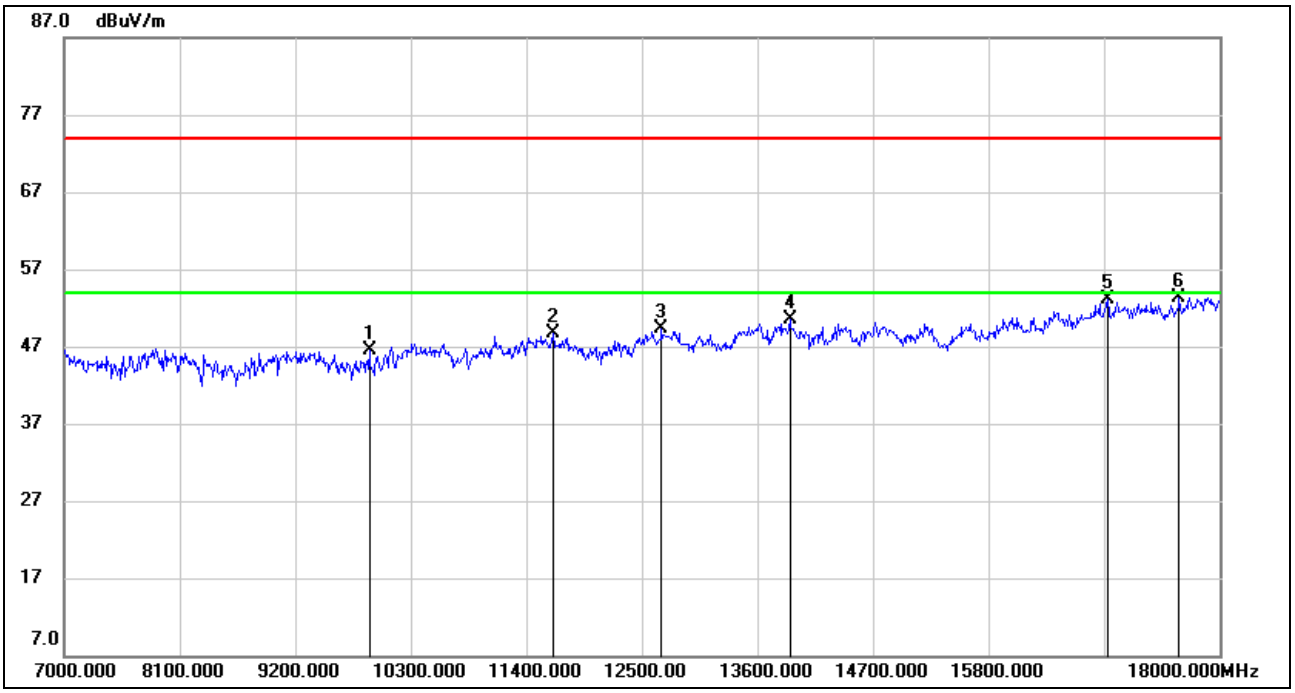
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9904.000	36.23	10.28	46.51	74.00	-27.49	peak
2	11653.000	35.38	13.28	48.66	74.00	-25.34	peak
3	12687.000	34.87	14.40	49.27	74.00	-24.73	peak
4	13908.000	34.32	16.16	50.48	74.00	-23.52	peak
5	16933.000	32.74	20.28	53.02	74.00	-20.98	peak
6	17615.000	31.27	21.96	53.23	74.00	-20.77	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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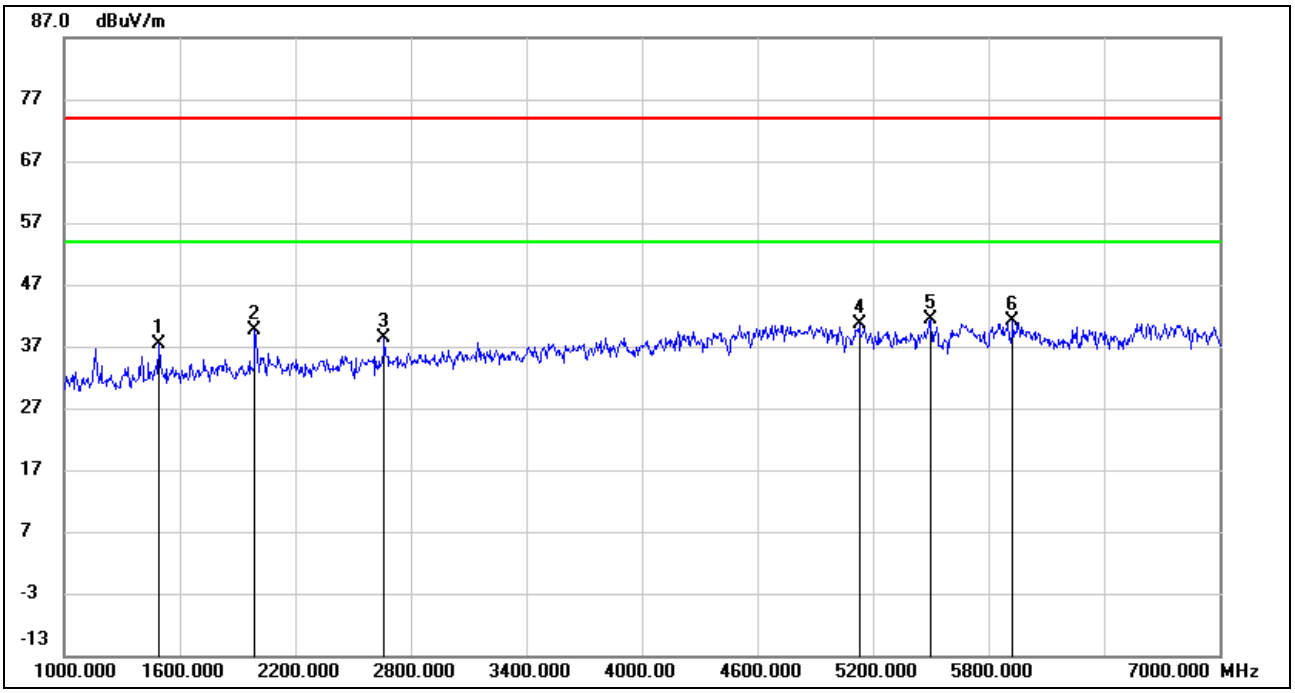
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1492.000	49.60	-12.33	37.27	74.00	-36.73	peak
2	1990.000	49.84	-10.24	39.60	74.00	-34.40	peak
3	2662.000	46.21	-7.80	38.41	74.00	-35.59	peak
4	5128.000	39.20	1.54	40.74	74.00	-33.26	peak
5	5500.000	39.63	1.80	41.43	74.00	-32.57	peak
6	5926.000	38.74	2.36	41.10	74.00	-32.90	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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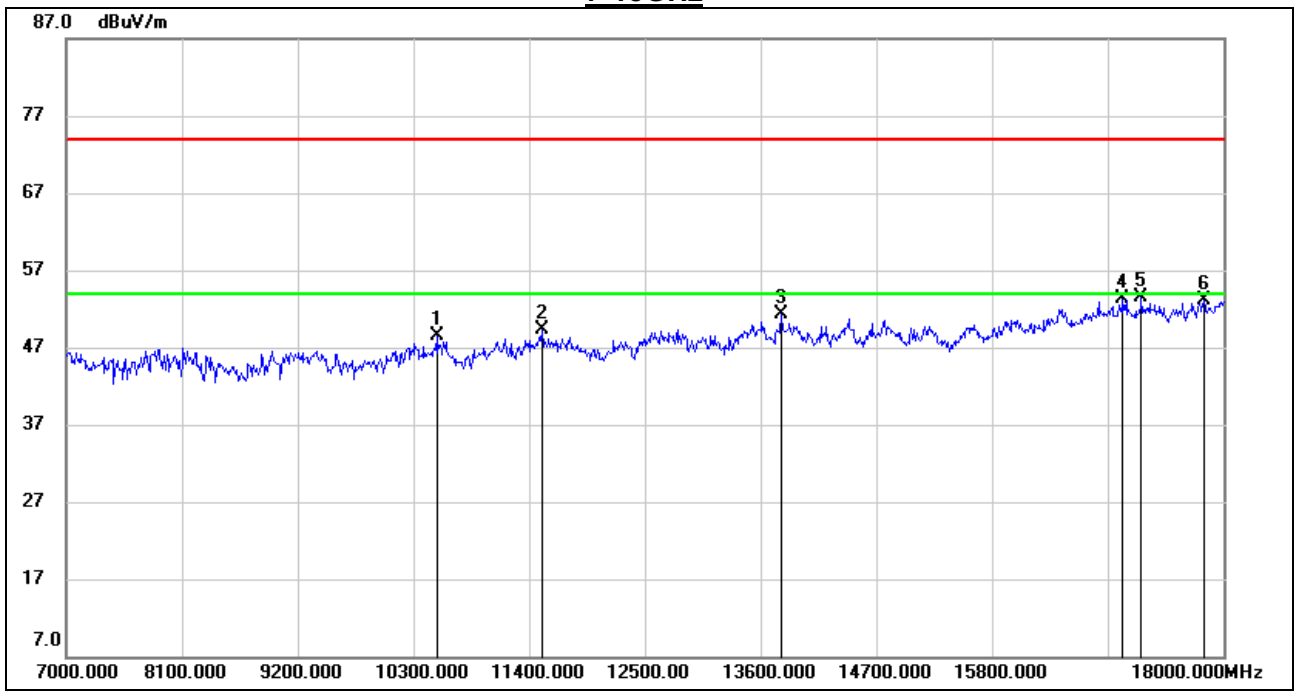
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10520.000	36.85	11.57	48.42	74.00	-25.58	peak
2	11521.000	35.86	13.40	49.26	74.00	-24.74	peak
3	13798.000	34.23	17.05	51.28	74.00	-22.72	peak
4	17043.000	32.56	20.74	53.30	74.00	-20.70	peak
5	17219.000	32.09	21.34	53.43	74.00	-20.57	peak
6	17813.000	29.68	23.41	53.09	74.00	-20.91	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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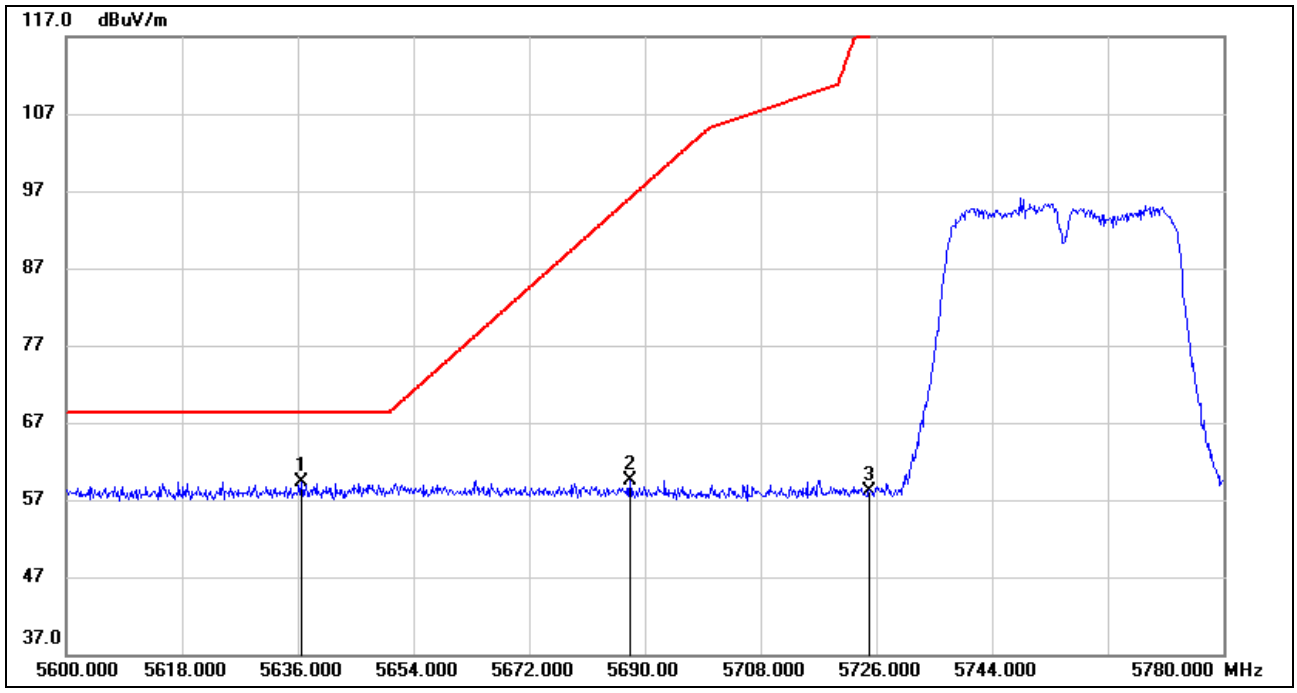
8.3.2. UNII-3 BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5636.540	17.92	41.47	59.39	68.20	-8.81	peak
2	5687.660	18.10	41.50	59.60	96.10	-36.50	peak
3	5725.000	16.57	41.61	58.18	122.20	-64.02	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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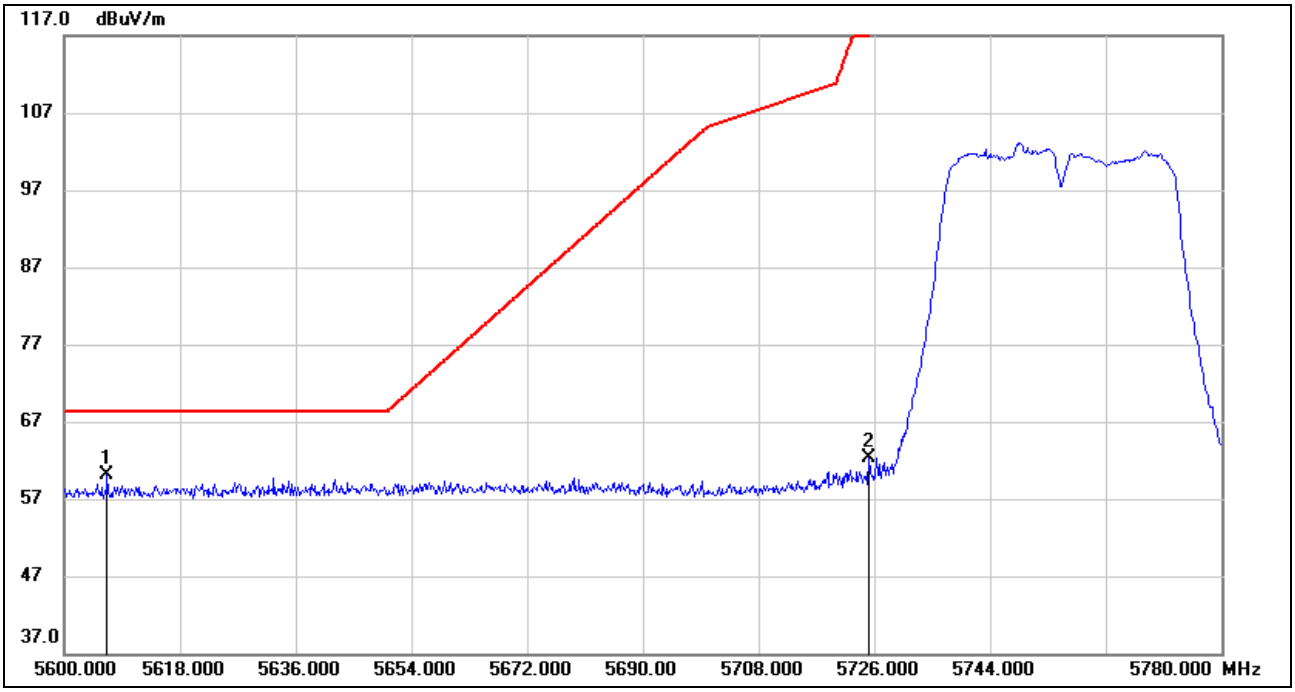
VERTICAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5606.660	18.56	41.46	60.02	68.20	-8.18	peak
2	5725.000	20.73	41.61	62.34	122.20	-59.86	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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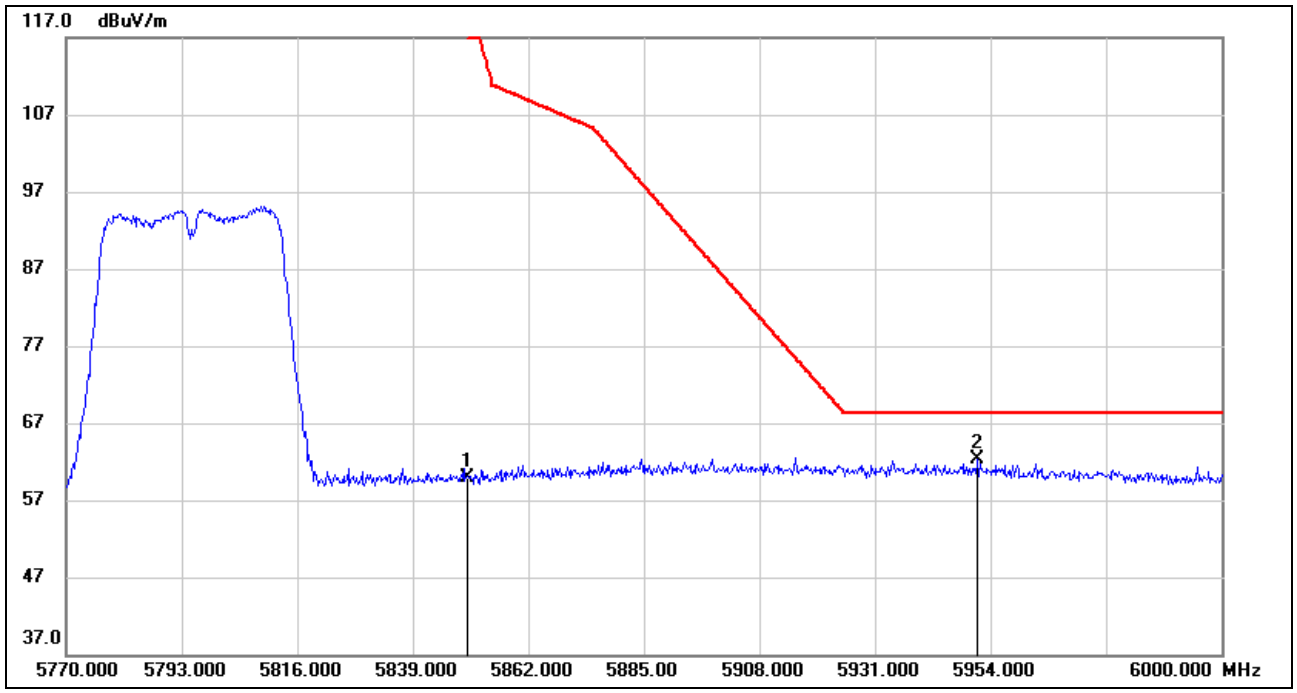
RESTRICTED BANDEDGE HIGH CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	17.10	42.89	59.99	122.20	-62.21	peak
2	5951.470	19.33	42.97	62.30	68.20	-5.90	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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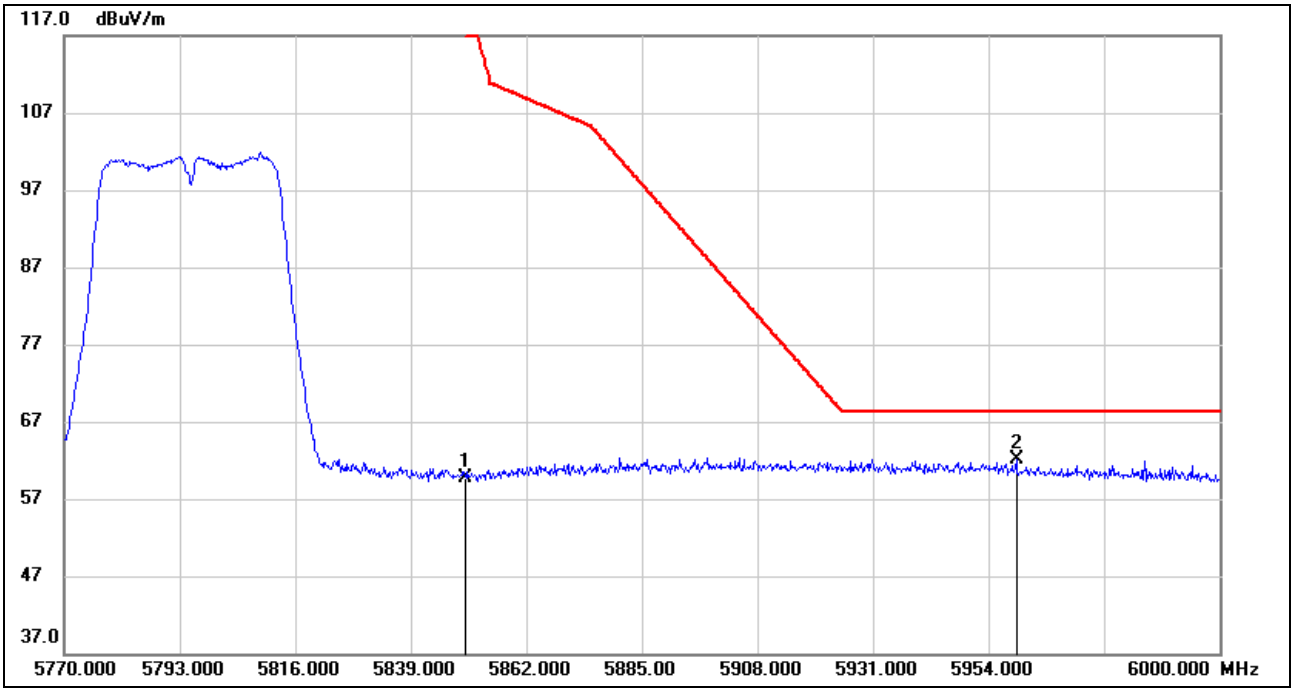
VERTICAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	16.89	42.89	59.78	122.20	-62.42	peak
2	5959.520	19.32	42.83	62.15	68.20	-6.05	peak

Note: 1. Measurement = Reading Level + Correct Factor.

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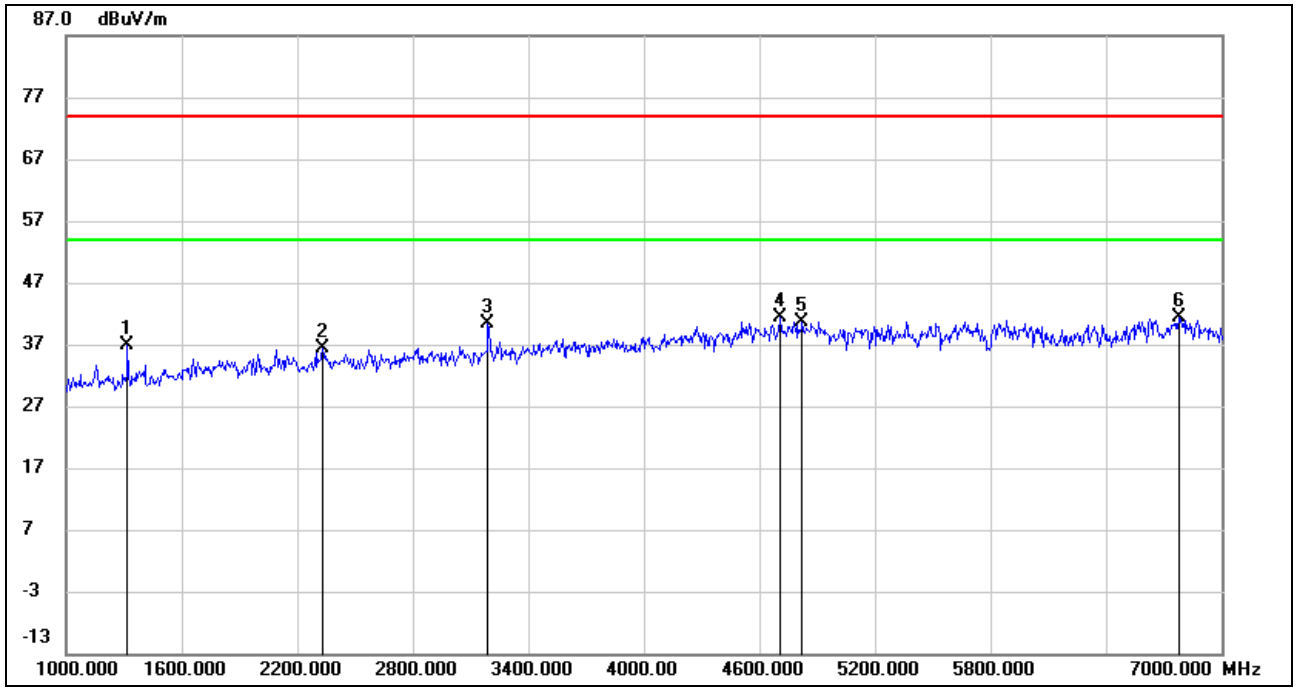
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1318.000	49.73	-12.90	36.83	74.00	-37.17	peak
2	2332.000	45.10	-8.80	36.30	74.00	-37.70	peak
3	3190.000	46.05	-5.69	40.36	74.00	-33.64	peak
4	4708.000	41.31	-0.01	41.30	74.00	-32.70	peak
5	4822.000	40.16	0.56	40.72	74.00	-33.28	peak
6	6778.000	36.91	4.44	41.35	74.00	-32.65	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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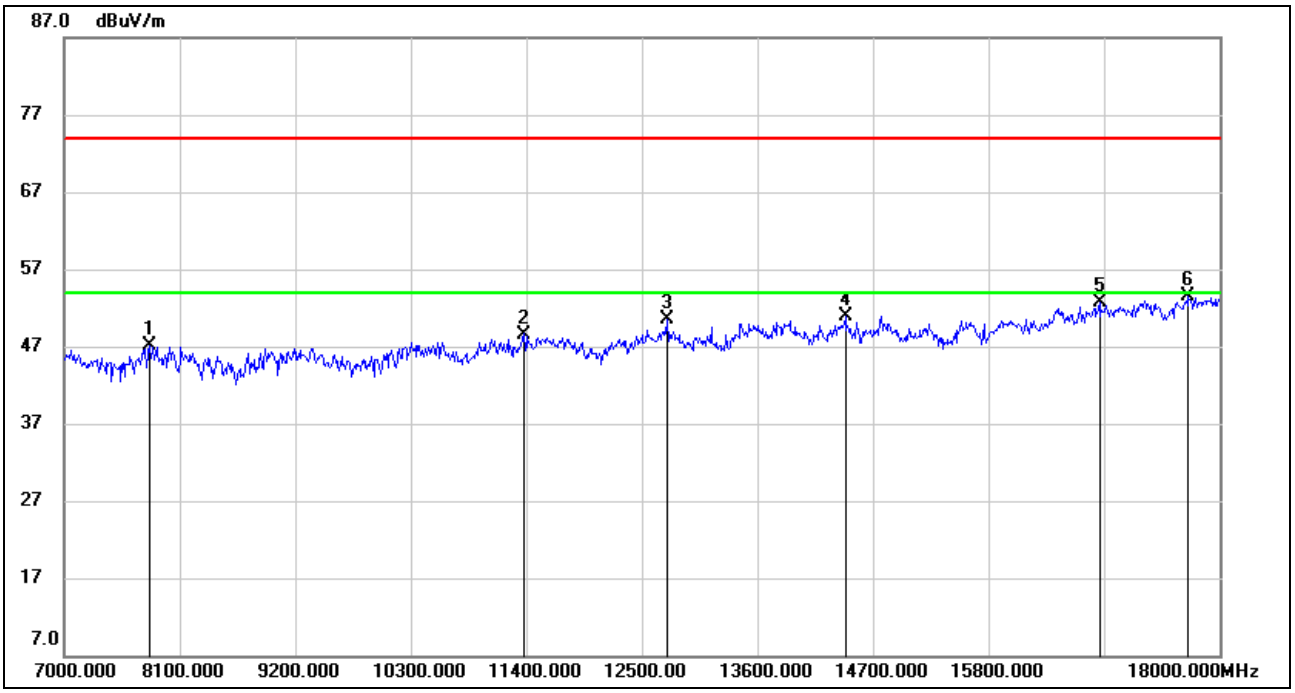
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7814.000	39.00	8.10	47.10	74.00	-26.90	peak
2	11378.000	35.97	12.63	48.60	74.00	-25.40	peak
3	12742.000	35.29	15.16	50.45	74.00	-23.55	peak
4	14436.000	34.33	16.64	50.97	74.00	-23.03	peak
5	16856.000	32.58	20.13	52.71	74.00	-21.29	peak
6	17703.000	30.98	22.52	53.50	74.00	-20.50	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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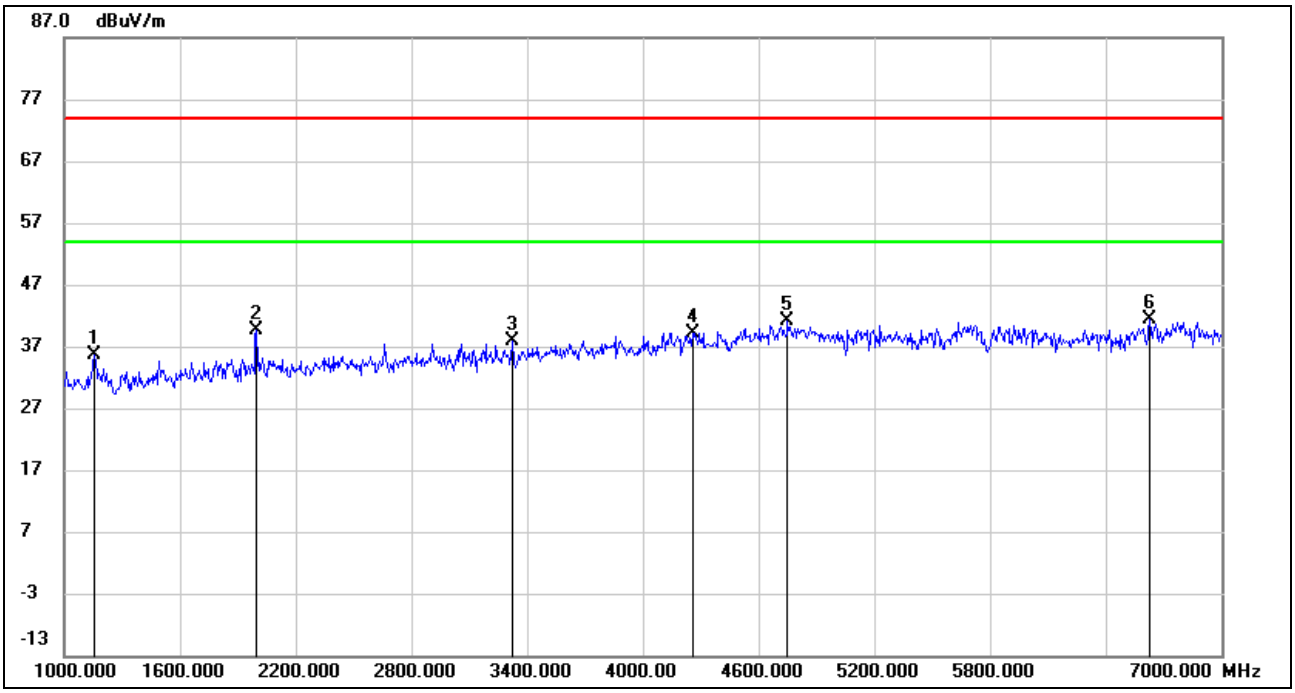
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1156.000	49.03	-13.29	35.74	74.00	-38.26	peak
2	1996.000	49.83	-10.24	39.59	74.00	-34.41	peak
3	3322.000	43.45	-5.53	37.92	74.00	-36.08	peak
4	4258.000	41.01	-1.84	39.17	74.00	-34.83	peak
5	4750.000	41.01	0.23	41.24	74.00	-32.76	peak
6	6628.000	36.81	4.47	41.28	74.00	-32.72	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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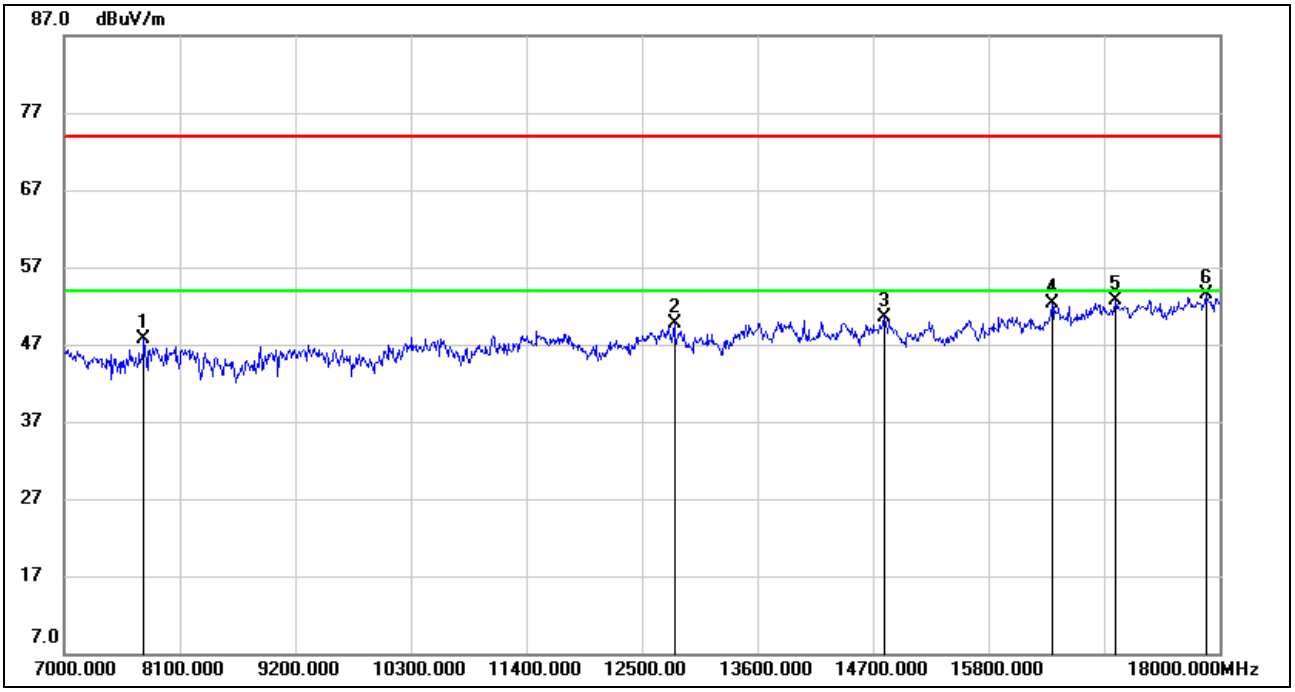
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7759.000	39.98	7.63	47.61	74.00	-26.39	peak
2	12808.000	33.67	16.09	49.76	74.00	-24.24	peak
3	14810.000	34.50	16.07	50.57	74.00	-23.43	peak
4	16405.000	33.10	19.29	52.39	74.00	-21.61	peak
5	17010.000	32.01	20.67	52.68	74.00	-21.32	peak
6	17868.000	30.05	23.40	53.45	74.00	-20.55	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
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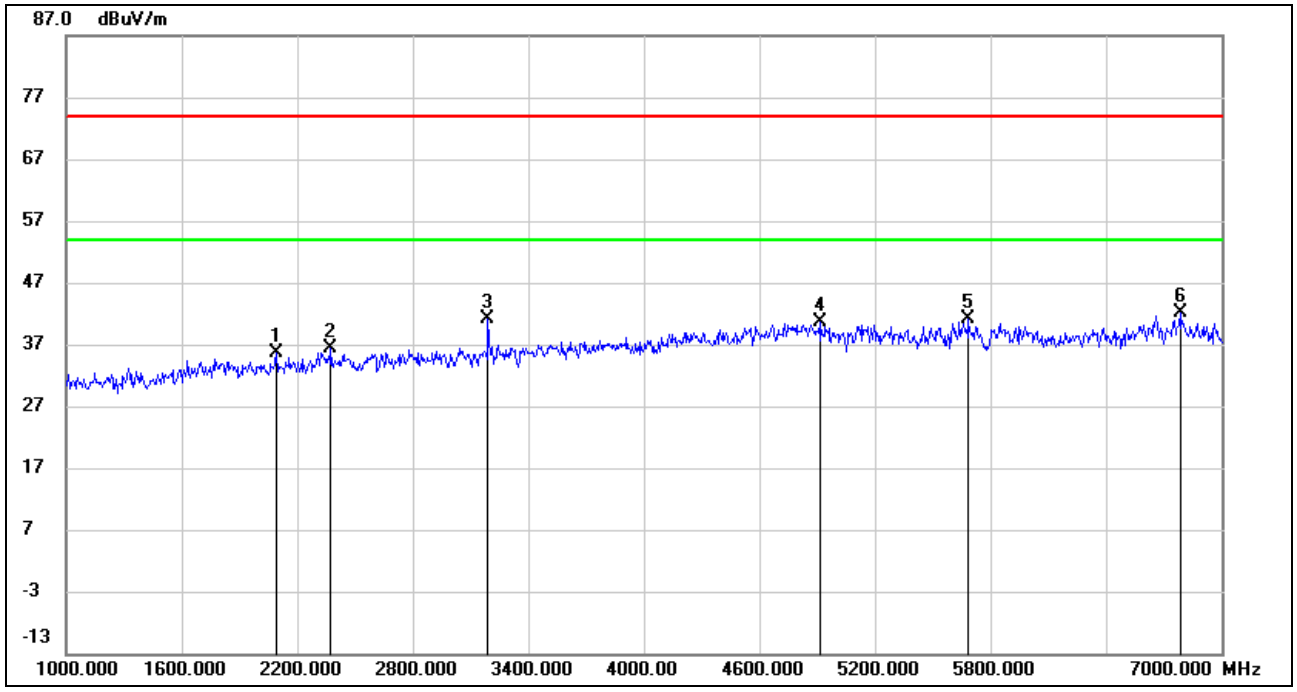
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2092.000	45.26	-9.75	35.51	74.00	-38.49	peak
2	2374.000	45.02	-8.69	36.33	74.00	-37.67	peak
3	3190.000	46.73	-5.69	41.04	74.00	-32.96	peak
4	4912.000	39.91	0.71	40.62	74.00	-33.38	peak
5	5686.000	39.05	1.98	41.03	74.00	-32.97	peak
6	6784.000	37.60	4.44	42.04	74.00	-31.96	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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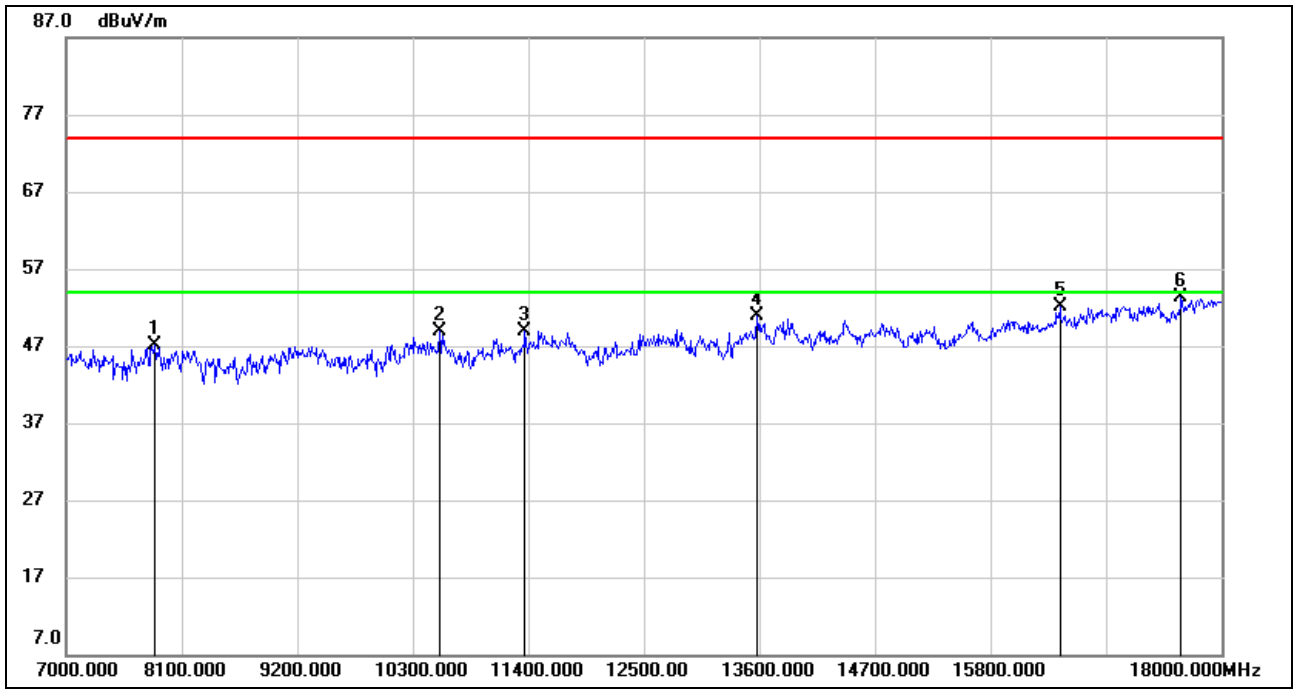
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7847.000	39.28	7.91	47.19	74.00	-26.81	peak
2	10553.000	36.95	11.93	48.88	74.00	-25.12	peak
3	11367.000	36.40	12.58	48.98	74.00	-25.02	peak
4	13578.000	34.75	16.06	50.81	74.00	-23.19	peak
5	16460.000	32.59	19.49	52.08	74.00	-21.92	peak
6	17615.000	31.36	21.96	53.32	74.00	-20.68	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
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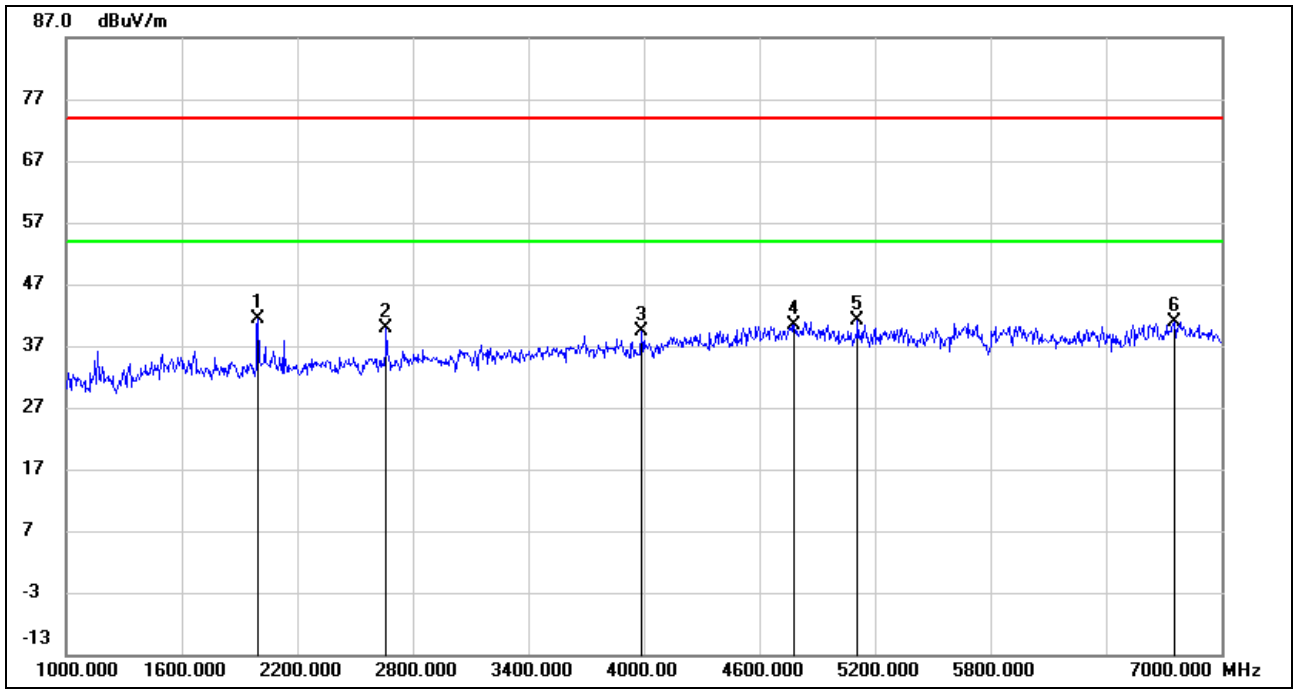
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1996.000	51.57	-10.24	41.33	74.00	-32.67	peak
2	2662.000	47.80	-7.80	40.00	74.00	-34.00	peak
3	3988.000	43.10	-3.72	39.38	74.00	-34.62	peak
4	4780.000	40.05	0.41	40.46	74.00	-33.54	peak
5	5110.000	39.64	1.43	41.07	74.00	-32.93	peak
6	6754.000	36.49	4.45	40.94	74.00	-33.06	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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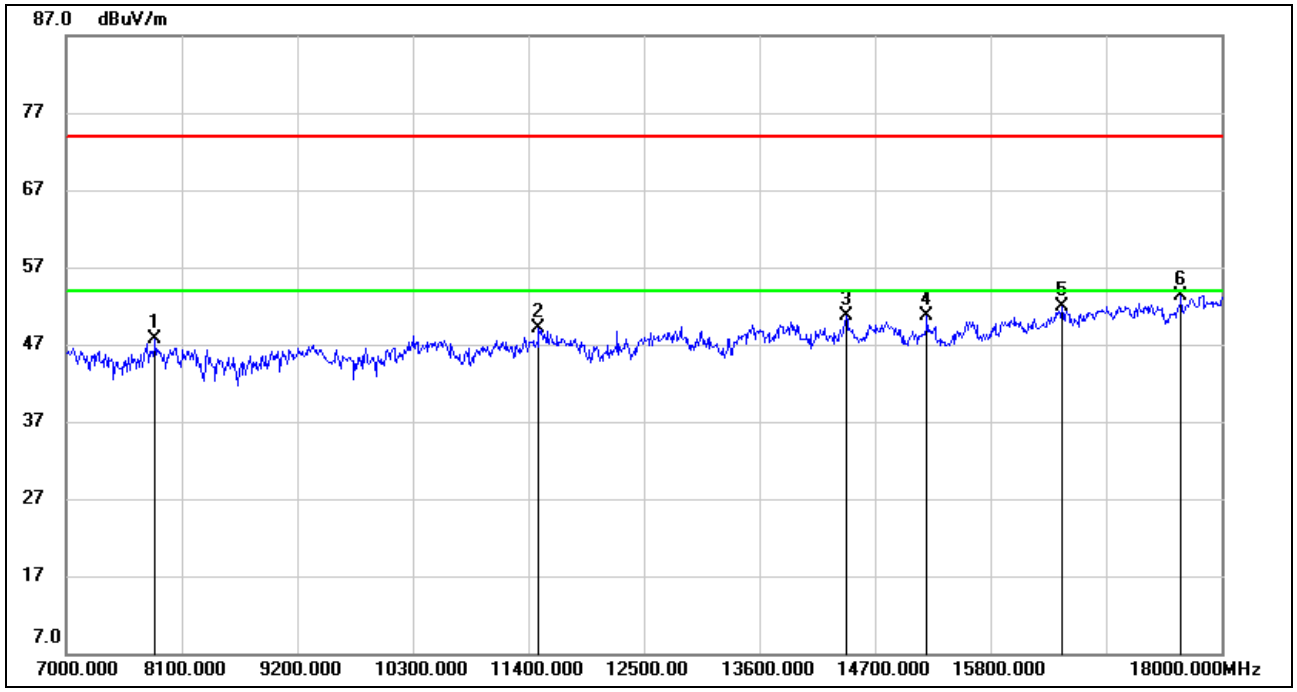
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7847.000	39.80	7.91	47.71	74.00	-26.29	peak
2	11499.000	35.69	13.35	49.04	74.00	-24.96	peak
3	14425.000	34.08	16.65	50.73	74.00	-23.27	peak
4	15195.000	34.61	16.14	50.75	74.00	-23.25	peak
5	16482.000	32.38	19.56	51.94	74.00	-22.06	peak
6	17615.000	31.27	21.96	53.23	74.00	-20.77	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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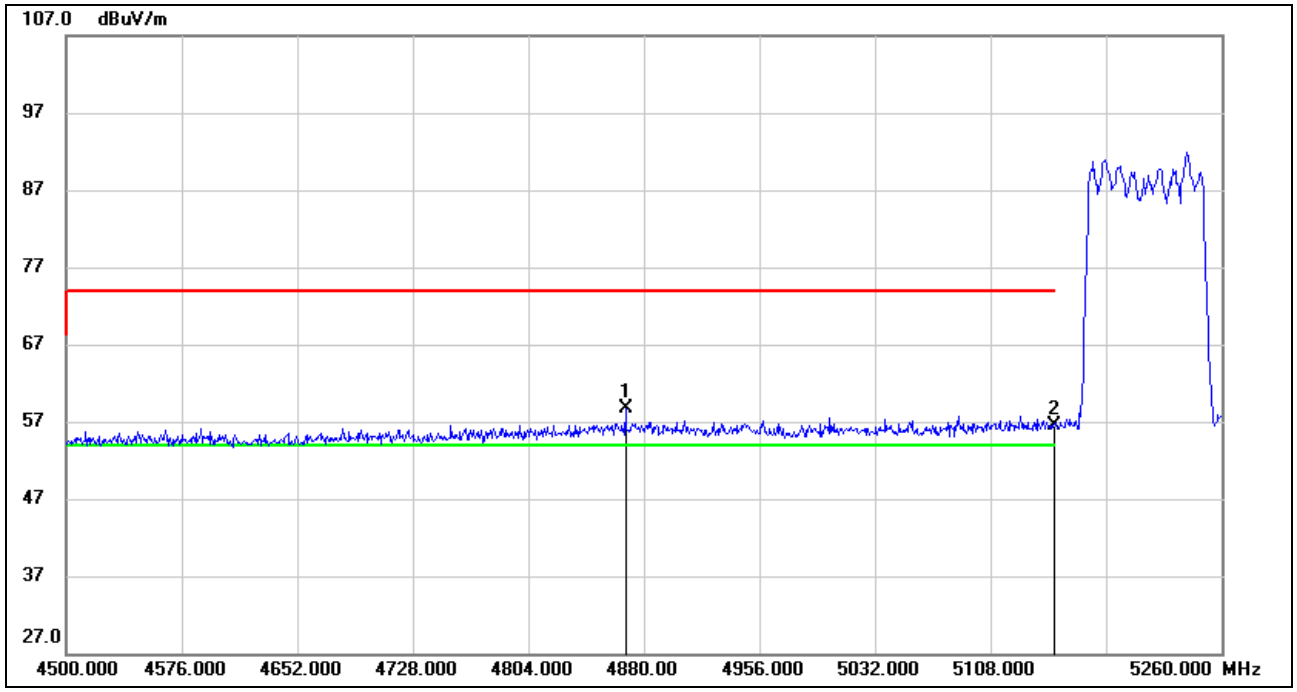
8.4. 802.11ac VHT80 MODE

8.4.1. UNII-1 BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4867.840	19.25	39.43	58.68	74.00	-15.32	peak
2	5150.000	16.06	40.46	56.52	74.00	-17.48	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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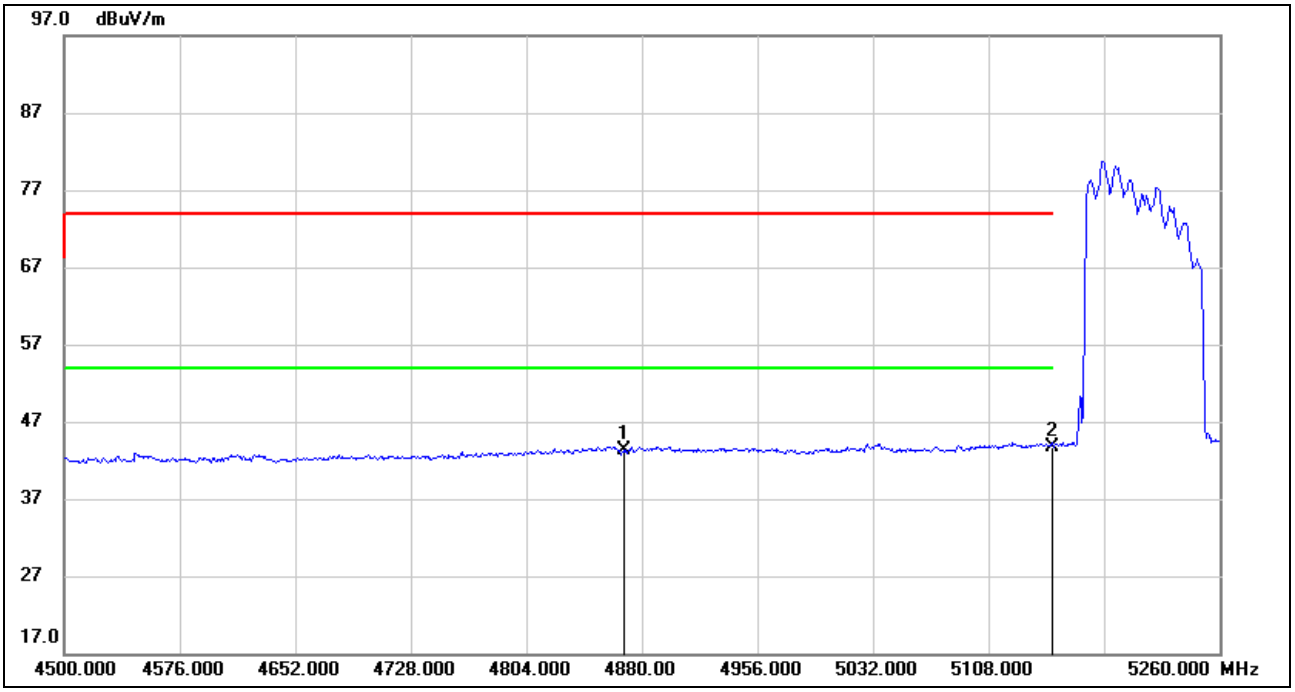
VERTICAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4867.840	3.80	39.43	43.23	54.00	-10.77	AVG
2	5150.000	3.32	40.46	43.78	54.00	-10.22	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton where: ton is transmit duration.
3. For duty cycle, please refer to clause 7.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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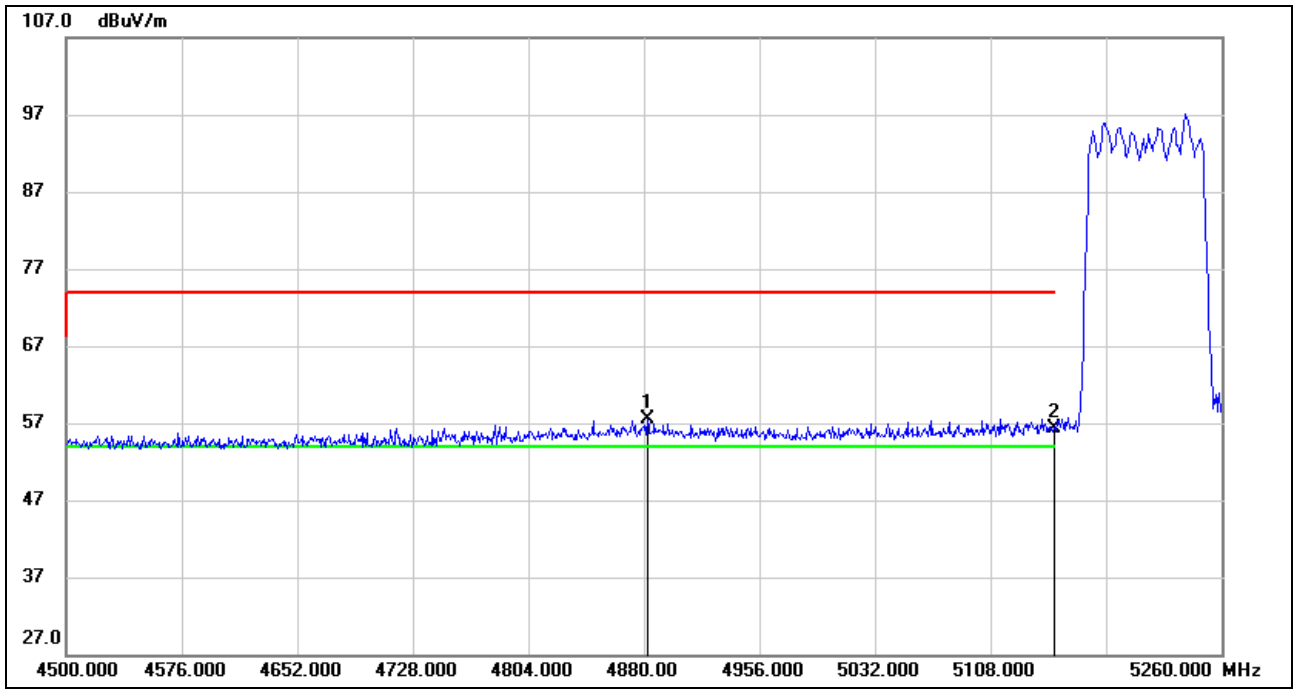
VERTICAL RESULTS
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.280	18.02	39.44	57.46	74.00	-16.54	peak
2	5150.000	15.92	40.46	56.38	74.00	-17.62	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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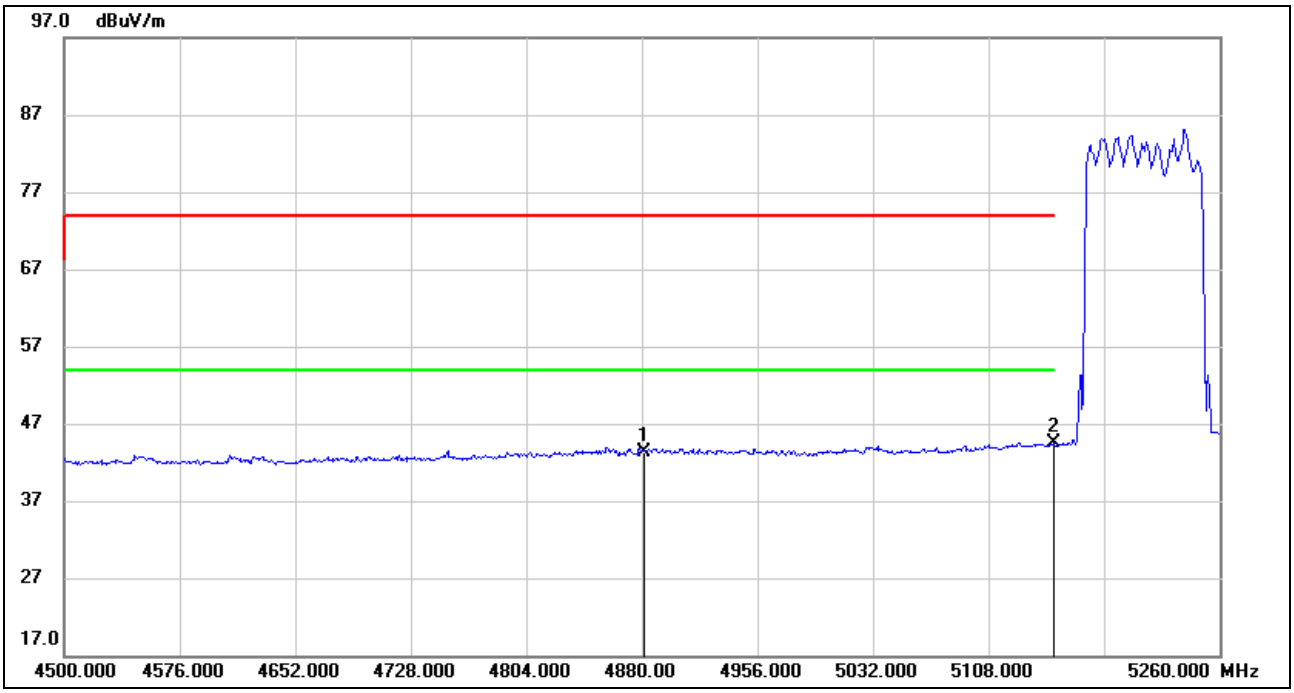
AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.280	3.90	39.44	43.34	54.00	-10.66	AVG
2	5150.000	3.95	40.46	44.41	54.00	-9.59	AVG

Note: 1. Measurement = Reading Level + Correct Factor
2. AVG: VBW=1/Ton where: ton is transmit duration.
3. For duty cycle, please refer to clause 7.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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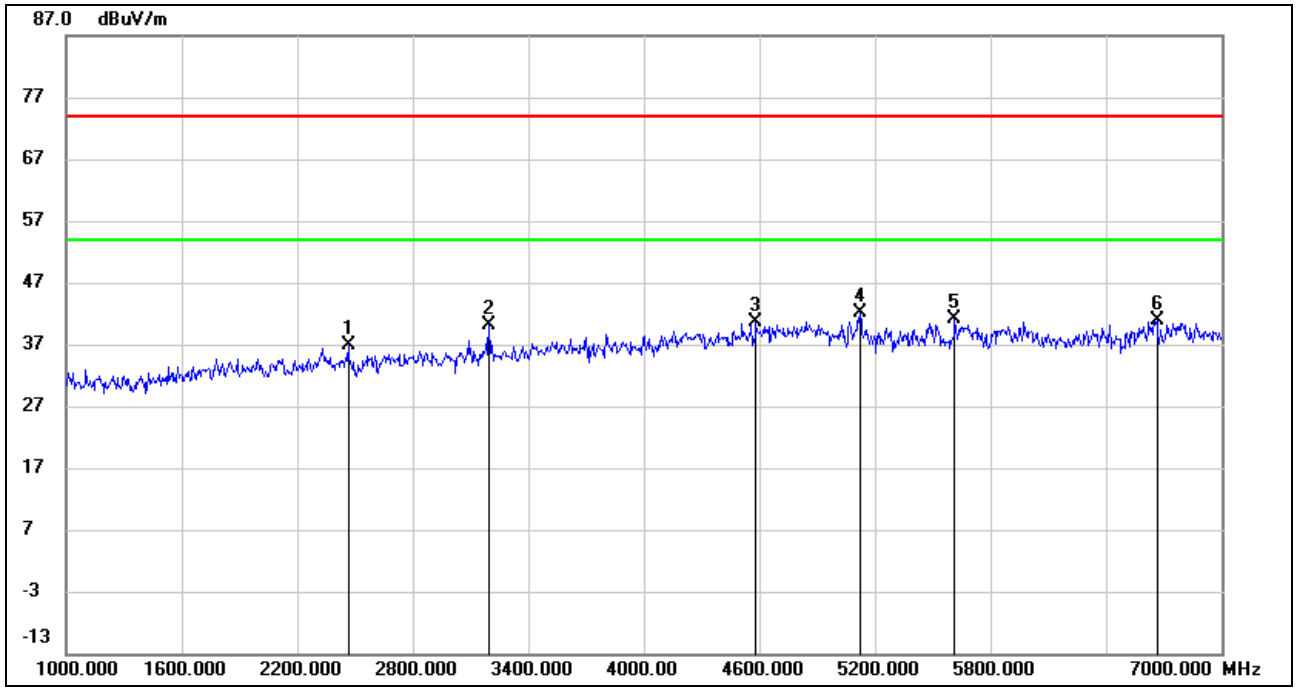
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2464.000	45.35	-8.52	36.83	74.00	-37.17	peak
2	3196.000	45.90	-5.67	40.23	74.00	-33.77	peak
3	4582.000	41.41	-0.77	40.64	74.00	-33.36	peak
4	5122.000	40.58	1.51	42.09	74.00	-31.91	peak
5	5614.000	39.01	2.02	41.03	74.00	-32.97	peak
6	6664.000	36.44	4.47	40.91	74.00	-33.09	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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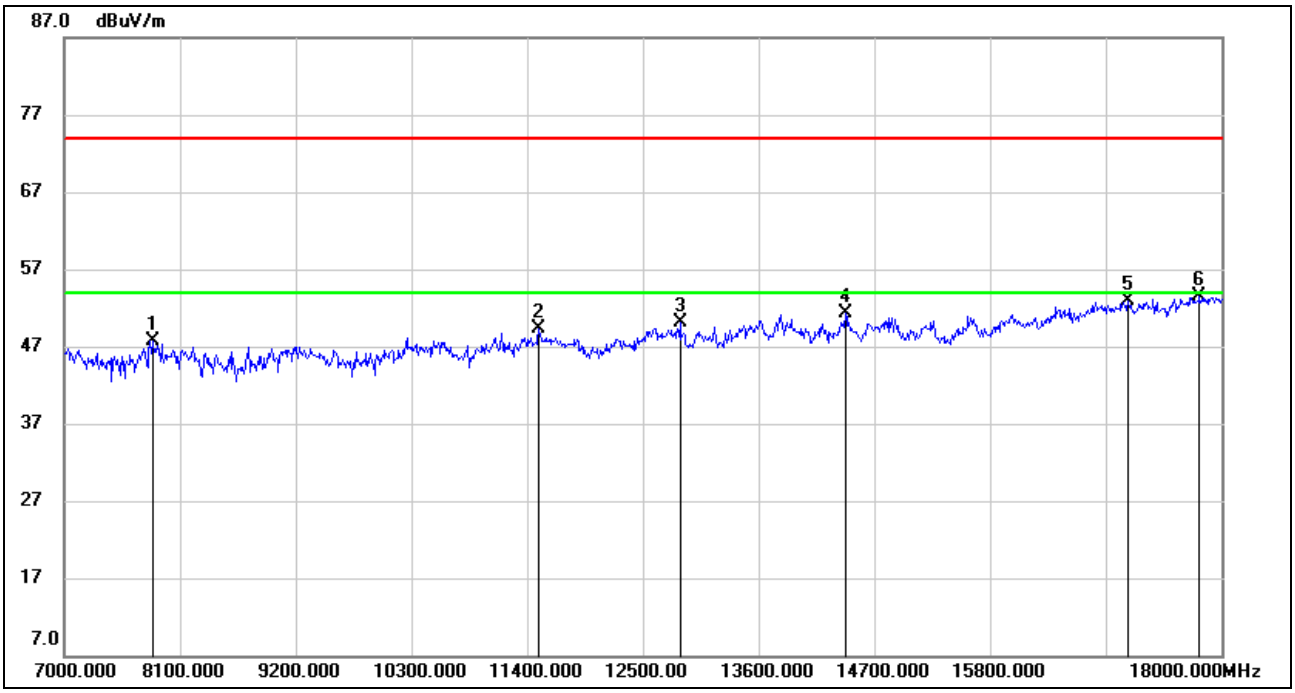
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7836.000	39.81	7.96	47.77	74.00	-26.23	peak
2	11510.000	35.87	13.39	49.26	74.00	-24.74	peak
3	12852.000	34.44	15.61	50.05	74.00	-23.95	peak
4	14425.000	34.75	16.65	51.40	74.00	-22.60	peak
5	17109.000	31.91	20.91	52.82	74.00	-21.18	peak
6	17791.000	30.13	23.33	53.46	74.00	-20.54	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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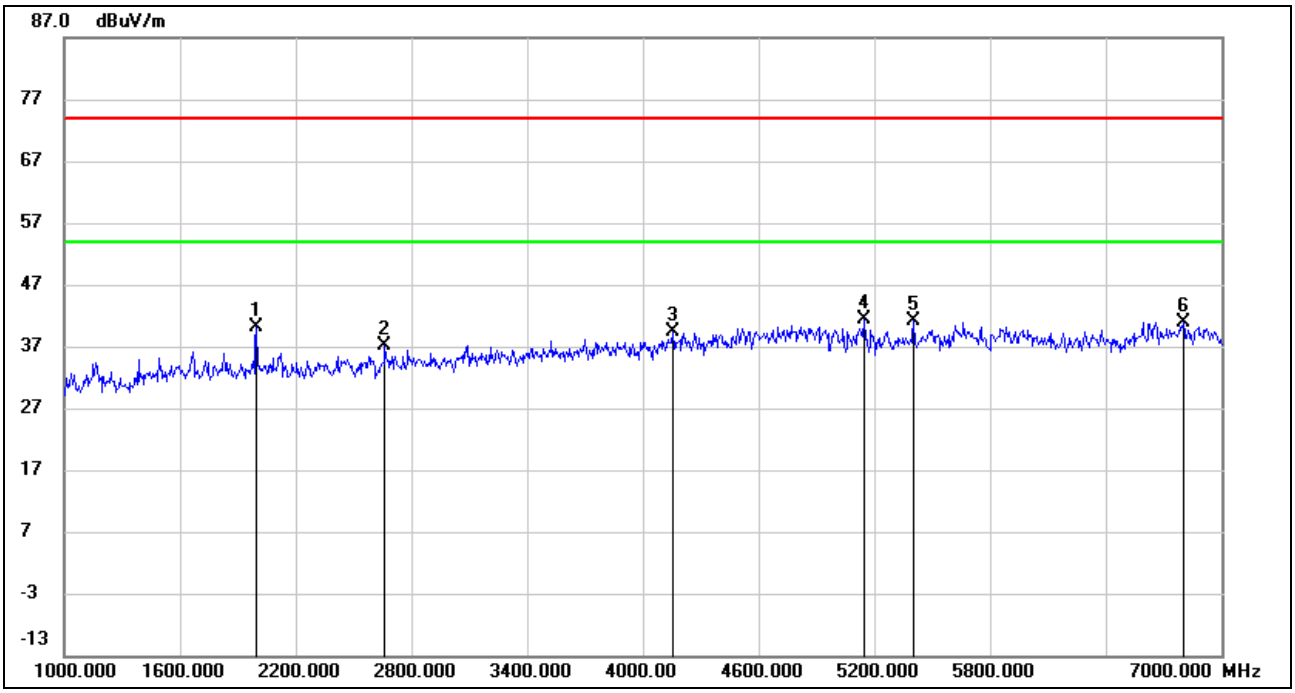
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1996.000	50.38	-10.24	40.14	74.00	-33.86	peak
2	2662.000	44.98	-7.80	37.18	74.00	-36.82	peak
3	4156.000	41.55	-2.22	39.33	74.00	-34.67	peak
4	5146.000	39.62	1.64	41.26	74.00	-32.74	peak
5	5404.000	39.54	1.58	41.12	74.00	-32.88	peak
6	6802.000	36.43	4.44	40.87	74.00	-33.13	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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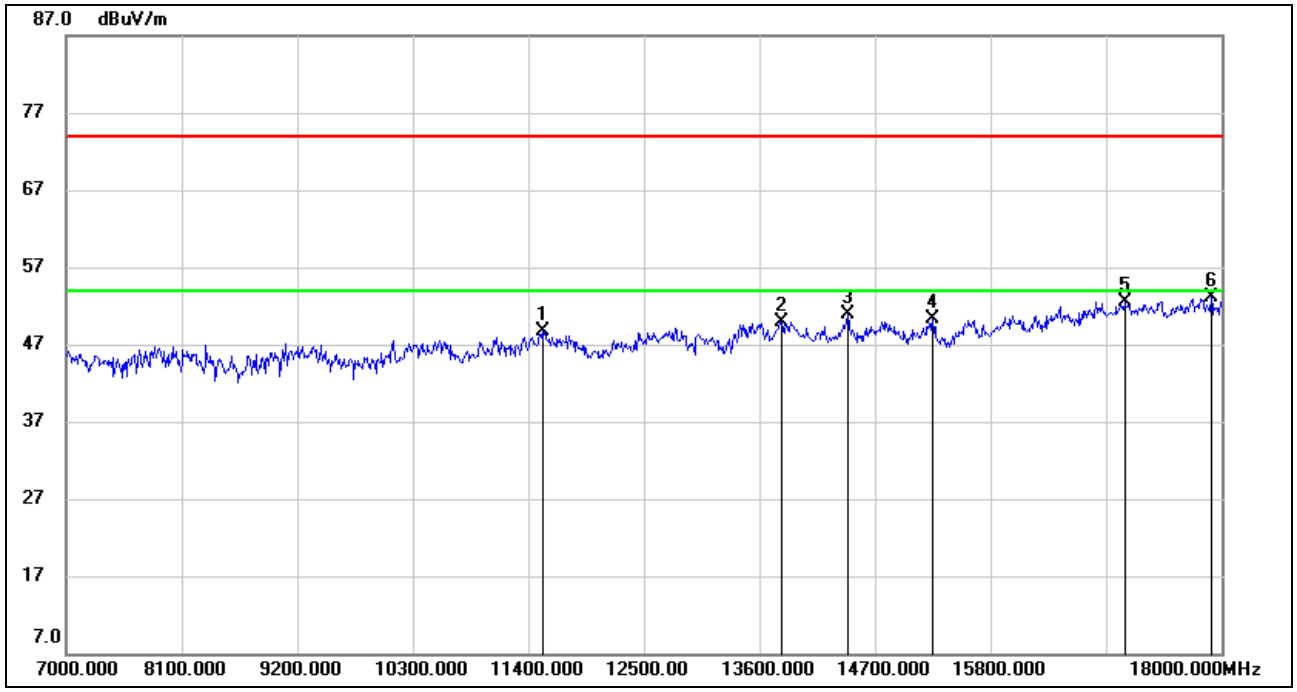
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11532.000	35.28	13.42	48.70	74.00	-25.30	peak
2	13809.000	32.92	16.99	49.91	74.00	-24.09	peak
3	14436.000	34.17	16.64	50.81	74.00	-23.19	peak
4	15250.000	34.14	16.09	50.23	74.00	-23.77	peak
5	17076.000	31.70	20.82	52.52	74.00	-21.48	peak
6	17901.000	29.66	23.40	53.06	74.00	-20.94	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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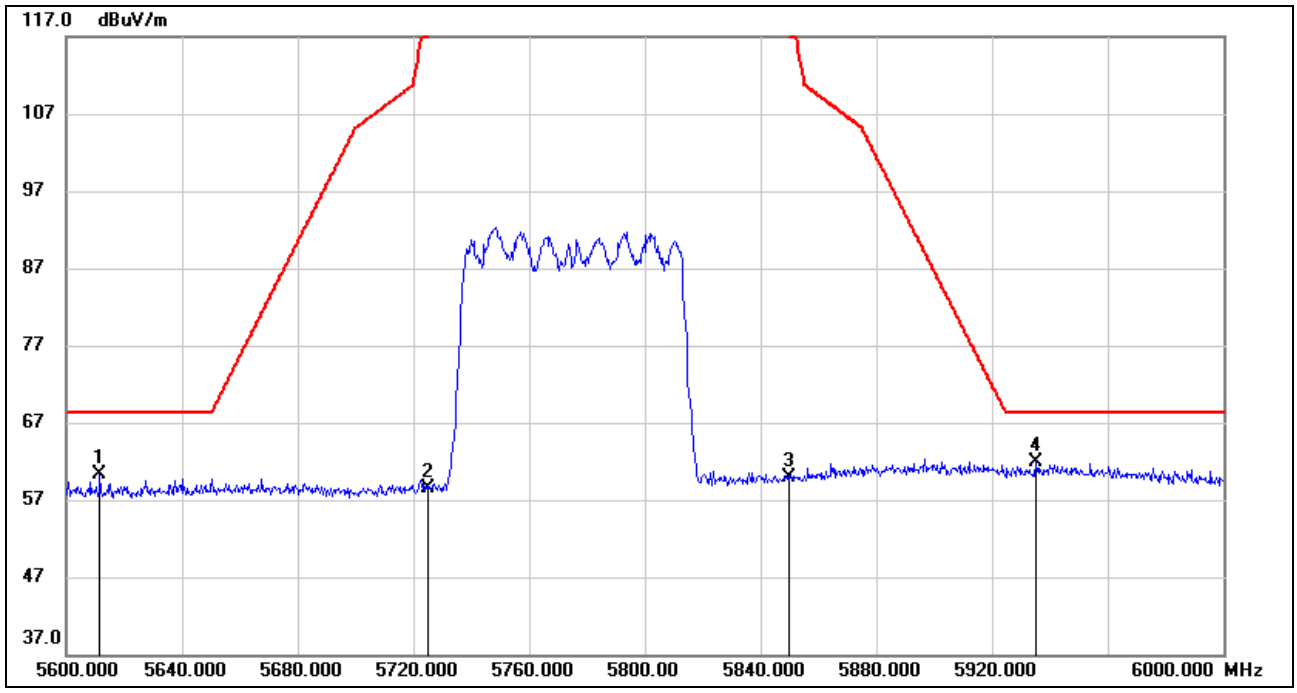
8.4.2. UNII-3 BAND

RESTRICTED BANDEDGE MID CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5611.600	18.77	41.46	60.23	68.20	-7.97	peak
2	5725.000	16.86	41.61	58.47	122.20	-63.73	peak
3	5850.000	16.92	42.89	59.81	122.20	-62.39	peak
4	5935.200	18.64	43.25	61.89	68.20	-6.31	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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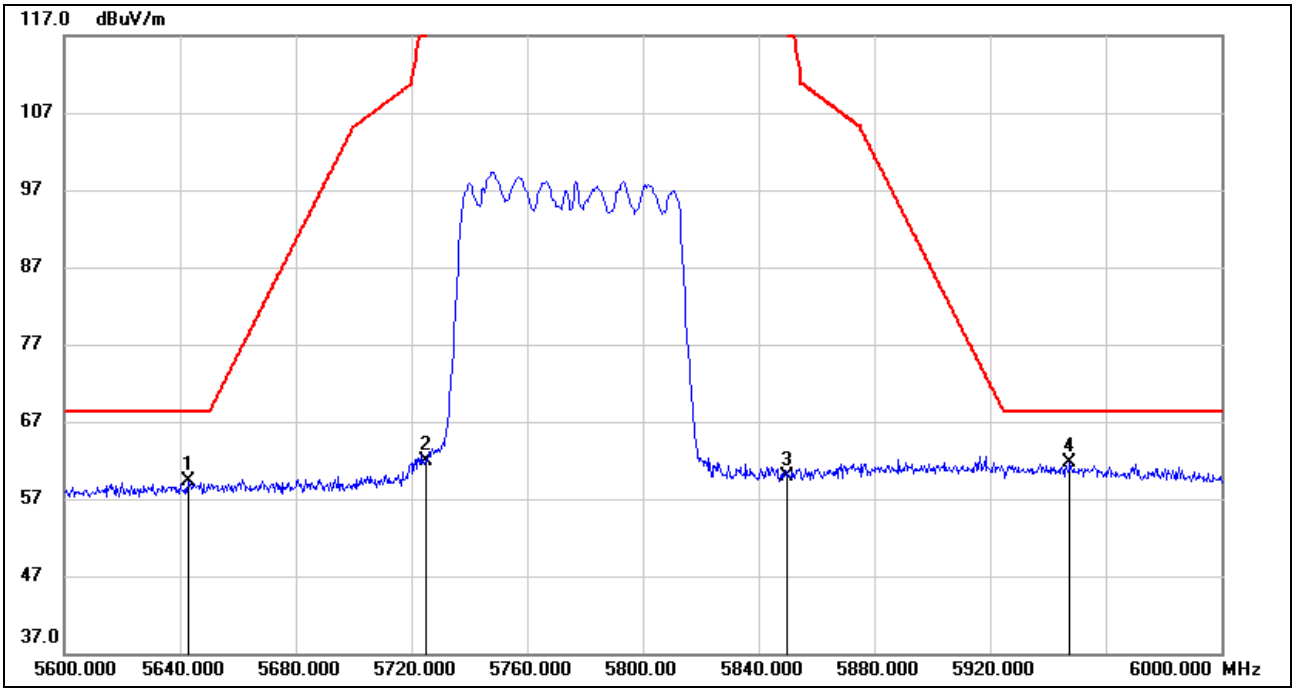
VERTICAL RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5642.800	17.84	41.48	59.32	68.20	-8.88	peak
2	5725.000	20.33	41.61	61.94	122.20	-60.26	peak
3	5850.000	17.02	42.89	59.91	122.20	-62.29	peak
4	5947.600	18.69	43.04	61.73	68.20	-6.47	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.

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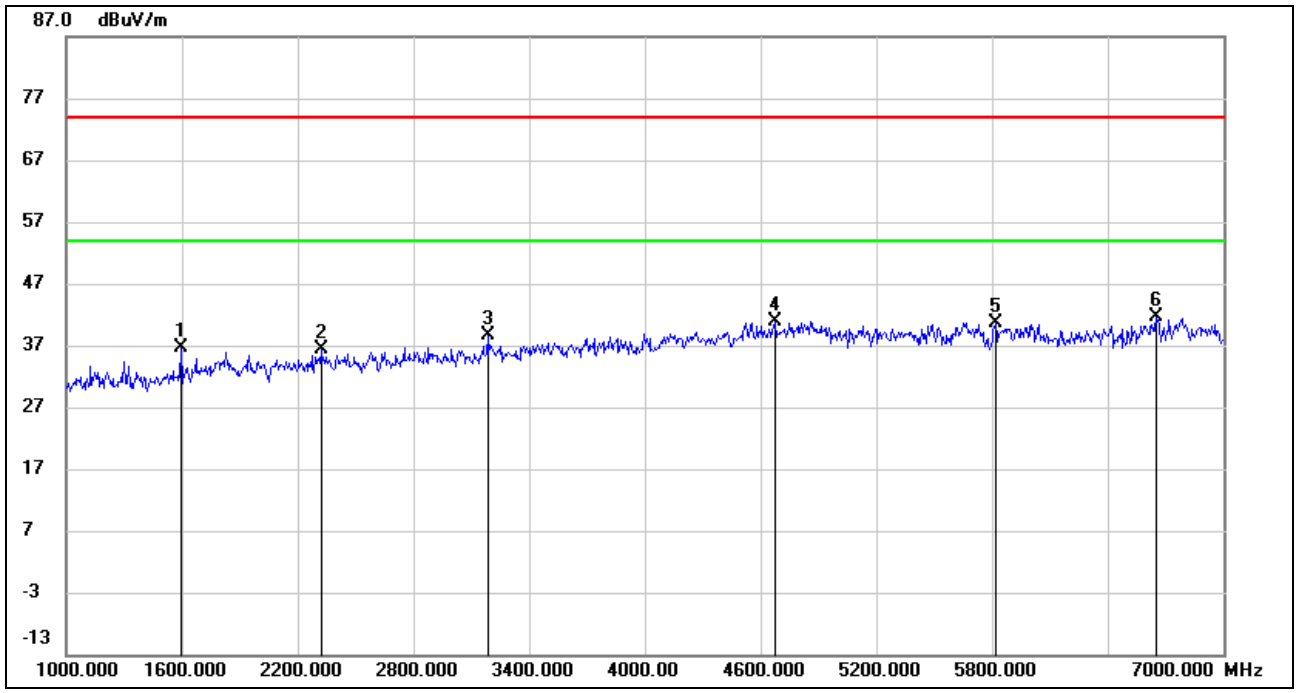
HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

HORIZONTAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1594.000	48.37	-11.66	36.71	74.00	-37.29	peak
2	2320.000	45.22	-8.84	36.38	74.00	-37.62	peak
3	3184.000	44.25	-5.70	38.55	74.00	-35.45	peak
4	4678.000	41.12	-0.19	40.93	74.00	-33.07	peak
5	5818.000	38.67	2.00	40.67	74.00	-33.33	peak
6	6652.000	37.28	4.47	41.75	74.00	-32.25	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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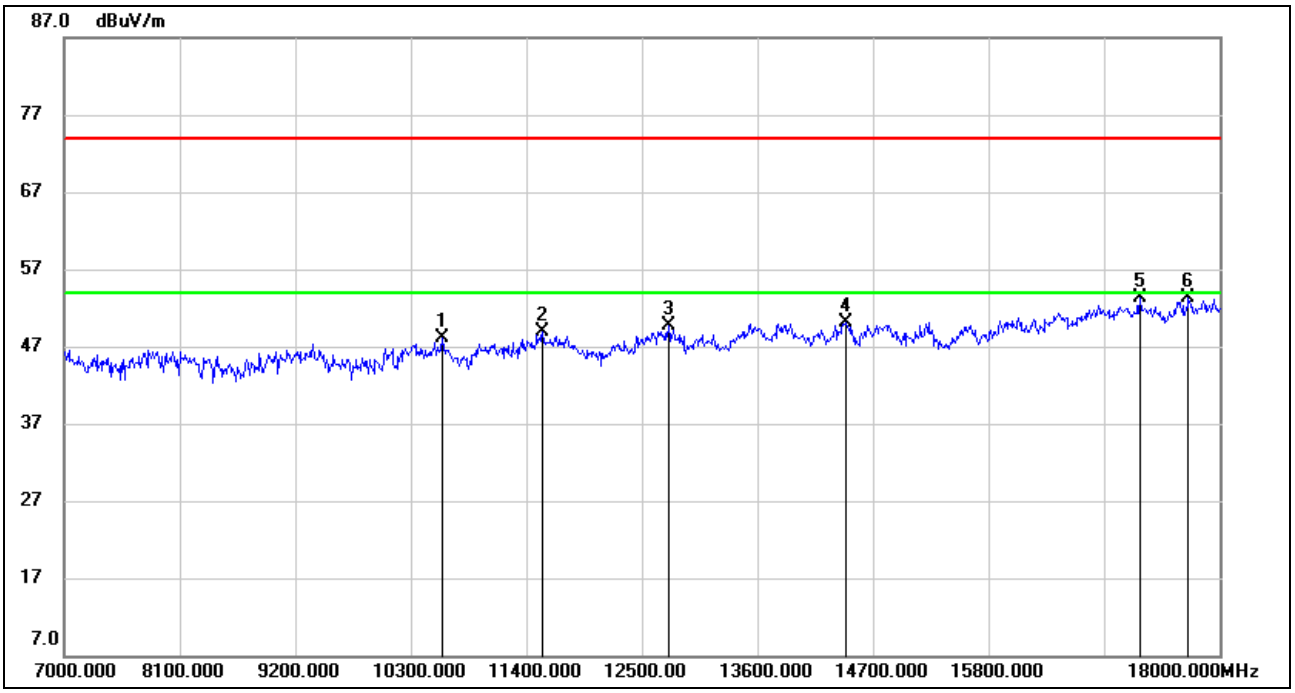
HORIZONTAL RESULTS
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10597.000	35.67	12.43	48.10	74.00	-25.90	peak
2	11554.000	35.55	13.45	49.00	74.00	-25.00	peak
3	12753.000	34.25	15.36	49.61	74.00	-24.39	peak
4	14447.000	33.52	16.63	50.15	74.00	-23.85	peak
5	17241.000	31.91	21.48	53.39	74.00	-20.61	peak
6	17703.000	30.86	22.52	53.38	74.00	-20.62	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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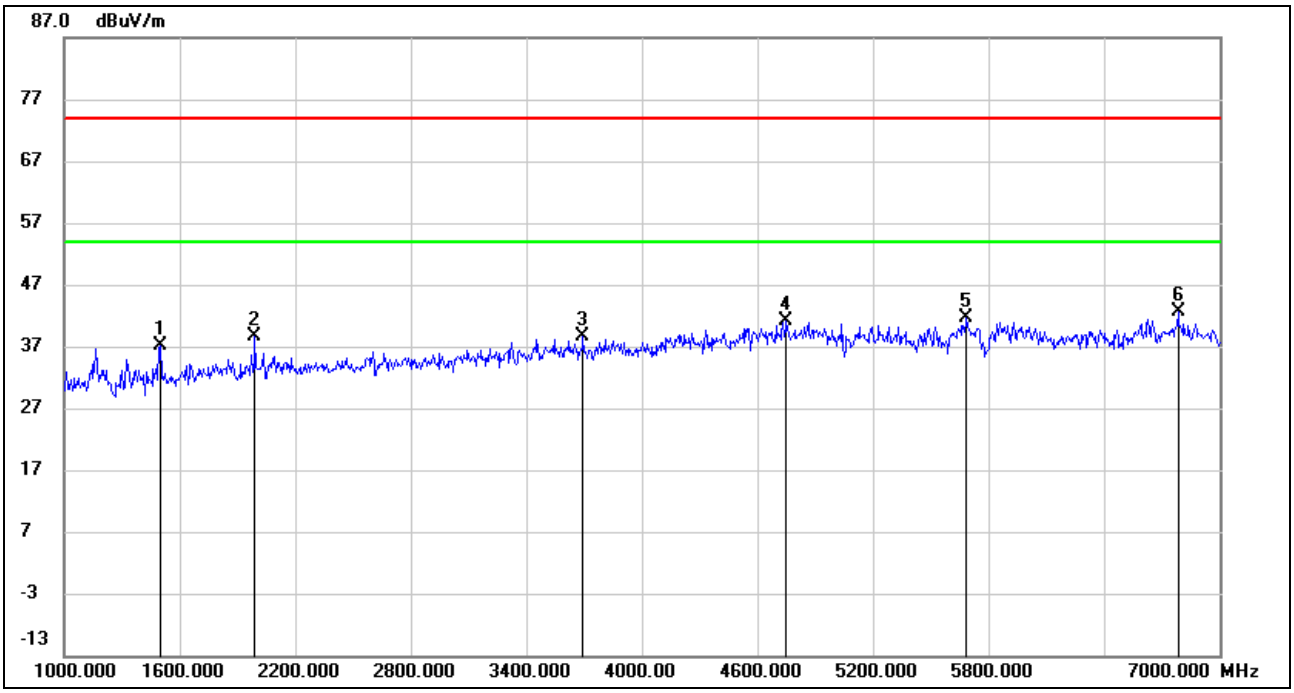
VERTICAL RESULTS
1-7GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1498.000	49.36	-12.30	37.06	74.00	-36.94	peak
2	1990.000	48.92	-10.24	38.68	74.00	-35.32	peak
3	3694.000	42.69	-3.99	38.70	74.00	-35.30	peak
4	4750.000	40.80	0.23	41.03	74.00	-32.97	peak
5	5686.000	39.75	1.98	41.73	74.00	-32.27	peak
6	6784.000	38.20	4.44	42.64	74.00	-31.36	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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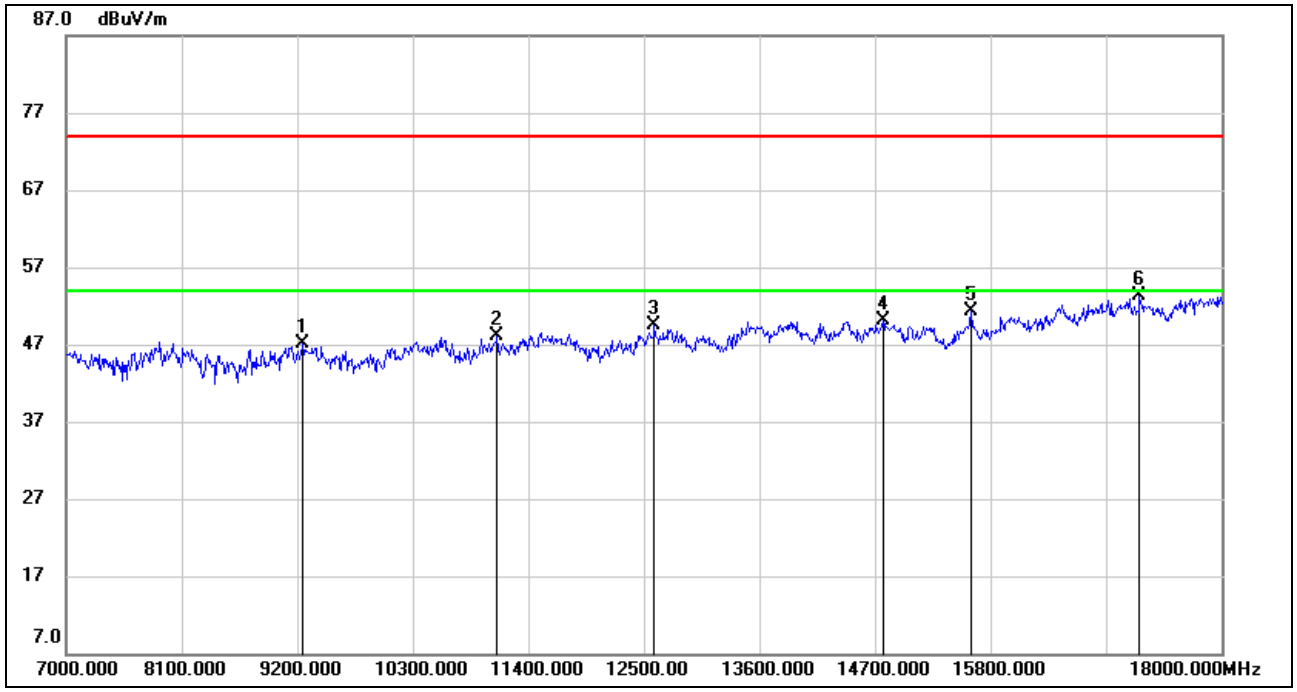
7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9255.000	37.90	9.12	47.02	74.00	-26.98	peak
2	11103.000	35.47	12.66	48.13	74.00	-25.87	peak
3	12599.000	35.24	14.19	49.43	74.00	-24.57	peak
4	14777.000	33.92	16.10	50.02	74.00	-23.98	peak
5	15613.000	34.27	17.09	51.36	74.00	-22.64	peak
6	17219.000	31.95	21.34	53.29	74.00	-20.71	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point were deemed to comply with the limits list in the standard.

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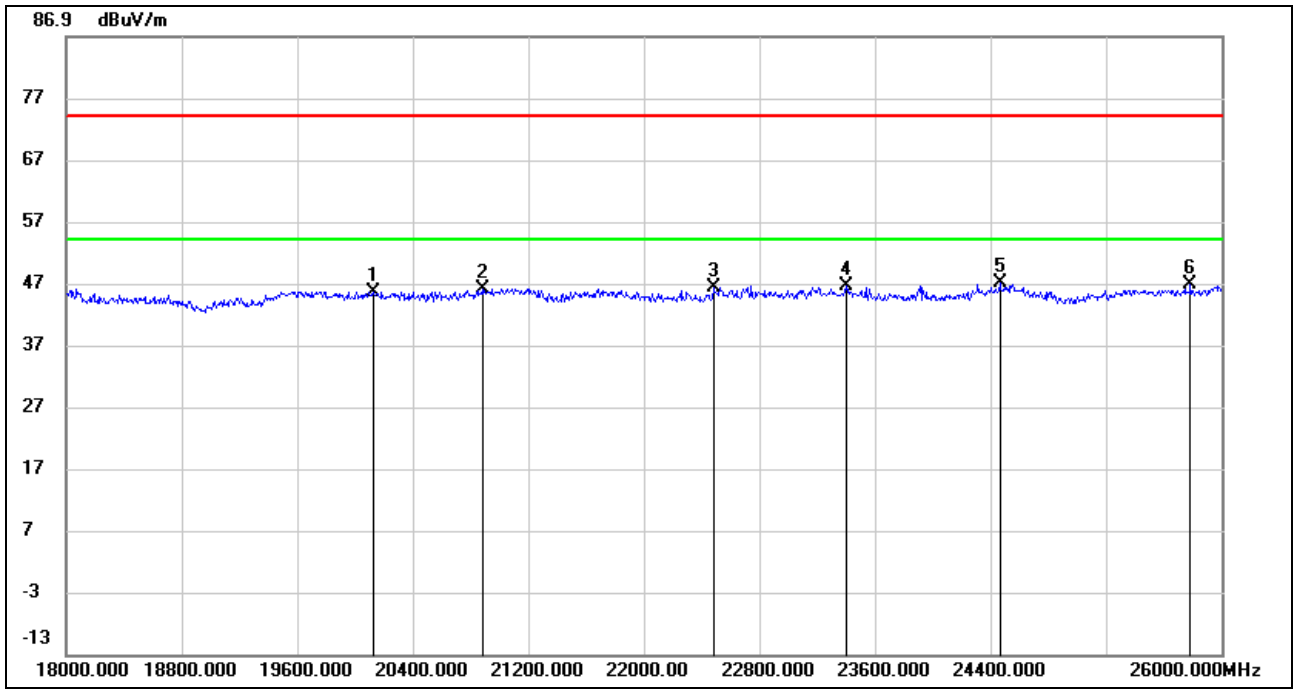
8.5. SPURIOUS EMISSIONS 18~26GHz

8.5.1. 802.11a MODE

SPURIOUS EMISSIONS (UNII-1 HIGH CHANNEL, HORIZONTAL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	20128.000	50.26	-4.64	45.62	74.00	-28.38	peak
2	20880.000	51.34	-5.21	46.13	74.00	-27.87	peak
3	22480.000	51.98	-5.82	46.16	74.00	-27.84	peak
4	23400.000	51.42	-4.96	46.46	74.00	-27.54	peak
5	24464.000	49.78	-2.74	47.04	74.00	-26.96	peak
6	25784.000	48.23	-1.49	46.74	74.00	-27.26	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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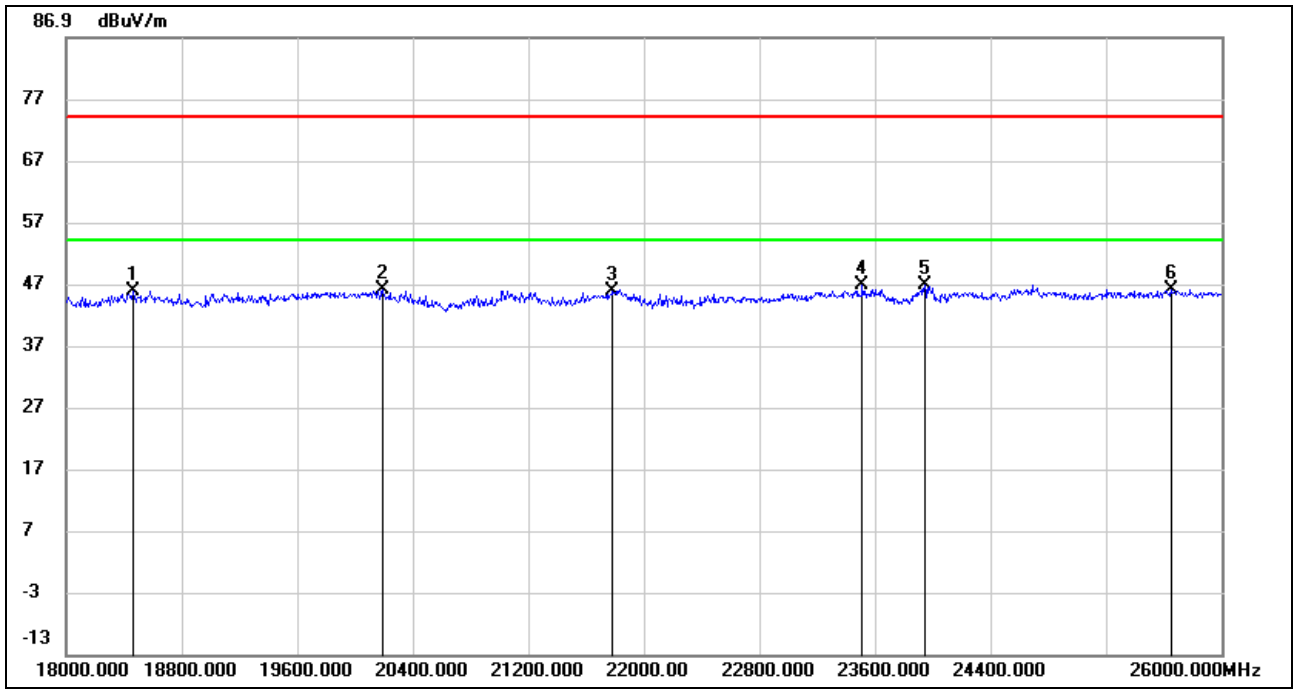
SPURIOUS EMISSIONS (UNII-1 HIGH CHANNEL, VERTICAL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18464.000	50.20	-4.39	45.81	74.00	-28.19	peak
2	20192.000	50.87	-4.76	46.11	74.00	-27.89	peak
3	21784.000	51.70	-5.82	45.88	74.00	-28.12	peak
4	23512.000	51.51	-4.76	46.75	74.00	-27.25	peak
5	23944.000	50.95	-4.14	46.81	74.00	-27.19	peak
6	25648.000	47.62	-1.53	46.09	74.00	-27.91	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

Note: All the test modes have been tested, only the worst data record in the report.

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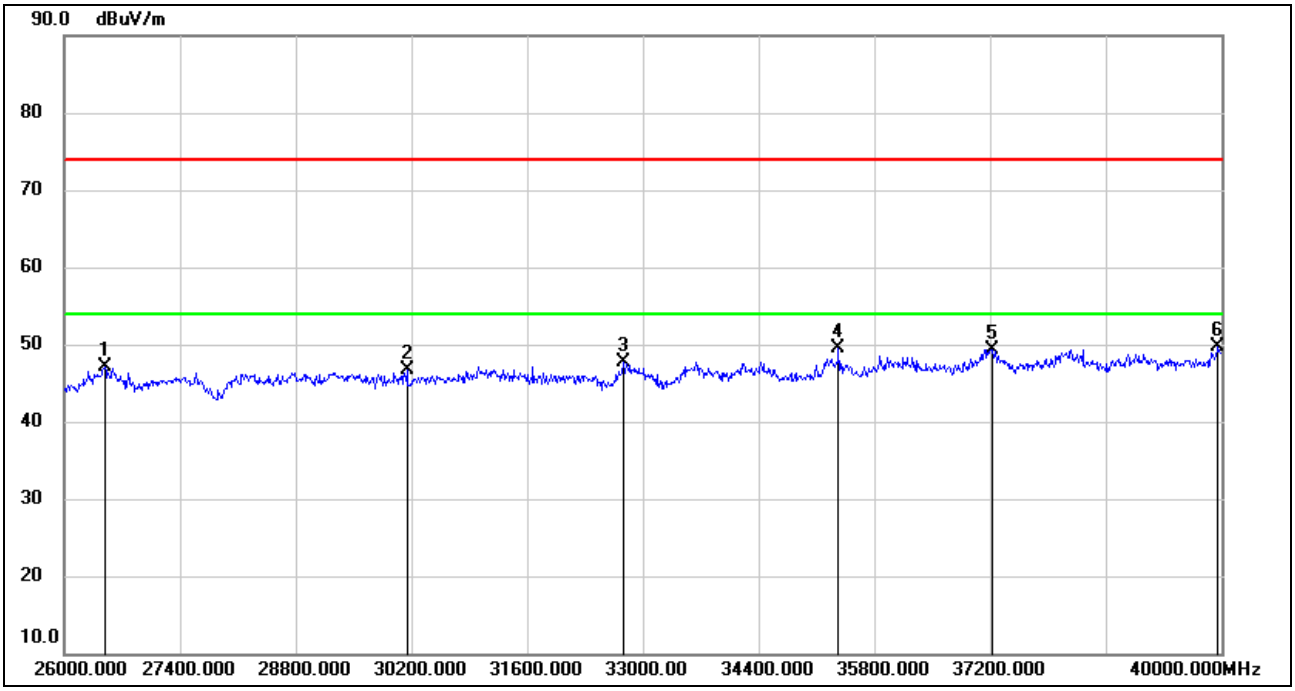
8.6. SPURIOUS EMISSIONS 26~40GHz

8.6.1. 802.11a MODE

SPURIOUS EMISSIONS (UNII-1 HIGH CHANNEL, HORIZONTAL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	26490.000	51.79	-4.74	47.05	74.00	-26.95	peak
2	30144.000	47.96	-1.30	46.66	74.00	-27.34	peak
3	32762.000	48.95	-1.21	47.74	74.00	-26.26	peak
4	35366.000	46.90	2.59	49.49	74.00	-24.51	peak
5	37228.000	46.23	3.14	49.37	74.00	-24.63	peak
6	39958.000	44.58	5.12	49.70	74.00	-24.30	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Proper operation of the transmitter prior to adding the filter to the measurement chain.

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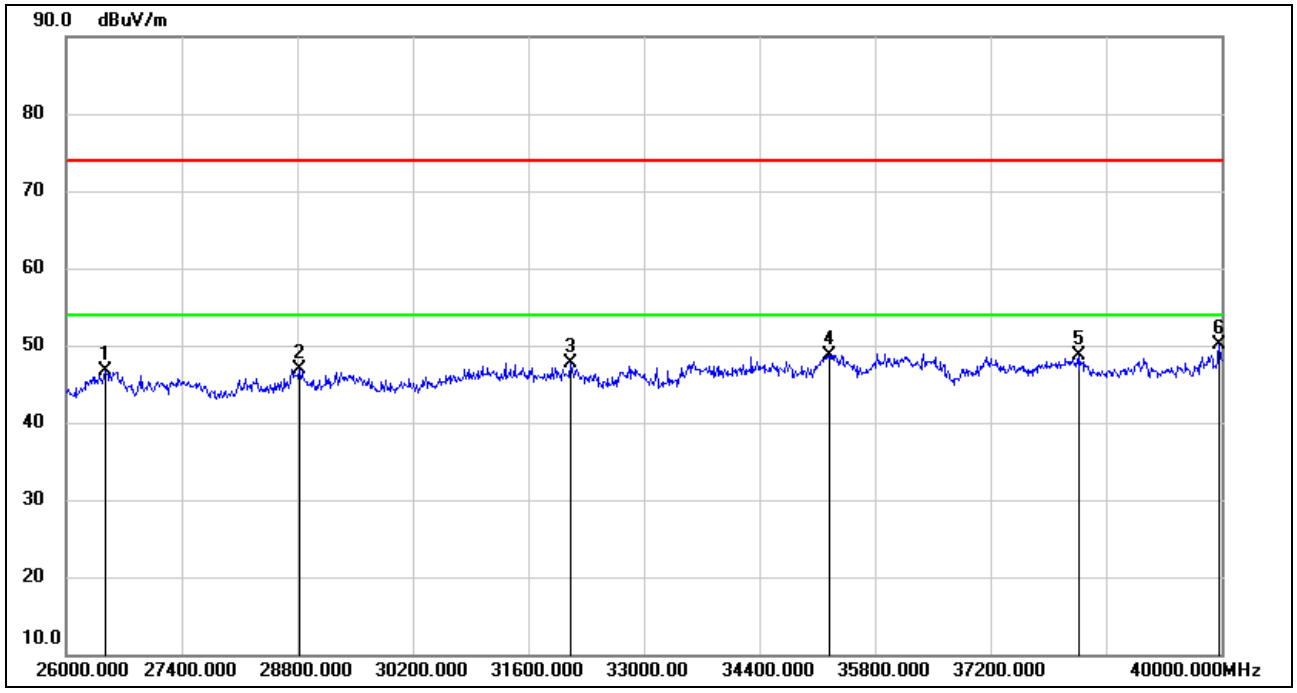
SPURIOUS EMISSIONS (UNII-1 HIGH CHANNEL, VERTICAL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	26476.000	51.53	-4.78	46.75	74.00	-27.25	peak
2	28828.000	47.63	-0.79	46.84	74.00	-27.16	peak
3	32104.000	49.49	-1.75	47.74	74.00	-26.26	peak
4	35254.000	46.12	2.65	48.77	74.00	-25.23	peak
5	38278.000	44.82	3.82	48.64	74.00	-25.36	peak
6	39972.000	44.95	5.13	50.08	74.00	-23.92	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Proper operation of the transmitter prior to adding the filter to the measurement chain.

Note: All the test modes have been tested, only the worst data record in the report.

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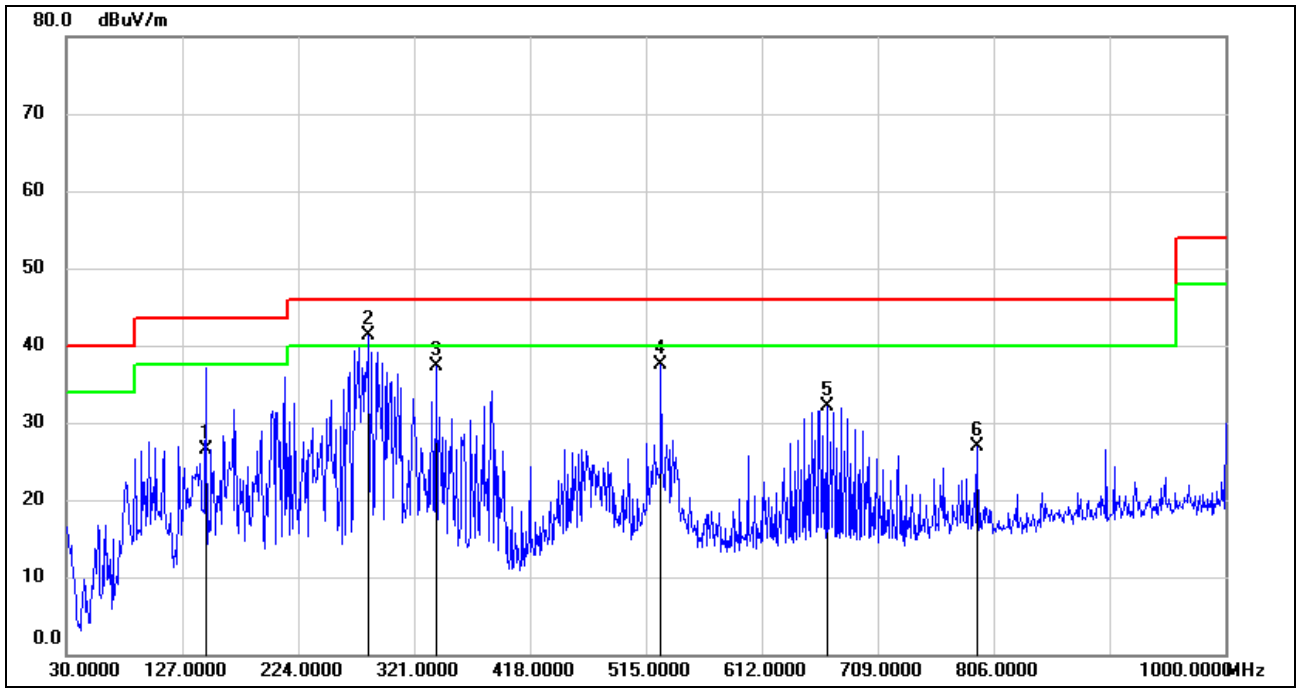
8.7. SPURIOUS EMISSIONS 30M ~ 1 GHz

8.7.1. 802.11a MODE

SPURIOUS EMISSIONS (UNII-1 HIGH CHANNEL HORIZONTAL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	146.4000	45.26	-18.70	26.56	43.50	-16.94	QP
2	283.1700	58.18	-16.88	41.30	46.00	-4.70	QP
3	339.4300	52.02	-14.71	37.31	46.00	-8.69	QP
4	527.6100	48.58	-11.13	37.45	46.00	-8.55	QP
5	666.3200	41.32	-9.18	32.14	46.00	-13.86	QP
6	792.4200	34.79	-7.93	26.86	46.00	-19.14	QP

Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

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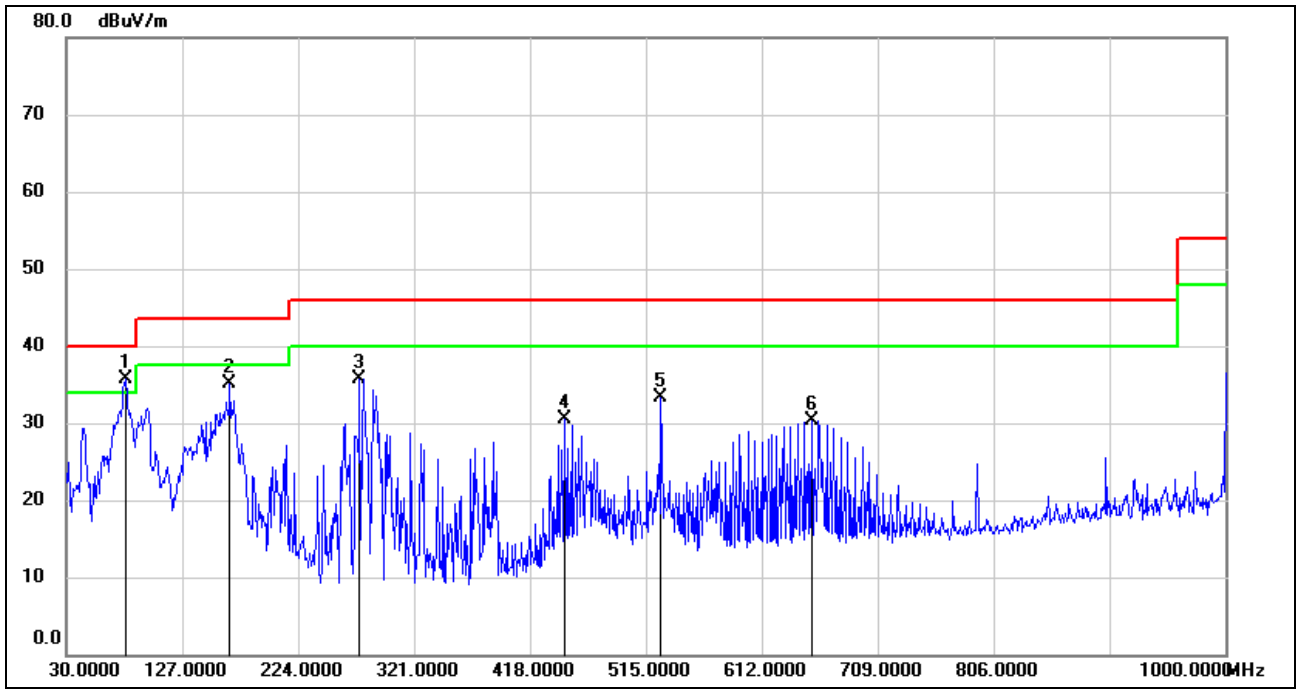
SPURIOUS EMISSIONS (UNII-1 HIGH CHANNEL, VERTICAL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	79.4700	57.21	-21.45	35.76	40.00	-4.24	QP
2	166.7700	52.72	-17.56	35.16	43.50	-8.34	QP
3	275.4100	53.22	-17.52	35.70	46.00	-10.30	QP
4	447.1000	43.00	-12.52	30.48	46.00	-15.52	QP
5	527.6100	44.52	-11.13	33.39	46.00	-12.61	QP
6	653.7100	39.62	-9.38	30.24	46.00	-15.76	QP

Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

Note: All the test modes have been tested, only the worst data record in the report.

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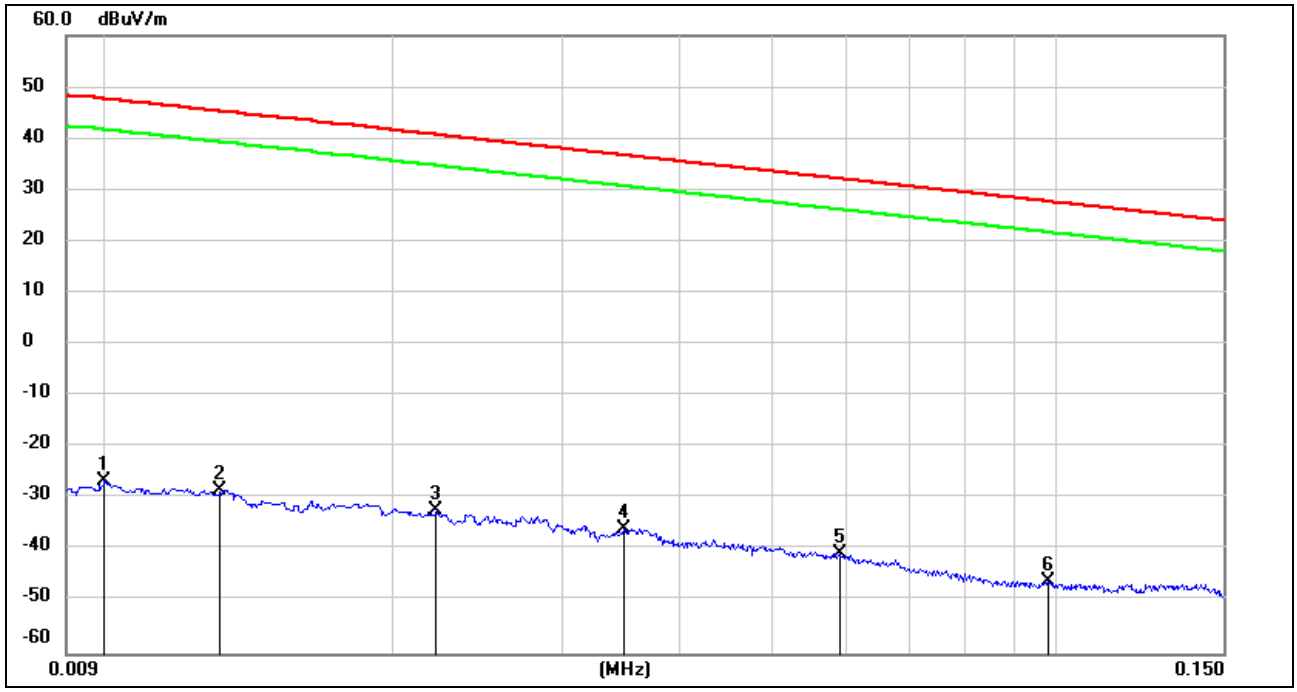
8.8. SPURIOUS EMISSIONS BELOW 30M

8.8.1. 802.11a MODE

SPURIOUS EMISSIONS (UNII-1 HIGH CHANNEL, LOOP ANTENNA FACE ON TO THE EUT, WORST-CASE CONFIGURATION)

9kHz~ 150kHz



No.	Frequency	Reading	Correct	Result	Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.0100	74.72	-101.40	-26.68	47.60	-78.18	-3.90	-74.28	peak
2	0.0131	72.97	-101.38	-28.41	45.25	-79.91	-6.25	-73.66	peak
3	0.0221	69.13	-101.35	-32.22	40.71	-83.72	-10.79	-72.93	peak
4	0.0349	65.53	-101.41	-35.88	36.75	-87.38	-14.75	-72.63	peak
5	0.0589	60.81	-101.52	-40.71	32.20	-92.21	-19.30	-72.91	peak
6	0.0981	55.77	-101.78	-46.01	27.77	-97.51	-23.73	-73.78	peak

Note: 1. Measurement = Reading Level + Correct Factor (dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5).

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

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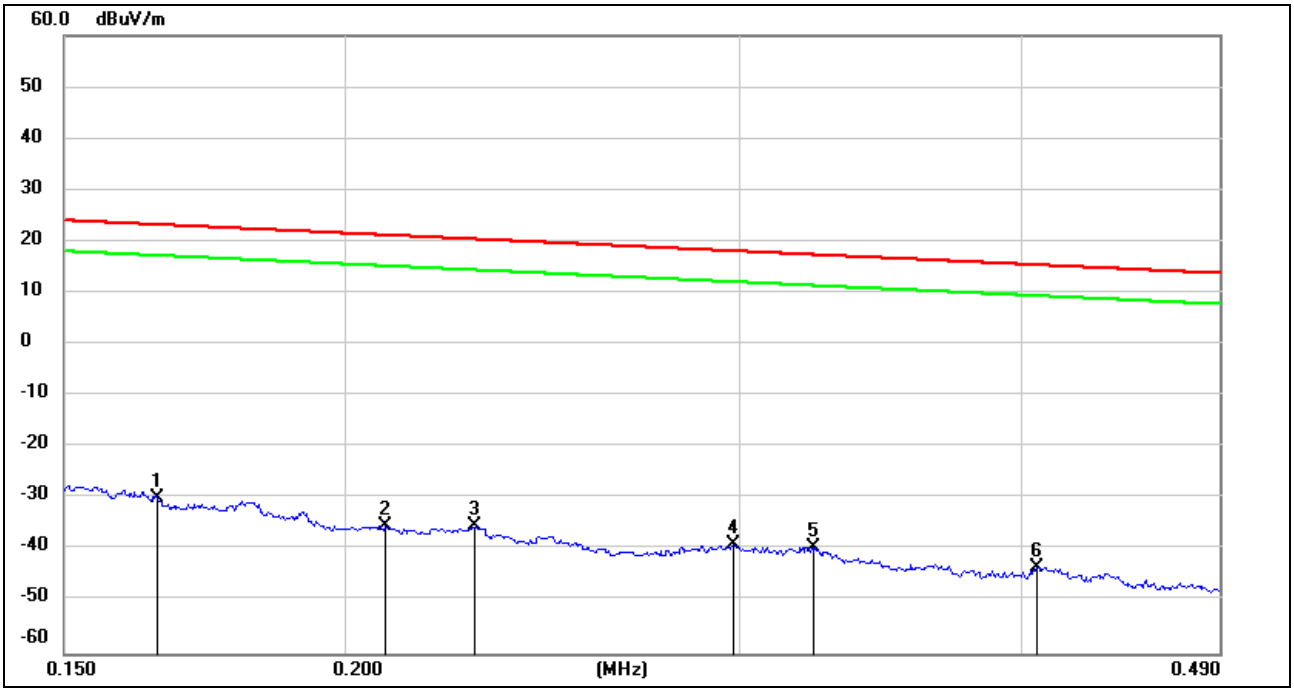
150kHz ~ 490kHz



No.	Frequency	Reading	Correct	Result	Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.1650	71.81	-101.66	-29.85	23.26	-81.35	-28.24	-53.11	peak
2	0.2084	66.47	-101.73	-35.26	21.22	-86.76	-30.28	-56.48	peak
3	0.2285	66.40	-101.77	-35.37	20.42	-86.87	-31.08	-55.79	peak
4	0.2977	62.91	-101.85	-38.94	18.13	-90.44	-33.37	-57.07	peak
5	0.3234	62.48	-101.88	-39.40	17.41	-90.90	-34.09	-56.81	peak
6	0.4062	58.64	-101.96	-43.32	15.43	-94.82	-36.07	-58.75	peak

Note: 1. Measurement = Reading Level + Correct Factor (dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5).

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

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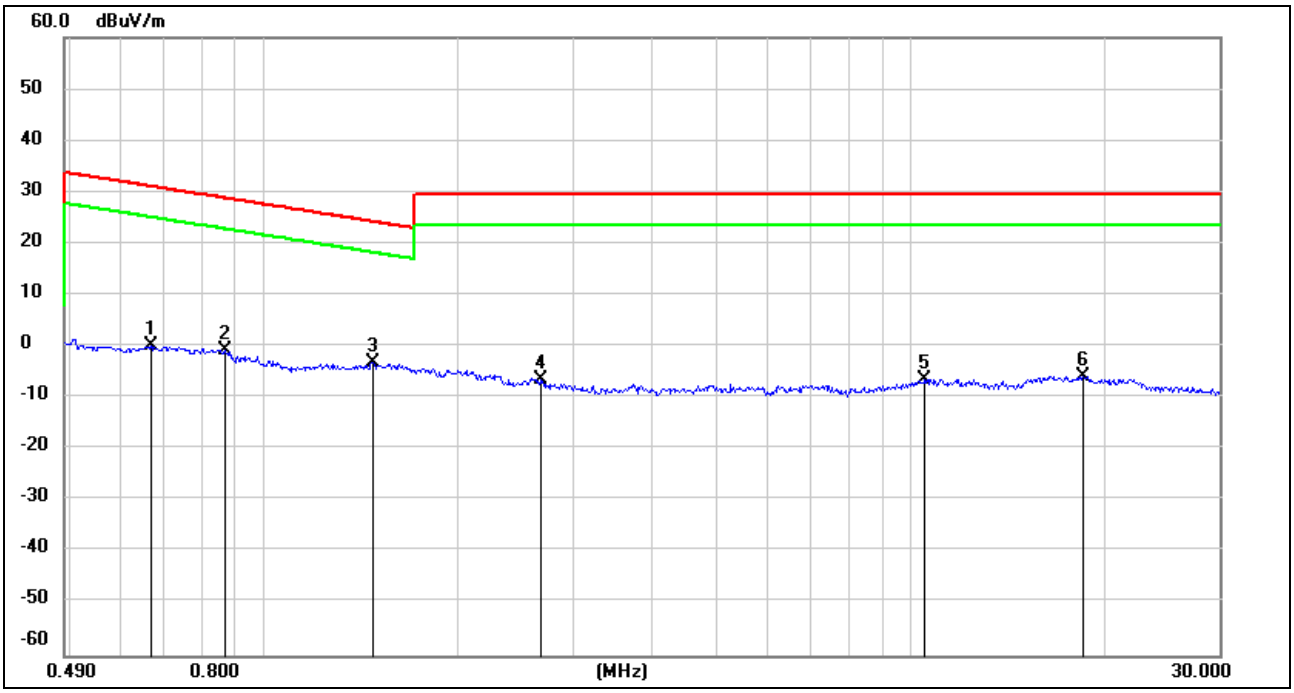
490kHz ~ 30MHz



No.	Frequency	Reading	Correct	Result	Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.6671	62.25	-62.10	0.15	31.12	-51.35	-20.38	-30.97	peak
2	0.8679	61.35	-62.18	-0.83	28.83	-52.33	-22.67	-29.66	peak
3	1.4700	58.89	-62.05	-3.16	24.26	-54.66	-27.24	-27.42	peak
4	2.6737	55.14	-61.65	-6.51	29.54	-58.01	-21.96	-36.05	peak
5	10.5234	54.31	-60.82	-6.51	29.54	-58.01	-21.96	-36.05	peak
6	18.4908	55.06	-60.89	-5.83	29.54	-57.33	-21.96	-35.37	peak

Note: 1. Measurement = Reading Level + Correct Factor (dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5).

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

Note: All the test modes have been tested, only the worst data record in the report.

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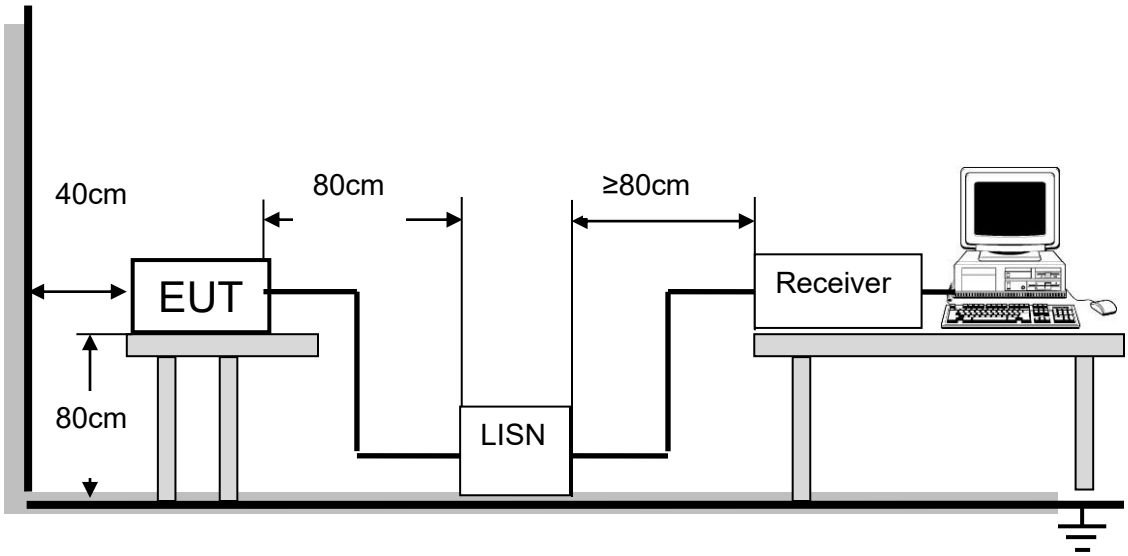
9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

FREQUENCY(MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through an Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10 -2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST RESULTS

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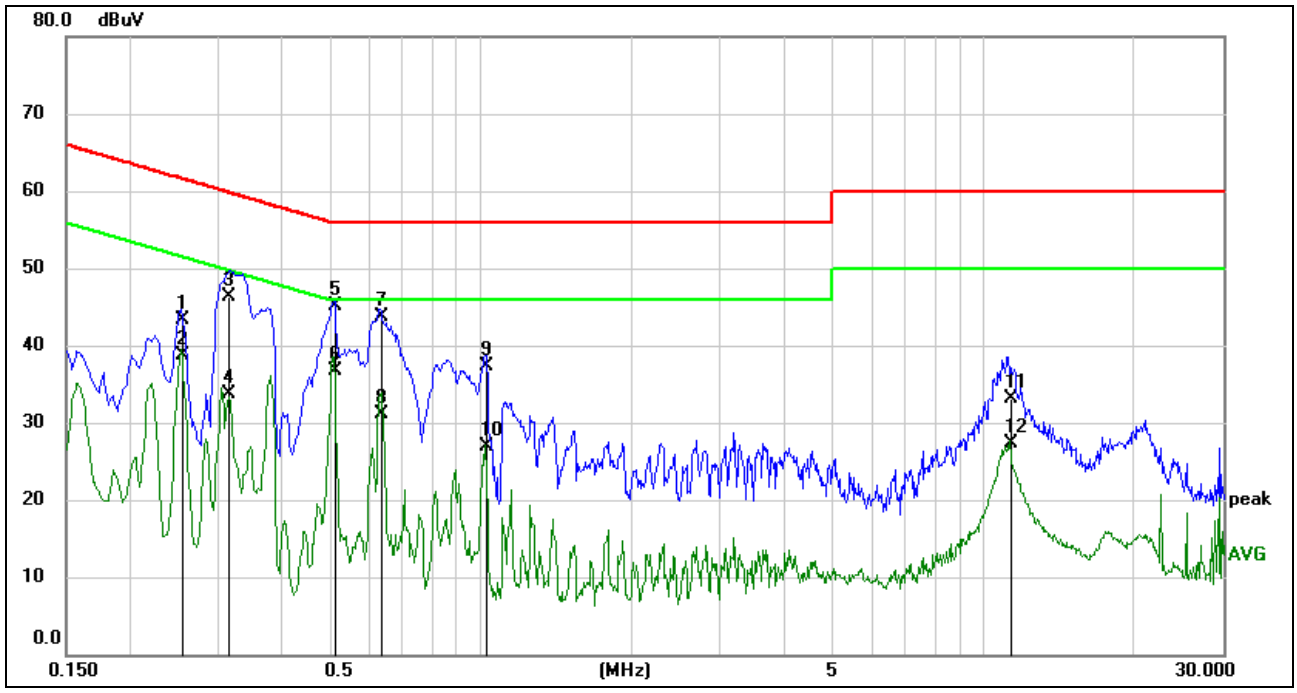
9.1. 802.11a MODE

LINE N RESULTS (UNII-1 HIGH CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2548	33.69	9.60	43.29	61.60	-18.31	QP
2	0.2548	29.09	9.60	38.69	51.60	-12.91	AVG
3	0.3165	36.63	9.60	46.23	59.80	-13.57	QP
4	0.3165	24.09	9.60	33.69	49.80	-16.11	AVG
5	0.5159	35.46	9.60	45.06	56.00	-10.94	QP
6	0.5159	27.13	9.60	36.73	46.00	-9.27	AVG
7	0.6342	34.03	9.60	43.63	56.00	-12.37	QP
8	0.6342	21.42	9.60	31.02	46.00	-14.98	AVG
9	1.0317	27.60	9.61	37.21	56.00	-18.79	QP
10	1.0317	17.21	9.61	26.82	46.00	-19.18	AVG
11	11.2903	23.29	9.79	33.08	60.00	-26.92	QP
12	11.2903	17.49	9.79	27.28	50.00	-22.72	AVG

Note: 1. Result = Reading +Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz-150 kHz), 9 kHz (150 kHz-30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

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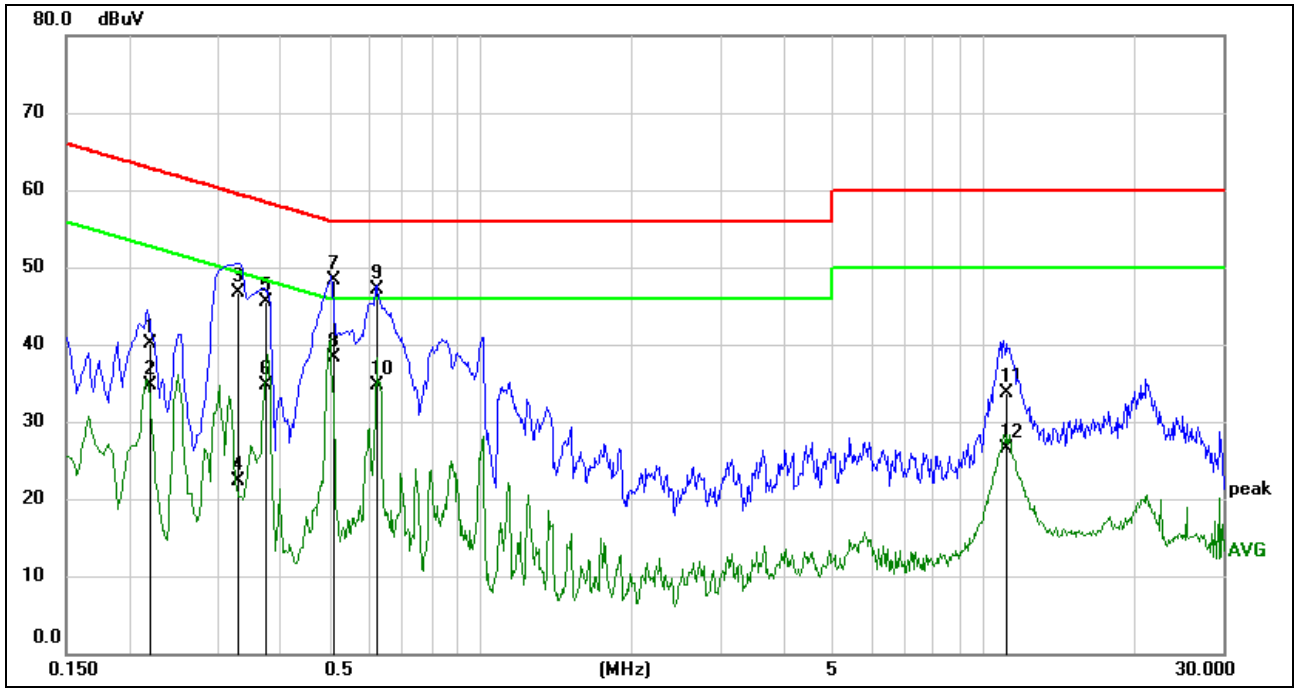
LINE L RESULTS (UNII-1 HIGH CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2203	30.50	9.60	40.10	62.81	-22.71	QP
2	0.2203	25.07	9.60	34.67	52.81	-18.14	AVG
3	0.3299	37.10	9.60	46.70	59.45	-12.75	QP
4	0.3299	12.61	9.60	22.21	49.45	-27.24	AVG
5	0.3748	35.88	9.60	45.48	58.39	-12.91	QP
6	0.3748	25.07	9.60	34.67	48.39	-13.72	AVG
7	0.5109	38.64	9.60	48.24	56.00	-7.76	QP
8	0.5109	28.72	9.60	38.32	46.00	-7.68	AVG
9	0.6271	37.41	9.60	47.01	56.00	-8.99	QP
10	0.6271	25.15	9.60	34.75	46.00	-11.25	AVG
11	11.0432	23.93	9.76	33.69	60.00	-26.31	QP
12	11.0432	16.84	9.76	26.60	50.00	-23.40	AVG

Note: 1. Result = Reading +Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz-150 kHz), 9 kHz (150 kHz-30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

Note: All the test modes have been tested, only the worst data record in the report.

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10. FREQUENCY STABILITY

LIMITS

The frequency of the carrier signal shall be maintained within band of operation

TEST SETUP AND PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

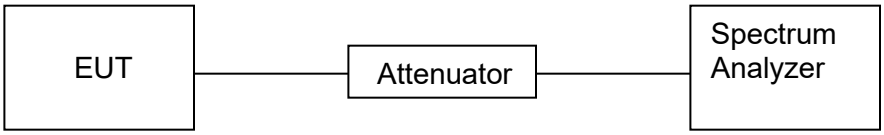
Center Frequency	The center frequency of the channel under test
Detector	PEAK
RBW	10kHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Allow the trace to stabilize, find the peak value of the power envelope and record the frequency, then calculated the frequency drift.

The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

User manual temperature is 0°C~45°C.

TEST SETUP



	Normal Test Conditions	Extreme Test Conditions
Temperature	NT(Normal Temperature): 24.7°C	LT(Low Temperature): 0°C
		HT(High Temperature): 45°C
Supply Voltage	NV(Normal Voltage): AC 120V	LT(Low Voltage): AC 102V
		HT(High Voltage): AC 138V

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TEST RESULTS

Frequency Error vs. Voltage									
802.11a:5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5200.02503	4.81	5200.02796	5.38	5200.0312	6.00	5200.02625	5.05
TN	VN	5200.02861	5.50	5200.02792	5.37	5200.04244	8.16	5200.02831	5.44
TN	VH	5200.02588	4.98	5200.03036	5.84	5200.04122	7.93	5200.03936	7.57

Frequency Error vs. Temperature									
802.11a:5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
45	VN	5200.03449	6.63	5200.04561	8.77	5200.03216	6.18	5200.04537	8.72
40	VN	5200.03341	6.42	5200.02877	5.53	5200.03344	6.43	5200.02587	4.98
30	VN	5200.04566	8.78	5200.03713	7.14	5200.03655	7.03	5200.02679	5.15
20	VN	5200.02852	5.49	5200.03662	7.04	5200.0371	7.14	5200.03381	6.50
10	VN	5200.02763	5.31	5200.03837	7.38	5200.03135	6.03	5200.03875	7.45
0	VN	5200.02424	4.66	5200.03622	6.97	5200.04289	8.25	5200.02267	4.36

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Frequency Error vs. Voltage									
802.11a:5825MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5825.03248	5.58	5825.03574	6.14	5825.04554	7.82	5825.04365	7.49
TN	VN	5825.02223	3.82	5825.0404	6.94	5825.03174	5.45	5825.04552	7.82
TN	VH	5825.02649	4.55	5825.04108	7.05	5825.0243	4.17	5825.03354	5.76

Frequency Error vs. Temperature									
802.11a:5825MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
45	VN	5825.02793	4.79	5825.04528	7.77	5825.04129	7.09	5825.04217	7.24
40	VN	5825.04106	7.05	5825.0289	4.96	5825.02266	3.89	5825.04362	7.49
30	VN	5825.04297	7.38	5825.02786	4.78	5825.03744	6.43	5825.02603	4.47
20	VN	5825.04574	7.85	5825.03089	5.30	5825.04103	7.04	5825.02974	5.11
10	VN	5825.02991	5.14	5825.02623	4.50	5825.02337	4.01	5825.03966	6.81
0	VN	5825.04119	7.07	5825.03588	6.16	5825.03399	5.83	5825.04699	8.07

Note: All the test modes have been tested, only the worst data record in the report.

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11. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Complies

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Appendix A1: 26 dB Emission Bandwidth

Test Result

Test Mode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Verdict
11A20	Ant1	5180	19.920	5170.000	5189.920	PASS
		5200	20.640	5189.640	5210.280	PASS
		5240	20.000	5229.840	5249.840	PASS
		5745	20.040	5735.040	5755.080	PASS
		5785	19.960	5775.240	5795.200	PASS
		5825	19.720	5815.000	5834.720	PASS
11N20SISO	Ant1	5180	20.240	5169.840	5190.080	PASS
		5200	20.480	5190.040	5210.520	PASS
		5240	20.440	5229.560	5250.000	PASS
		5745	20.920	5734.360	5755.280	PASS
		5785	20.160	5775.120	5795.280	PASS
		5825	20.440	5814.640	5835.080	PASS
11N40SISO	Ant1	5190	40.800	5169.600	5210.400	PASS
		5230	41.040	5209.680	5250.720	PASS
		5755	40.320	5734.600	5774.920	PASS
		5795	40.960	5774.920	5815.880	PASS
11AC20SISO	Ant1	5180	20.640	5169.840	5190.480	PASS
		5200	20.400	5189.720	5210.120	PASS
		5240	20.160	5229.840	5250.000	PASS
		5745	20.200	5734.720	5754.920	PASS
		5785	20.600	5774.480	5795.080	PASS
		5825	20.320	5814.920	5835.240	PASS
11AC40SISO	Ant1	5190	41.200	5169.440	5210.640	PASS
		5230	41.680	5209.200	5250.880	PASS
		5755	40.000	5734.680	5774.680	PASS
		5795	41.040	5774.200	5815.240	PASS
11AC80SISO	Ant1	5210	81.760	5168.560	5250.320	PASS
		5775	80.000	5735.320	5815.320	PASS

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Test Graphs

11A_Ant1_5180

11A_Ant1_5200

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11A_Ant1_5240

11A_Ant1_5745

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11A_Ant1_5785

11A_Ant1_5825

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11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

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