



REPORT No.: SZ25110146W03

TEST REPORT

APPLICANT : Strutt Pte. Ltd.

PRODUCT NAME : Smart Everyday Vehicle

MODEL NAME : Strutt ev¹, Strutt ev¹c

BRAND NAME : STRUTT

FCC ID : 2BUN8-SEV1

STANDARD(S) : 47 CFR Part 15 Subpart E

RECEIPT DATE : 2025-12-30

TEST DATE : 2026-01-20 to 2026-03-27

ISSUE DATE : 2026-04-10



Edited by:

Zeng Xiaoying
Zeng Xiaoying (Rapporteur)

Approved by:

Shen Junsheng
Shen Junsheng (Supervisor)

NOTE: This document is issued by Shenzhen Morlab Communications Technology Co., Ltd., the test report shall not be reproduced except in full without prior written permission of the company. The test results apply only to the particular sample(s) tested and to the specific tests carried out which is available on request for validation and information confirmed at our website.

MORLAB

Shenzhen Morlab Communications Technology Co., Ltd.
FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

Tel: 86-755-36698555

Http://www.morlab.cn

Fax: 86-755-36698525

E-mail: service@morlab.cn





DIRECTORY

1. Summary of Test Result	4
1.1. Testing Applied Standards	5
1.2. Test Equipment List	6
1.3. Measurement Uncertainty	8
1.4. Testing Laboratory	8
2. General Description	9
2.1. Information of Applicant and Manufacturer	9
2.2. Information of EUT	9
2.3. Channel List of EUT	11
2.4. Test Configuration of EUT	12
2.5. Test Conditions	12
2.6. Test Setup Layout Diagram	13
3. Test Results	16
3.1. Antenna Requirement	16
3.2. Duty Cycle of Test Signal	17
3.3. Maximum Conducted Output Power	18
3.4. Emission Bandwidth	19
3.5. Peak Power Spectral Density	21
3.6. Frequency Stability	22
3.7. Dynamic Frequency Selection	23
3.8. Conducted Emission	28
3.9. Restricted Frequency Bands	29
3.10. Radiated Emission	31
Annex A Test Data and Result	33
Notes	156



REPORT No.: SZ25110146W03

Change History		
Version	Date	Reason for change
1.0	2026-04-10	First edition



1. Summary of Test Result

No.	Section	Description	Test Date	Test Engineer	Result	Remark
1	15.203	Antenna Requirement	N/A	N/A	PASS	/
2	ANSI C63.10	Duty Cycle of the Test Signal	Feb. 12, 2026	Zhu Peihong	PASS	/
3	15.407(a)	Maximum Conducted Output Power	Feb. 12, 2026	Zhu Peihong	PASS	/
4	15.407(a) (e)	Emission Bandwidth	Feb. 12, 2026	Zhu Peihong	PASS	/
5	15.407(a)	Peak Power Spectral Density	Feb. 12, 2026	Zhu Peihong	PASS	/
6	15.407(g)	Frequency Stability	Feb. 12, 2026	Zhu Peihong	PASS	/
7	15.407(h)	DFS	Feb. 12, 2026	Zhu Peihong	PASS	/
8	15.207	Conducted Emission	Mar. 25, 2026	Wang Yapeng	PASS	/
9	15.407(b)	Restricted Frequency Bands	Jan. 04, 2026	Tian Xin	PASS	/
10	15.407(b)	Radiated Emission	Jan. 04, 2026	Tian Xin	PASS	/

Note 1: The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.10-2020.

Note 2: These RF tests were performed according to the method of measurements prescribed in KDB 789033 D02 v02r01.

Note 3: These RF tests were performed according to the method of measurements prescribed in KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02.

Note 4: Any additions, deviation, or exclusions from the method shall be noted in the “Remark”.



1.1. Testing Applied Standards

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

- 47 CFR Part 15 Subpart E Radio Frequency Devices



1.2. Test Equipment List

1.2.1 Conducted Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2025.12.23	2026.12.22
Power Sensor	MY54180008	U2021XA	Agilent	2025.09.03	2026.09.02
Temperature Chamber	12108015	DTL-003S101	YOMA	2025.09.03	2026.09.02
RF Cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
SMA Connector	CN01	RF03	HUBER-SUHNER	N/A	N/A

1.2.2 Conducted Emission Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	101052	ESPI	R&S	2025.05.15	2026.05.14
LISN	103131	ENV 216	R&S	2025.03.20	2026.03.19
				2026.03.18	2027.03.17
RF Coaxial Cable (DC-100MHz)	EMC-CE-00514	N/A	N/A	2025.05.06	2026.05.05

1.2.3 List of Software Used

Description	Manufacturer	Software Version
Test System	MaiWei	2.0.0.0
JS32-RE	Tonscend	5.0.0
TS+ -[JS32-CE]	Tonscend	2.5.0.0

**1.2.4 Radiated Test Equipment**

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Signal Analyzer	MY56060145	N9020A	Agilent	2025.05.13	2026.05.12
Test Antenna - Bi-Log	9163-274	VULB 9163	Schwarzbeck	2025.06.28	2026.06.27
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2025.05.16	2026.05.15
Test Antenna – Horn	9120D-963	BBHA 9120D	Schwarzbeck	2025.05.16	2026.05.15
Test Antenna – Horn	BBHA9170 #773	BBHA9170	Schwarzbeck	2025.06.20	2026.06.19
Preamplifier (10MHz-6GHz)	46732	S10M100L38 02	LUCIX CORP.	2025.05.13	2026.05.12
Preamplifier (2GHz-18GHz)	61171/61172	S020180L32 03	LUCIX CORP.	2025.05.13	2026.05.12
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118-40C-S	Decentest	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-KK-0.5	Qualwave	2025.09.03	2026.09.02
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KKF-2	Qualwave	2025.09.03	2026.09.02
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-NN-5	Qualwave	2025.09.03	2026.09.02
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.06.21	2028.06.20
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.04.19	2028.04.18



1.3. Measurement Uncertainty

Test Items	Uncertainty	Remark
Peak Output Power	$\pm 2.22\text{dB}$	Confidence levels of 95%
Power Spectral Density	$\pm 2.22\text{dB}$	Confidence levels of 95%
Bandwidth	$\pm 5\%$	Confidence levels of 95%
Restricted Frequency Bands	$\pm 5\%$	Confidence levels of 95%
Radiated Emission	$\pm 2.95\text{dB}$	Confidence levels of 95%
Conducted Emission	$\pm 2.44\text{dB}$	Confidence levels of 95%

1.4. Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525
FCC Designation Number:	CN1192
FCC Test Firm Registration Number:	226174



2. General Description

2.1. Information of Applicant and Manufacturer

Applicant:	Strutt Pte. Ltd.
Applicant Address:	1 BULIM LANE 2, #05-53 Bulim Square Singapore (648110)
Manufacturer:	Strutt Pte. Ltd.
Manufacturer Address:	1 BULIM LANE 2, #05-53 Bulim Square Singapore (648110)

2.2. Information of EUT

Product Name:	Smart Everyday Vehicle	
Sample No.:	4#, 7#, 9#	
Hardware Version:	v1.0.0.0	
Software Version:	v1.0.0.0	
Modulation Technology:	OFDM	
Modulation Mode:	802.11a, 802.11n (HT20), 802.11n (HT40) 802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80)	
Operating Frequency Range:	5180MHz-5240MHz; 5260MHz-5320MHz; 5500MHz-5720MHz; 5745MHz-5825MHz	
DFS Function:	☒ Slave without radar detection ☐ Slave with radar detection ☐ Master	
Antenna Type:	FPC Antenna	
Antenna Gain:	5.11dBi	
Accessory Information:	Battery	
	Brand Name:	STRUTT
	Model No.:	BA25013220
	Serial No.:	N/A
	Capacity:	Typical Capacity/TypicalEnergy: 20Ah/640Wh Rated Capacity/RatedEnergy: 18.5Ah/592Wh
	Rated Voltage:	32V
	Charge Limit:	36V
	Manufacturer:	Fujian SCUD Power Technology Co., Ltd.
	AC Adapter	



	Brand Name:	ShenZhen Fuyuandian Power Co., Ltd.
	Model No.:	FY3293609000
	Serial No.:	N/A
	Rated Output:	36.0V $\Rightarrow$ 9.0A
	Rated Input:	100-240V $\sim$ 50/60Hz, 5.0A
	Manufacturer:	Shenzhen Fuyuandian Power Co., Ltd

Note 1: The EUT description presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information. For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

Note 2: According to the certificate holder, they declared that the models Strutt ev¹, Strutt ev¹c only differ in below items:

1. Appearance

Strutt ev¹: The color of the front lower shell of the chassis is dark gray.

Strutt ev¹c: The color of the front lower shell of the chassis is light gray.

2. Hardware and Structure

Strutt ev¹ and Strutt ev¹c have exactly the same hardware configuration and structure.

3. Software

Strutt ev¹: Supports: Manual, AI Voice Assistant, Co-Pilot, Co-Pilot+, Pathfinder, Waypoint, Follow, and Replay.

Strutt ev¹c: Supports: Manual, AI Voice Assistant, Co-Pilot, Co-Pilot+, Pathfinder, and Waypoint.

The main measuring model is Strutt ev¹, only the results for Strutt ev¹ were recorded in this report.

2.3.Channel List of EUT

(U-NII-1) 5180MHz-5240MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	36	5180	40	5200
	44	5220	48	5240
40MHz	38	5190	46	5230
80MHz	42	5210		
(U-NII-2A) 5260MHz-5320MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	52	5260	56	5280
	60	5300	64	5320
40MHz	54	5270	62	5310
80MHz	58	5290		
(U-NII-2C) 5500MHz-5720MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	100	5500	104	5520
	108	5540	112	5560
	116	5580	120	5600
	124	5620	128	5640
	132	5660	136	5680
	140	5700	144	5720
40MHz	102	5510	110	5550
	118	5590	126	5630
	134	5670	141	5710
80MHz	106	5530	122	5610
	138	5690		
(U-NII-3) 5745MHz-5825MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	149	5745	153	5765
	157	5785	161	5805
	165	5825		
40MHz	151	5755	159	5795
80MHz	155	5775		

Note 1: The black bold channels were selected for test.

2.4. Test Configuration of EUT

2.4.1. Modulation Type and Data Rate of EUT

Mode	Bandwidth (MHz)	Modulation Technology	Modulation Type	Data Rate
802.11a	20	OFDM	BPSK	6/9/12/18/24/36/48/54Mbps
			QPSK	
			16QAM	
			64QAM	
802.11n	20/40 (HT20/40)	OFDM	BPSK	MCS0~MCS7
			QPSK	
			16QAM	
			64QAM	
802.11ac	20/40/80 (VHT20/40/80)	OFDM	BPSK	MCS0~MCS9
			QPSK	
			16QAM	
			64QAM	
			256QAM	

Note1: The worst-case mode (bold face) in all data rates has been determined during the pre-scan, only the test data of the worst-case were recorded in this report.

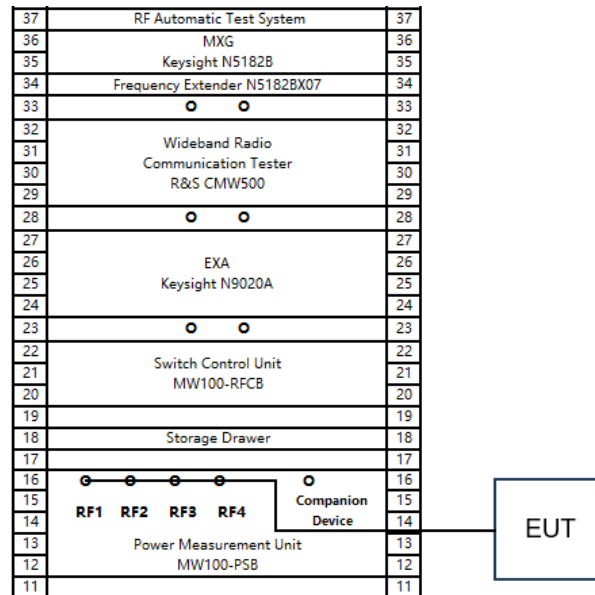
Note2: The RF signal transmission of EUT is controlled by the build-in engineering mode which is provided by the manufacturer. The recorded power setting value is the maximum that the engineering mode has configuration during testing.

2.5. Test Conditions

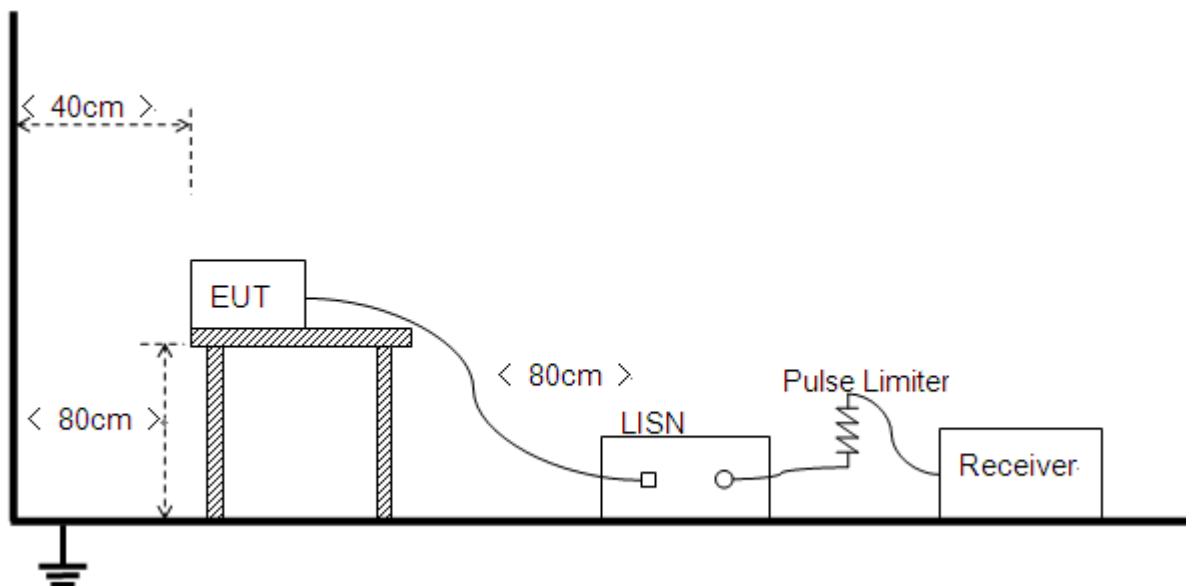
Temperature (°C):	15–35
Relative Humidity (%):	30–60
Atmospheric Pressure (kPa):	86–106

2.6. Test Setup Layout Diagram

2.6.1. Conducted Measurement

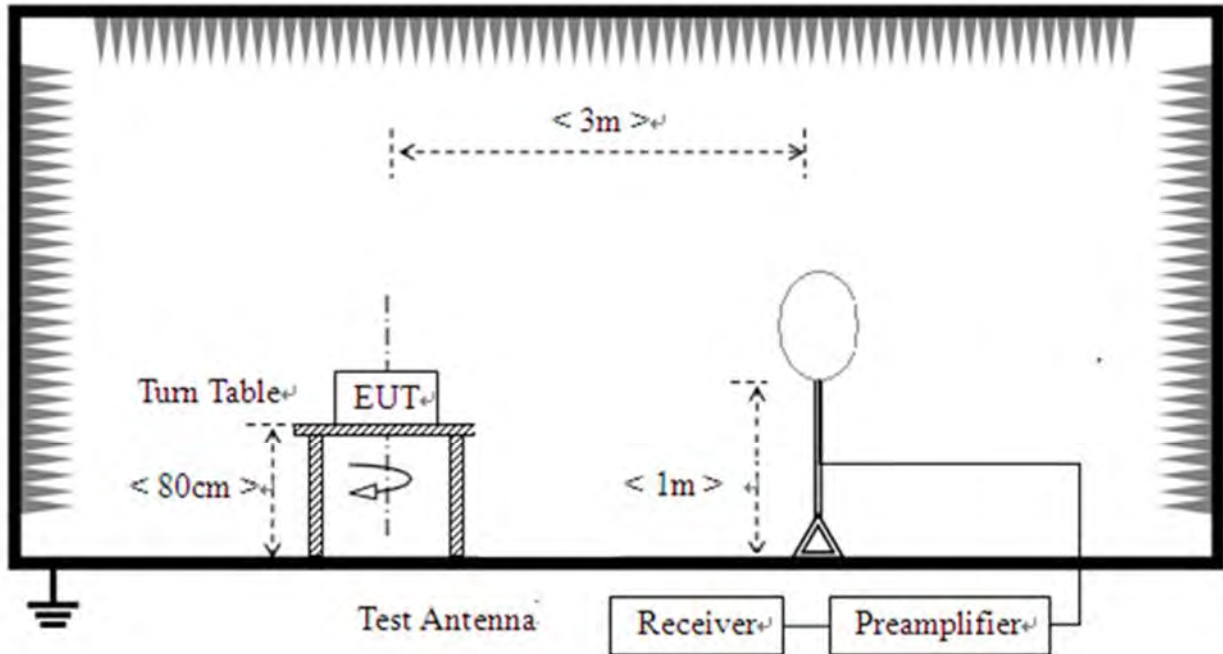


2.6.2. Conducted Emission Measurement

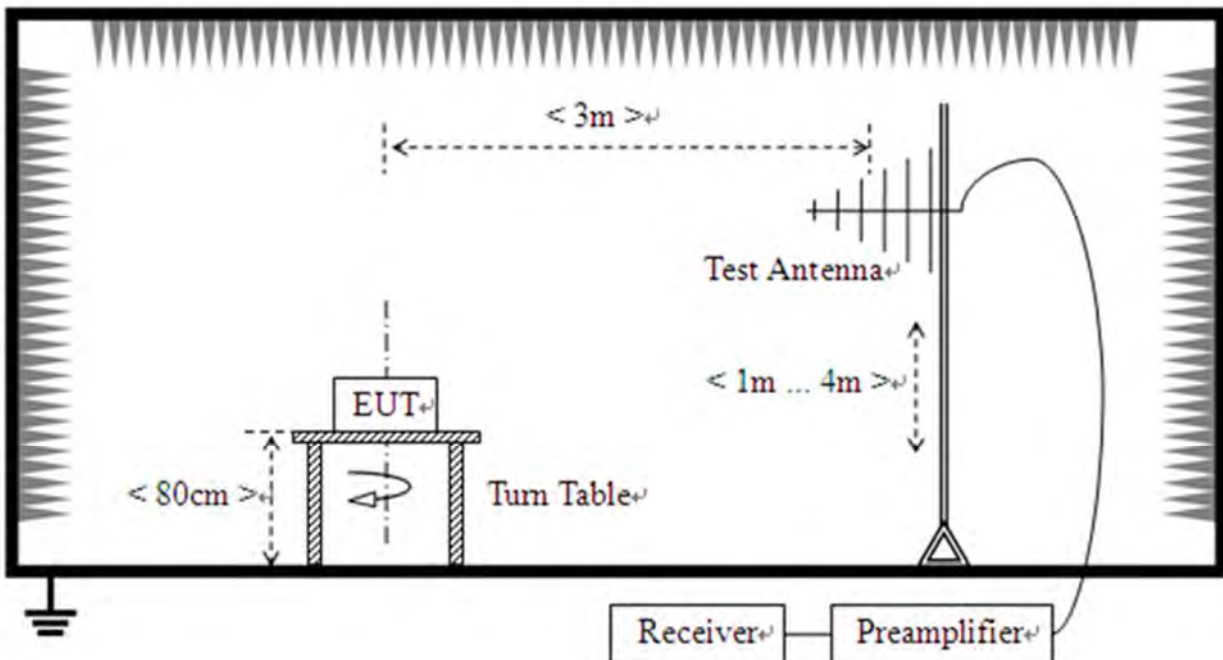


2.6.3.Radiation Measurement

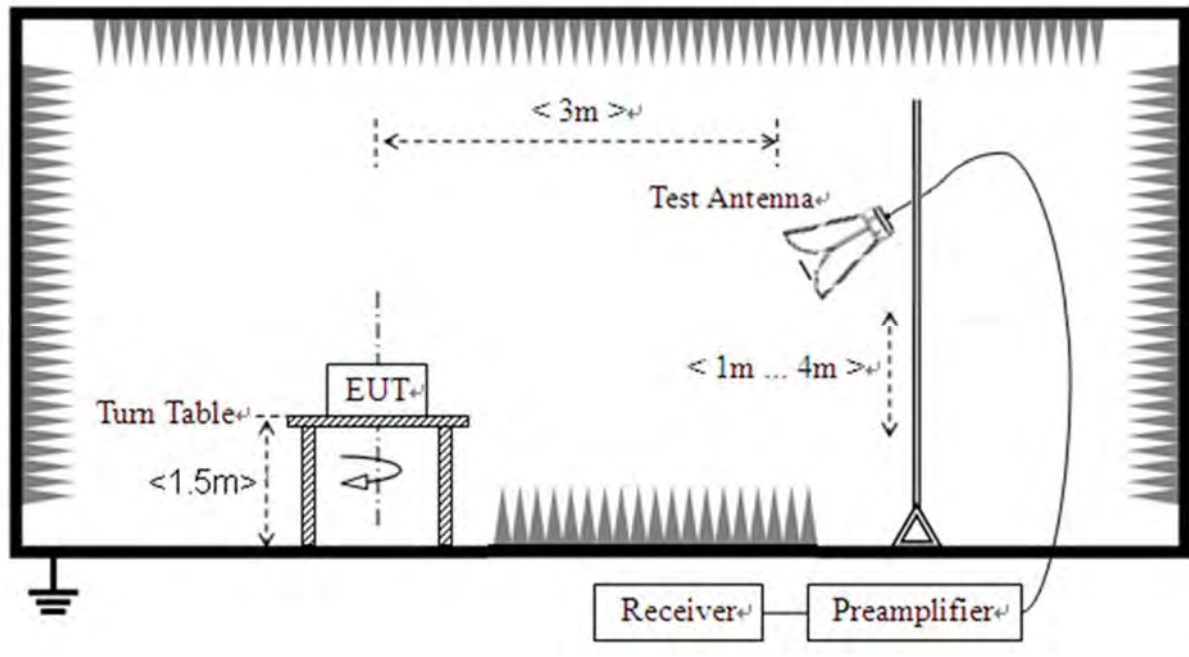
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz





3. Test Results

3.1. Antenna Requirement

3.1.1. Requirement

According 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.

3.1.2. Test Result

Antenna location	Antenna Type	Coupling Method
☒ Internal ☐ External	☒ FPC Antenna ☐ Spring Antenna ☐ Ceramic Antenna ☐ Integrated Antenna ☐ Dipole Antenna ☐ PCB Antenna ☐ PIFA Antenna ☐ Inverted F Antenna	☒ I-PEX Connector ☐ SMA Connector ☐ RP-SMA Connector ☐ Metal Shrapnel ☐ Layout

3.2. Duty Cycle of Test Signal

3.2.1. Requirement

Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%). When continuous operation cannot be realized, then the use of sweep triggering/signal gating techniques can be used to ensure that measurements are made only during transmissions at the maximum power control level. Such sweep triggering/signal gating techniques will require knowledge of the minimum transmission duration (T) over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation. Sweep triggering/signal gating techniques can then be used if the measurement/sweep time of the analyzer can be set such that it does not exceed T at any time that data are being acquired (i.e., no transmitter OFF-time is to be considered).

When continuous transmission cannot be achieved and sweep triggering/signal gating cannot be implemented, alternative procedures are provided that can be used to measure the average power; however, they will require an additional measurement of the transmitter duty cycle (D). Within this sub clause, the duty cycle refers to the fraction of time over which the transmitter is ON and is transmitting at its maximum power control level. The duty cycle is considered to be constant if variations are less than $\pm 2\%$; otherwise, the duty cycle is considered to be non constant.

3.2.2. Test Result

Refer to Annex A.1 in this report.



3.3. Maximum Conducted Output Power

3.3.1. Requirement

(1) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250mW provided the maximum antenna gain does not exceed 6dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250mW or $11\text{dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

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

(4) According to KDB662911D01 Measure-and-sum technique, the conducted emission level (e.g., transmit power or power in specified bandwidth) is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically to determine the total emission level from the device. Summing is performed in units that are directly proportional to power.

3.3.2. Test Procedures

Based on method PM-G in Section II.E.3.b) of KDB 789033 D02.

3.3.3. Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.3.4. Test Result

Refer to Annex A.2 in this report.



3.4. Emission Bandwidth

3.4.1. Requirement

For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement. Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

3.4.1. Test Procedures

1. KDB 789033 Section C) 1) Emission Bandwidth was used in order to prove compliance
 - a) Set RBW = approximately 1% of the emission bandwidth.
 - b) Set VBW > RBW.
 - c) Detector = Peak.
 - d) Trace mode = max hold.
 - e) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
2. KDB 789033 Section C) 2) minimum emission bandwidth for the band 5.725-5.85GHz was used in order to prove compliance.

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

 - a) Set RBW = 100 kHz.
 - b) Set video bandwidth (VBW) $\geq 3 \times$ RBW.
 - c) Detector = Peak.
 - d) Trace mode = max hold.
 - e) Sweep = auto couple.
 - f) Allow the trace to stabilize.
 - g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



REPORT No.: SZ25110146W03

3.4.2. Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.4.3. Test Result

Refer to Annex A.3 in this report.



3.5. Peak Power Spectral Density

3.5.1. Requirement

(1) For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

(3) For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30dBm in any 500kHz band.

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

(4) According to KDB662911D01 Measure-and-sum technique, the conducted emission level (e.g., transmit power or power in specified bandwidth) is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically to determine the total emission level from the device. Summing is performed in units that are directly proportional to power.

3.5.2. Test Procedures

KDB 789033 Section F) Maximum Power Spectral Density (PSD) Method SA-3 was used in order to prove compliance

- 1) Set span to encompass the entire 26-dB emission bandwidth
- 2) Set RBW = 1MHz. Set VBW $\geq$ 3MHz
- 3) Number of points in sweep $\geq$ 2 Span / RBW. Sweep time = auto
- 4) Detector = Average
- 5) Trace mode=Max hold

Record the max value

3.5.3. Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.5.4. Test Result

Refer to Annex A.4 in this report.



3.6. Frequency Stability

3.6.1. Requirement

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

3.6.2. Test Procedures

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between 5°C to 40°C. The temperature was incremented by 10° intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded. Data for the worst case channel is shown below.

3.6.3. Test Result

Refer to Annex A.5 in this report.

3.7. Dynamic Frequency Selection

3.7.1. Requirement

According to FCC section 15.407(h), (1) Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW. (2)

Radar Detection Function of Dynamic Frequency Selection (DFS). U-NII devices operating with any part of its 26 dB emission bandwidth in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems. Operators shall only use equipment with a DFS mechanism that is turned on when operating in these bands. The device must sense for radar signals at 100 percent of its emission bandwidth. The minimum DFS detection threshold for devices with a maximum e.i.r.p. of 200 mW to 1 W is -64 dBm. For devices that operate with less than 200 mW e.i.r.p. and a power spectral density of less than 10 dBm in a 1 MHz band, the minimum detection threshold is -62 dBm. The detection threshold is the received power averaged over 1 microsecond referenced to a 0 dBi antenna. For the initial channel setting, the manufacturers shall be permitted to provide for either random channel selection or manual channel selection.

A U-NII network will employ a DFS function to detect signals from radar systems and to avoid co-channel operation with these systems. This applies to the 5250-5350 MHz and/or 5470-5725 MHz bands.¹

Within the context of the operation of the DFS function, a U-NII device will operate in either Master Mode or Client Mode. U-NII devices operating in Client Mode can only operate in a network controlled by a U-NII device operating in Master Mode.²

Tables 1 and 2 shown below summarize the information contained in sections 5.1.1 and 5.1.2.

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode
-------------	------------------



	Master	Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

The operational behavior and individual DFS requirements that are associated with these modes are as follows:

Master Devices

- The Master Device will use DFS in order to detect Radar Waveforms with received signal strength above the DFS Detection Threshold in the 5250 – 5350 MHz and 5470 – 5725 MHz bands. DFS is not required in the 5150 – 5250 MHz or 5725 – 5825 MHz bands.
- Before initiating a network on a Channel, the Master Device will perform a Channel Availability Check for specified time duration (Channel Availability Check Time) to ensure that there is no radar system operating on the Channel, using DFS described under subsection a) above.
- The Master Device initiates a U-NII network by transmitting control signals that will enable other U-NII devices to Associate with the Master Device.
- During normal operation, the Master Device will monitor the Channel (In-Service Monitoring) to ensure that there is no radar system operating on the Channel, using DFS described under a).
- If the Master Device has detected a Radar Waveform during In-Service Monitoring as described under d), the Operating Channel of the U-NII network is no longer an Available Channel. The Master Device will instruct all associated Client Device(s) to stop transmitting on this Channel within the Channel Move Time. The transmissions during the Channel Move Time will be limited to the Channel Closing Transmission Time.
- Once the Master Device has detected a Radar Waveform it will not utilize the Channel for the duration of the Non-Occupancy Period. 3.



g) If the Master Device delegates the In-Service Monitoring to a Client Device, then the combination will be tested to the requirements described under d) through f) above.

Client Devices

a) A Client Device will not transmit before having received appropriate control signals from a Master Device.

b) A Client Device will stop all its transmissions whenever instructed by a Master Device to which it is associated and will meet the Channel Move Time and Channel Closing Transmission Time requirements. The Client Device will not resume any transmissions until it has again received control signals from a Master Device.

c) If a Client Device is performing In-Service Monitoring and detects a Radar Waveform above the DFS Detection Threshold, it will inform the Master Device. This is equivalent to the Master Device detecting the Radar Waveform and d) through f) of section 5.1.1 apply.

d) Irrespective of Client Device or Master Device detection the Channel Move Time and Channel Closing Transmission Time requirements remain the same.

e) The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear.

DFS Detection Thresholds

Table 3 below provides the DFS Detection Thresholds for Master Devices as well as Client Devices incorporating In-Service Monitoring.

Table 3: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 mill watt	-64 dBm
EIRP < 200 mill watt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 mill watt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

Response Requirements

Table 4 provides the response requirements for Master and Client Devices incorporating DFS.

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

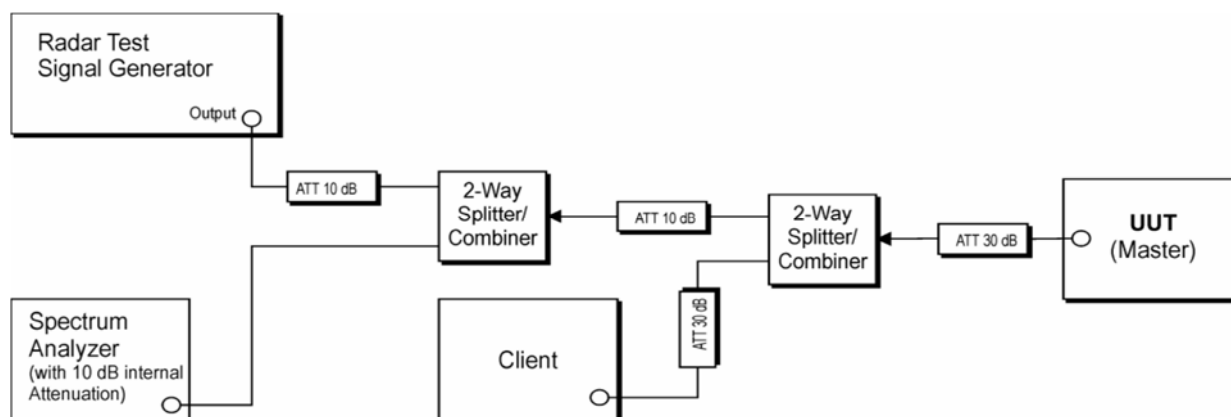
Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

3.7.2.Test Description

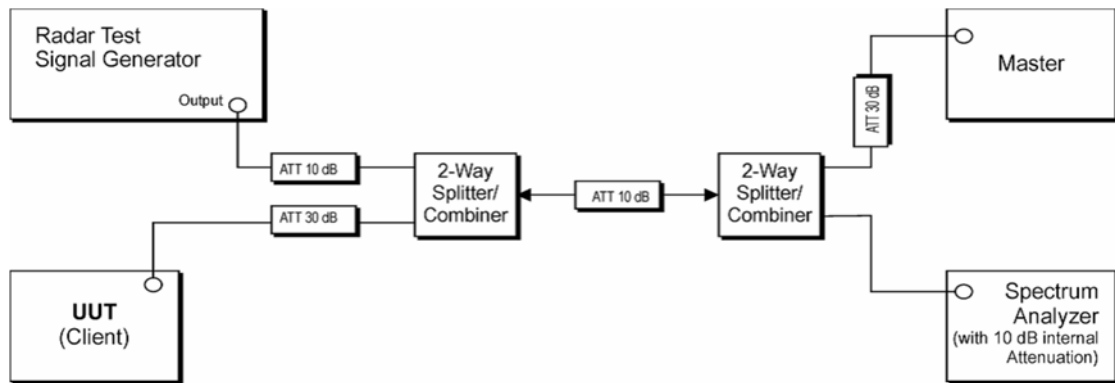
According to Section 7.2 of KDB 905462 D02 V01R01

1. Setup for Master with injection at the Master



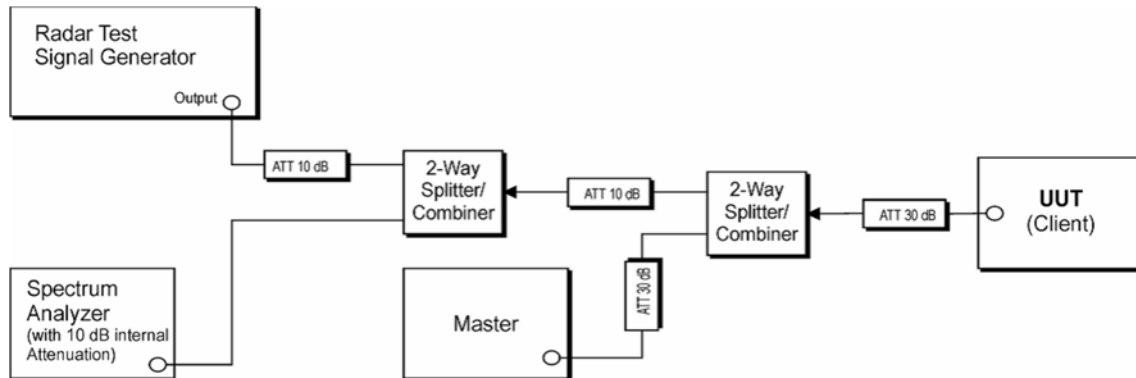
(Example Conducted Setup where UUT is a Master and Radar Test Waveforms are injected into the Master)

2. Setup for Client with injection at the Master



(Example Conducted Setup where UUT is a Client and Radar Test Waveforms are injected into the Master)

3. Setup for Client with injection at the Client



(Example Conducted Setup where UUT is a Client and Radar Test Waveforms are injected into the Client)

3.7.3.Information of Companion Device

Product Name:	Router
Manufacturer:	ASUS
FCC ID:	MSQ-RTAXJF00
Device Type:	Master Device
Operating Mode:	Master Mode
Serial No:	M3IAJF201046
Antenna Gain:	2.0dBi

3.7.4.Test Result

Refer to Annex A.6 in this report.

3.8. Conducted Emission

3.8.1. Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency Range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

Note:

- (a) The lower limit shall apply at the band edges.
- (b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

3.8.2. Test Procedures

The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10.

3.8.3. Test Setup Layout

Refer to chapter 2.6.2 in this report.

3.8.4. Test Result

Refer to Annex A.7 in this report.

3.9. Restricted Frequency Bands

3.9.1. Requirement

The peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

The following formula is used to convert the equipment isotropic radiated power(e.i.r.p.) to field strength (dBμV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz = 68.23 dBuV/m



Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

3.9.2.Test Procedures

The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

KDB 789033 Section H) 3)5)6(d)) was used in order to prove compliance

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

3.9.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.9.4.Test Result

Refer to Annex A.8 in this report.

3.10. Radiated Emission

3.10.1.Requirement

The peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

The following formula is used to convert the equipment isotropic radiated power(e.i.r.p.) to field strength (dBμV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz = 68.23 dBuV/m

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3



For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

3.10.2.Test Procedures

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9kHz-90 kHz, 110kHz-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions. For measurements above 1 GHz, keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.

3.10.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.10.4.Test Result

Refer to Annex A.9 in this report.



Annex A Test Data and Result

A.1. Duty Cycle of Test Signal

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	93.64	0.29	0.49
NVNT	a	5220	Ant1	94.5	0.25	0.49
NVNT	a	5240	Ant1	96.26	0.17	0.49
NVNT	a	5260	Ant1	95.81	0.19	0.49
NVNT	a	5300	Ant1	94.5	0.25	0.49
NVNT	a	5320	Ant1	98.11	0.08	0.48
NVNT	a	5500	Ant1	93.64	0.29	0.49
NVNT	a	5580	Ant1	95.37	0.21	0.49
NVNT	a	5720	Ant1	93.69	0.28	0.48
NVNT	a	5745	Ant1	96.26	0.17	0.49
NVNT	a	5785	Ant1	97.2	0.12	0.48
NVNT	a	5825	Ant1	94.5	0.25	0.49
NVNT	n20	5180	Ant1	95.05	0.22	0.52
NVNT	n20	5220	Ant1	94.12	0.26	0.52
NVNT	n20	5240	Ant1	96.97	0.13	0.52
NVNT	n20	5260	Ant1	94.12	0.26	0.52
NVNT	n20	5300	Ant1	96.97	0.13	0.52
NVNT	n20	5320	Ant1	96	0.18	0.52
NVNT	n20	5500	Ant1	94.12	0.26	0.52
NVNT	n20	5580	Ant1	95.05	0.22	0.52
NVNT	n20	5720	Ant1	97.96	0.09	0.52
NVNT	n20	5745	Ant1	92.31	0.35	0.52
NVNT	n20	5785	Ant1	96	0.18	0.52
NVNT	n20	5825	Ant1	96	0.18	0.52
NVNT	n40	5190	Ant1	96	0.18	1.04
NVNT	n40	5230	Ant1	85.45	0.68	1.06
NVNT	n40	5270	Ant1	94.12	0.26	1.04
NVNT	n40	5310	Ant1	90.57	0.43	1.04
NVNT	n40	5510	Ant1	90.38	0.44	1.06
NVNT	n40	5550	Ant1	85.71	0.67	1.04
NVNT	n40	5710	Ant1	92.16	0.35	1.06
NVNT	n40	5755	Ant1	90.38	0.44	1.06



NVNT	n40	5795	Ant1	92.16	0.35	1.06
NVNT	ac20	5180	Ant1	96.97	0.13	0.52
NVNT	ac20	5220	Ant1	97.96	0.09	0.52
NVNT	ac20	5240	Ant1	96	0.18	0.52
NVNT	ac20	5260	Ant1	97.98	0.09	0.52
NVNT	ac20	5300	Ant1	92.38	0.34	0.52
NVNT	ac20	5320	Ant1	91.43	0.39	0.52
NVNT	ac20	5500	Ant1	93.2	0.31	0.52
NVNT	ac20	5580	Ant1	96.04	0.18	0.52
NVNT	ac20	5720	Ant1	95.05	0.22	0.52
NVNT	ac20	5745	Ant1	95.1	0.22	0.52
NVNT	ac20	5785	Ant1	96.04	0.18	0.52
NVNT	ac20	5825	Ant1	94.17	0.26	0.52
NVNT	ac40	5190	Ant1	96.04	0.18	0.52
NVNT	ac40	5230	Ant1	87.04	0.6	1.06
NVNT	ac40	5270	Ant1	95.92	0.18	1.06
NVNT	ac40	5310	Ant1	95.92	0.18	1.06
NVNT	ac40	5510	Ant1	95.92	0.18	1.06
NVNT	ac40	5550	Ant1	95.92	0.18	1.06
NVNT	ac40	5710	Ant1	92.16	0.35	1.06
NVNT	ac40	5755	Ant1	90.38	0.44	1.06
NVNT	ac40	5795	Ant1	85.45	0.68	1.06
NVNT	ac80	5210	Ant1	74.19	1.3	2.17
NVNT	ac80	5290	Ant1	85.19	0.7	2.17
NVNT	ac80	5530	Ant1	74.19	1.3	2.17
NVNT	ac80	5610	Ant1	92	0.36	2.17
NVNT	ac80	5690	Ant1	92	0.36	2.17
NVNT	ac80	5775	Ant1	88.46	0.53	2.17

**A.2. Maximum Conducted Output Power**

Condition	Mode	Frequency (MHz)	Antenna	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	13.54	0.02259	24	Pass
NVNT	a	5220	Ant1	13.81	0.02404	24	Pass
NVNT	a	5240	Ant1	14.07	0.02553	24	Pass
NVNT	a	5260	Ant1	14.3	0.02692	24	Pass
NVNT	a	5300	Ant1	14.58	0.02871	24	Pass
NVNT	a	5320	Ant1	14.83	0.03041	24	Pass
NVNT	a	5500	Ant1	17.52	0.05649	24	Pass
NVNT	a	5580	Ant1	18.43	0.06966	24	Pass
NVNT	a	5720	Ant1	17.37	0.05458	24	Pass
NVNT	a	5745	Ant1	17	0.05012	30	Pass
NVNT	a	5785	Ant1	17.08	0.05105	30	Pass
NVNT	a	5825	Ant1	16.64	0.04613	30	Pass
NVNT	n20	5180	Ant1	13.49	0.02234	24	Pass
NVNT	n20	5220	Ant1	13.73	0.0236	24	Pass
NVNT	n20	5240	Ant1	13.99	0.02506	24	Pass
NVNT	n20	5260	Ant1	13.87	0.02438	24	Pass
NVNT	n20	5300	Ant1	14.38	0.02742	24	Pass
NVNT	n20	5320	Ant1	14.68	0.02938	24	Pass
NVNT	n20	5500	Ant1	17.36	0.05445	24	Pass
NVNT	n20	5580	Ant1	18.29	0.06745	24	Pass
NVNT	n20	5720	Ant1	17.26	0.05321	24	Pass
NVNT	n20	5745	Ant1	16.96	0.04966	30	Pass
NVNT	n20	5785	Ant1	16.95	0.04955	30	Pass
NVNT	n20	5825	Ant1	16.6	0.04571	30	Pass
NVNT	n40	5190	Ant1	13.79	0.02393	24	Pass
NVNT	n40	5230	Ant1	13.9	0.02455	24	Pass
NVNT	n40	5270	Ant1	14.12	0.02582	24	Pass
NVNT	n40	5310	Ant1	14.54	0.02844	24	Pass
NVNT	n40	5510	Ant1	17.51	0.05636	24	Pass
NVNT	n40	5550	Ant1	18.1	0.06457	24	Pass
NVNT	n40	5710	Ant1	17.51	0.05636	24	Pass
NVNT	n40	5755	Ant1	16.88	0.04875	30	Pass
NVNT	n40	5795	Ant1	16.93	0.04932	30	Pass
NVNT	ac20	5180	Ant1	13.46	0.02218	24	Pass



NVNT	ac20	5220	Ant1	13.67	0.02328	24	Pass
NVNT	ac20	5240	Ant1	13.85	0.02427	24	Pass
NVNT	ac20	5260	Ant1	14.03	0.02529	24	Pass
NVNT	ac20	5300	Ant1	15.21	0.03319	24	Pass
NVNT	ac20	5320	Ant1	15.12	0.03251	24	Pass
NVNT	ac20	5500	Ant1	17.52	0.05649	24	Pass
NVNT	ac20	5580	Ant1	18.39	0.06902	24	Pass
NVNT	ac20	5720	Ant1	17.29	0.05358	24	Pass
NVNT	ac20	5745	Ant1	16.9	0.04898	30	Pass
NVNT	ac20	5785	Ant1	17.01	0.05023	30	Pass
NVNT	ac20	5825	Ant1	16.61	0.04581	30	Pass
NVNT	ac40	5190	Ant1	13.44	0.02208	24	Pass
NVNT	ac40	5230	Ant1	13.88	0.02443	24	Pass
NVNT	ac40	5270	Ant1	14.05	0.02541	24	Pass
NVNT	ac40	5310	Ant1	14.55	0.02851	24	Pass
NVNT	ac40	5510	Ant1	17.57	0.05715	24	Pass
NVNT	ac40	5550	Ant1	18.08	0.06427	24	Pass
NVNT	ac40	5710	Ant1	17.4	0.05495	24	Pass
NVNT	ac40	5755	Ant1	16.87	0.04864	30	Pass
NVNT	ac40	5795	Ant1	16.92	0.0492	30	Pass
NVNT	ac80	5210	Ant1	13.63	0.02307	24	Pass
NVNT	ac80	5290	Ant1	14.29	0.02685	24	Pass
NVNT	ac80	5530	Ant1	17.64	0.05808	24	Pass
NVNT	ac80	5610	Ant1	17.97	0.06266	24	Pass
NVNT	ac80	5690	Ant1	17.66	0.05834	24	Pass
NVNT	ac80	5775	Ant1	17.04	0.05058	30	Pass

**A.3. Emission Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a	5180	Ant1	40.49
NVNT	a	5220	Ant1	42.07
NVNT	a	5240	Ant1	39.45
NVNT	a	5260	Ant1	39.48
NVNT	a	5300	Ant1	40.52
NVNT	a	5320	Ant1	43.23
NVNT	a	5500	Ant1	45.76
NVNT	a	5580	Ant1	54.08
NVNT	a	5720	Ant1	51.75
NVNT	n20	5180	Ant1	41.49
NVNT	n20	5220	Ant1	41.23
NVNT	n20	5240	Ant1	41.13
NVNT	n20	5260	Ant1	41.4
NVNT	n20	5300	Ant1	42.36
NVNT	n20	5320	Ant1	41.61
NVNT	n20	5500	Ant1	55.03
NVNT	n20	5580	Ant1	58.43
NVNT	n20	5720	Ant1	51
NVNT	n40	5190	Ant1	78.29
NVNT	n40	5230	Ant1	82.61
NVNT	n40	5270	Ant1	87.33
NVNT	n40	5310	Ant1	85.96
NVNT	n40	5510	Ant1	104.9
NVNT	n40	5550	Ant1	104.5
NVNT	n40	5710	Ant1	103.7
NVNT	ac20	5180	Ant1	42.29
NVNT	ac20	5220	Ant1	42.26
NVNT	ac20	5240	Ant1	40.18
NVNT	ac20	5260	Ant1	40.83
NVNT	ac20	5300	Ant1	44.15
NVNT	ac20	5320	Ant1	43.7
NVNT	ac20	5500	Ant1	53.71
NVNT	ac20	5580	Ant1	61.85
NVNT	ac20	5720	Ant1	58.95
NVNT	ac40	5190	Ant1	96.41
NVNT	ac40	5230	Ant1	91.35

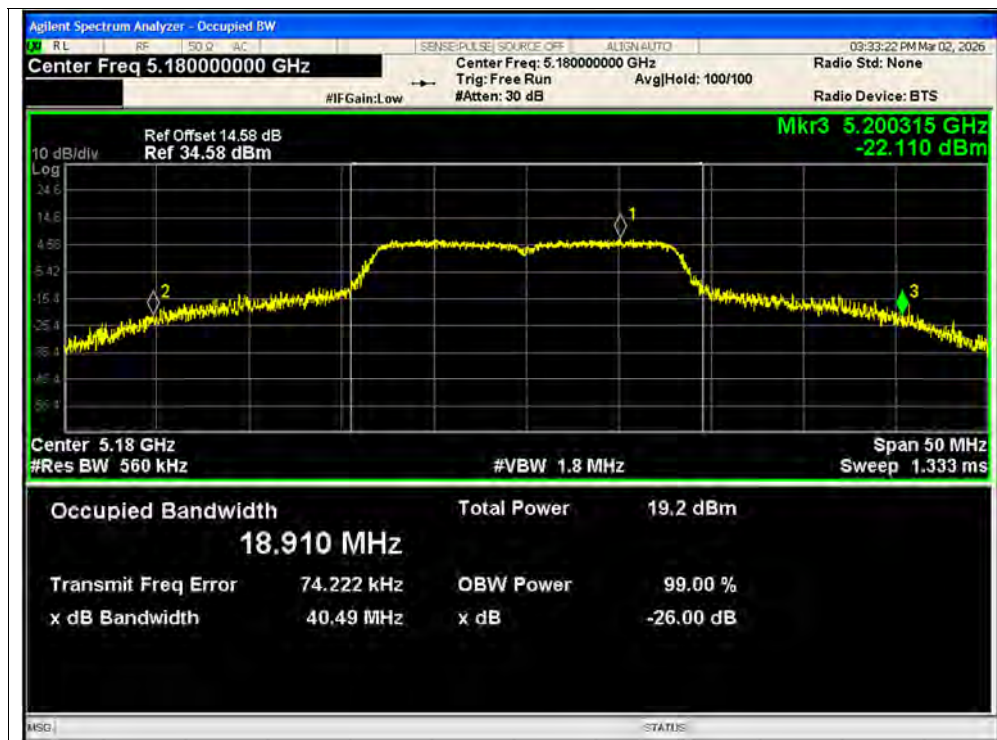


REPORT No.: SZ25110146W03

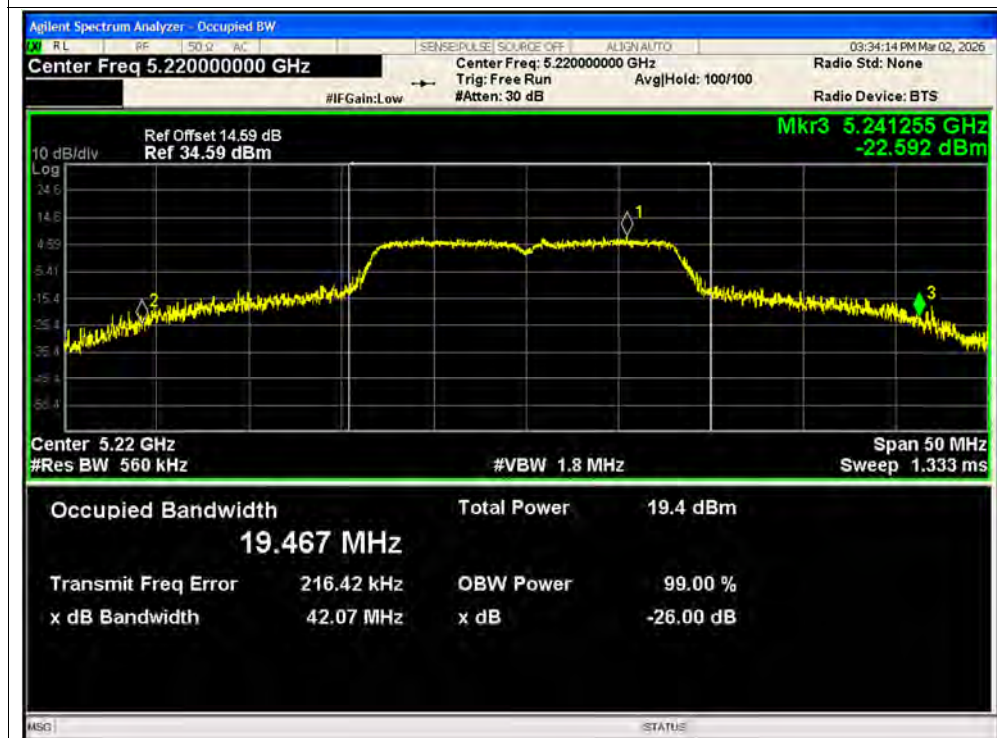
NVNT	ac40	5270	Ant1	90.44
NVNT	ac40	5310	Ant1	85.32
NVNT	ac40	5510	Ant1	103.2
NVNT	ac40	5550	Ant1	102.6
NVNT	ac40	5710	Ant1	103.7
NVNT	ac80	5210	Ant1	158.1
NVNT	ac80	5290	Ant1	171.7
NVNT	ac80	5530	Ant1	181.5
NVNT	ac80	5610	Ant1	207.8
NVNT	ac80	5690	Ant1	211.2



Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.3	0.5	Pass
NVNT	a	5785	Ant1	16.34	0.5	Pass
NVNT	a	5825	Ant1	16.32	0.5	Pass
NVNT	n20	5745	Ant1	16.56	0.5	Pass
NVNT	n20	5785	Ant1	16.39	0.5	Pass
NVNT	n20	5825	Ant1	16.59	0.5	Pass
NVNT	n40	5755	Ant1	35.07	0.5	Pass
NVNT	n40	5795	Ant1	35.39	0.5	Pass
NVNT	ac20	5745	Ant1	16.51	0.5	Pass
NVNT	ac20	5785	Ant1	17.15	0.5	Pass
NVNT	ac20	5825	Ant1	16.67	0.5	Pass
NVNT	ac40	5755	Ant1	35.1	0.5	Pass
NVNT	ac40	5795	Ant1	35.07	0.5	Pass
NVNT	ac80	5775	Ant1	73.86	0.5	Pass



-26dB Bandwidth NVNT a 5180MHz Ant1



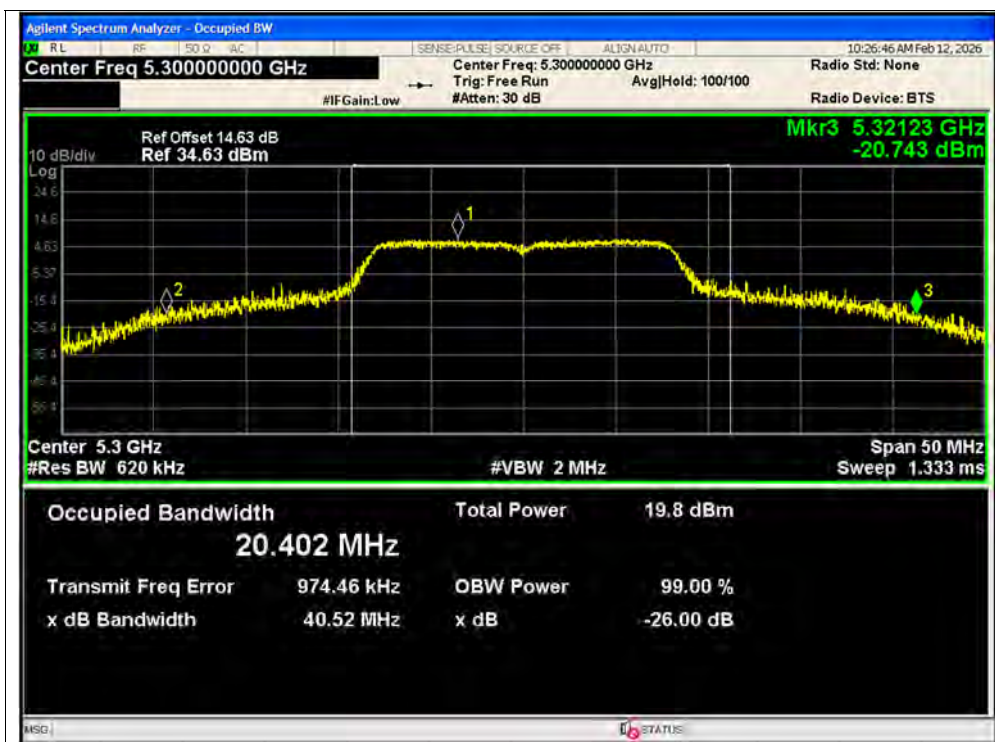
-26dB Bandwidth NVNT a 5220MHz Ant1



-26dB Bandwidth NVNT a 5240MHz Ant1



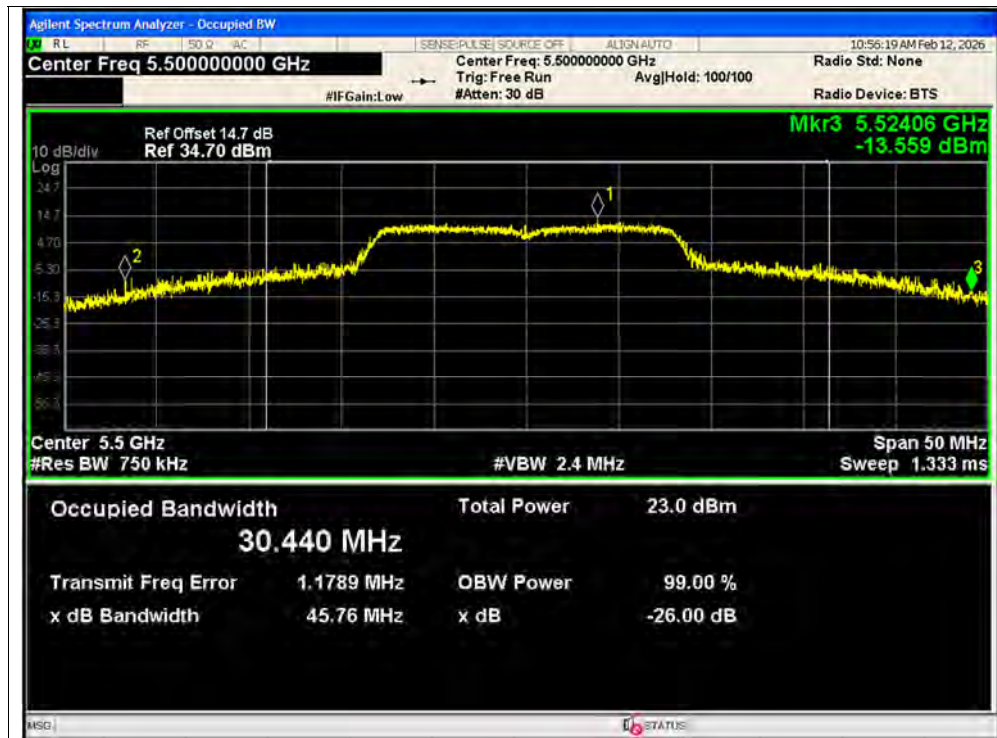
-26dB Bandwidth NVNT a 5260MHz Ant1



-26dB Bandwidth NVNT a 5300MHz Ant1



-26dB Bandwidth NVNT a 5320MHz Ant1



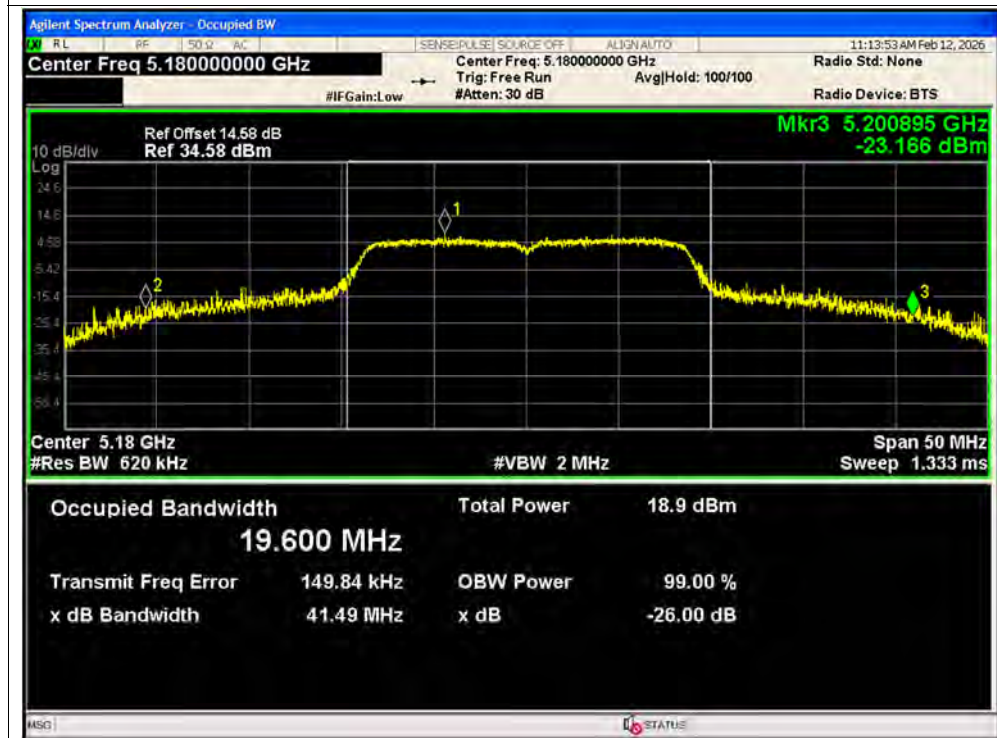
-26dB Bandwidth NVNT a 5500MHz Ant1



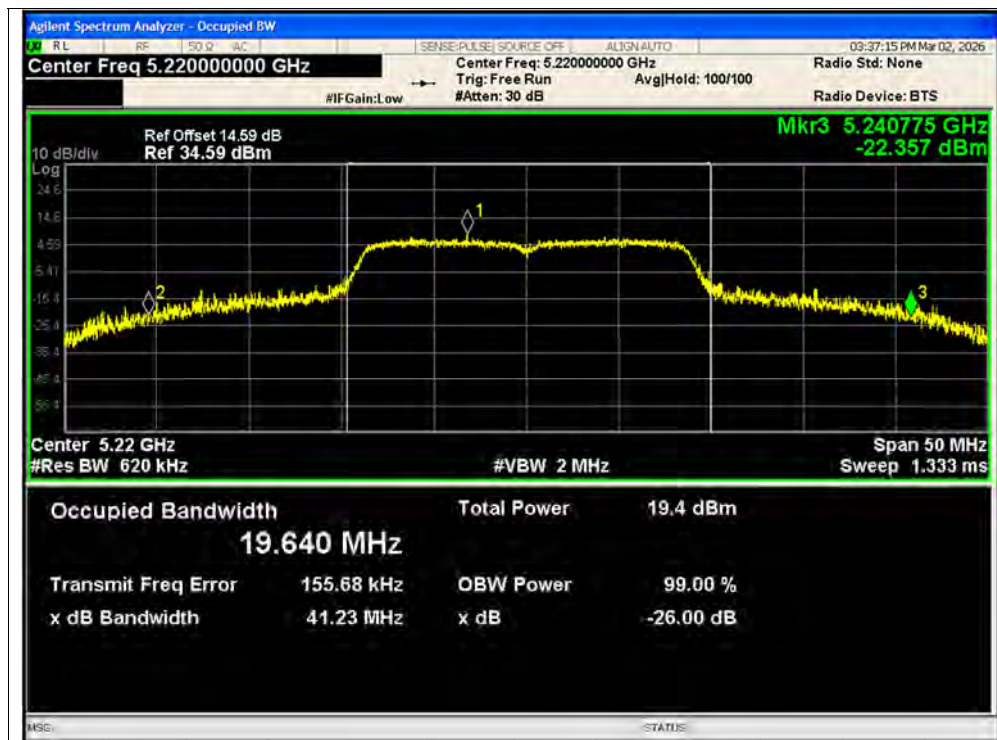
-26dB Bandwidth NVNT a 5580MHz Ant1



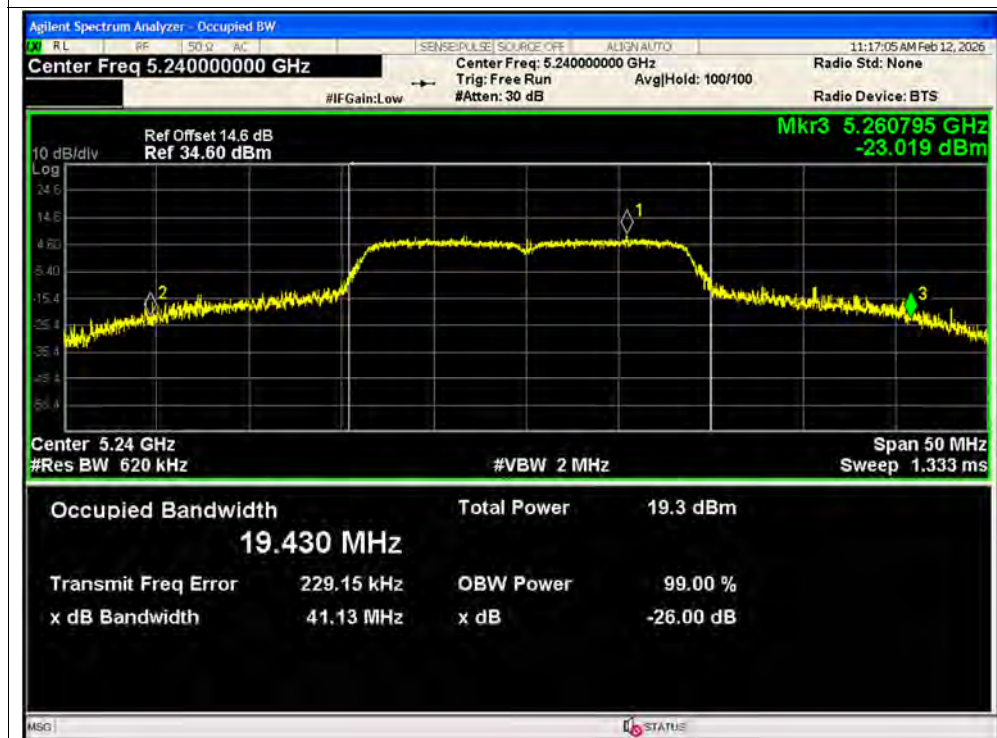
-26dB Bandwidth NVNT a 5720MHz Ant1



-26dB Bandwidth NVNT n20 5180MHz Ant1



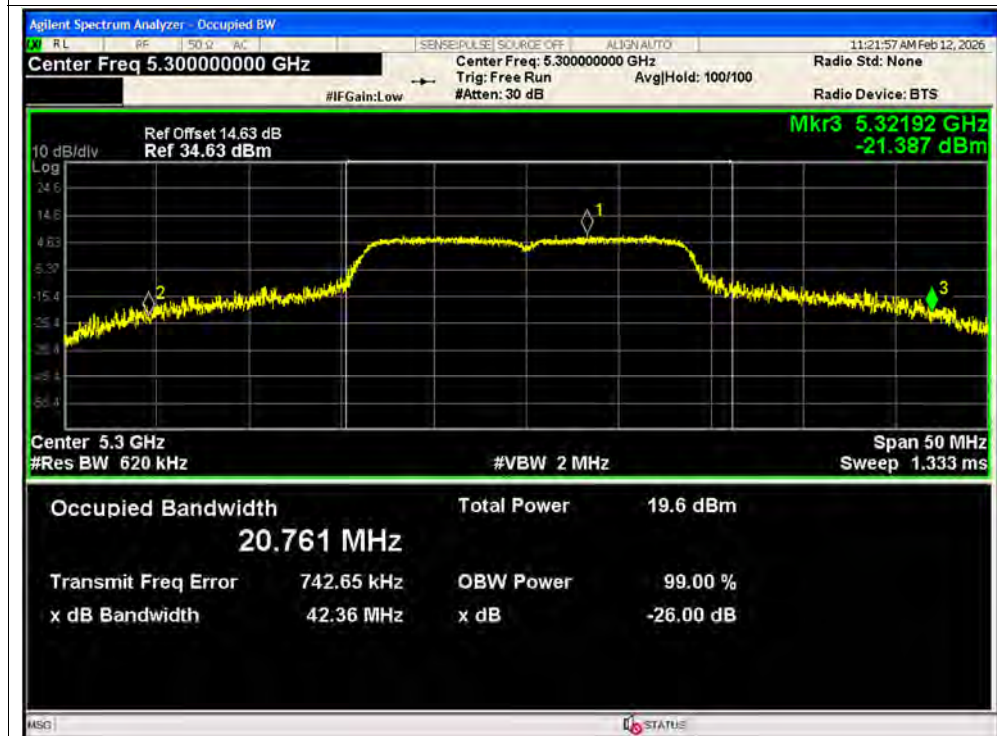
-26dB Bandwidth NVNT n20 5220MHz Ant1



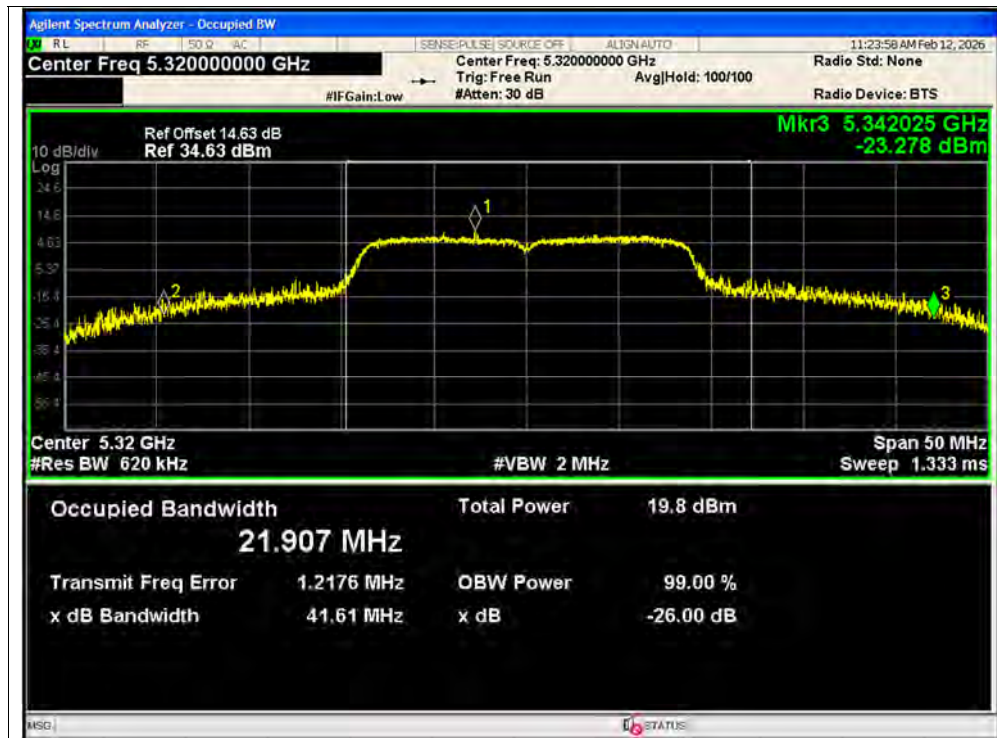
-26dB Bandwidth NVNT n20 5240MHz Ant1



-26dB Bandwidth NVNT n20 5260MHz Ant1



-26dB Bandwidth NVNT n20 5300MHz Ant1



-26dB Bandwidth NVNT n20 5320MHz Ant1



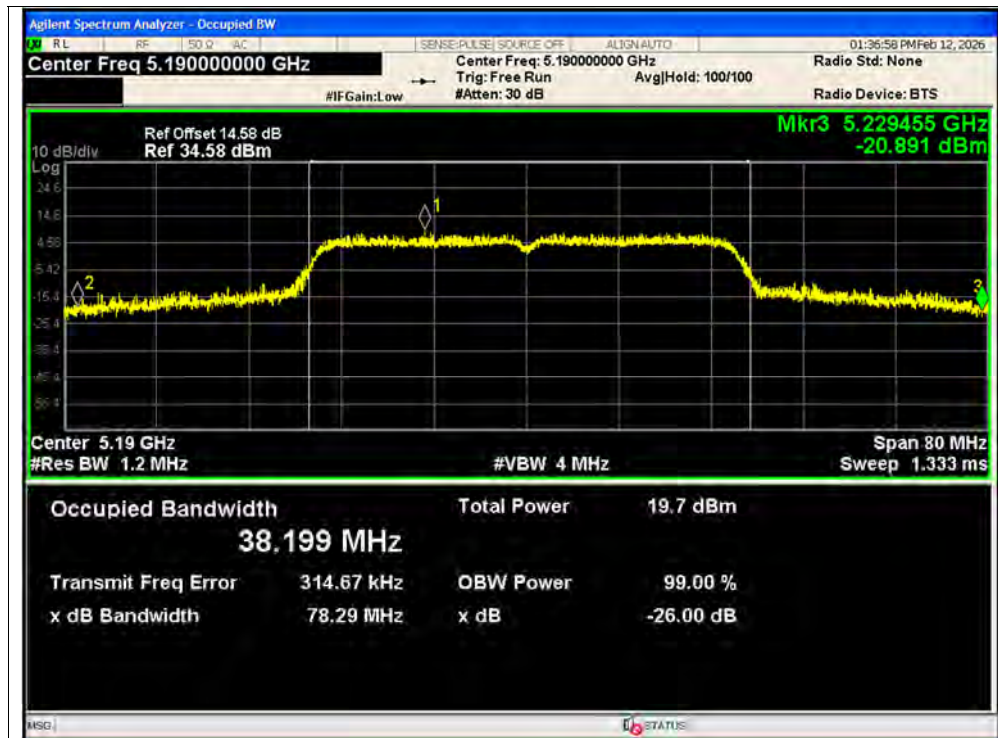
-26dB Bandwidth NVNT n20 5500MHz Ant1



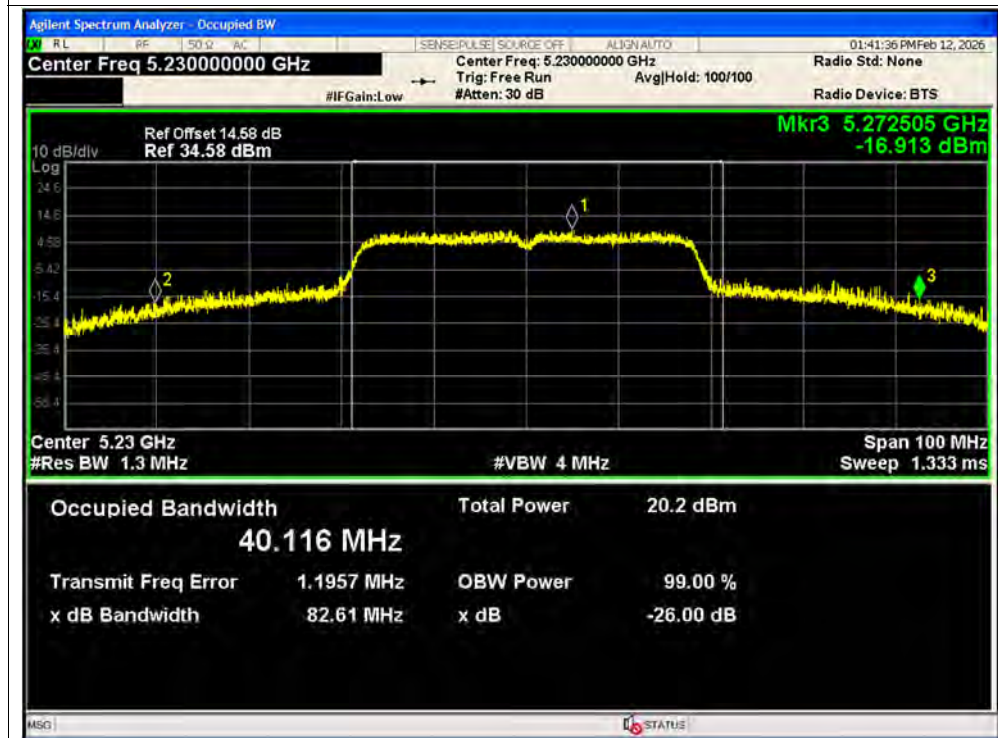
-26dB Bandwidth NVNT n20 5580MHz Ant1



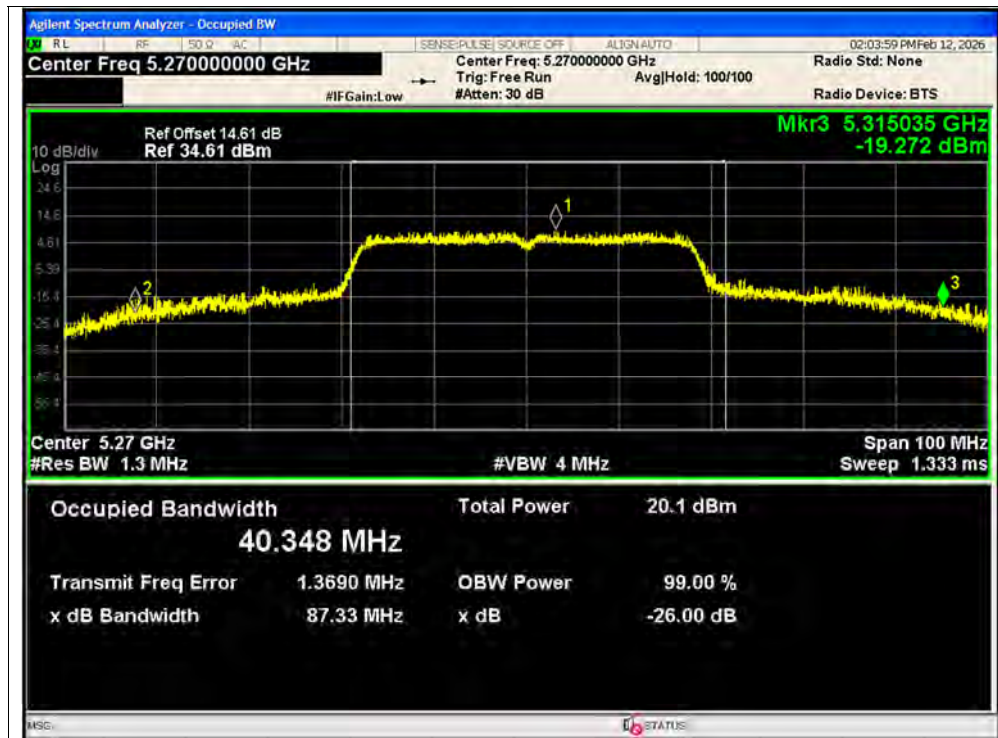
-26dB Bandwidth NVNT n20 5720MHz Ant1



-26dB Bandwidth NVNT n40 5190MHz Ant1



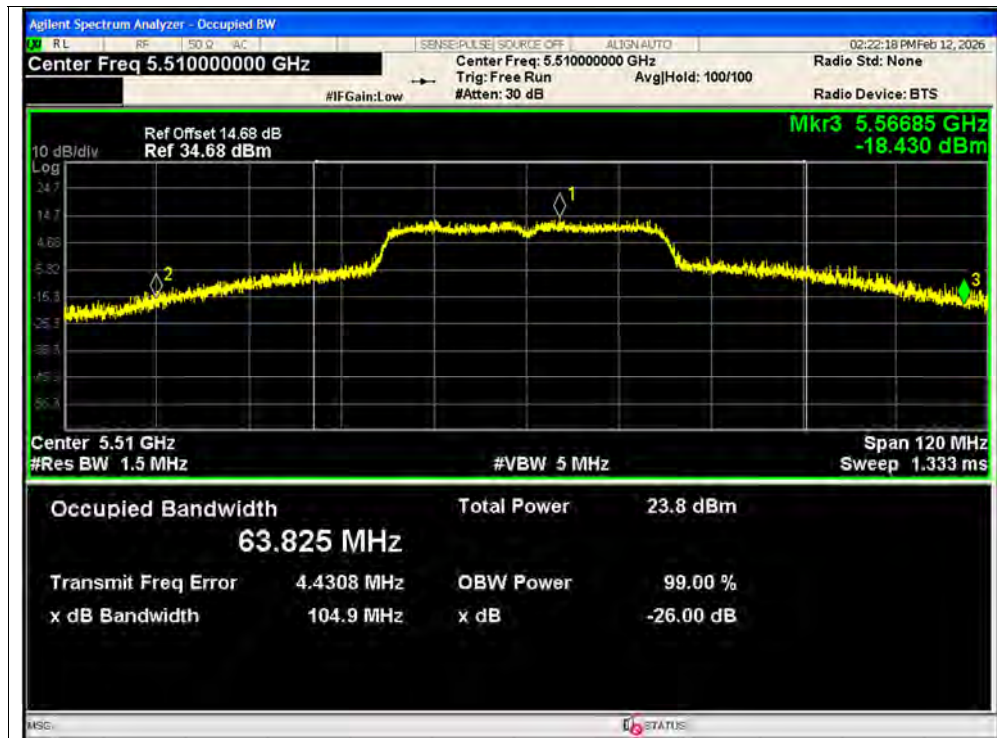
-26dB Bandwidth NVNT n40 5230MHz Ant1



-26dB Bandwidth NVNT n40 5270MHz Ant1



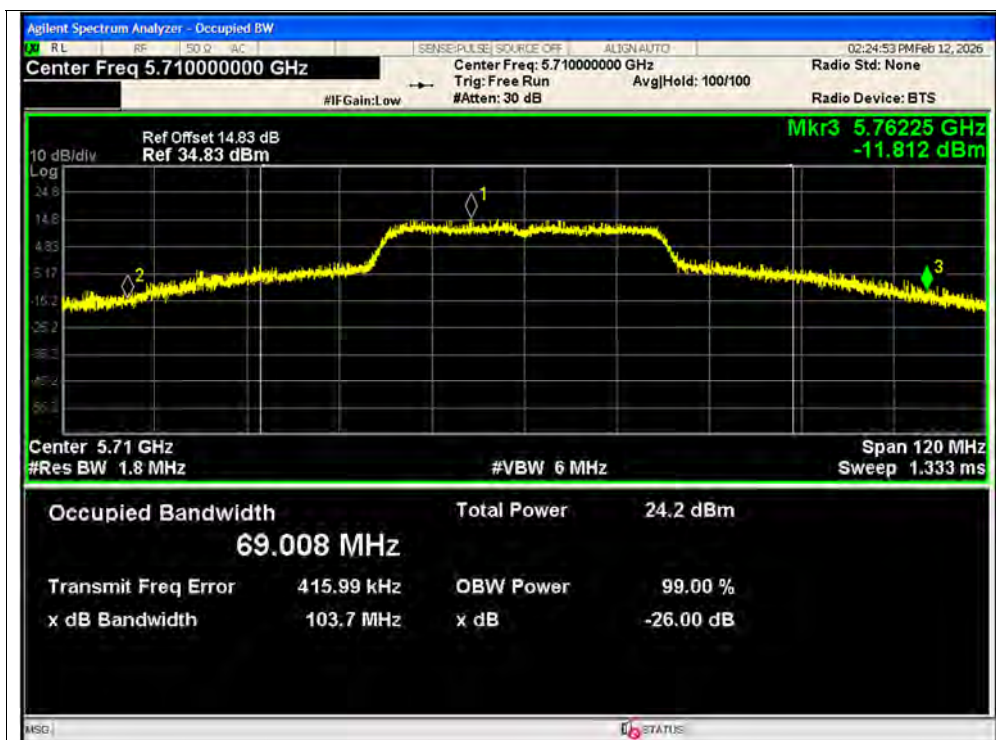
-26dB Bandwidth NVNT n40 5310MHz Ant1



-26dB Bandwidth NVNT n40 5510MHz Ant1



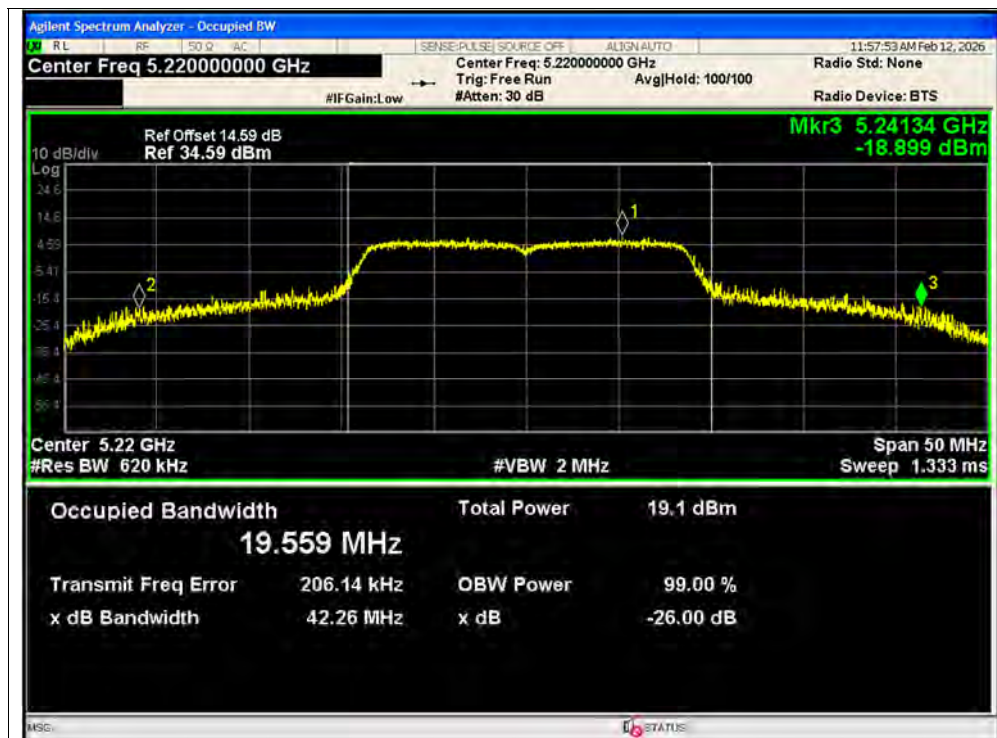
-26dB Bandwidth NVNT n40 5550MHz Ant1



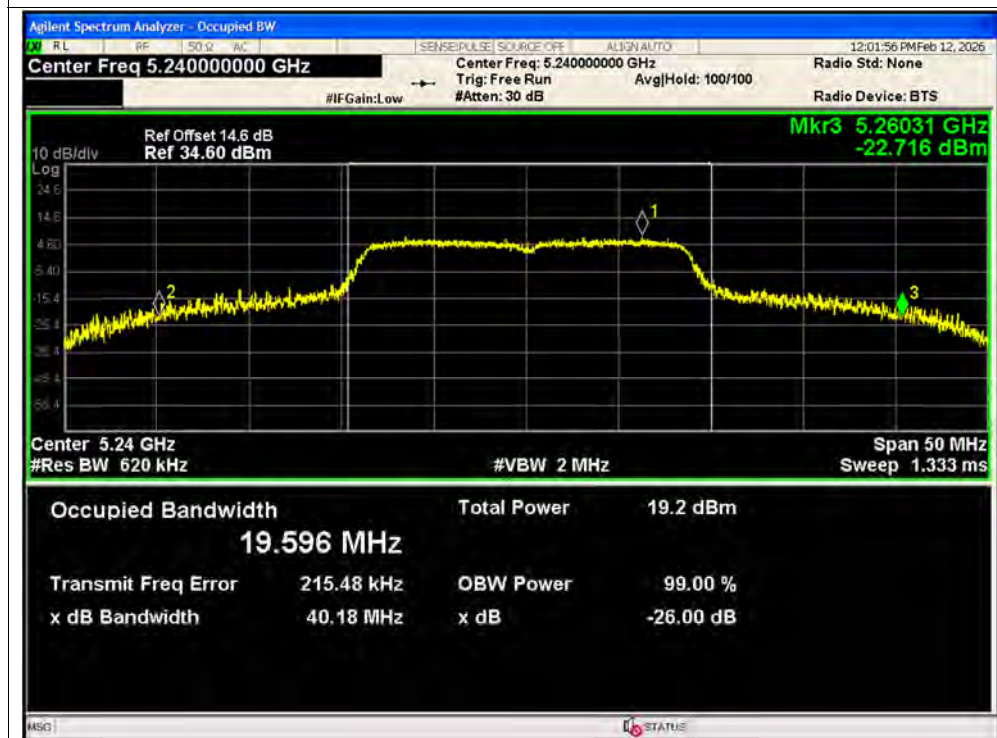
-26dB Bandwidth NVNT n40 5710MHz Ant1



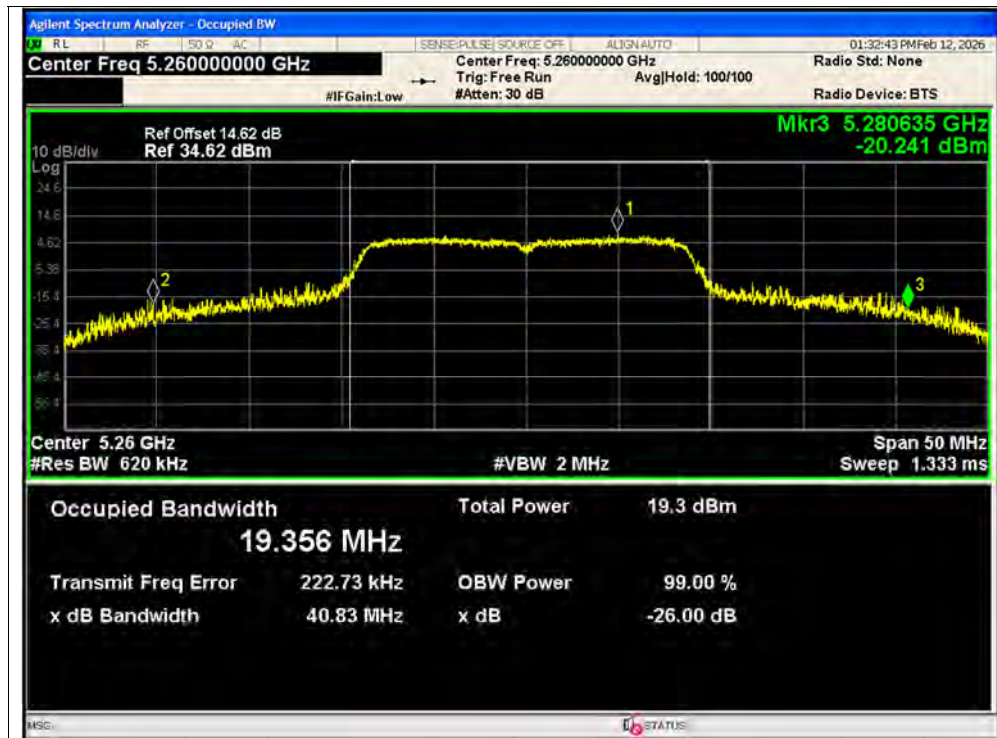
-26dB Bandwidth NVNT ac20 5180MHz Ant1



-26dB Bandwidth NVNT ac20 5220MHz Ant1



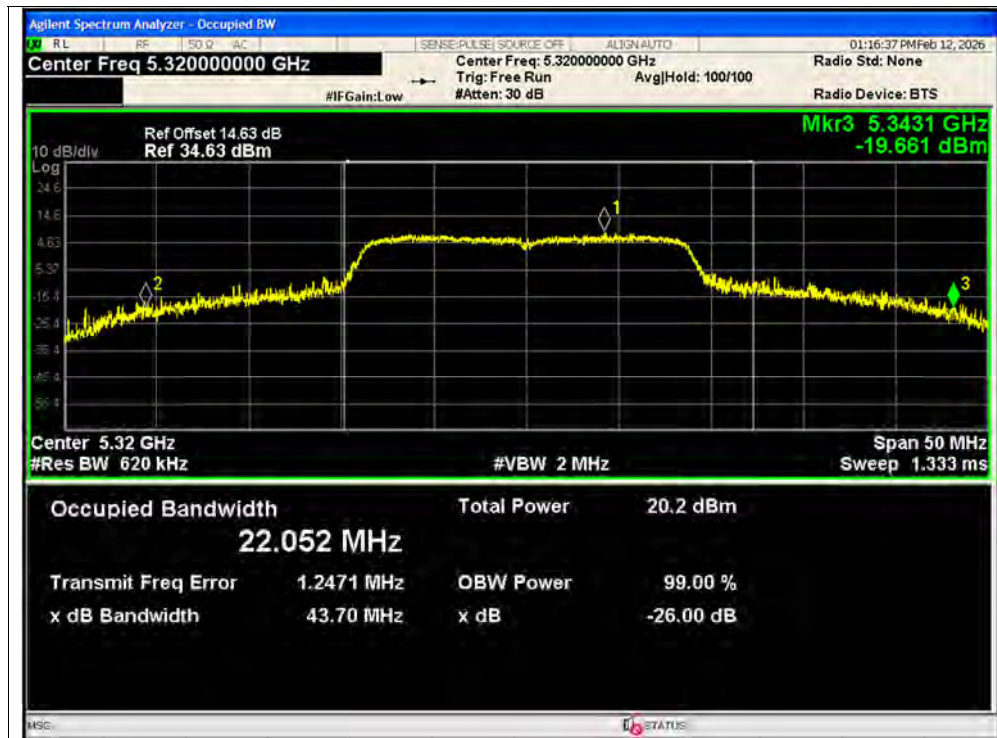
-26dB Bandwidth NVNT ac20 5240MHz Ant1



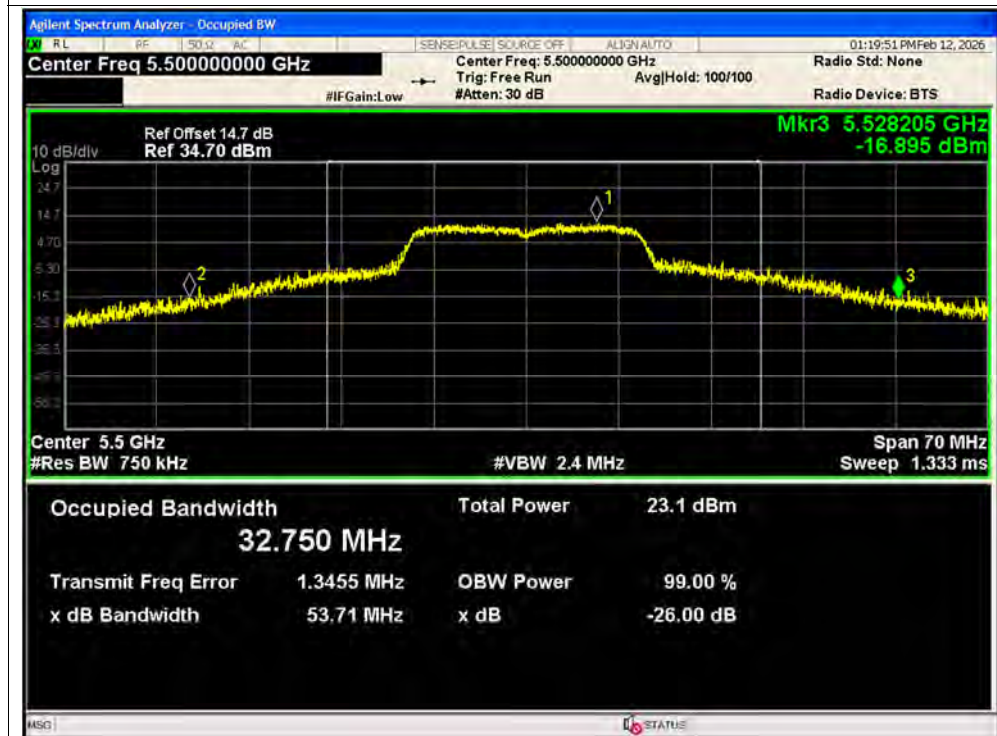
-26dB Bandwidth NVNT ac20 5260MHz Ant1



-26dB Bandwidth NVNT ac20 5300MHz Ant1



-26dB Bandwidth NVNT ac20 5320MHz Ant1



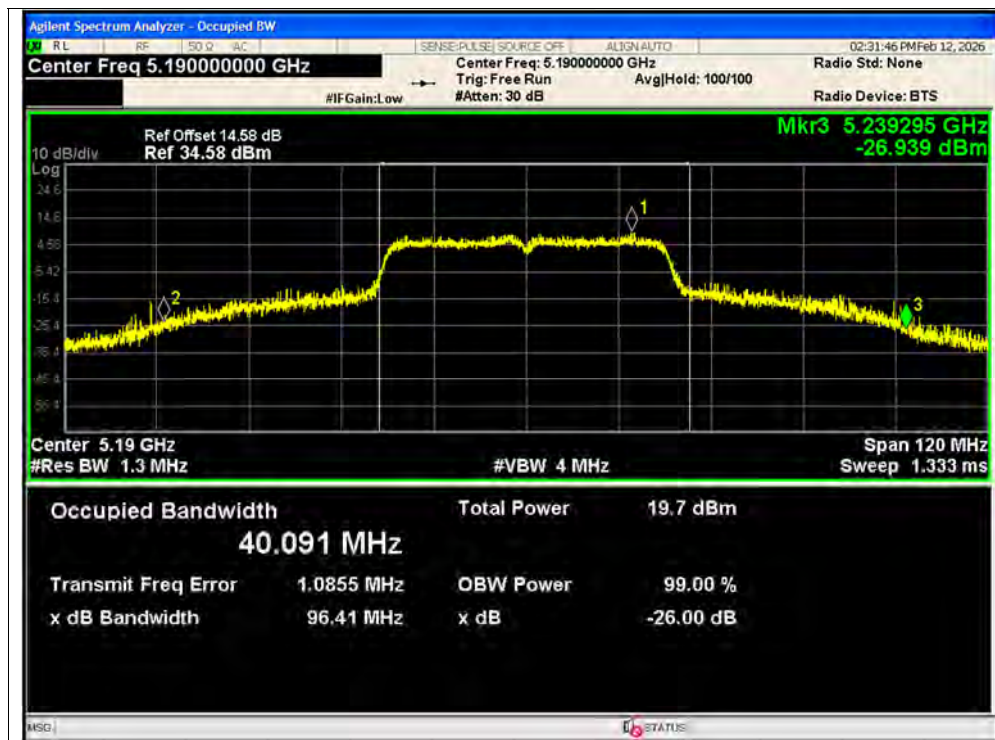
-26dB Bandwidth NVNT ac20 5500MHz Ant1



-26dB Bandwidth NVNT ac20 5580MHz Ant1



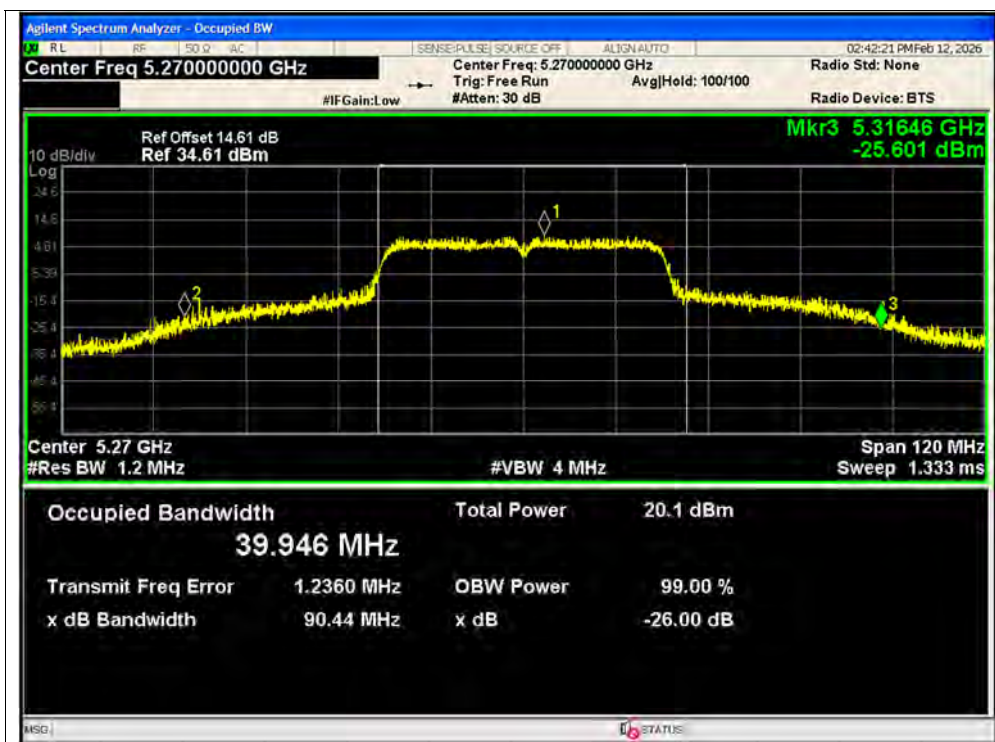
-26dB Bandwidth NVNT ac20 5720MHz Ant1



-26dB Bandwidth NVNT ac40 5190MHz Ant1



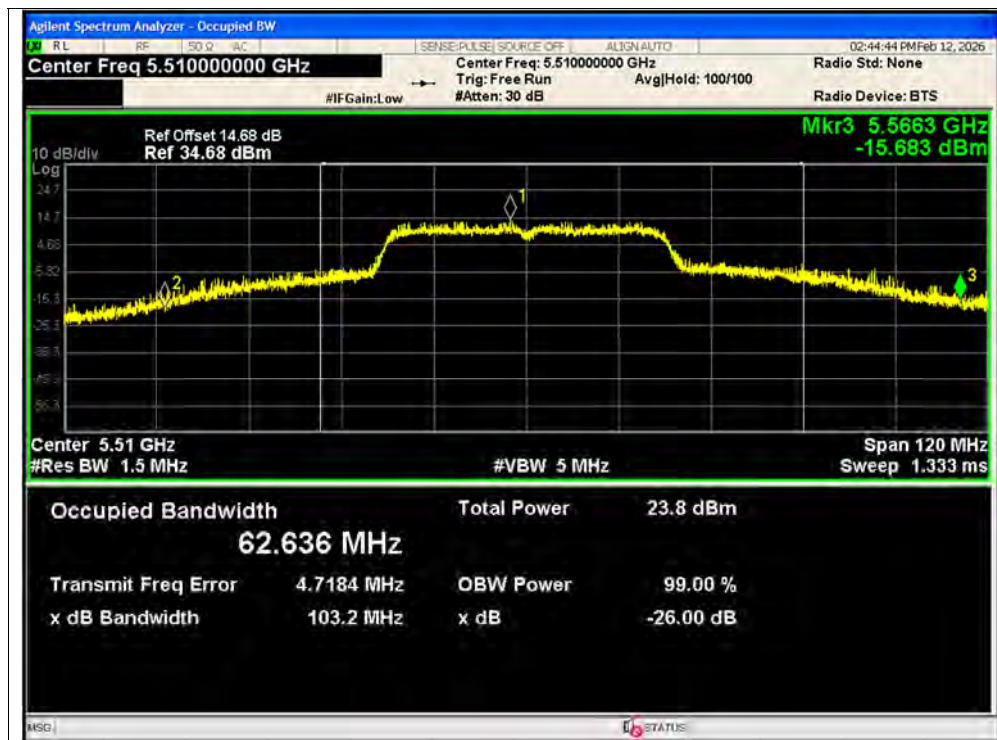
-26dB Bandwidth NVNT ac40 5230MHz Ant1



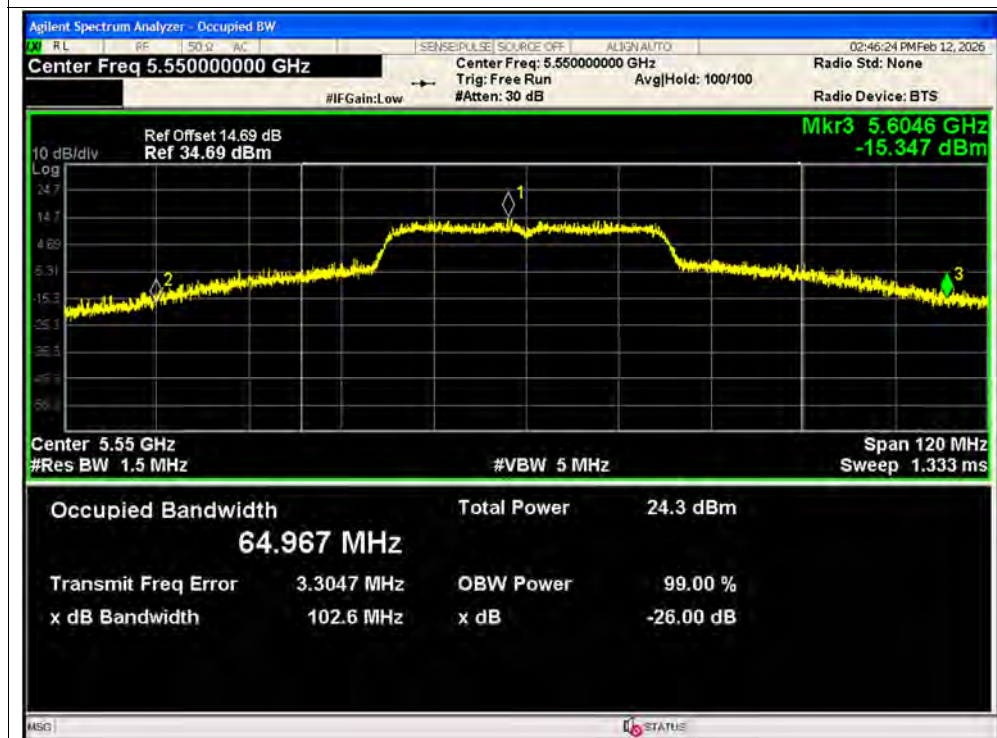
-26dB Bandwidth NVNT ac40 5270MHz Ant1



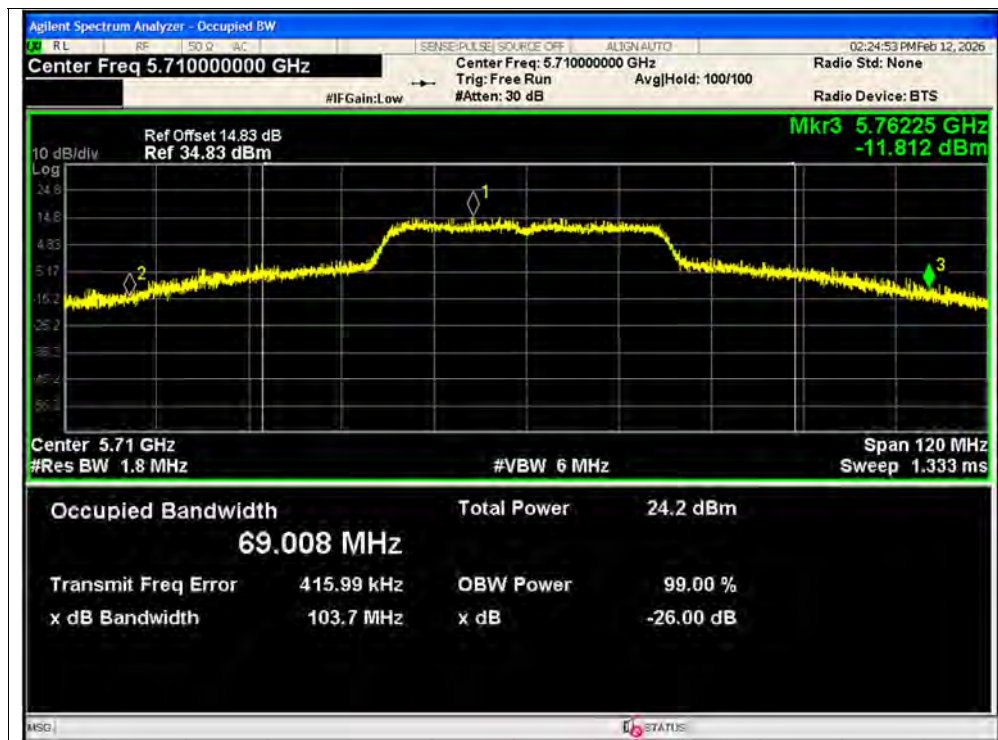
-26dB Bandwidth NVNT ac40 5310MHz Ant1



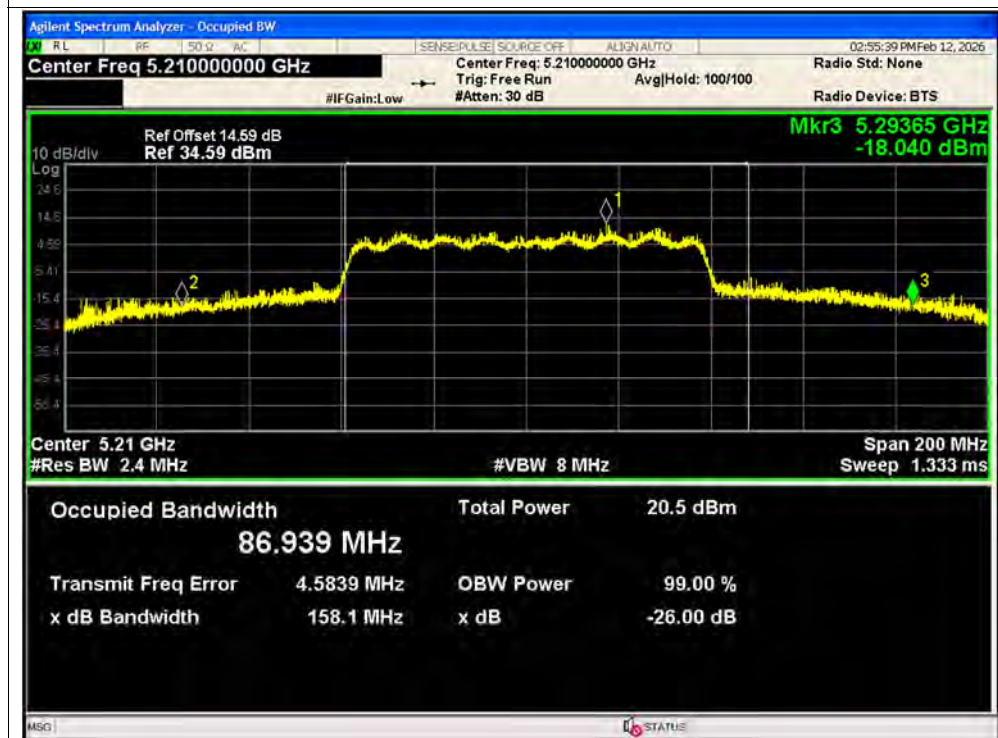
-26dB Bandwidth NVNT ac40 5510MHz Ant1



-26dB Bandwidth NVNT ac40 5550MHz Ant1



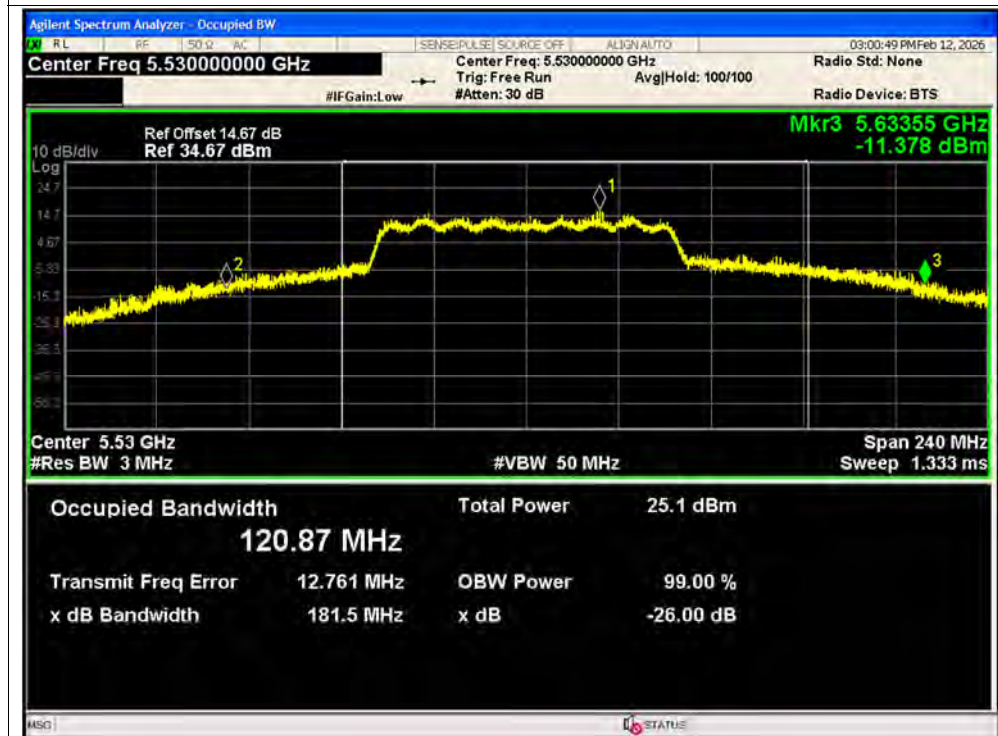
-26dB Bandwidth NVNT ac40 5710MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1



-26dB Bandwidth NVNT ac80 5290MHz Ant1



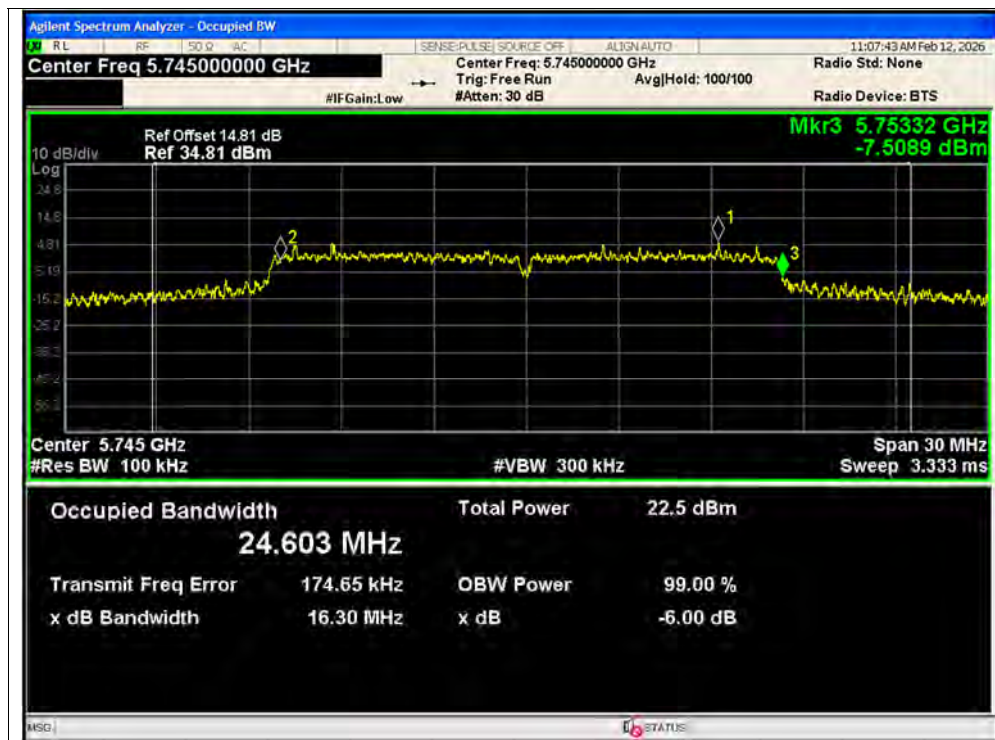
-26dB Bandwidth NVNT ac80 5530MHz Ant1



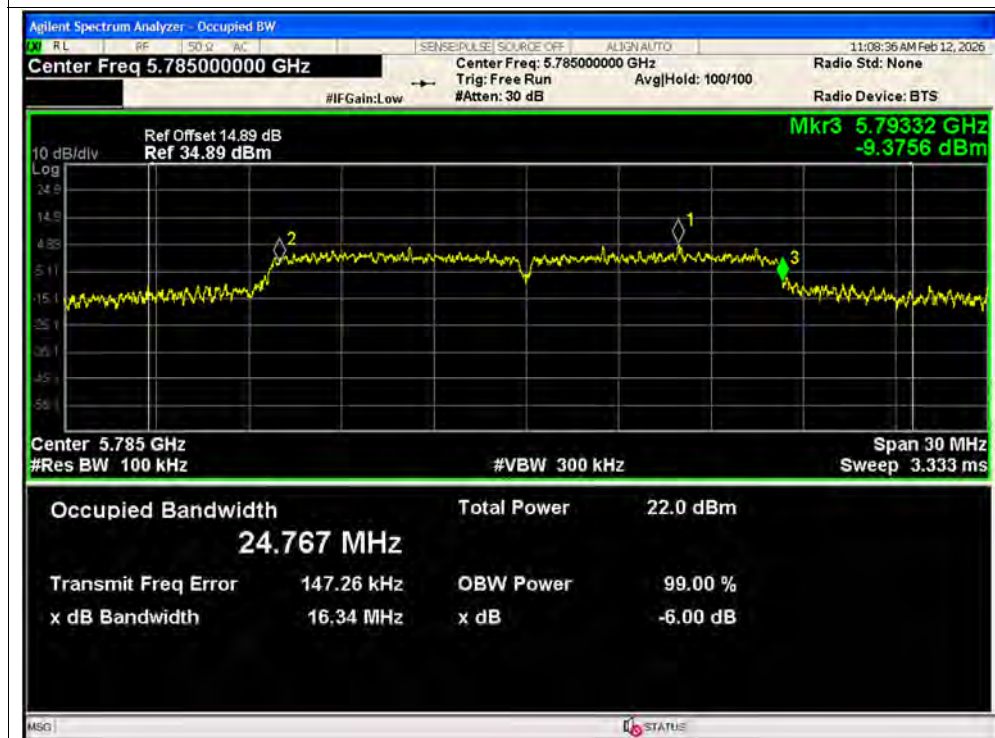
-26dB Bandwidth NVNT ac80 5610MHz Ant1



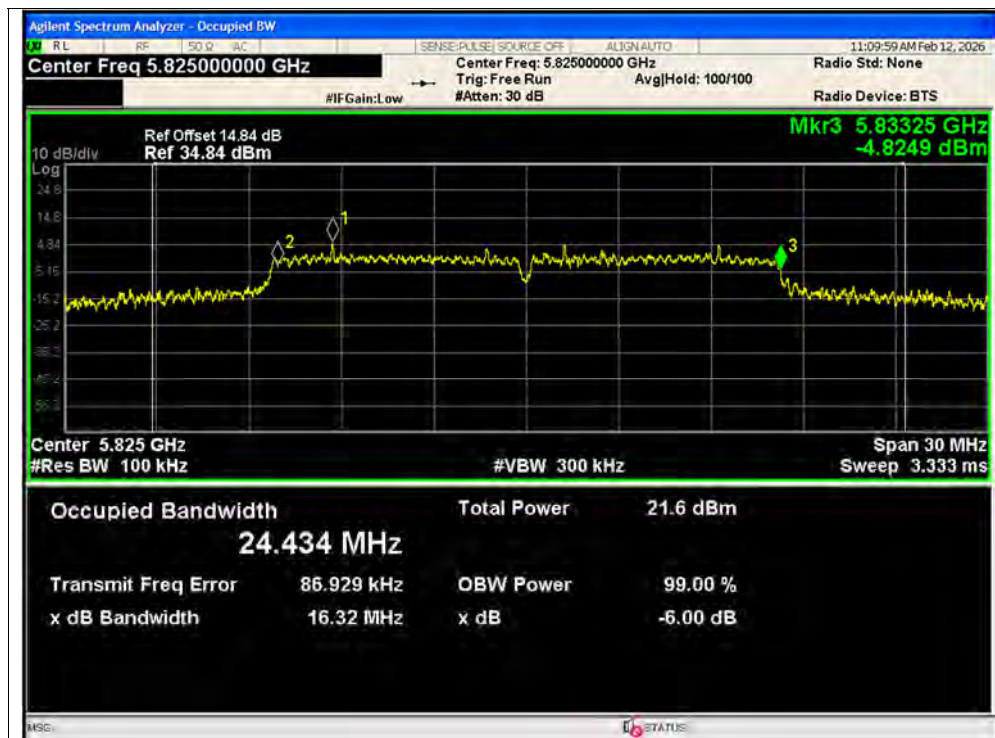
-26dB Bandwidth NVNT ac80 5690MHz Ant1



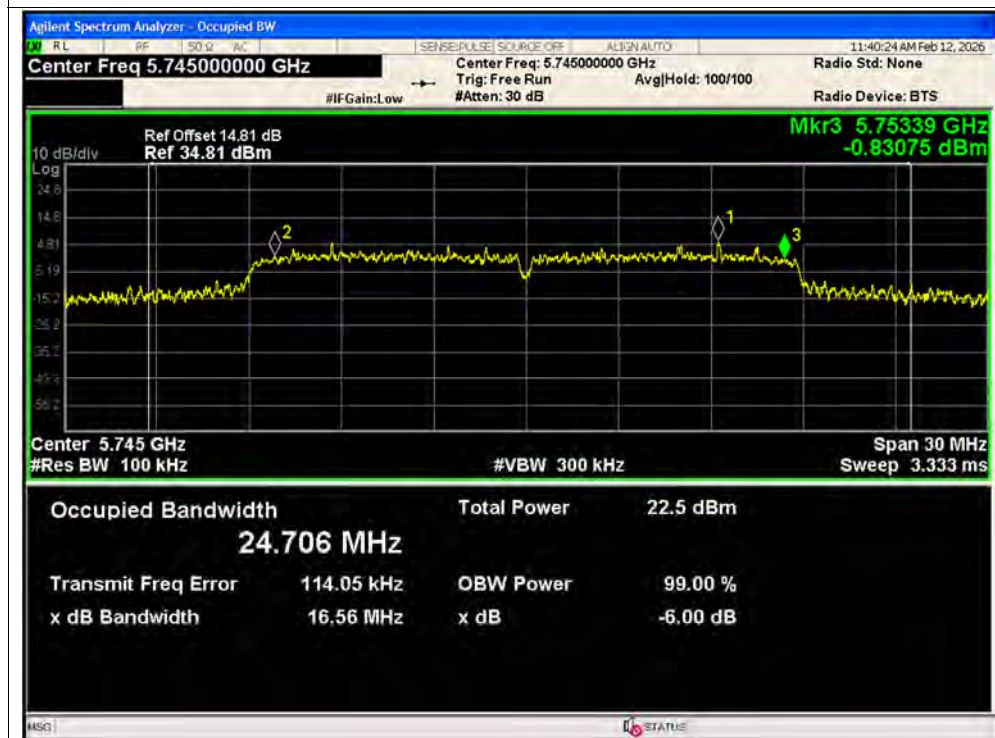
-6dB Bandwidth NVNT a 5745MHz Ant1



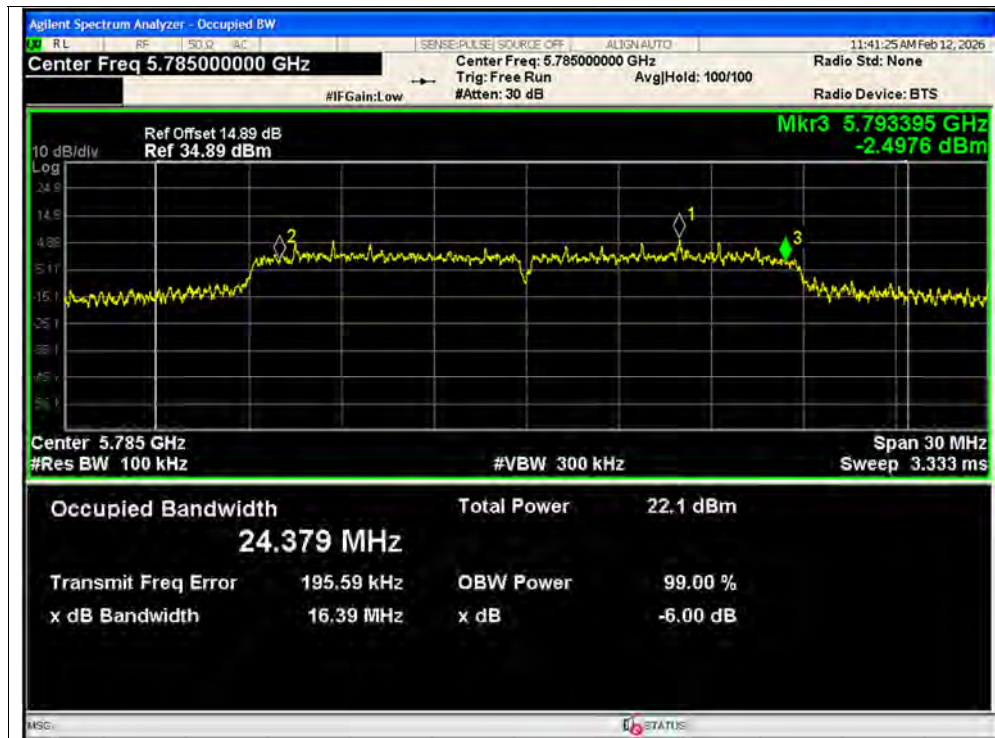
-6dB Bandwidth NVNT a 5785MHz Ant1



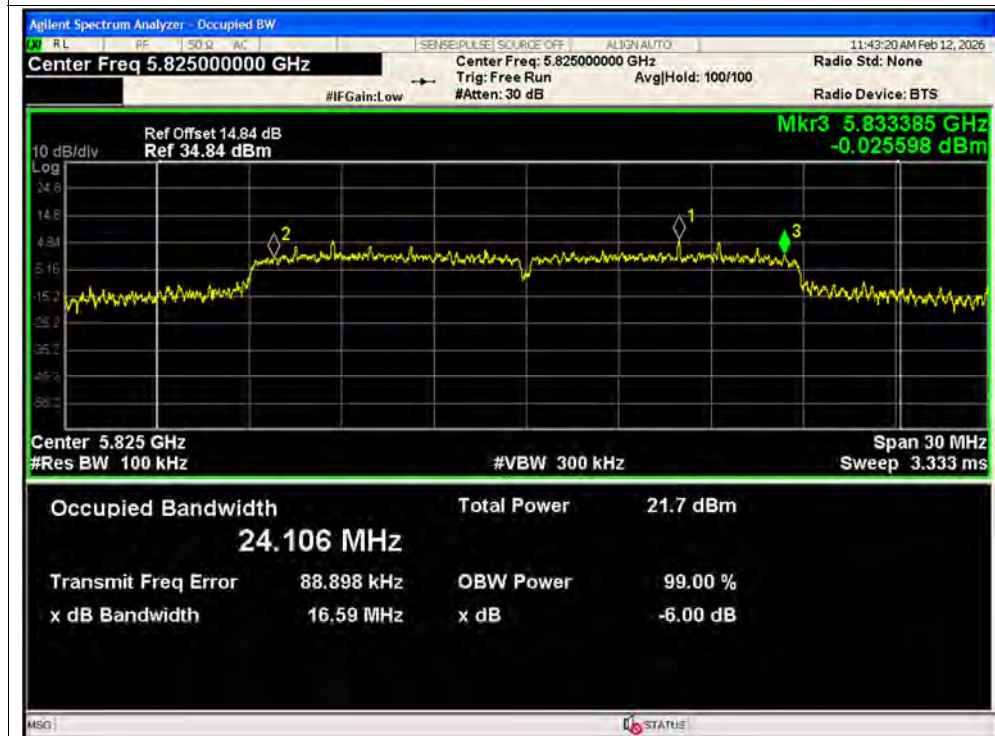
-6dB Bandwidth NVNT a 5825MHz Ant1



-6dB Bandwidth NVNT n20 5745MHz Ant1



-6dB Bandwidth NVNT n20 5785MHz Ant1



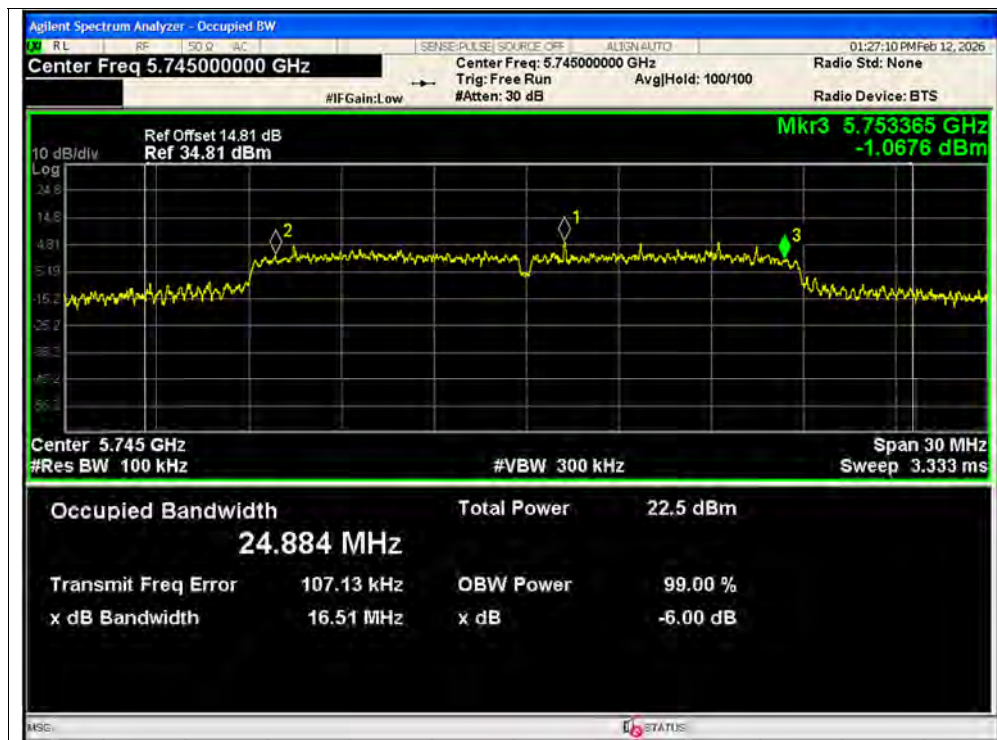
-6dB Bandwidth NVNT n20 5825MHz Ant1



-6dB Bandwidth NVNT n40 5755MHz Ant1



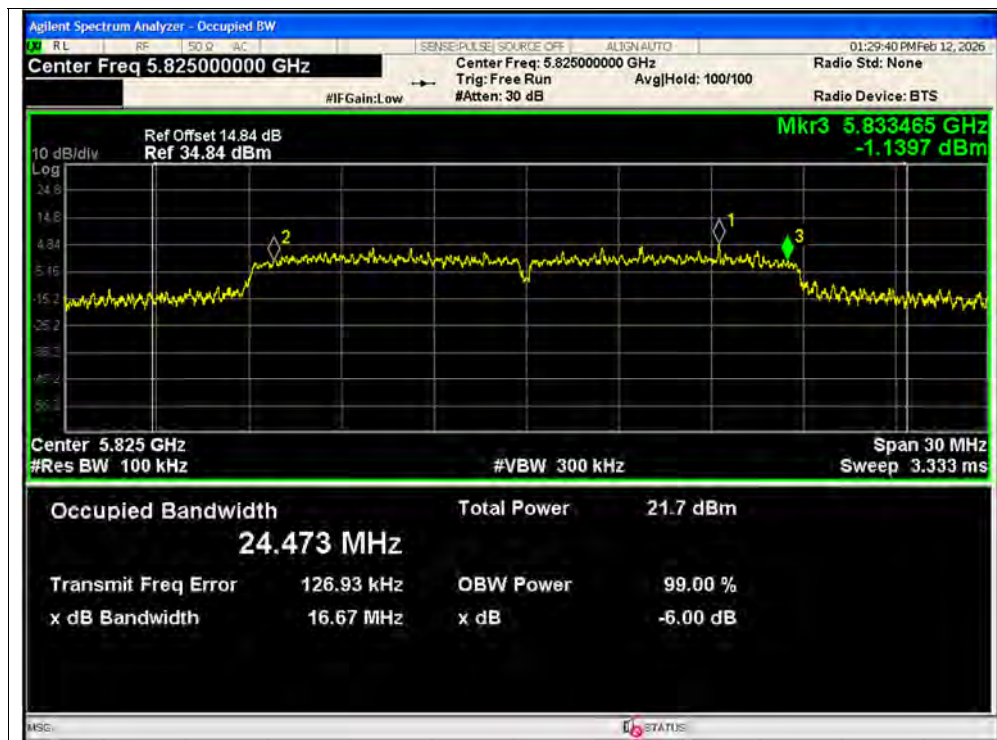
-6dB Bandwidth NVNT n40 5795MHz Ant1



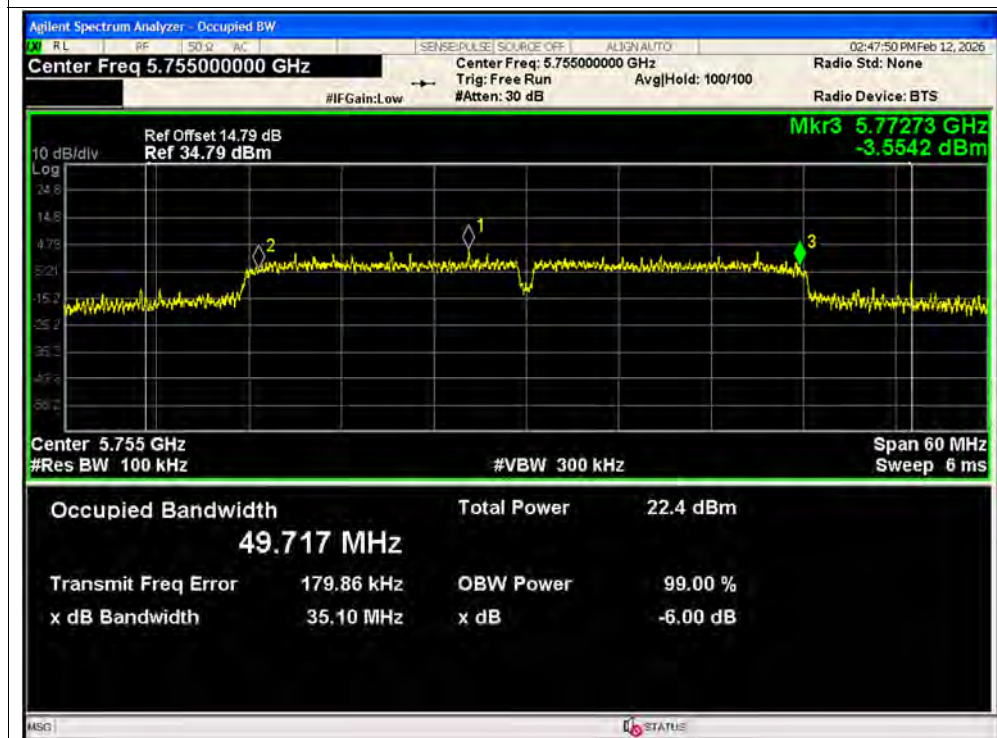
-6dB Bandwidth NVNT ac20 5745MHz Ant1



-6dB Bandwidth NVNT ac20 5785MHz Ant1



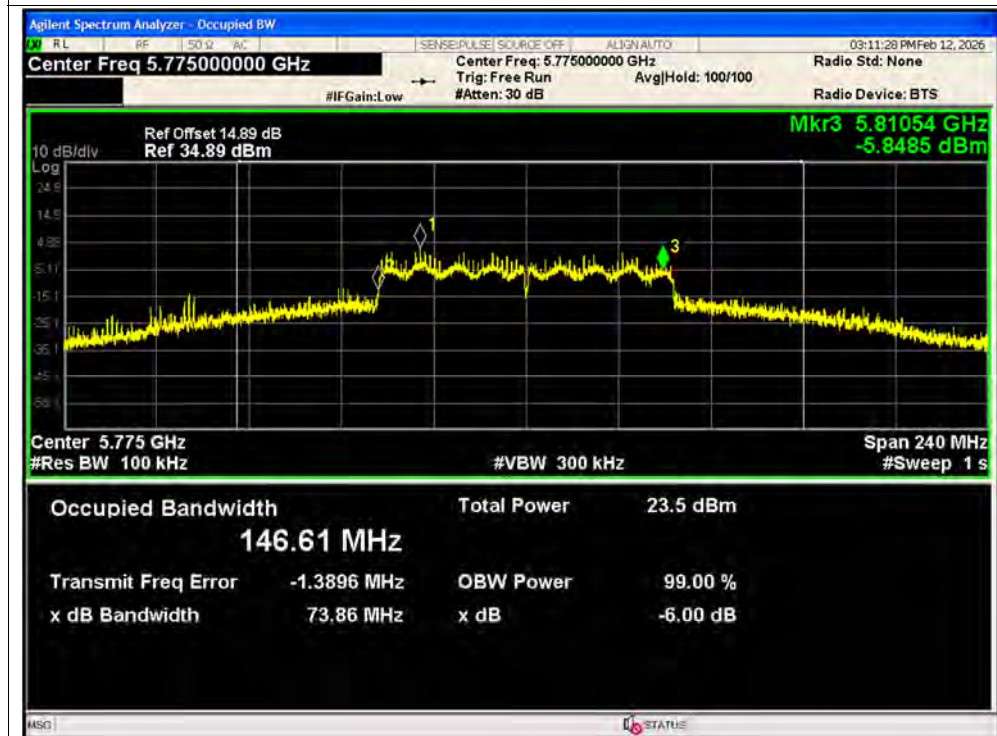
-6dB Bandwidth NVNT ac20 5825MHz Ant1



-6dB Bandwidth NVNT ac40 5755MHz Ant1



-6dB Bandwidth NVNT ac40 5795MHz Ant1



-6dB Bandwidth NVNT ac80 5775MHz Ant1

**A.4. Peak Power Spectral Density**

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz) (dBm/500kHz @U-NII-3)	Duty Factor (dB)	Total Conducted PSD (dBm/MHz) (dBm/500kHz @ U-NII-3)	Total Conducted PSD (dBm/MHz) (dBm/500kHz @ U-NII-3)	Verdict
NVNT	a	5180	Ant1	1.8	0.29	2.09	11	Pass
NVNT	a	5220	Ant1	2	0.25	2.25	11	Pass
NVNT	a	5240	Ant1	2.36	0.17	2.53	11	Pass
NVNT	a	5260	Ant1	-0.68	0.19	-0.49	11	Pass
NVNT	a	5300	Ant1	1.75	0.25	2	11	Pass
NVNT	a	5320	Ant1	2.79	0.08	2.87	11	Pass
NVNT	a	5500	Ant1	5.41	0.29	5.7	11	Pass
NVNT	a	5580	Ant1	6.34	0.21	6.55	11	Pass
NVNT	a	5720	Ant1	5.54	0.28	5.82	11	Pass
NVNT	a	5745	Ant1	2.23	0.17	2.4	30	Pass
NVNT	a	5785	Ant1	1.66	0.12	1.78	30	Pass
NVNT	a	5825	Ant1	1.27	0.25	1.53	30	Pass
NVNT	n20	5180	Ant1	1.46	0.22	1.68	11	Pass
NVNT	n20	5220	Ant1	1.62	0.26	1.88	11	Pass
NVNT	n20	5240	Ant1	2	0.13	2.13	11	Pass
NVNT	n20	5260	Ant1	2.61	0.26	2.87	11	Pass
NVNT	n20	5300	Ant1	1.69	0.13	1.82	11	Pass
NVNT	n20	5320	Ant1	1.99	0.18	2.17	11	Pass
NVNT	n20	5500	Ant1	5.13	0.26	5.39	11	Pass
NVNT	n20	5580	Ant1	6.06	0.22	6.28	11	Pass
NVNT	n20	5720	Ant1	5.21	0.09	5.3	11	Pass
NVNT	n20	5745	Ant1	2.06	0.35	2.41	30	Pass
NVNT	n20	5785	Ant1	1.42	0.18	1.6	30	Pass
NVNT	n20	5825	Ant1	1.1	0.18	1.27	30	Pass
NVNT	n40	5190	Ant1	-1.49	0.18	-1.31	11	Pass
NVNT	n40	5230	Ant1	-1.09	0.68	-0.41	11	Pass
NVNT	n40	5270	Ant1	-1.19	0.26	-0.93	11	Pass
NVNT	n40	5310	Ant1	-0.75	0.43	-0.32	11	Pass
NVNT	n40	5510	Ant1	1.97	0.44	2.41	11	Pass
NVNT	n40	5550	Ant1	2.6	0.67	3.27	11	Pass
NVNT	n40	5710	Ant1	2.12	0.35	2.47	11	Pass

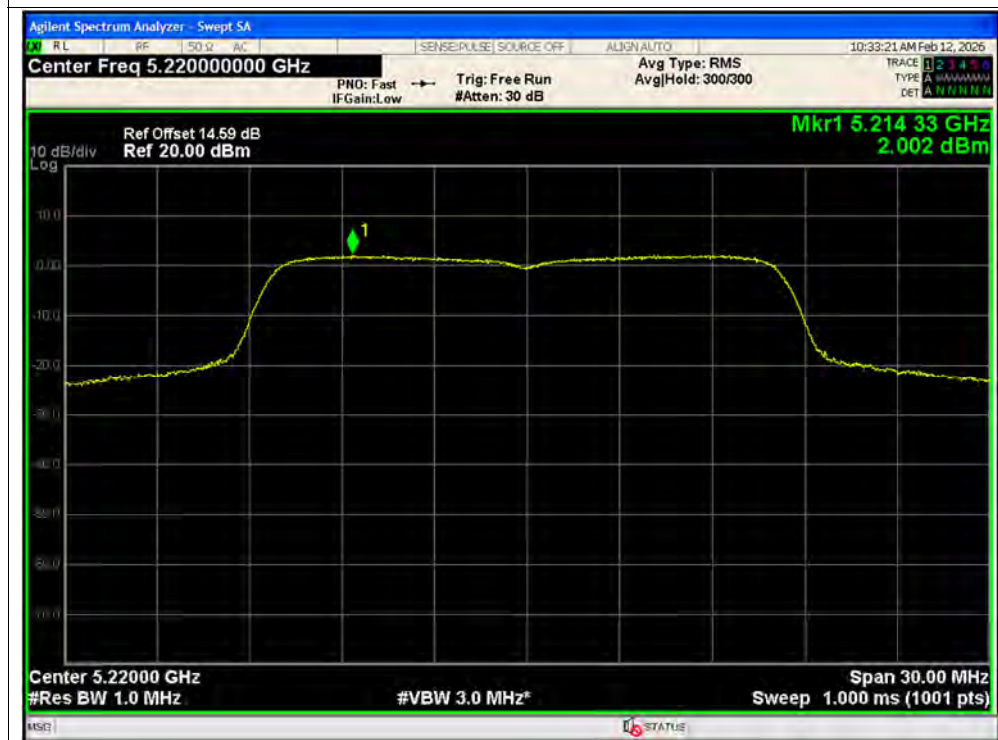


REPORT No.: SZ25110146W03

NVNT	n40	5755	Ant1	-1.06	0.44	-0.62	30	Pass
NVNT	n40	5795	Ant1	-1.5	0.35	-1.15	30	Pass
NVNT	ac20	5180	Ant1	1.44	0.13	1.57	11	Pass
NVNT	ac20	5220	Ant1	1.76	0.09	1.85	11	Pass
NVNT	ac20	5240	Ant1	1.8	0.18	1.98	11	Pass
NVNT	ac20	5260	Ant1	1.89	0.09	1.98	11	Pass
NVNT	ac20	5300	Ant1	3.07	0.34	3.41	11	Pass
NVNT	ac20	5320	Ant1	2.93	0.39	3.32	11	Pass
NVNT	ac20	5500	Ant1	5.26	0.31	5.57	11	Pass
NVNT	ac20	5580	Ant1	6.06	0.18	6.24	11	Pass
NVNT	ac20	5720	Ant1	5.22	0.22	5.44	11	Pass
NVNT	ac20	5745	Ant1	2.1	0.22	2.32	30	Pass
NVNT	ac20	5785	Ant1	1.59	0.18	1.77	30	Pass
NVNT	ac20	5825	Ant1	1.22	0.26	1.48	30	Pass
NVNT	ac40	5190	Ant1	-1.53	0.18	-1.35	11	Pass
NVNT	ac40	5230	Ant1	-1.34	0.6	-0.74	11	Pass
NVNT	ac40	5270	Ant1	-1.32	0.18	-1.14	11	Pass
NVNT	ac40	5310	Ant1	-0.82	0.18	-0.64	11	Pass
NVNT	ac40	5510	Ant1	2.06	0.18	2.24	11	Pass
NVNT	ac40	5550	Ant1	2.49	0.18	2.67	11	Pass
NVNT	ac40	5710	Ant1	2.22	0.35	2.57	11	Pass
NVNT	ac40	5755	Ant1	-1.11	0.44	-0.67	30	Pass
NVNT	ac40	5795	Ant1	-1.71	0.68	-1.03	30	Pass
NVNT	ac80	5210	Ant1	-3.21	1.3	-1.91	11	Pass
NVNT	ac80	5290	Ant1	-3.11	0.7	-2.41	11	Pass
NVNT	ac80	5530	Ant1	0.34	1.3	1.64	11	Pass
NVNT	ac80	5610	Ant1	0.62	0.36	0.98	11	Pass
NVNT	ac80	5690	Ant1	0.74	0.36	1.1	11	Pass
NVNT	ac80	5775	Ant1	-2.79	0.53	-2.26	30	Pass



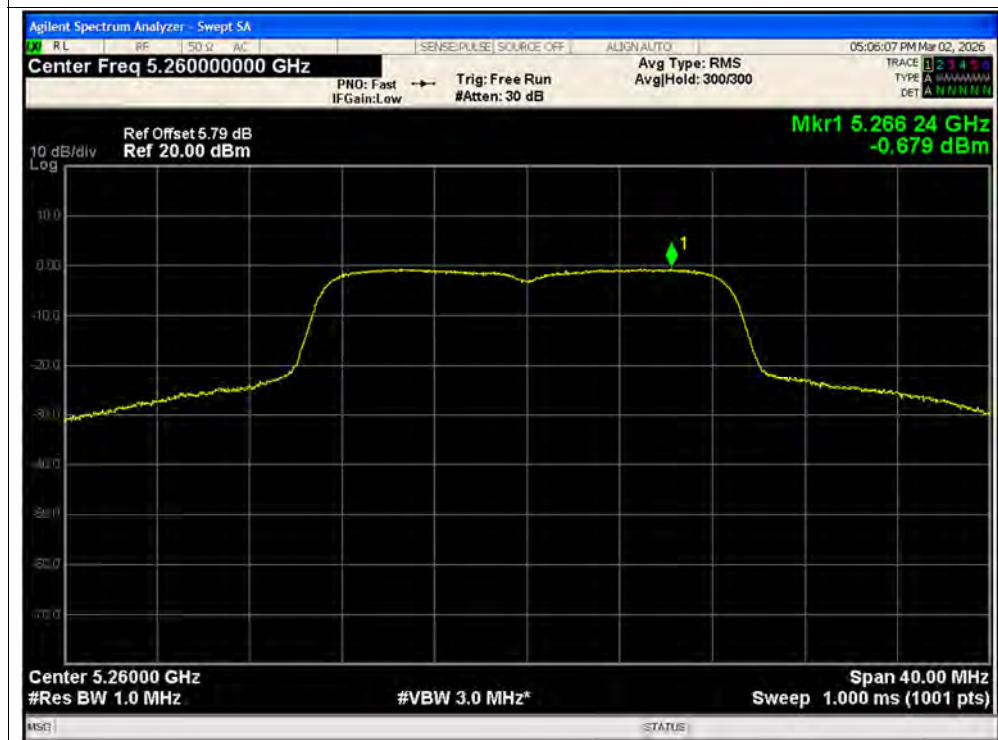
PSD NVNT a 5180MHz Ant1



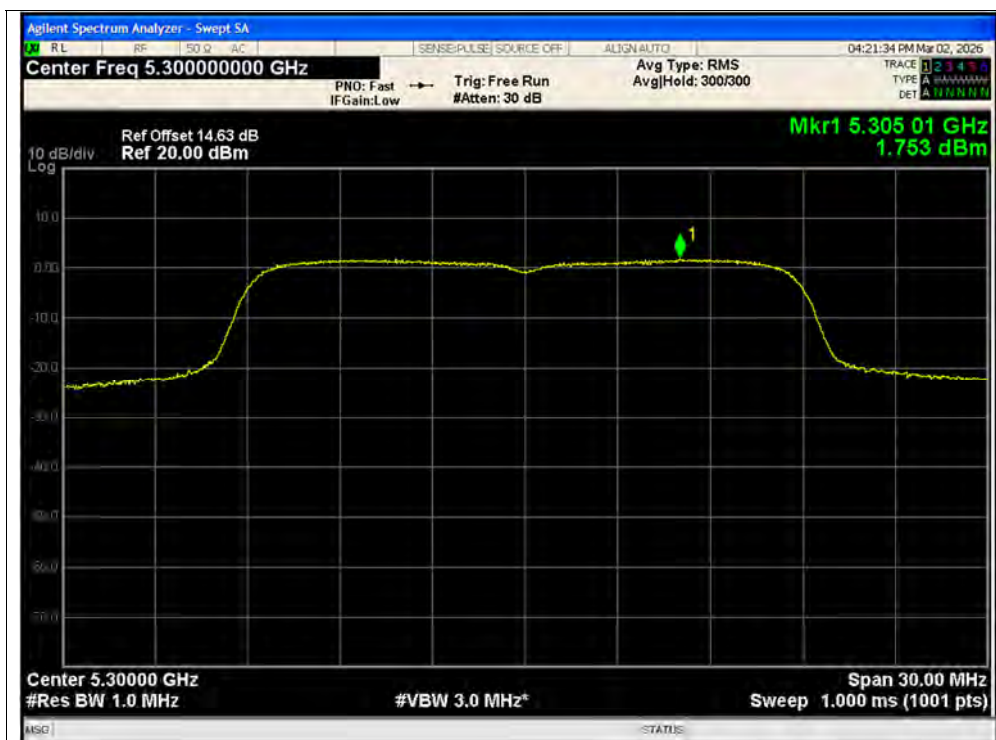
PSD NVNT a 5220MHz Ant1



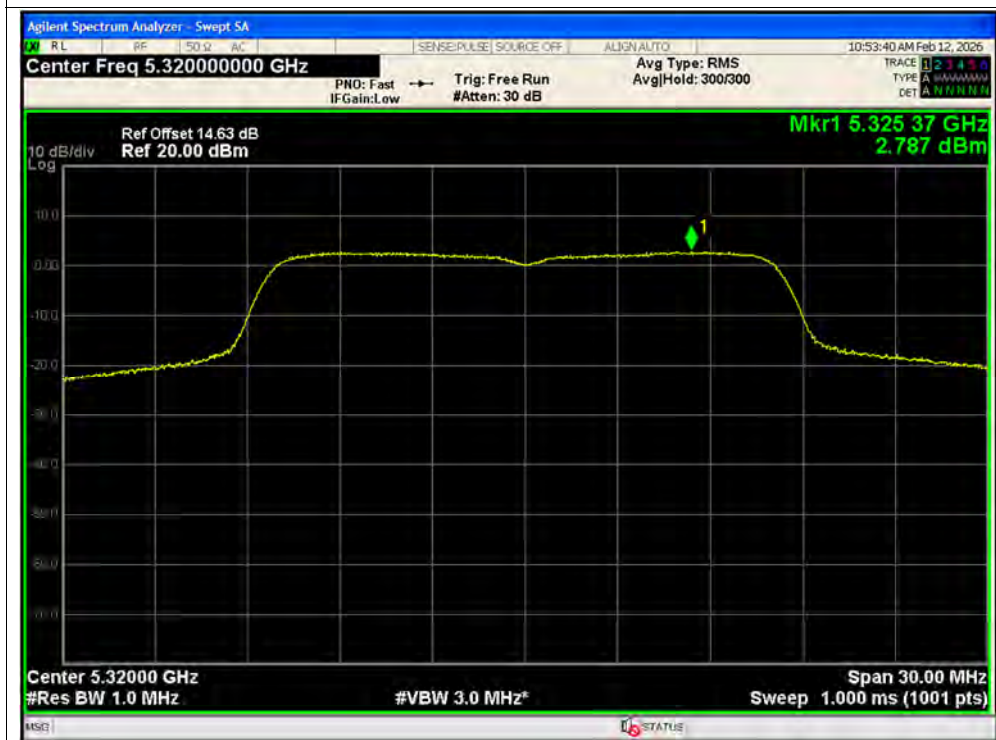
PSD NVNT a 5240MHz Ant1



PSD NVNT a 5260MHz Ant1



PSD NVNT a 5300MHz Ant1



PSD NVNT a 5320MHz Ant1



PSD NVNT a 5500MHz Ant1



PSD NVNT a 5580MHz Ant1



PSD NVNT a 5720MHz Ant1



PSD NVNT a 5745MHz Ant1



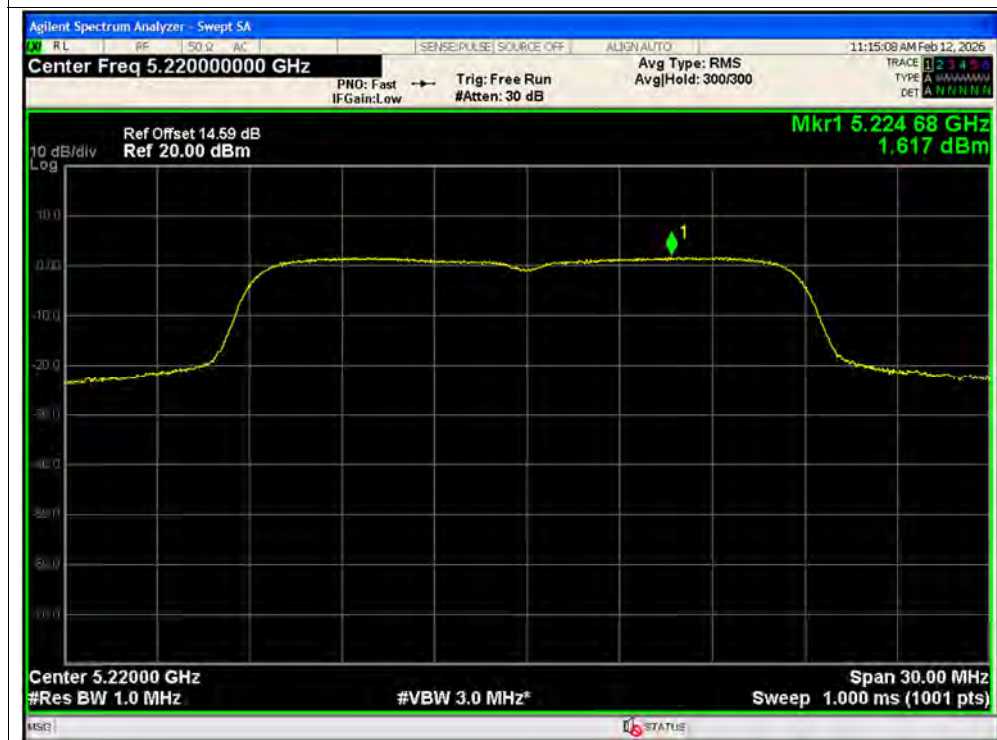
PSD NVNT a 5785MHz Ant1



PSD NVNT a 5825MHz Ant1



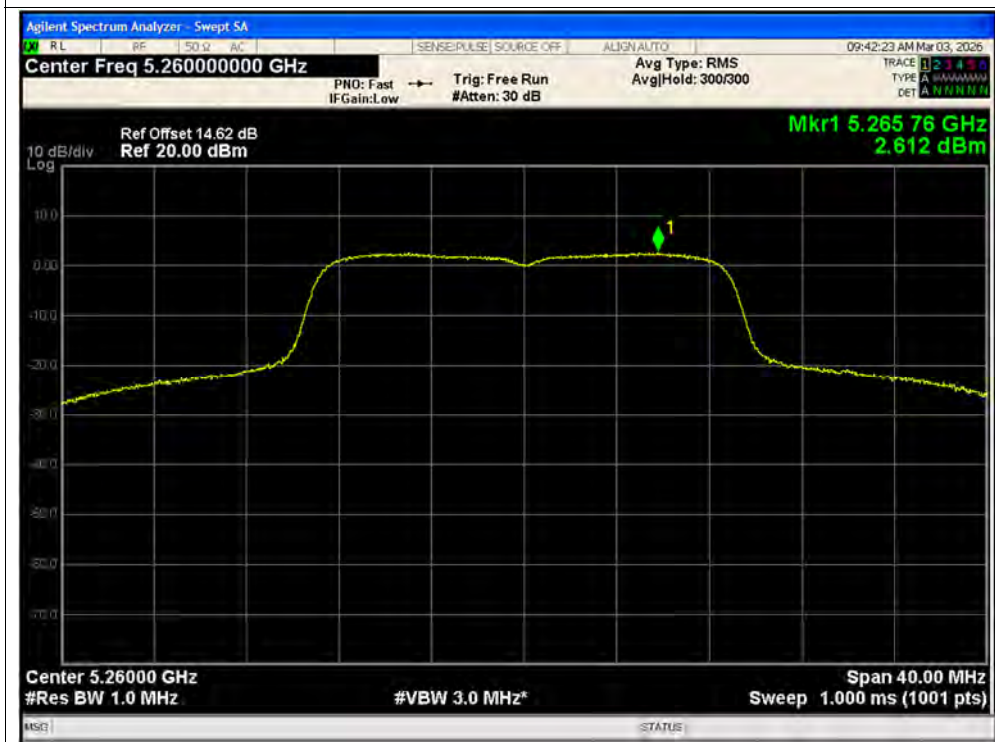
PSD NVNT n20 5180MHz Ant1



PSD NVNT n20 5220MHz Ant1



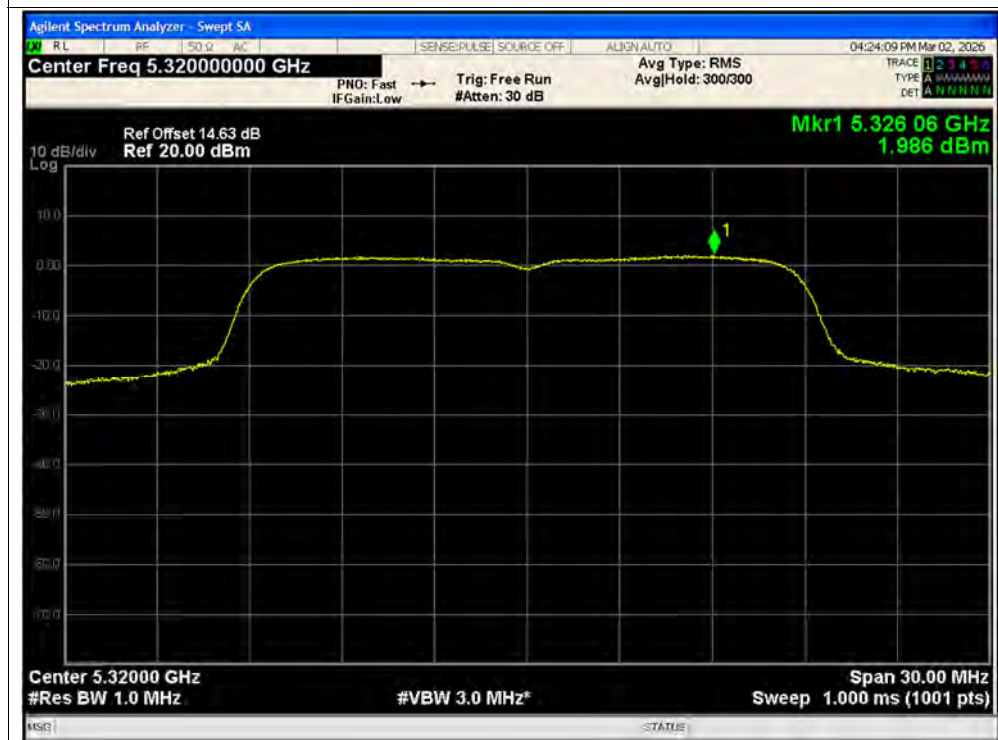
PSD NVNT n20 5240MHz Ant1



PSD NVNT n20 5260MHz Ant1



PSD NVNT n20 5300MHz Ant1



PSD NVNT n20 5320MHz Ant1

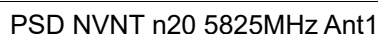
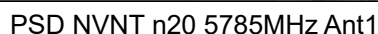


PSD NVNT n20 5500MHz Ant1



PSD NVNT n20 5580MHz Ant1







PSD NVNT n40 5190MHz Ant1



PSD NVNT n40 5230MHz Ant1



PSD NVNT n40 5270MHz Ant1



PSD NVNT n40 5310MHz Ant1



PSD NVNT n40 5510MHz Ant1



PSD NVNT n40 5550MHz Ant1



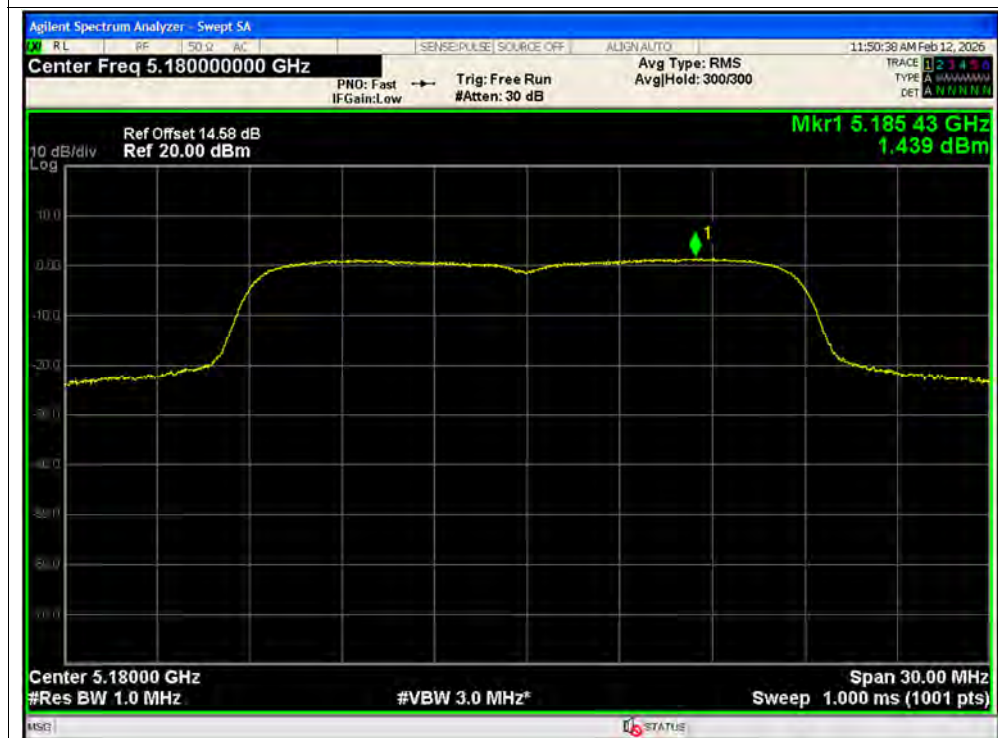
PSD NVNT n40 5710MHz Ant1



PSD NVNT n40 5755MHz Ant1



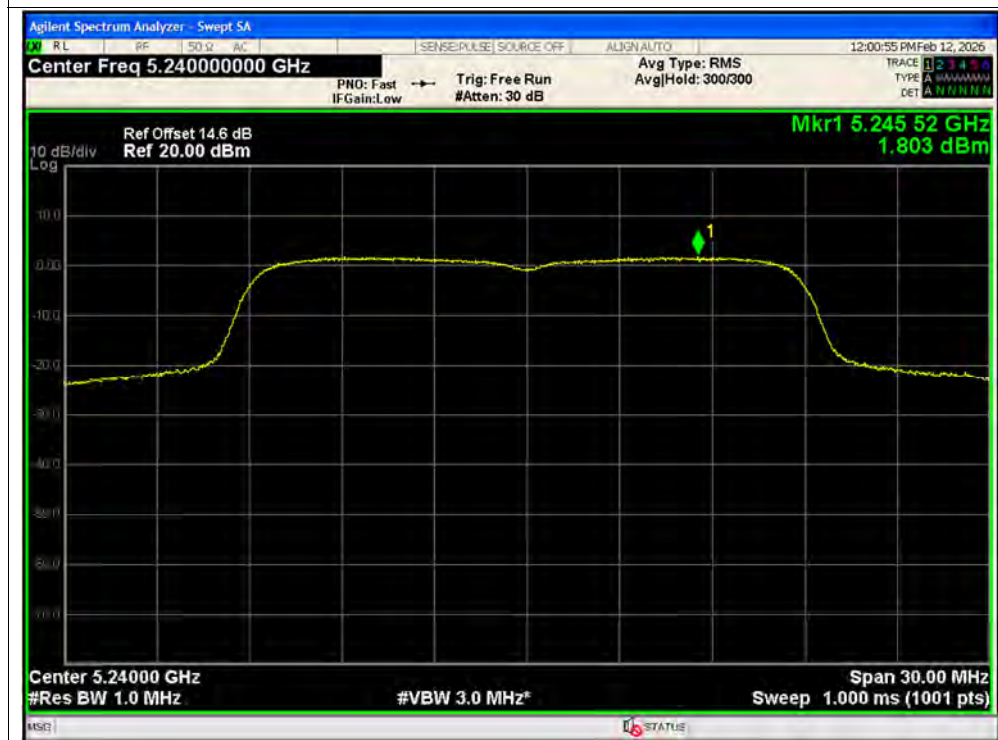
PSD NVNT n40 5795MHz Ant1



PSD NVNT ac20 5180MHz Ant1



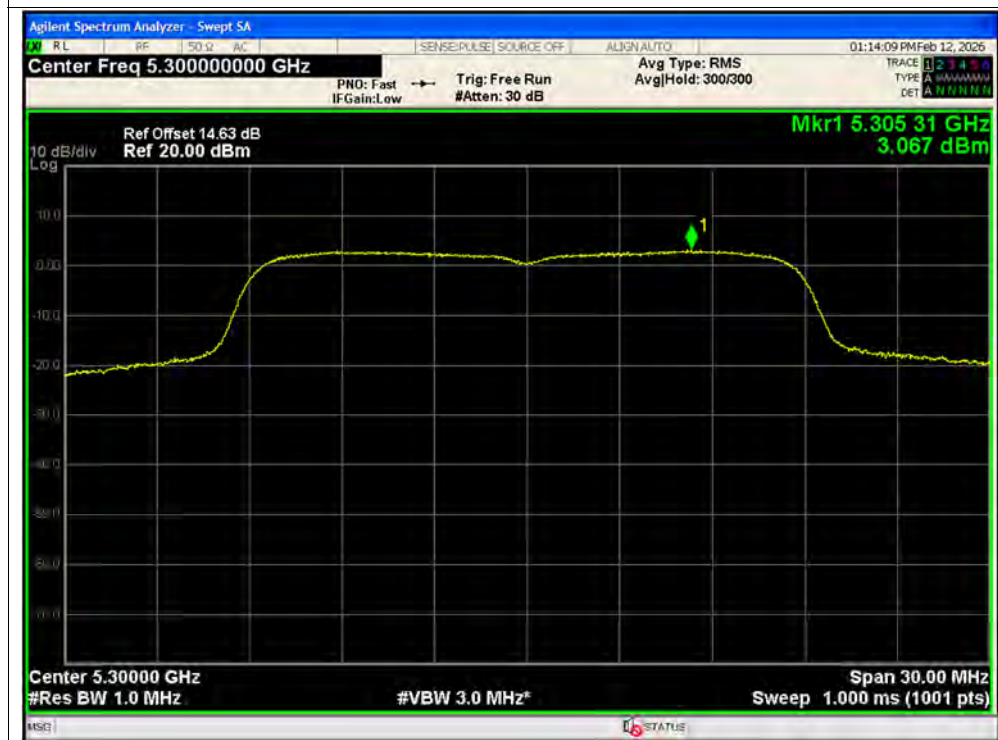
PSD NVNT ac20 5220MHz Ant1



PSD NVNT ac20 5240MHz Ant1



PSD NVNT ac20 5260MHz Ant1



PSD NVNT ac20 5300MHz Ant1



PSD NVNT ac20 5320MHz Ant1



PSD NVNT ac20 5500MHz Ant1



PSD NVNT ac20 5580MHz Ant1



PSD NVNT ac20 5720MHz Ant1





PSD NVNT ac20 5825MHz Ant1



PSD NVNT ac40 5190MHz Ant1



PSD NVNT ac40 5230MHz Ant1



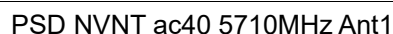
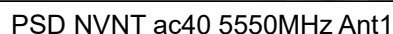
PSD NVNT ac40 5270MHz Ant1



PSD NVNT ac40 5310MHz Ant1



PSD NVNT ac40 5510MHz Ant1

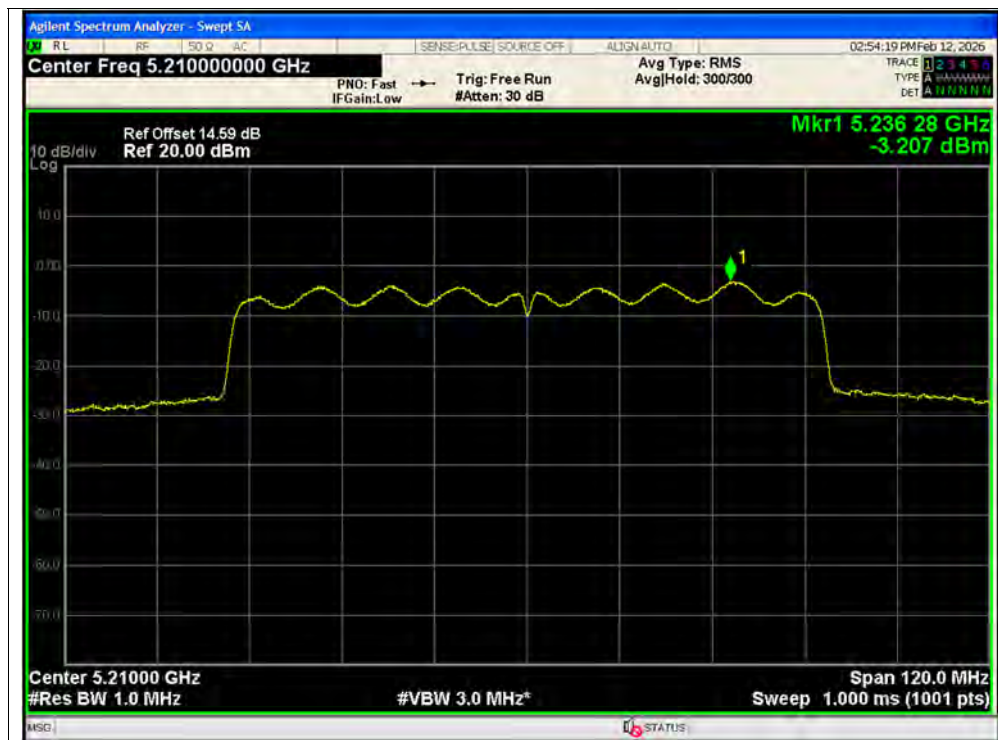




PSD NVNT ac40 5755MHz Ant1



PSD NVNT ac40 5795MHz Ant1







PSD NVNT ac80 5690MHz Ant1



PSD NVNT ac80 5775MHz Ant1

**A.5. Frequency Stability**

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20C 27.5V	CW	5180	Ant1	5179.98	-20000	-3.86	25	Pass
20C 32V	CW	5180	Ant1	5179.98	-20000	-3.86	25	Pass
20C 36V	CW	5180	Ant1	5179.98	-20000	-3.86	25	Pass
-10C 32V	CW	5180	Ant1	5179.98	-20000	-3.86	25	Pass
0C 32V	CW	5180	Ant1	5179.98	-20000	-3.86	25	Pass
10C 32V	CW	5180	Ant1	5179.98	-20000	-3.86	25	Pass
30C 32V	CW	5180	Ant1	5179.98	-20000	-3.86	25	Pass
40C 32V	CW	5180	Ant1	5179.98	-20000	-3.86	25	Pass
45C 32V	CW	5180	Ant1	5179.98	-20000	-3.86	25	Pass
20C 27.5V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
20C 32V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
20C 36V	CW	5260	Ant1	5259.96	-40000	-7.6	25	Pass
-10C 32V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
0C 32V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
10C 32V	CW	5260	Ant1	5260	0	0	25	Pass
30C 32V	CW	5260	Ant1	5259.96	-40000	-7.6	25	Pass
40C 32V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
45C 32V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
20C 27.5V	CW	5500	Ant1	5499.96	-40000	-7.27	25	Pass
20C 32V	CW	5500	Ant1	5499.96	-40000	-7.27	25	Pass
20C 36V	CW	5500	Ant1	5499.98	-20000	-3.64	25	Pass
-10C 32V	CW	5500	Ant1	5499.96	-40000	-7.27	25	Pass
0C 32V	CW	5500	Ant1	5499.94	-60000	-10.91	25	Pass
10C 32V	CW	5500	Ant1	5499.98	-20000	-3.64	25	Pass
30C 32V	CW	5500	Ant1	5499.98	-20000	-3.64	25	Pass
40C 32V	CW	5500	Ant1	5499.96	-40000	-7.27	25	Pass
45C 32V	CW	5500	Ant1	5499.96	-40000	-7.27	25	Pass
20C 27.5V	CW	5745	Ant1	5744.94	-60000	-10.44	25	Pass
20C 32V	CW	5745	Ant1	5744.96	-40000	-6.96	25	Pass
20C 36V	CW	5745	Ant1	5744.94	-60000	-10.44	25	Pass
-10C 32V	CW	5745	Ant1	5744.98	-20000	-3.48	25	Pass
0C 32V	CW	5745	Ant1	5744.96	-40000	-6.96	25	Pass
10C 32V	CW	5745	Ant1	5744.94	-60000	-10.44	25	Pass
30C 32V	CW	5745	Ant1	5744.96	-40000	-6.96	25	Pass



REPORT No.: SZ25110146W03

40C 32V	CW	5745	Ant1	5744.96	-40000	-6.96	25	Pass
45C 32V	CW	5745	Ant1	5744.94	-60000	-10.44	25	Pass

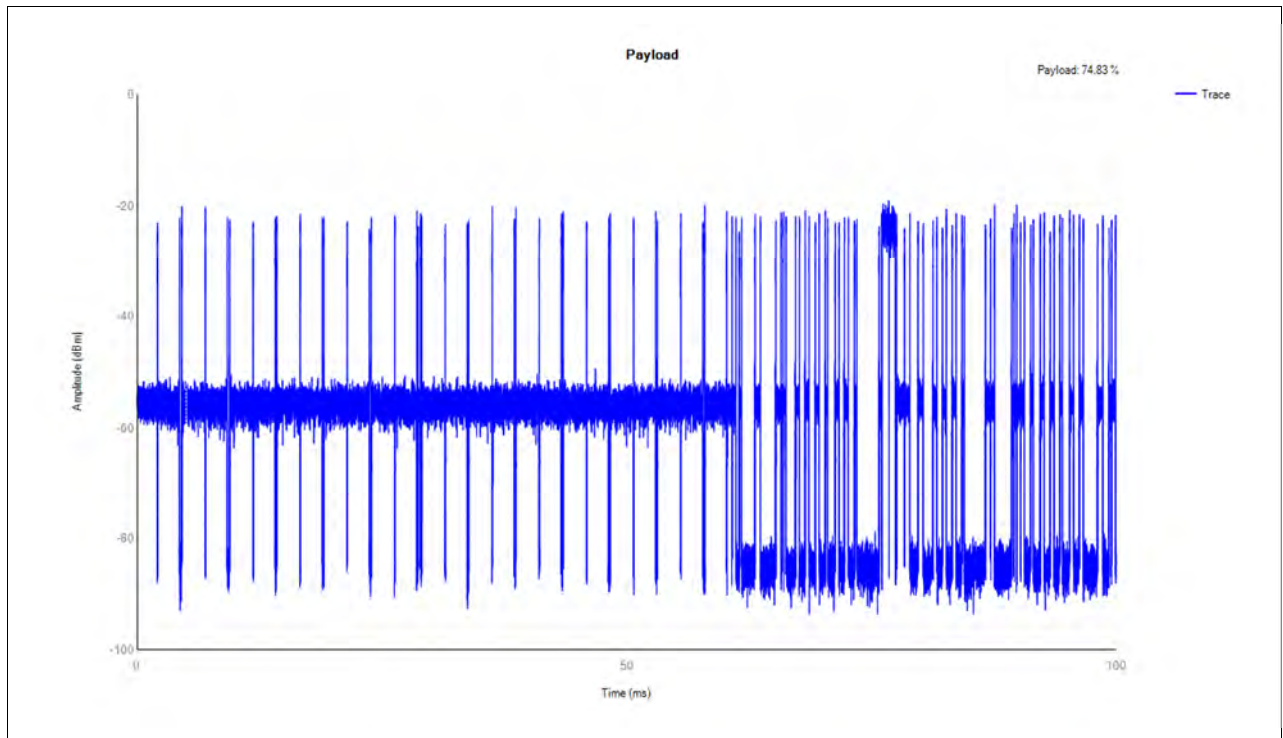


REPORT No.: SZ25110146W03

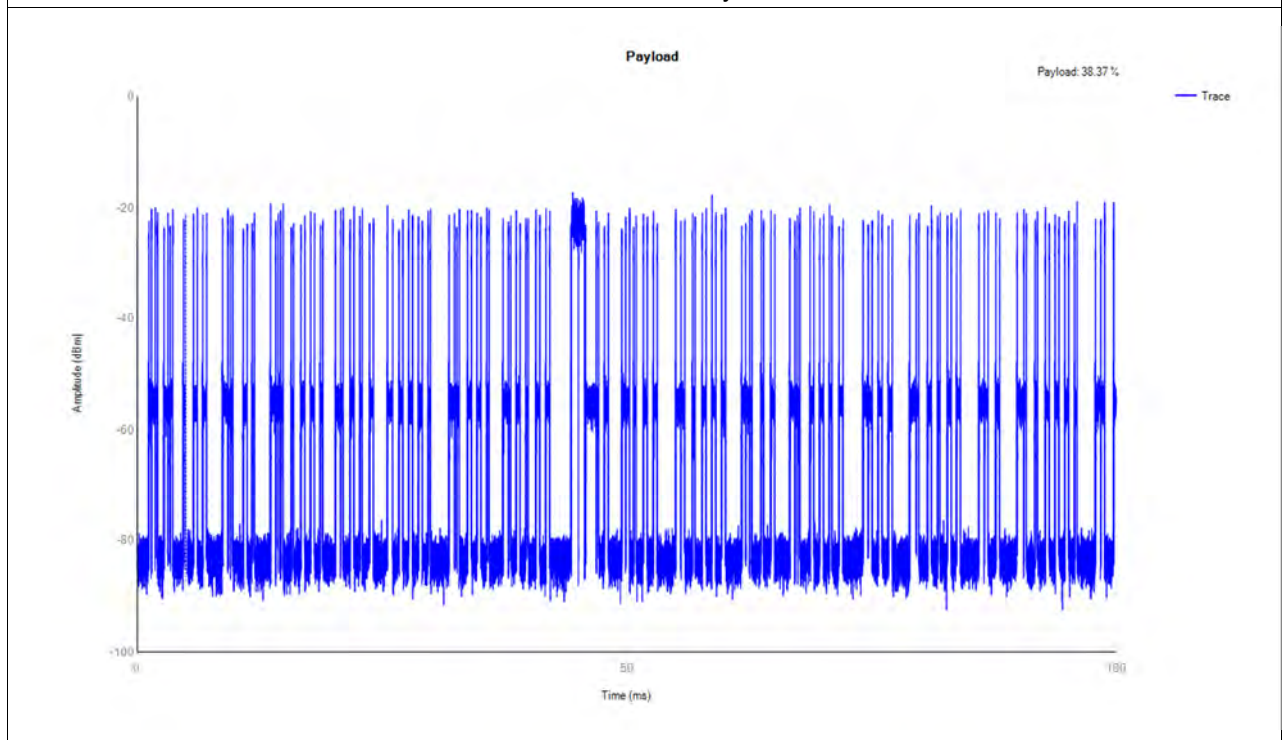
A.6. Dynamic Frequency Selection

Payload

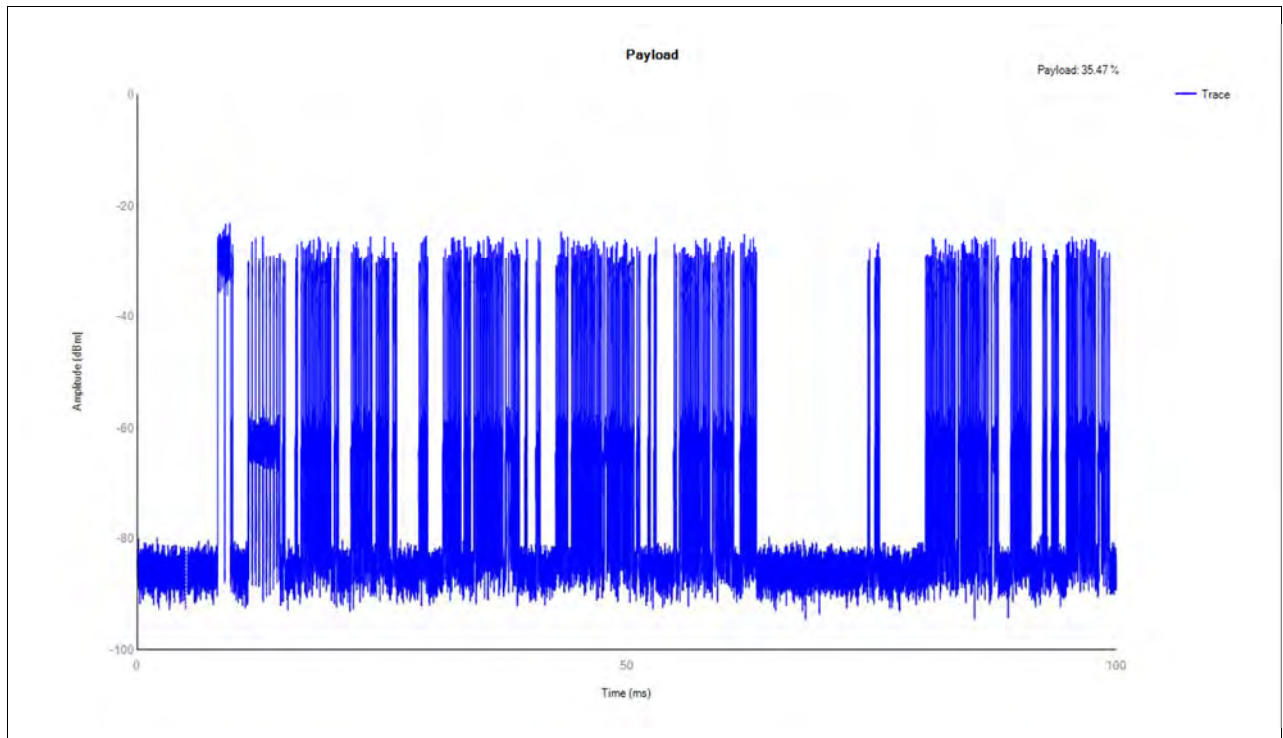
Mode	Frequency (MHz)	Result	Verdict
ac20	5320	74.83	Pass
ac20	5500	38.37	Pass
ac80	5290	35.47	Pass
ac80	5530	42.82	Pass



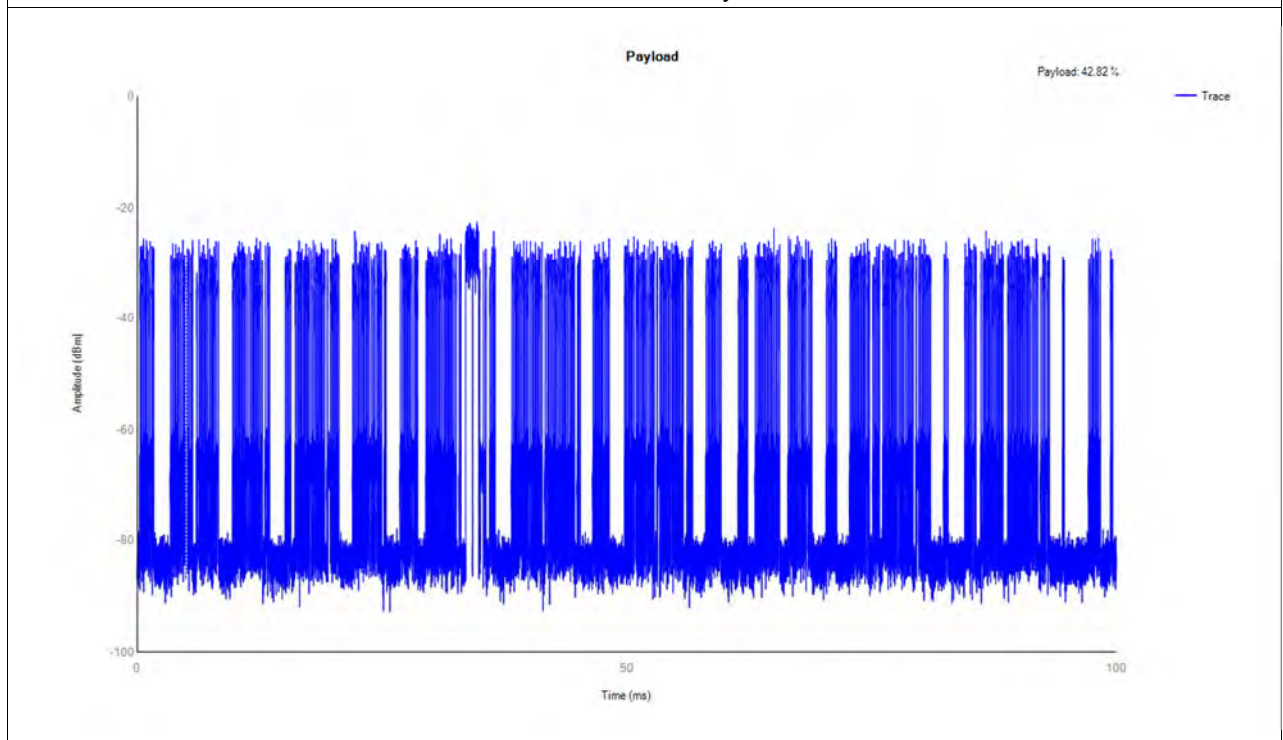
ac20 5320MHz Payload



ac20 5500MHz Payload



ac80 5290MHz Payload



ac80 5530MHz Payload



Detection Thresholds

Mode	Frequency (MHz)	Type	Result	Verdict
ac20	5320	DFS_FCC_T0	See test Graph	Pass
ac20	5500	DFS_FCC_T0	See test Graph	Pass
ac80	5290	DFS_FCC_T0	See test Graph	Pass
ac80	5530	DFS_FCC_T0	See test Graph	Pass

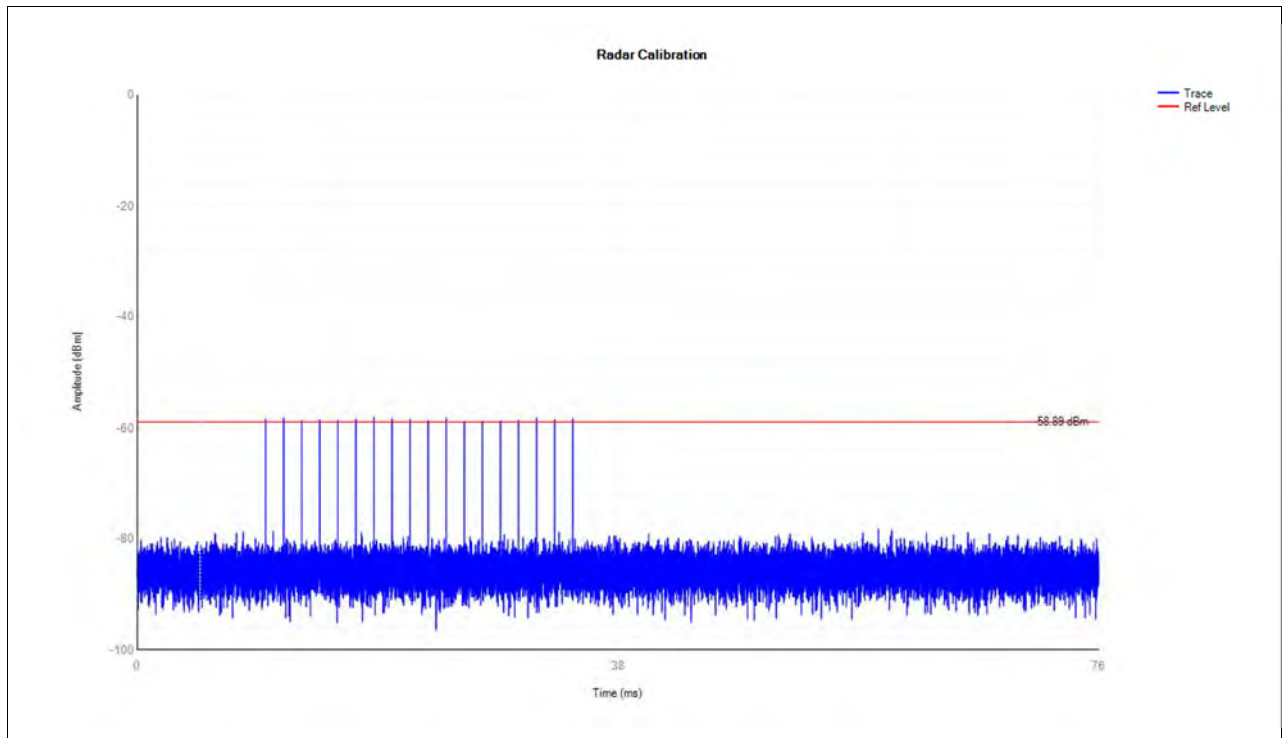
Spectrum analyzer settings:

Span: Zero

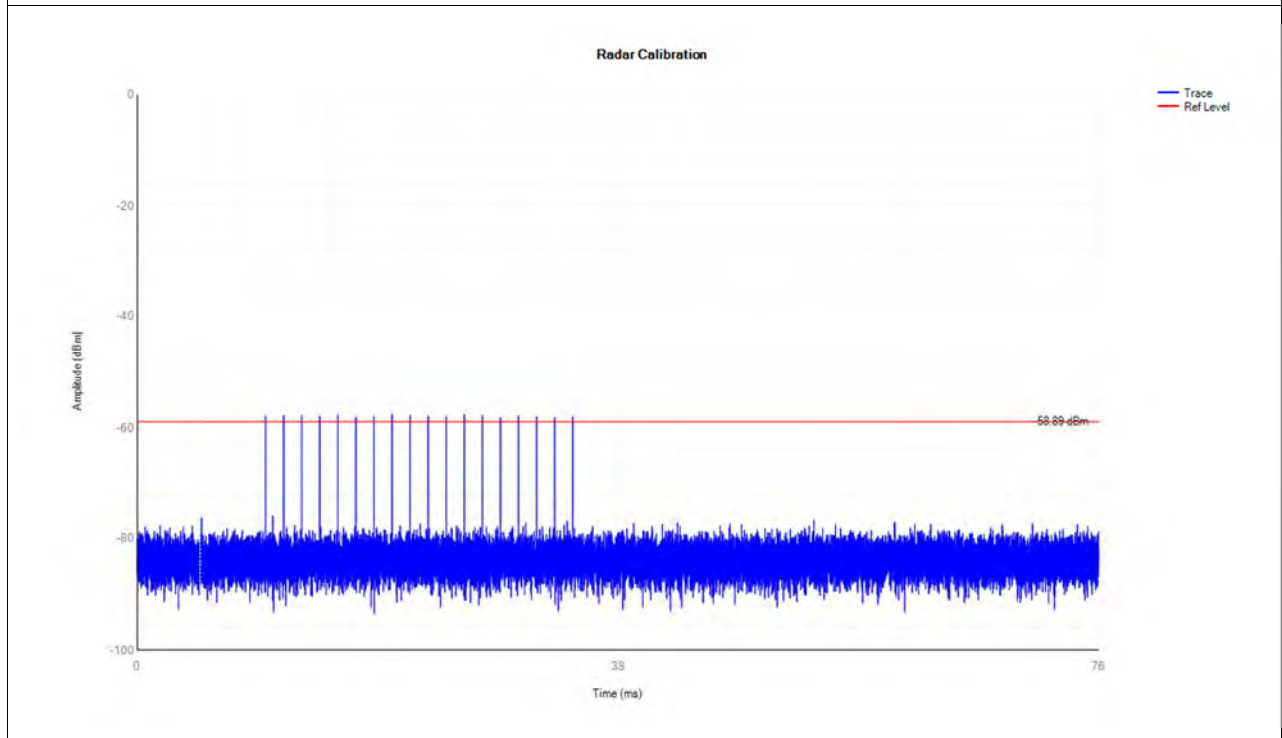
Detector Type: Peak

RBW: 3MHz

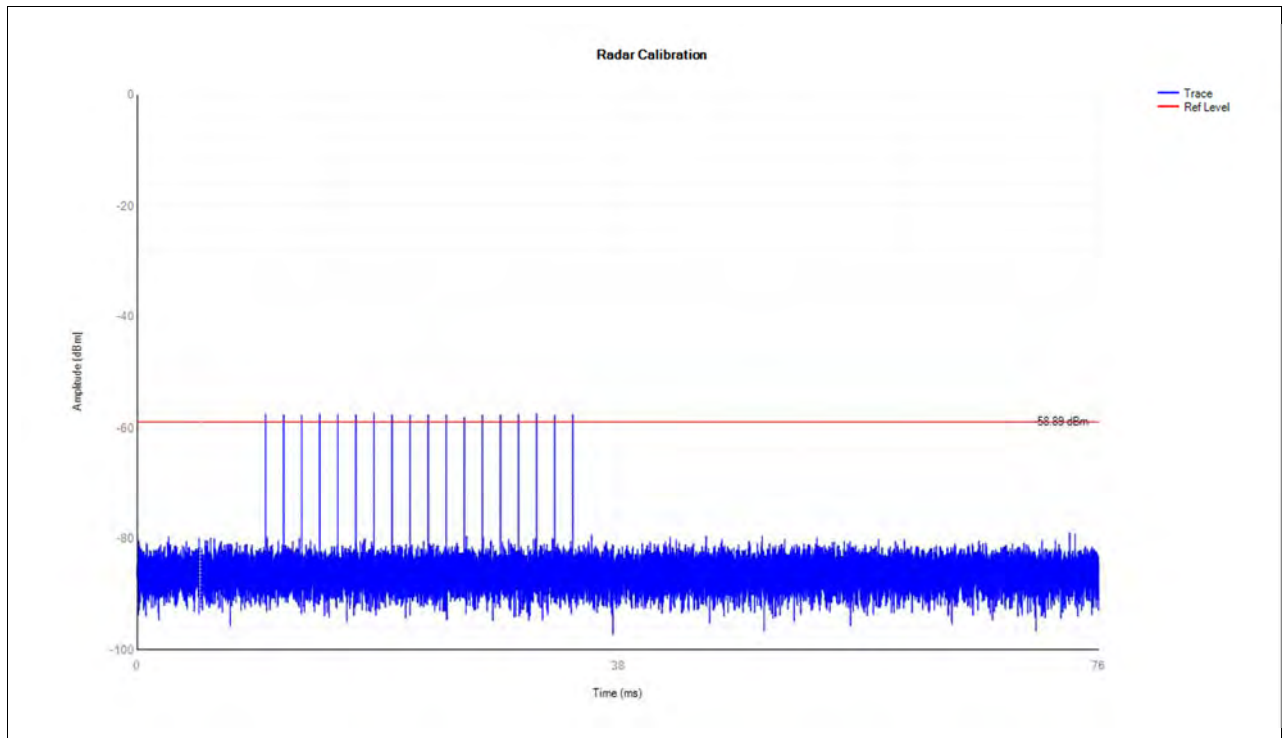
VBW: 3MHz



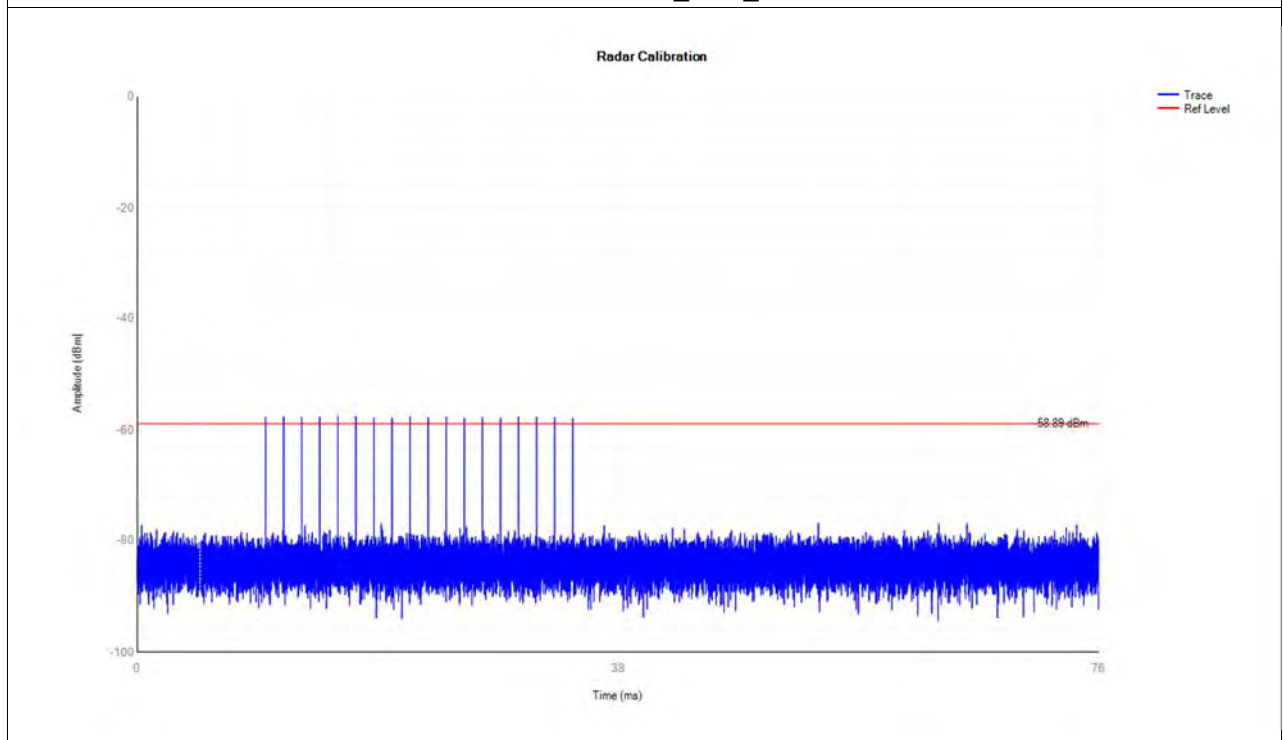
5320MHz DFS_FCC_T0



5500MHz DFS_FCC_T0



5290MHz DFS_FCC_T0



5530MHz DFS_FCC_T0



Channel Move Time and Channel Closing Transmission Time

Mode	Frequency (MHz)	Channel Move Time (s)	Limit Channel Move Time (s)	Close Transmission Time (s)	Limit Close Transmission Time (s)	Close Transmission Time after 200ms(s)	Limit Close Transmission Time after 200ms (s)	Verdict
ac20	5320	0.837	10	0.029	0.26	0.014	0.06	Pass
ac20	5500	0.805	10	0.031	0.26	0.008	0.06	Pass
ac80	5290	0.932	10	0.061	0.26	0.011	0.06	Pass
ac80	5530	0.83	10	0.03	0.26	0.017	0.06	Pass

Spectrum analyzer settings:

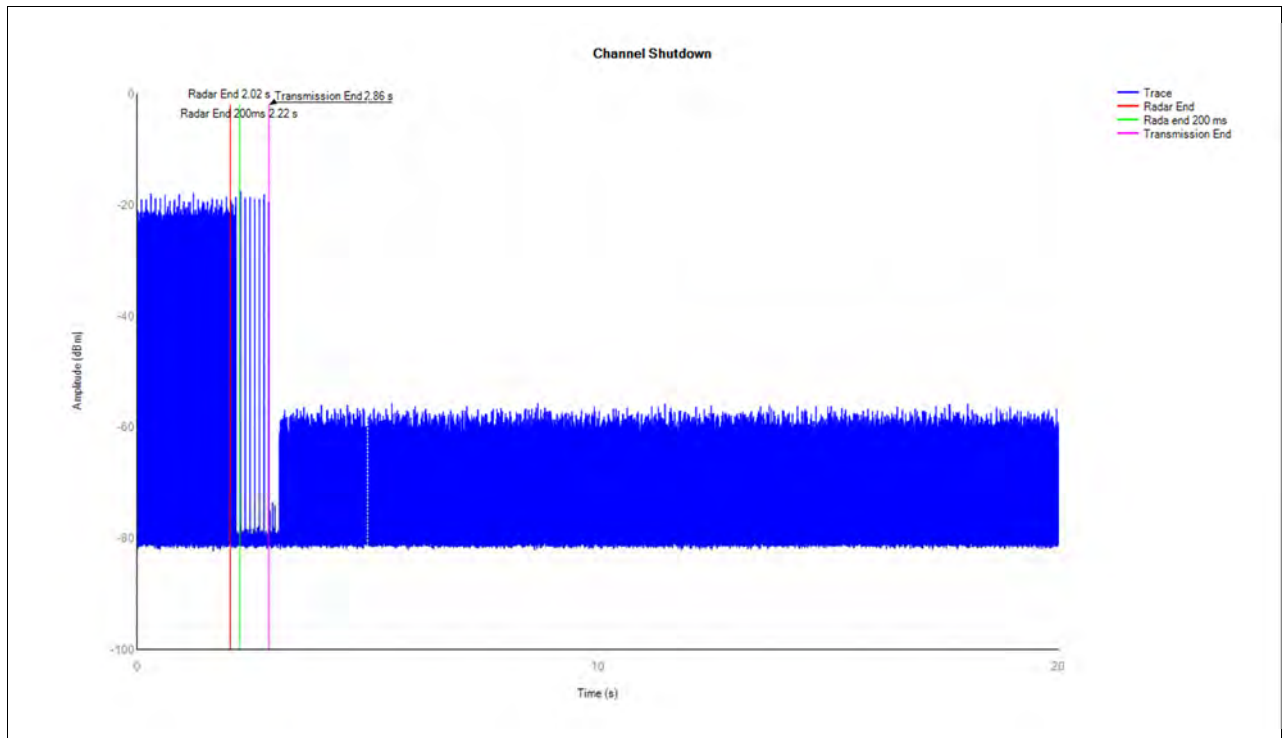
Span: Zero

Detector type: Peak

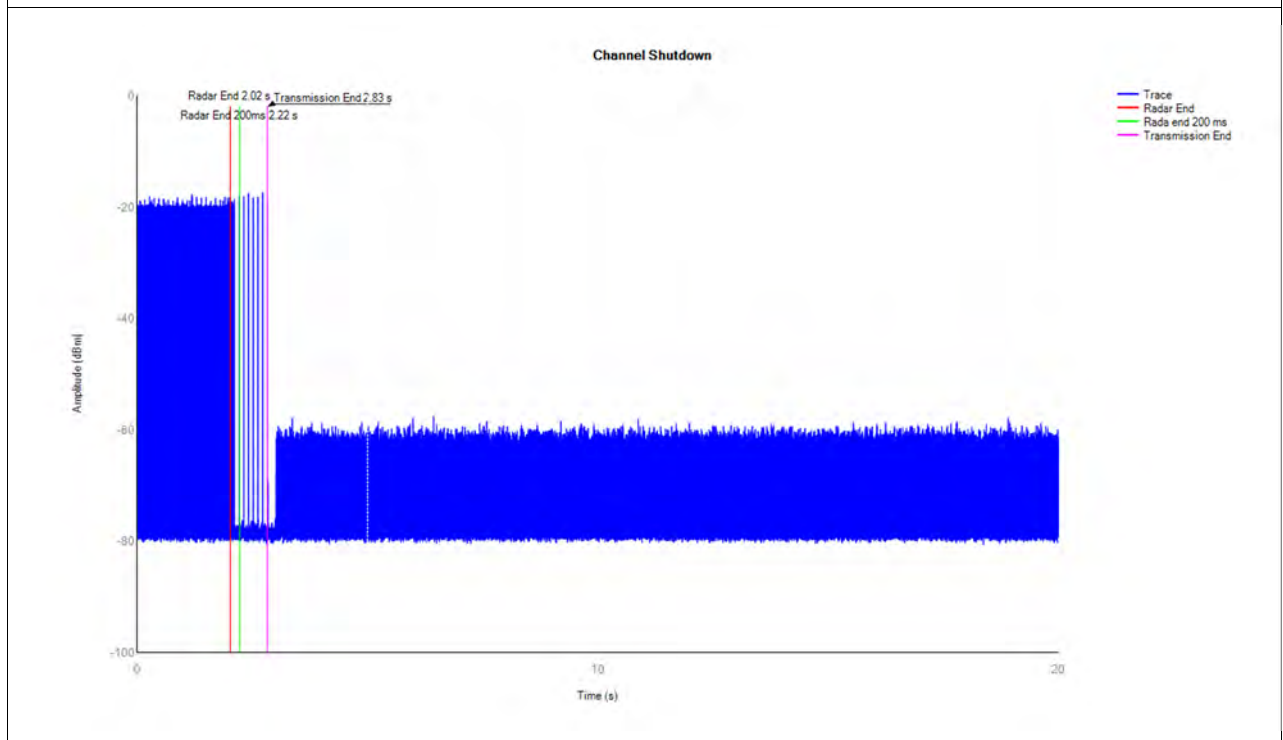
RBW: 3MHz

VBW: 3MHz

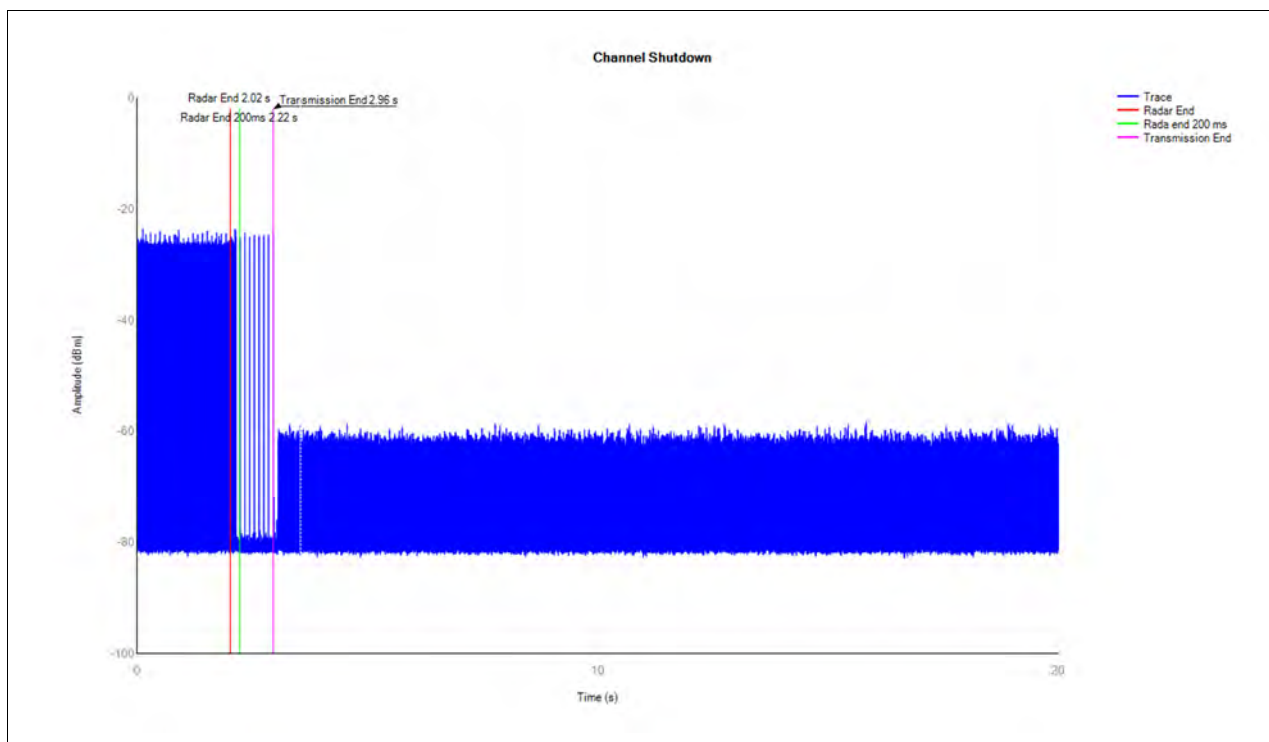
Sweep time: 20s



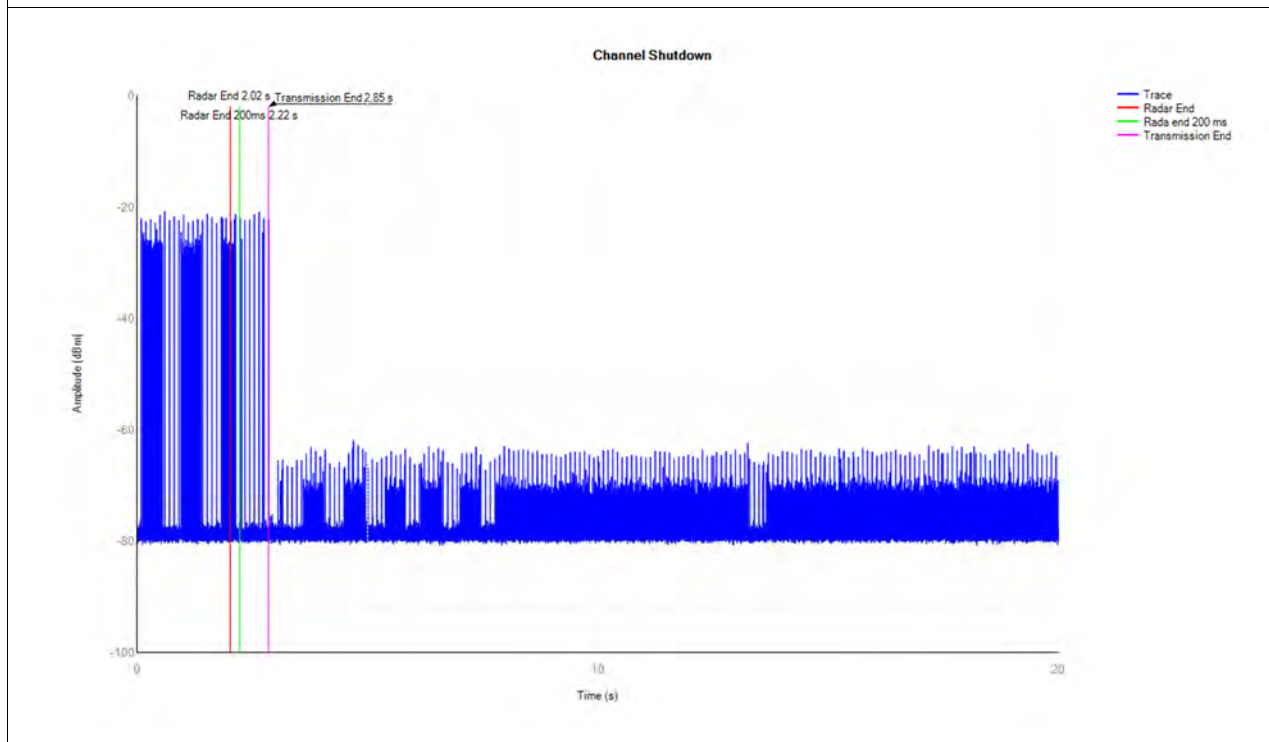
ac20 5320MHz Shutdown



ac20 5500MHz Shutdown



ac80 5290MHz Shutdown



ac80 5530MHz Shutdown

Note: The signal above the noise floor after the radar signal ends is the signal which leaked from other channels that have been moved following the Master device.



REPORT No.: SZ25110146W03

Non-Occupancy Period

Mode	Frequency (MHz)	Result	Verdict
ac20	5320	See test Graph	Pass
ac20	5500	See test Graph	Pass

Spectrum analyzer settings:

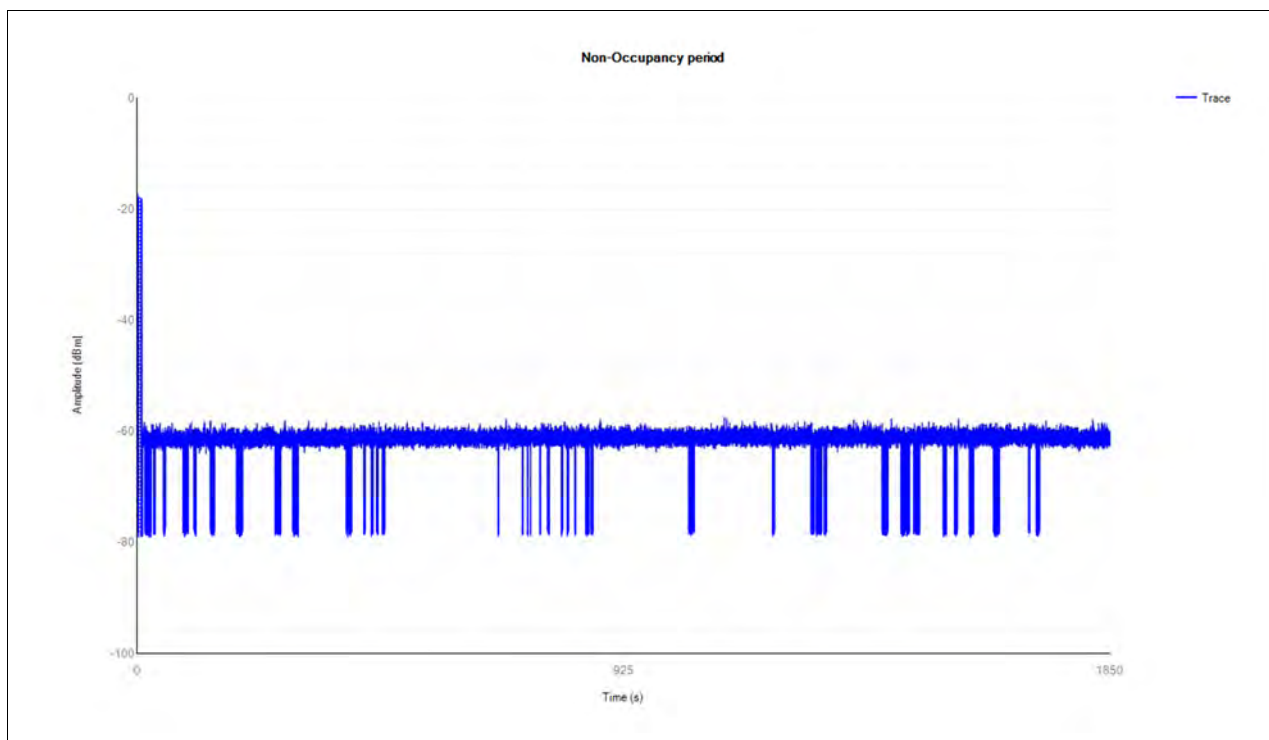
Span: Zero

Detector type: Peak

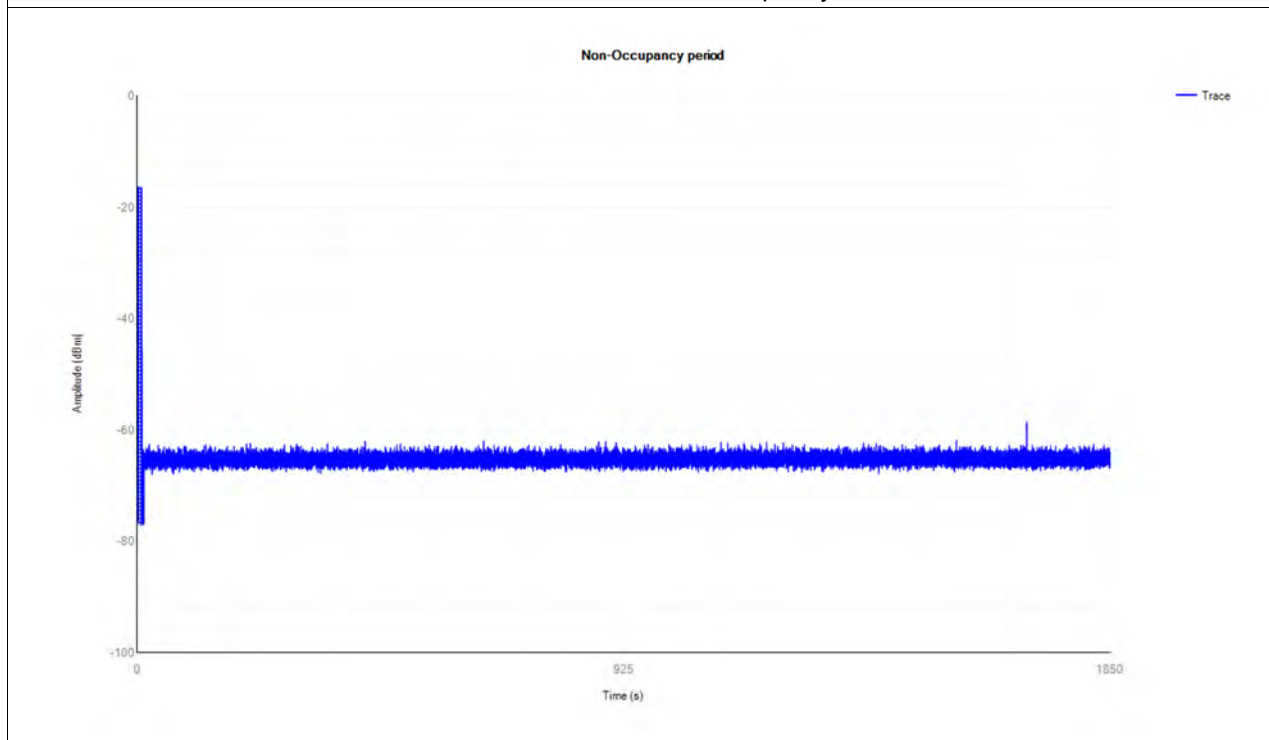
RBW: 3MHz

VBW: 3MHz

Sweep time: 1850s



ac20 5320MHz Non-Occupancy



ac20 5500MHz Non-Occupancy



A.7. Conducted Emission

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and plots below.

Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A. Test Setup:

Test Mode: EUT+Notebook+Notebook adapter+USB cable+Serial port board+WIFI TX

Test voltage: AC 120V/60Hz

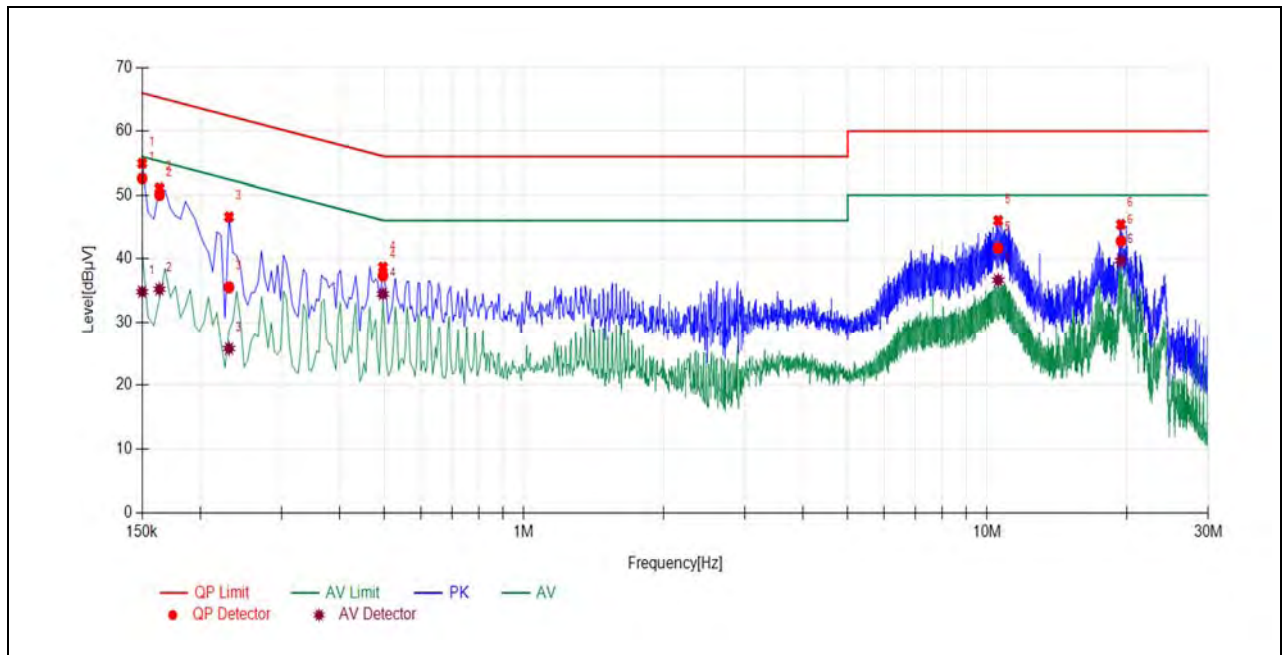
The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V]} = U_R + L_{\text{Cable loss [dB]} + A_{\text{Factor}}$$

U_R : Receiver Reading

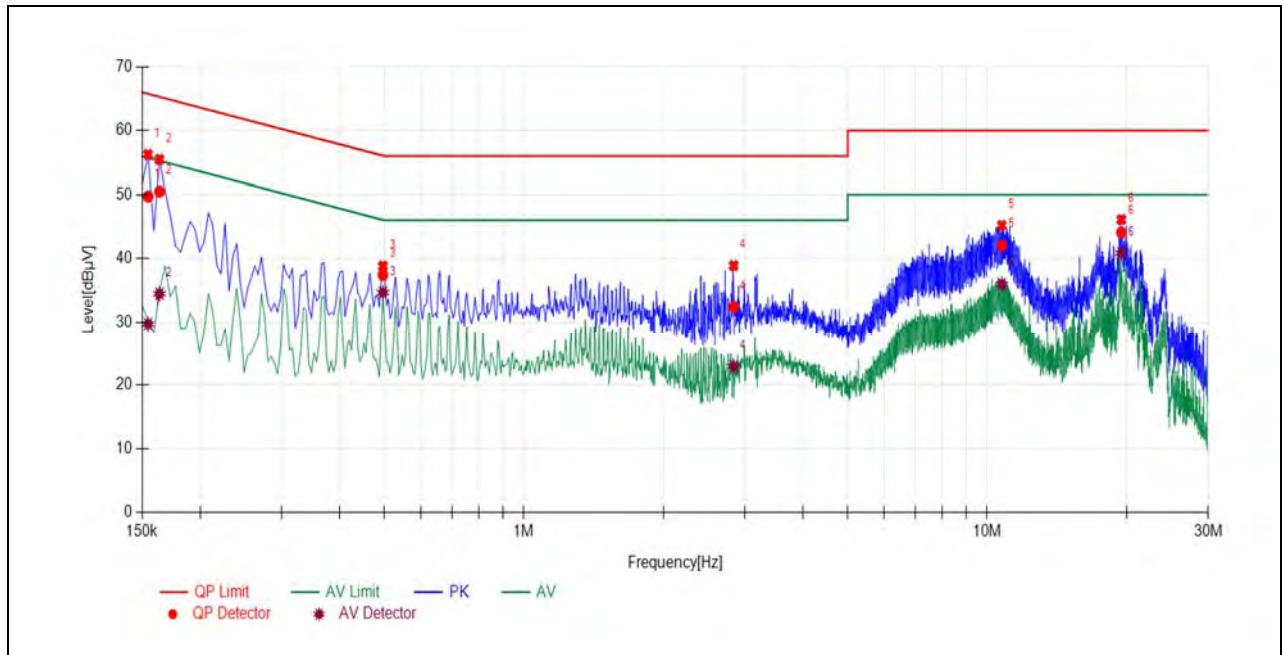
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1500	52.57	34.80	66.00	56.00	Line	PASS
2	0.1635	50.04	35.20	65.28	55.28		PASS
3	0.2310	35.52	25.72	62.41	52.41		PASS
4	0.4965	37.34	34.46	56.06	46.06		PASS
5	10.5619	41.69	36.63	60.00	50.00		PASS
6	19.4421	42.78	39.71	60.00	50.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1545	49.73	29.71	65.75	55.75	Neutral	PASS
2	0.1635	50.50	34.49	65.28	55.28		PASS
3	0.4965	37.43	34.66	56.06	46.06		PASS
4	2.8363	32.41	22.91	56.00	46.00		PASS
5	10.7574	42.09	36.00	60.00	50.00		PASS
6	19.4791	44.11	40.87	60.00	50.00		PASS

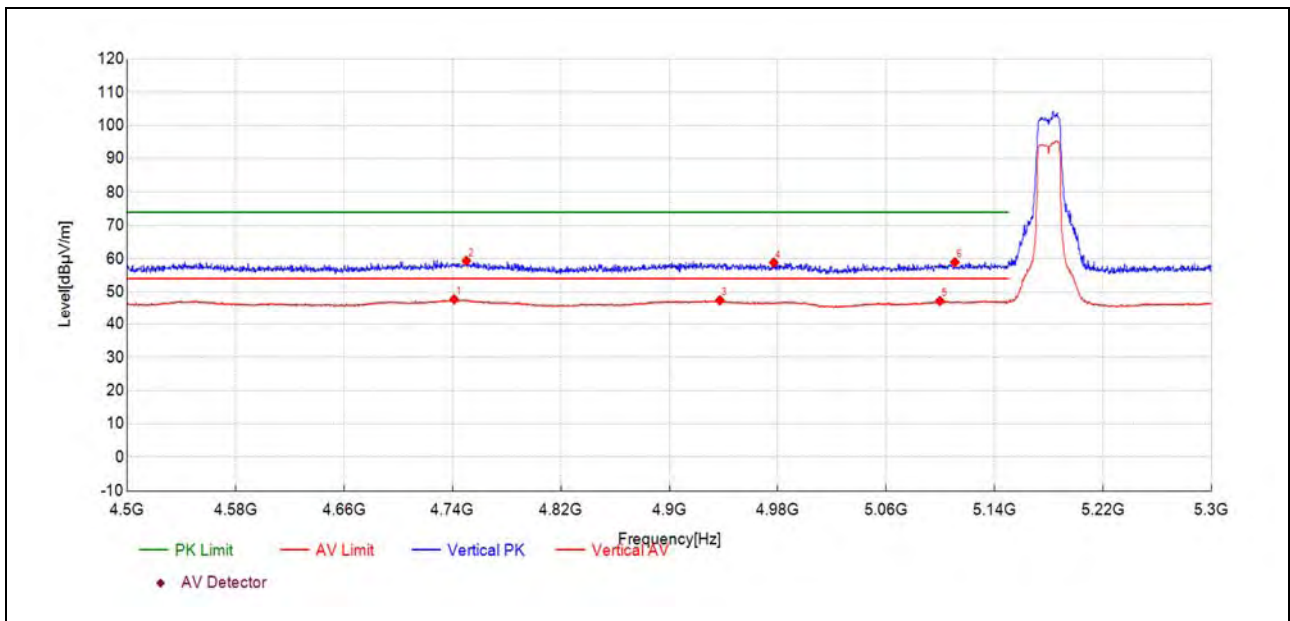
A.8. Restricted Frequency Bands

Note 1: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition was recorded in this test report.

Note 2 All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

802.11a Mode

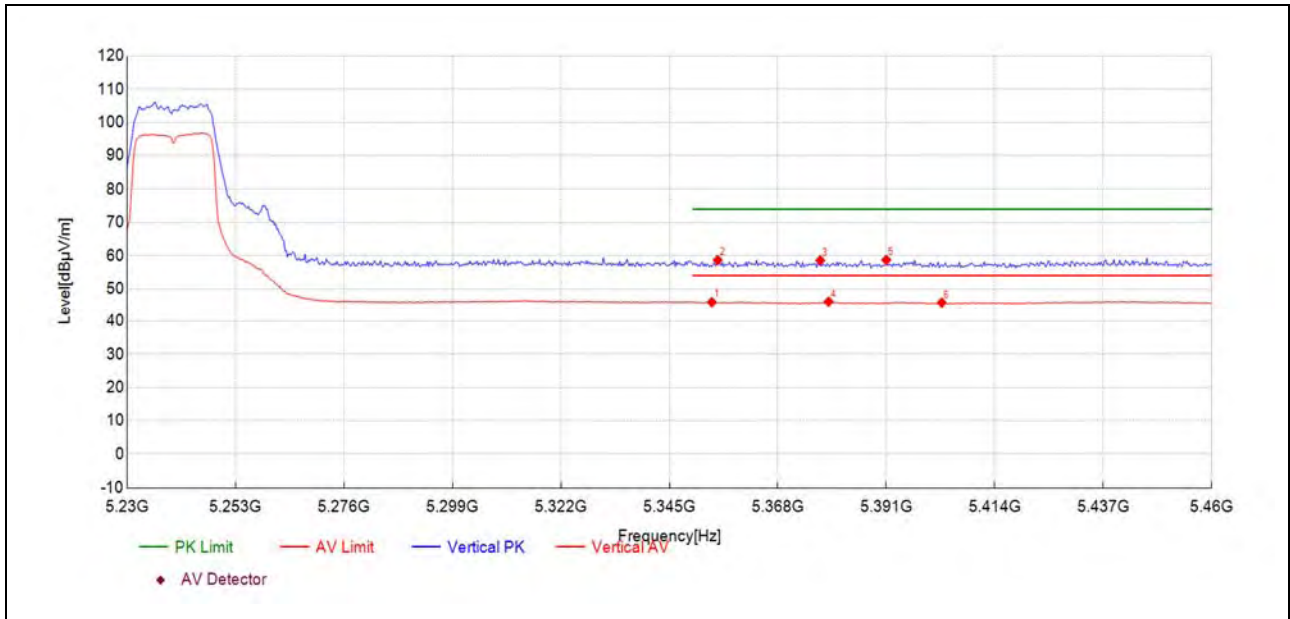
Plot for Channel 36



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4741.25	27.4	47.74	20.310	54.00	6.26	165	60	AV	PASS
4750.25	39.0	59.34	20.320	74.00	14.66	165	1	PK	PASS
4937.25	27.5	47.46	19.940	54.00	6.54	165	286	AV	PASS
4977.00	39.0	58.82	19.850	74.00	15.18	165	0	PK	PASS
5099.50	26.7	47.23	20.520	54.00	6.77	165	1	AV	PASS
5110.50	38.5	58.93	20.480	74.00	15.07	165	0	PK	PASS



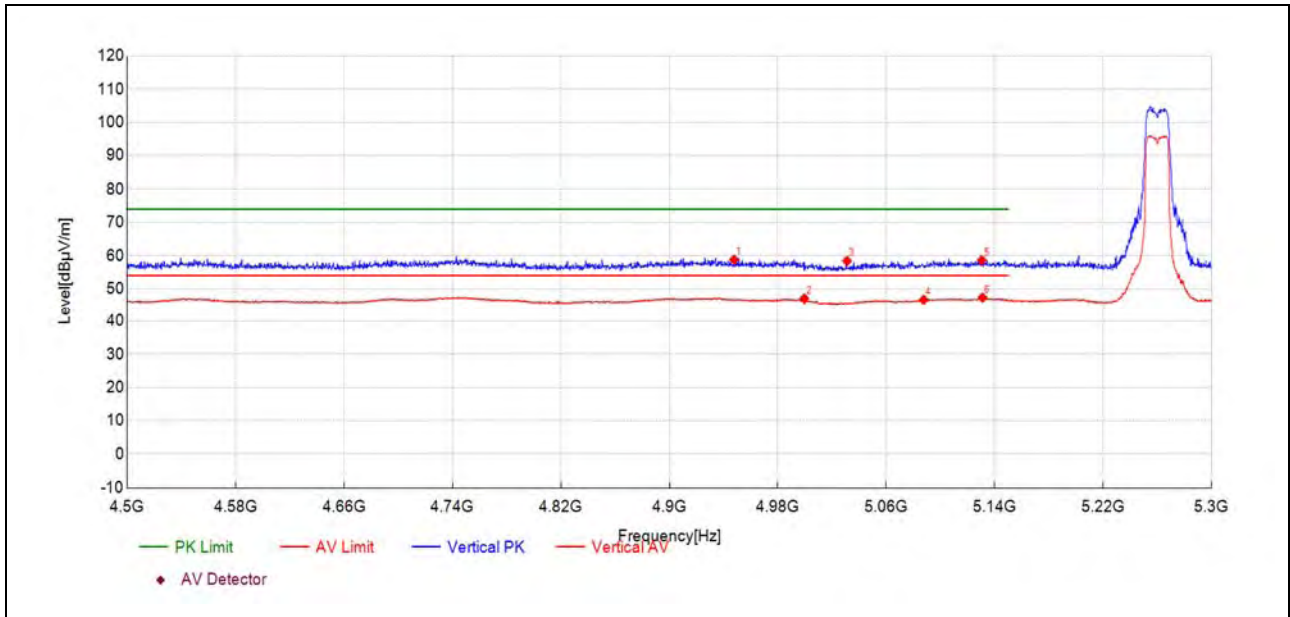
Plot for Channel 48



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5354.00	26.0	45.96	19.930	54.00	8.04	165	354	AV	PASS
5355.25	38.7	58.64	19.930	74.00	15.36	165	360	PK	PASS
5377.00	38.7	58.55	19.880	74.00	15.45	165	359	PK	PASS
5378.75	26.2	46.10	19.870	54.00	7.90	165	354	AV	PASS
5391.00	38.8	58.69	19.850	74.00	15.31	165	288	PK	PASS
5402.75	25.9	45.80	19.860	54.00	8.20	165	4	AV	PASS



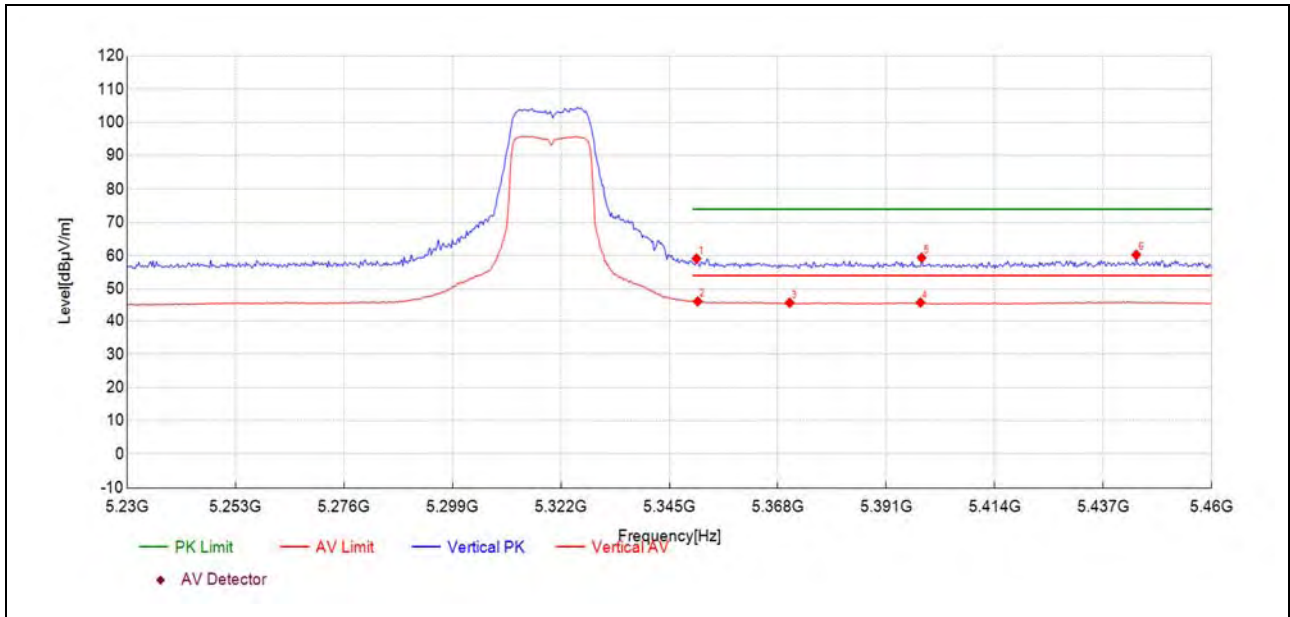
Plot for Channel 52



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4947.75	38.9	58.78	19.850	74.00	15.22	165	231	PK	PASS
4999.50	27.2	47.04	19.880	54.00	6.96	165	166	AV	PASS
5031.00	38.3	58.39	20.070	74.00	15.61	165	306	PK	PASS
5087.50	26.2	46.68	20.440	54.00	7.32	165	329	AV	PASS
5130.50	38.2	58.61	20.400	74.00	15.39	165	274	PK	PASS
5131.00	26.9	47.34	20.400	54.00	6.66	165	166	AV	PASS



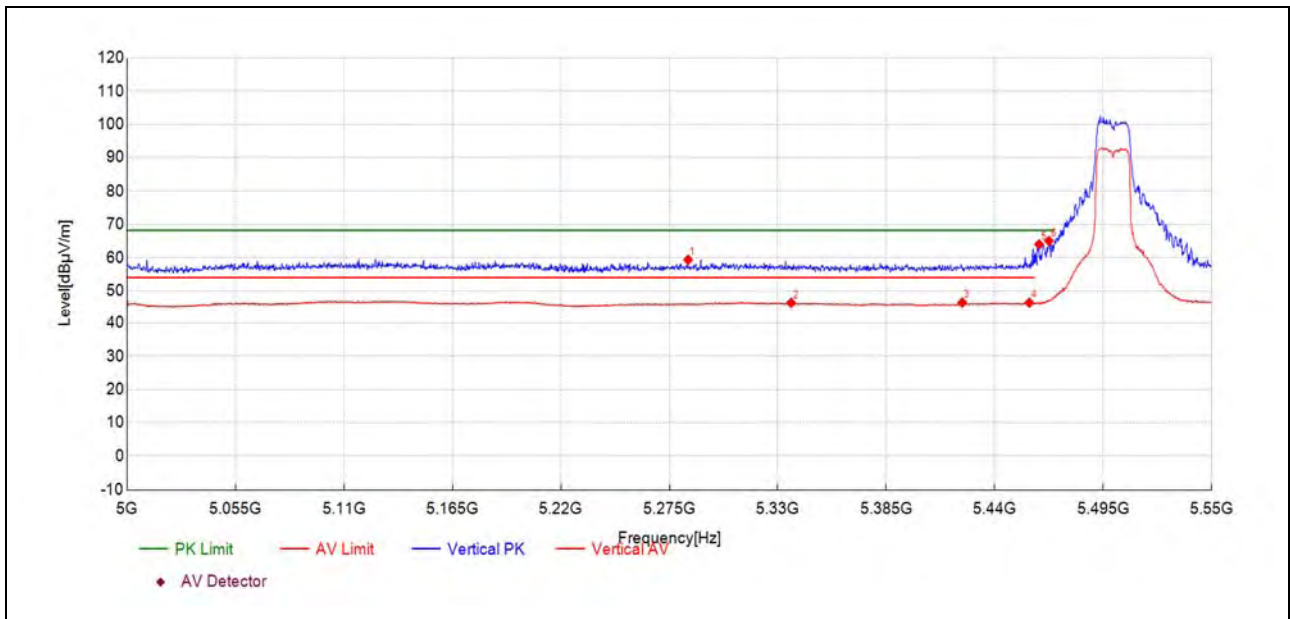
Plot for Channel 64



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.75	39.2	59.12	19.940	74.00	14.88	165	360	PK	PASS
5351.00	26.2	46.18	19.940	54.00	7.82	165	3	AV	PASS
5370.50	25.9	45.80	19.900	54.00	8.20	165	360	AV	PASS
5398.25	26.0	45.84	19.830	54.00	8.16	165	360	AV	PASS
5398.50	39.5	59.37	19.830	74.00	14.63	165	330	PK	PASS
5444.00	39.9	60.25	20.400	74.00	13.75	165	301	PK	PASS

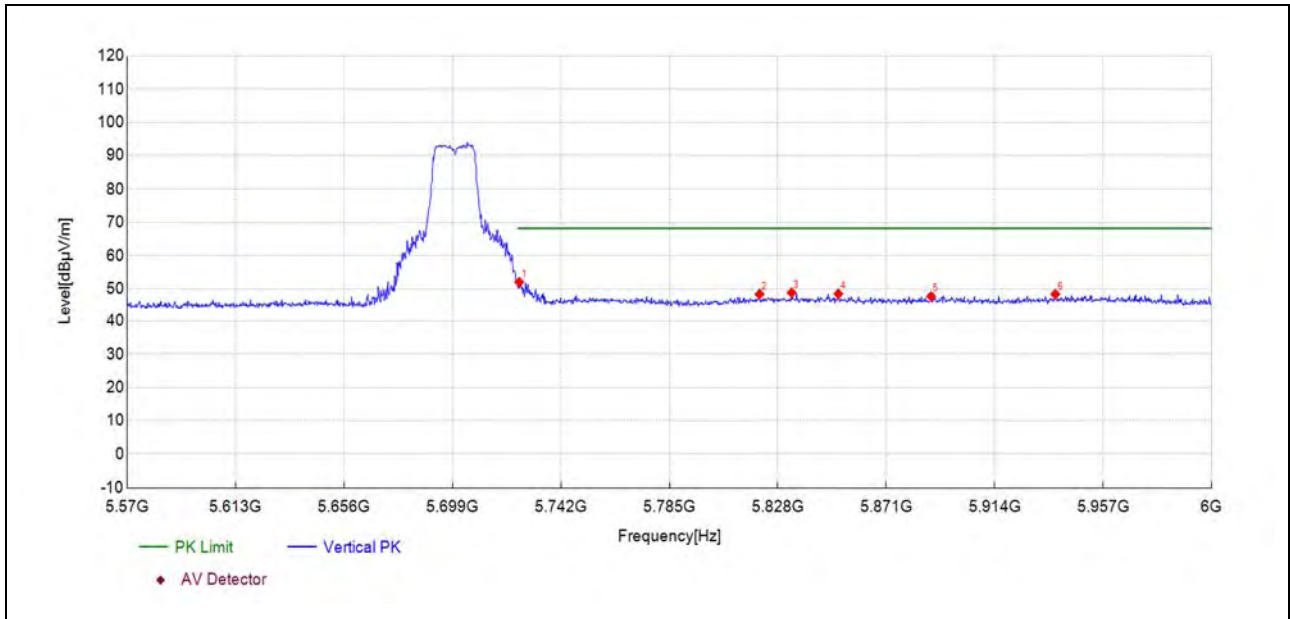


Plot for Channel 100



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5284.50	39.2	59.34	20.130	68.23	8.89	165	102	PK	PASS
5336.75	26.3	46.35	20.020	54.00	7.65	165	174	AV	PASS
5423.50	26.3	46.43	20.130	54.00	7.57	165	49	AV	PASS
5457.50	26.0	46.40	20.440	54.00	7.60	165	0	AV	PASS
5462.50	43.6	63.99	20.410	68.23	4.24	165	0	PK	PASS
5467.50	44.7	65.04	20.380	68.23	3.19	165	0	PK	PASS

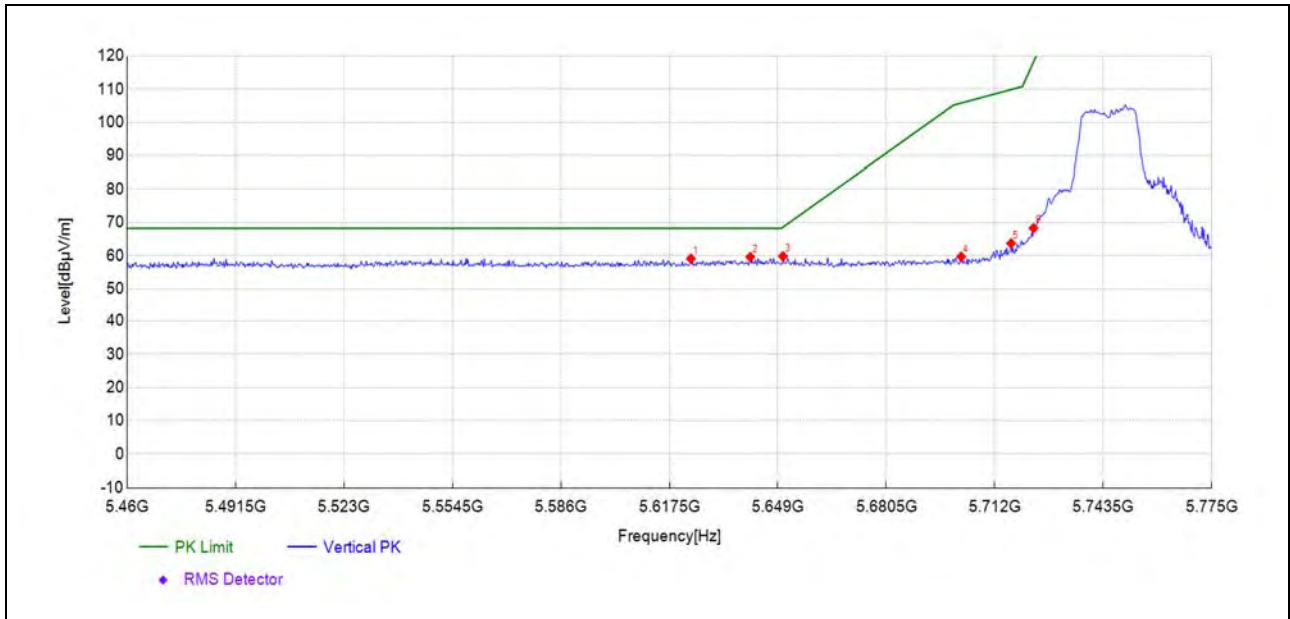
Plot for Channel 140



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5725.50	42.8	52.02	9.270	68.23	16.21	165	360	PK	PASS
5820.75	38.4	48.37	10.010	68.23	19.86	165	18	PK	PASS
5833.50	38.6	48.82	10.210	68.23	19.41	165	74	PK	PASS
5852.00	38.1	48.48	10.430	68.23	19.75	165	360	PK	PASS
5888.75	37.8	47.71	9.890	68.23	20.52	165	299	PK	PASS
5938.00	38.4	48.38	10.030	68.23	19.85	165	47	PK	PASS

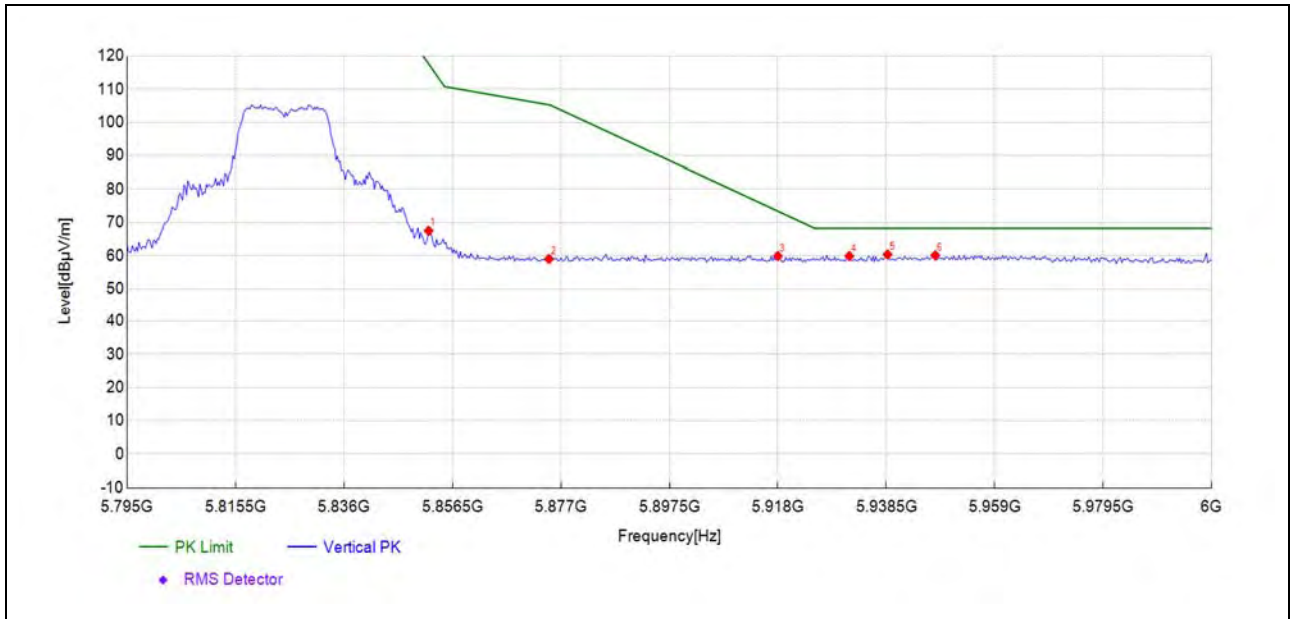


Plot for Channel 149



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5623.75	38.6	59.10	20.540	68.23	9.13	165	13	PK	PASS
5641.00	38.7	59.57	20.840	68.23	8.66	165	73	PK	PASS
5650.50	38.8	59.81	21.010	68.60	8.79	165	334	PK	PASS
5702.25	38.8	59.66	20.910	105.86	46.20	165	130	PK	PASS
5716.75	42.6	63.70	21.130	109.92	46.22	165	0	PK	PASS
5723.25	47.1	68.29	21.240	118.24	49.95	165	5	PK	PASS

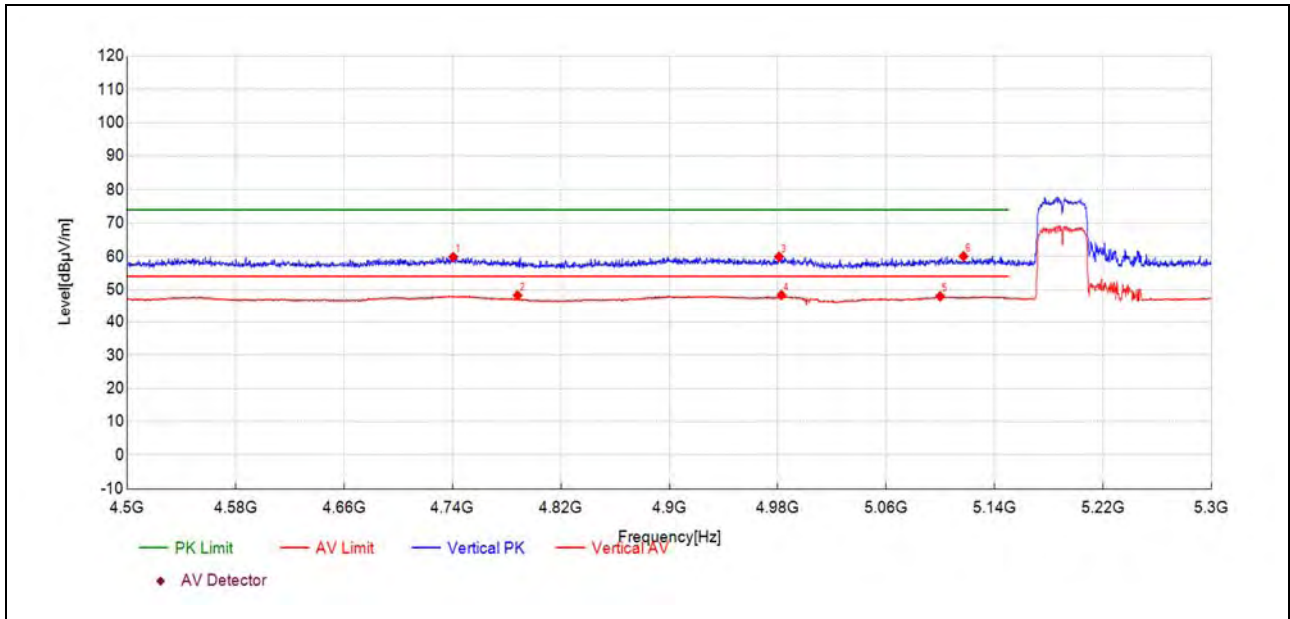
Plot for Channel 165



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5852.00	45.1	67.49	22.430	117.67	50.18	165	345	PK	PASS
5874.75	36.9	58.98	22.090	105.30	46.32	165	183	PK	PASS
5918.00	38.0	59.89	21.870	73.41	13.52	165	63	PK	PASS
5931.50	37.9	59.87	21.970	68.23	8.36	165	183	PK	PASS
5938.75	38.3	60.35	22.030	68.23	7.88	165	4	PK	PASS
5947.75	38.0	60.11	22.110	68.23	8.12	165	183	PK	PASS

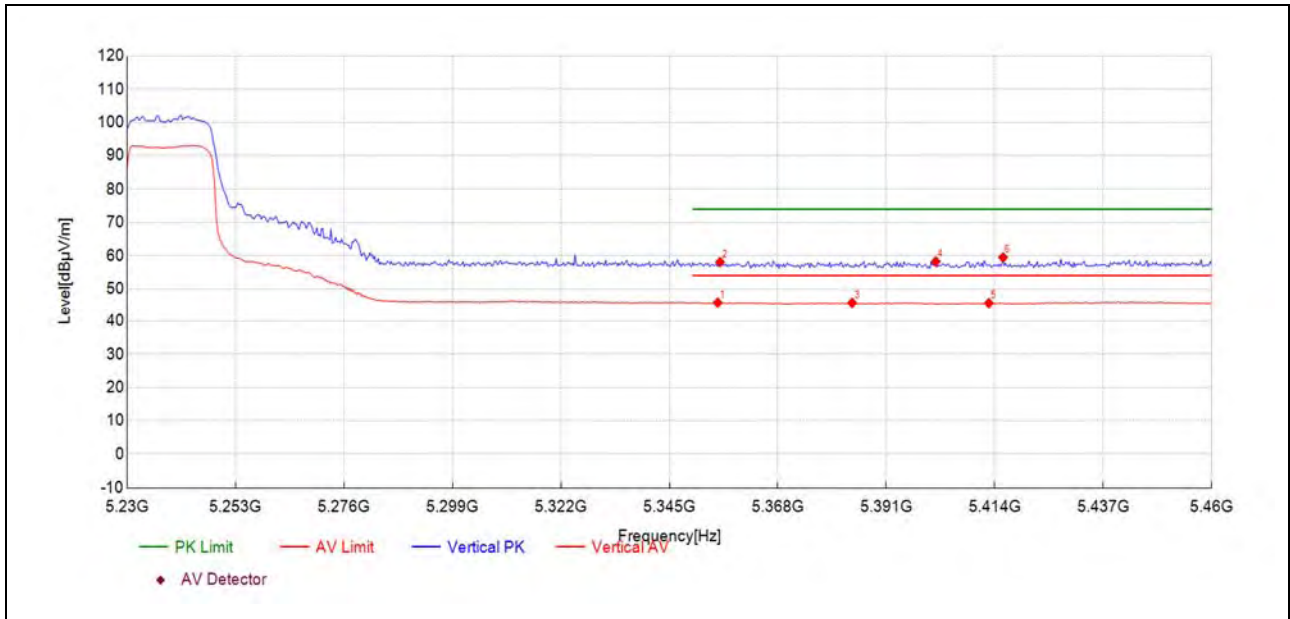
**802.11n (HT40) Mode**

Plot for Channel 38



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4740.58	39.5	59.81	20.310	74.00	14.19	165	32	PK	PASS
4788.09	28.6	48.28	19.660	54.00	5.72	165	129	AV	PASS
4980.90	40.0	59.88	19.860	74.00	14.12	165	87	PK	PASS
4982.65	28.5	48.36	19.870	54.00	5.64	165	22	AV	PASS
5099.69	27.5	47.99	20.520	54.00	6.01	165	97	AV	PASS
5116.94	39.6	60.02	20.460	74.00	13.98	165	4	PK	PASS

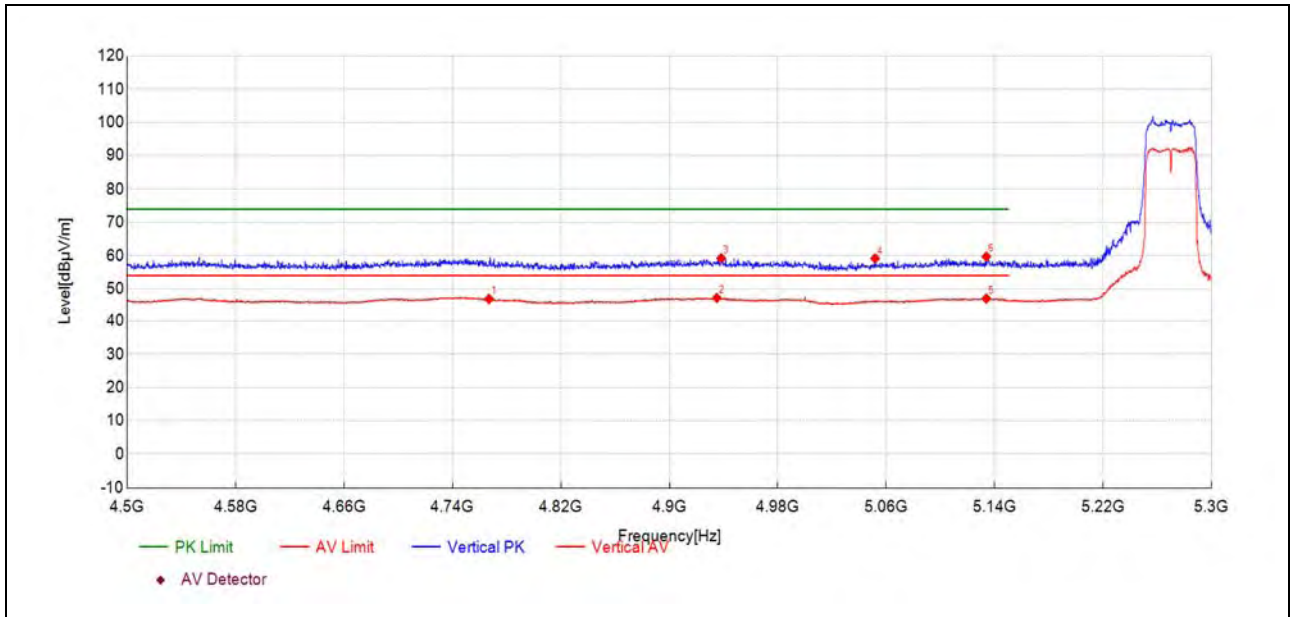
Plot for Channel 46



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5355.25	25.9	45.81	19.930	54.00	8.19	165	281	AV	PASS
5355.75	38.1	58.06	19.930	74.00	15.94	165	165	PK	PASS
5383.75	25.9	45.73	19.860	54.00	8.27	165	10	AV	PASS
5401.50	38.4	58.24	19.850	74.00	15.76	165	240	PK	PASS
5412.75	25.7	45.64	19.990	54.00	8.36	165	358	AV	PASS
5415.75	39.4	59.46	20.030	74.00	14.54	165	240	PK	PASS

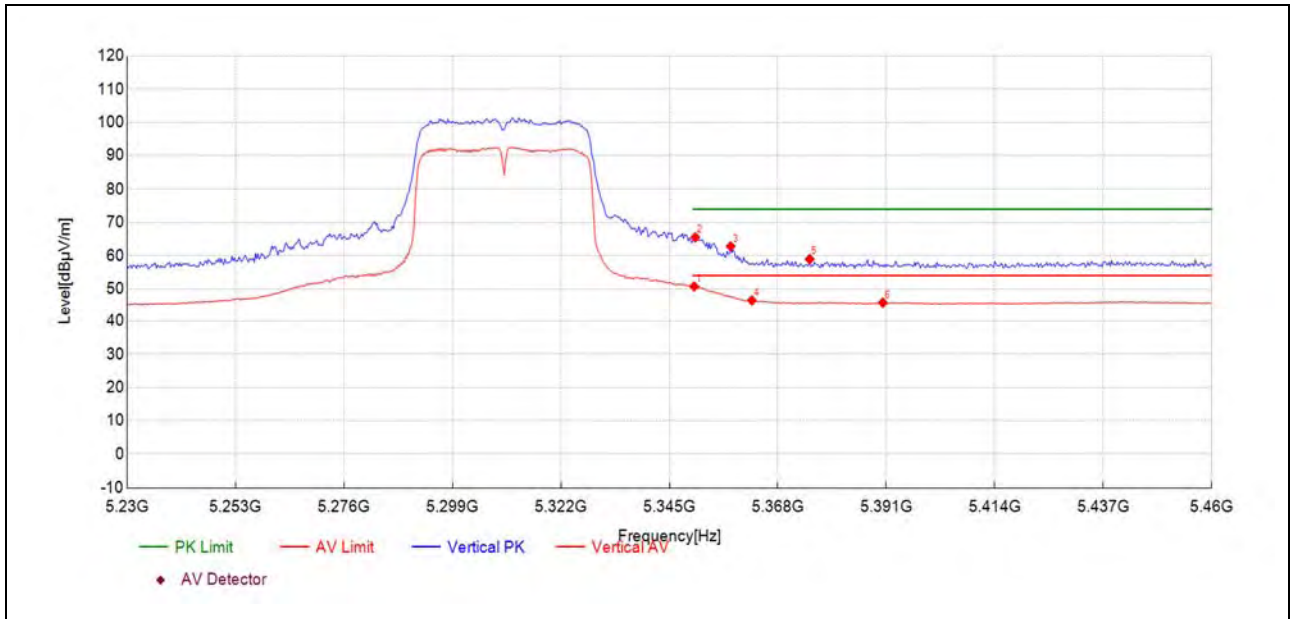


Plot for Channel 54



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4767.00	26.9	46.93	20.020	54.00	7.07	165	188	AV	PASS
4935.00	27.3	47.22	19.960	54.00	6.78	165	0	AV	PASS
4938.25	39.3	59.20	19.930	74.00	14.80	165	287	PK	PASS
5051.75	38.9	59.14	20.210	74.00	14.86	165	91	PK	PASS
5133.75	26.7	47.06	20.380	54.00	6.94	165	0	AV	PASS
5133.75	39.3	59.70	20.380	74.00	14.30	165	254	PK	PASS

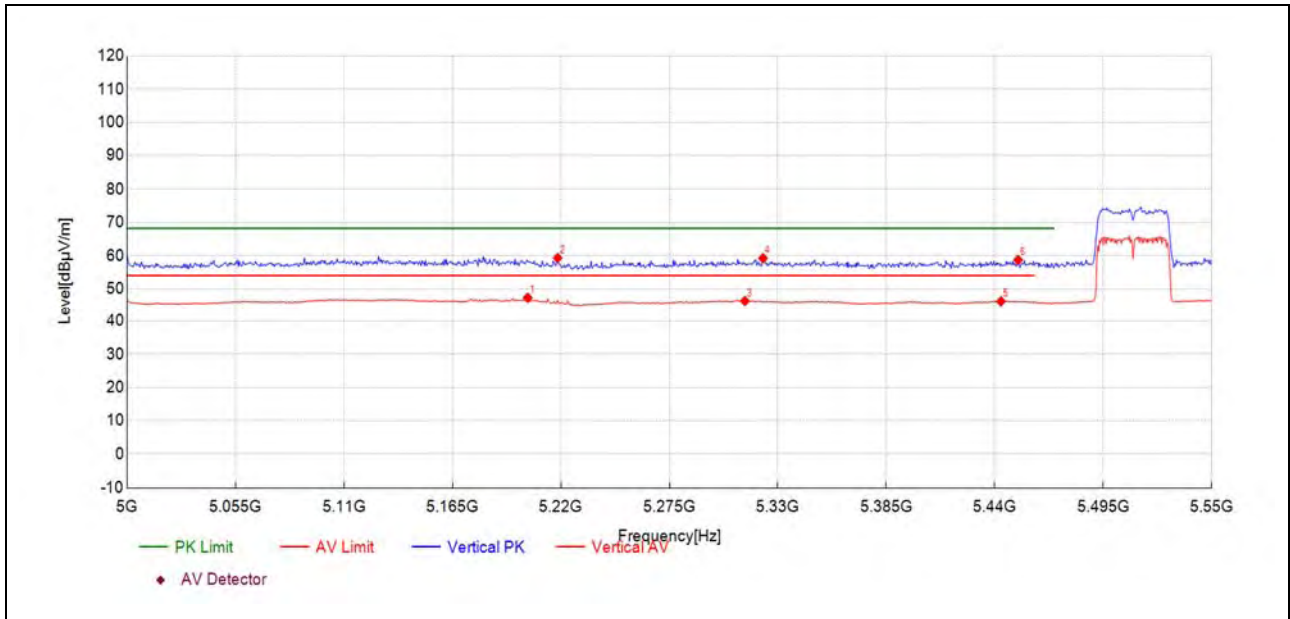
Plot for Channel 62



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.25	30.8	50.71	19.940	54.00	3.29	165	356	AV	PASS
5350.50	45.6	65.52	19.940	74.00	8.48	165	4	PK	PASS
5358.00	42.9	62.79	19.920	74.00	11.21	165	4	PK	PASS
5362.50	26.6	46.49	19.920	54.00	7.51	165	360	AV	PASS
5374.75	39.1	58.94	19.890	74.00	15.06	165	166	PK	PASS
5390.25	26.0	45.80	19.850	54.00	8.20	165	332	AV	PASS

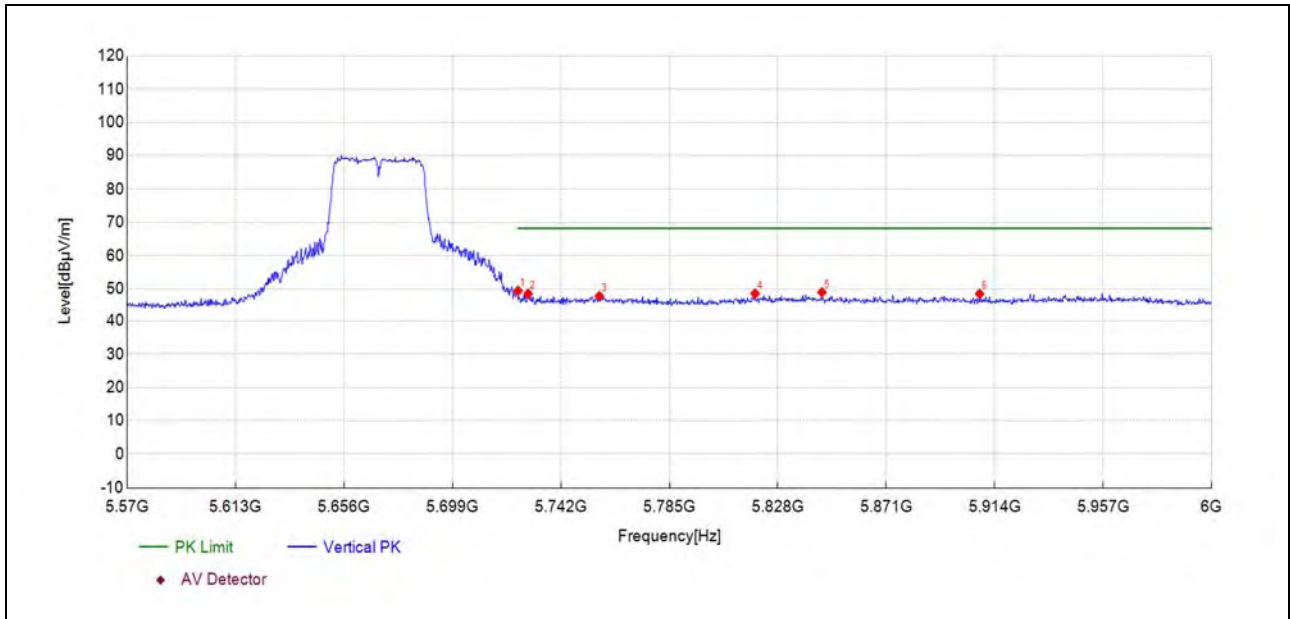


Plot for Channel 102



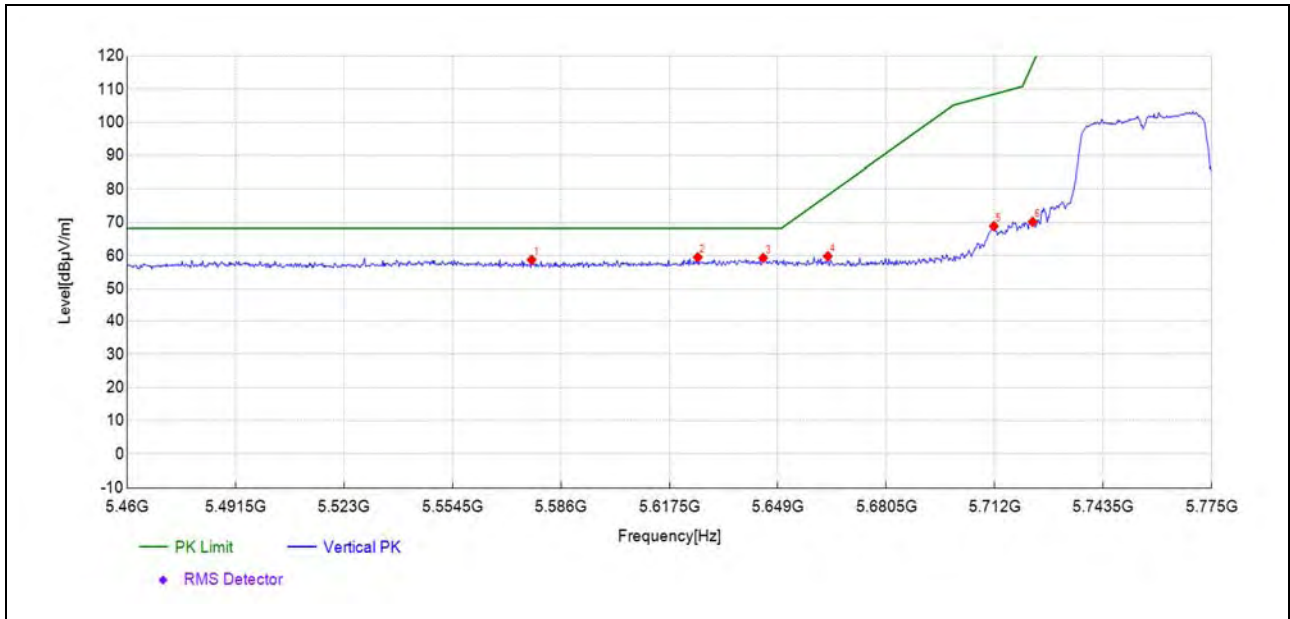
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5203.21	26.9	47.28	20.380	54.00	6.72	165	19	AV	PASS
5218.35	39.1	59.28	20.210	68.23	8.95	165	9	PK	PASS
5313.30	26.1	46.31	20.170	54.00	7.69	165	360	AV	PASS
5322.48	39.1	59.22	20.120	68.23	9.01	165	264	PK	PASS
5443.12	25.8	46.19	20.380	54.00	7.81	165	245	AV	PASS
5451.83	38.2	58.67	20.460	68.23	9.56	165	323	PK	PASS

Plot for Channel 134



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5725.00	40.1	49.38	9.260	68.23	18.85	165	56	PK	PASS
5729.00	39.2	48.47	9.320	68.23	19.76	165	345	PK	PASS
5757.25	38.1	47.79	9.650	68.23	20.44	165	56	PK	PASS
5819.00	38.6	48.58	9.980	68.23	19.65	165	337	PK	PASS
5845.50	38.6	48.94	10.390	68.23	19.29	165	148	PK	PASS
5908.00	38.7	48.47	9.790	68.23	19.76	165	159	PK	PASS

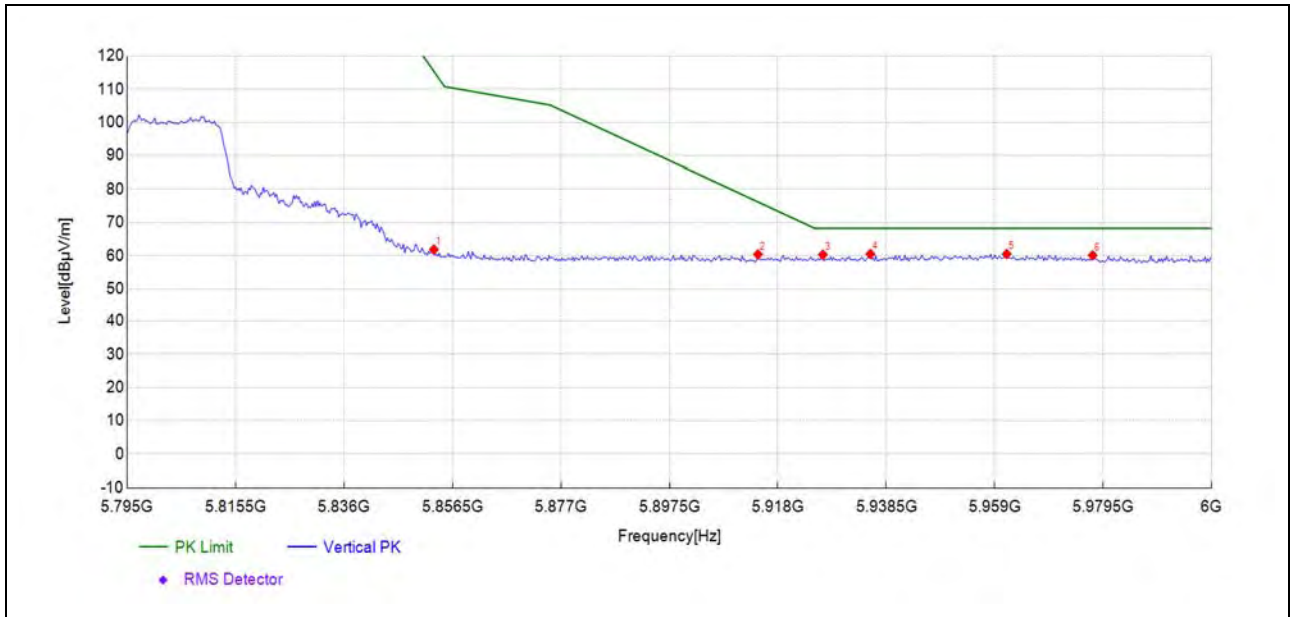
Plot for Channel 151



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5577.50	38.5	58.71	20.200	68.23	9.52	165	83	PK	PASS
5625.75	38.9	59.49	20.580	68.23	8.74	165	46	PK	PASS
5644.75	38.4	59.30	20.920	68.23	8.93	165	0	PK	PASS
5663.50	38.8	59.81	20.970	78.22	18.41	165	74	PK	PASS
5711.75	47.8	68.88	21.050	108.52	39.64	165	2	PK	PASS
5723.00	49.0	70.19	21.230	117.67	47.48	165	342	PK	PASS



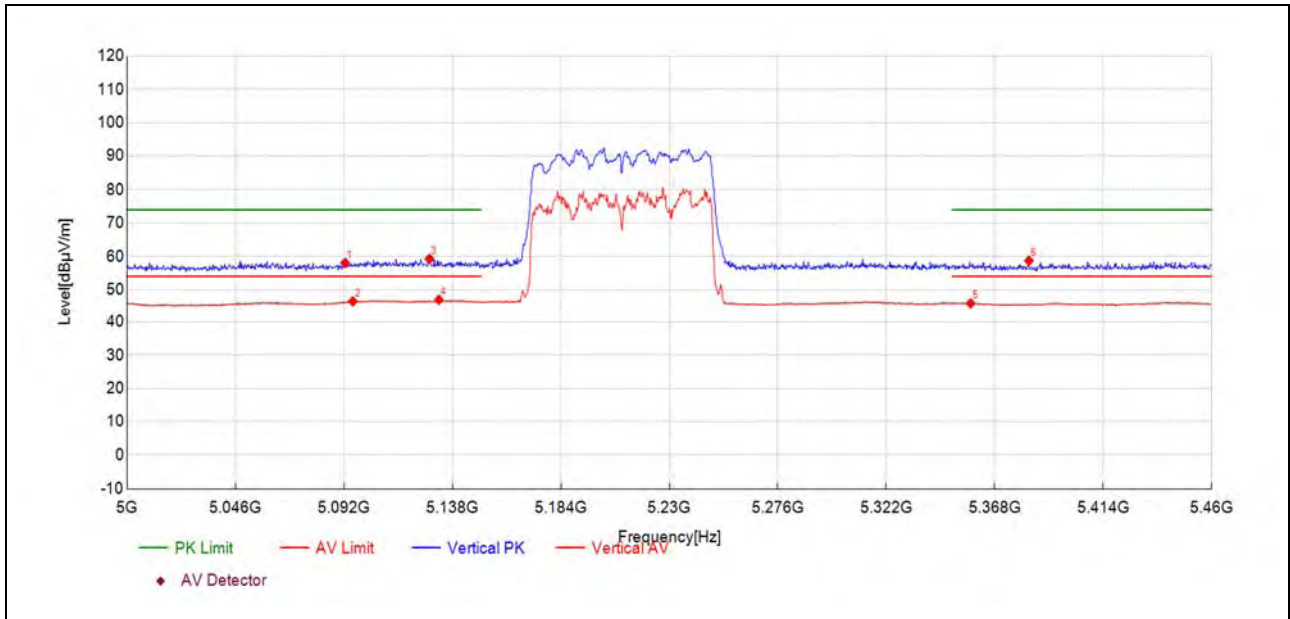
Plot for Channel 159



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5853.00	39.4	61.83	22.420	115.39	53.56	165	350	PK	PASS
5914.25	38.5	60.36	21.840	76.19	15.83	165	4	PK	PASS
5926.50	38.4	60.28	21.930	68.23	7.95	165	228	PK	PASS
5935.50	38.5	60.50	22.000	68.23	7.73	165	302	PK	PASS
5961.25	38.5	60.49	22.030	68.23	7.74	165	120	PK	PASS
5977.50	38.2	60.09	21.900	68.23	8.14	165	357	PK	PASS

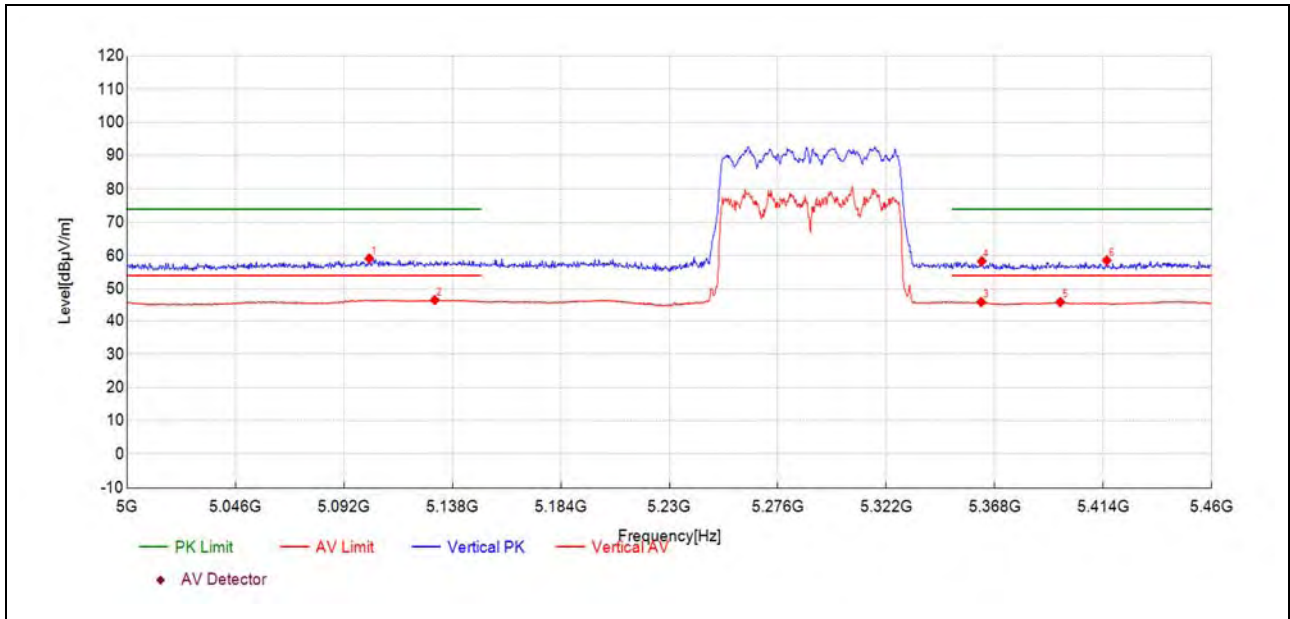
**802.11ac (VHT80) Mode**

Plot for Channel 42



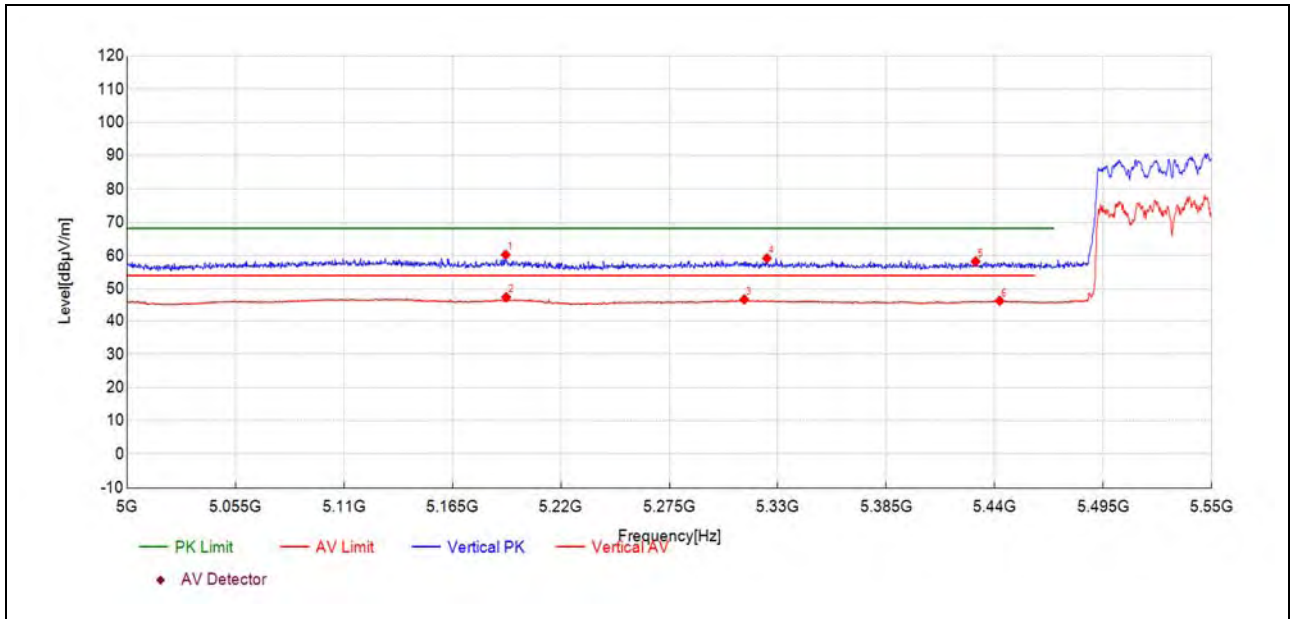
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5092.50	37.6	58.05	20.470	74.00	15.95	165	146	PK	PASS
5095.75	26.0	46.46	20.490	54.00	7.54	165	300	AV	PASS
5128.25	38.9	59.27	20.400	74.00	14.73	165	16	PK	PASS
5132.25	26.6	46.95	20.400	54.00	7.05	165	1	AV	PASS
5357.75	26.0	45.87	19.920	54.00	8.13	165	74	AV	PASS
5382.50	38.8	58.70	19.870	74.00	15.30	165	187	PK	PASS

Plot for Channel 58



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5102.75	38.6	59.13	20.500	74.00	14.87	165	182	PK	PASS
5130.50	26.2	46.61	20.400	54.00	7.39	165	3	AV	PASS
5362.25	26.1	46.00	19.920	54.00	8.00	165	360	AV	PASS
5362.50	38.4	58.30	19.920	74.00	15.70	165	360	PK	PASS
5395.75	26.2	45.99	19.840	54.00	8.01	165	360	AV	PASS
5415.50	38.5	58.54	20.030	74.00	15.46	165	314	PK	PASS

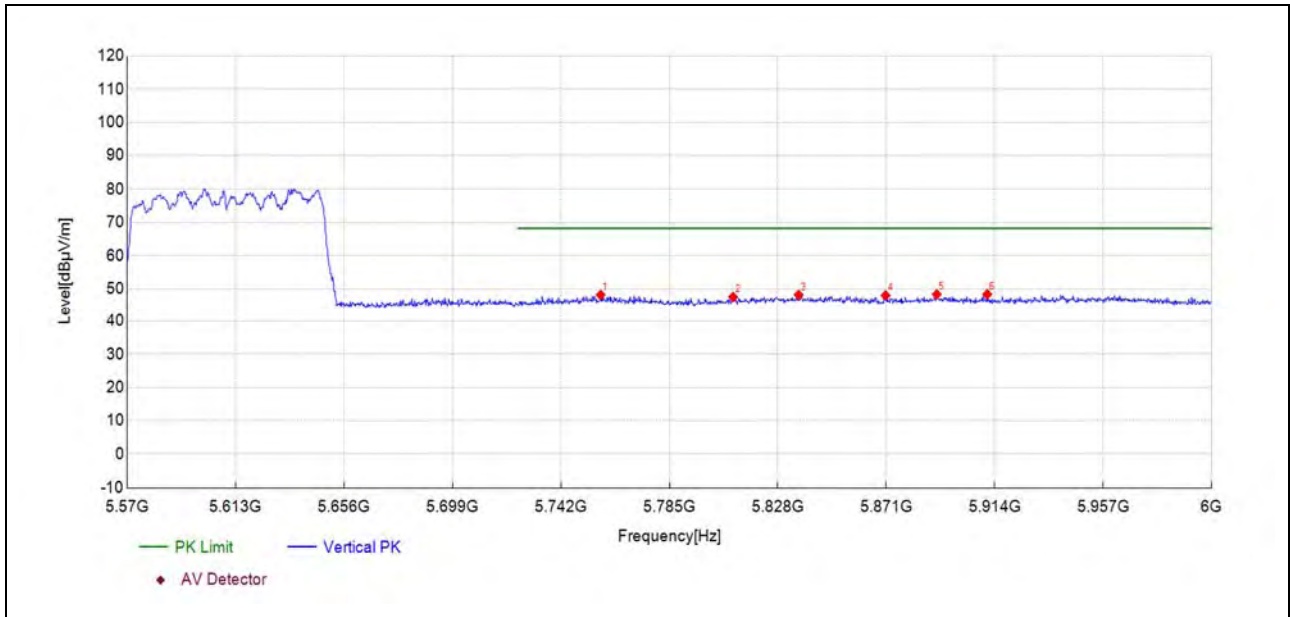
Plot for Channel 106



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5192.00	39.9	60.26	20.410	68.23	7.97	165	227	PK	PASS
5192.25	27.0	47.45	20.410	54.00	6.55	165	227	AV	PASS
5313.00	26.6	46.78	20.170	54.00	7.22	165	30	AV	PASS
5324.50	39.1	59.20	20.100	68.23	9.03	165	8	PK	PASS
5430.25	38.0	58.24	20.210	68.23	9.99	165	13	PK	PASS
5442.50	26.0	46.37	20.370	54.00	7.63	165	357	AV	PASS

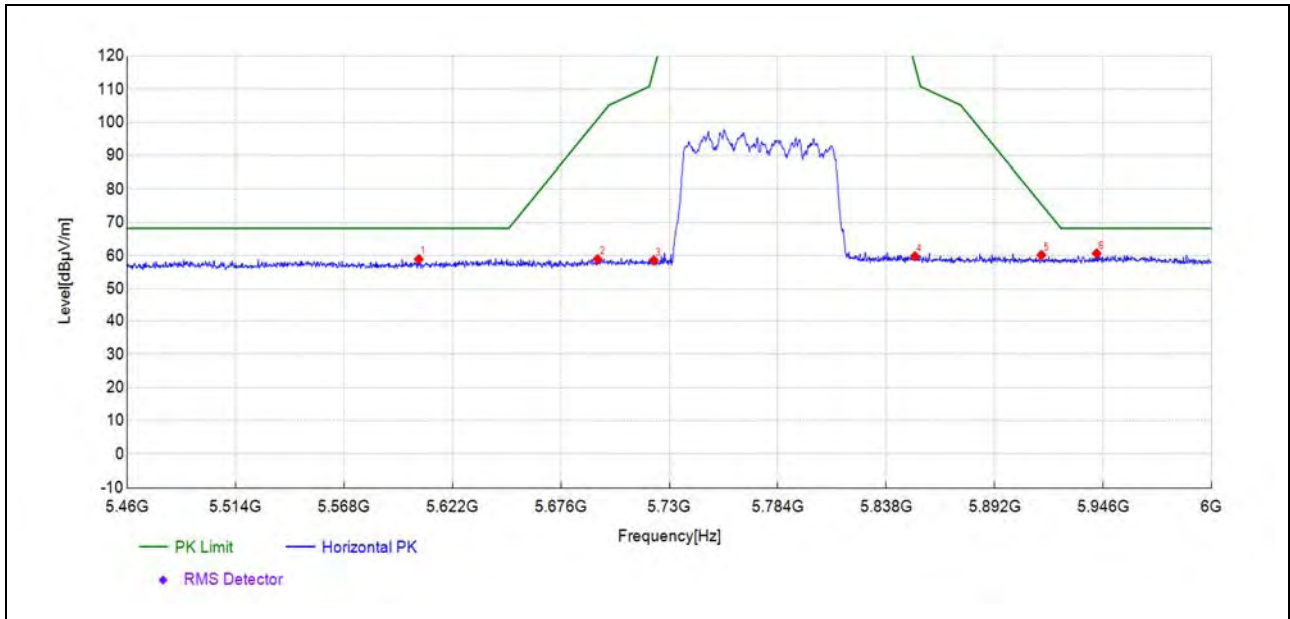


Plot for Channel 122



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5757.75	38.5	48.15	9.650	68.23	20.08	165	4	PK	PASS
5810.25	37.7	47.51	9.850	68.23	20.72	165	10	PK	PASS
5836.25	37.9	48.17	10.250	68.23	20.06	165	271	PK	PASS
5870.75	37.8	47.99	10.150	68.23	20.24	165	4	PK	PASS
5891.00	38.5	48.34	9.860	68.23	19.89	165	337	PK	PASS
5911.00	38.5	48.35	9.810	68.23	19.88	165	196	PK	PASS

Plot for Channel 155



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5605.25	38.7	58.91	20.220	68.23	9.32	165	313	PK	PASS
5694.25	38.0	58.92	20.890	100.98	42.06	165	142	PK	PASS
5722.25	37.3	58.56	21.220	115.96	57.40	165	47	PK	PASS
5852.25	37.4	59.80	22.430	117.10	57.30	165	104	PK	PASS
5915.25	38.3	60.13	21.840	75.45	15.32	165	181	PK	PASS
5942.75	38.6	60.64	22.070	68.23	7.59	165	332	PK	PASS



A.9. Radiated Emission

According to ANSI C63.10, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

$$E [\text{dB}\mu\text{V/m}] = U_R + A_T + A_{\text{Factor}} [\text{dB}]; A_T = L_{\text{Cable loss}} [\text{dB}] - G_{\text{preamp}} [\text{dB}]$$

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

During the test, the total correction Factor A_T and A_{Factor} were built in test software.

Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

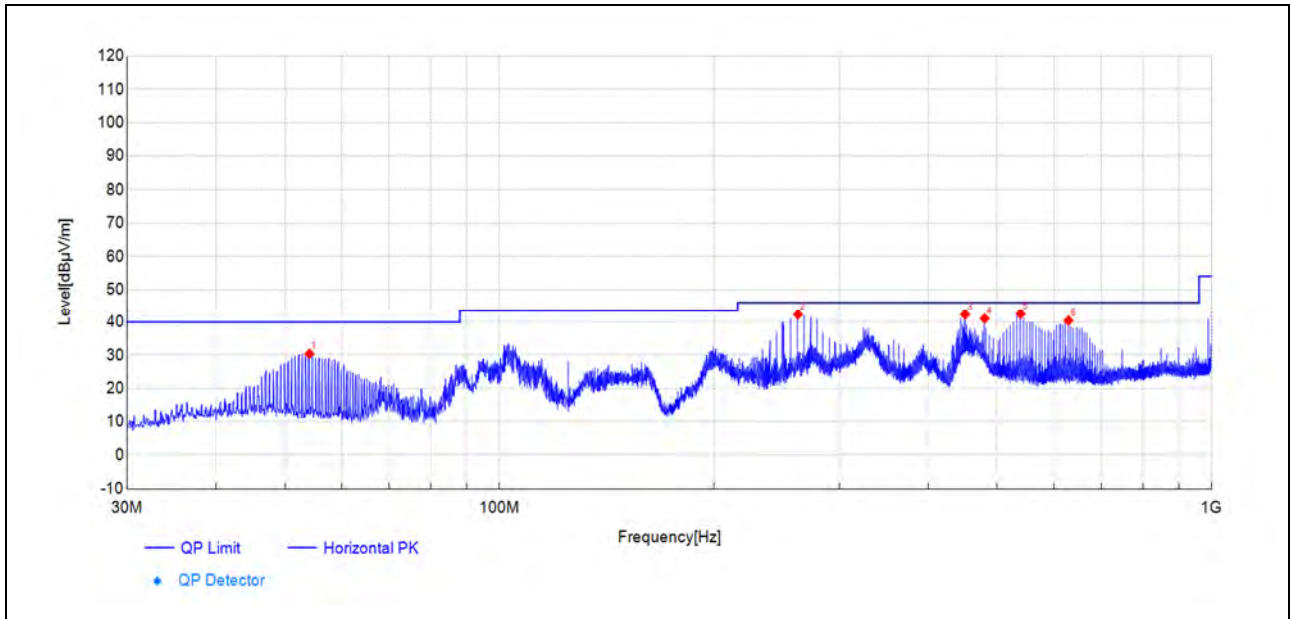
Note3: For the frequency, which started from 18GHz to 40GHz harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note 4: All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.



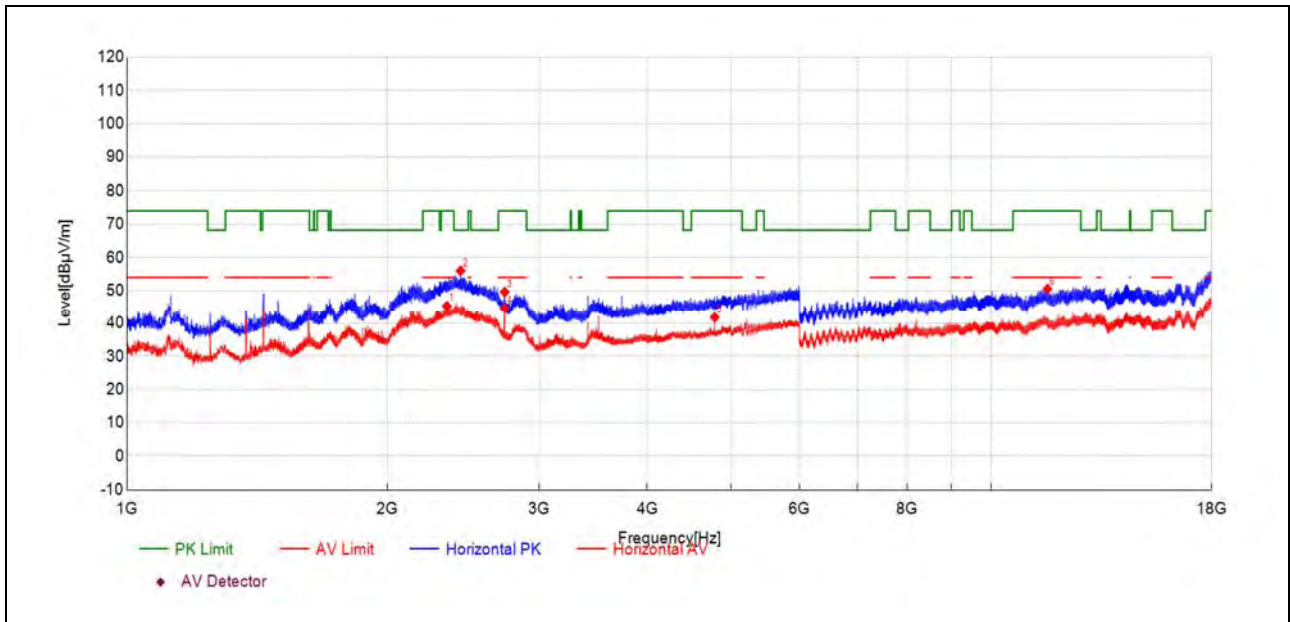
802.11a Mode

Plot for Channel 44



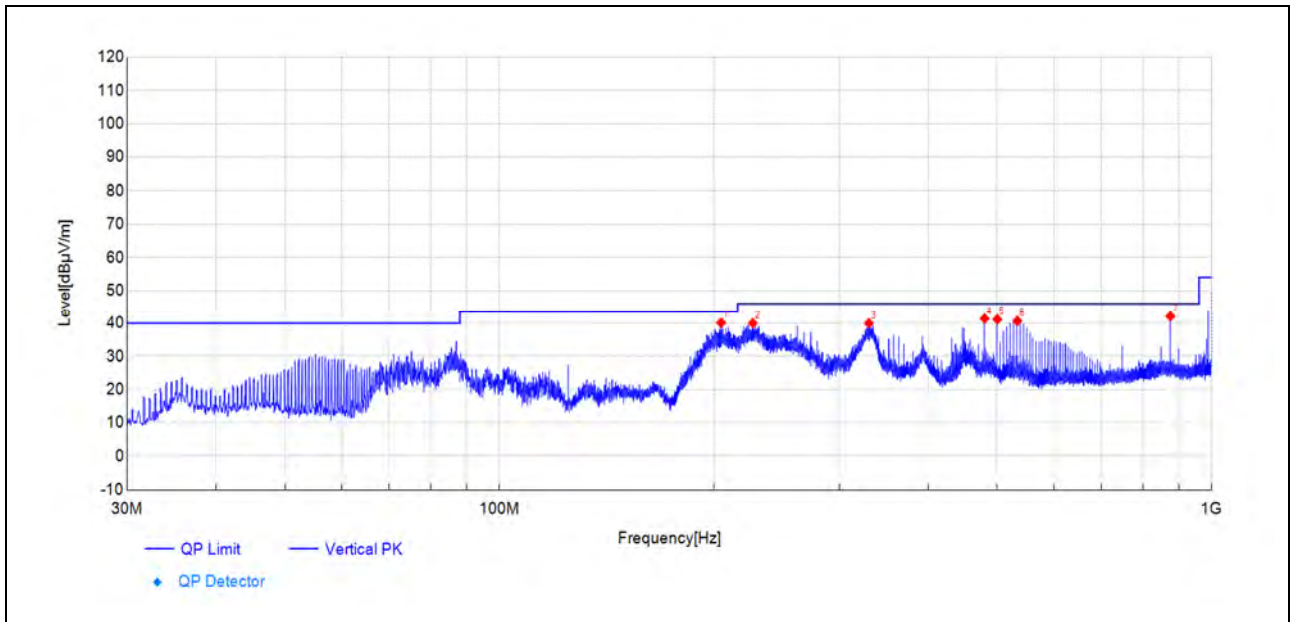
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
54.10	16.1	30.42	14.360	40.00	9.58	165	264	PK	PASS
262.46	27.4	42.32	14.890	46.00	3.68	165	74	PK	PASS
450.48	23.2	42.32	19.080	46.00	3.68	165	10	PK	PASS
479.99	21.2	41.10	19.900	46.00	4.90	165	99	PK	PASS
539.08	21.7	42.48	20.800	46.00	3.52	165	61	PK	PASS
629.38	18.0	40.48	22.500	46.00	5.52	165	61	PK	PASS



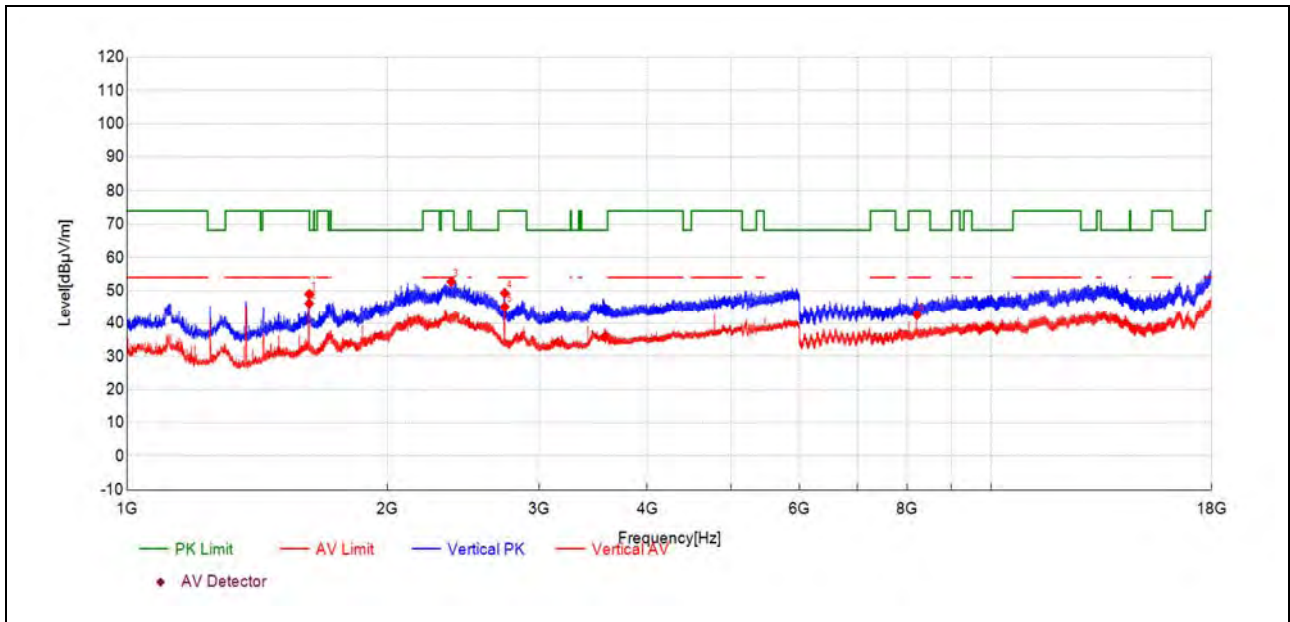
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2345.25	45.7	45.33	-0.390	54.00	8.67	165	23	AV	PASS
2432.25	55.8	56.00	0.250	68.23	12.23	165	6	PK	PASS
2735.75	48.5	49.58	1.110	74.00	24.42	165	351	PK	PASS
2735.75	43.5	44.61	1.110	54.00	9.39	165	351	AV	PASS
4788.00	33.4	41.79	8.410	54.00	12.21	165	227	AV	PASS
11619.30	47.8	50.52	2.710	74.00	23.48	165	72	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

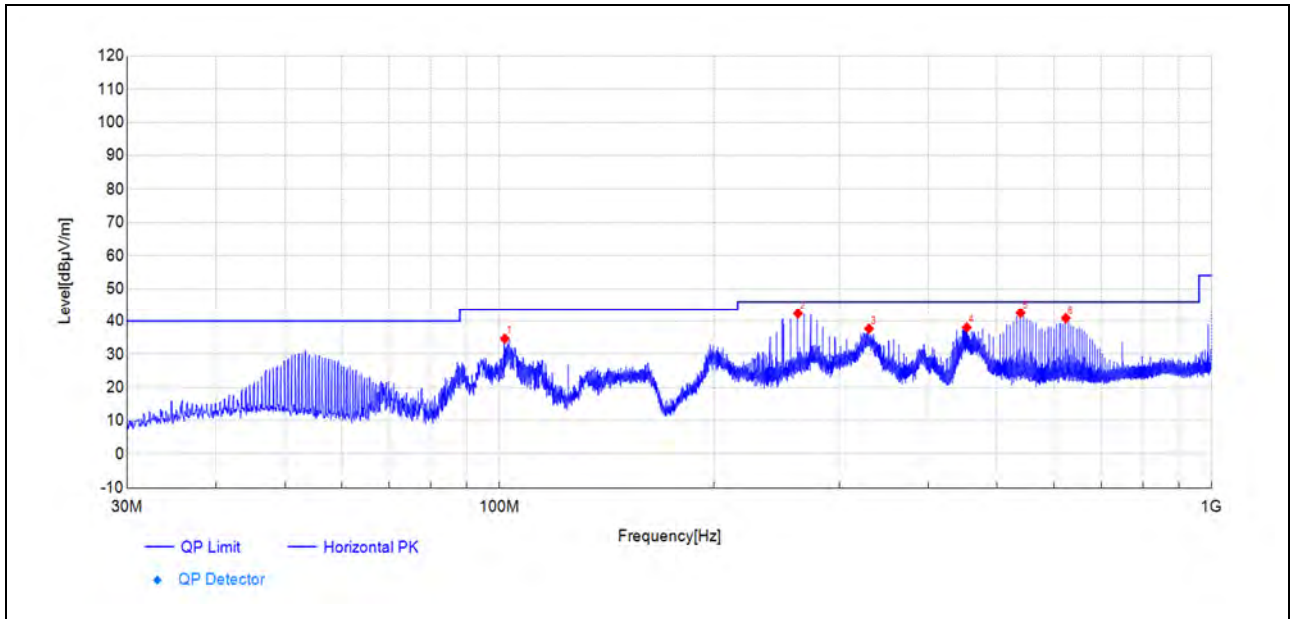
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
204.73	27.2	40.12	12.940	43.50	3.38	165	224	PK	PASS
226.83	25.9	40.00	14.120	46.00	6.00	165	0	PK	PASS
330.19	23.0	40.00	16.990	46.00	6.00	165	2	PK	PASS
479.99	21.5	41.40	19.900	46.00	4.60	165	5	PK	PASS
499.98	20.6	41.17	20.600	46.00	4.83	165	5	PK	PASS
533.43	20.0	40.70	20.730	46.00	5.30	165	337	PK	PASS
875.01	16.3	42.08	25.780	46.00	3.92	165	46	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

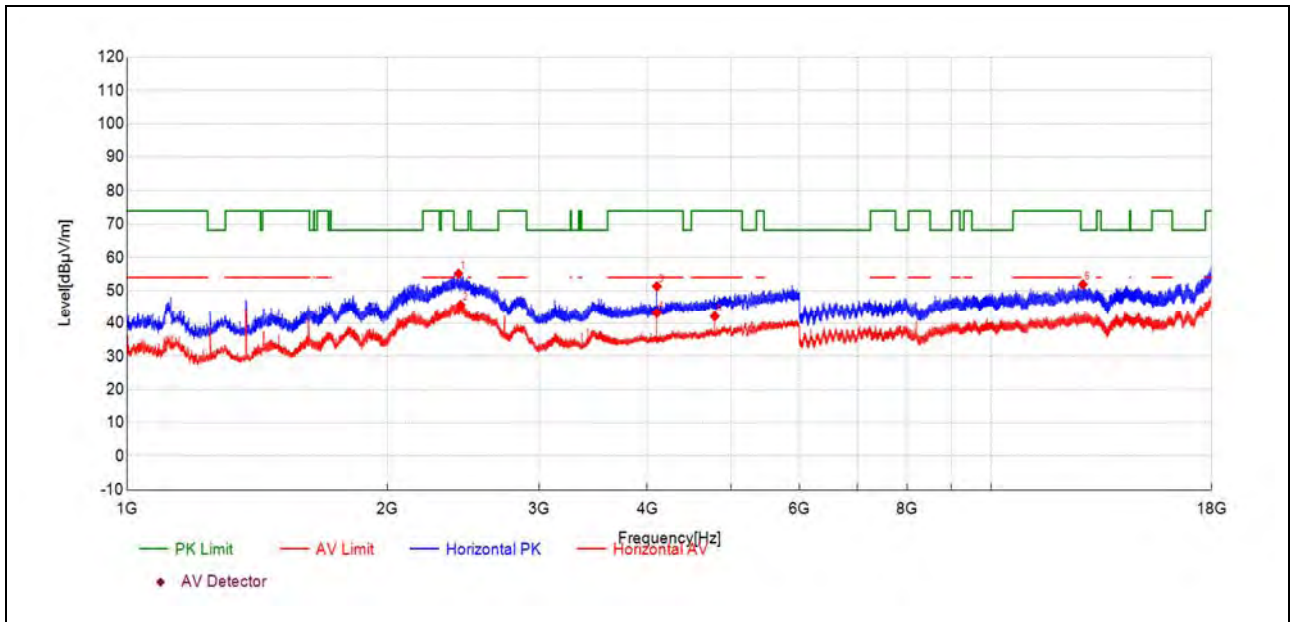
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1625.00	53.4	48.97	-4.440	74.00	25.03	165	360	PK	PASS
1625.00	50.6	46.13	-4.440	54.00	7.87	165	359	AV	PASS
2372.75	52.9	52.70	-0.230	74.00	21.30	165	320	PK	PASS
2736.00	48.2	49.27	1.110	74.00	24.73	165	320	PK	PASS
2736.00	44.0	45.13	1.110	54.00	8.87	165	320	AV	PASS
8208.00	44.9	42.48	-2.440	54.00	11.52	165	326	AV	PASS

Plot for Channel 60



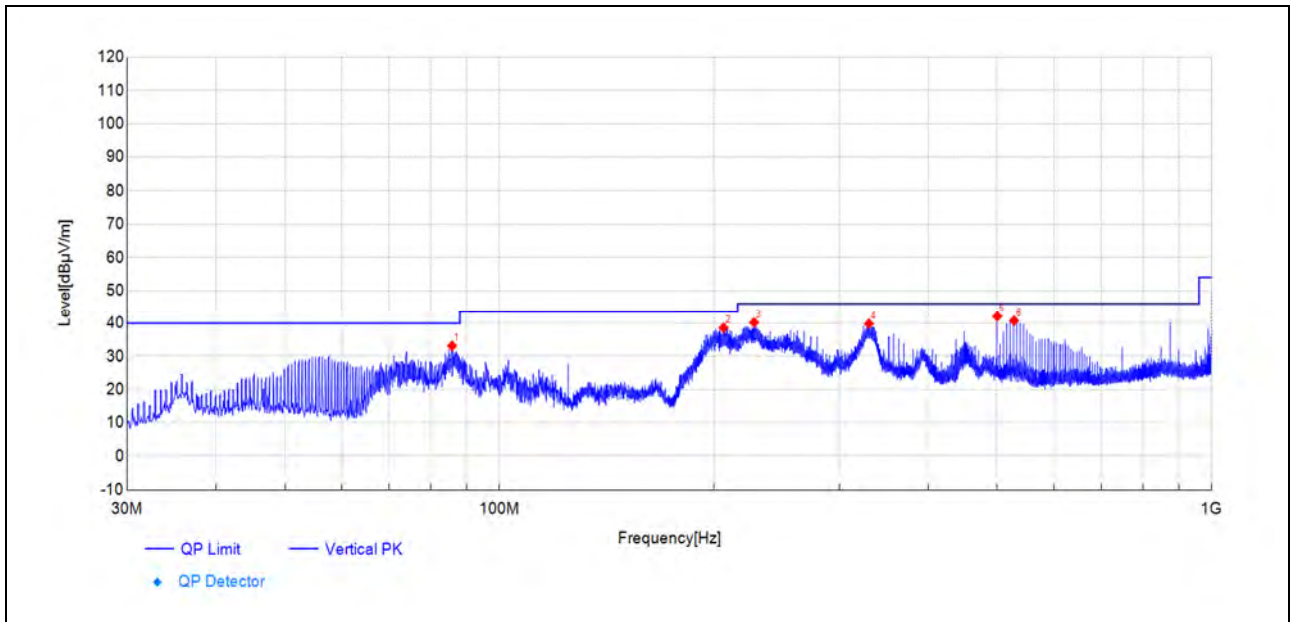
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
101.73	21.6	34.68	13.040	43.50	8.82	165	214	PK	PASS
262.46	27.4	42.29	14.890	46.00	3.71	165	74	PK	PASS
330.19	20.7	37.68	16.990	46.00	8.32	165	112	PK	PASS
453.06	18.9	38.07	19.140	46.00	7.93	165	23	PK	PASS
539.08	21.7	42.47	20.800	46.00	3.53	165	62	PK	PASS
623.73	18.4	40.88	22.460	46.00	5.12	165	62	PK	PASS



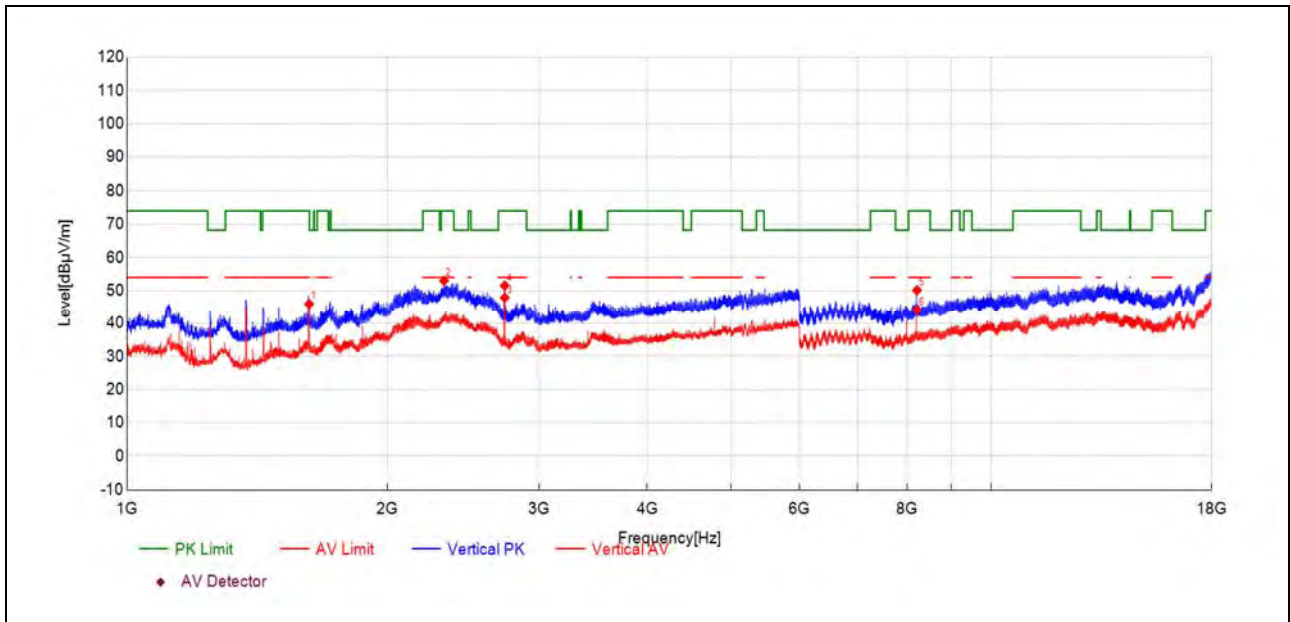
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2419.00	55.0	55.12	0.110	68.23	13.11	165	24	PK	PASS
2432.50	45.4	45.67	0.260	-	-	165	24	AV	PASS
4104.00	45.6	51.32	5.710	74.00	22.68	165	79	PK	PASS
4104.00	37.4	43.13	5.710	54.00	10.87	165	79	AV	PASS
4788.25	33.7	42.10	8.410	54.00	11.90	165	323	AV	PASS
12768.90	47.9	51.91	4.050	68.23	16.32	165	186	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
85.79	23.3	33.14	9.870	40.00	6.86	165	122	PK	PASS
206.32	25.6	38.60	13.030	43.50	4.90	165	209	PK	PASS
227.83	26.1	40.22	14.170	46.00	5.78	165	5	PK	PASS
330.19	22.9	39.84	16.990	46.00	6.16	165	0	PK	PASS
499.98	21.5	42.08	20.600	46.00	3.92	165	336	PK	PASS
527.79	20.1	40.79	20.730	46.00	5.21	165	172	PK	PASS

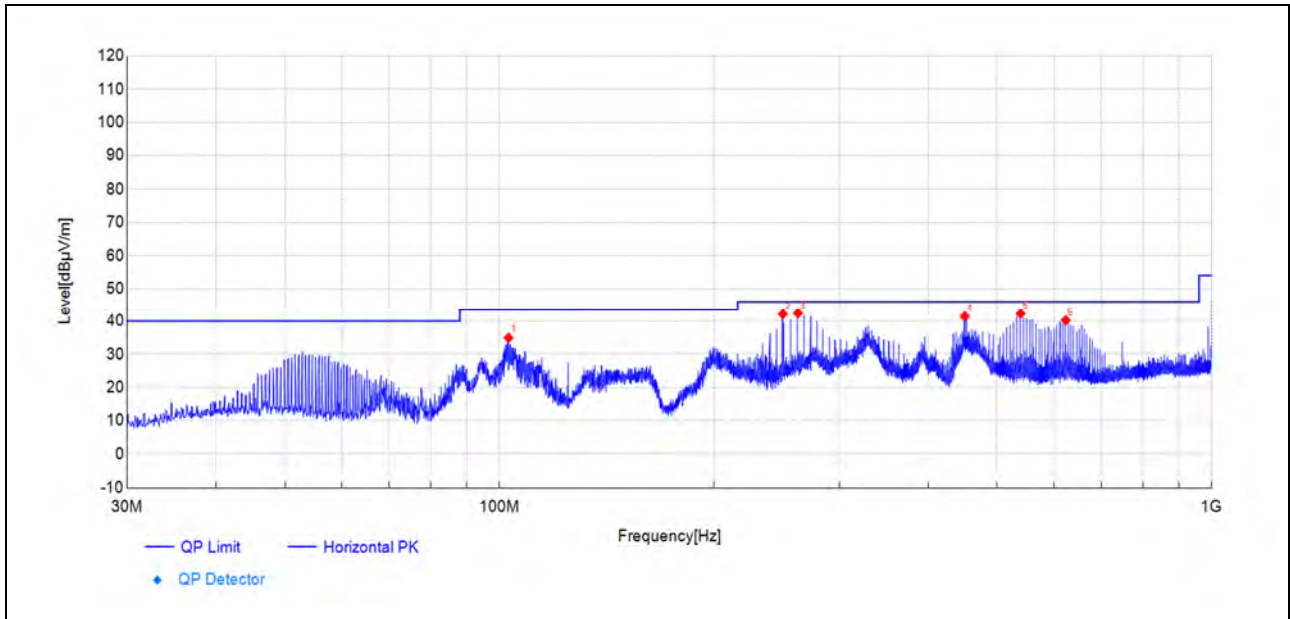


(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1625.00	50.4	45.97	-4.440	54.00	8.03	165	360	AV	PASS
2327.25	53.6	53.02	-0.580	74.00	20.98	165	359	PK	PASS
2736.00	46.8	47.89	1.110	54.00	6.11	165	42	AV	PASS
2736.00	50.4	51.54	1.110	74.00	22.46	165	42	PK	PASS
8207.40	52.6	50.13	-2.430	74.00	23.87	165	272	PK	PASS
8208.00	46.5	44.06	-2.440	54.00	9.94	165	303	AV	PASS

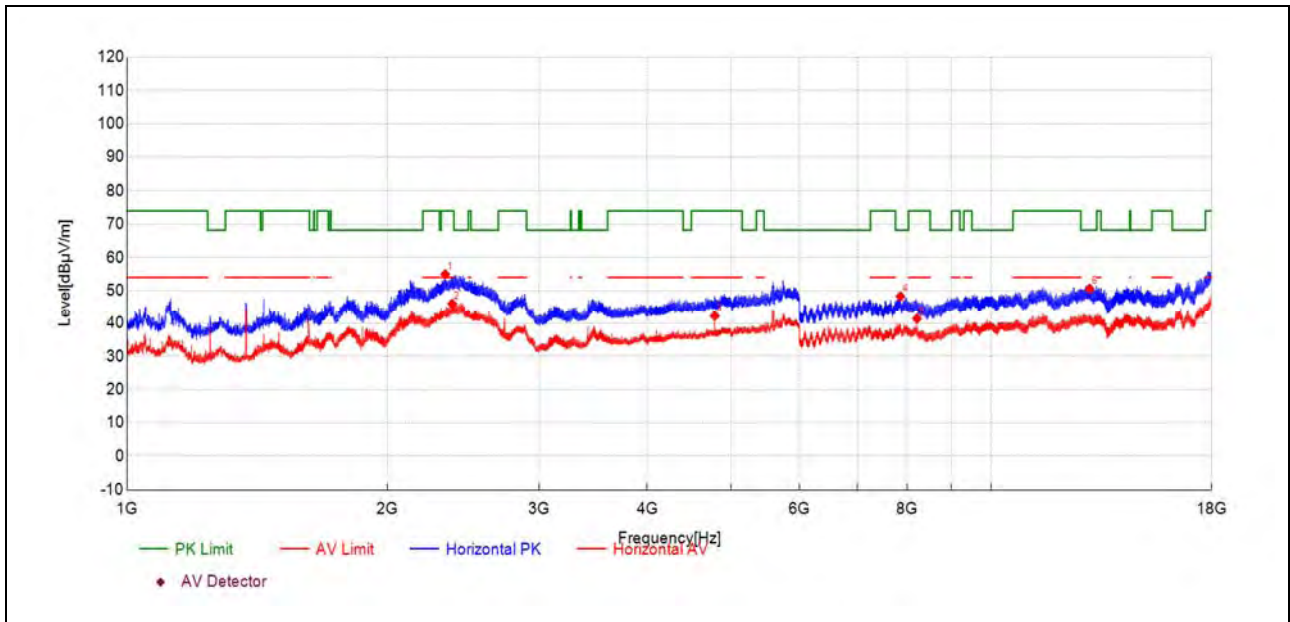


Plot for Channel 120



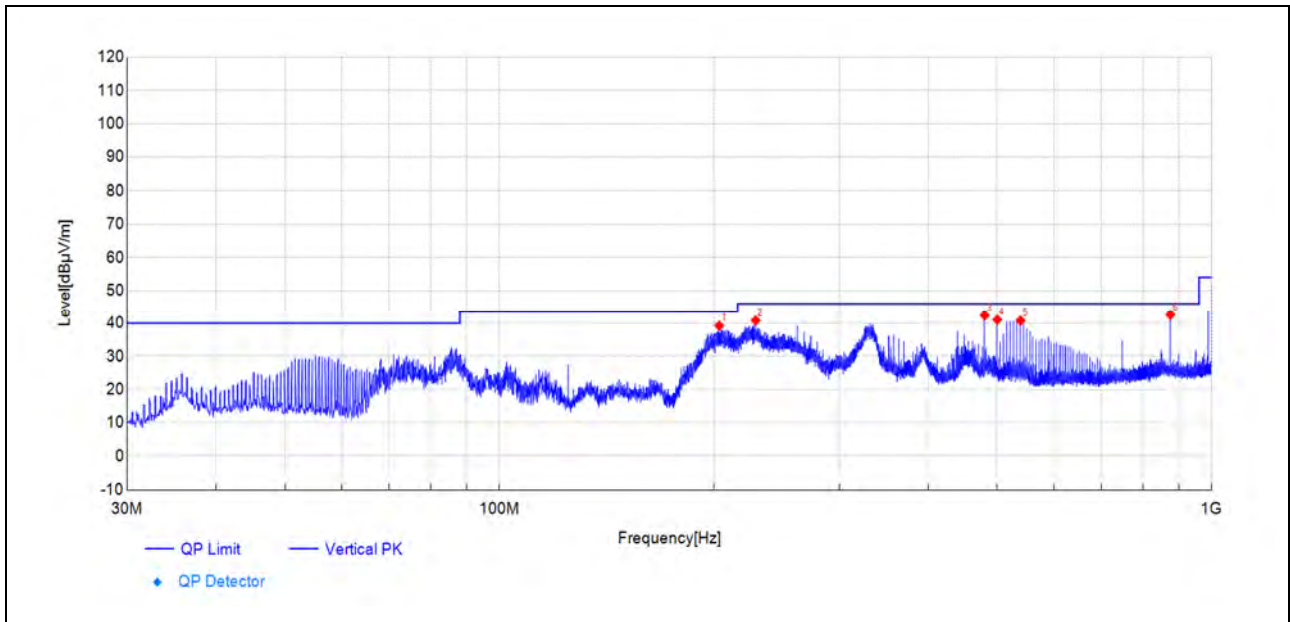
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
103.02	21.9	34.94	13.020	43.50	8.56	165	240	PK	PASS
250.00	27.5	42.18	14.700	46.00	3.82	165	100	PK	PASS
262.46	27.5	42.38	14.890	46.00	3.62	165	75	PK	PASS
450.01	22.4	41.48	19.070	46.00	4.52	165	50	PK	PASS
539.08	21.5	42.25	20.800	46.00	3.75	165	63	PK	PASS
623.73	17.8	40.26	22.460	46.00	5.74	165	63	PK	PASS



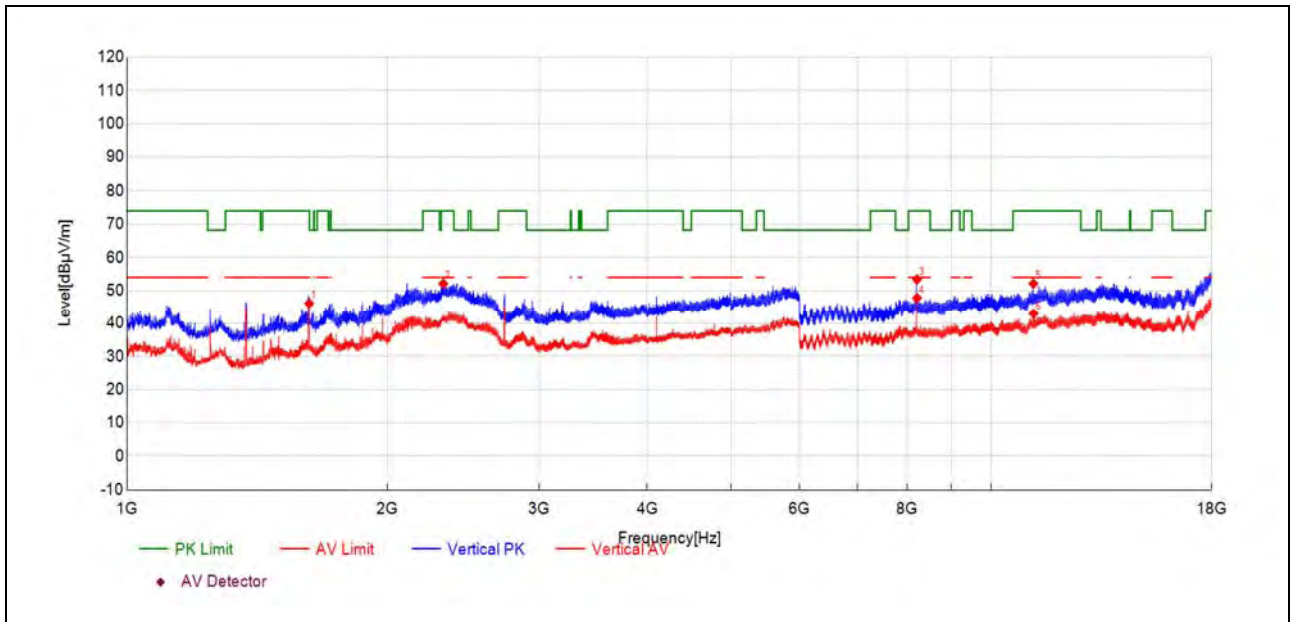
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2334.75	55.3	54.93	-0.400	74.00	19.07	165	24	PK	PASS
2378.50	46.1	46.04	-0.030	54.00	7.96	165	24	AV	PASS
4788.00	33.8	42.22	8.440	54.00	11.78	165	227	AV	PASS
7853.70	51.1	48.26	-2.790	68.23	19.97	165	38	PK	PASS
8207.70	43.8	41.39	-2.440	54.00	12.61	165	354	AV	PASS
13004.10	46.4	50.60	4.160	68.23	17.63	165	270	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

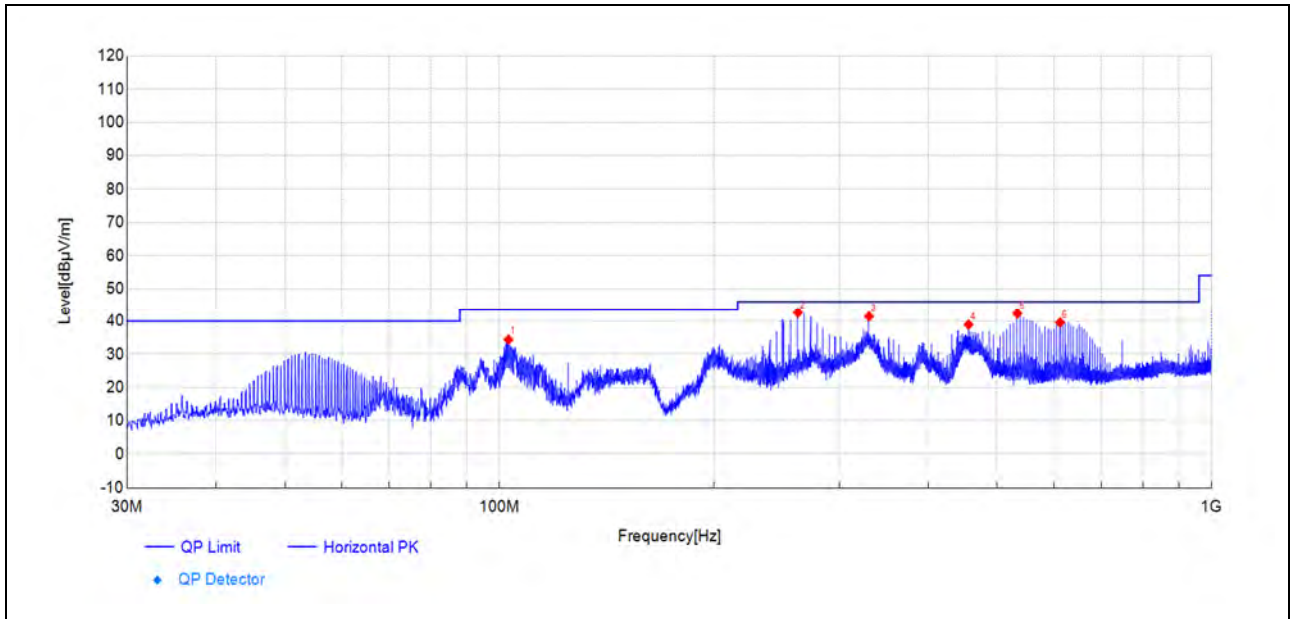
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
203.49	26.3	39.23	12.940	43.50	4.27	165	248	PK	PASS
229.01	26.6	40.83	14.220	46.00	5.17	165	2	PK	PASS
479.99	22.5	42.38	19.900	46.00	3.62	165	0	PK	PASS
499.98	20.5	41.05	20.600	46.00	4.95	165	336	PK	PASS
539.08	20.0	40.78	20.800	46.00	5.22	165	336	PK	PASS
875.01	16.8	42.58	25.780	46.00	3.42	165	59	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

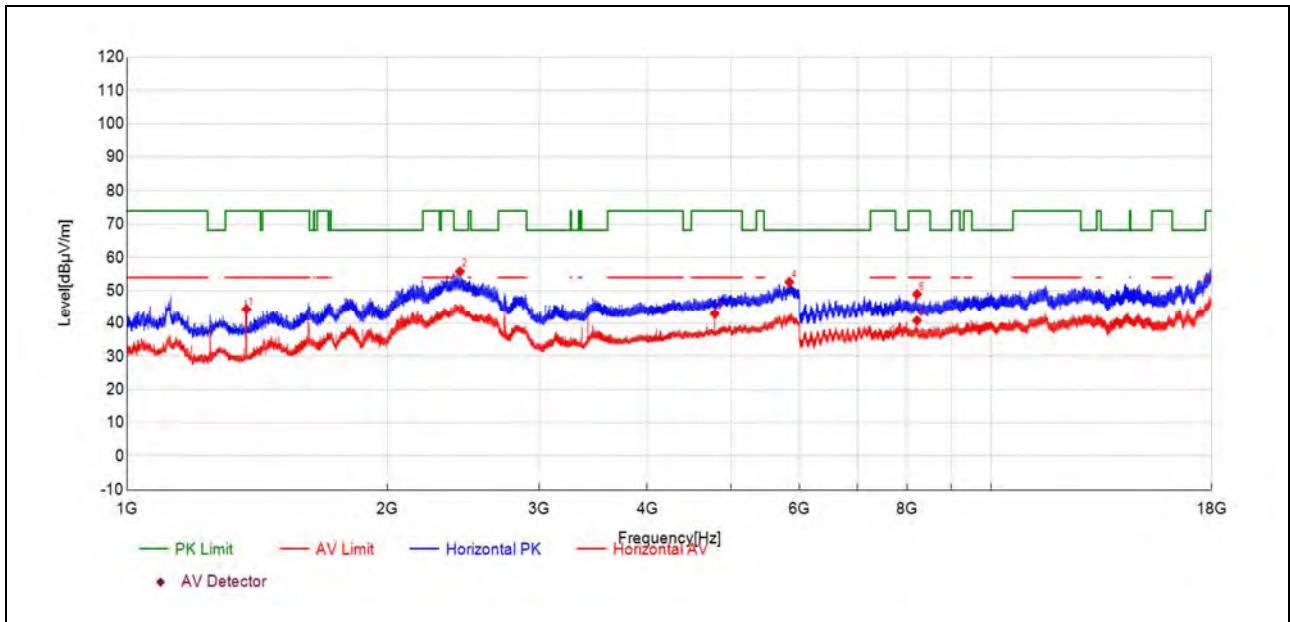
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1625.00	50.6	46.12	-4.450	54.00	7.88	165	359	AV	PASS
2322.75	52.7	52.12	-0.550	74.00	21.88	165	24	PK	PASS
8207.40	55.8	53.39	-2.430	74.00	20.61	165	301	PK	PASS
8207.70	50.2	47.78	-2.440	54.00	6.22	165	328	AV	PASS
11191.80	50.9	52.12	1.230	74.00	21.88	165	0	PK	PASS
11196.60	41.7	42.92	1.210	54.00	11.08	165	0	AV	PASS

Plot for Channel 157



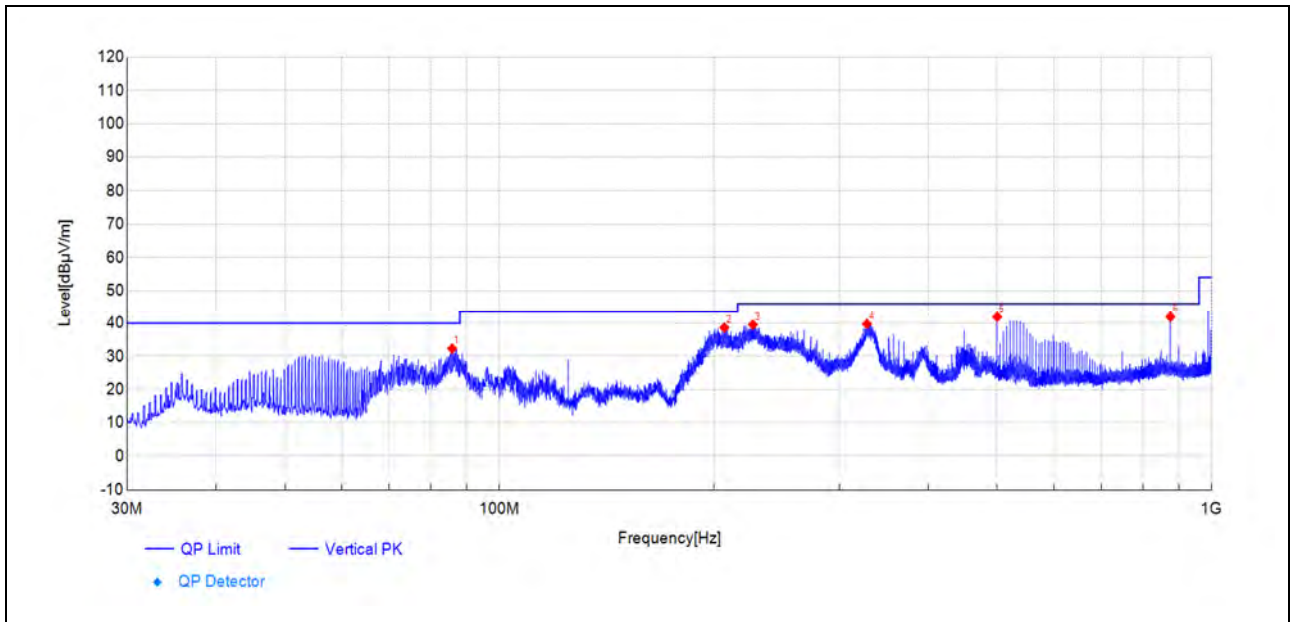
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
102.96	21.4	34.43	13.020	43.50	9.07	165	239	PK	PASS
262.46	27.7	42.58	14.890	46.00	3.42	165	74	PK	PASS
330.25	24.5	41.44	16.990	46.00	4.56	165	87	PK	PASS
455.71	19.7	38.92	19.230	46.00	7.08	165	349	PK	PASS
533.43	21.6	42.32	20.730	46.00	3.68	165	62	PK	PASS
612.45	17.2	39.57	22.360	46.00	6.43	165	62	PK	PASS



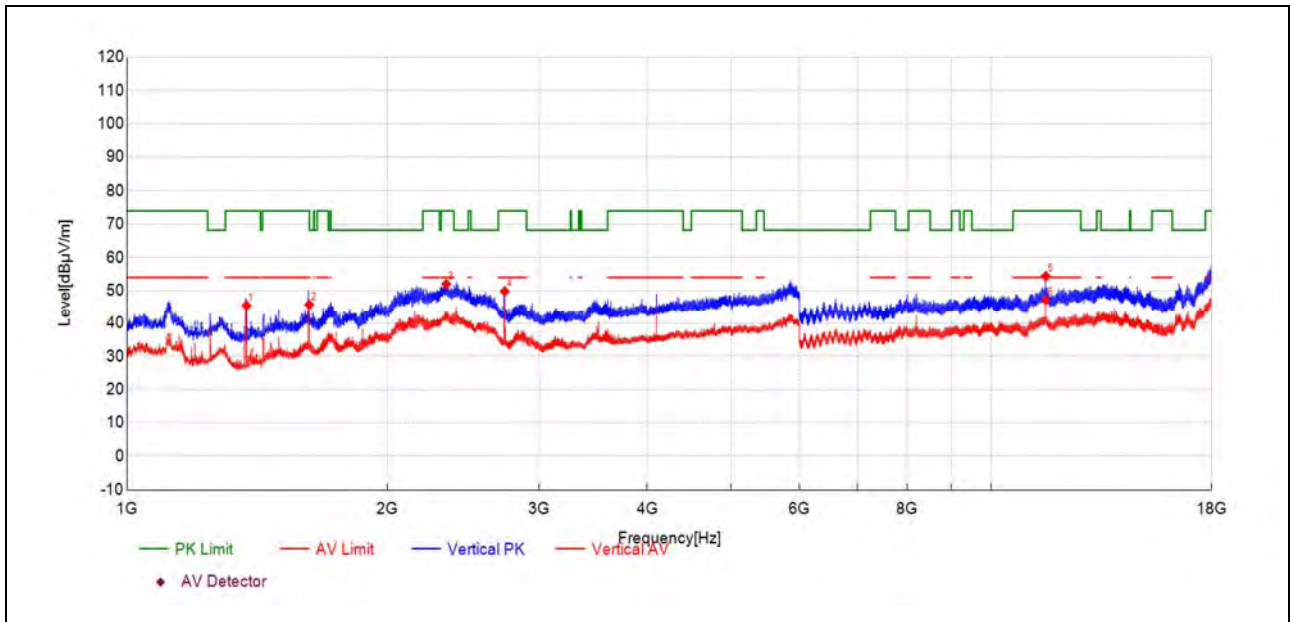
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1374.75	49.3	44.27	-5.040	54.00	9.73	165	40	AV	PASS
2427.75	55.5	55.77	0.300	68.23	12.46	165	23	PK	PASS
4788.00	34.3	42.88	8.590	54.00	11.12	165	265	AV	PASS
5841.50	38.7	52.58	13.880	68.23	15.65	165	173	PK	PASS
8207.70	43.3	40.82	-2.440	54.00	13.18	165	300	AV	PASS
8207.70	51.4	48.95	-2.440	74.00	25.05	165	300	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
85.79	22.5	32.33	9.870	40.00	7.67	165	96	PK	PASS
206.90	25.6	38.67	13.070	43.50	4.83	165	236	PK	PASS
226.95	25.4	39.53	14.130	46.00	6.47	165	31	PK	PASS
328.01	22.9	39.78	16.850	46.00	6.22	165	0	PK	PASS
499.98	21.3	41.88	20.600	46.00	4.12	165	274	PK	PASS
875.01	16.2	41.96	25.780	46.00	4.04	165	58	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1375.00	50.5	45.47	-5.040	54.00	8.53	165	59	AV	PASS
1625.00	50.1	45.72	-4.360	54.00	8.28	165	359	AV	PASS
2341.75	52.3	52.01	-0.250	74.00	21.99	165	22	PK	PASS
2736.00	48.6	49.81	1.260	74.00	24.19	165	59	PK	PASS
11568.30	51.4	54.35	2.960	74.00	19.65	165	353	PK	PASS
11569.20	44.2	47.18	2.960	54.00	6.82	165	0	AV	PASS



Notes

1. The report shall have report stamp or our company stamp.
2. The report shall be invalid without all the signatures of the editor and approver.
3. The report shall not be changed.
4. Any objections must be raised to Morlab within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.
5. Conformity declaration:
 - ☒ Morlab issues a statement of conformity based on the corresponding standards (default)
 - ☐ Morlab issues a statement of conformity based on the applicant requirement
6. Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the testing standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule).

————— END OF REPORT —————