



TEST REPORT

APPLICANT : Anker Innovations Limited
PRODUCT NAME : soundcore Rear Surround Speaker
MODEL NAME : D2151RL, D2151RR
BRAND NAME : soundcore
FCC ID : 2AOKB-D2151R
STANDARD(S) : 47 CFR Part 15 Subpart E
RECEIPT DATE : 2025-07-11
TEST DATE : 2025-07-12 to 2025-08-14
ISSUE DATE : 2025-09-05

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Change History		
Version	Date	Reason for change
1.0	2025-09-05	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	Jul. 28, 2025	Li Xinpeng	PASS	/
3	15.407(a)	Maximum Conducted Output Power	Jul. 28, 2025	Li Xinpeng	PASS	/
4	15.407(a)(e)	Emission Bandwidth	Jul. 28, 2025	Li Xinpeng	PASS	/
5	15.407(a)	Peak Power Spectral Density	Jul. 28, 2025	Li Xinpeng	PASS	/
6	15.407(g)	Frequency Stability	Jul. 28, 2025	Li Xinpeng	PASS	/
7	15.407(h)	DFS	Jul. 28, 2025	Li Xinpeng	PASS	/
8	15.207	Conducted Emission	Aug. 07, 2025	Wang Yapeng Fan Zehang	PASS	/
9	15.407(b)	Restricted Frequency Bands	Jul. 12, 2025 to Aug. 04, 2025	Li Hanbin	PASS	/
10	15.407(b)	Radiated Emission	Jul. 12, 2025 to Aug. 04, 2025	Li Hanbin	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	2025.01.15	2026.01.14
Power Sensor	MY54180008	U2021XA	Agilent	2024.09.11	2025.09.10
Temperature Chamber	12108015	DTL-003S101	YOMA	2024.09.11	2025.09.10
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
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	01774	BBHA 9120D	Schwarzbeck	2025.06.20	2026.06.19
Test Antenna – Horn	BBHA9170#773	BBHA9170	Schwarzbeck	2025.06.20	2026.06.19
Preamplifier (10MHz-6GHz)	46732	S10M100L3802	LUCIX CORP.	2025.05.13	2026.05.12
Preamplifier (2GHz-18GHz)	61171/61172	S020180L3203	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	2024.09.11	2025.09.10
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KKF-2	Qualwave	2024.09.11	2025.09.10
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-NN-5	Qualwave	2024.09.11	2025.09.10
Notch Filter	N/A	WRCG-2400-2483.5-60SS	Wainwright	N/A	N/A
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.06.21	2028.06.20
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.11.30	2025.11.29



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:	Anker Innovations Limited
Applicant Address:	Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
Manufacturer:	Anker Innovations Limited
Manufacturer Address:	Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong

2.2. Information of EUT

Product Name:	soundcore Rear Surround Speaker	
Sample No.:	36#, 38#, 39#, 48#, 58#	
Hardware Version:	V4	
Software Version:	v1.1.216	
Modulation Technology:	OFDM	
Modulation Mode:	802.11a, 802.11n (HT20), 802.11n (HT40)	
Operating Frequency Range:	5180MHz-5240MHz; 5260MHz-5320MHz; 5500MHz-5720MHz	
DFS Function:	<input checked="" type="checkbox"/> Slave without radar detection <input type="checkbox"/> Slave with radar detection <input type="checkbox"/> Master	
Antenna Type:	PCB Antenna	
Antenna Gain:	5.15dBi	
Accessory Information:	Battery	
	Brand Name:	N/A
	Model No.:	C0914K4
	Serial No.:	N/A
	Capacity:	3000mAh
	Rated Voltage:	7.2V
	Charge Limit:	8.4V
	Manufacturer:	Guangdong Pow-Tech New Power Co., Ltd.

Note 1: According to the certificate holder, they declared that the models D2151RL and D2151RR only the model numbers are different, everything else is the same. The main measuring model is D2151RL, only the results for D2151RL were recorded in this report.



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Note 2: 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.

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
(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
(U-NII-2C) 5500MHz-5720MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	100	5500	105	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	142	5710

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	

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.

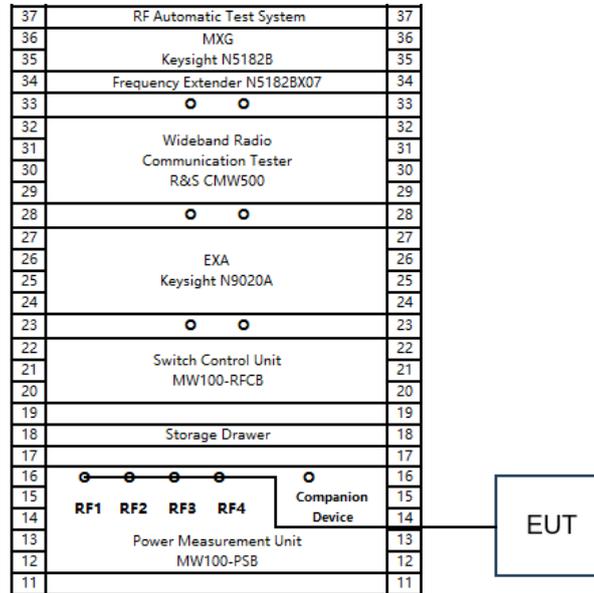
Note2: The RF signal transmission of EUT is controlled by the build-in engineering mode which is provided by the manufacturer. The recorded power setting value is the maximum that the engineering mode has configuration during testing.

2.5. Test Conditions

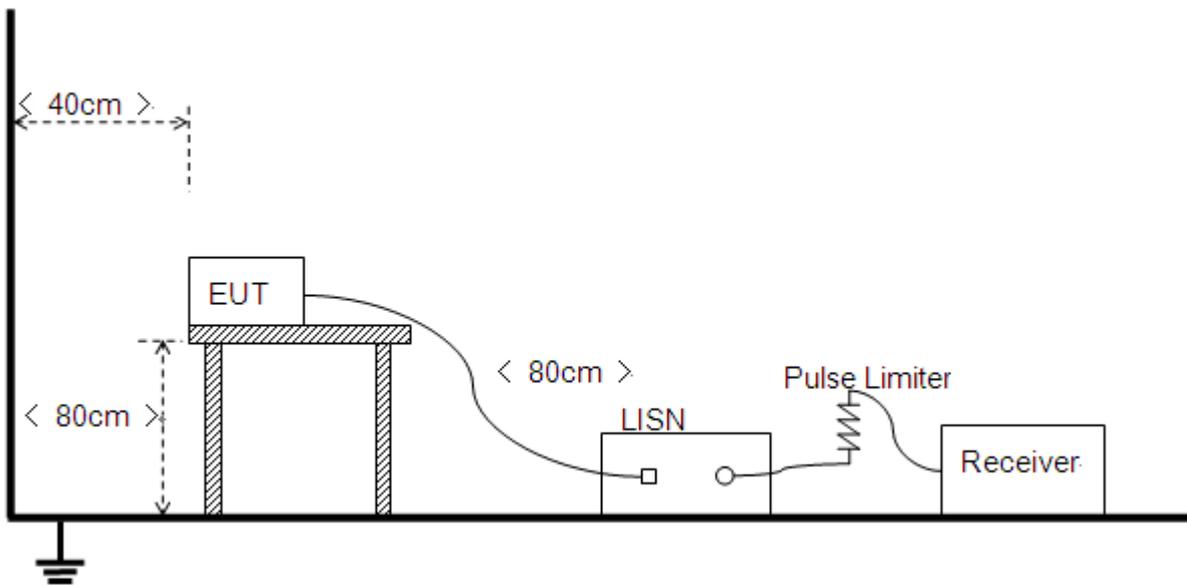
Temperature (°C):	15–35
Relative Humidity (%):	30–60
Atmospheric Pressure (kPa):	86–106

2.6. Test Setup Layout Diagram

2.6.1. Conducted Measurement

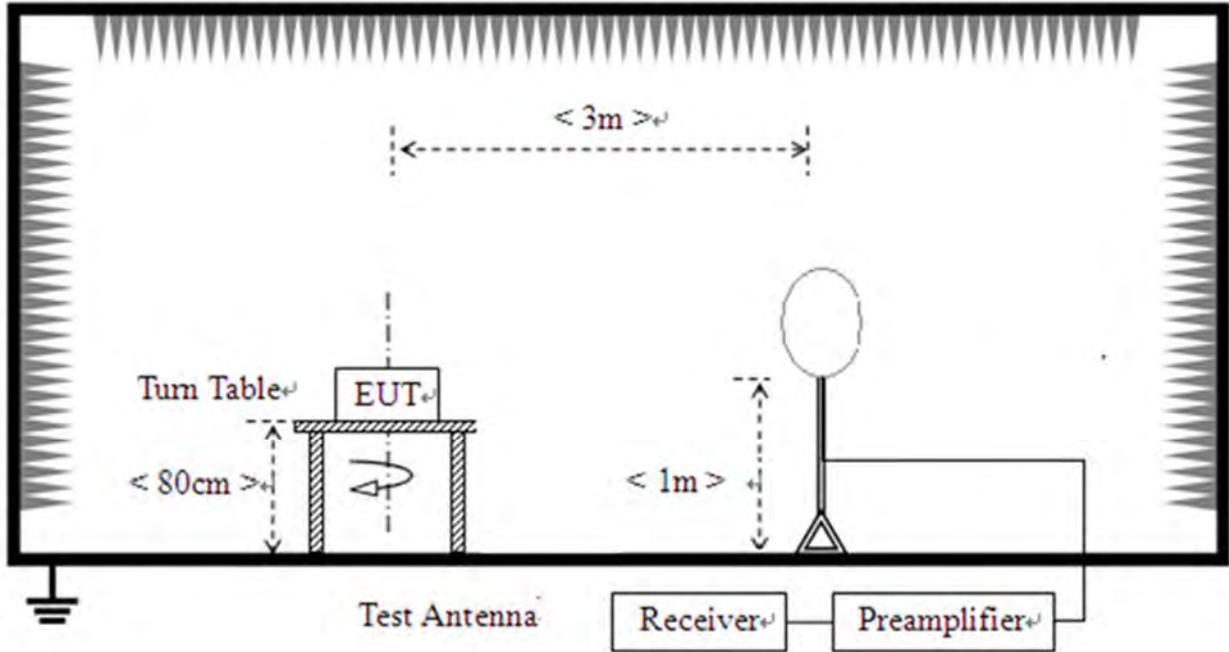


2.6.2. Conducted Emission Measurement

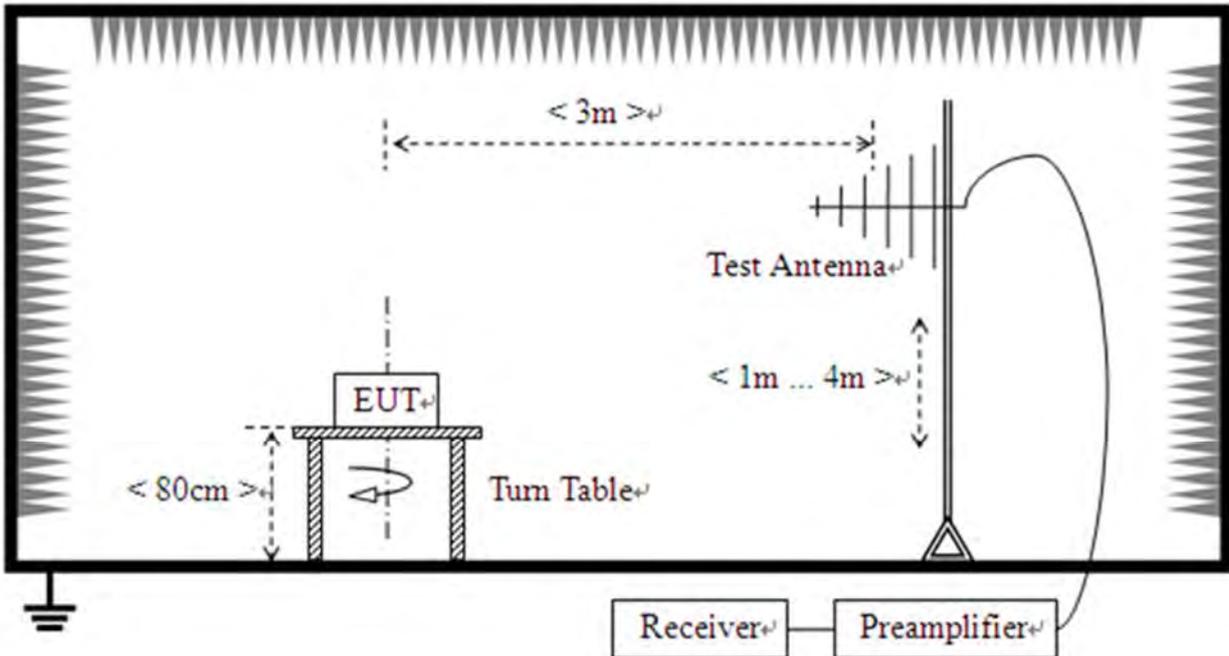


2.6.3.Radiation Measurement

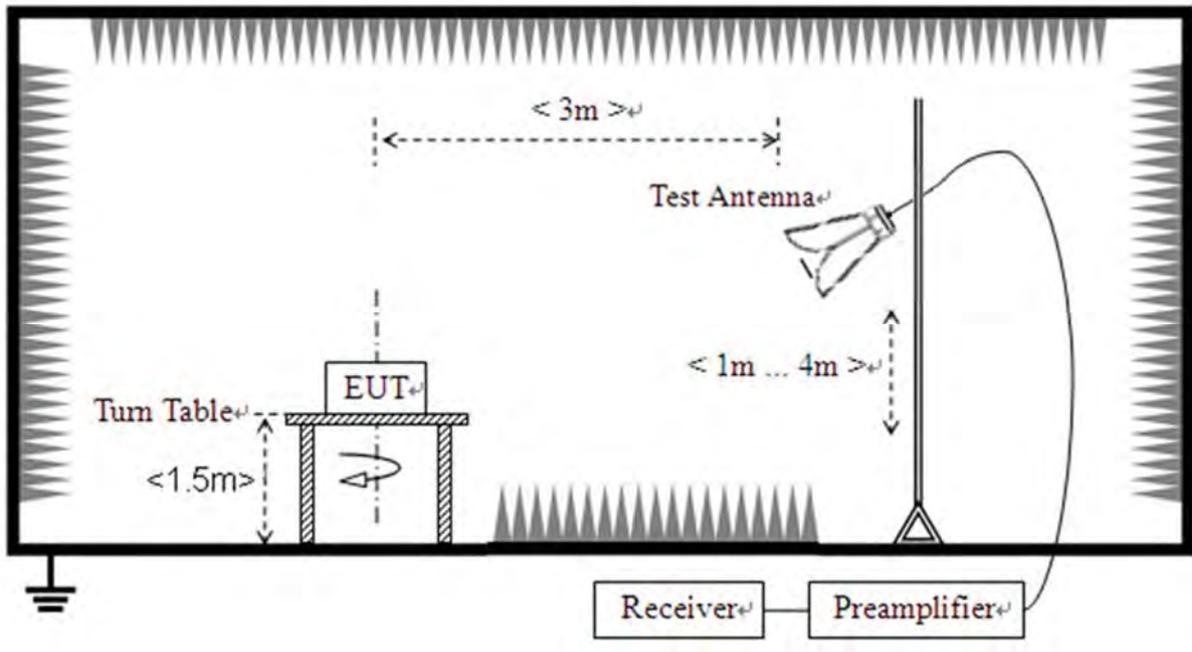
1) For radiated emissions from 9kHz to 30MHz



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
<input checked="" type="checkbox"/> Internal <input type="checkbox"/> External	<input type="checkbox"/> FPC Antenna <input type="checkbox"/> Spring Antenna <input type="checkbox"/> Ceramic Antenna <input type="checkbox"/> Integrated Antenna <input type="checkbox"/> Dipole Antenna <input checked="" type="checkbox"/> PCB Antenna <input type="checkbox"/> PIFA Antenna <input type="checkbox"/> Inverted F Antenna	<input type="checkbox"/> I-PEX Connector <input type="checkbox"/> SMA Connector <input type="checkbox"/> RP-SMA Connector <input type="checkbox"/> Metal Shrapnel <input checked="" type="checkbox"/> 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 theband5.715-5.85 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.



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
<p>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.</p>		

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

Master Devices

- a) 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.
- b) 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.
- c) 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.
- d) 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).
- e) 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.
- f) 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.

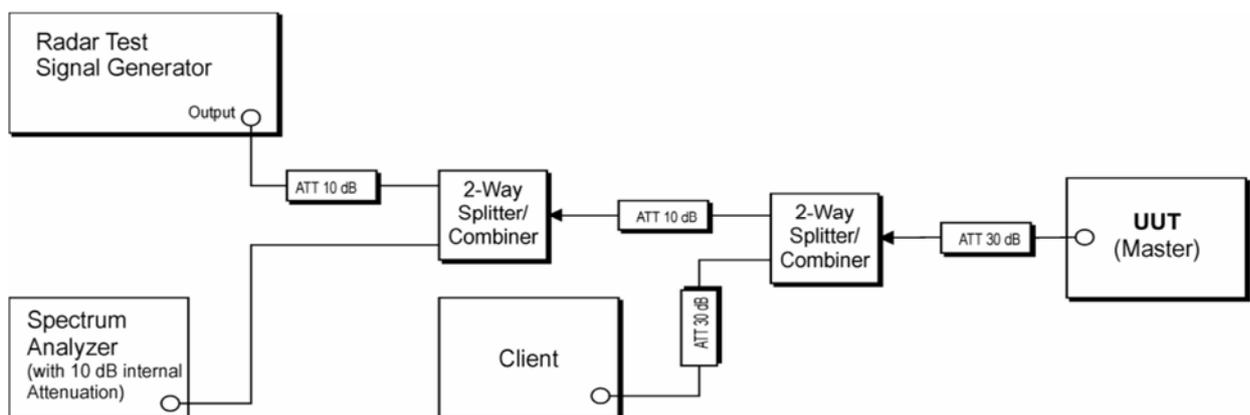
Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The 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

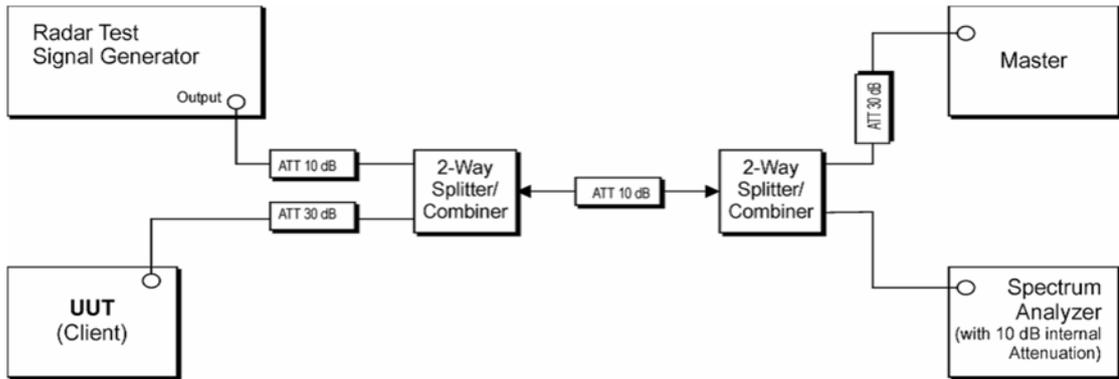
According to Section 7.2 of KDB 905462 D02 V01R01

1. Setup for Master with injection at the Master



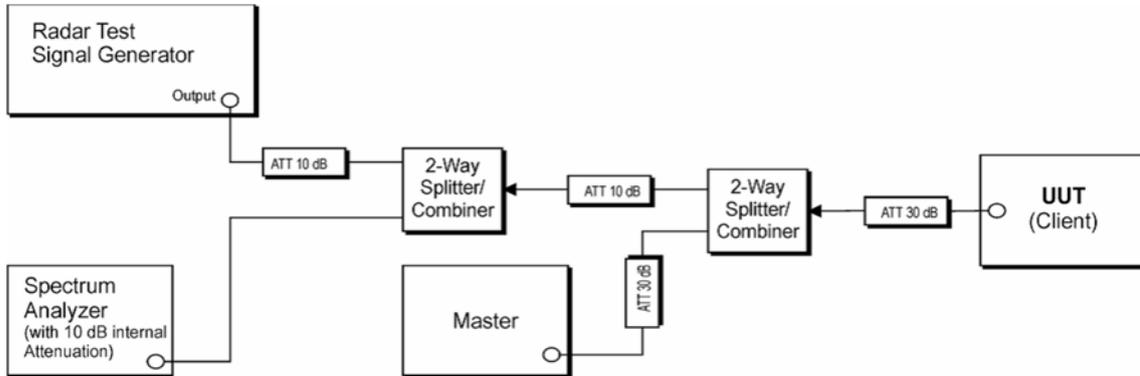
(Example Conducted Setup where UUT is a Master and Radar Test Waveforms are injected into the Master)

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 ($\mu\text{V}/\text{m}$)	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);

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

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

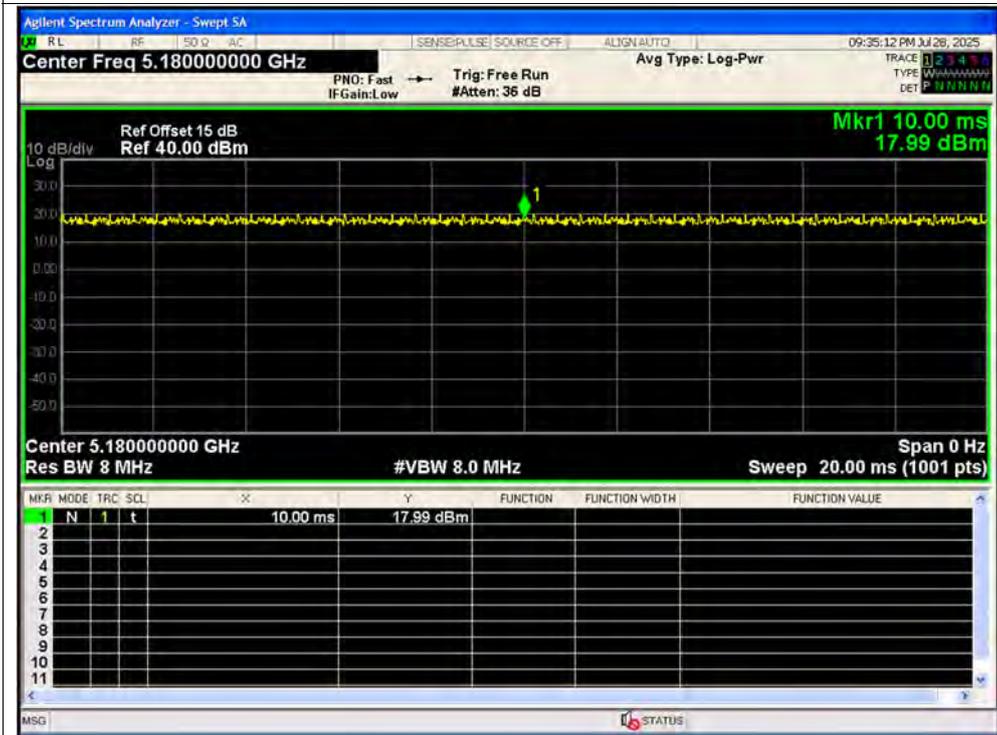
A.1. Duty Cycle of Test Signal

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	100	0	0
NVNT	a	5220	Ant1	100	0	0
NVNT	a	5240	Ant1	100	0	0
NVNT	a	5260	Ant1	100	0	0
NVNT	a	5300	Ant1	100	0	0
NVNT	a	5320	Ant1	100	0	0
NVNT	a	5500	Ant1	100	0	0
NVNT	a	5580	Ant1	100	0	0
NVNT	a	5720	Ant1	100	0	0
NVNT	n20	5180	Ant1	100	0	0
NVNT	n20	5220	Ant1	100	0	0
NVNT	n20	5240	Ant1	100	0	0
NVNT	n20	5260	Ant1	100	0	0
NVNT	n20	5300	Ant1	100	0	0
NVNT	n20	5320	Ant1	100	0	0
NVNT	n20	5500	Ant1	100	0	0
NVNT	n20	5580	Ant1	100	0	0
NVNT	n20	5720	Ant1	100	0	0
NVNT	n40	5190	Ant1	100	0	0
NVNT	n40	5230	Ant1	100	0	0
NVNT	n40	5270	Ant1	100	0	0
NVNT	n40	5310	Ant1	100	0	0
NVNT	n40	5510	Ant1	100	0	0
NVNT	n40	5550	Ant1	100	0	0
NVNT	n40	5710	Ant1	100	0	0

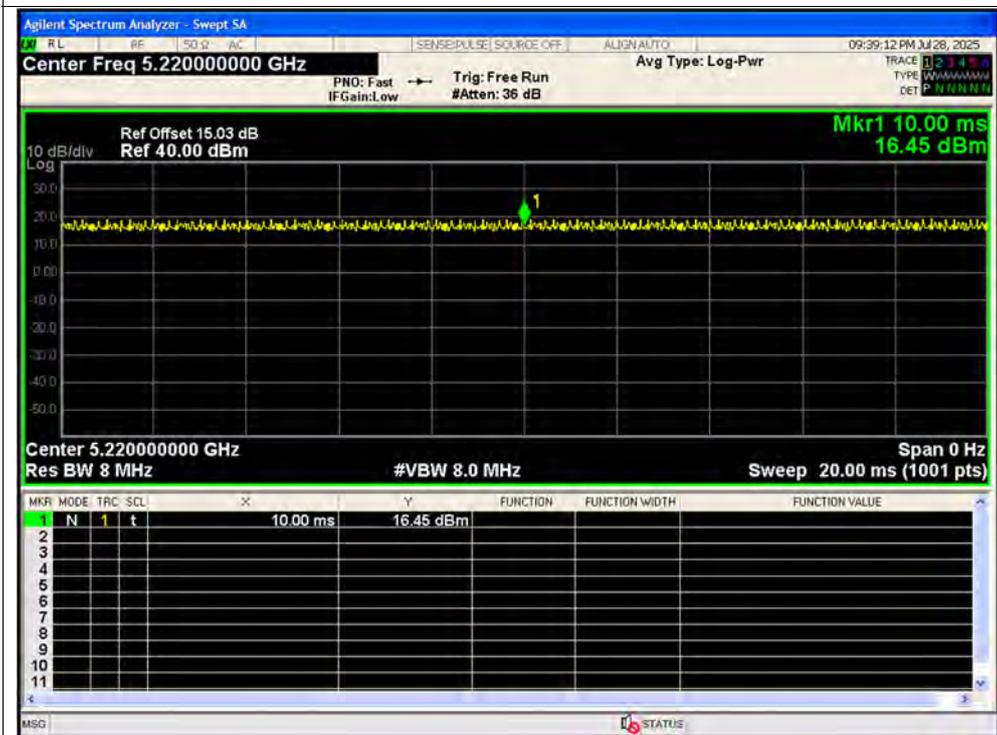


Test Graphs

Duty Cycle NVNT a 5180MHz Ant1

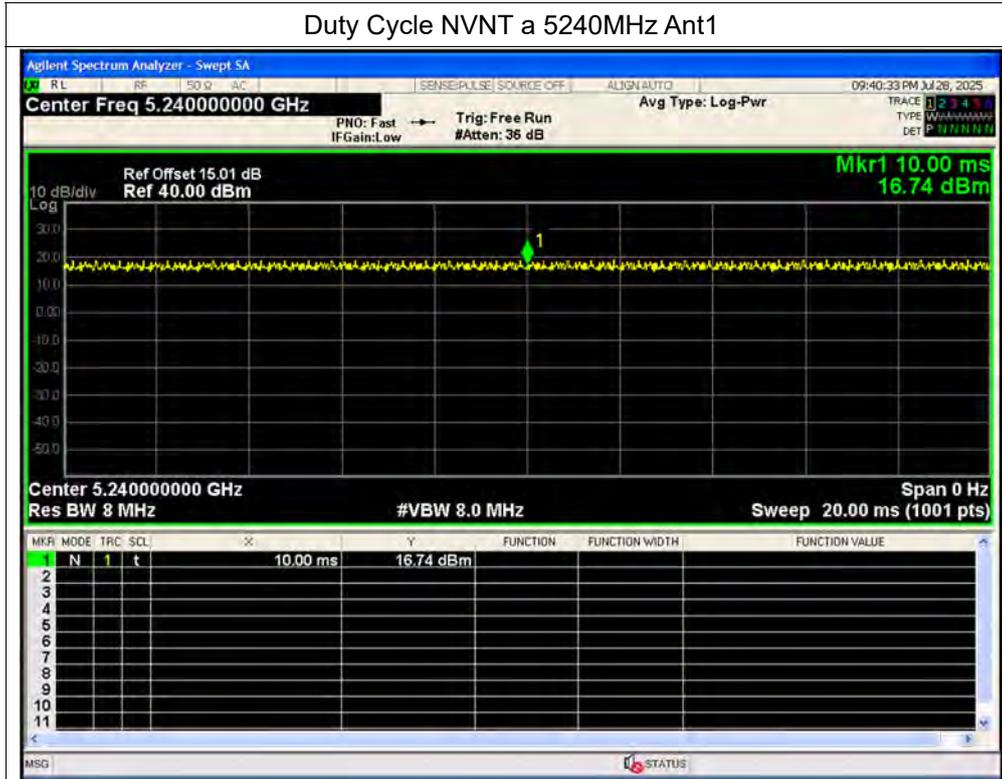


Duty Cycle NVNT a 5220MHz Ant1

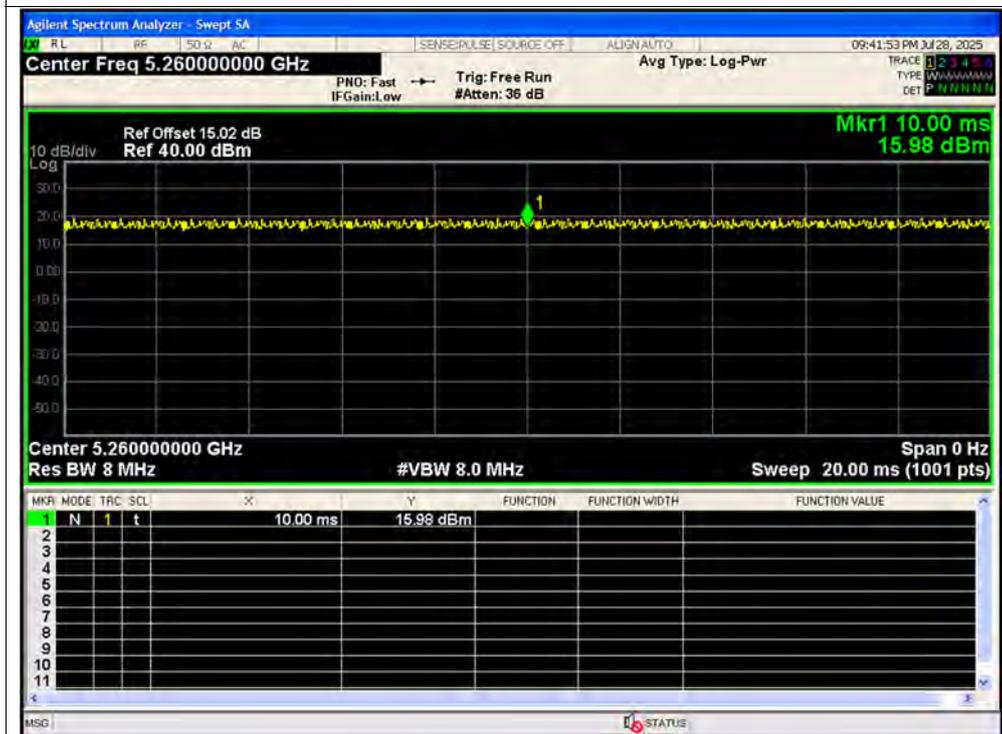




Duty Cycle NVNT a 5240MHz Ant1

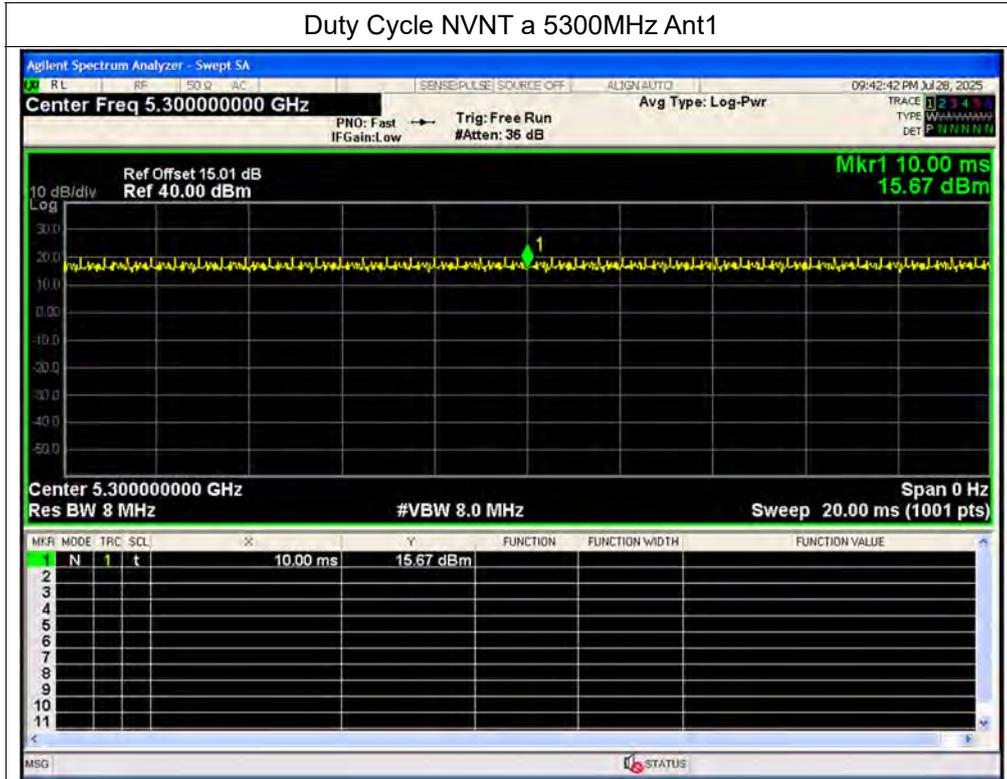


Duty Cycle NVNT a 5260MHz Ant1

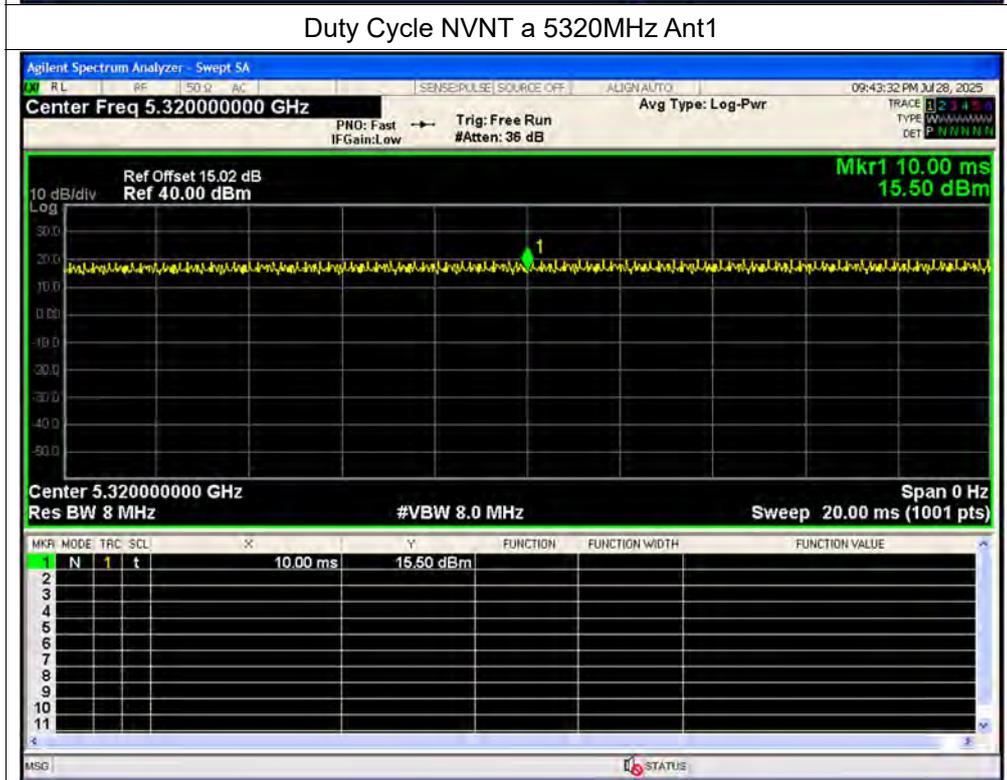




Duty Cycle NVNT a 5300MHz Ant1

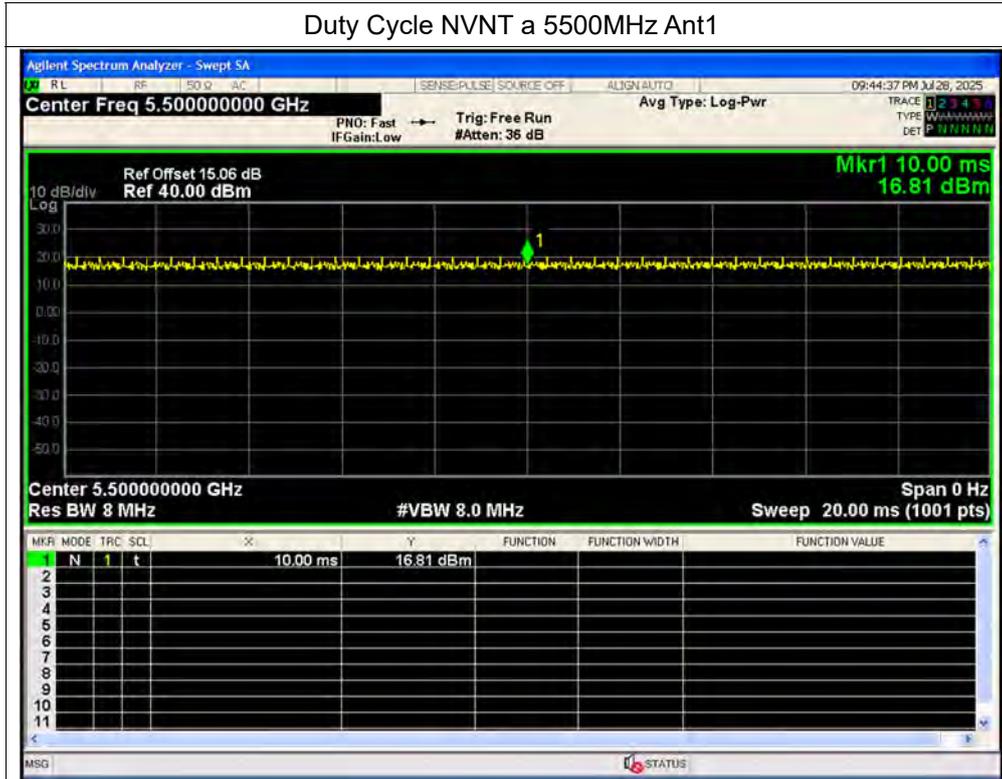


Duty Cycle NVNT a 5320MHz Ant1

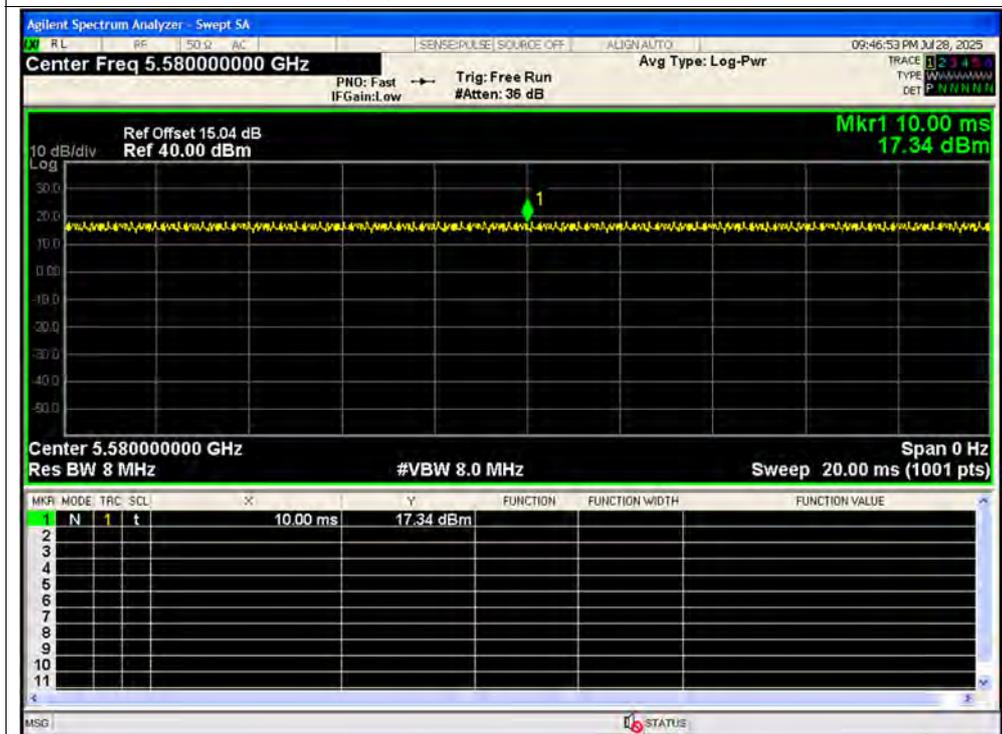




Duty Cycle NVNT a 5500MHz Ant1

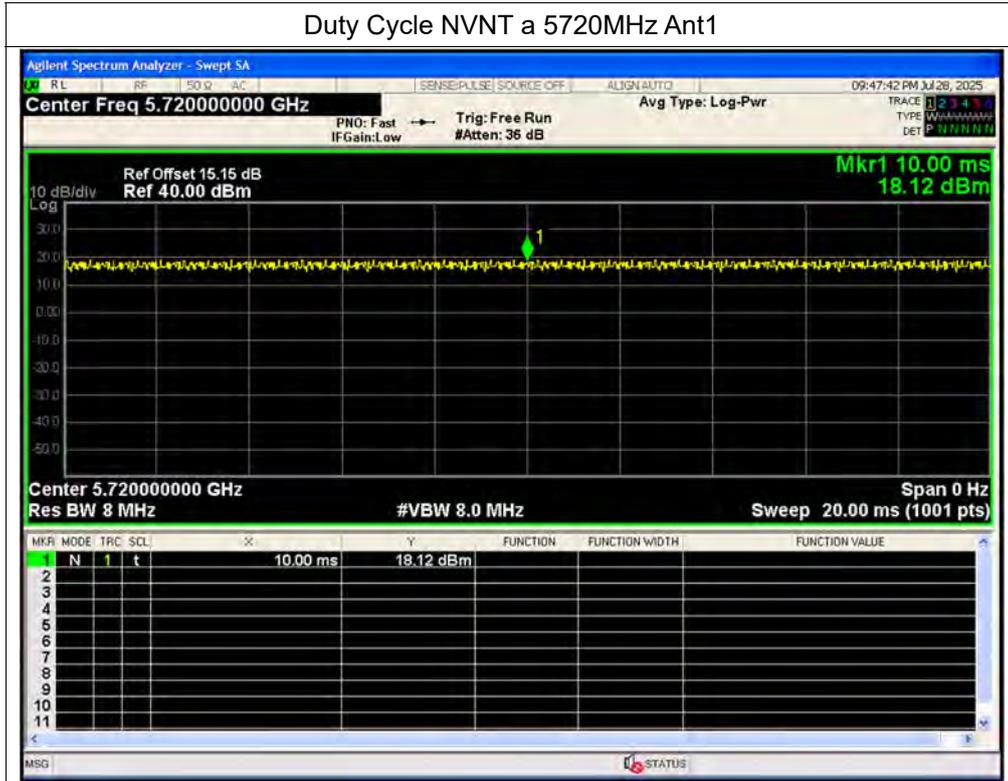


Duty Cycle NVNT a 5580MHz Ant1

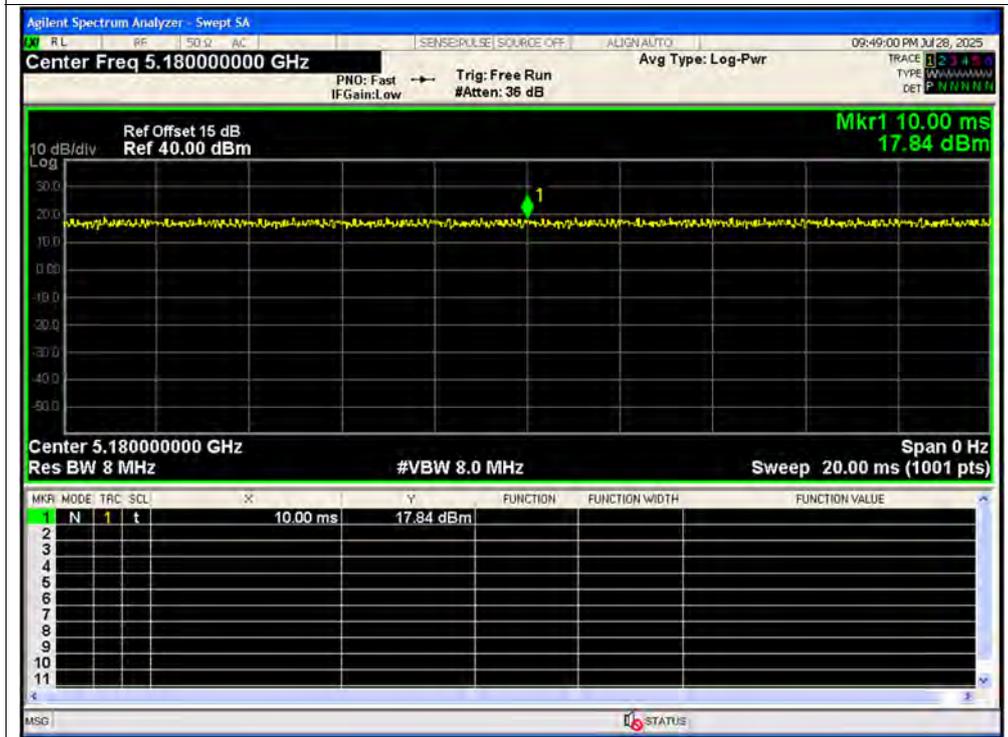




Duty Cycle NVNT a 5720MHz Ant1

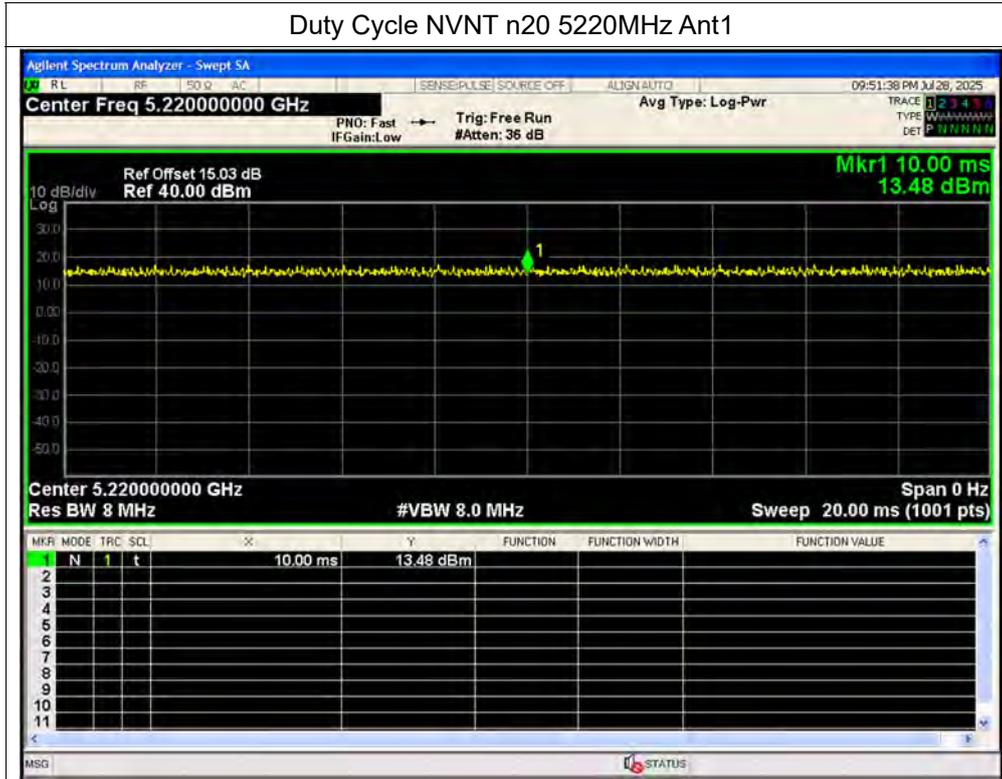


Duty Cycle NVNT n20 5180MHz Ant1

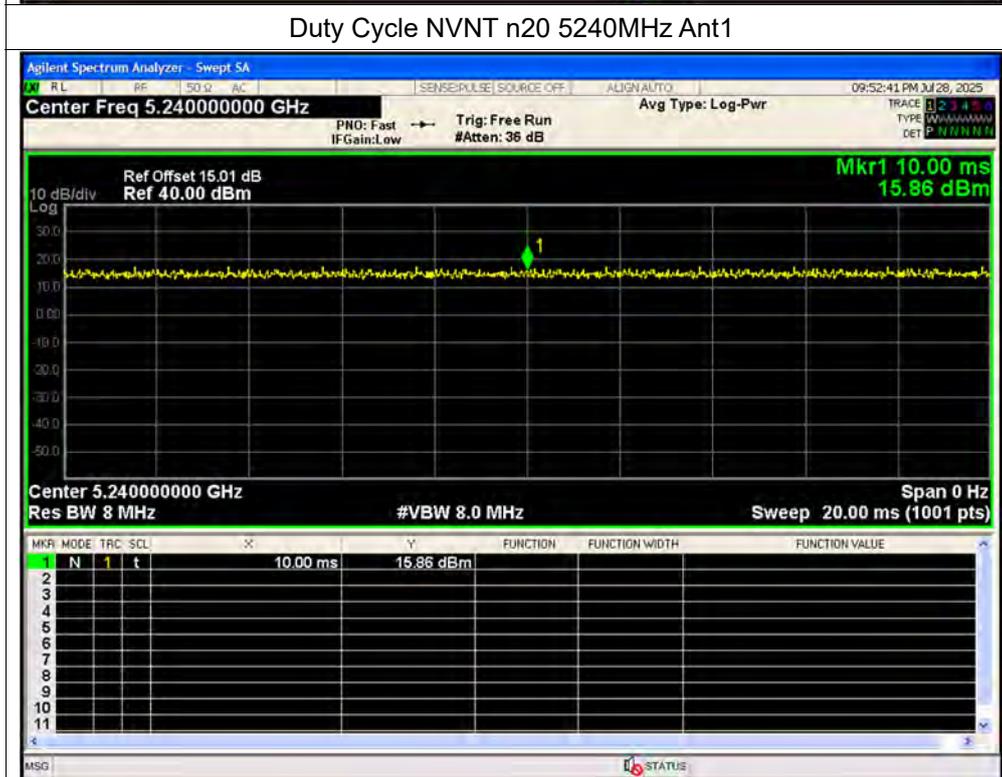




Duty Cycle NVNT n20 5220MHz Ant1

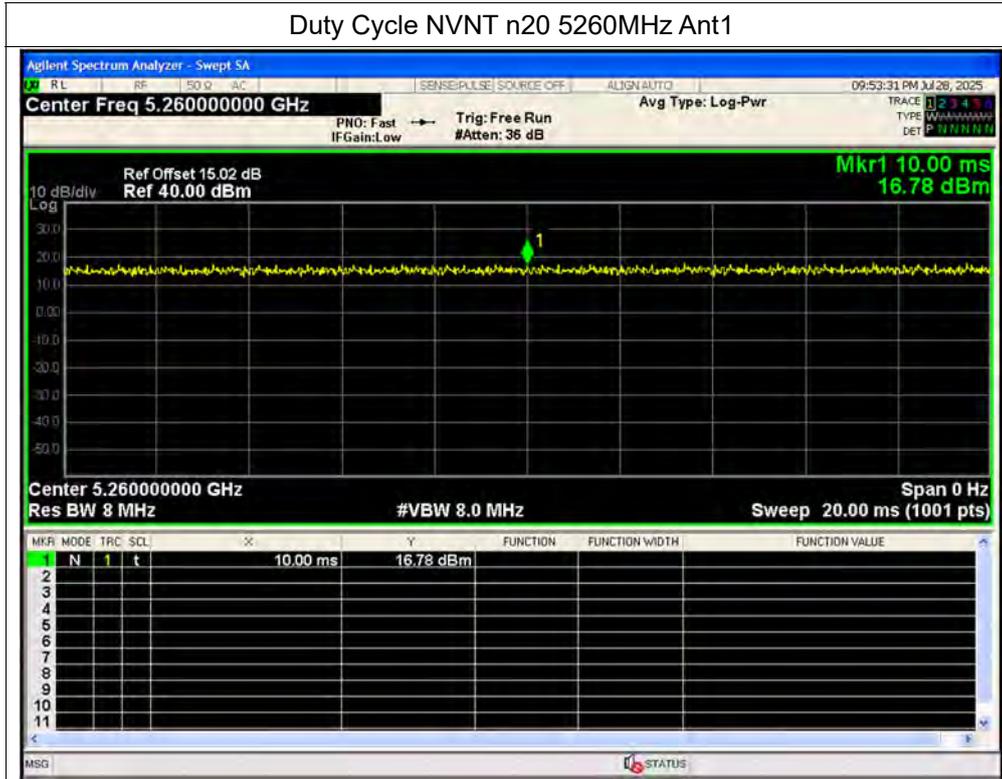


Duty Cycle NVNT n20 5240MHz Ant1

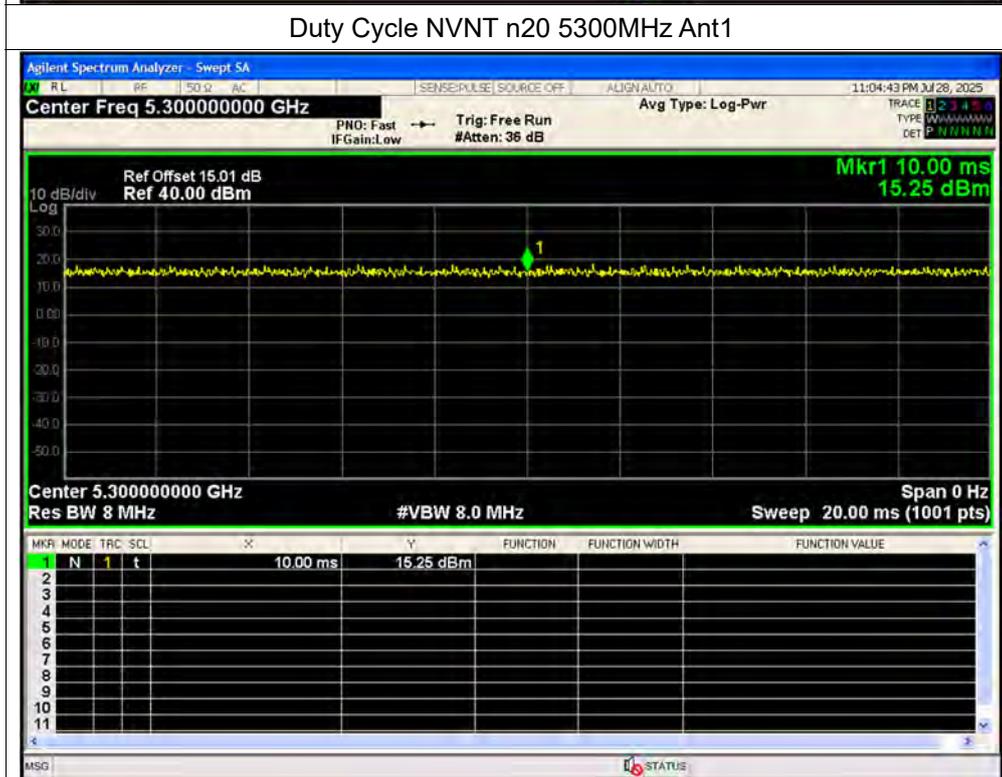




Duty Cycle NVNT n20 5260MHz Ant1

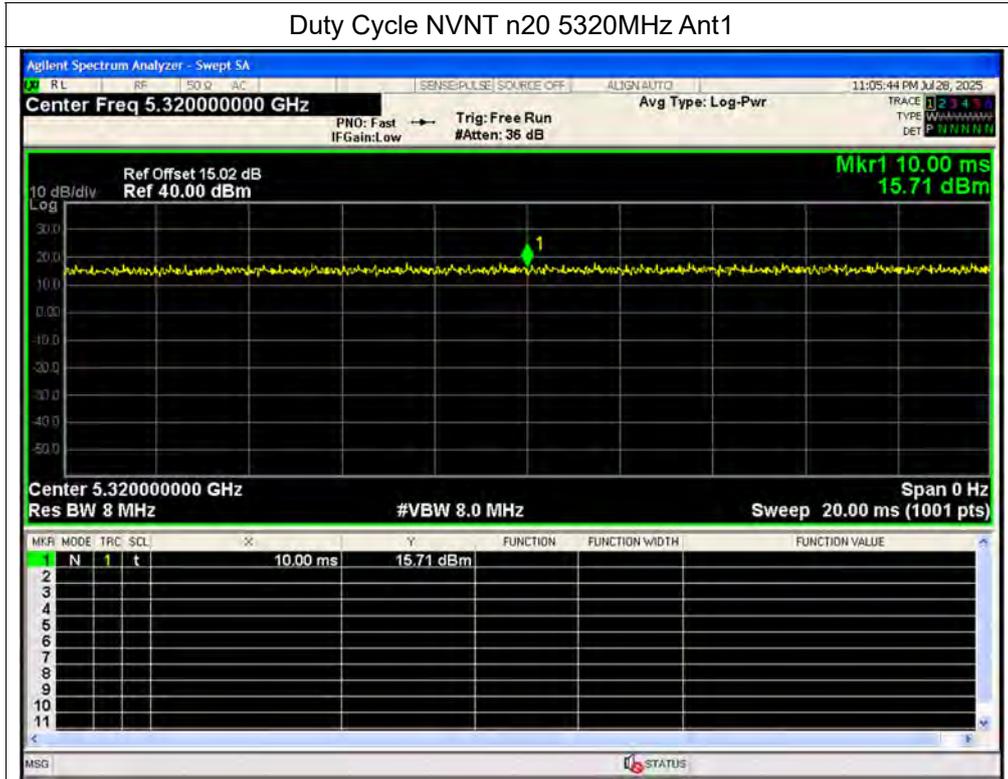


Duty Cycle NVNT n20 5300MHz Ant1

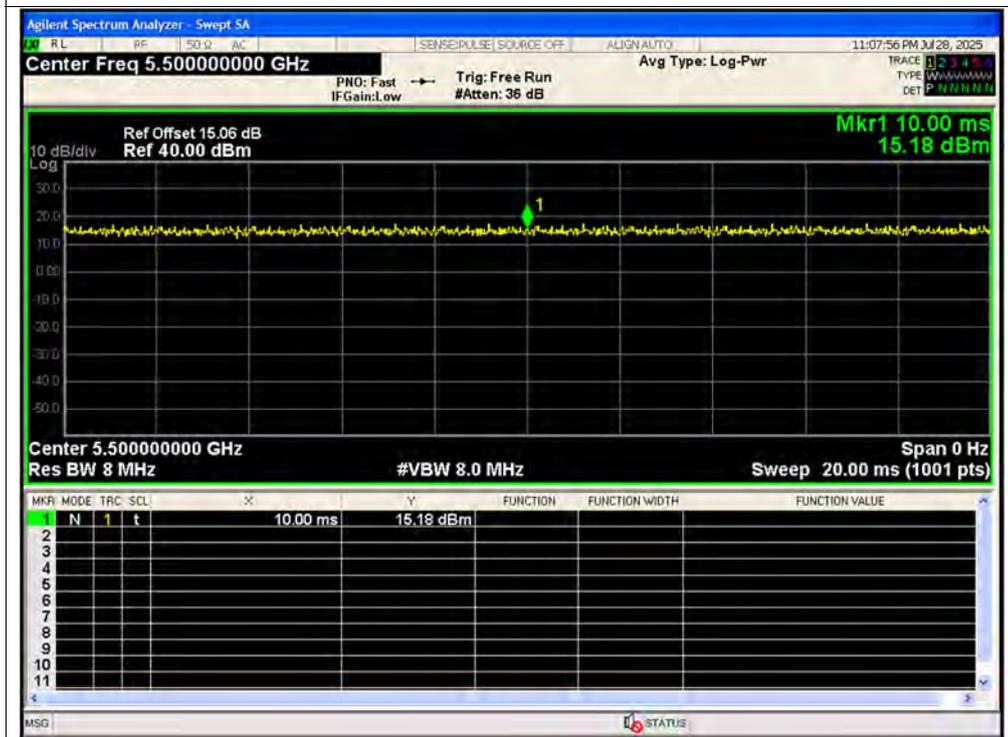




Duty Cycle NVNT n20 5320MHz Ant1

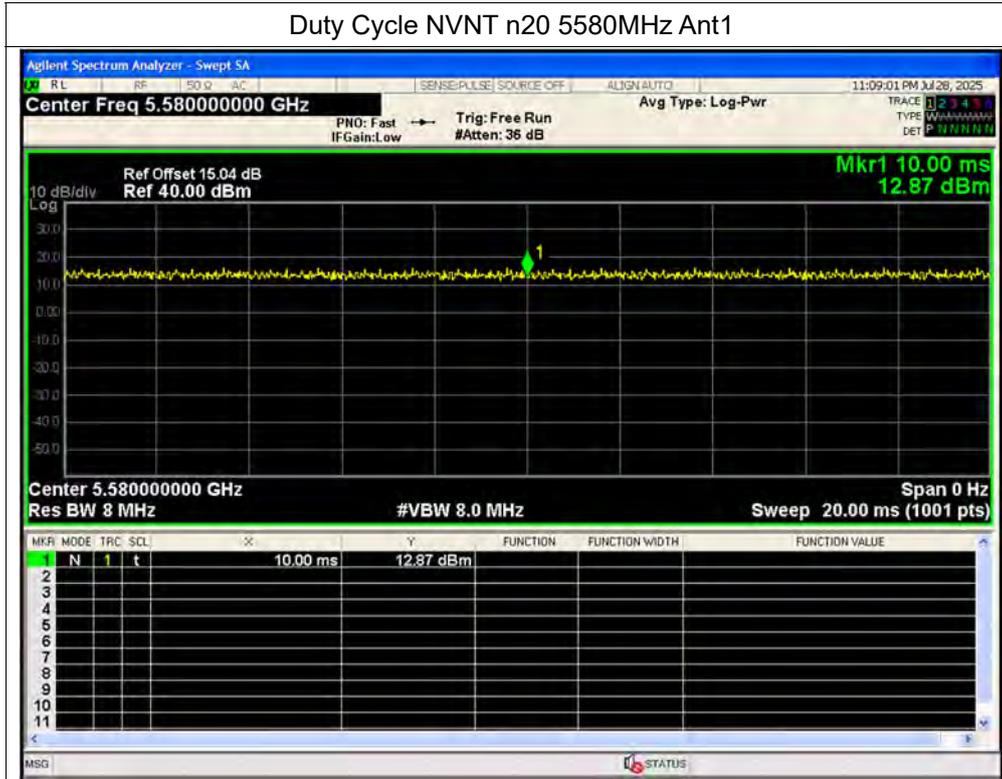


Duty Cycle NVNT n20 5500MHz Ant1

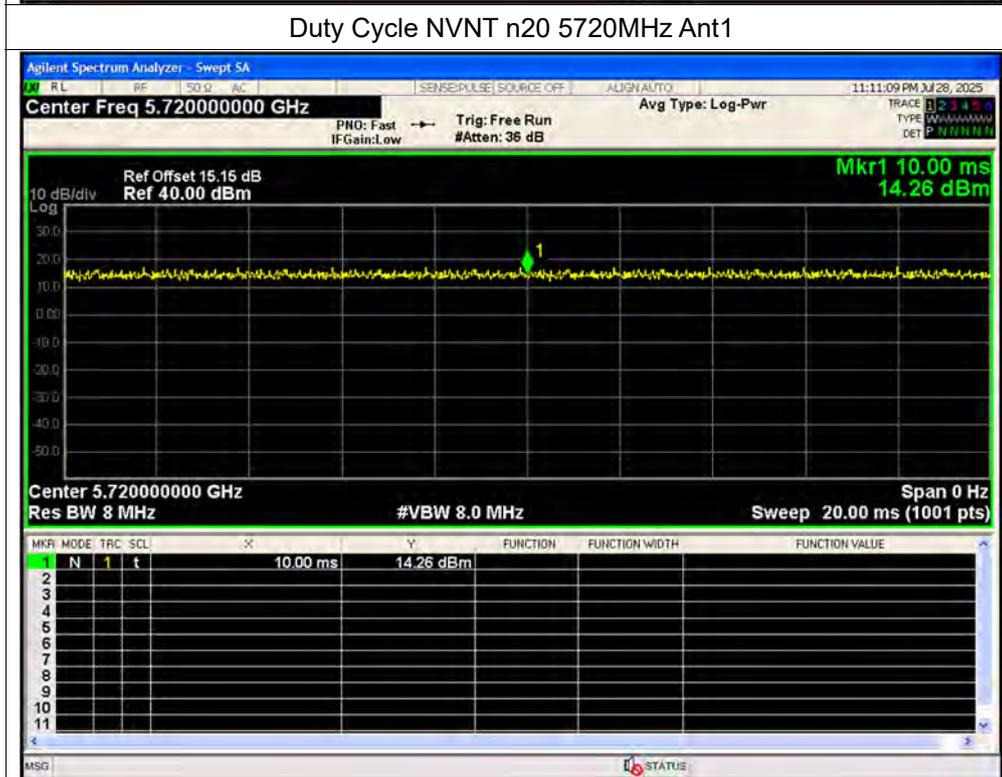




Duty Cycle NVNT n20 5580MHz Ant1

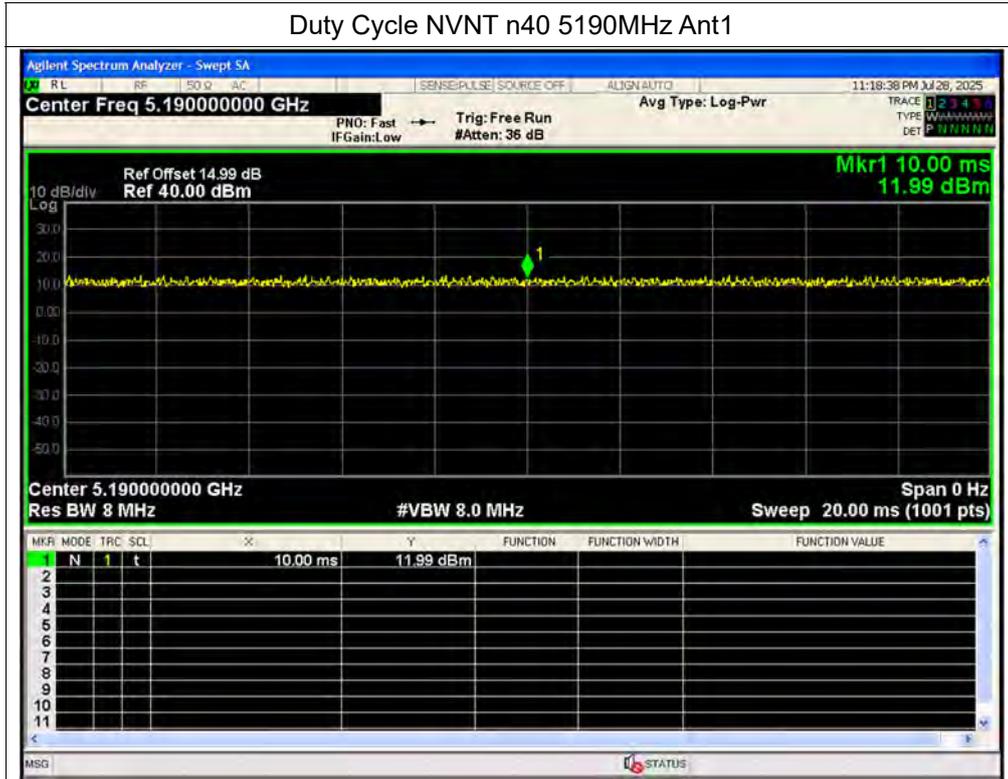


Duty Cycle NVNT n20 5720MHz Ant1

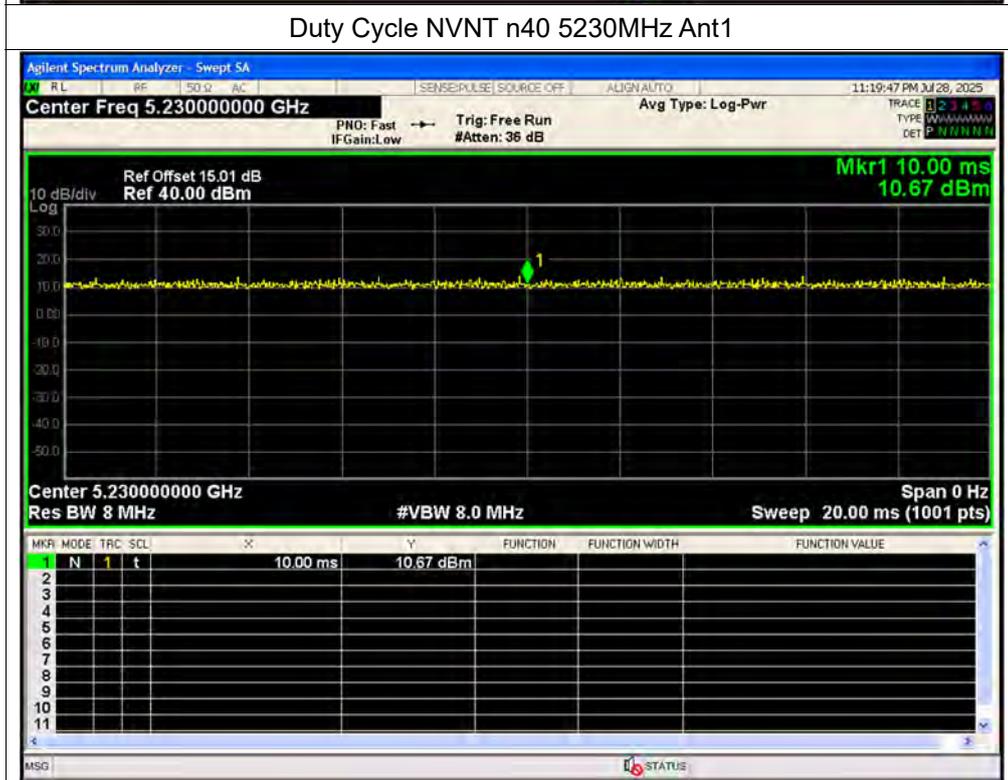




Duty Cycle NVNT n40 5190MHz Ant1

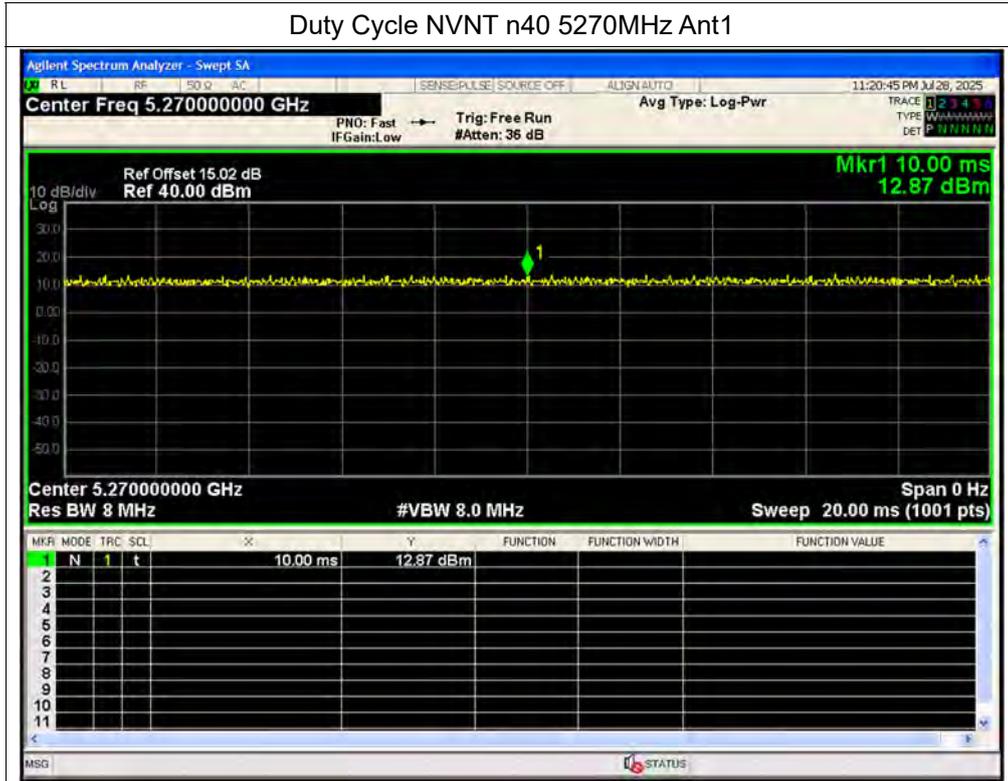


Duty Cycle NVNT n40 5230MHz Ant1

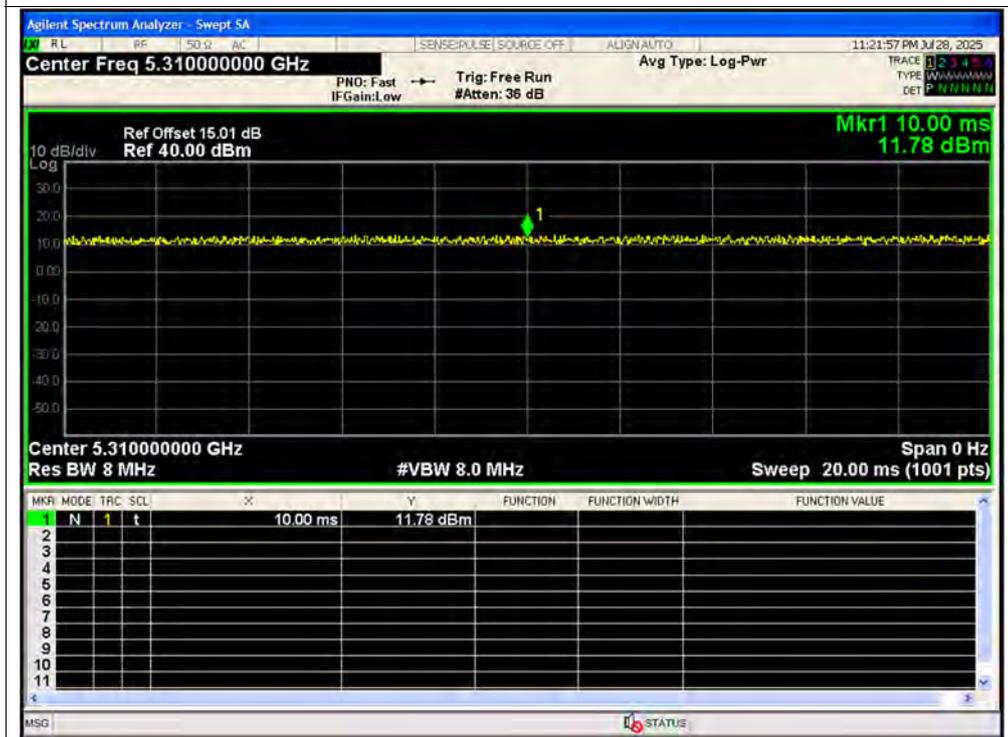




Duty Cycle NVNT n40 5270MHz Ant1

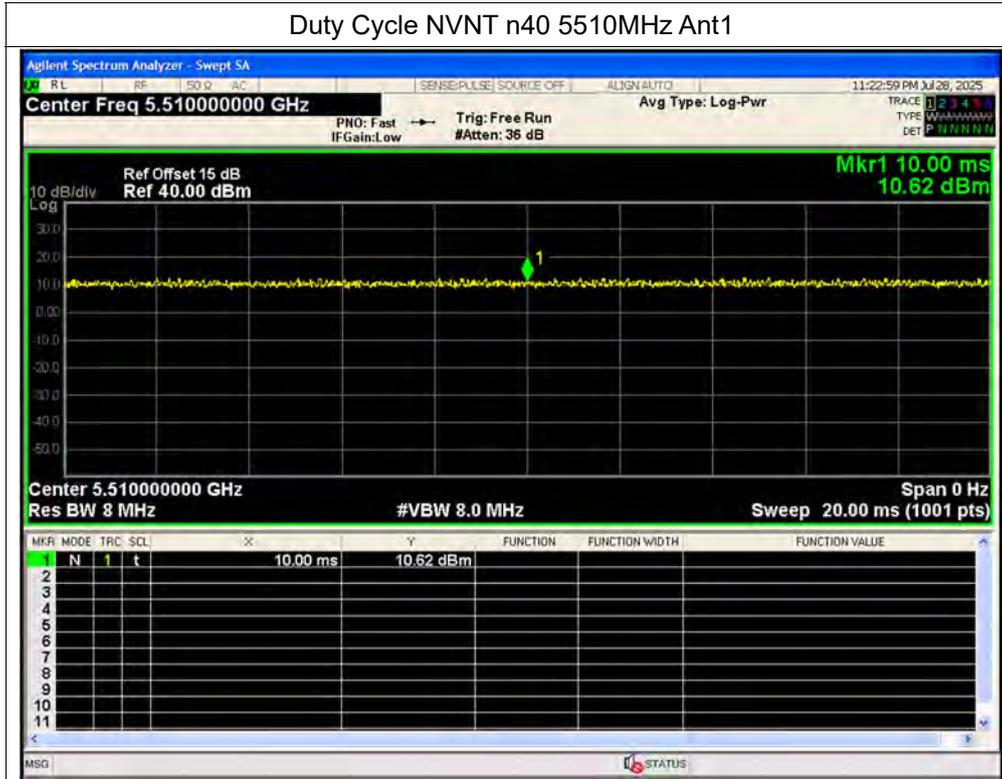


Duty Cycle NVNT n40 5310MHz Ant1

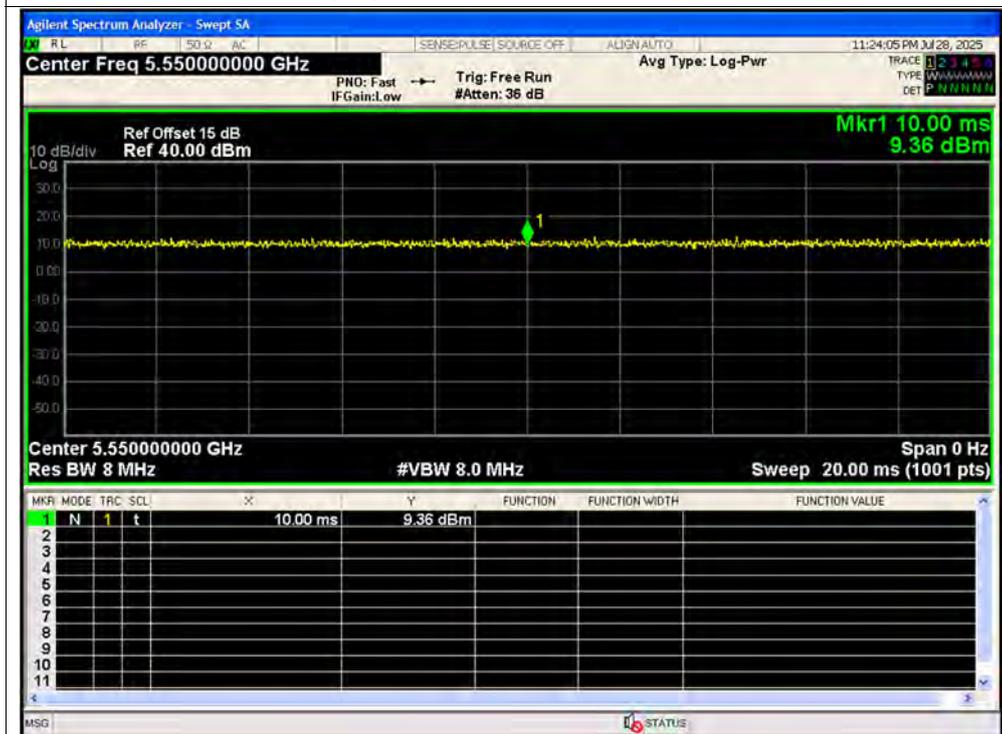


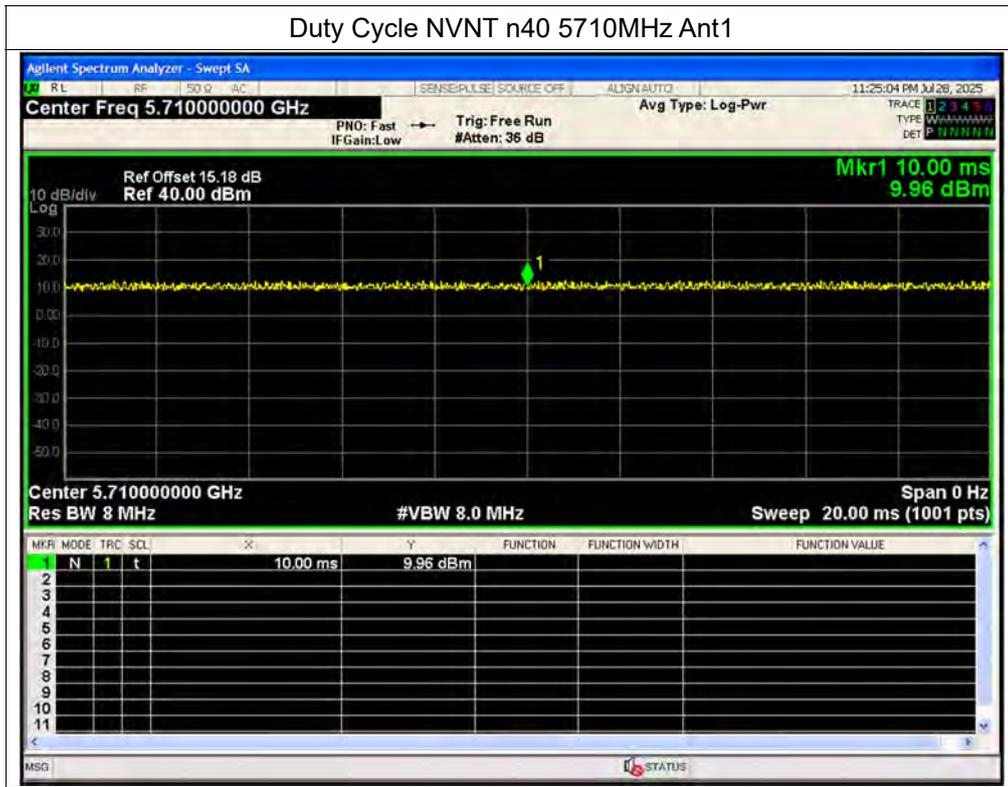


Duty Cycle NVNT n40 5510MHz Ant1



Duty Cycle NVNT n40 5550MHz Ant1







A.2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted (dBm)	Verdict
NVNT	a	5180	Ant1	12.97	0.01982	24	Pass
NVNT	a	5220	Ant1	13.11	0.02046	24	Pass
NVNT	a	5240	Ant1	13.34	0.02158	24	Pass
NVNT	a	5260	Ant1	13.01	0.02	24	Pass
NVNT	a	5300	Ant1	12.83	0.01919	24	Pass
NVNT	a	5320	Ant1	12.55	0.01799	24	Pass
NVNT	a	5500	Ant1	12.62	0.01828	24	Pass
NVNT	a	5580	Ant1	12.29	0.01694	24	Pass
NVNT	a	5720	Ant1	12.95	0.01972	24	Pass
NVNT	n20	5180	Ant1	12.37	0.01726	24	Pass
NVNT	n20	5220	Ant1	12.33	0.0171	24	Pass
NVNT	n20	5240	Ant1	12.17	0.01648	24	Pass
NVNT	n20	5260	Ant1	12.91	0.01954	24	Pass
NVNT	n20	5300	Ant1	12.67	0.01849	24	Pass
NVNT	n20	5320	Ant1	12.49	0.01774	24	Pass
NVNT	n20	5500	Ant1	12.46	0.01762	24	Pass
NVNT	n20	5580	Ant1	11.69	0.01476	24	Pass
NVNT	n20	5720	Ant1	12	0.01585	24	Pass
NVNT	n40	5190	Ant1	11.57	0.01435	24	Pass
NVNT	n40	5230	Ant1	11.47	0.01403	24	Pass
NVNT	n40	5270	Ant1	11.88	0.01542	24	Pass
NVNT	n40	5310	Ant1	11.84	0.01528	24	Pass
NVNT	n40	5510	Ant1	11.54	0.01426	24	Pass
NVNT	n40	5550	Ant1	11.36	0.01368	24	Pass
NVNT	n40	5710	Ant1	11.49	0.01409	24	Pass

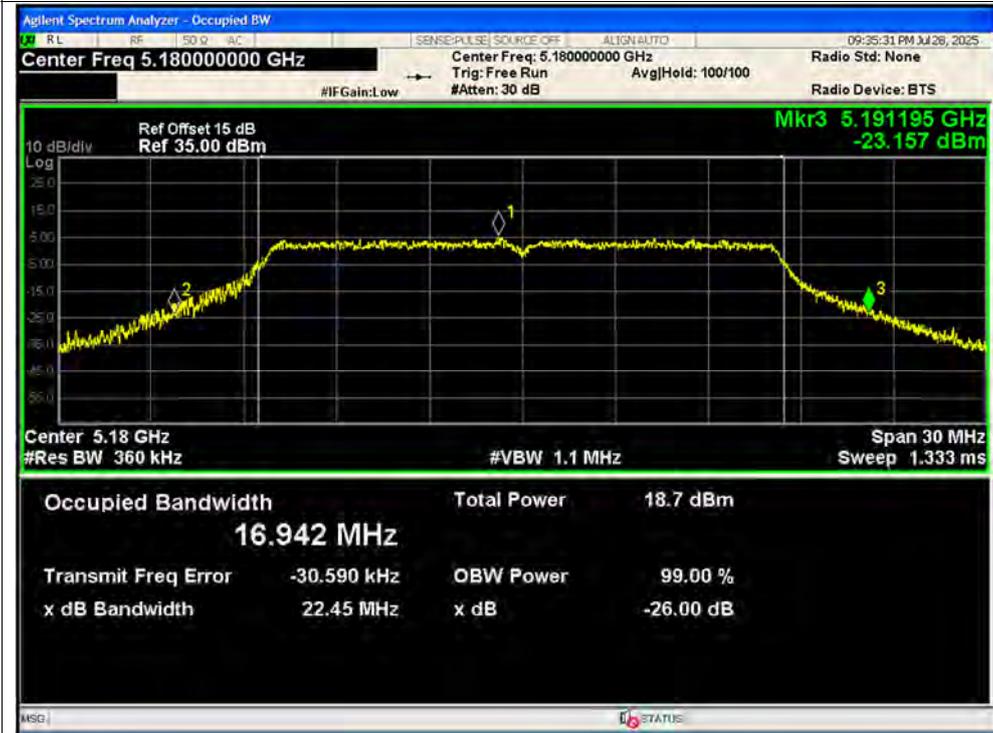
**A.3. Emission Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a	5180	Ant1	22.45
NVNT	a	5220	Ant1	22.87
NVNT	a	5240	Ant1	22.63
NVNT	a	5260	Ant1	22.68
NVNT	a	5300	Ant1	22.73
NVNT	a	5320	Ant1	22.73
NVNT	a	5500	Ant1	22.47
NVNT	a	5580	Ant1	22.43
NVNT	a	5720	Ant1	22.54
NVNT	n20	5180	Ant1	24.16
NVNT	n20	5220	Ant1	23.86
NVNT	n20	5240	Ant1	23.9
NVNT	n20	5260	Ant1	23.9
NVNT	n20	5300	Ant1	24.04
NVNT	n20	5320	Ant1	23.77
NVNT	n20	5500	Ant1	23.85
NVNT	n20	5580	Ant1	23.87
NVNT	n20	5720	Ant1	23.86
NVNT	n40	5190	Ant1	39.34
NVNT	n40	5230	Ant1	39.09
NVNT	n40	5270	Ant1	39.36
NVNT	n40	5310	Ant1	39.27
NVNT	n40	5510	Ant1	39.42
NVNT	n40	5550	Ant1	39.32
NVNT	n40	5710	Ant1	39.35



Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1

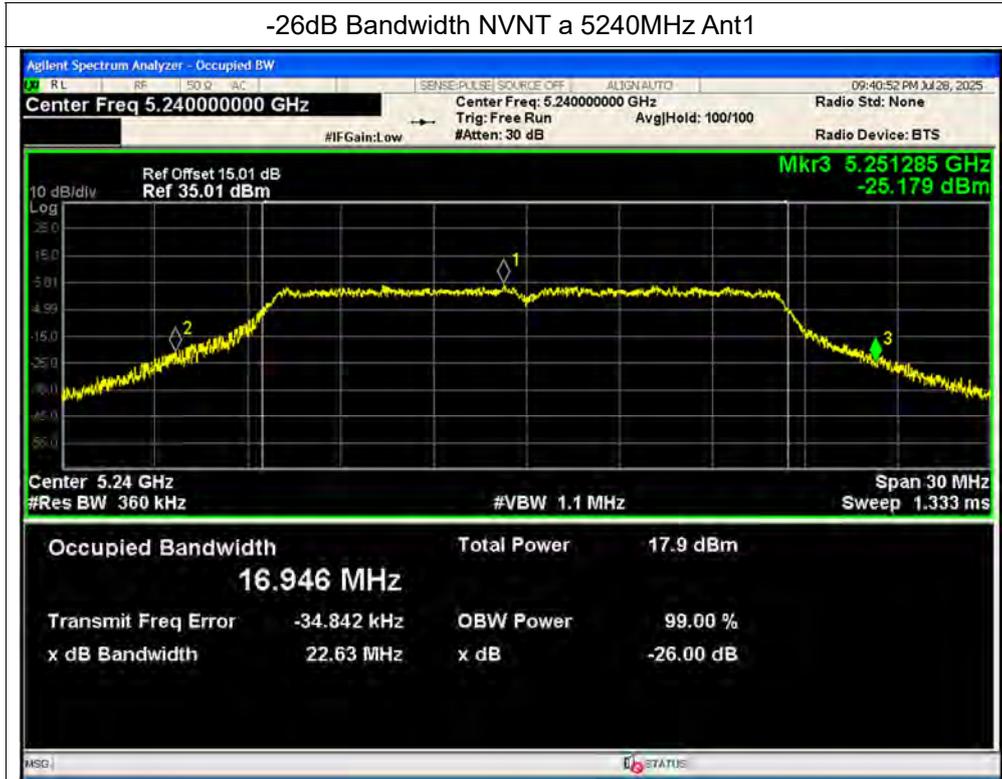


-26dB Bandwidth NVNT a 5220MHz Ant1

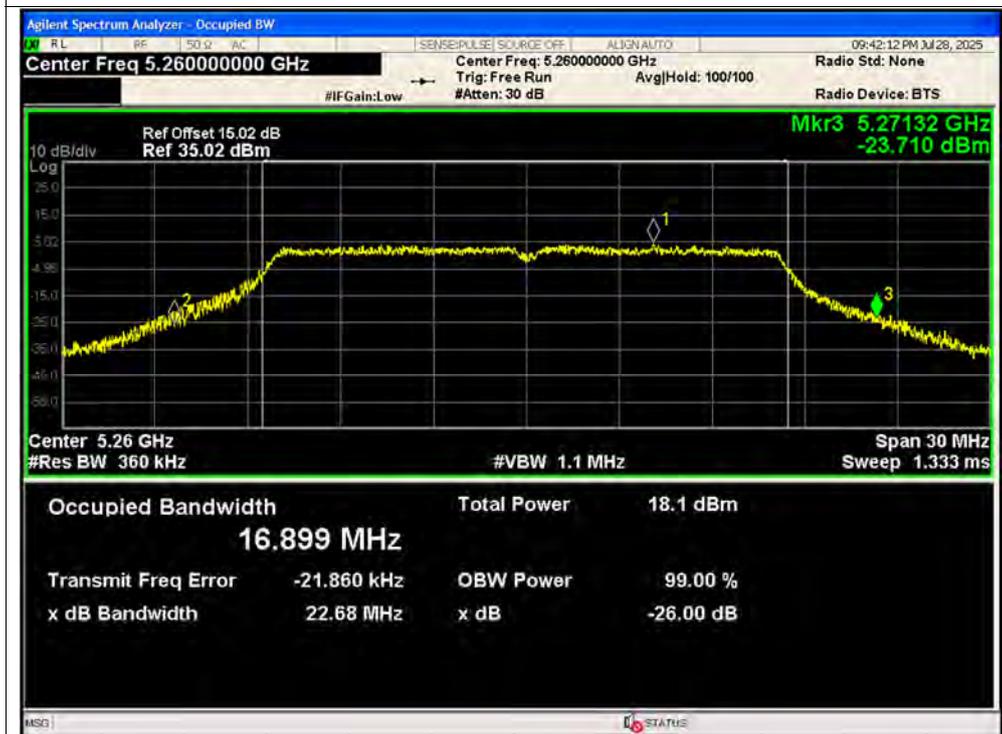




-26dB Bandwidth NVNT a 5240MHz Ant1

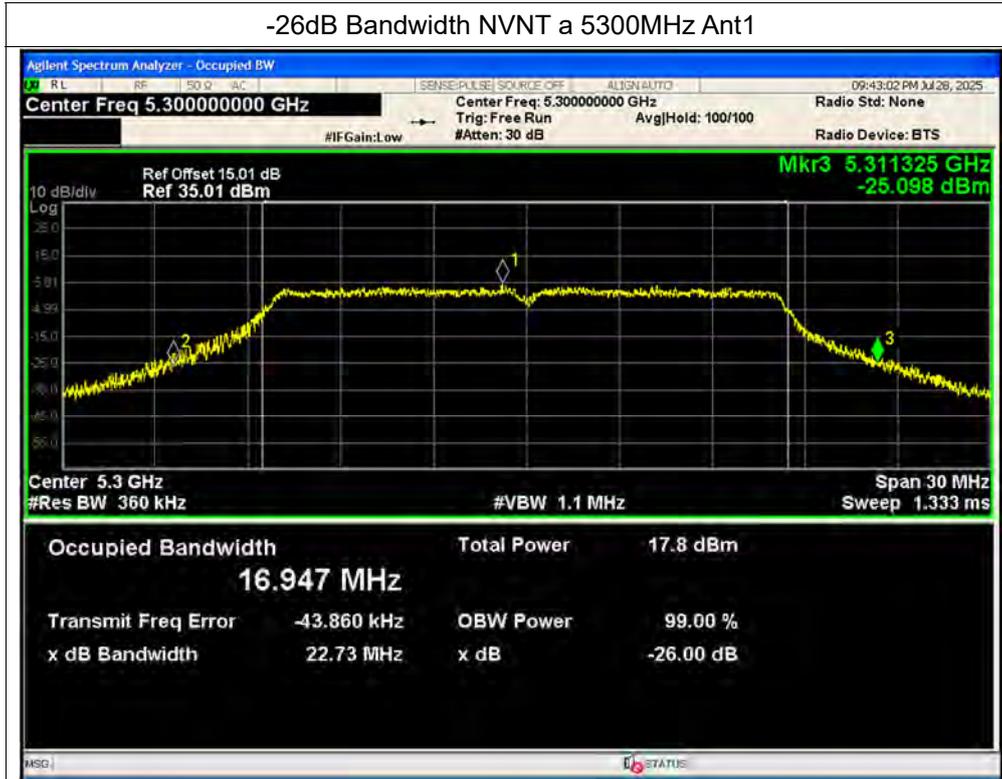


-26dB Bandwidth NVNT a 5260MHz Ant1





-26dB Bandwidth NVNT a 5300MHz Ant1

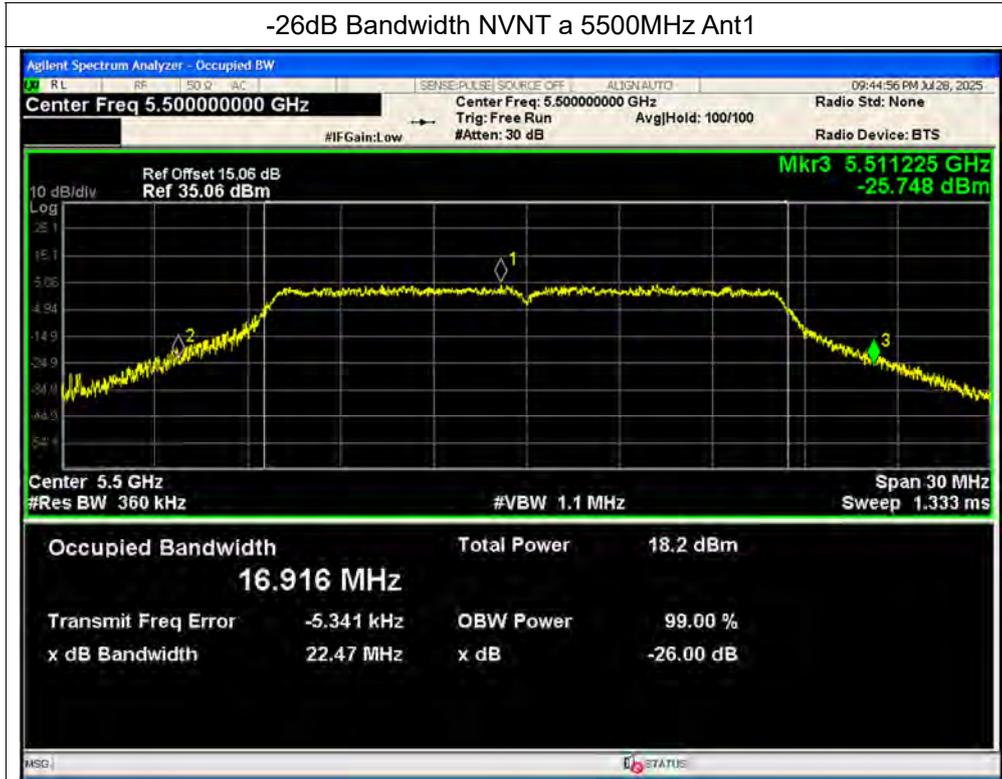


-26dB Bandwidth NVNT a 5320MHz Ant1

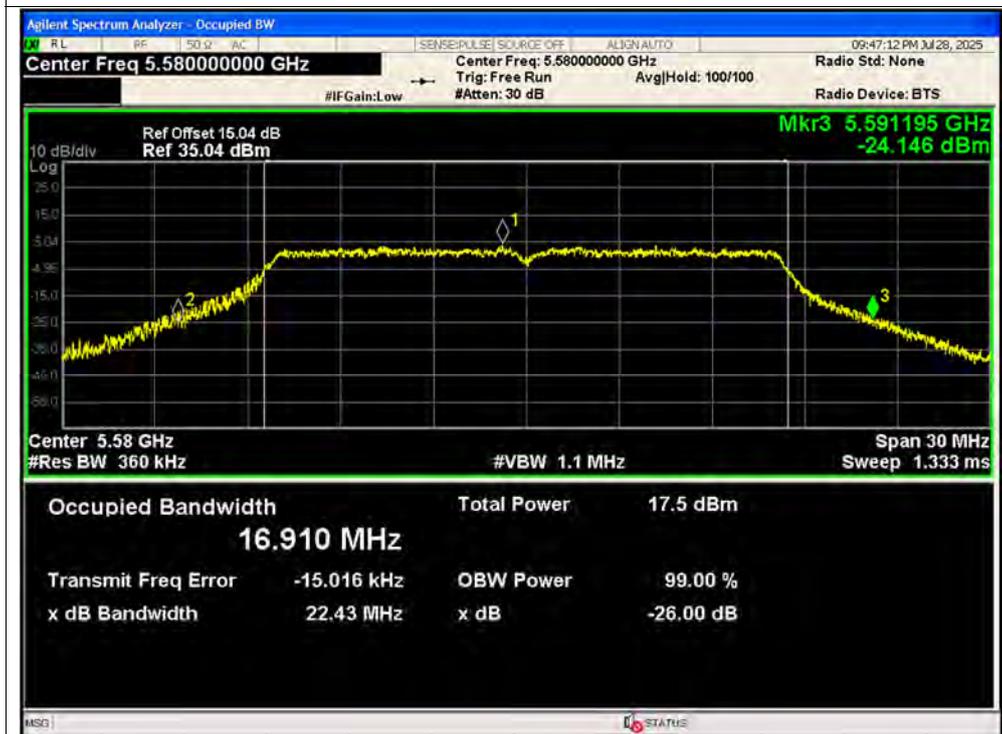




-26dB Bandwidth NVNT a 5500MHz Ant1

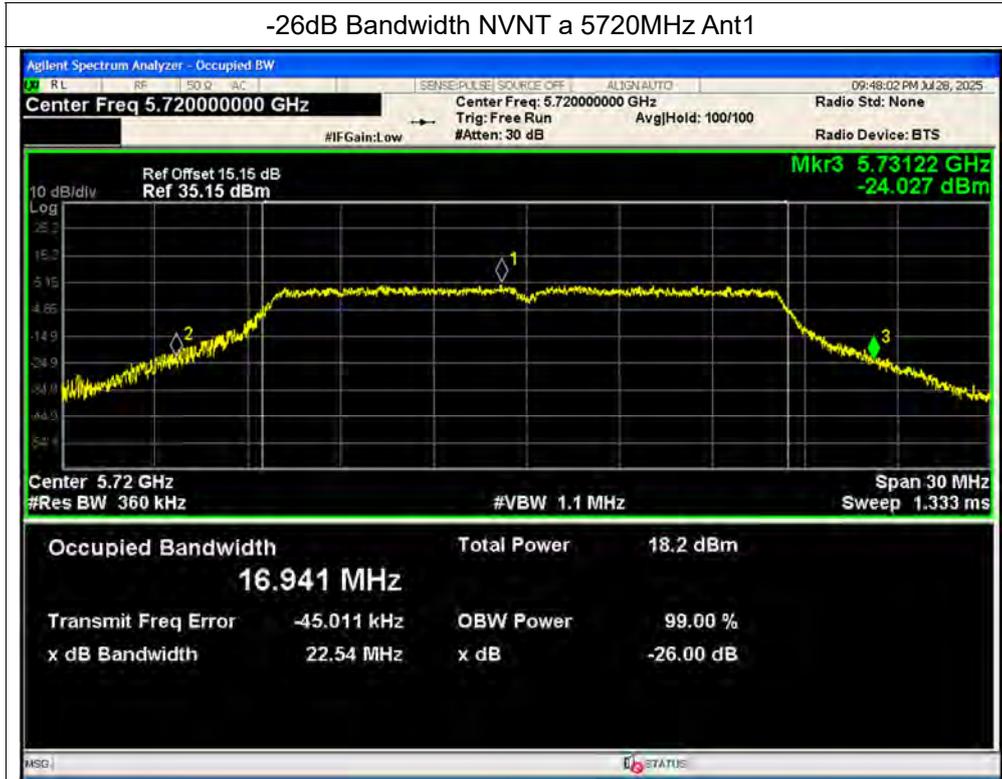


-26dB Bandwidth NVNT a 5580MHz Ant1

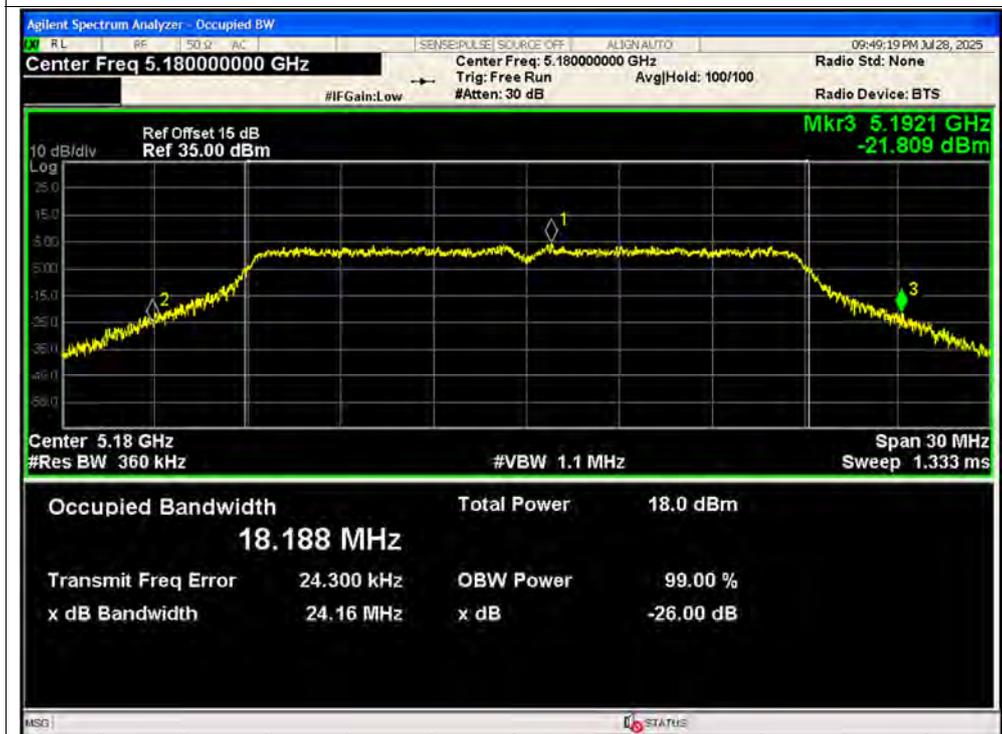




-26dB Bandwidth NVNT a 5720MHz Ant1

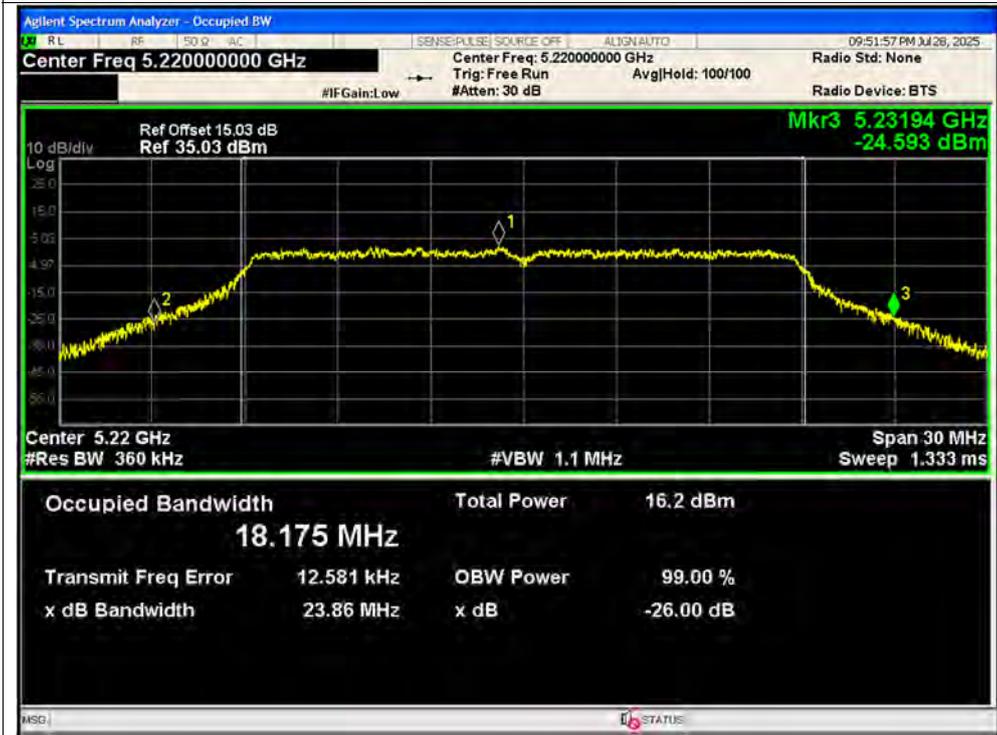


-26dB Bandwidth NVNT n20 5180MHz Ant1

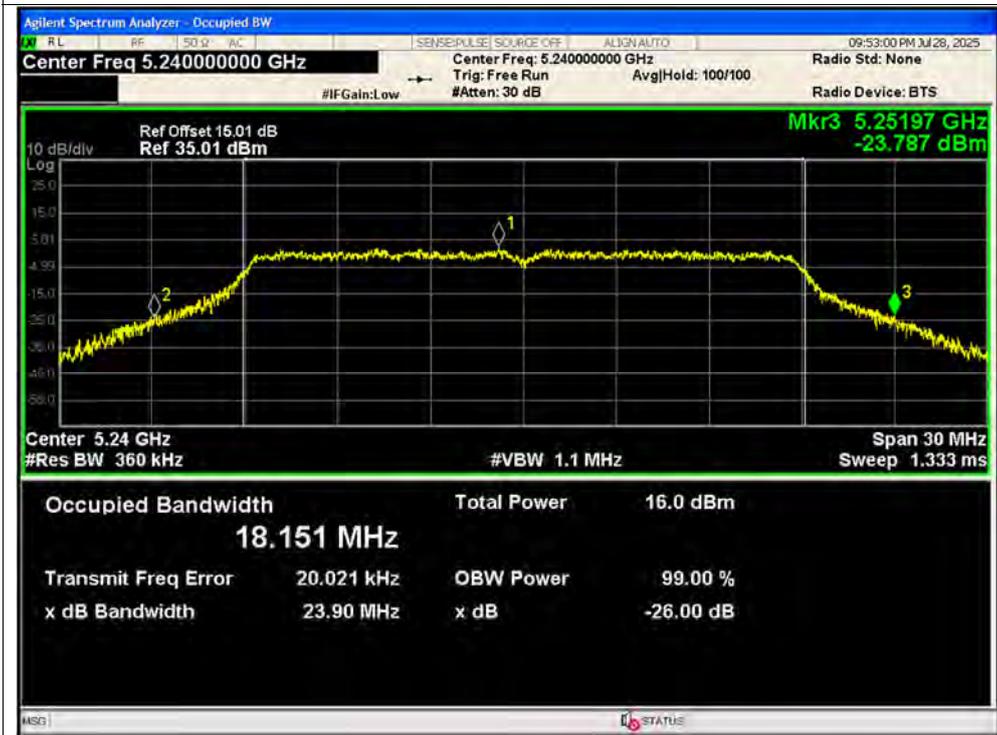




-26dB Bandwidth NVNT n20 5220MHz Ant1

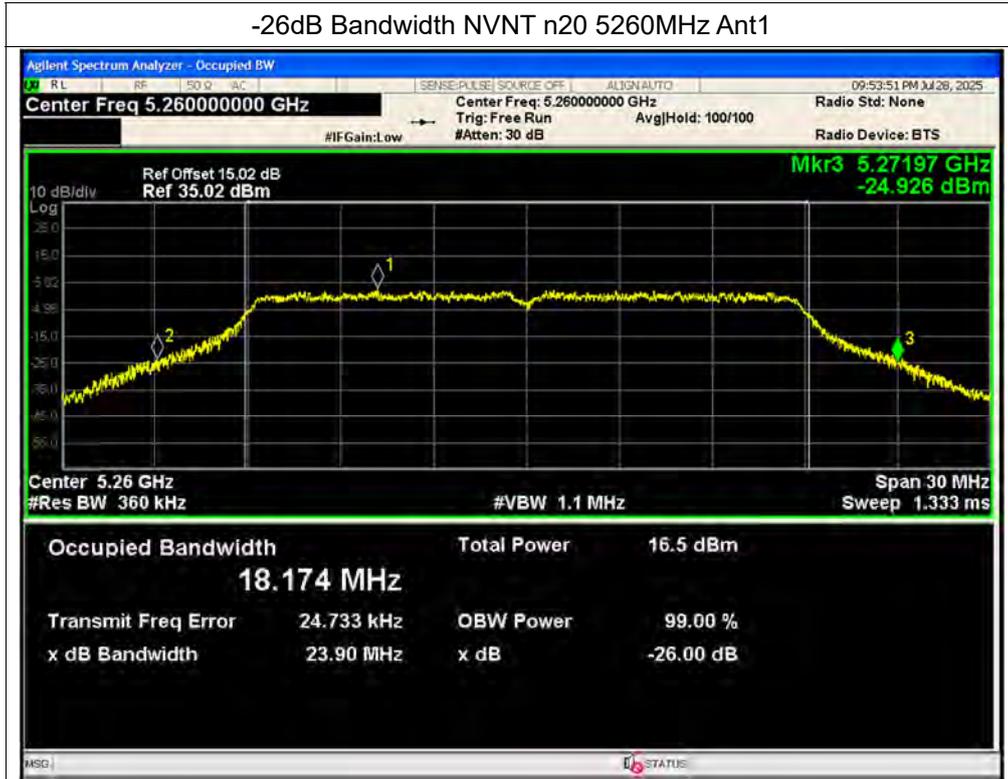


-26dB Bandwidth NVNT n20 5240MHz Ant1

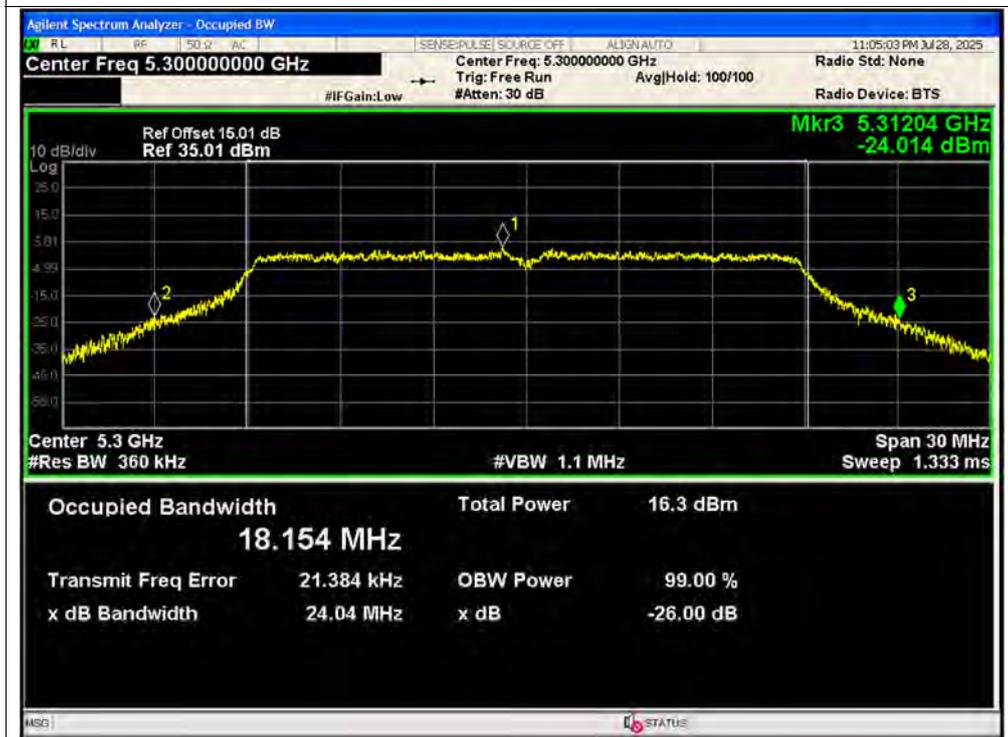




-26dB Bandwidth NVNT n20 5260MHz Ant1

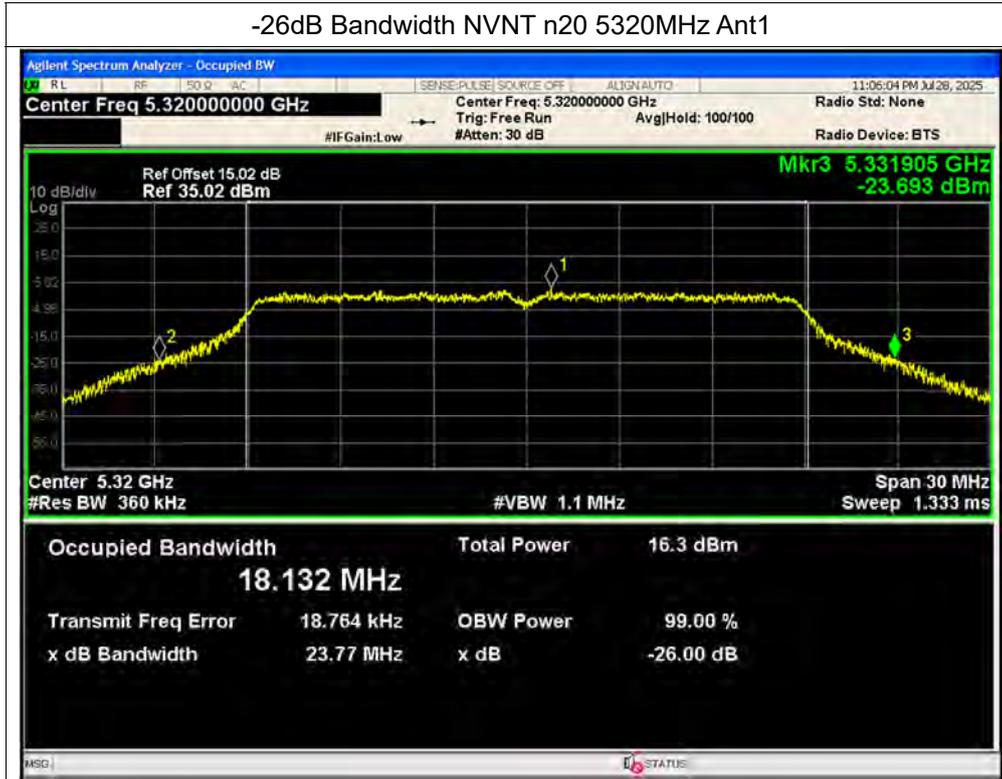


-26dB Bandwidth NVNT n20 5300MHz Ant1

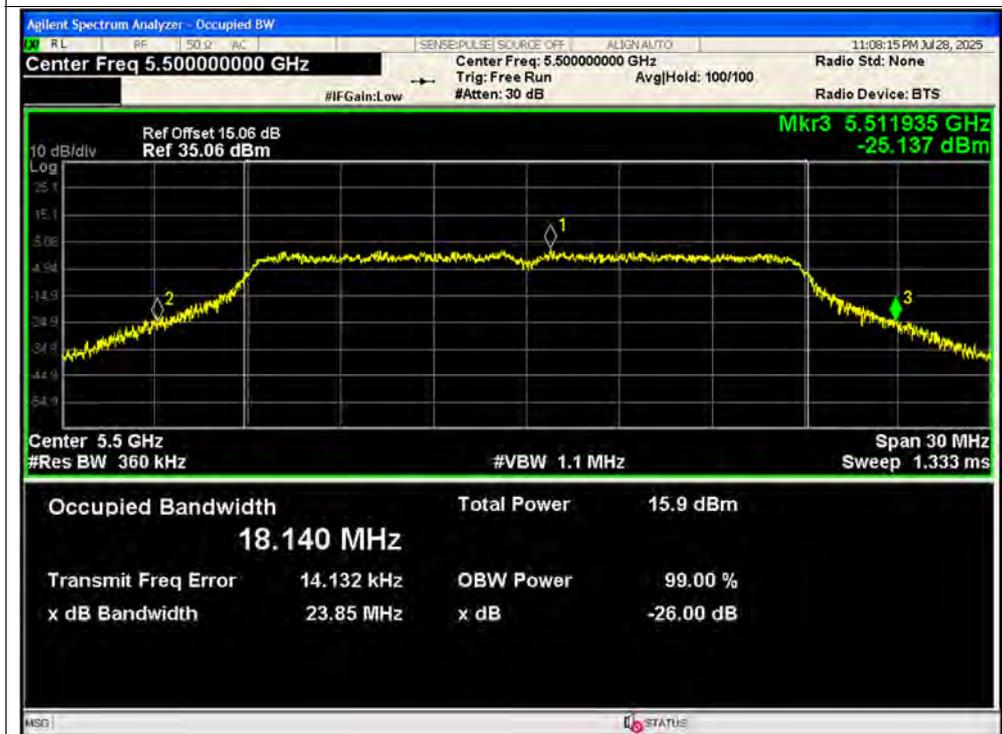




-26dB Bandwidth NVNT n20 5320MHz Ant1

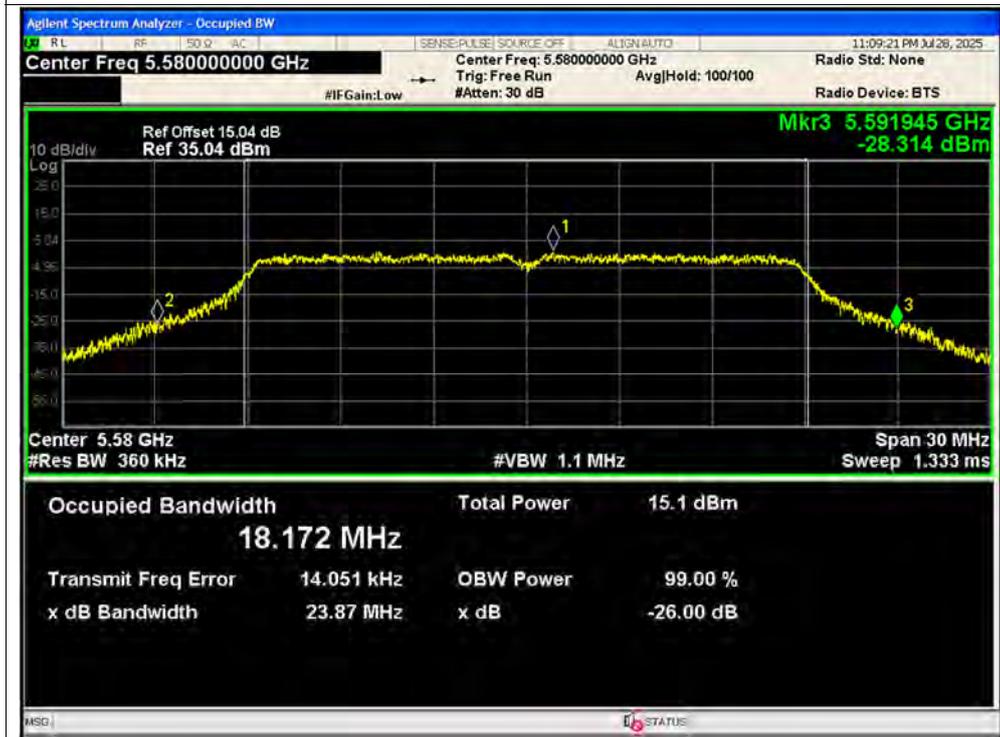


-26dB Bandwidth NVNT n20 5500MHz Ant1

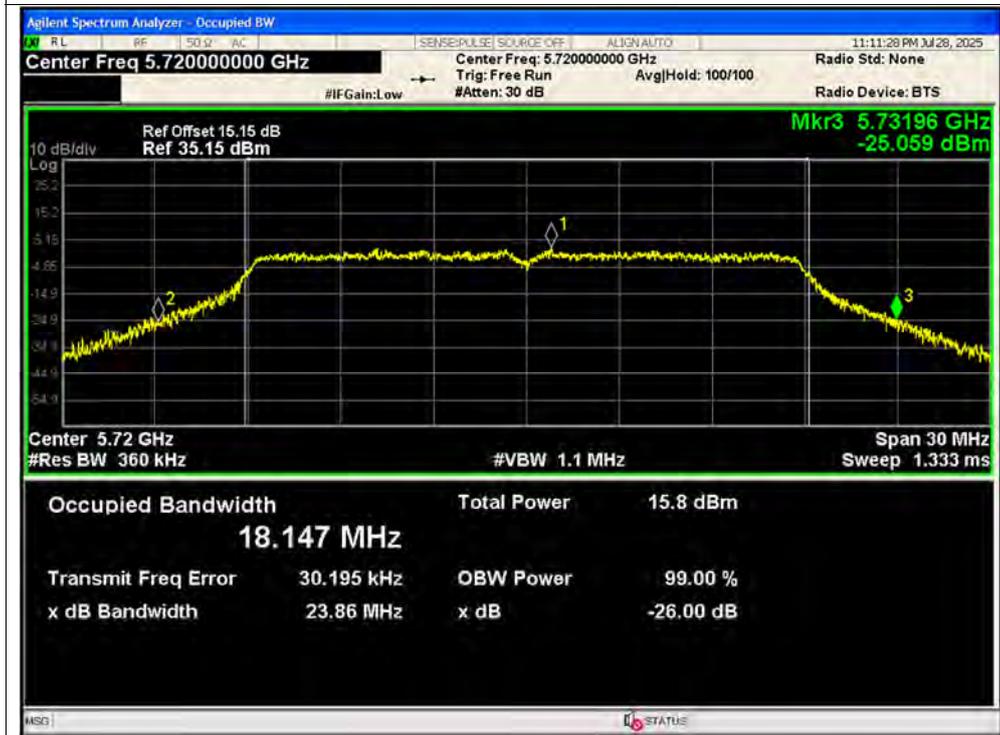




-26dB Bandwidth NVNT n20 5580MHz Ant1

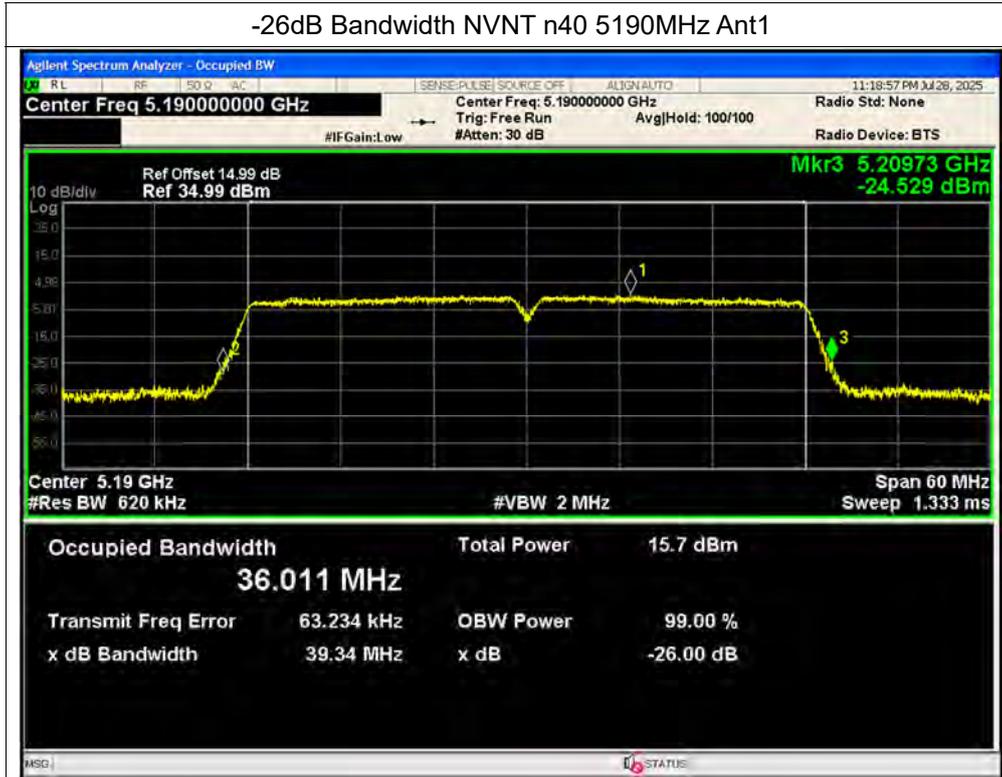


-26dB Bandwidth NVNT n20 5720MHz Ant1

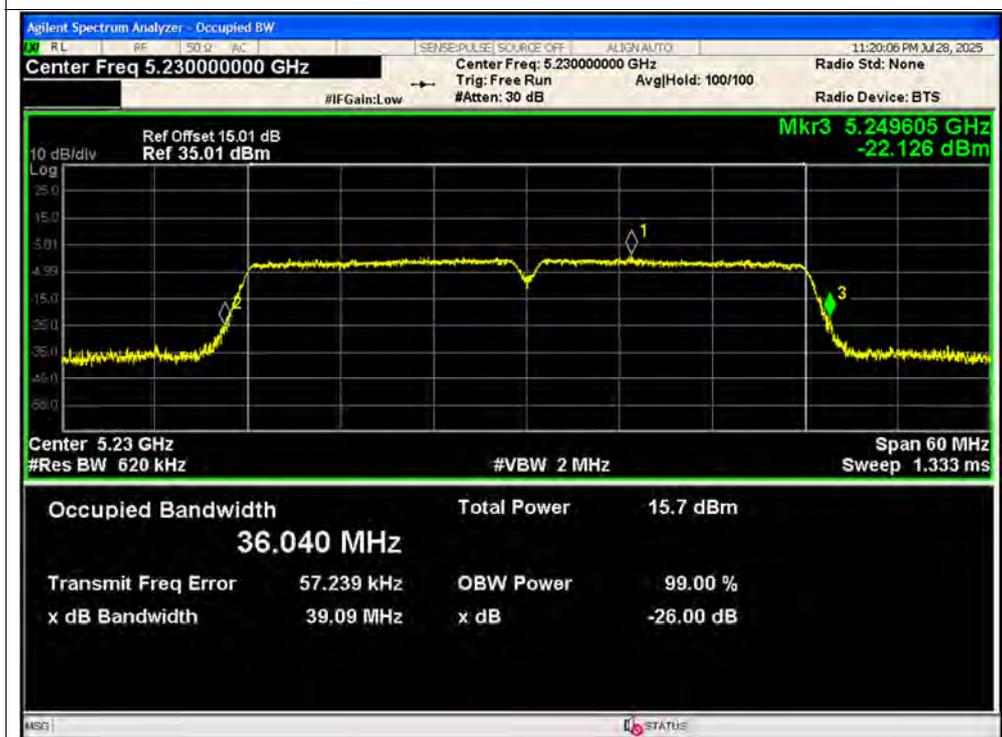




-26dB Bandwidth NVNT n40 5190MHz Ant1

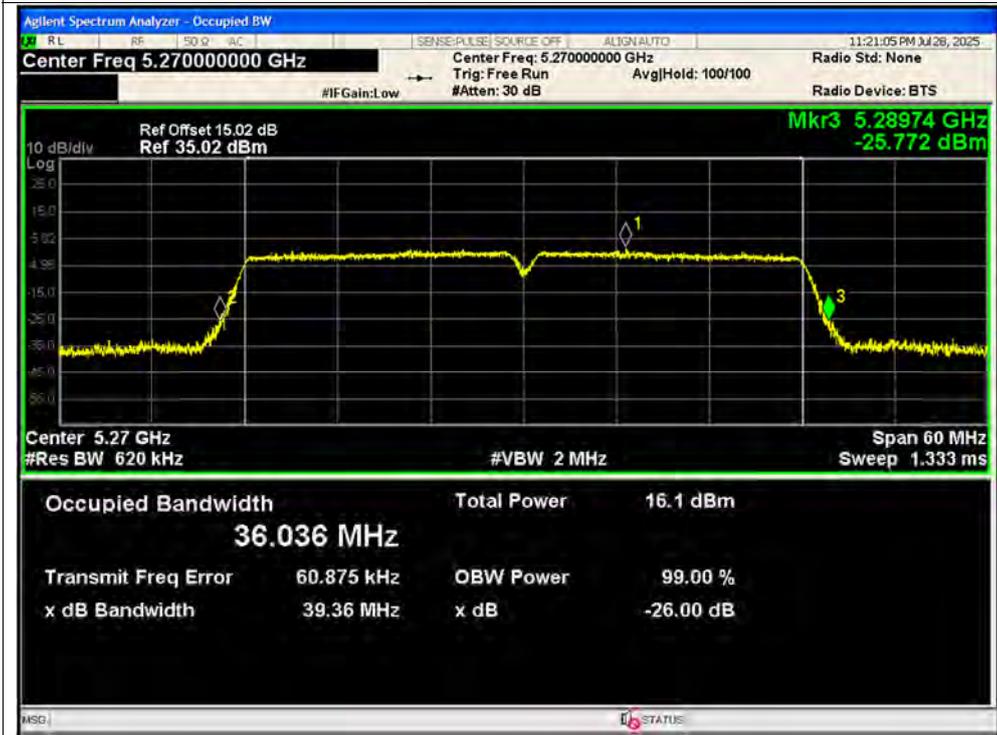


-26dB Bandwidth NVNT n40 5230MHz Ant1





-26dB Bandwidth NVNT n40 5270MHz Ant1

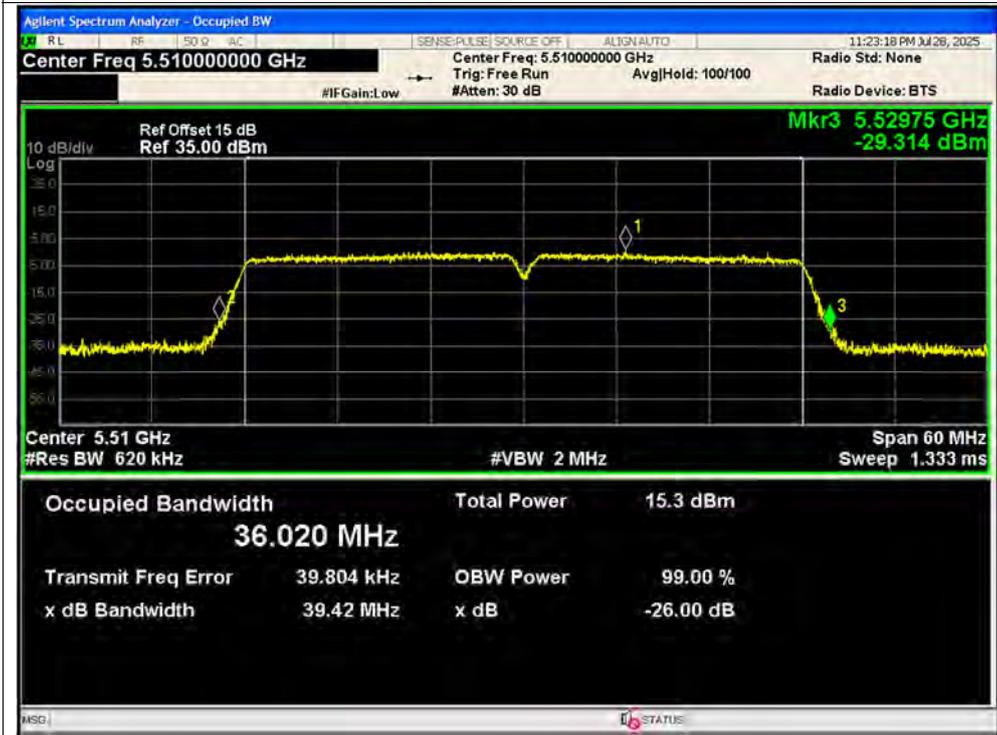


-26dB Bandwidth NVNT n40 5310MHz Ant1

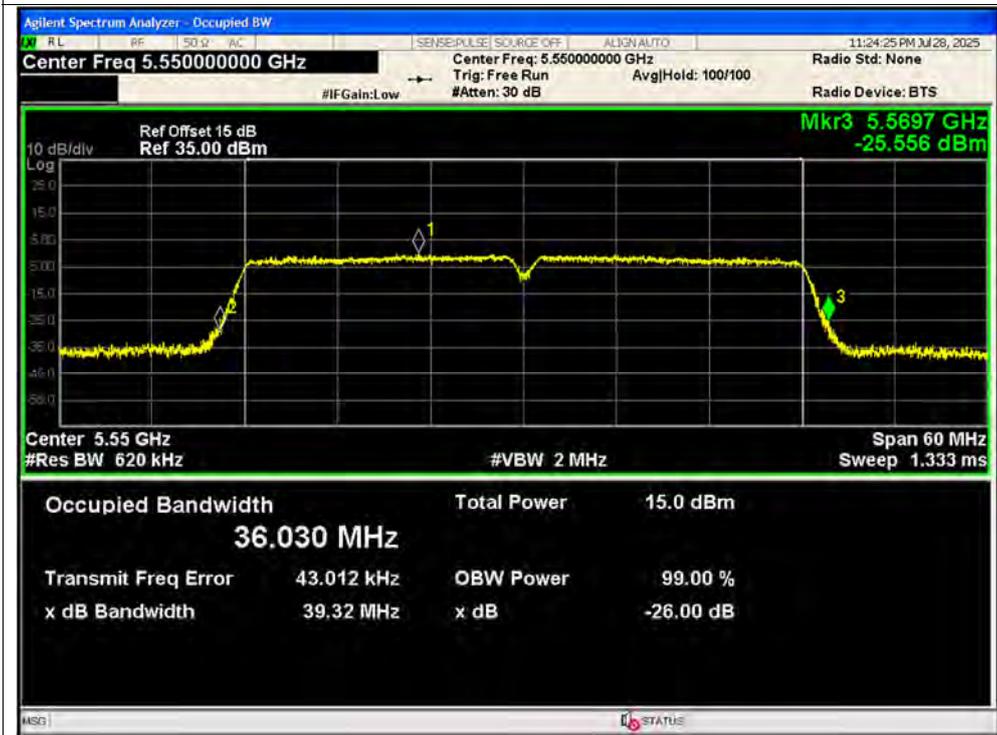




-26dB Bandwidth NVNT n40 5510MHz Ant1



-26dB Bandwidth NVNT n40 5550MHz Ant1







A.4. Peak Power Spectral Density

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total Conducted PSD (dBm)	Limit Conducted (dBm)	Verdict
NVNT	a	5180	Ant1	1.31	0	1.31	11	Pass
NVNT	a	5220	Ant1	1.11	0	1.11	11	Pass
NVNT	a	5240	Ant1	1.09	0	1.09	11	Pass
NVNT	a	5260	Ant1	1.51	0	1.51	11	Pass
NVNT	a	5300	Ant1	0.96	0	0.96	11	Pass
NVNT	a	5320	Ant1	1.05	0	1.05	11	Pass
NVNT	a	5500	Ant1	1.55	0	1.55	11	Pass
NVNT	a	5580	Ant1	0.74	0	0.74	11	Pass
NVNT	a	5720	Ant1	1.61	0	1.61	11	Pass
NVNT	n20	5180	Ant1	-0.98	0	-0.98	11	Pass
NVNT	n20	5220	Ant1	-0.93	0	-0.93	11	Pass
NVNT	n20	5240	Ant1	-0.94	0	-0.94	11	Pass
NVNT	n20	5260	Ant1	-0.67	0	-0.67	11	Pass
NVNT	n20	5300	Ant1	-0.6	0	-0.6	11	Pass
NVNT	n20	5320	Ant1	-0.8	0	-0.8	11	Pass
NVNT	n20	5500	Ant1	-1.18	0	-1.18	11	Pass
NVNT	n20	5580	Ant1	-2.05	0	-2.05	11	Pass
NVNT	n20	5720	Ant1	-1.3	0	-1.3	11	Pass
NVNT	n40	5190	Ant1	-4.1	0	-4.1	11	Pass
NVNT	n40	5230	Ant1	-4.3	0	-4.3	11	Pass
NVNT	n40	5270	Ant1	-3.92	0	-3.92	11	Pass
NVNT	n40	5510	Ant1	-4.69	0	-4.69	11	Pass
NVNT	n40	5550	Ant1	-4.98	0	-4.98	11	Pass
NVNT	n40	5710	Ant1	-4.59	0	-4.59	11	Pass



Test Graphs

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

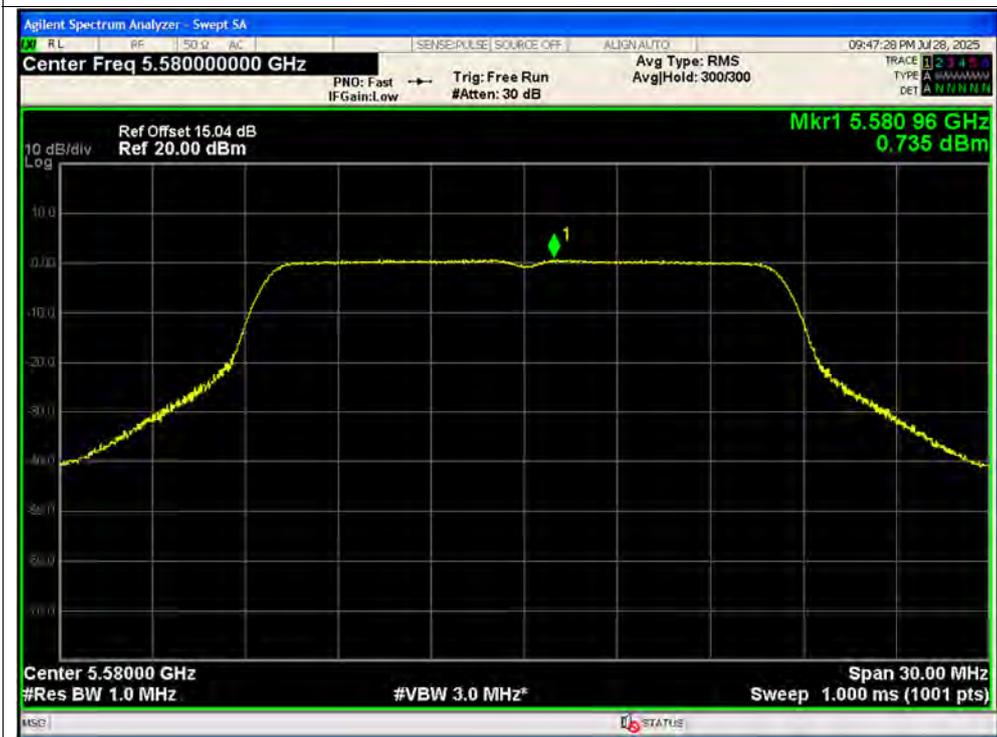




PSD NVNT a 5500MHz Ant1



PSD NVNT a 5580MHz Ant1





PSD NVNT a 5720MHz Ant1



PSD NVNT 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 n20 5720MHz Ant1





PSD NVNT n40 5190MHz Ant1



PSD NVNT n40 5230MHz Ant1





PSD NVNT n40 5270MHz Ant1



PSD NVNT n40 5510MHz Ant1





PSD NVNT n40 5550MHz Ant1



PSD NVNT n40 5710MHz Ant1





A.5. Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20C 5V	CW	5180	Ant1	5180.001	1000	0.19	25	Pass
20C 7.2V	CW	5180	Ant1	5180	0	0	25	Pass
20C 8.4V	CW	5180	Ant1	5180.001	1000	0.19	25	Pass
0C 7.2V	CW	5180	Ant1	5180	0	0	25	Pass
10C 7.2V	CW	5180	Ant1	5180	0	0	25	Pass
30C 7.2V	CW	5180	Ant1	5180	0	0	25	Pass
35C 7.2V	CW	5180	Ant1	5180	0	0	25	Pass
20C 5V	CW	5260	Ant1	5260.001	1000	0.19	25	Pass
20C 7.2V	CW	5260	Ant1	5260.001	1000	0.19	25	Pass
20C 8.4V	CW	5260	Ant1	5260.001	1000	0.19	25	Pass
0C 7.2V	CW	5260	Ant1	5260.001	1000	0.19	25	Pass
10C 7.2V	CW	5260	Ant1	5260.001	1000	0.19	25	Pass
30C 7.2V	CW	5260	Ant1	5260	0	0	25	Pass
35C 7.2V	CW	5260	Ant1	5260	0	0	25	Pass
20C 5V	CW	5500	Ant1	5500.001	1000	0.18	25	Pass
20C 7.2V	CW	5500	Ant1	5500.001	1000	0.18	25	Pass
20C 8.4V	CW	5500	Ant1	5500.001	1000	0.18	25	Pass
0C 7.2V	CW	5500	Ant1	5500.001	1000	0.18	25	Pass
10C 7.2V	CW	5500	Ant1	5500.001	1000	0.18	25	Pass
30C 7.2V	CW	5500	Ant1	5500.001	1000	0.18	25	Pass
35C 7.2V	CW	5500	Ant1	5500	0	0	25	Pass
20C 5V	CW	5745	Ant1	5744.993	-7000	-1.22	25	Pass
20C 7.2V	CW	5745	Ant1	5745.003	3000	0.52	25	Pass
20C 8.4V	CW	5745	Ant1	5745.002	2000	0.35	25	Pass
0C 120V	CW	5745	Ant1	5745.002	2000	0.35	25	Pass
10C 120V	CW	5745	Ant1	5745.002	2000	0.35	25	Pass
20C 120V	CW	5745	Ant1	5745.002	2000	0.35	25	Pass
30C 120V	CW	5745	Ant1	5745.001	1000	0.17	25	Pass
35C 120V	CW	5745	Ant1	5745.001	1000	0.17	25	Pass



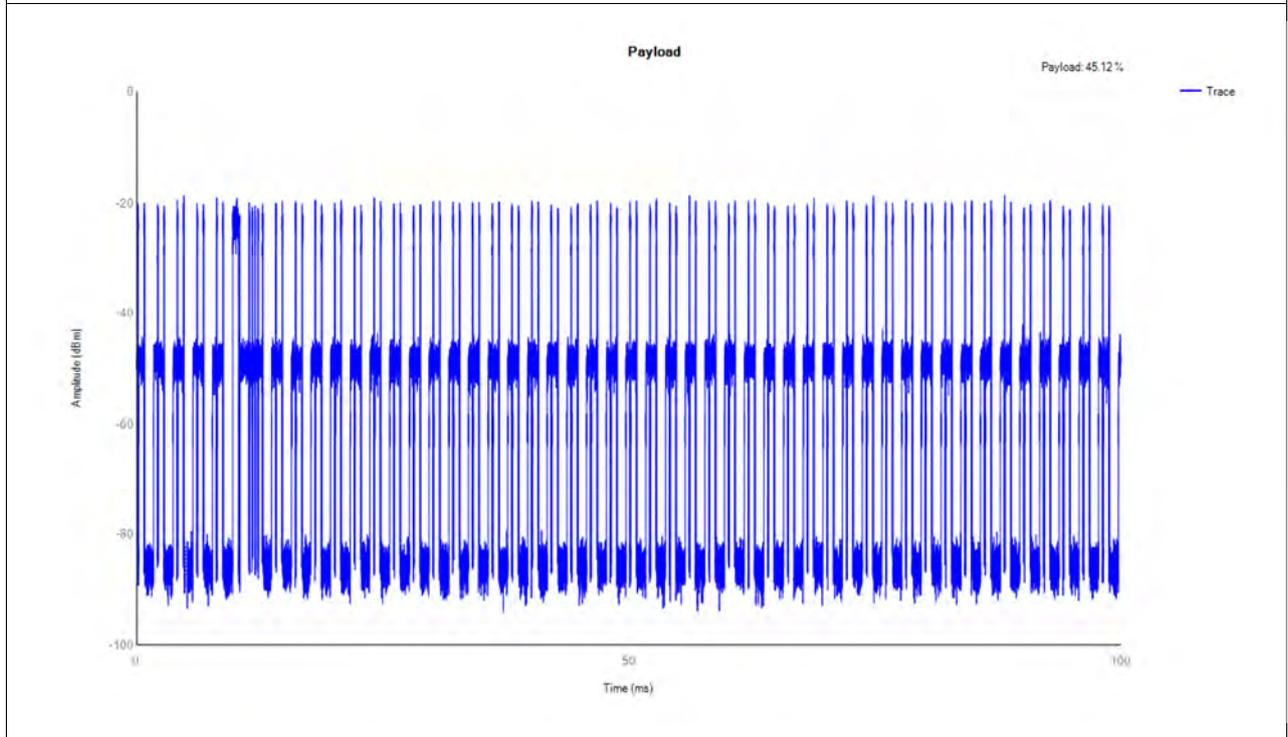
A.6. Dynamic Frequency Selection

Payload

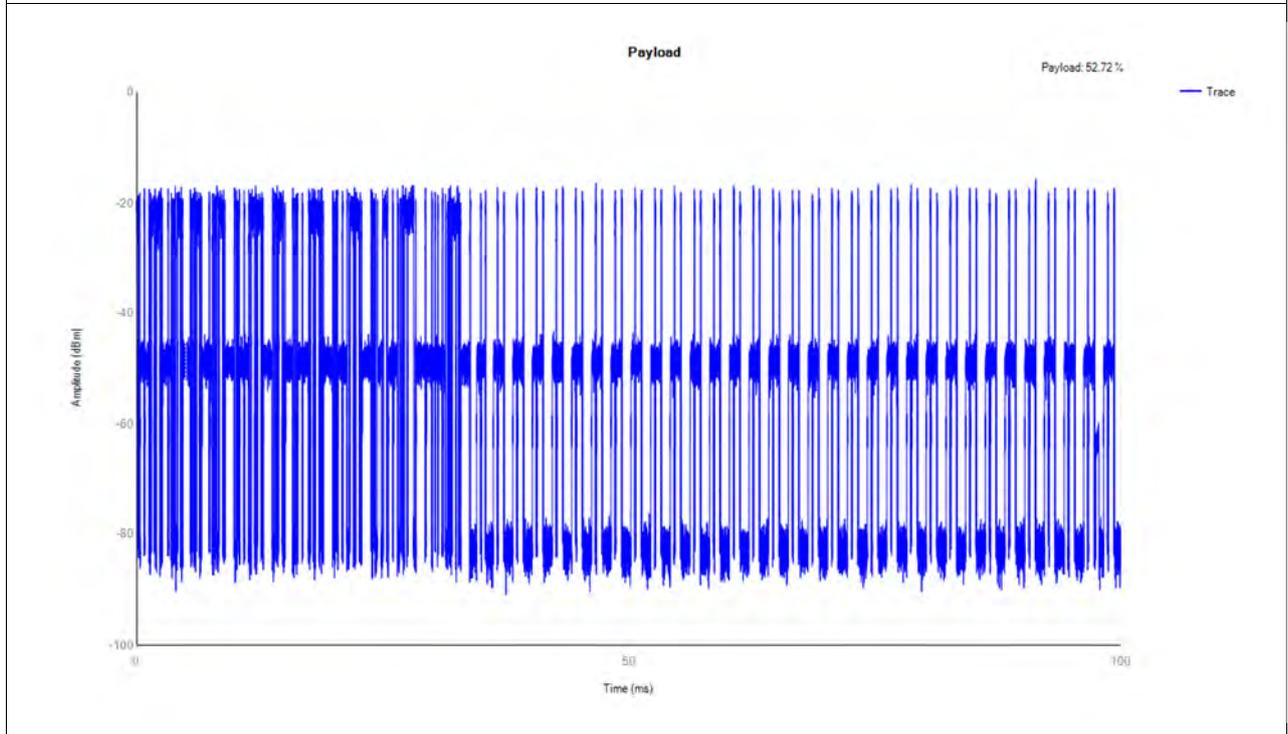
Mode	Frequency (MHz)	Result	Verdict	SISO
n20	5260	45.12	Pass	SISO
n20	5500	52.72	Pass	SISO
n40	5270	46.79	Pass	SISO
n40	5510	41.85	Pass	SISO

Test Graphs

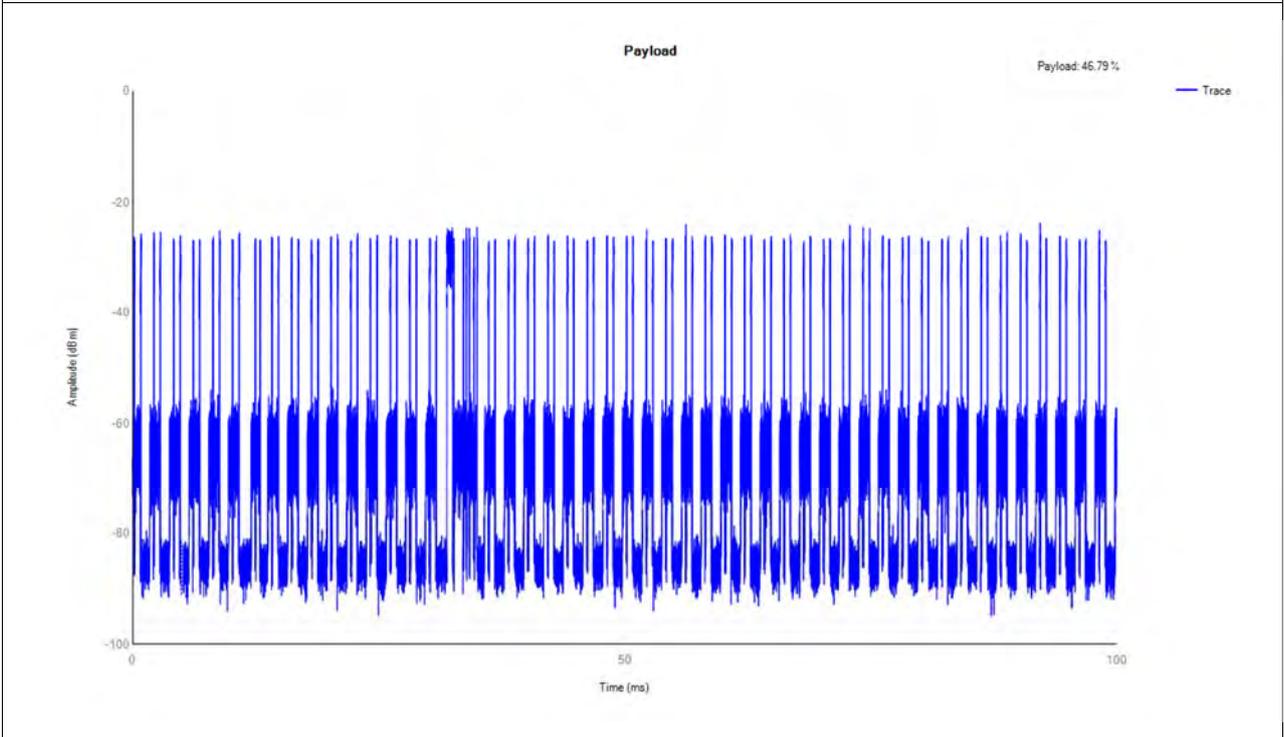
n20 5260MHz Payload



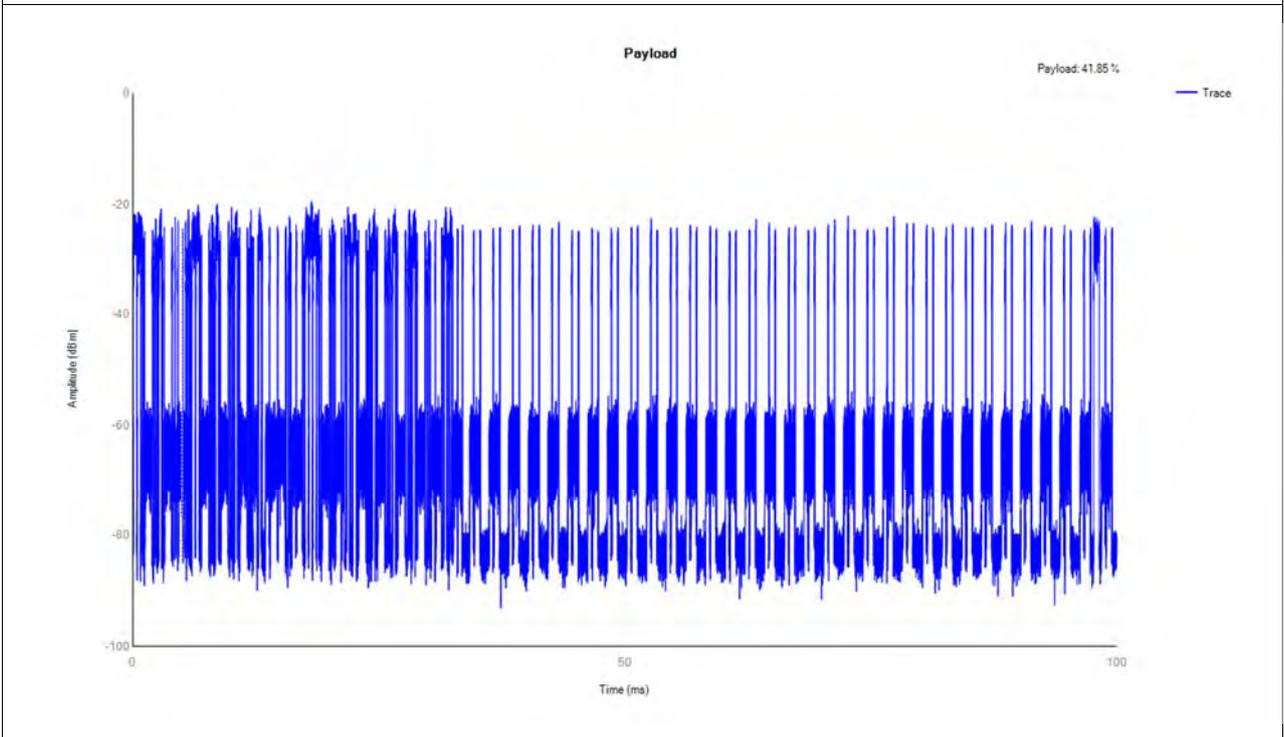
n20 5500MHz Payload



n40 5270MHz Payload



n40 5510MHz Payload





Detection Thresholds

Mode	Frequency (MHz)	Type	Result	Verdict	SISO
n20	5260	DFS_FCC_T0	See test Graph	Pass	SISO
n20	5500	DFS_FCC_T0	See test Graph	Pass	SISO
n40	5270	DFS_FCC_T0	See test Graph	Pass	SISO
n40	5510	DFS_FCC_T0	See test Graph	Pass	SISO

Spectrum analyzer settings:

Span: Zero

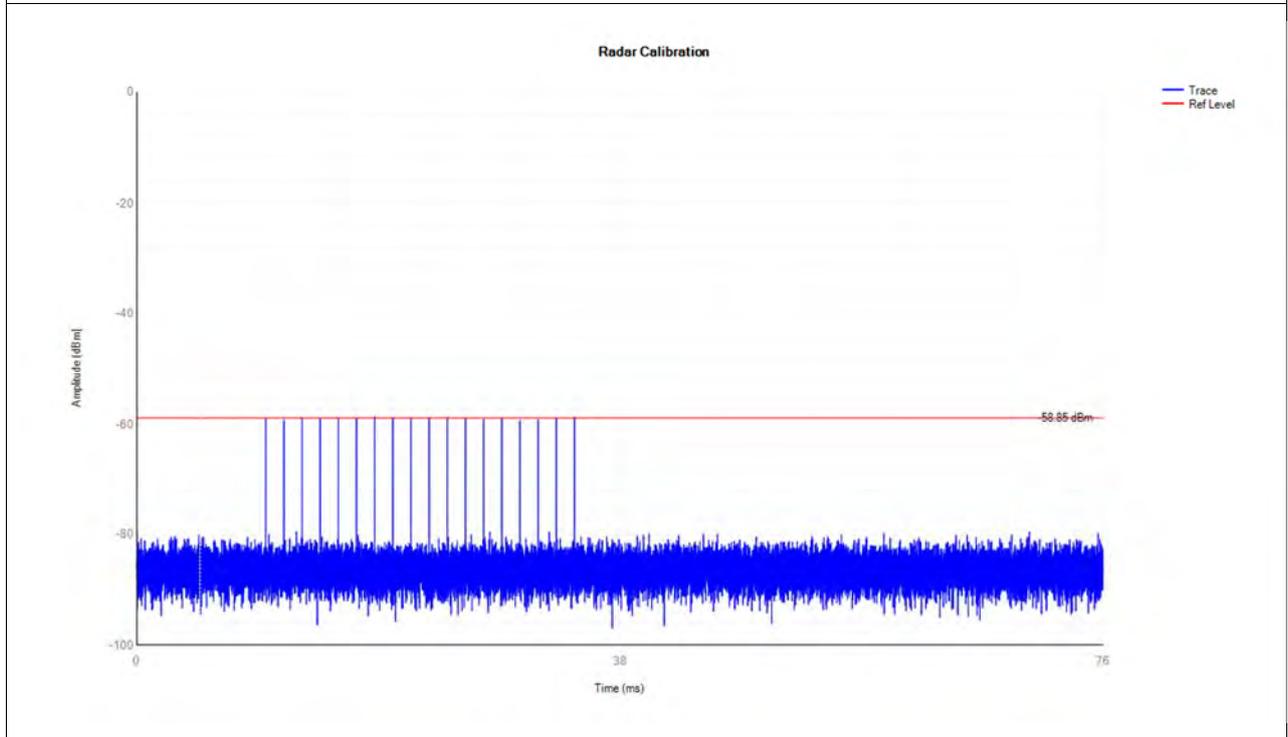
Detector Type: Peak

RBW: 3MHz

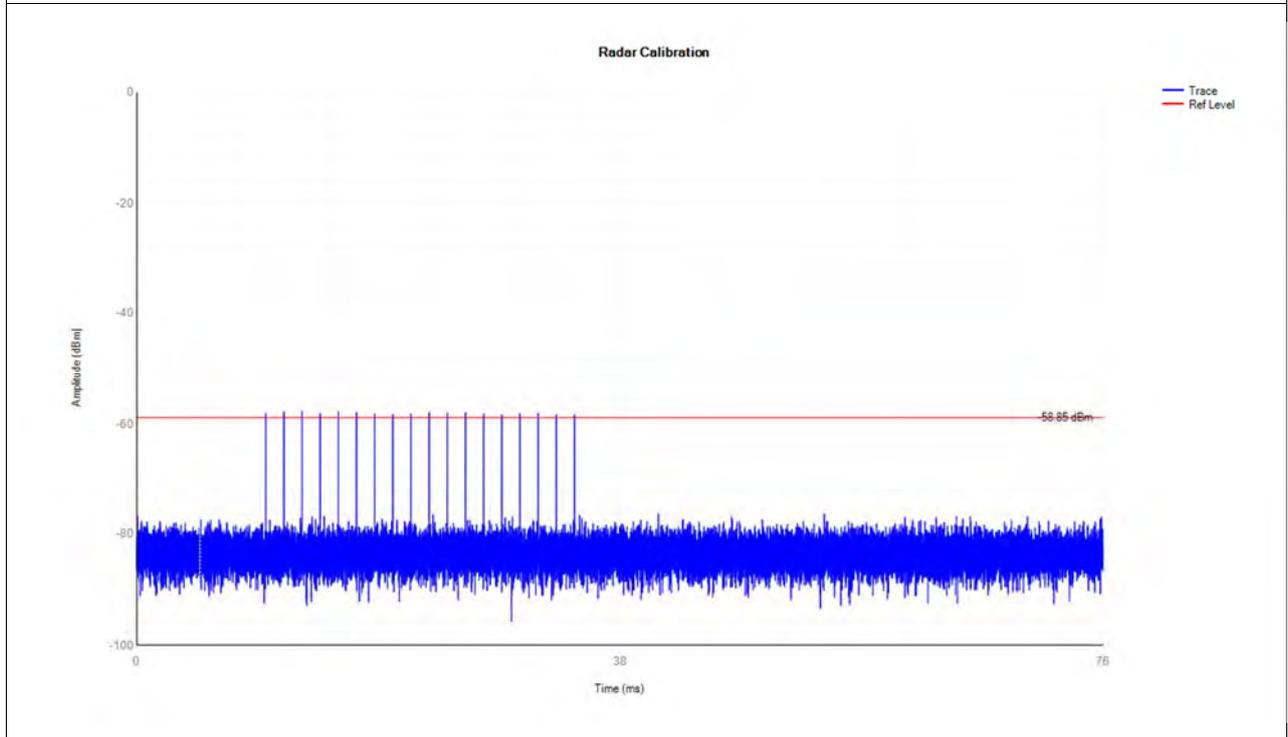
VBW: 3MHz

Test Graphs

5260MHz DFS_FCC_T0

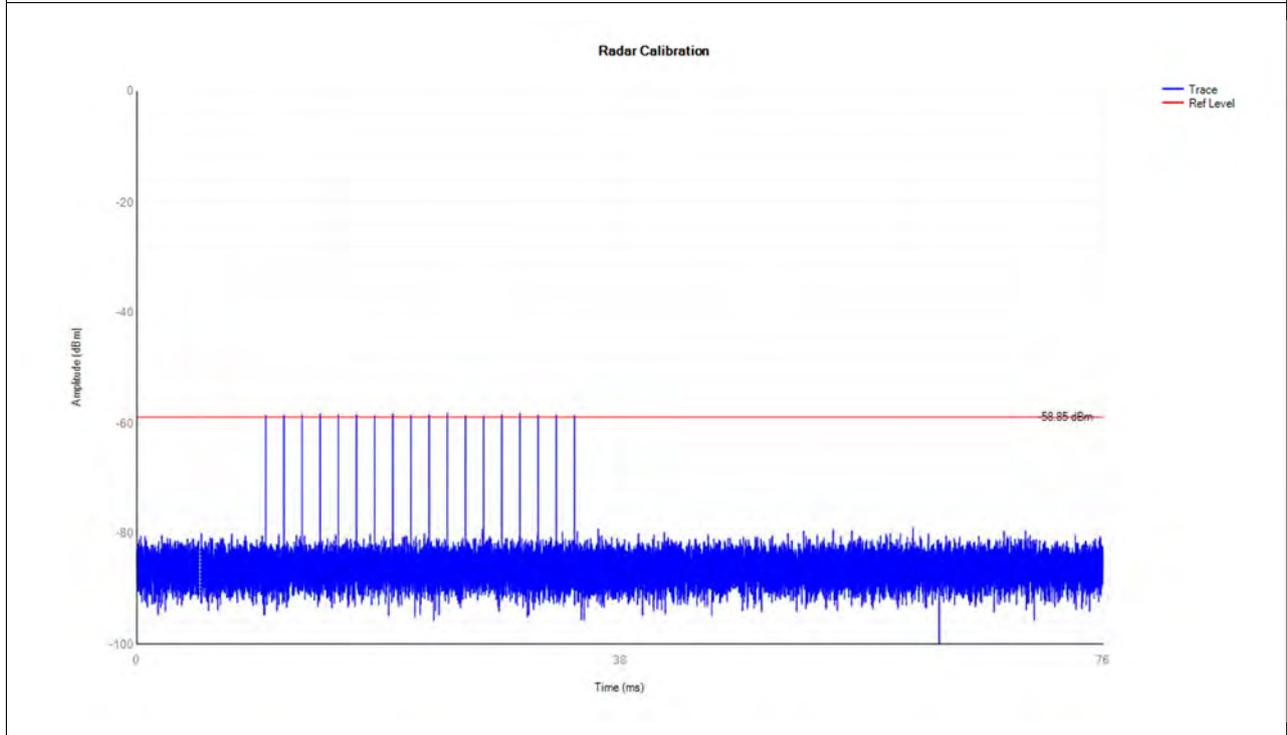


5500MHz DFS_FCC_T0

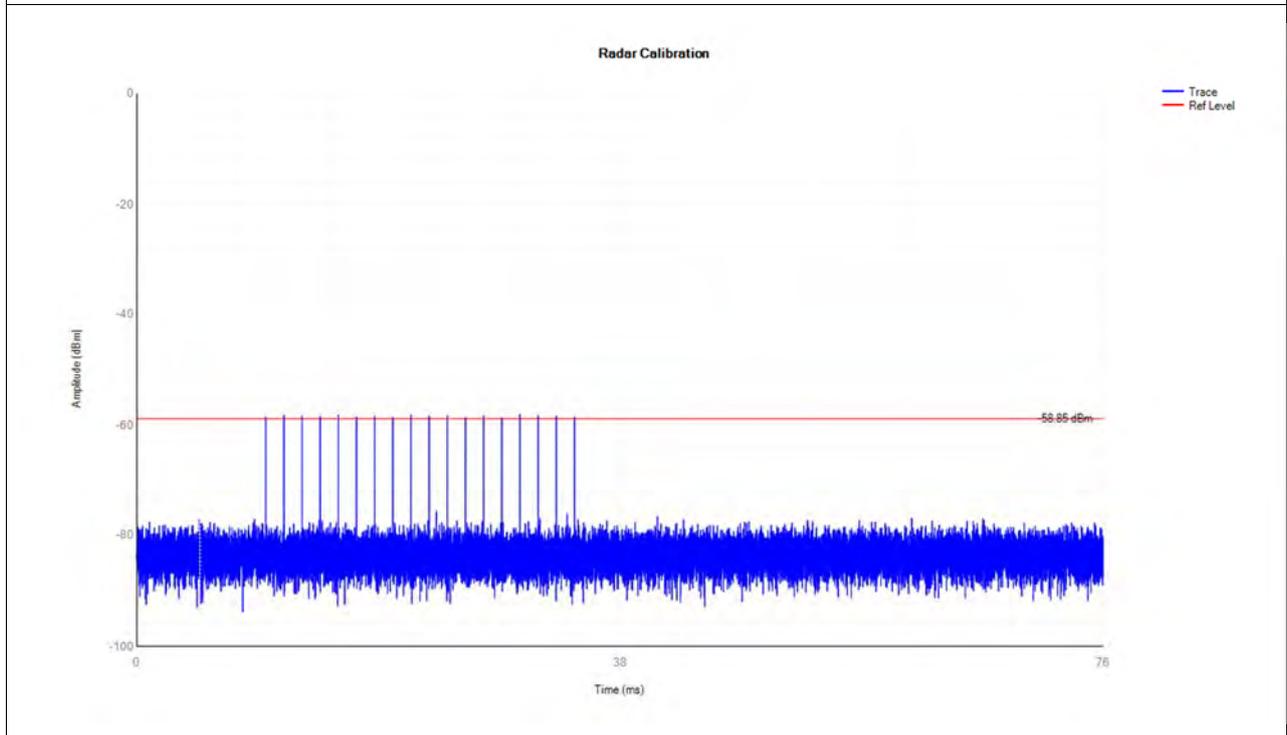




5270MHz DFS_FCC_T0



5510MHz 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	SISO
n20	5260	0.908	10	0.013	0.26	0.013	0.06	Pass	SISO
n20	5500	0.915	10	0.061	0.26	0.057	0.06	Pass	SISO
n40	5270	0.92	10	0.06	0.26	0.058	0.06	Pass	SISO
n40	5510	0.826	10	0.012	0.26	0.009	0.06	Pass	SISO

Spectrum analyzer settings:

Span: Zero

Detector type: Peak

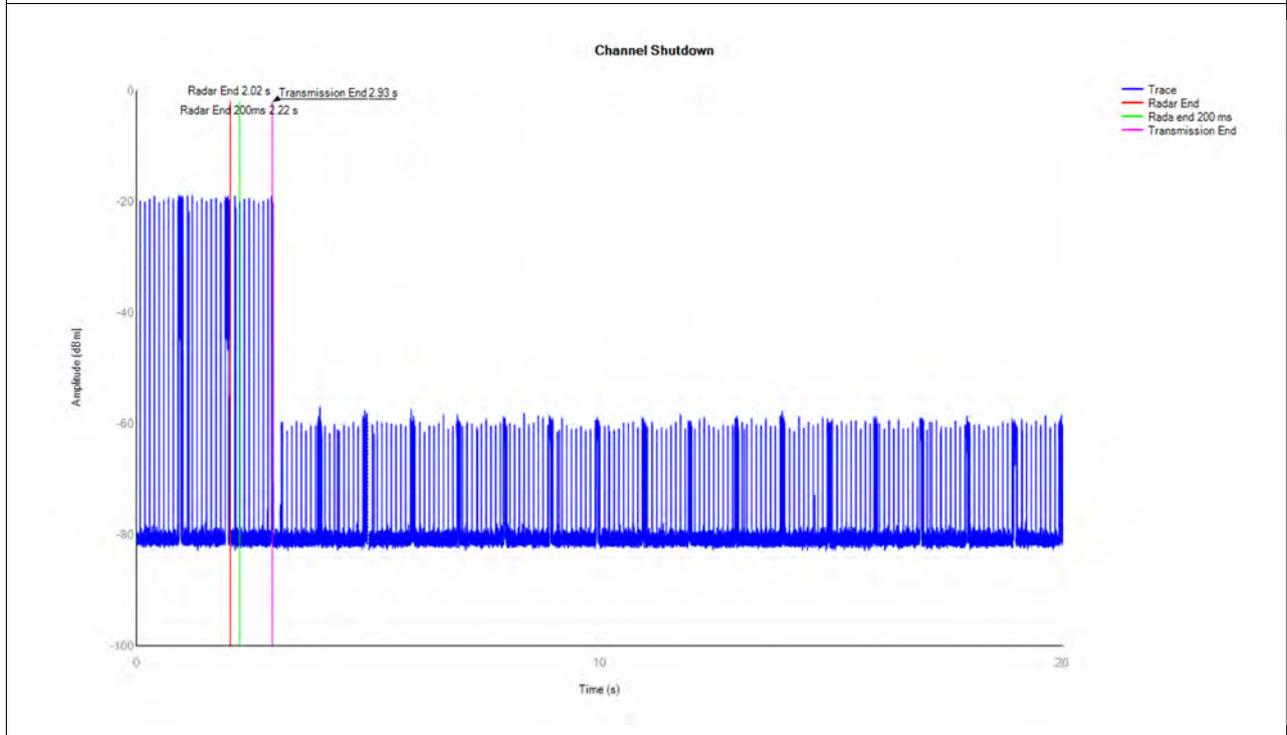
RBW: 3MHz

VBW: 3MHz

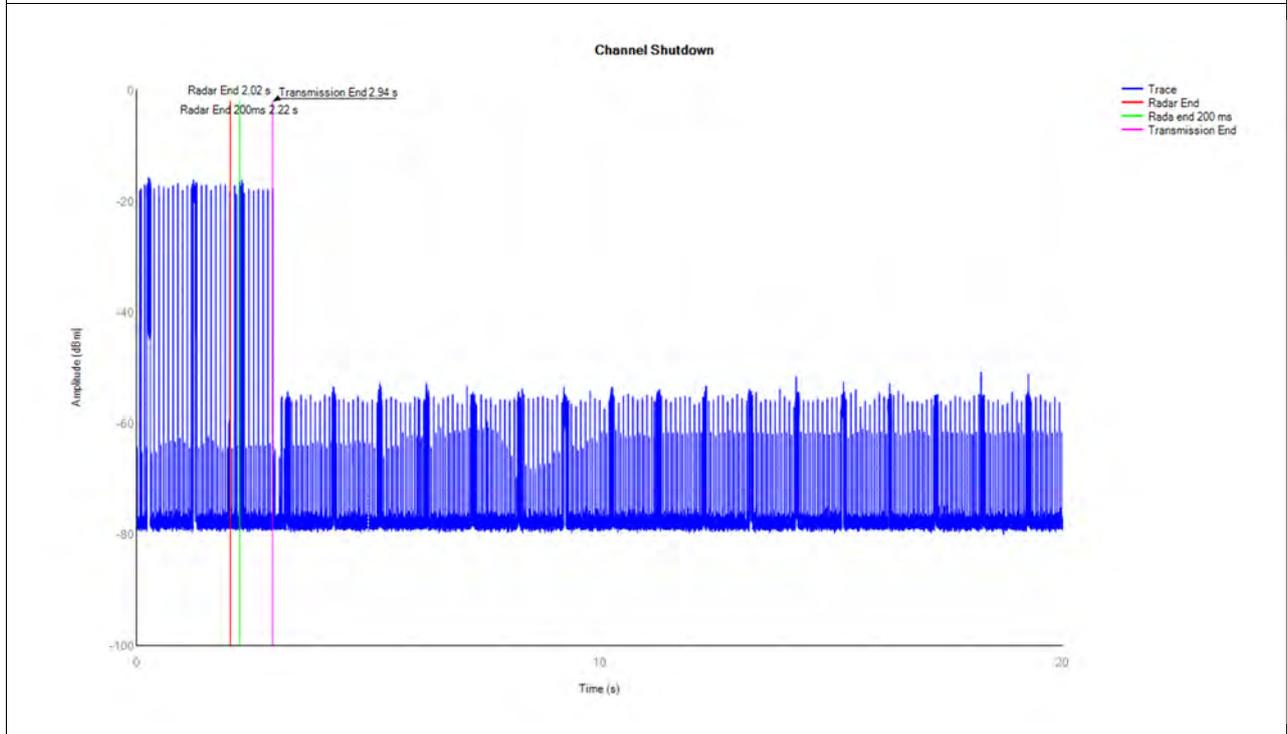
Sweep time: 20s

Test Graphs

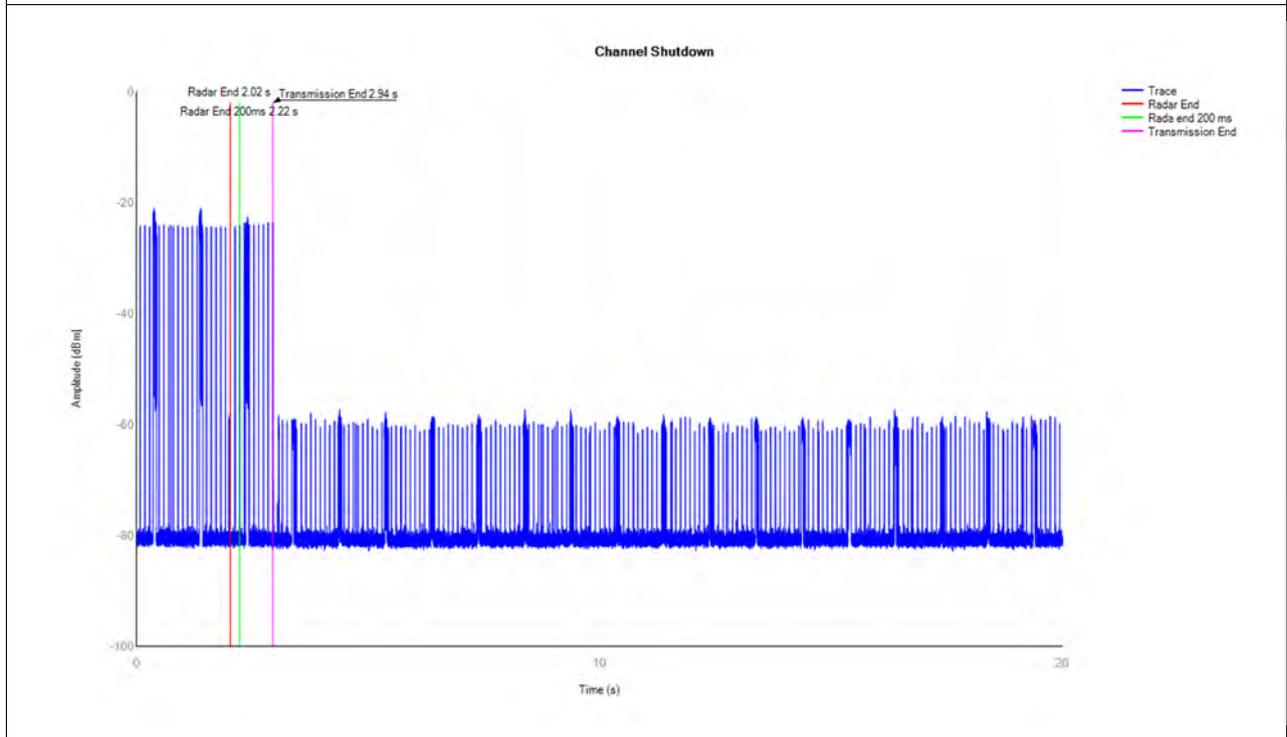
n20 5260MHz Shutdown



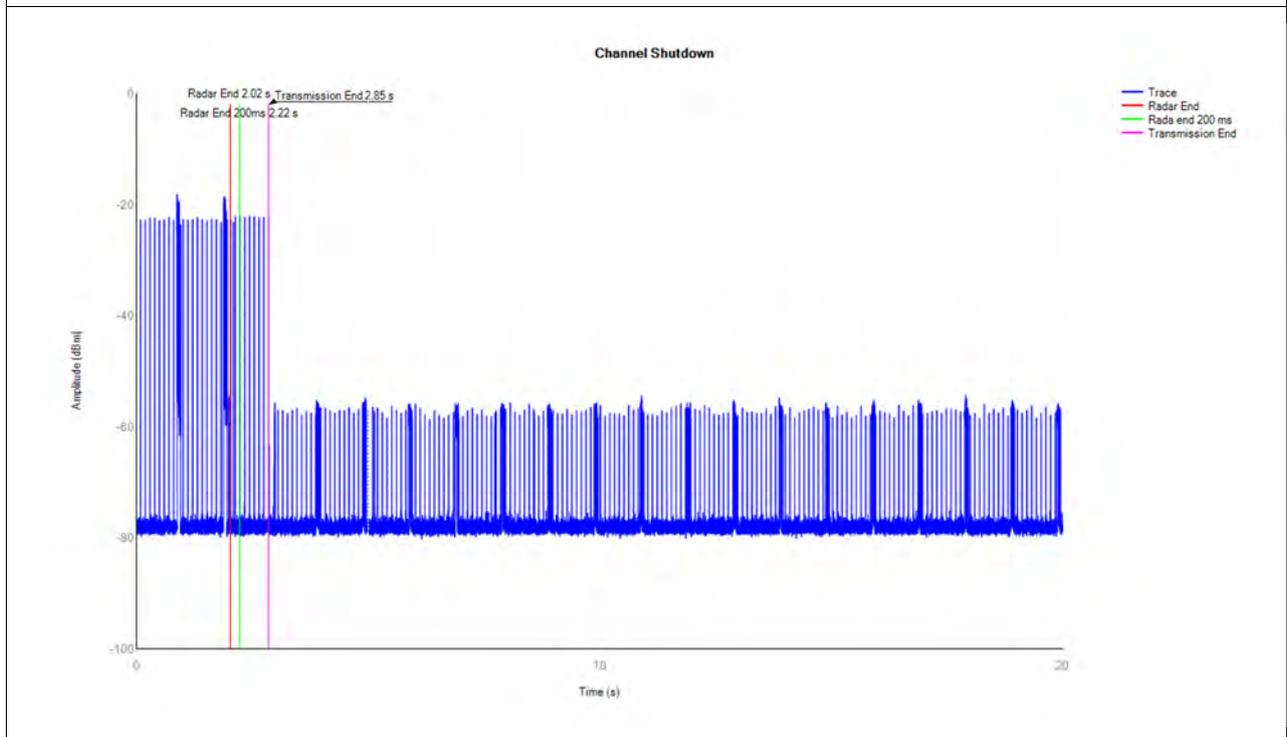
n20 5500MHz Shutdown



n40 5270MHz Shutdown



n40 5510MHz 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.



Non-Occupancy Period

Mode	Frequency (MHz)	Result	Verdict	SISO
n20	5260	See test Graph	Pass	SISO
n20	5500	See test Graph	Pass	SISO

Spectrum analyzer settings:

Span: Zero

Detector type: Peak

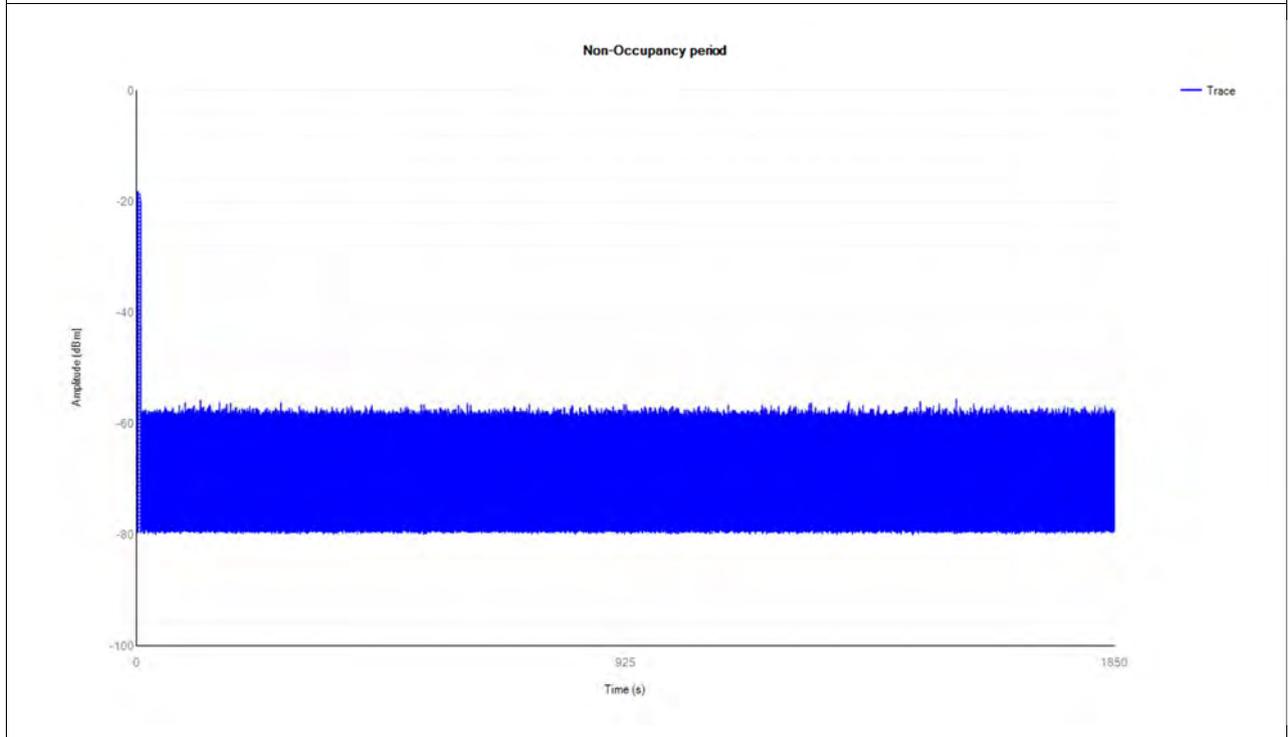
RBW: 3MHz

VBW: 3MHz

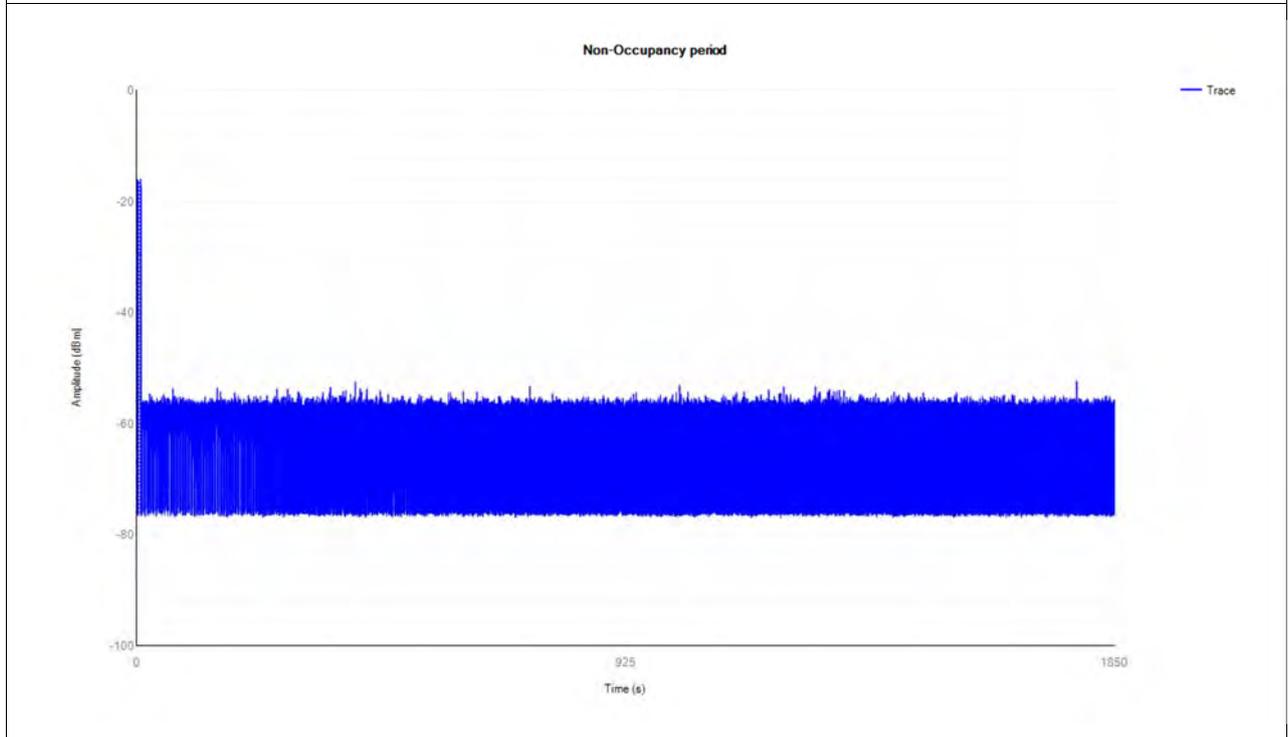
Sweep time: 1850s

Test Graphs

n20 5260MHz Non-Occupancy



n20 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+Serial port board+USB cable+ Serial port board +PC+PC Adaptor +WIFI TX

Test voltage: AC 120V/60Hz

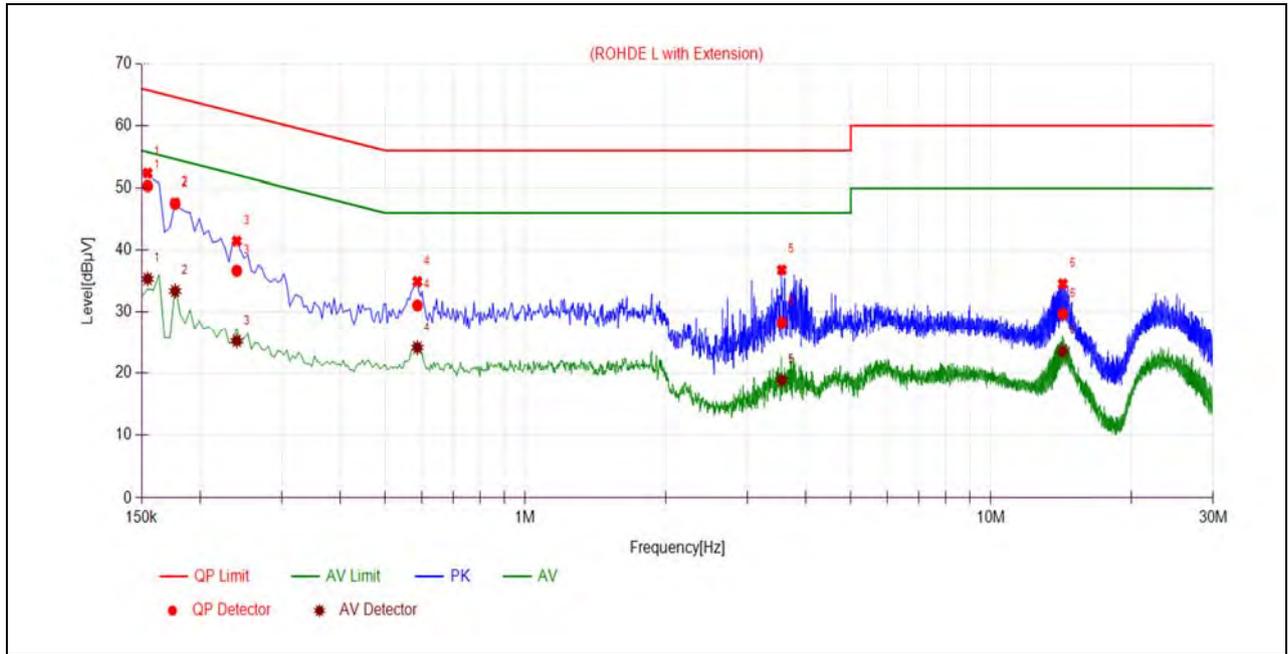
The measurement results are obtained as below:

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

U_R : Receiver Reading

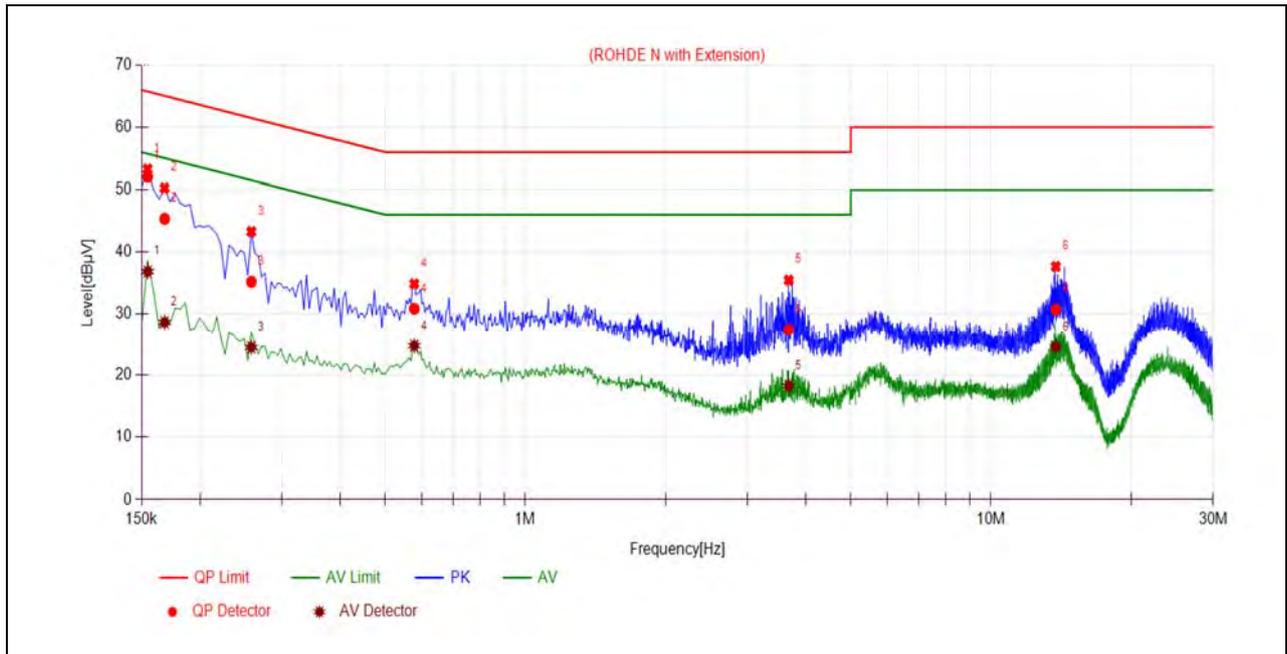
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1545	50.34	35.36	65.75	55.75	Line	PASS
2	0.1770	47.47	33.41	64.62	54.62		PASS
3	0.2400	36.68	25.20	62.10	52.10		PASS
4	0.5865	31.07	24.12	56.00	46.00		PASS
5	3.5562	28.27	18.89	56.00	46.00		PASS
6	14.2671	29.71	23.54	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	52.03	36.88	65.76	55.76	Neutral	PASS
2	0.1680	45.37	28.69	65.06	55.06		PASS
3	0.2580	35.23	24.52	61.50	51.50		PASS
4	0.5775	30.88	24.77	56.00	46.00		PASS
5	3.6777	27.44	18.27	56.00	46.00		PASS
6	13.7843	30.75	24.61	60.00	50.00		PASS

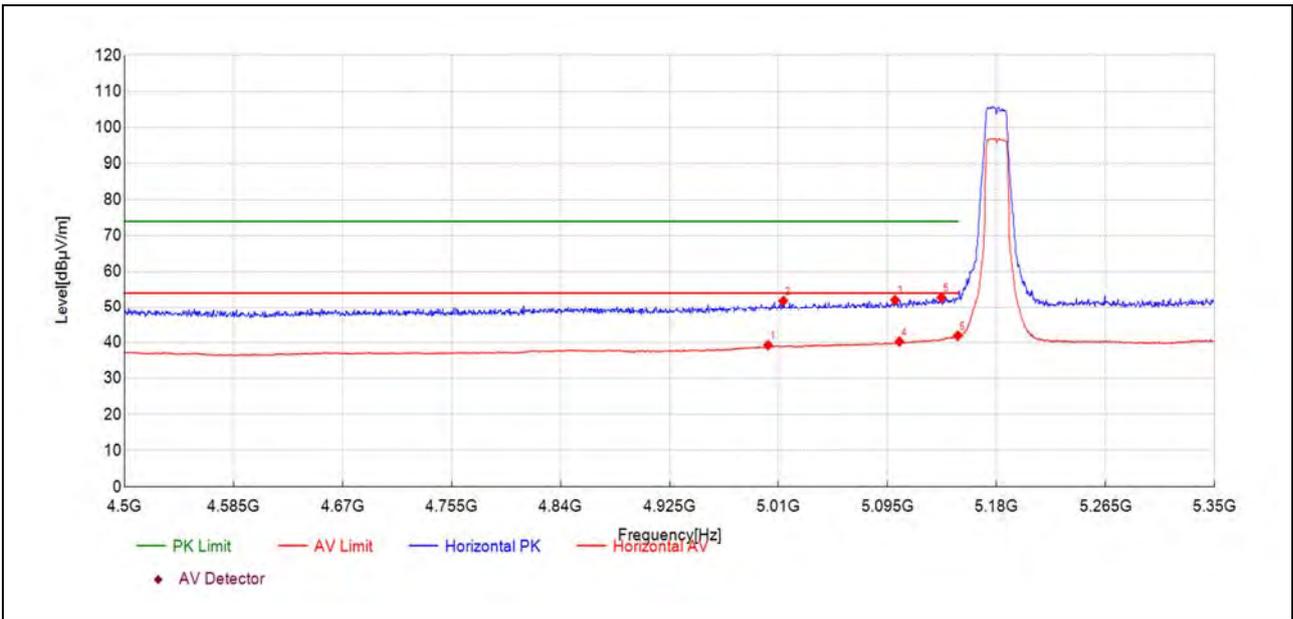
A.8. Restricted Frequency Bands

Note 1: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (Horizontal) 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.

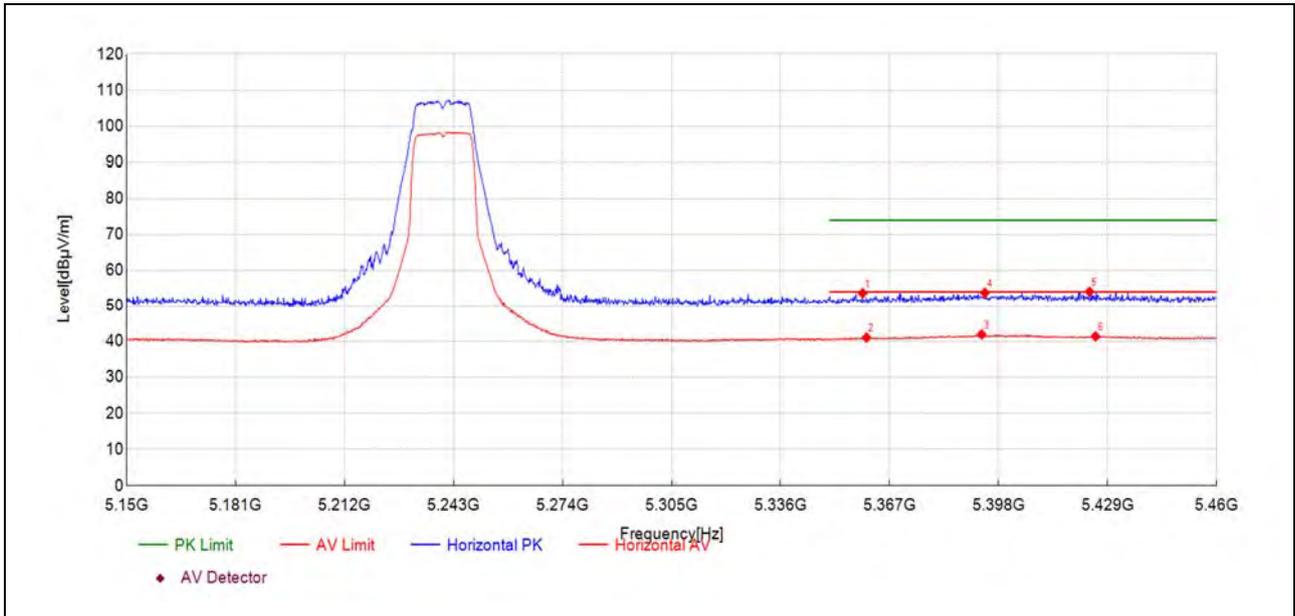
802.11a Mode

Plot for Channel 36



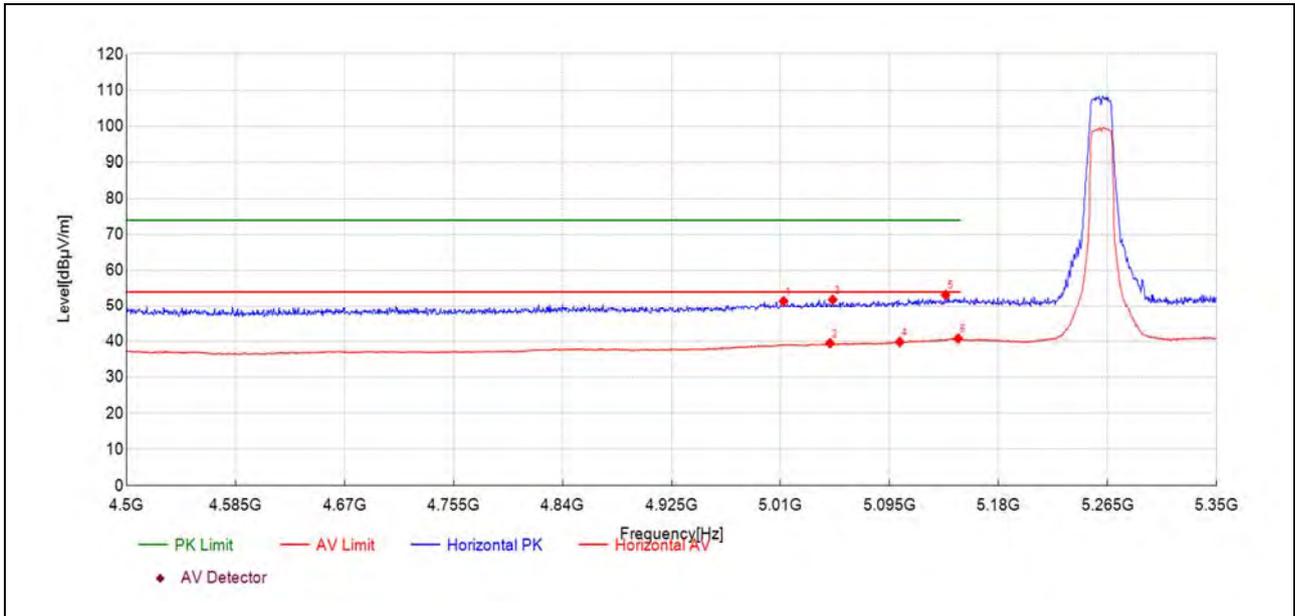
Fre. (MHz)	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
4935.02	39.6	59.60	19.960	74.00	14.40	110	PK	Horizontal	PASS
4965.03	27.0	46.87	19.840	54.00	7.13	290	AV	Horizontal	PASS
5030.27	38.6	58.70	20.070	74.00	15.30	140	PK	Horizontal	PASS
5083.09	26.6	47.02	20.410	54.00	6.98	260	AV	Horizontal	PASS
5147.92	47.0	67.31	20.320	74.00	6.69	230	PK	Horizontal	PASS
5149.52	29.5	49.86	20.320	54.00	4.14	170	AV	Horizontal	PASS

Plot for Channel 48



Fre. (MHz)	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5359.35	38.6	53.68	15.110	74.00	20.32	119	PK	Horizontal	PASS
5360.44	25.9	41.07	15.130	54.00	12.93	77	AV	Horizontal	PASS
5393.16	26.4	41.96	15.580	54.00	12.04	105	AV	Horizontal	PASS
5394.09	38.2	53.80	15.600	74.00	20.20	134	PK	Horizontal	PASS
5423.87	38.7	54.09	15.390	74.00	19.91	119	PK	Horizontal	PASS
5425.57	26.0	41.40	15.370	54.00	12.60	124	AV	Horizontal	PASS

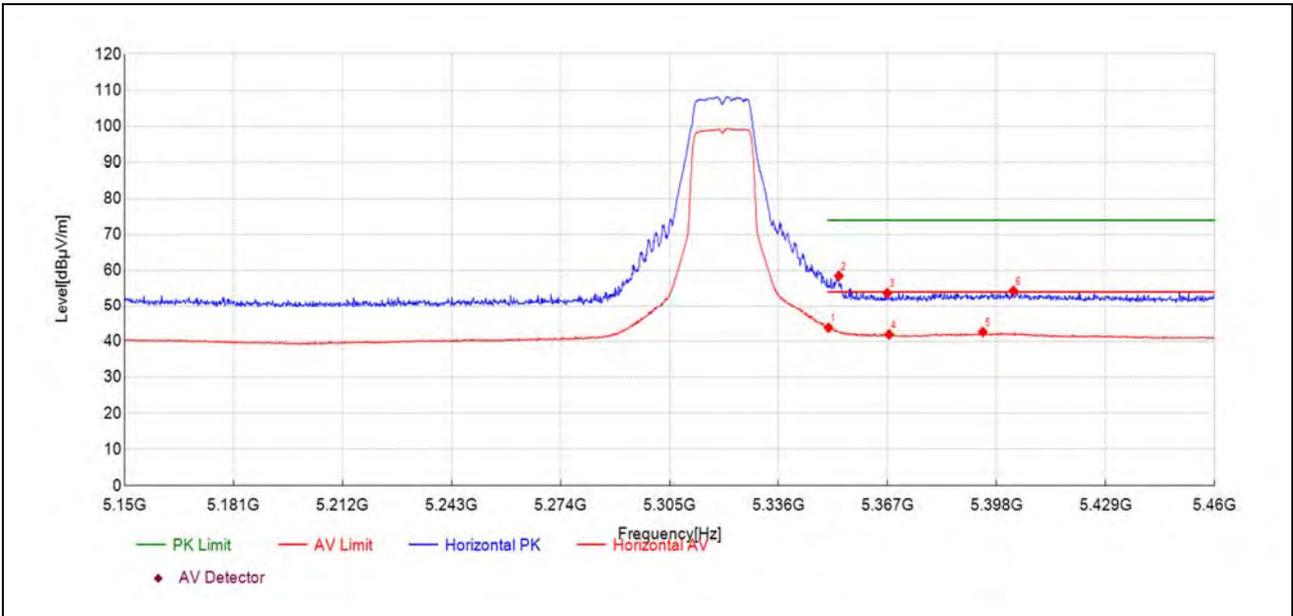
Plot for Channel 52



Fre. (MHz)	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5012.38	38.4	51.47	13.100	74.00	22.53	57	PK	Horizontal	PASS
5048.52	26.1	39.50	13.420	54.00	14.50	96	AV	Horizontal	PASS
5050.65	38.4	51.88	13.440	74.00	22.12	100	PK	Horizontal	PASS
5102.95	26.1	39.86	13.730	54.00	14.14	71	AV	Horizontal	PASS
5138.67	38.8	53.22	14.390	74.00	20.78	110	PK	Horizontal	PASS
5148.45	26.2	40.79	14.560	54.00	13.21	76	AV	Horizontal	PASS

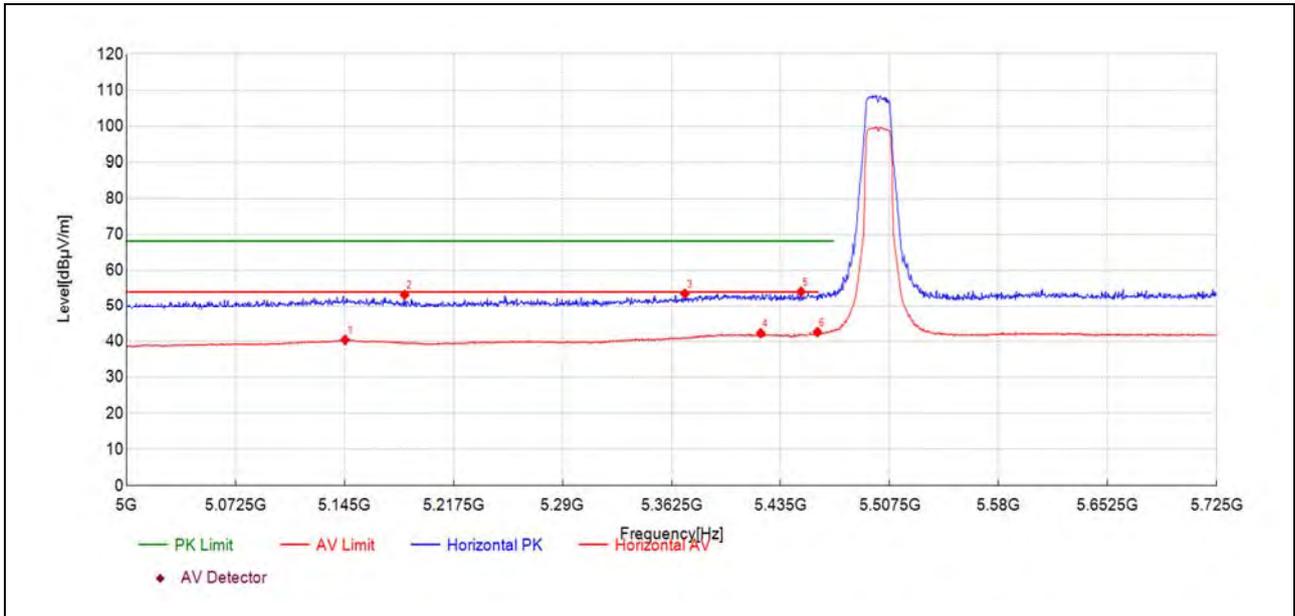


Plot for Channel 64



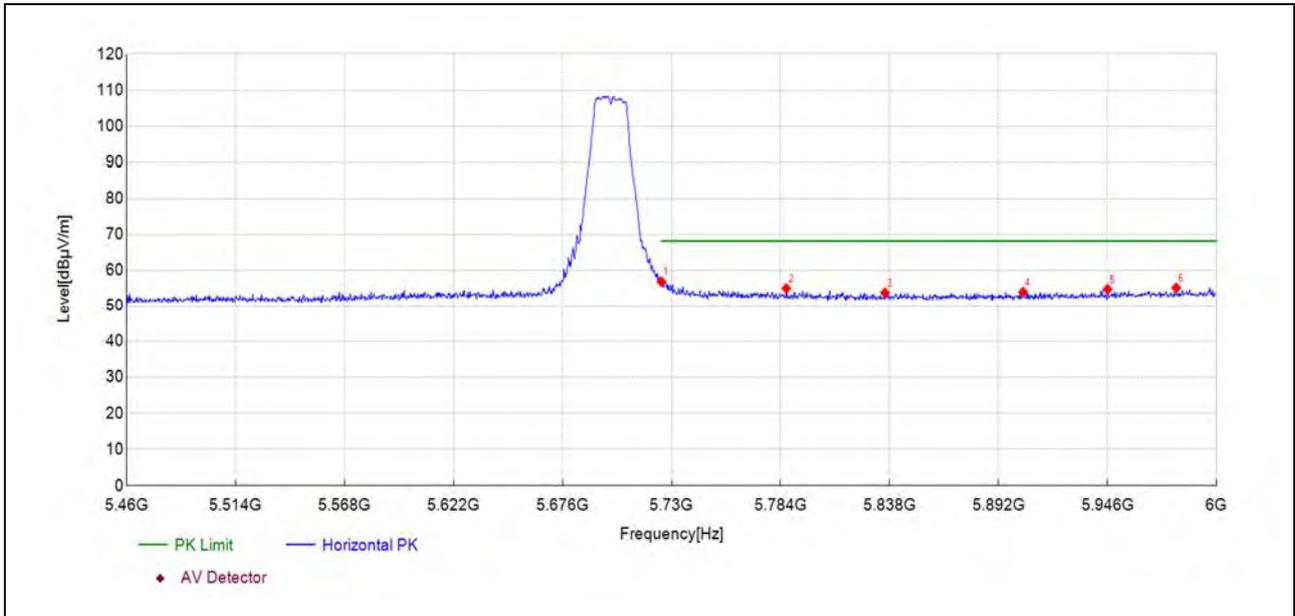
Fre. (MHz)	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5350.21	28.8	43.82	14.980	54.00	10.18	119	AV	Horizontal	PASS
5353.15	43.5	58.52	15.020	74.00	15.48	119	PK	Horizontal	PASS
5366.95	38.5	53.72	15.220	74.00	20.28	133	PK	Horizontal	PASS
5367.42	26.7	41.94	15.220	54.00	12.06	119	AV	Horizontal	PASS
5394.09	27.0	42.64	15.600	54.00	11.36	119	AV	Horizontal	PASS
5402.78	38.7	54.34	15.650	74.00	19.66	147	PK	Horizontal	PASS

Plot for Channel 100



Fre. (MHz)	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5145.44	25.9	40.43	14.510	54.00	13.57	126	AV	Horizontal	PASS
5184.97	39.3	53.23	13.900	68.23	15.00	335	PK	Horizontal	PASS
5371.39	38.3	53.56	15.280	68.23	14.67	145	PK	Horizontal	PASS
5421.80	26.9	42.27	15.410	54.00	11.73	112	AV	Horizontal	PASS
5448.64	39.0	54.12	15.080	68.23	14.11	74	PK	Horizontal	PASS
5459.52	27.5	42.61	15.110	54.00	11.39	112	AV	Horizontal	PASS

Plot for Channel 140

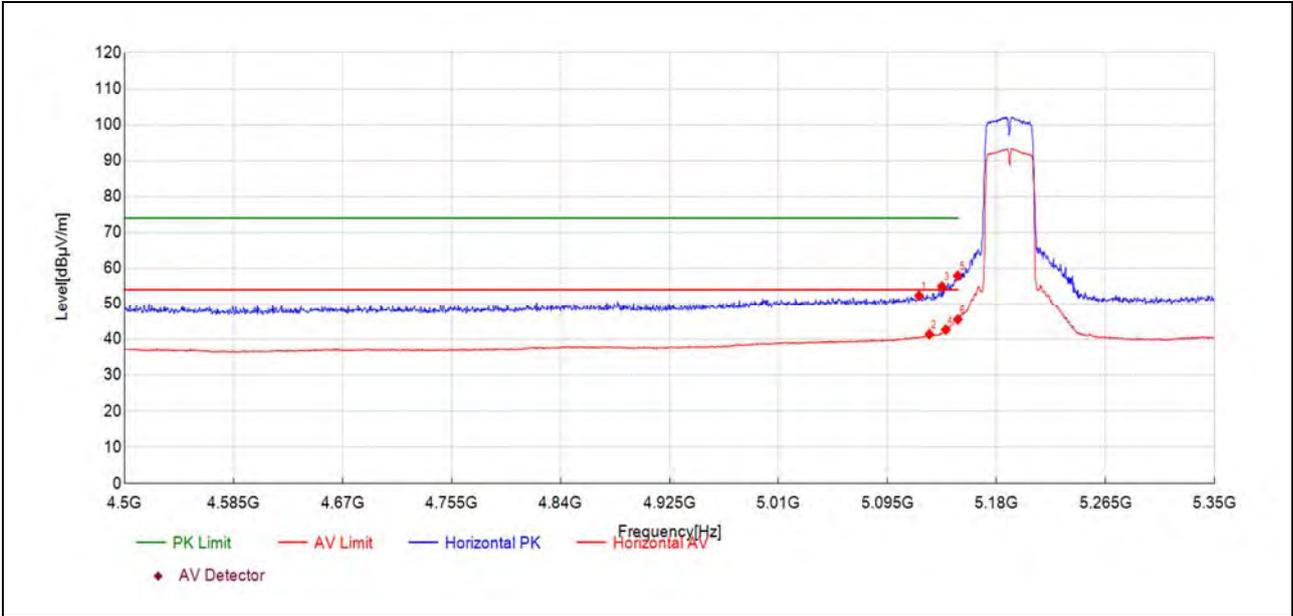


Fre. (MHz)	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5725.00	40.7	56.90	16.250	68.23	11.33	93	PK	Horizontal	PASS
5786.86	39.0	55.02	16.070	68.23	13.21	64	PK	Horizontal	PASS
5835.76	37.8	53.80	15.980	68.23	14.43	76	PK	Horizontal	PASS
5904.10	37.8	54.02	16.180	68.23	14.21	157	PK	Horizontal	PASS
5945.97	38.3	54.80	16.520	68.23	13.43	245	PK	Horizontal	PASS
5980.01	38.3	55.17	16.910	68.23	13.06	76	PK	Horizontal	PASS



802.11n (HT40) Mode

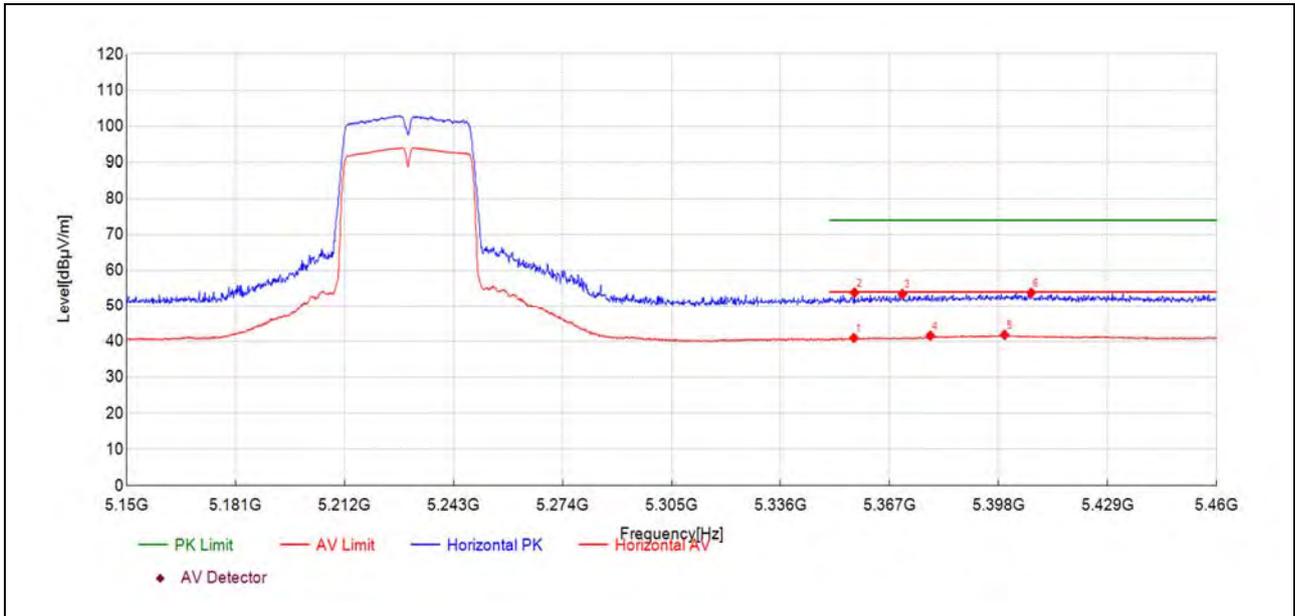
Plot for Channel 38



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5119.53	38.3	52.37	14.030	74.00	21.63	116	PK	Horizontal	PASS
5127.61	27.2	41.38	14.190	54.00	12.62	101	AV	Horizontal	PASS
5137.39	40.6	54.94	14.360	74.00	19.06	111	PK	Horizontal	PASS
5140.37	28.3	42.67	14.420	54.00	11.33	101	AV	Horizontal	PASS
5149.72	43.3	57.93	14.590	74.00	16.07	111	PK	Horizontal	PASS
5149.72	30.9	45.53	14.590	54.00	8.47	106	AV	Horizontal	PASS



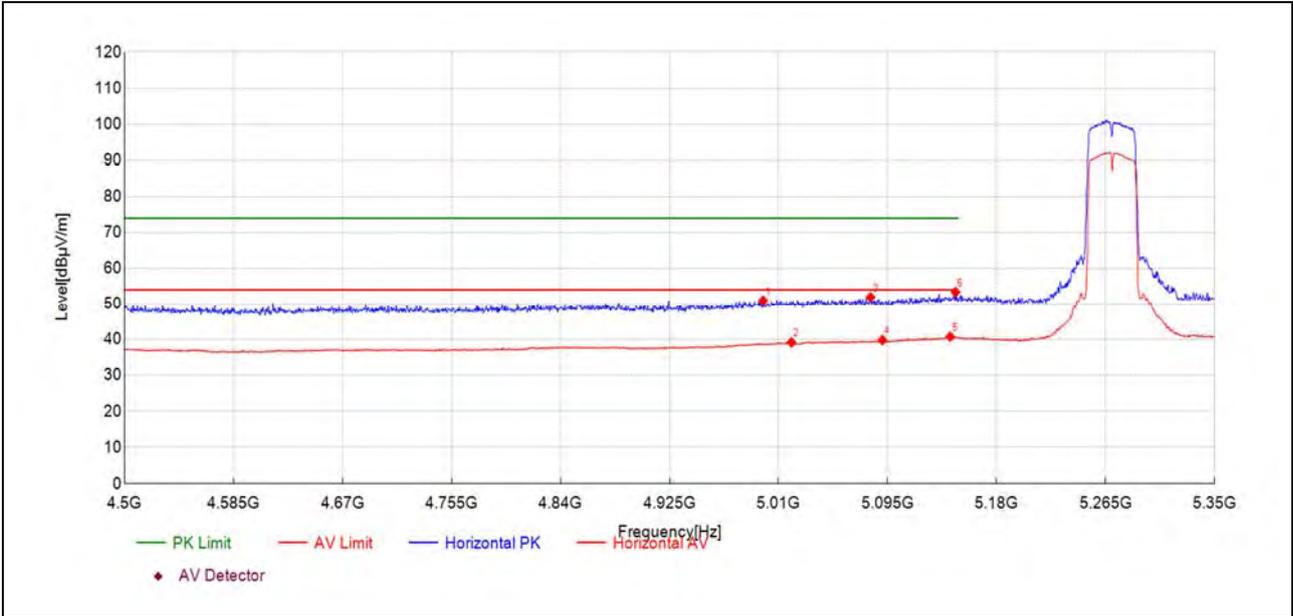
Plot for Channel 46



Fre. (MHz)	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5356.87	25.9	40.97	15.080	54.00	13.03	124	AV	Horizontal	PASS
5357.03	38.8	53.87	15.080	74.00	20.13	124	PK	Horizontal	PASS
5370.68	38.2	53.49	15.270	74.00	20.51	119	PK	Horizontal	PASS
5378.58	26.2	41.60	15.380	54.00	12.40	119	AV	Horizontal	PASS
5399.67	26.2	41.84	15.680	54.00	12.16	81	AV	Horizontal	PASS
5407.27	38.2	53.83	15.590	74.00	20.17	114	PK	Horizontal	PASS



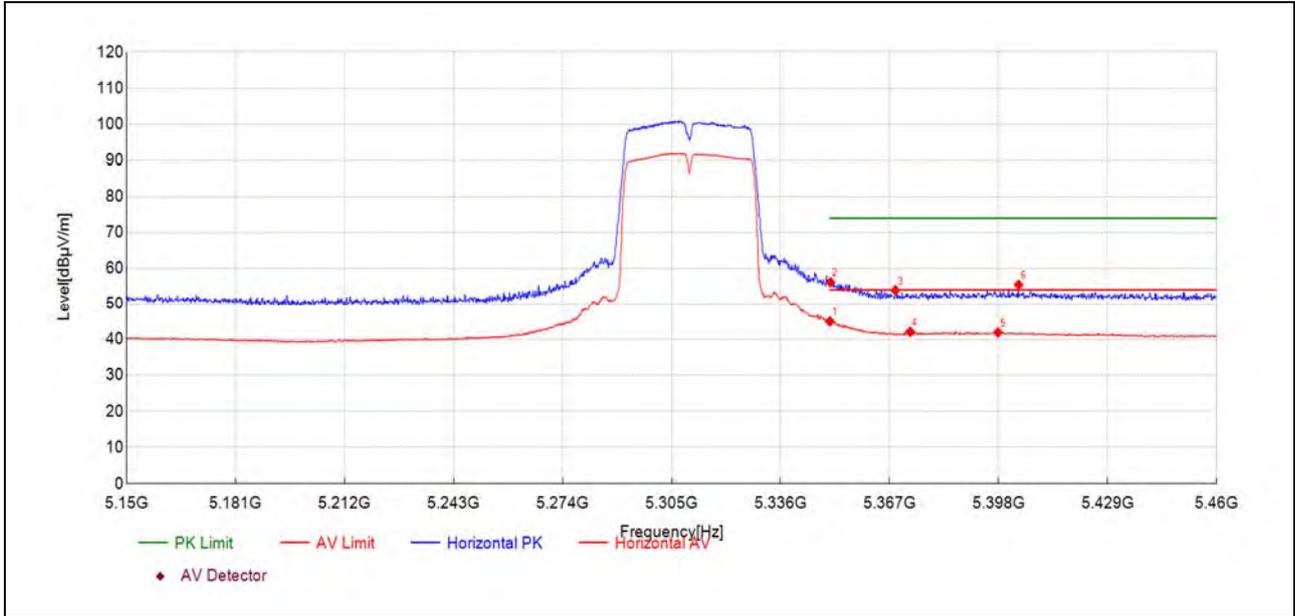
Plot for Channel 54



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
4997.92	38.0	51.00	12.960	74.00	23.00	69	PK	Horizontal	PASS
5020.04	26.0	39.15	13.170	54.00	14.85	88	AV	Horizontal	PASS
5081.69	38.4	51.98	13.590	74.00	22.02	149	PK	Horizontal	PASS
5091.05	26.2	39.81	13.630	54.00	14.19	140	AV	Horizontal	PASS
5143.77	26.3	40.77	14.480	54.00	13.23	97	AV	Horizontal	PASS
5148.02	38.9	53.42	14.550	74.00	20.58	50	PK	Horizontal	PASS



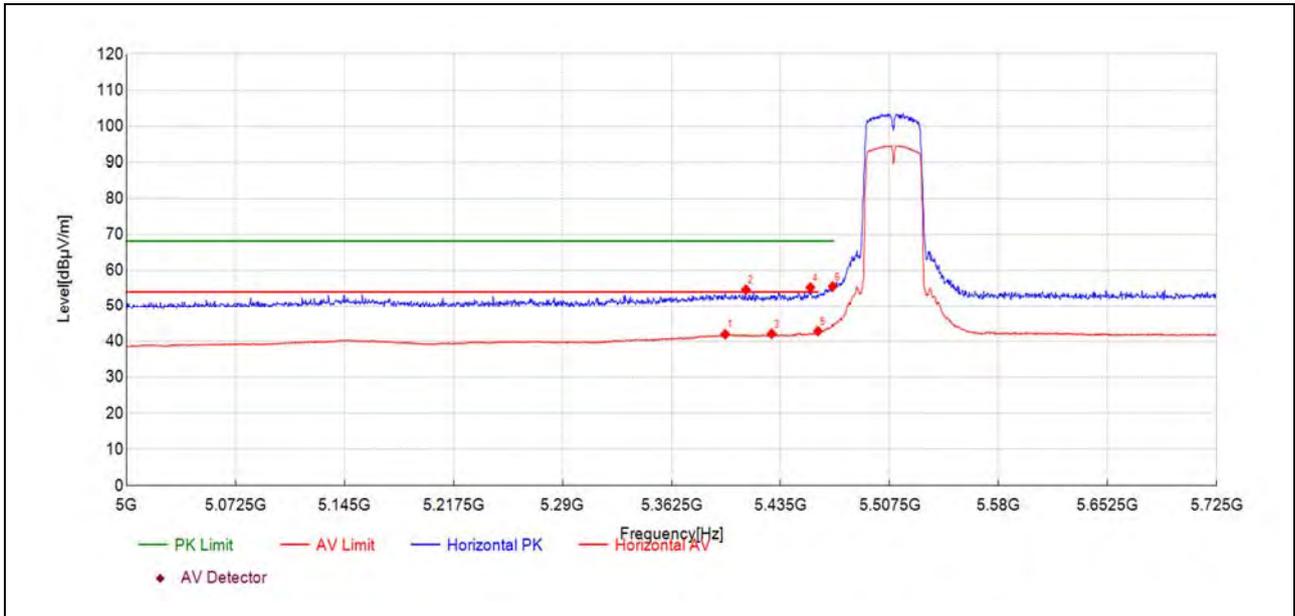
Plot for Channel 62



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5350.05	30.0	45.01	14.980	54.00	8.99	119	AV	Horizontal	PASS
5350.21	41.2	56.16	14.980	74.00	17.84	123	PK	Horizontal	PASS
5368.66	38.7	53.92	15.240	74.00	20.08	95	PK	Horizontal	PASS
5372.85	26.8	42.10	15.300	54.00	11.90	104	AV	Horizontal	PASS
5397.81	26.3	41.93	15.650	54.00	12.07	119	AV	Horizontal	PASS
5403.71	39.8	55.46	15.630	74.00	18.54	123	PK	Horizontal	PASS



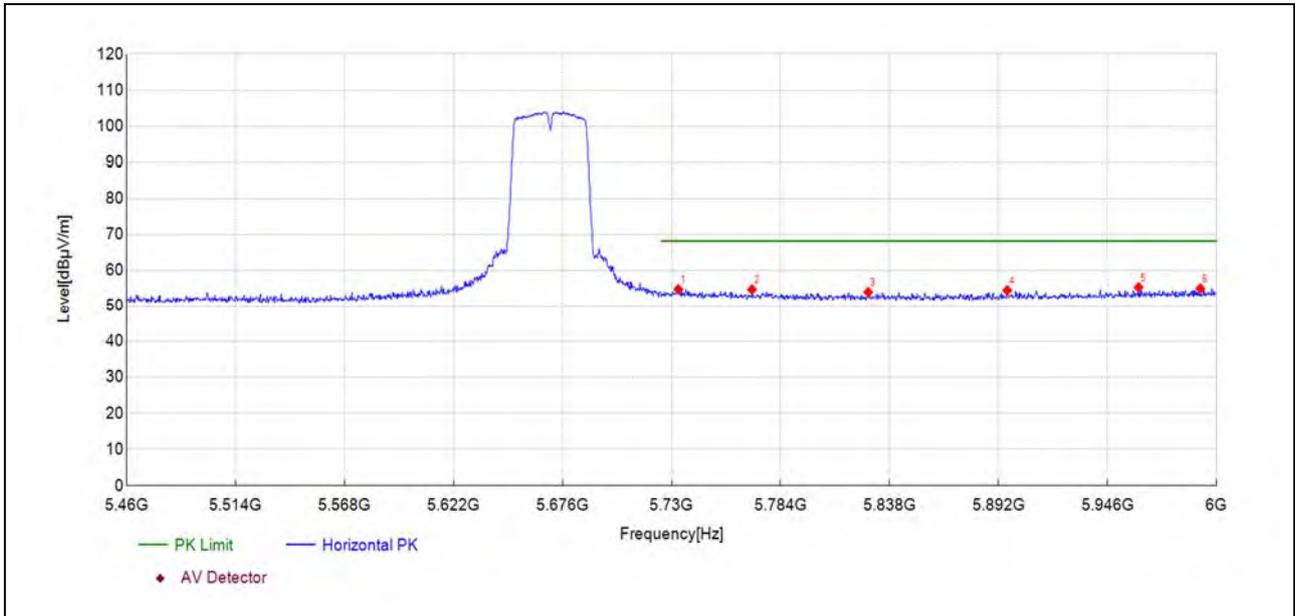
Plot for Channel 102



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5398.22	26.3	42.00	15.660	54.00	12.00	98	AV	Horizontal	PASS
5412.01	39.1	54.68	15.540	68.23	13.55	112	PK	Horizontal	PASS
5429.05	26.8	42.15	15.330	54.00	11.85	112	AV	Horizontal	PASS
5454.80	40.2	55.30	15.090	68.23	12.93	117	PK	Horizontal	PASS
5459.88	27.8	42.87	15.110	54.00	11.13	88	AV	Horizontal	PASS
5469.67	40.4	55.58	15.140	68.23	12.65	74	PK	Horizontal	PASS



Plot for Channel 134



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Polarity	Verdict
5733.38	38.5	54.77	16.260	68.23	13.46	107	PK	Horizontal	PASS
5769.84	38.5	54.71	16.170	68.23	13.52	60	PK	Horizontal	PASS
5827.38	38.0	53.97	15.980	68.23	14.26	336	PK	Horizontal	PASS
5896.27	38.4	54.49	16.140	68.23	13.74	77	PK	Horizontal	PASS
5961.37	38.6	55.32	16.680	68.23	12.91	205	PK	Horizontal	PASS
5991.90	37.9	54.97	17.050	68.23	13.26	94	PK	Horizontal	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.

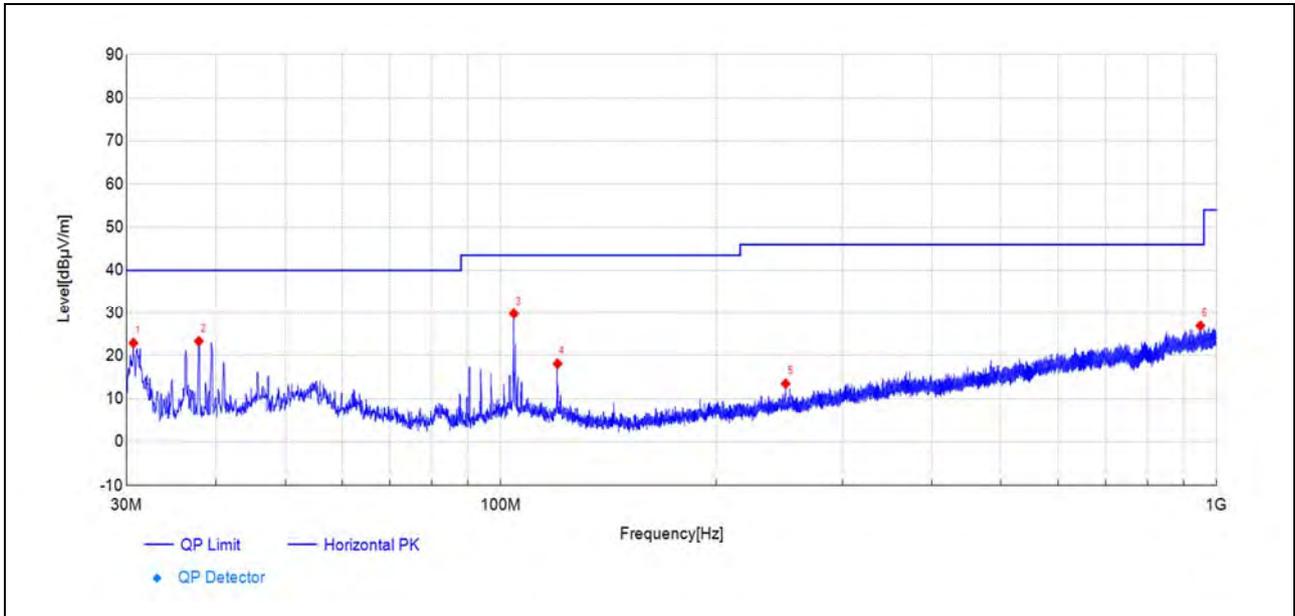
Note3: For the frequency, which started from 18GHz to 40GHz harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note4: All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.



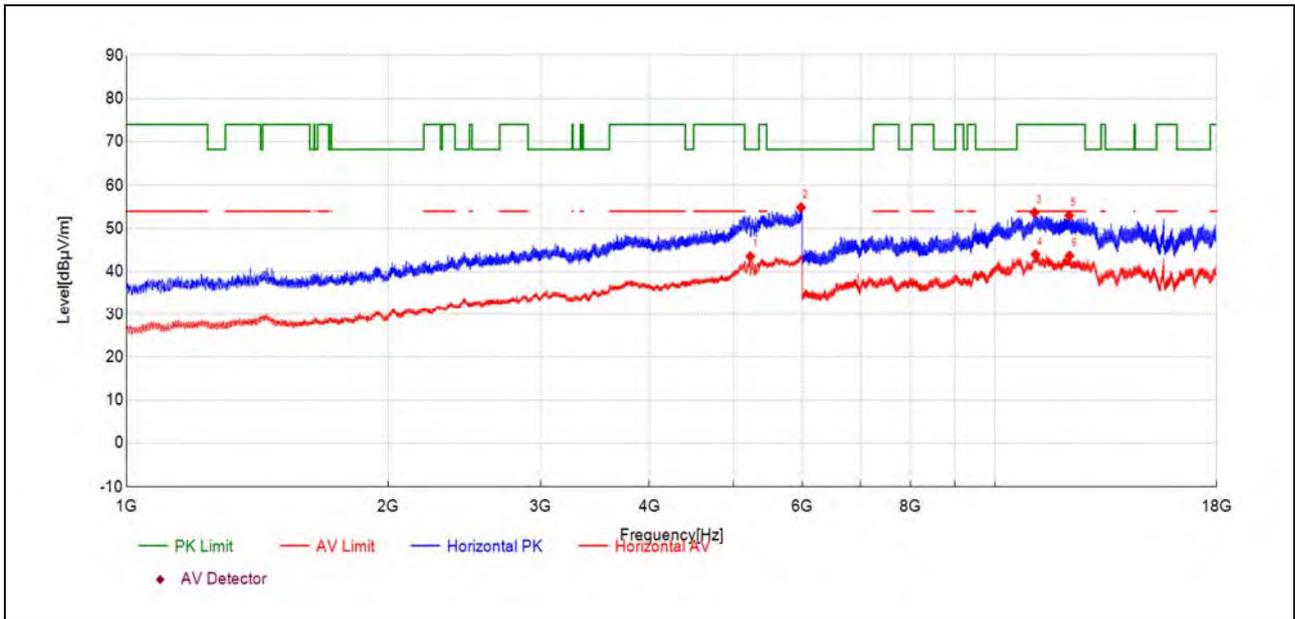
802.11a Mode

Plot for Channel 44



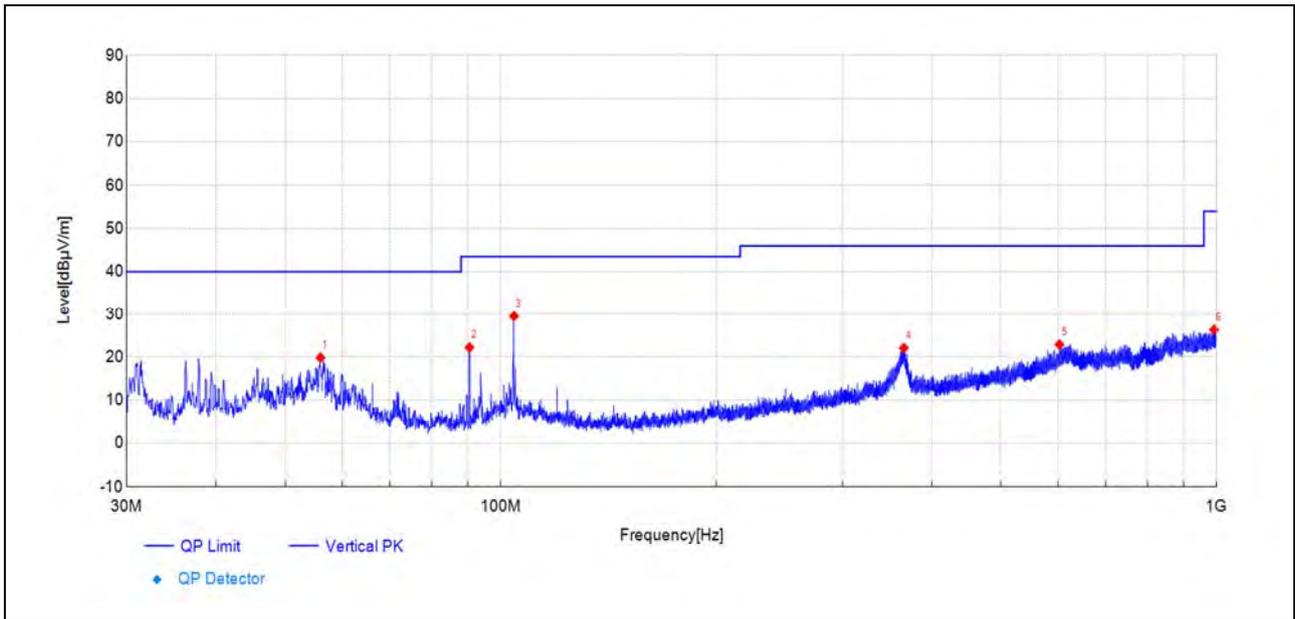
(Antenna Horizontal, 30MHz to 1GHz)

Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
30.68	53.7	22.92	-30.740	40.00	17.08	281	PK	PASS
37.86	52.9	23.34	-29.510	40.00	16.66	55	PK	PASS
104.31	59.3	29.76	-29.520	43.50	13.74	344	PK	PASS
120.02	48.6	18.11	-30.500	43.50	25.39	3	PK	PASS
250.01	41.0	13.49	-27.490	46.00	32.51	241	PK	PASS
948.98	37.9	26.93	-10.950	46.00	19.07	123	PK	PASS



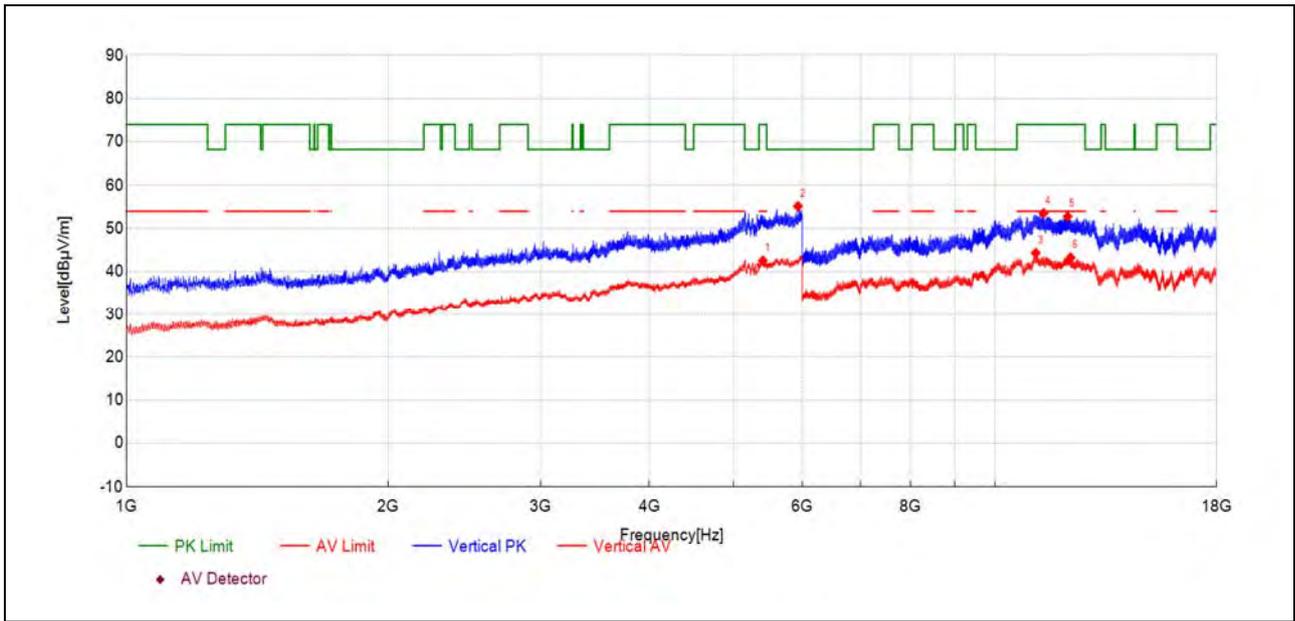
(Antenna Horizontal, 1GHz to 18GHz)

Frequency [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5228.11	27.0	43.52	16.520	-	-	83	AV	NA
5978.63	35.6	54.88	19.280	68.23	13.35	291	PK	PASS
11108.84	40.1	53.73	13.640	74.00	20.27	189	PK	PASS
11135.73	30.3	44.00	13.710	54.00	10.00	160	AV	PASS
12173.53	38.3	53.02	14.760	74.00	20.98	32	PK	PASS
12187.45	28.9	43.70	14.790	54.00	10.30	203	AV	PASS



(Antenna Vertical, 30MHz to 1GHz)

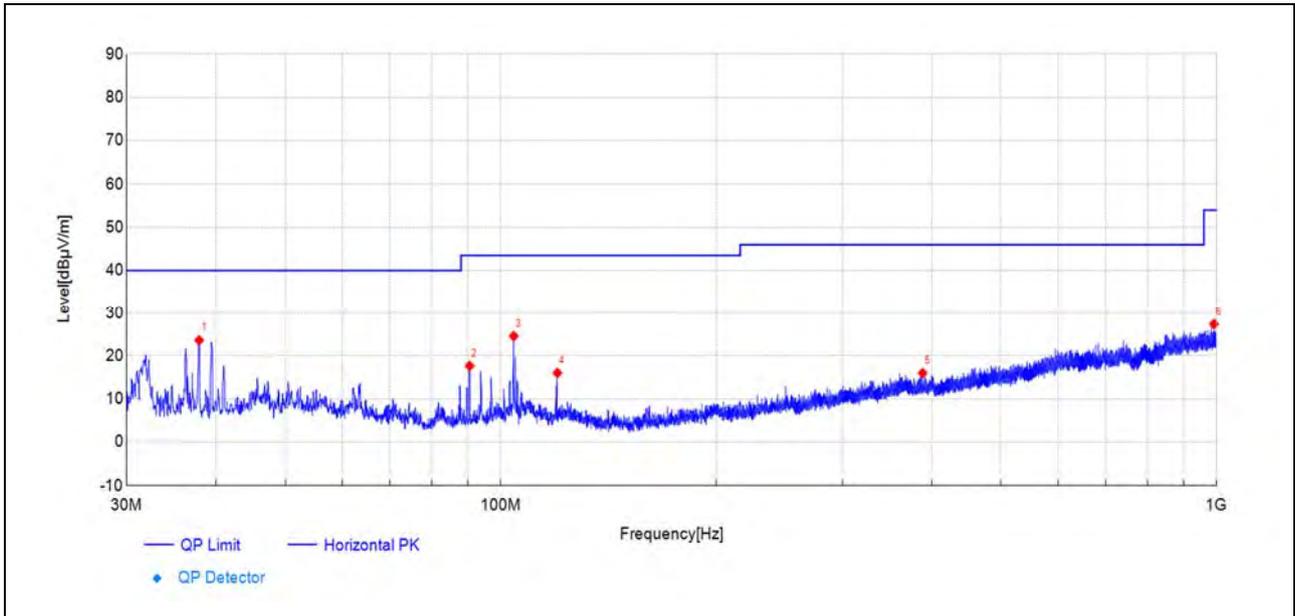
Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
56.00	47.9	19.81	-28.050	40.00	20.19	171	PK	PASS
90.43	53.7	22.19	-31.480	43.50	21.31	33	PK	PASS
104.35	59.0	29.48	-29.490	43.50	14.02	233	PK	PASS
365.64	45.4	22.05	-23.330	46.00	23.95	323	PK	PASS
603.25	39.9	22.89	-17.030	46.00	23.11	191	PK	PASS
991.75	36.8	26.34	-10.490	54.00	27.66	323	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

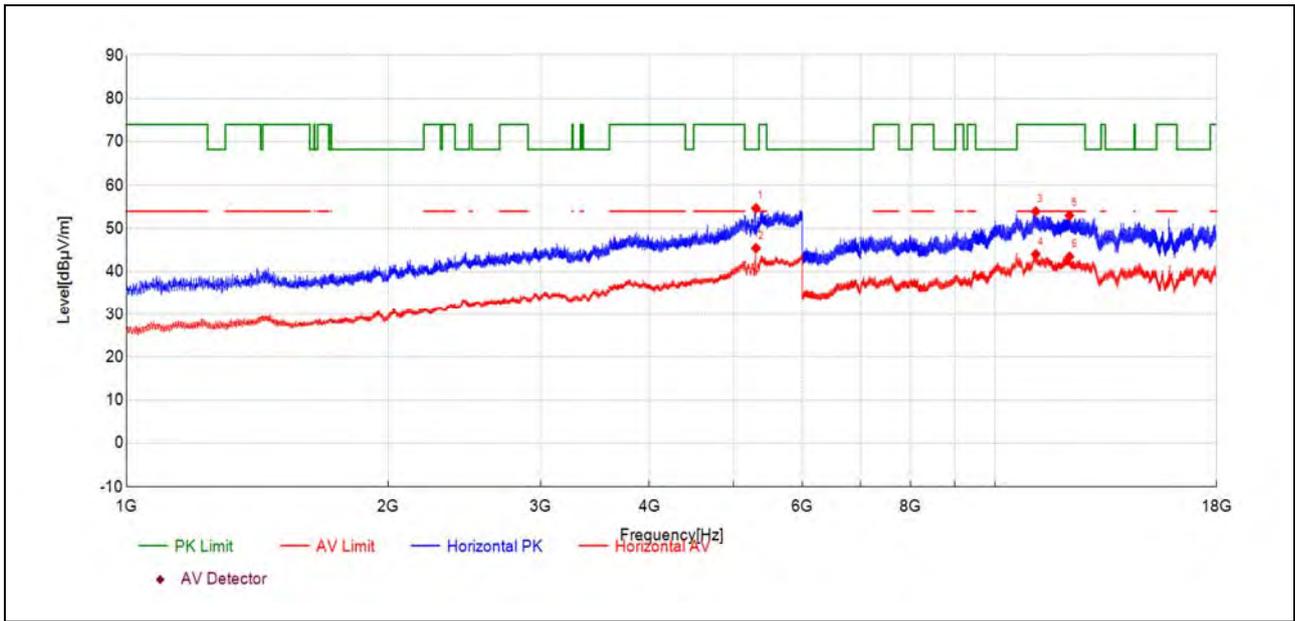
Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
5404.95	24.4	42.54	18.120	54.00	11.46	320	AV	PASS
5931.81	36.5	55.19	18.700	68.23	13.04	262	PK	PASS
11141.01	30.6	44.34	13.730	54.00	9.66	5	AV	PASS
11376.70	39.7	53.56	13.880	74.00	20.44	348	PK	PASS
12123.60	38.2	52.82	14.650	74.00	21.18	247	PK	PASS
12221.53	28.6	43.27	14.710	54.00	10.73	204	AV	PASS

Plot for Channel 60



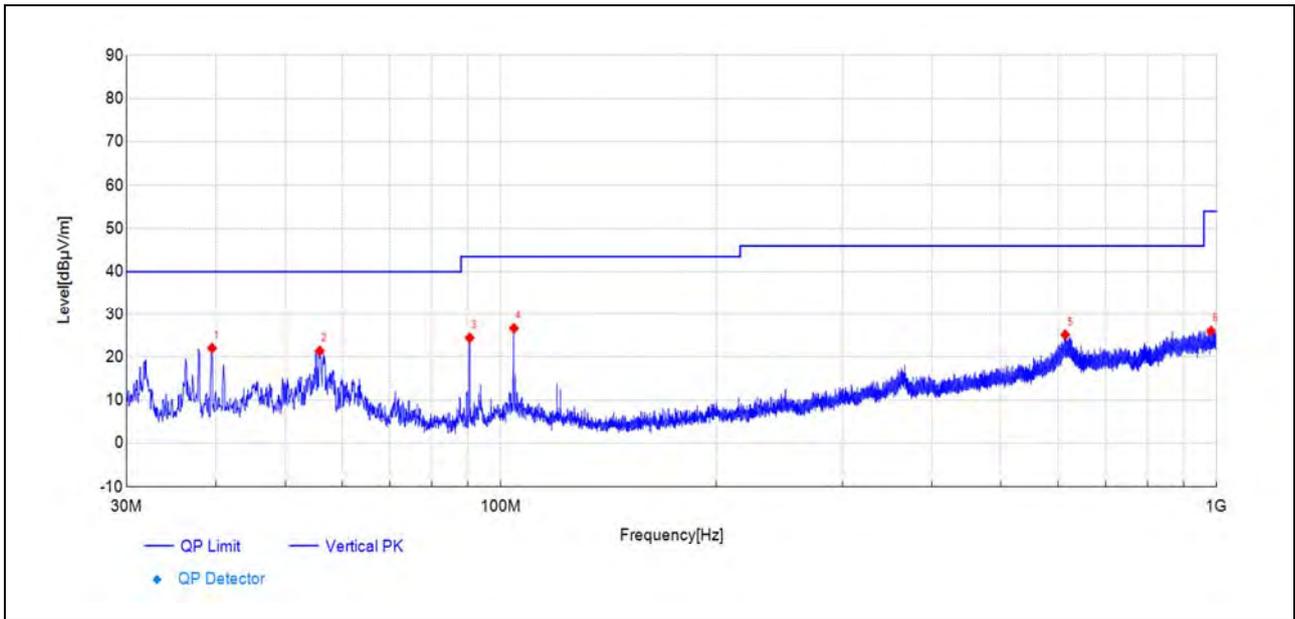
(Antenna Horizontal, 30MHz to 1GHz)

Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
37.91	53.1	23.61	-29.520	40.00	16.39	175	PK	PASS
90.48	49.1	17.65	-31.470	43.50	25.85	36	PK	PASS
104.26	54.1	24.55	-29.540	43.50	18.95	70	PK	PASS
119.97	46.5	16.02	-30.510	43.50	27.48	16	PK	PASS
388.48	38.6	15.97	-22.650	46.00	30.03	340	PK	PASS
991.46	37.9	27.37	-10.500	54.00	26.63	357	PK	PASS



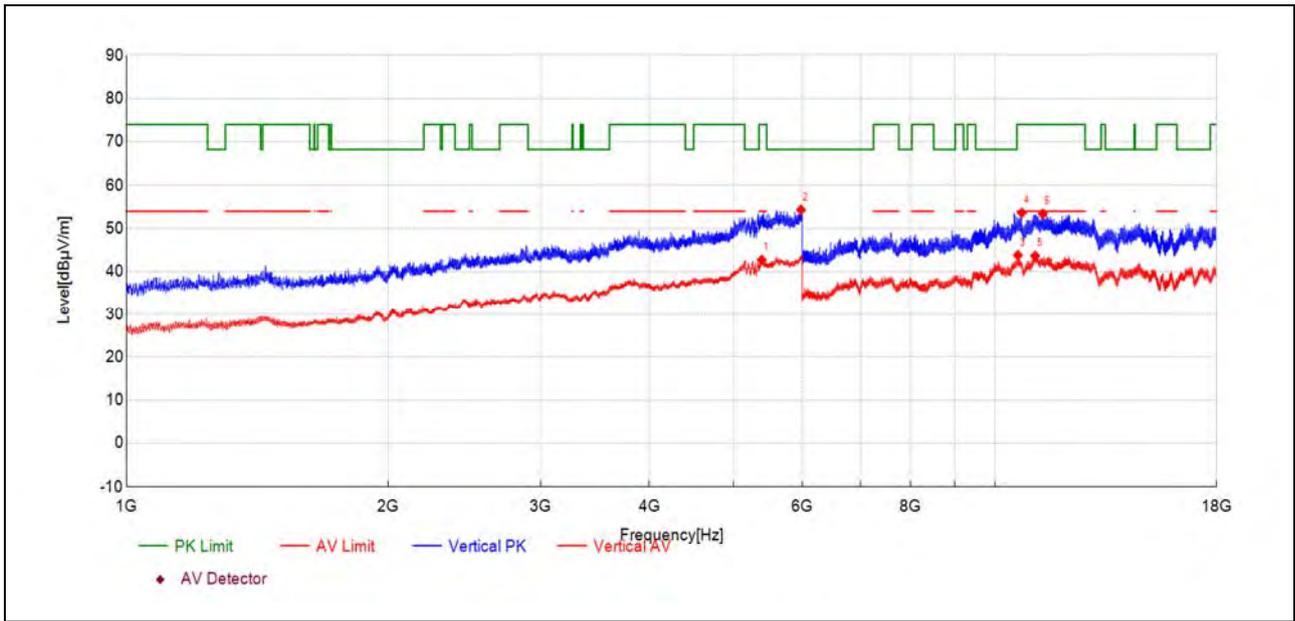
(Antenna Horizontal, 1GHz to 18GHz)

Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
5306.76	37.8	54.71	16.890	-	-	296	PK	NA
5307.21	28.6	45.46	16.900	-	-	267	AV	NA
11139.09	40.3	53.99	13.720	74.00	20.01	182	PK	PASS
11142.45	30.3	44.05	13.740	54.00	9.95	152	AV	PASS
12185.05	38.3	53.04	14.780	74.00	20.96	91	PK	PASS
12185.53	28.7	43.46	14.780	54.00	10.54	110	AV	PASS



(Antenna Vertical, 30MHz to 1GHz)

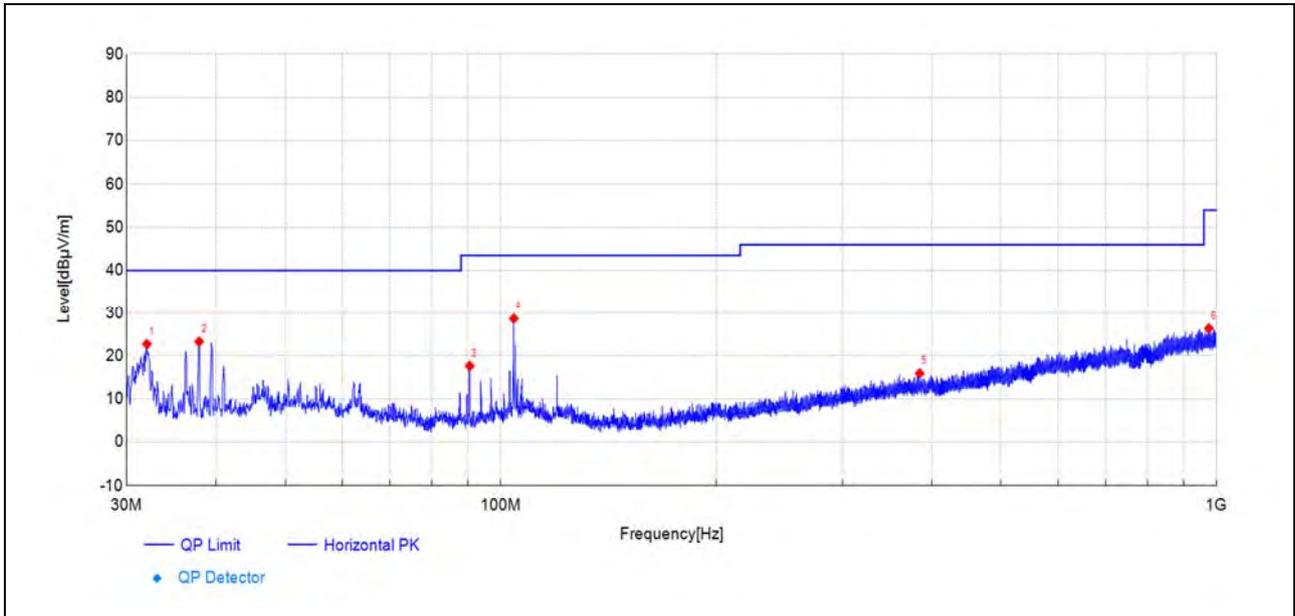
Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
39.51	51.0	22.06	-28.970	40.00	17.94	296	PK	PASS
55.85	49.4	21.39	-28.010	40.00	18.61	54	PK	PASS
90.48	55.9	24.45	-31.470	43.50	19.05	221	PK	PASS
104.35	56.1	26.65	-29.490	43.50	16.85	146	PK	PASS
614.50	42.4	25.16	-17.280	46.00	20.84	351	PK	PASS
981.81	37.3	26.02	-11.250	54.00	27.98	262	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

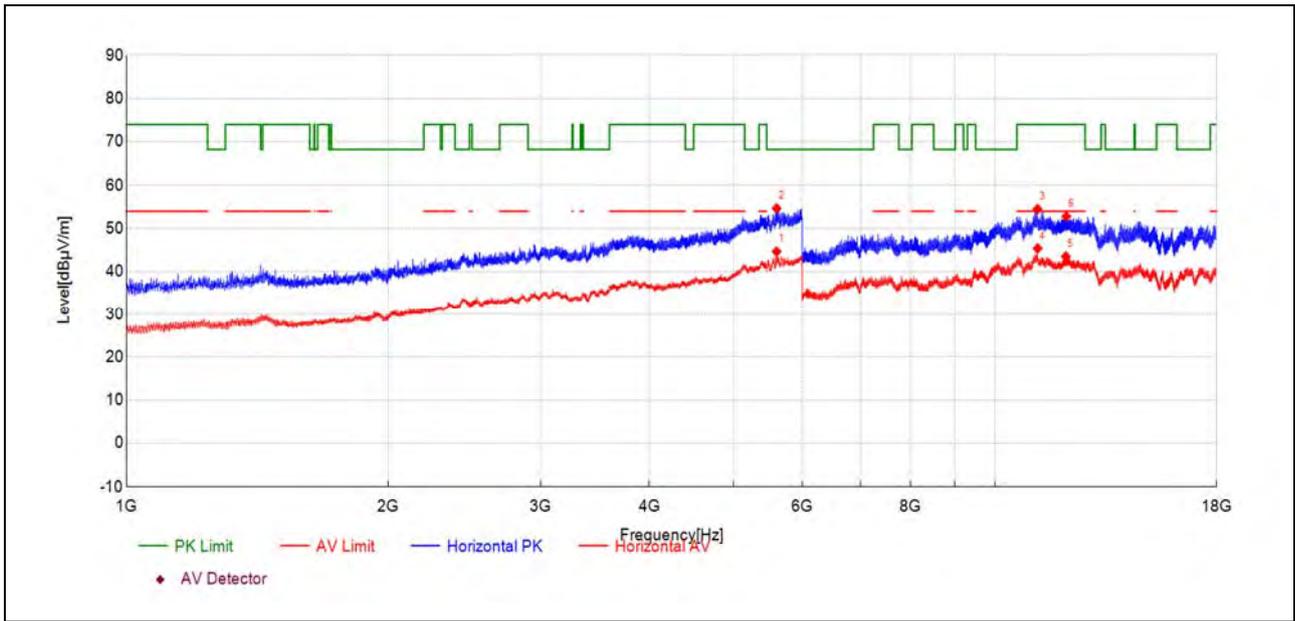
Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
5388.13	24.8	42.75	18.000	54.00	11.25	191	AV	PASS
5980.00	35.1	54.36	19.290	68.23	13.87	341	PK	PASS
10628.35	31.8	43.84	12.090	54.00	10.16	286	AV	PASS
10740.19	41.7	53.66	11.950	74.00	20.34	315	PK	PASS
11126.61	30.0	43.67	13.690	54.00	10.33	178	AV	PASS
11353.17	39.8	53.42	13.640	74.00	20.58	355	PK	PASS

Plot for Channel 120



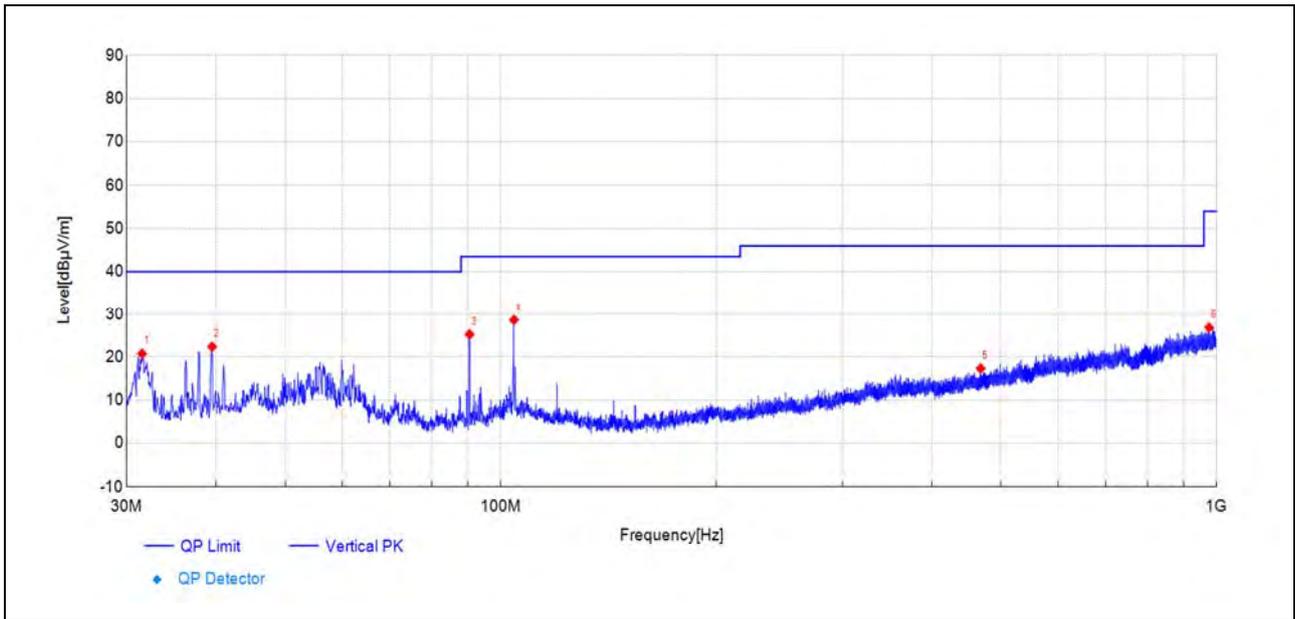
(Antenna Horizontal, 30MHz to 1GHz)

Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
32.04	53.2	22.71	-30.480	40.00	17.29	112	PK	PASS
37.91	52.8	23.28	-29.520	40.00	16.72	319	PK	PASS
90.48	49.1	17.65	-31.470	43.50	25.85	228	PK	PASS
104.31	58.2	28.66	-29.520	43.50	14.84	299	PK	PASS
384.75	38.5	15.90	-22.630	46.00	30.10	78	PK	PASS
975.46	37.2	26.38	-10.840	54.00	27.62	235	PK	PASS



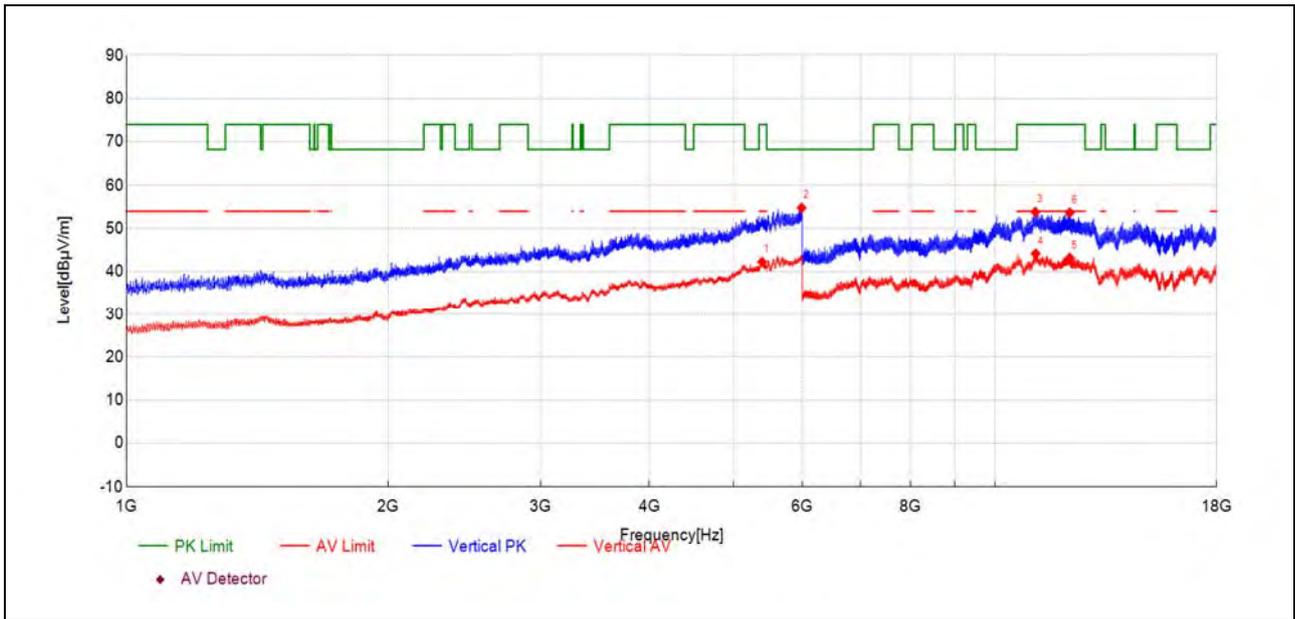
(Antenna Horizontal, 1GHz to 18GHz)

Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
5605.87	26.6	44.69	18.140	-	-	275	AV	NA
5606.33	36.6	54.68	18.130	-	-	32	PK	NA
11194.77	40.7	54.53	13.880	74.00	19.47	342	PK	PASS
11198.61	31.5	45.39	13.880	54.00	8.61	0	AV	PASS
12067.92	29.1	43.53	14.450	54.00	10.47	130	AV	PASS
12084.24	38.3	52.82	14.520	74.00	21.18	73	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
31.55	51.3	20.74	-30.580	40.00	19.26	78	PK	PASS
39.51	51.4	22.39	-28.970	40.00	17.61	309	PK	PASS
90.43	56.7	25.24	-31.480	43.50	18.26	22	PK	PASS
104.35	58.1	28.62	-29.490	43.50	14.88	4	PK	PASS
468.12	38.8	17.32	-21.510	46.00	28.68	228	PK	PASS
976.19	37.8	26.83	-10.930	54.00	27.17	146	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Angle [°]	Detector	Verdict
5394.04	24.5	42.25	17.710	54.00	11.75	174	AV	PASS
5988.18	35.5	54.81	19.270	68.23	13.42	231	PK	PASS
11129.49	40.2	53.87	13.700	74.00	20.13	43	PK	PASS
11140.53	30.5	44.18	13.730	54.00	9.82	214	AV	PASS
12193.21	28.4	43.20	14.810	54.00	10.80	128	AV	PASS
12196.09	38.9	53.72	14.810	74.00	20.28	172	PK	PASS

— END OF REPORT —