TEST REPORT

REPORT NUMBER: 25B02W000009-005

ON

Type of Equipment:	Cloud POS Printer
Type of Designation:	NT320
Brand Name:	SUNMI
Manufacturer:	Shanghai Sunmi Technology Co.,Ltd.
FCC ID:	2AH25NT320
IC:	22621-NT320

ACCORDING TO

FCC Part 2,FCC Part 15E, RSS-Gen Issue 5, RSS-247 Issue 3,ANSI C63.10-2013

Chongqing Academy of Information and Communications Technology

Month date, year
Jun.26th, 2025
Signature

Zhou Jin
Director

Note:
The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of Chongqing Academy of Information and Communications Technology.

Revision Version

Report Number	Revision	Date
25B02W000009-005	00	2025-06-26

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1. Test Laboratory

1.1. Testing Location

Name:	Chongqing Academy of Information and Communications Technology
Designation Number:	CN1239
IC Registration Number:	29397
Address:	No.19 EastRoad,Xiantao Big-data Valley,Yubei District,Chongqing,People's Republic of China
Postal Code:	401336
Telephone:	0086-23-88069965
Fax:	0086-23-88608777

1.2. Testing Environment

Normal Temperature:	15-35℃
Relative Humidity:	30-60%

1.3. Project data

Testing Start Date:	2025-04-18
Testing End Date:	2025-05-30

1.4. Signature

李润豪	**2025-06-23**
Li Runhao **(Prepared this test report)**	**Date**
	2025-06-23
Wang Lili **(Reviewed this test report)**	**Date**
周进	**2025-06-26**
Zhou Jin **Director of the laboratory** **(Approved this test report)**	**Date**

2. Client Information

2.1. Applicant Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China
City:	ShangHai
Country:	China
Telephone:	+86 13510126210
Fax:	N/A
Email:	chan.yang@sunmi.com
Contact Person:	Emma Yang

2.2. Manufacturer Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China
City:	ShangHai
Country:	China
Telephone:	+86 13510126210
Fax:	N/A
Email:	chan.yang@sunmi.com
Contact Person:	Emma Yang

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	Cloud POS Printer
Model name	NT320
Brand name	SUNMI
WLAN Frequency Band	Wi-Fi 5G U-NII-1
Type of WLAN modulation	802.11a/n/ac:OFDM,802.11ax:OFDMA
HVIN	NT320
Extreme Temperature	0/+40°C
Nominal Test Voltage	5V
Extreme Test High Voltage	5.25V
Extreme Test Low Voltage	4.75V

Note1: Photographs of EUT are shown in ANNEX A of this test report.
Note2: High and low voltage values in extreme condition test are given by manufacturer.
Note3: The Extreme Temperature is provided by the manufacturer and has not been verified by the laboratory.
Note4: The customer claimed that EUT only supports full RU.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
25B02W000009#S4	N507D53S10180	80CC_MB_X2600_V5.0	V4.1.17	2025-04-16
25B02W000009#S3	N507D53S10198	80CC_MB_X2600_V5.0	V4.1.17	2025-04-16

*EUT ID: is used to identify the test sample in the lab internally.

No.	Item(s)	Data
1	Antenna gain of EUT	1.5 dBi
Note: The data of aantenna gain is provided by the Antenna specification may affect the validity of the test results in this report, and the impact and consequences of this shall be undertaken by the customer.		

3.3. Outline of Equipment under Test

Technology	Band	UL Freq.(MHz)	DL Freq.(MHz)
WLAN	5G	UNII 1: 5150MHz-5250MHz	

Test frequency list:

UNII-1

BW_20M	Channel	36	40	44	48
	Freq. (MHz)	5180	5200	5220	5240

Emissions Information

TestMode	TestBand	Frequency Min(MHz)	Frequency Max(MHz)	Max OutPut Power (dBm)	Max OutPut Power (W)	OBW (KHz)	Necessary Bandwidth & Emission Classification
11A	UNII-1	5180	5240	15.93	0.0392	17840	17M8D1D
11N20	UNII-1	5180	5240	15.72	0.0373	18720	18M7D1D
11AC20	UNII-1	5180	5240	15.63	0.0366	18760	18M8D1D
11AX20	UNII-1	5180	5240	15.86	0.0385	19400	19M4D1D

Note:

1. This report is for WLAN UNII-1.

3.4. Internal Identification of AE used during the test

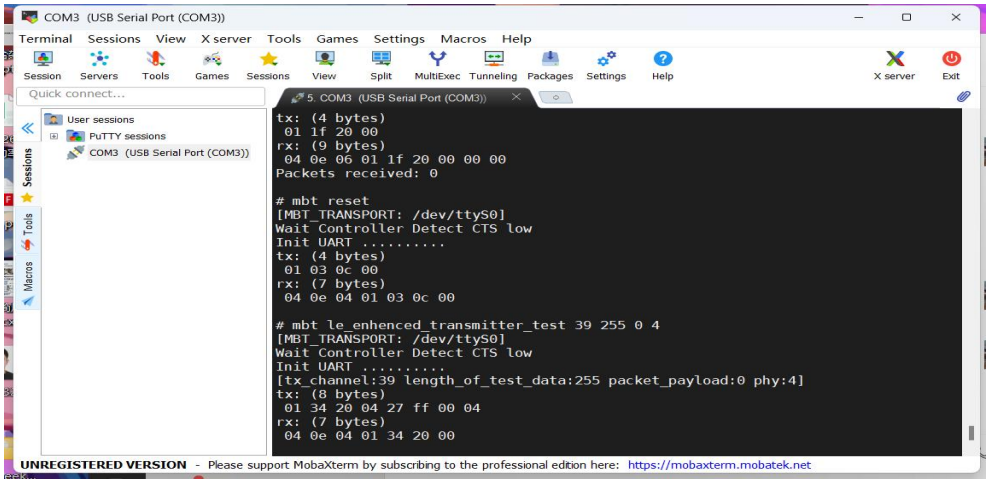
AE ID*	Description	Note	dB*
C1	RF cable	--	0.8
C2	USB Cable	--	--
Q3	Notebook PC	Lenovo X1 Carbon	--
A1	PC Adapter	--	--

AE ID*: is used to identify the test sample in the lab internally.

dB*： is provided customer.

3.5. EUT Test RF Configuration

EUT uses engineering mode to control RF emissions, changing power levels, channels, rates, and HT.


COM3 (USB Serial Port (COM3))
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help X server Exit
Quick connect...
User sessions
PuTTY sessions
COM3 (USB Serial Port (COM3))
5. COM3 (USB Serial Port (COM3))
tx: (4 bytes)
01 1f 20 00
rx: (9 bytes)
04 0e 06 01 1f 20 00 00 00
Packets received: 0
mbt reset
[MBT_TRANSPORT: /dev/ttyS0]
Wait Controller Detect CTS low
Init UART .....
tx: (4 bytes)
01 03 0c 00
rx: (7 bytes)
04 0e 04 01 03 0c 00
mbt le_enhenced_transmitter_test 39 255 0 4
[MBT_TRANSPORT: /dev/ttyS0]
Wait Controller Detect CTS low
Init UART .....
[tx_channel:39 length_of_test_data:255 packet_payload:0 phy:4]
tx: (8 bytes)
01 34 20 04 27 ff 00 04
rx: (7 bytes)
04 0e 04 01 34 20 00
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net

4. Reference Documents

4.1. Documents supplied by applicant

PICS/PIXIT, referring to Annex B for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations	--
FCC Part 15E	FCC CFR 47, Part 15, Subpart E: Unlicensed National InformSation Infrastructure Devices	--
RSS-Gen Issue 5	General Requirements for Compliance of Radio Apparatus	2021
RSS-247 Issue 3	Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices	2023
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
KDB 789033 D02	Information Infrastructure (U-NII) Devices - Part 15, Subpart E	v02r01
Note: FCC Part 2 and KDB 789033 D02 is not A2LA certified.		

5. Test Equipments Utilized

5.1. RF Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacture	Cal. Interval	Cal.Due Date
1	Spectrum analyzer	FSQ 26	201137	--	--	R&S	1 Year	2025-06-28

5.2. RSE Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacture	Cal. Interval	Cal.Due Date
1	EMI Test Receiver	ESU40	100307	--	--	R&S	1 Year	2025-06-28
2	TRILOG Broadband Antenna	VULB9163	9163-586	--	--	Schwarzbeck	2 Years	2026-10-28
3	Horn antenna	9120D	1083	--	--	Schwarzbeck	2 Years	2026-11-08
4	Horn antenna	DATE 1152	LM7127	--	--	ETS	2 Years	2026-09-30
5	Horn antenna	DATE 1012	LM5945	--	--	ETS	2 Years	2026-09-30
6	Loop Antenna	6502	00143163	--	--	ETS	2 Year	2026-09-04
7	Amplifier1	SCU-08F1	8320027	--	--	R&S	--	--
8	Amplifier2	SCU-18F	180093	--	--	R&S	--	--
9	2-Line V-Network	ENV216	102368	--	--	R&S	1 Year	2026-05-23
10	Test Receiver	ESR 3	101382	03	3.48 SP2	R&S	1 Year	2025-06-28
11	Test Receiver	ESW 26	101382	00	1.50 SP1	R&S	1 Year	2025-06-28

5.3. Climate Chamber

No.	Name	Type	SN	Manufacture	Cal. Interval	Cal.Due Date
--	--	--	--	--	--	--

5.4. Anechoic chamber Vibration table

No.	Name	Type	SN	Manufacture	Cal. Interval	Cal.Due Date
1	Fully-Anechoic Chamber	FAC5	--	TDK	3Years	2027-11-04
2	Anechoic Chamber	SAC 10	--	TDK	3Years	2027-11-05

5.5. Test software

No.	Name	version	SN	Manufacture
1	EMC32 (Transmitter Spurious Emission-Radiated Above 1GHz)	V9.26.01	--	R&S
2	EMC32 (Transmitter Spurious Emission-Radiated Below 1GHz)	V 10.20.01	--	R&S
3	EMC32 (AC Powerline Conducted Emission)	V 10.40.10	--	R&S
4	WIFI/BT CE/FCC/ICautomated testing software	V1.0.0.0	--	Beijing Zhiwang Xince Technology Co., Ltd

6. Test Results6.1 Summary of Test Results

A brief summary of the tests carried out is shown as following.

FCC Rules	IC Rules	Name of Test	Result
KDB 789033 D02		Duty Cycle	Pass[note3]
15.407(a)	RSS-247 6.2	Maximum Output Power	Pass
15.407(a)	RSS-247 6.2	Power Spectral Density	Pass
2.1049	RSS-GEN 6.7	99% Occupied Bandwidth	Pass[note3]
2.1049	RSS-GEN 6.7	Occupied 26dB Bandwidth	Pass[note3]
15.209 & 15.407(b)	RSS-Gen 8.9, RSS-247 6.2	Band edge compliance	Pass
15.209 & 15.407(b)	RSS-Gen 8.9, RSS-247 6.2	Transmitter spurious emissions radiated	Pass
15.407(g)	RSS-247 6.2	Frequency Stability	Pass
15.407(h)	RSS-Gen 8.8	Transmit Power Control	N/A [Note 2]
15.207	RSS Gen 6.8	AC Powerline Conducted Emission	Pass
15.203	RSS-247 6.2	Antenna requirement	Pass [Note 1]
NOTE 1：WIFI used an Internal antenna with max Gain 1.5 dBi that complied with 15.203 Requirements. NOTE 2：A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW. NOTE 3：This project has no restrictions on requirements.			

6.2Duty Cycle

Specifications:	KDB 789033 D02
DUT Serial Number:	N507D53S10180
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	--

Measurement Uncertainty:

Measurement Uncertainty	--

Test Procedure:

The measurement method is made according to KDB 789033 B

Measurements of duty cycle and transmission duration shall be performed using one of the following techniques:

a)A diode detector and an oscilloscope that together have sufficiently short response time topermit accurate measurements of the on and off times of the transmitted signal.

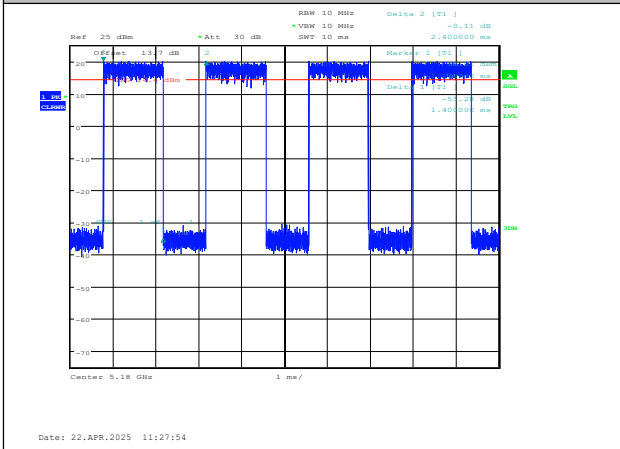
b) The zero-span mode on a spectrum analyzer or EMl receiver, if the response time andspacing between bins on the sweep are sufficient to permit accurate measurements of the onand off times of the transmitted signal. Set the center frequency of the instrument to thecenter frequency of the transmission, Set RBW> EBW if possible: otherwise. set RBW tothe largest available value. Set VBW > RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T. where 7is defined in II.B.1.a), and the number of sweep points across duration Texceeds 100. (Forexample. if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuringduty cycle shall not be used if 7 < 16.7 microseconds.)

Measurement Results：

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	1.40	2.40	58.33
11A	Ant1	5200	1.40	2.40	58.33
11A	Ant1	5240	1.39	2.43	57.20
11N20SISO	Ant1	5180	1.30	2.30	56.52
11N20SISO	Ant1	5200	1.31	2.31	56.71
11N20SISO	Ant1	5240	1.31	2.31	56.71
11AC20SISO	Ant1	5180	1.32	2.32	56.90
11AC20SISO	Ant1	5200	1.31	2.31	56.71
11AC20SISO	Ant1	5240	1.32	2.32	56.90
11AX20SISO	Ant1	5180	1.02	2.02	50.50
11AX20SISO	Ant1	5200	1.02	2.02	50.50
11AX20SISO	Ant1	5240	1.02	2.02	50.50

Test Graphs

NTNV-11A-Ant1-5180



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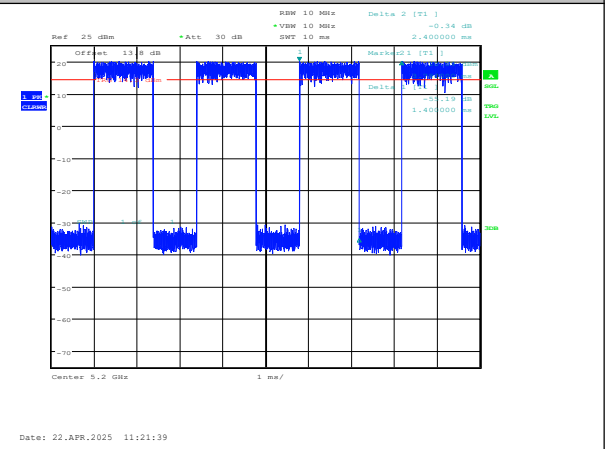

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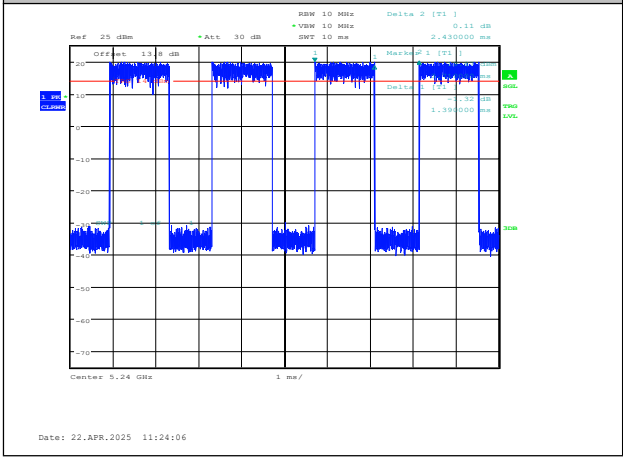

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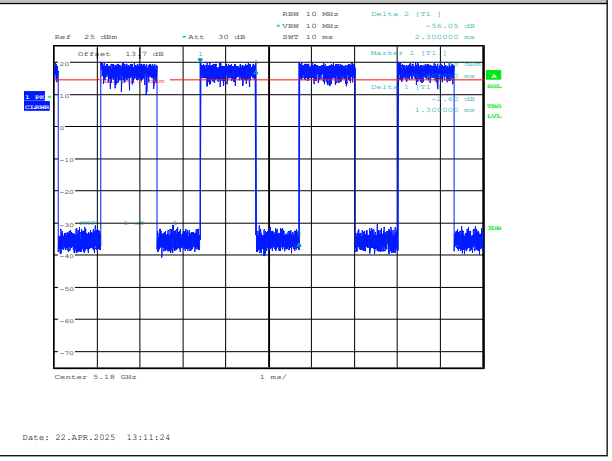

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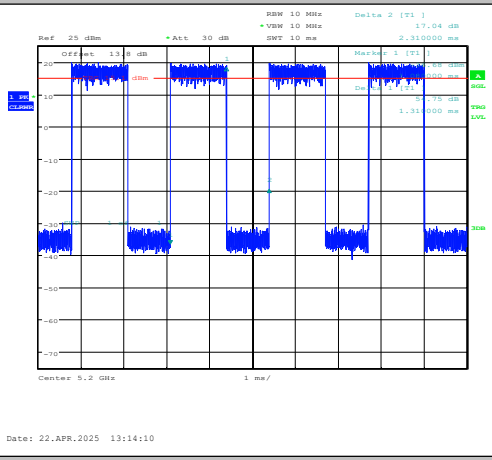

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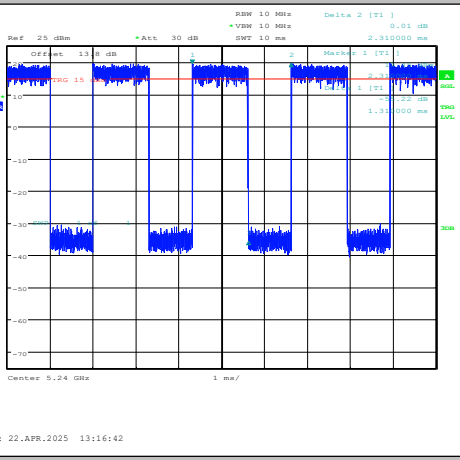

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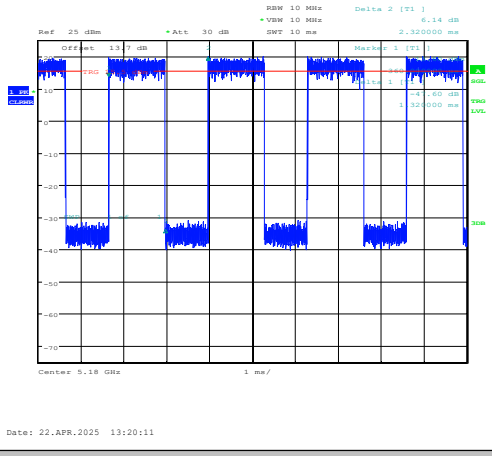

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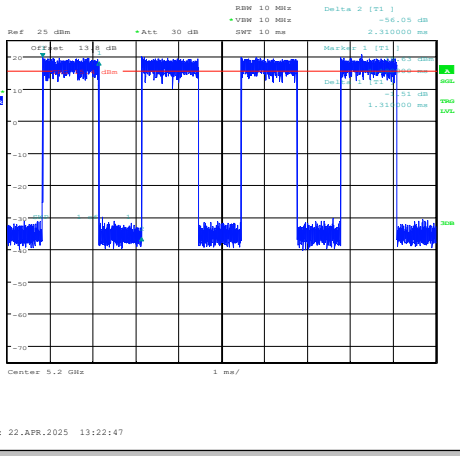

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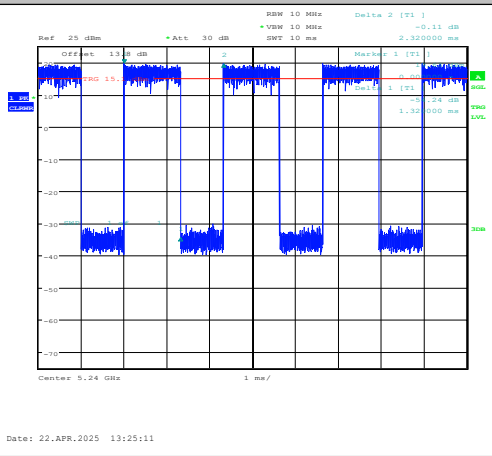

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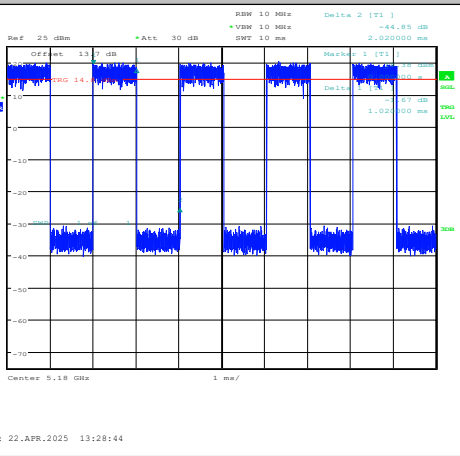

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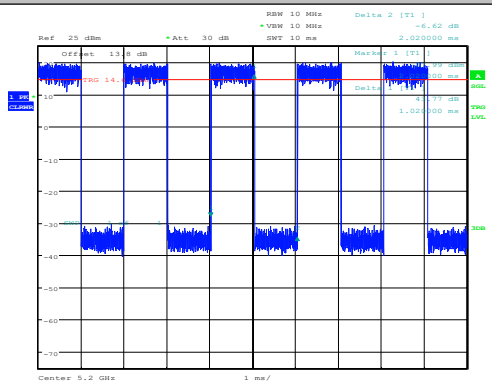
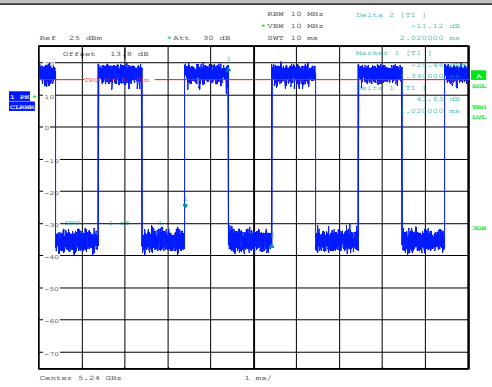
	

6.3Maximum conducted output power

Specifications:	FCC Part 15.407(a), RSS-247 6.2
DUT Serial Number:	N507D53S10180
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit Level Construction:

Standard	Limit
FCC Part 15.407(a)	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 250 mW provided the maximum antenna gain does not exceed 6 dBi. 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 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
RSS-247 6.2	5150-5250 MHz: For other devices, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. 5250-5350 MHz: The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. 5470-5600 MHz and 5650-5725 MHz: The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm. whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum

Measurement Uncertainty:

Measurement Uncertainty	0.46dB

Test Procedure:

The measurement method SA-2 is made according to KDB 789033 E

Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

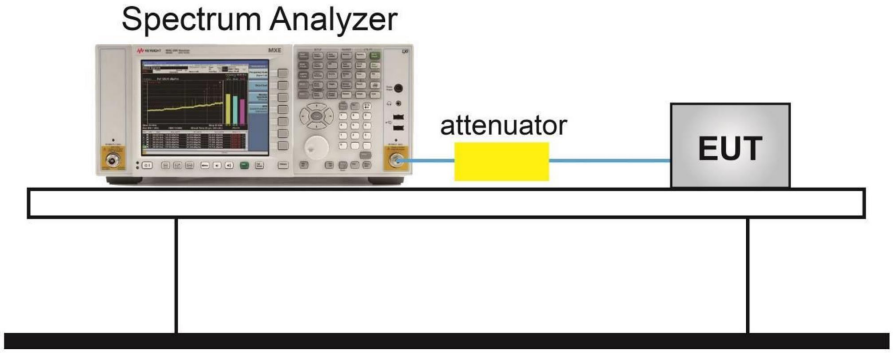
1. Measure the duty cycle, x, of the transmitter output signal as described in II.B.
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
3. Set RBW = 1 MHz. (iv) Set VBW ≥ 3 MHz.
4. Number of points in sweep ≥ 2 × span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
5. Sweep time = auto.
6. Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
7. Do not use sweep triggering. Allow the sweep to "free run."
8. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
9. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

Add 10 log (1/x), where x is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10 log (1/0.25) = 6 dB if the duty cycle is 25%

Antenna gain of EUT:

No.	Item(s)	Data
1	Antenna gain of EUT	1.5 dBi
Note: The data of aantenna gain is provided by the Antenna specification may affect the validity of the test results in this report, and the impact and consequences of this shall be undertaken by the customer.		

Test setup


Spectrum Analyzer
attenuator
EUT

Measurement Results:

Test Mode	Antenna	Frequency[MHz]	Set Power	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11A	Ant1	5180	17.5	13.59	58.33	2.34	15.93	≤23.98	1.50	17.43	≤22.49	PASS
11A	Ant1	5200	17.5	13.51	58.33	2.34	15.85	≤23.98	1.50	17.35	≤22.50	PASS
11A	Ant1	5240	17.5	13.31	57.20	2.43	15.74	≤23.98	1.50	17.24	≤22.51	PASS
11N20SISO	Ant1	5180	17.5	13.24	56.52	2.48	15.72	≤23.98	1.50	17.22	≤22.71	PASS
11N20SISO	Ant1	5200	17.5	13.04	56.71	2.46	15.50	≤23.98	1.50	17.00	≤22.72	PASS
11N20SISO	Ant1	5240	17.5	12.85	56.71	2.46	15.31	≤23.98	1.50	16.81	≤22.71	PASS
11AC20SISO	Ant1	5180	17.5	13.18	56.90	2.45	15.63	≤23.98	1.50	17.13	≤22.73	PASS
11AC20SISO	Ant1	5200	17.5	13.01	56.71	2.46	15.47	≤23.98	1.50	16.97	≤22.73	PASS
11AC20SISO	Ant1	5240	17.5	12.86	56.90	2.45	15.31	≤23.98	1.50	16.81	≤22.73	PASS
11AX20SISO	Ant1	5180	17.5	12.89	50.50	2.97	15.86	≤23.98	1.50	17.36	≤22.87	PASS
11AX20SISO	Ant1	5200	17.5	12.65	50.50	2.97	15.62	≤23.98	1.50	17.12	≤22.88	PASS
11AX20SISO	Ant1	5240	17.5	12.59	50.50	2.97	15.56	≤23.98	1.50	17.06	≤22.88	PASS

Note：

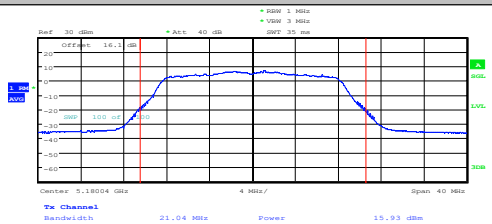
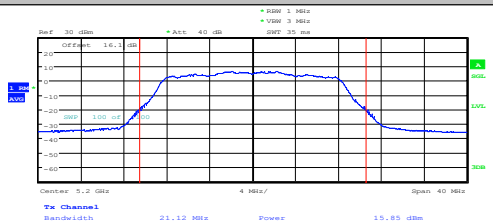
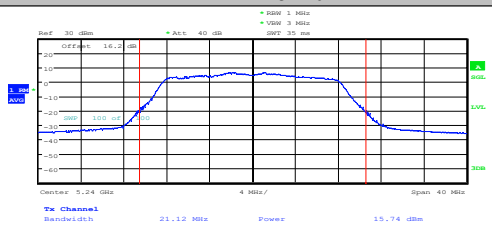
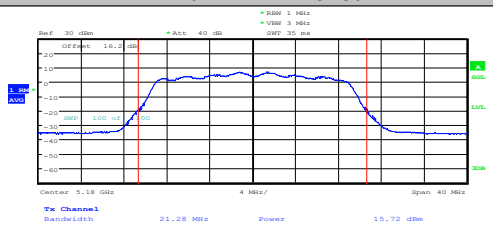
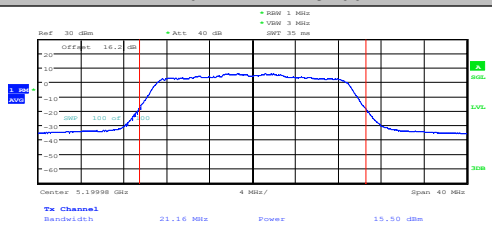
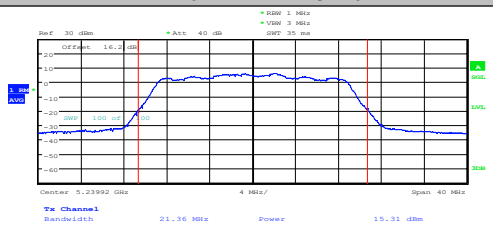
1.The Duty Cycle Factor is compensated in the graph.

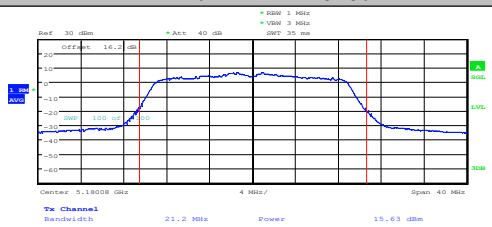
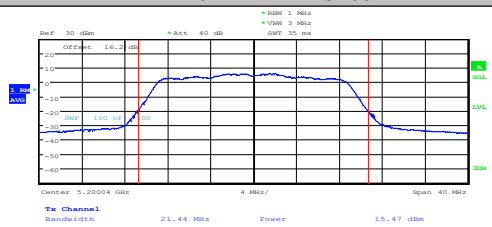
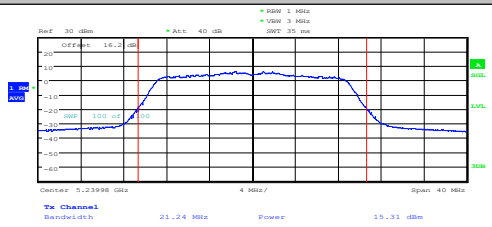
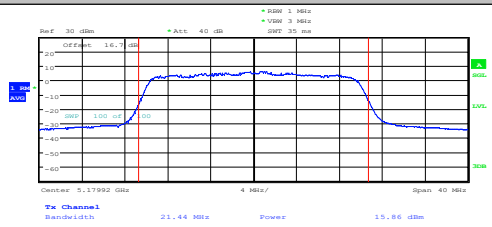
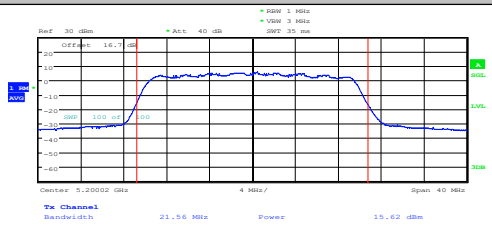
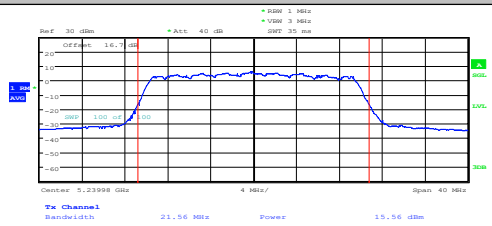
2. In the graph, the Center frequency = (Low frequency of 26dB OBW + High frequency of 26dB OBW) /2.

3.The 11a data rate 6Mbps is selected as worse condition, 11n/11acdata rate MCS0 is selected as worse condition, and the following cases are performed with this condition.

4. For client devices in the 5.15–5.25 GHz band, Limit =250mW.

Test graphs

11A-Ant1-5180-PASS	11A-Ant1-5200-PASS
 Date: 22.APR.2025 11:28:20	 Date: 22.APR.2025 11:22:05
11A-Ant1-5240-PASS	**11N20SISO-Ant1-5180-PASS**
 Date: 22.APR.2025 11:24:31	 Date: 22.APR.2025 13:11:50
11N20SISO-Ant1-5200-PASS	**11N20SISO-Ant1-5240-PASS**
 Date: 22.APR.2025 13:14:35	 Date: 22.APR.2025 13:17:08

11AC20SISO-Ant1-5180-PASS	11AC20SISO-Ant1-5200-PASS
 Date: 22.APR.2025 13:20:37	 Date: 22.APR.2025 13:23:13
11AC20SISO-Ant1-5240-PASS	**11AX20SISO-Ant1-5180-PASS**
 Date: 22.APR.2025 13:25:36	 Date: 22.APR.2025 13:29:10
11AX20SISO-Ant1-5200-PASS	**11AX20SISO-Ant1-5240-PASS**
 Date: 22.APR.2025 13:31:42	 Date: 22.APR.2025 13:34:37

6.4Peak Power Spectral Density

Specifications:	FCC Part 15.407(a), RSS-247 6.2
DUT Serial Number:	N507D53S10180
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit Level Construction:

Standard	Limit (dBm/MHz)
FCC Part 15.407(a)	≤11
RSS-247 6.2	5150-5250 MHz: The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. 5250-5350 MHz: The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. 5470-5600 MHz and 5650-5725 MHz: The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

Measurement Uncertainty:

Measurement Uncertainty	0.56dB

Test Procedure:

The measurement method is made according to KDB 789033 F

1. Create an average power spectrum for the EUT operating mode being tested by following the instructions in II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power….” (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)
2. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
3. Make the following adjustments to the peak value of the spectrum, if applicable:

   a) If Method SA-2 or SA-2 Alternative was used, add 10 log (1/x), where x is the duty cycle, to the peak of the spectrum.

   b) If Method SA-3 Alternative was used and the linear mode was used in step II.E.2.g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
4. The result is the Maximum PSD over 1 MHz reference bandwidth.
5. For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above

procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in Section 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

a) Set RBW ≥ 1/*T*, where *T* is defined in II.B.l.a).

b) Set VBW ≥ 3 RBW.

c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10 log (500 kHz/RBW) to the measured result, whereas RBW (<500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10 log (1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.

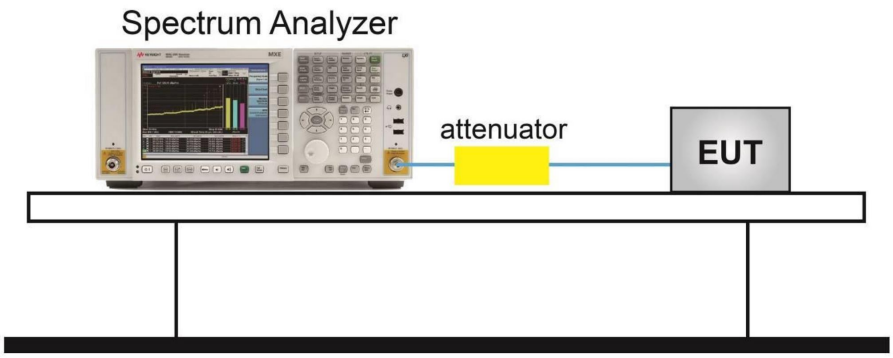
e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for steps 5.c) and 5.d) above, since RBW=100 KHZ is available on nearly all spectrum analyzers.

Antenna gain of EUT:

No.	Item(s)	Data
1	Antenna gain of EUT	1.5 dBi
Note: The data of aantenna gain is provided by the Antenna specification may affect the validity of the test results in this report, and the impact and consequences of this shall be undertaken by the customer.		

Test setup



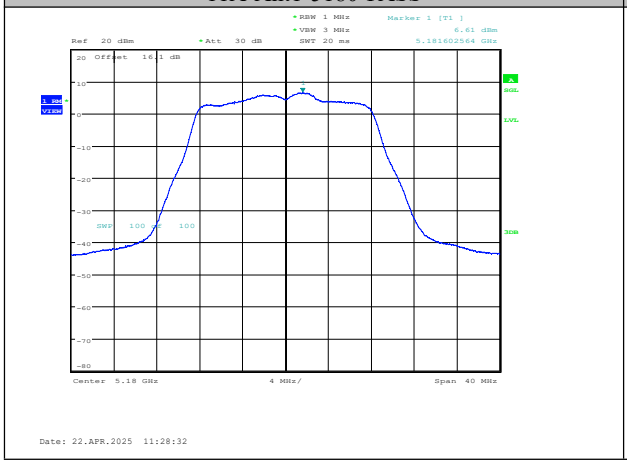
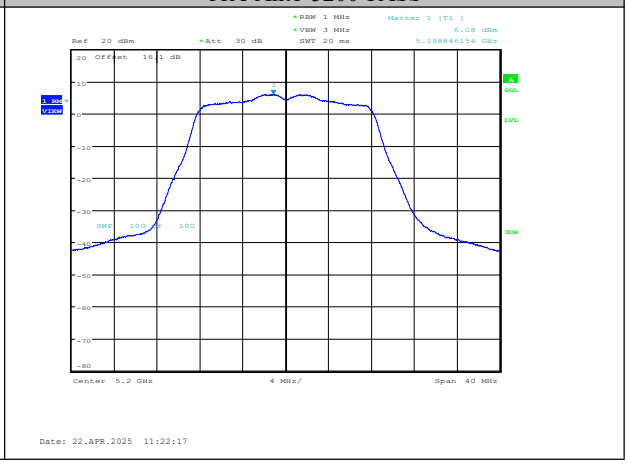
Measurement Results:

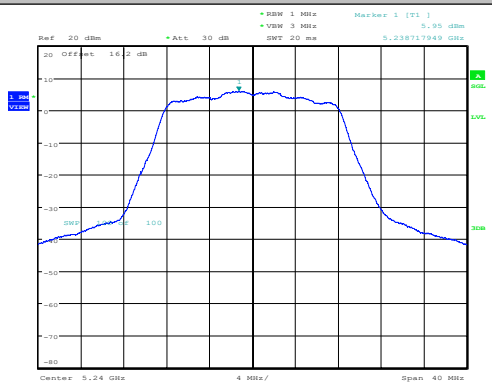
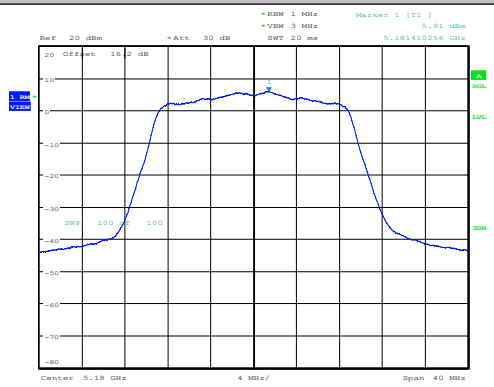
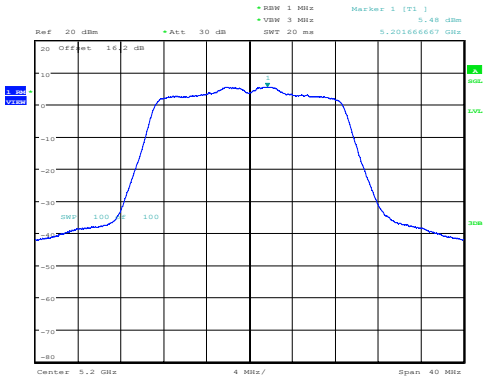
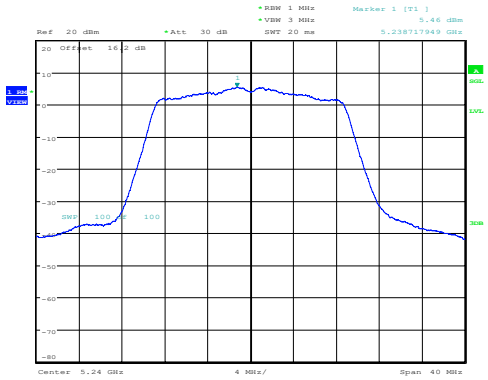
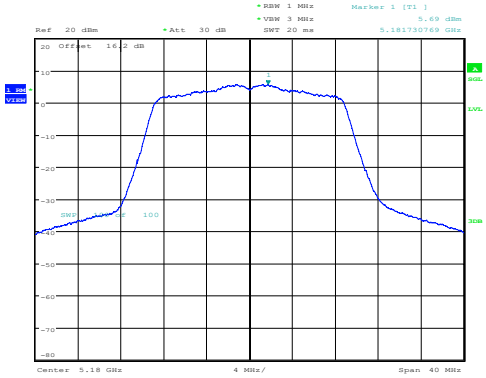
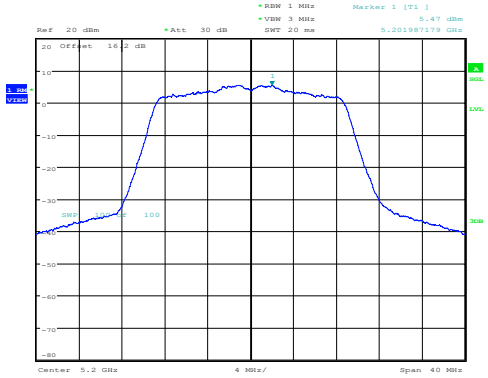
TestMode	Antenna	Frequency [MHz]	Result [dBm/MHz]	Limit[dBm/ MHz]	EIRP Result [dBm/MHz]	EIRP Limit[dBm/MHz]	Verdict
11A	Ant1	5180	6.61	≤11.00	8.11	≤10.00	PASS
11A	Ant1	5200	6.08	≤11.00	7.58	≤10.00	PASS
11A	Ant1	5240	5.95	≤11.00	7.45	≤10.00	PASS
11N20SISO	Ant1	5180	5.91	≤11.00	7.41	≤10.00	PASS
11N20SISO	Ant1	5200	5.48	≤11.00	6.98	≤10.00	PASS
11N20SISO	Ant1	5240	5.46	≤11.00	6.96	≤10.00	PASS
11AC20SISO	Ant1	5180	5.69	≤11.00	7.19	≤10.00	PASS
11AC20SISO	Ant1	5200	5.47	≤11.00	6.97	≤10.00	PASS
11AC20SISO	Ant1	5240	5.58	≤11.00	7.08	≤10.00	PASS
11AX20SISO	Ant1	5180	5.36	≤11.00	6.86	≤10.00	PASS
11AX20SISO	Ant1	5200	4.87	≤11.00	6.37	≤10.00	PASS
11AX20SISO	Ant1	5240	5.33	≤11.00	6.83	≤10.00	PASS

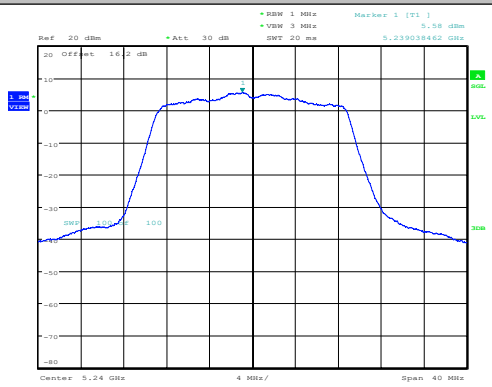
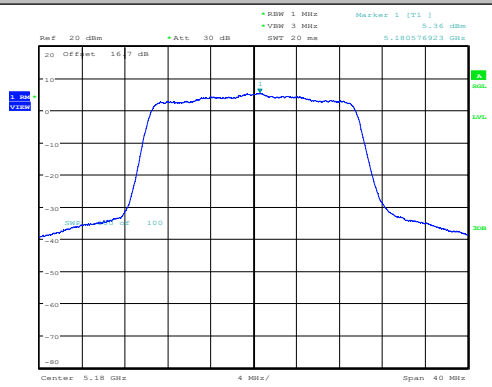
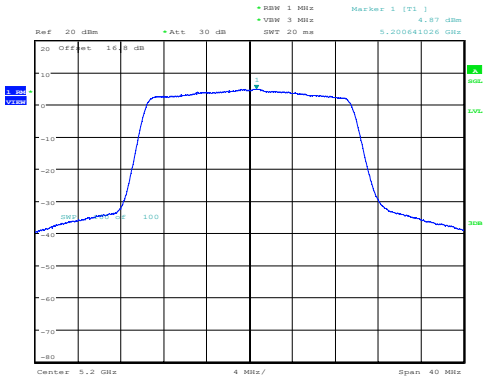
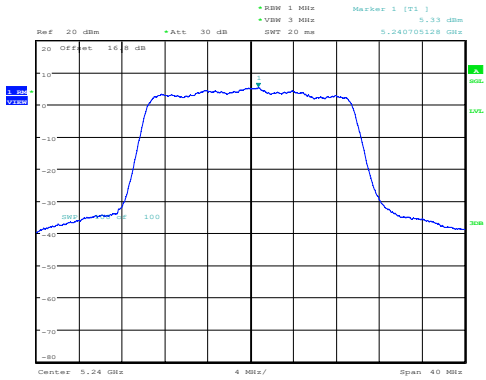
Note：

1.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

11A-Ant1-5180-PASS	11A-Ant1-5200-PASS
	

11A-Ant1-5240-PASS	11N20SISO-Ant1-5180-PASS
	
Date: 22.APR.2025 11:24:45	Date: 22.APR.2025 13:12:02
11N20SISO-Ant1-5200-PASS	**11N20SISO-Ant1-5240-PASS**
	
Date: 22.APR.2025 13:14:48	Date: 22.APR.2025 13:17:21
11AC20SISO-Ant1-5180-PASS	**11AC20SISO-Ant1-5200-PASS**
	
Date: 22.APR.2025 13:20:50	Date: 22.APR.2025 13:23:25

11AC20SISO-Ant1-5240-PASS	11AX20SISO-Ant1-5180-PASS
	
Date: 22.APR.2025 13:25:49	Date: 22.APR.2025 13:29:22
11AX20SISO-Ant1-5200-PASS	**11AX20SISO-Ant1-5240-PASS**
	
Date: 22.APR.2025 13:31:54	Date: 22.APR.2025 13:34:50

6.5 99% Occupied Bandwidth

Specifications:	2.1049,RSS-GEN 6.7
DUT Serial Number:	N507D53S10180
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	--

Measurement Uncertainty:

Measurement Uncertainty	17.6kHz

Test Procedure:

The measurement method is made according to KDB 789033 D

1. Set center frequency to the nominal EUT channel center frequency.

2. Set span = 1.5 times to 5.0 times the OBW.

3. Set RBW = 1 % to 5 % of the OBW

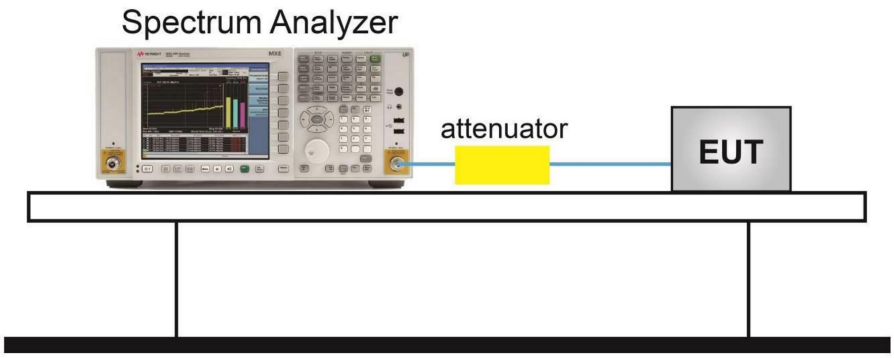
4. Set VBW ≥ 3 · RBW

5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

6. Use the 99 % power bandwidth function of the instrument (if available).

7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

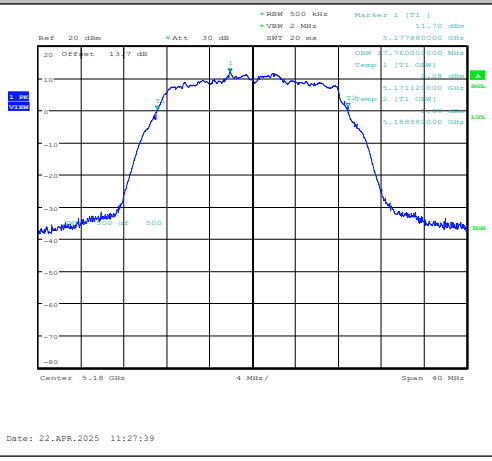
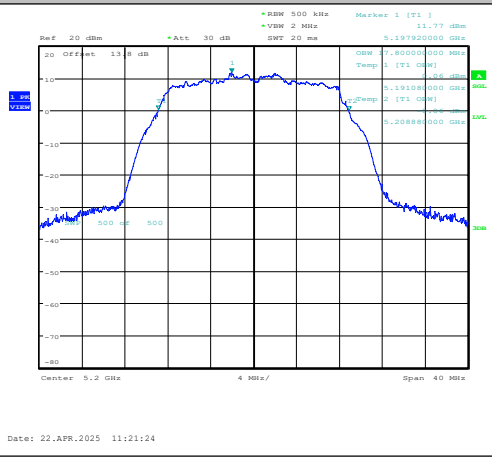
Test Setup



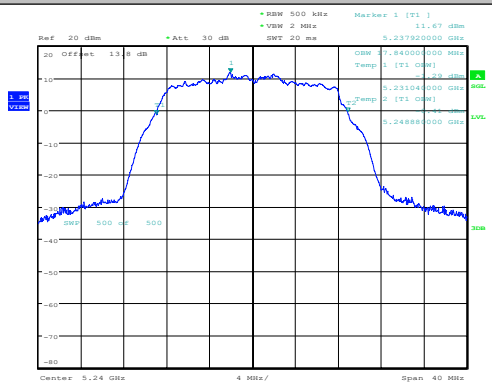
Measurement Results:

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5180	17.8	5171.1200	5188.8800
11A	Ant1	5200	17.8	5191.0800	5208.8800
11A	Ant1	5240	17.8	5231.0400	5248.8800
11N20SISO	Ant1	5180	18.7	5170.6400	5189.3200
11N20SISO	Ant1	5200	18.7	5190.5600	5209.2800
11N20SISO	Ant1	5240	18.7	5230.6000	5249.2800
11AC20SISO	Ant1	5180	18.8	5170.6000	5189.3600
11AC20SISO	Ant1	5200	18.8	5190.5600	5209.3200
11AC20SISO	Ant1	5240	18.8	5230.5600	5249.3200
11AX20SISO	Ant1	5180	19.4	5170.3200	5189.6800
11AX20SISO	Ant1	5200	19.4	5190.2800	5209.6800
11AX20SISO	Ant1	5240	19.4	5230.2400	5249.6400

Test Graphs

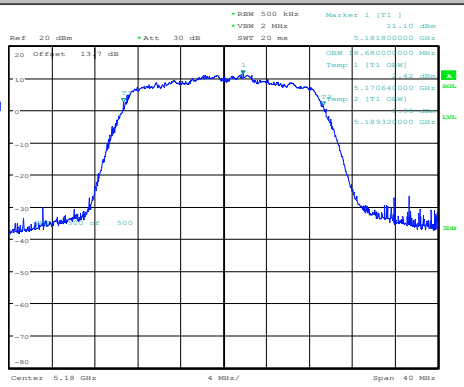
11A-Ant1-5180	11A-Ant1-5200
	

11A-Ant1-5240



Date: 22.APR.2025 11:23:50

11N20SISO-Ant1-5180



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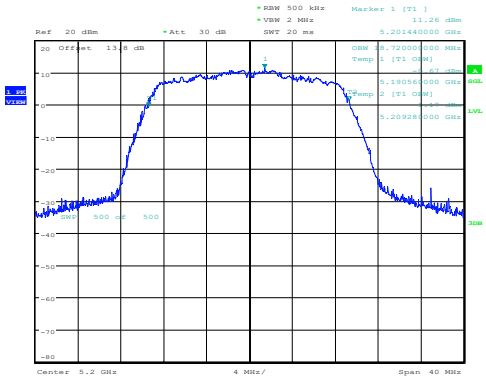
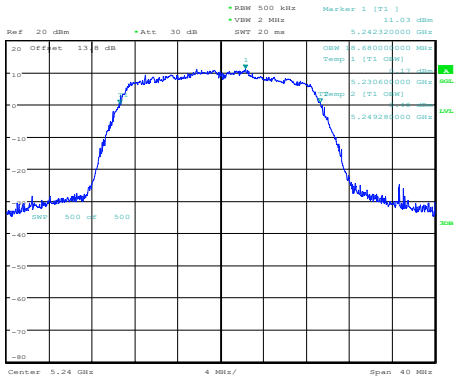
11N20SISO-Ant1-5200



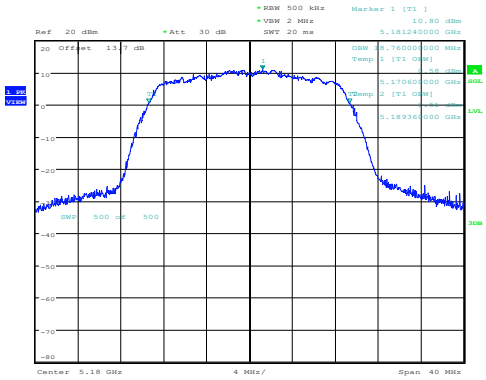
Date: 22.APR.2025 13:13:54

11N20SISO-Ant1-5240



Date: 22.APR.2025 13:16:27

11AC20SISO-Ant1-5180



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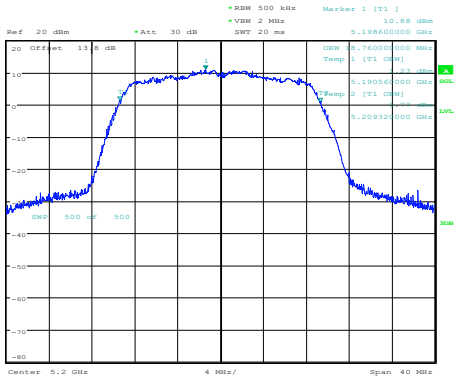

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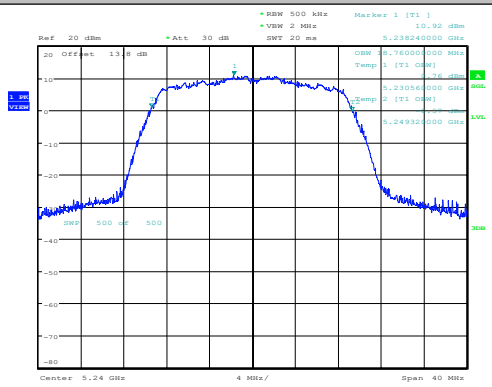	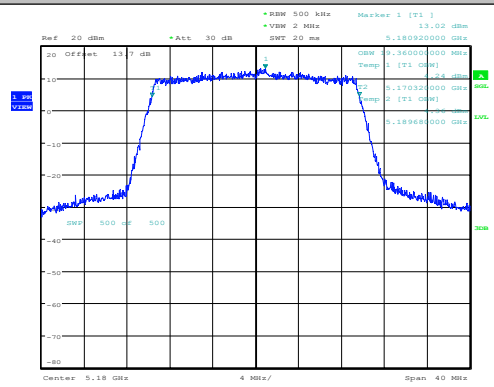
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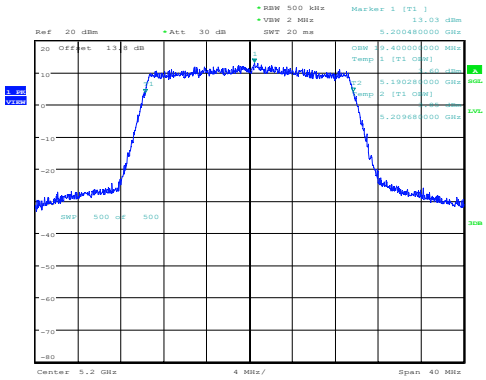	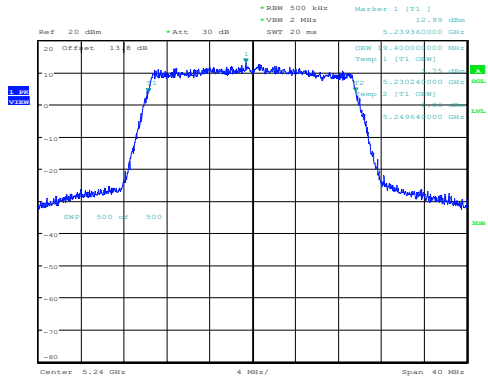
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6.6 Occupied 26dB Bandwidth

Specifications:	2.1049,RSS-GEN 6.7
DUT Serial Number:	N507D53S10180
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	--

Measurement Uncertainty:

Measurement Uncertainty	17.6kHz

Test Procedure:

The measurement method is made according to KDB 789033 C

1.Set RBW = approximately 1% of the emission bandwidth

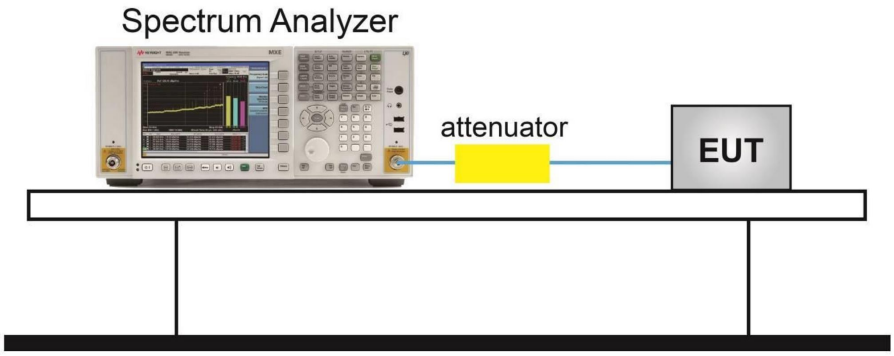
2.Set the VBW > RBW

3.Detector = Peak.

4.Trace mode = max hold.

5.Measure the maximum width of the emission that is 26 dB down from the maximum 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%.

Test Setup:

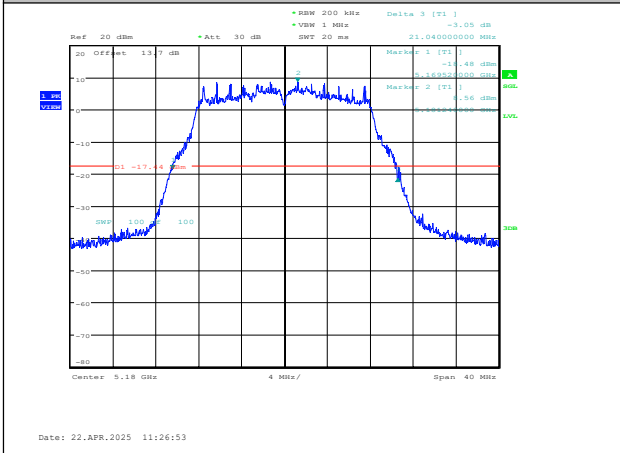


Measurement Results:

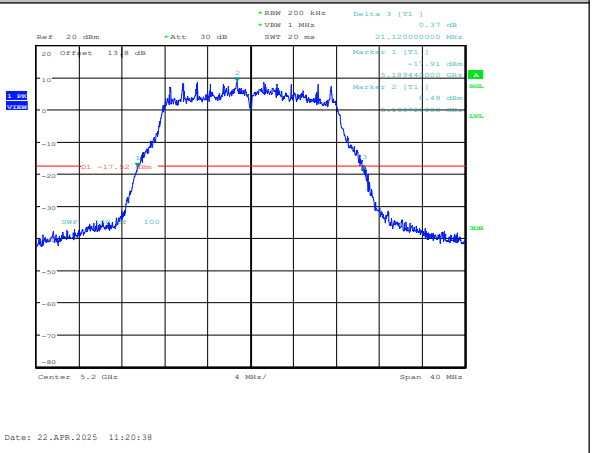
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5180	21.0	5169.52	5190.56
11A	Ant1	5200	21.1	5189.44	5210.56
11A	Ant1	5240	21.1	5229.44	5250.56
11N20SISO	Ant1	5180	21.4	5169.36	5190.64
11N20SISO	Ant1	5200	21.2	5189.40	5210.56
11N20SISO	Ant1	5240	21.4	5229.24	5250.60
11AC20SISO	Ant1	5180	21.2	5169.48	5190.68
11AC20SISO	Ant1	5200	21.4	5189.32	5210.76
11AC20SISO	Ant1	5240	21.2	5229.36	5250.60
11AX20SISO	Ant1	5180	21.4	5169.20	5190.64
11AX20SISO	Ant1	5200	21.6	5189.24	5210.80
11AX20SISO	Ant1	5240	21.6	5229.20	5250.76

Test Graphs

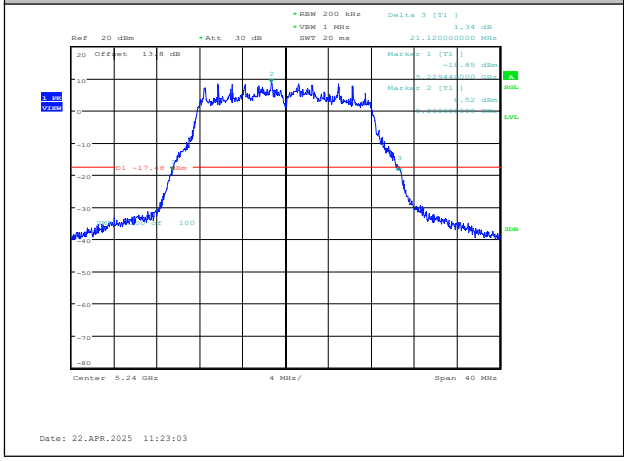
11A-Ant1-5180



11A-Ant1-5200



11A-Ant1-5240



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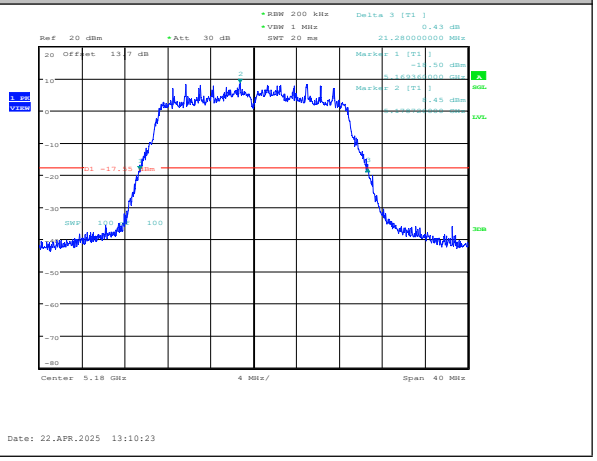

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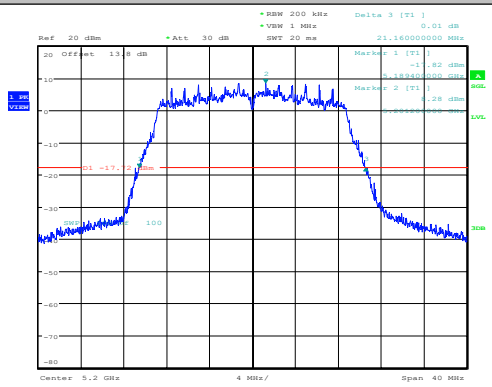	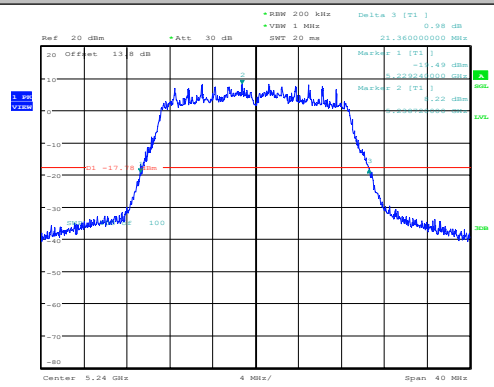
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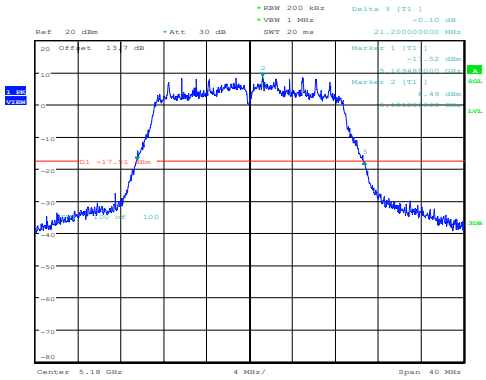	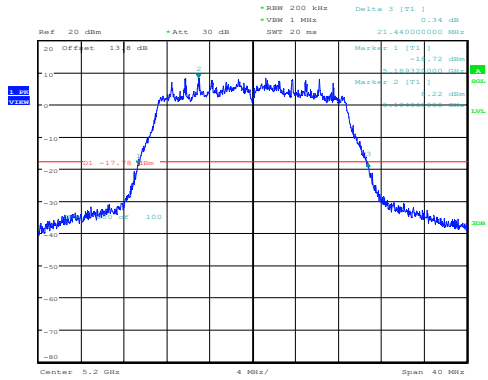
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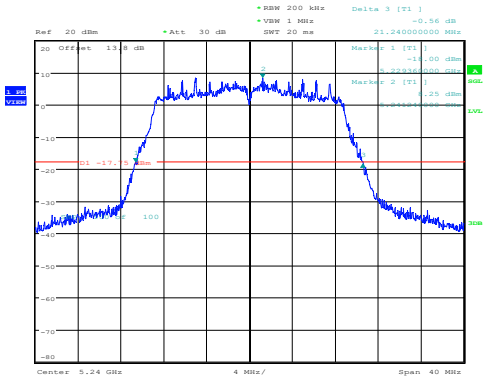	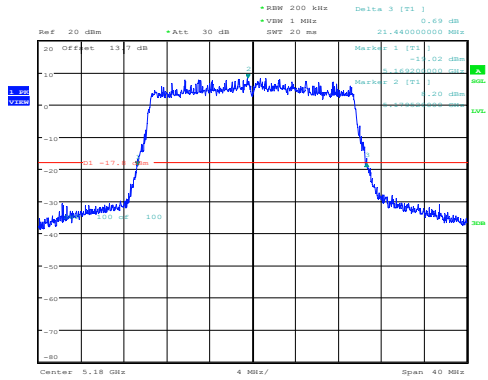
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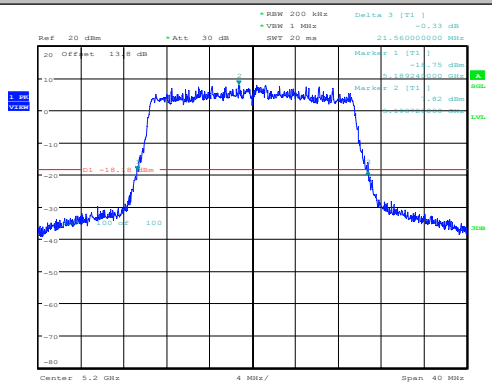
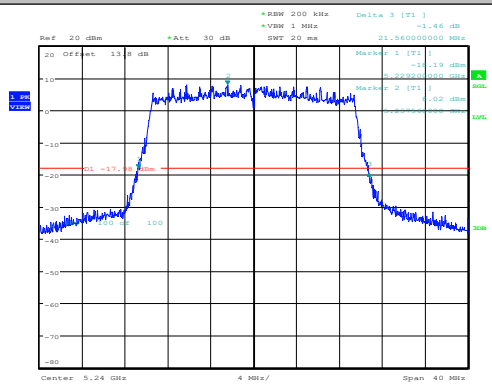
	

6.7 Band Edges Compliance

Specifications:	FCC Part 15.209,15.407(b), RSS-247 6.2, RSS-Gen 8.9
DUT Serial Number:	N507D53S10198
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60%
Test Results:	Pass

Limit Level Construction:

Above 1G, non-restricted band

Standard	EIRP Limit
FCC Part 15.407(b)	＜-27dBm/MHz
RSS-247 6.2	< -27dBm/MHz

Above 1G, Restricted band

Standard	EIRP Limit	
FCC Part 15.209	Peak	74dBμV/m
	Average	54dBμV/m
RSS-Gen 8.9	Peak	74dBμV/m
	Average	54dBμV/m

EIRP[dBm] = E[dBμV/m] + 20 log (d[m]) − 104.7

E[dBμV/m] = EIRP[dBm] - 20 log (d[m]) + 104.7

E[dBμV/m] = EIRP[dBm] + 95.2 = 68.2， for d = 3m

Measurement Uncertainty:

Measurement Uncertainty	1 GHz to 6 GHz：4.84 dB (k=2).

Test Procedure:

The measurement is made according to KDB 789033.

Marker-Delta Method: The marker-delta method, as described in ANSI C63.10, can be used to perform measurements of the radiated unwanted emissions level of emissions provided that the 99% occupied bandwidth of the fundamental is within 2 MHz of the authorized band-edge.

Procedure for peak unwanted emissions measurements above 1000 MHz

The procedure for peak unwanted emissions measurements above 1000 MHz is as follows:

a) Follow the requirements in 12.7.4.

b) Peak emission levels are measured by setting the instrument as follows:

1) RBW = 1 MHz.

2) VBW ≥ [3 × RBW].

3) Detector = peak.

4) Sweep time = auto.

5) Trace mode = max hold.

6) Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, then the time required for the trace to stabilize will increase by a factor of approximately 1 / D, where D is the duty cycle. For example, at 50% duty cycle, the measurement time will increase by a factor of two, relative to measurement time for continuous transmission.

Procedures for average unwanted emissions measurements above 1000 MHz

a) RBW = 1 MHz.

b) Video bandwidth:

1) If the EUT is configured to transmit with $D \geq 98\%$, then set VBW ≤ RBW / 100 (i.e., 10 kHz), but not less than 10 Hz.

2) If the EUT D is < 98%, then set VBW ≥ 1 / T, where T is defined in item a1) of 12.2.

c) Video bandwidth mode or display mode:

1) The instrument shall be set with video filtering applied in the power domain. Typically, this requires setting the detector mode to RMS (power averaging) and setting the average-VBW type to power (rms).

2) As an alternative, the instrument may be set to linear detector mode. Video filtering shall be applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode to accomplish this. Others have a setting for average-VBW type, which can be set to “voltage” regardless of the display mode.

d) Detector = peak.

e) Sweep time = auto.

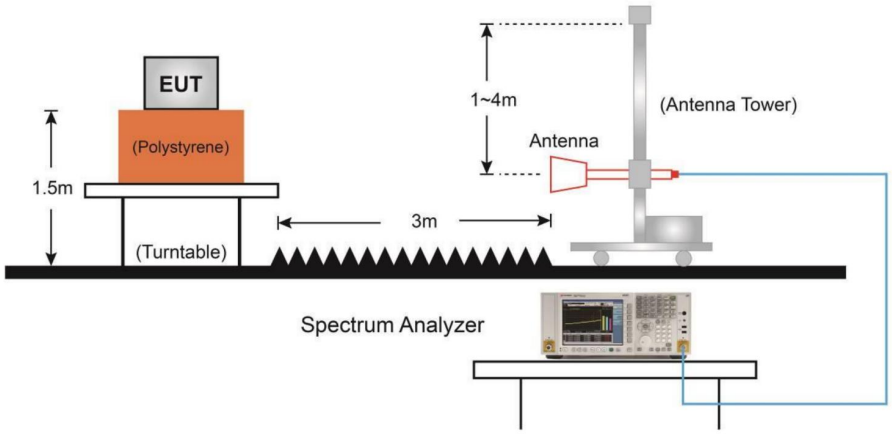
f) Trace mode = max hold.

g) Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98% duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where D is the duty cycle. For example, use at least 200 traces if the duty cycle is 25%. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the

transmit cycle, at least 50 traces should be averaged.)

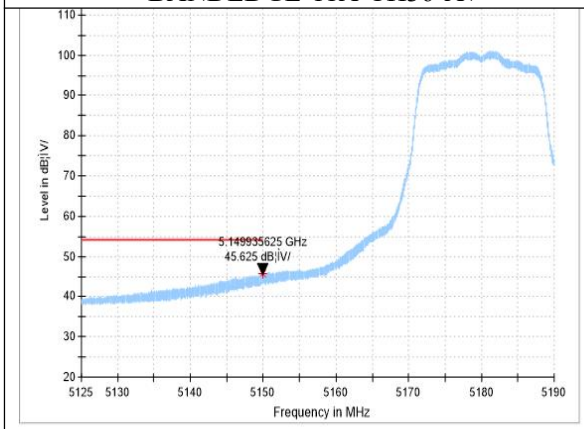
The measurement was applied in a fully anechoic chamber. While testing for spurious emission higher than 1GHz, if applied, the pre-amplifier would be equipped just at the output terminal of the antenna. Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m. For emission measurements above 1 GHz, the table height shall be 1.5 m. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on an antenna mast. During the tests, the antenna height varied from 1m to 4m and the EUT azimuth were varied from 0° to 360° in order to identify the maximum level of emissions from the EUT. In making any tests involving handheld, body-worn, or ceiling-mounted equipment, it is essential to recognize that the measured levels may be dependent on the orientation (attitude) of the three orthogonal axes of the EUT. Thus, exploratory tests as specified in 8.3.1 shall be carried out for various axes orientations to determine the attitude having maximum or near-maximum emission level. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Test Setup



Measurement Results:

BANDEDGE-11A-CH36-AV



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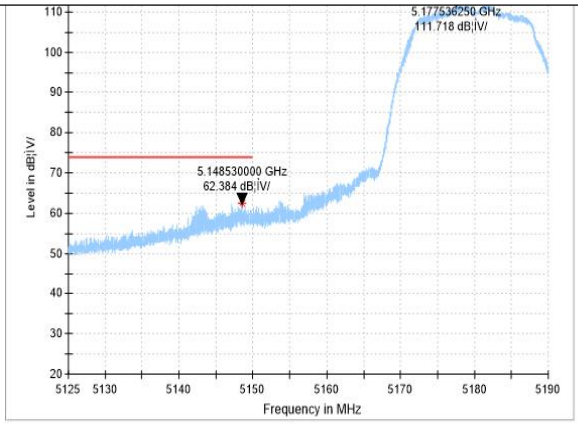

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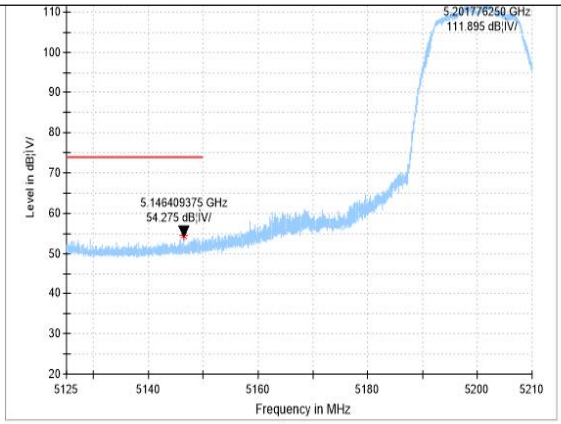

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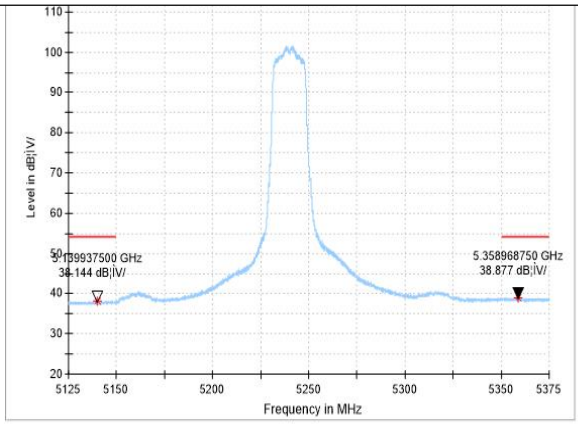

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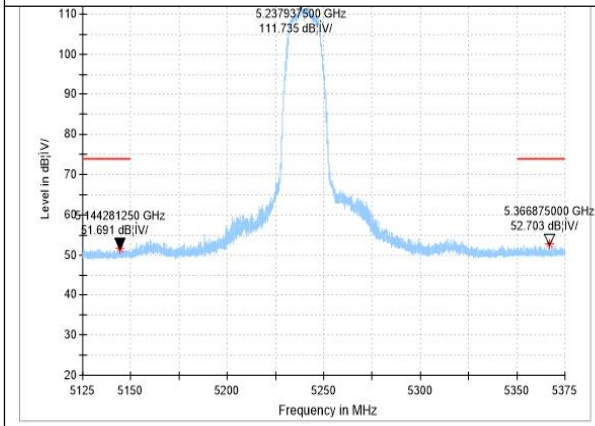

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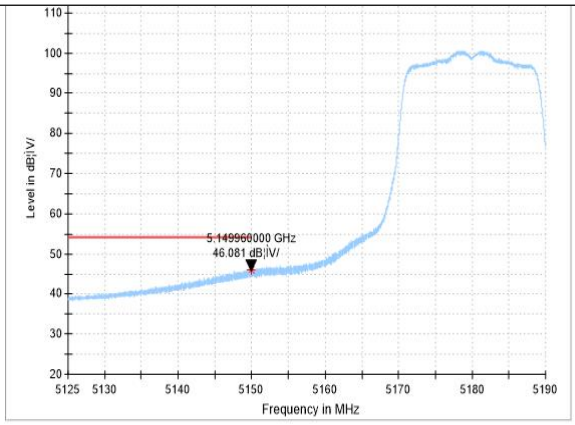

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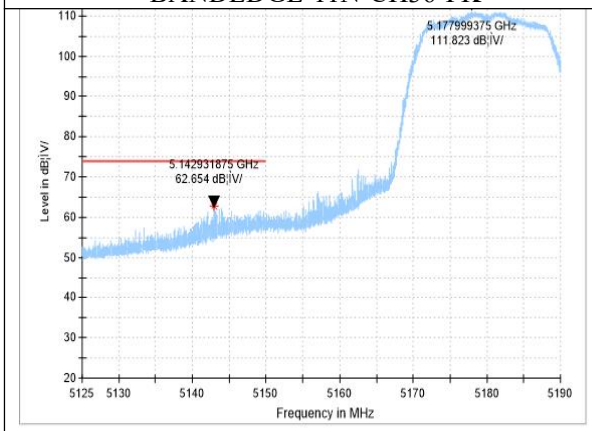

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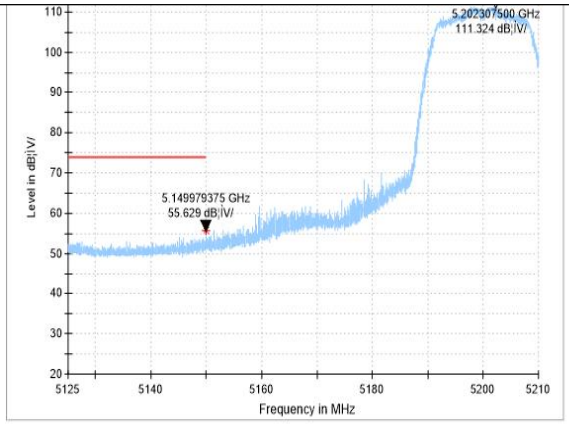

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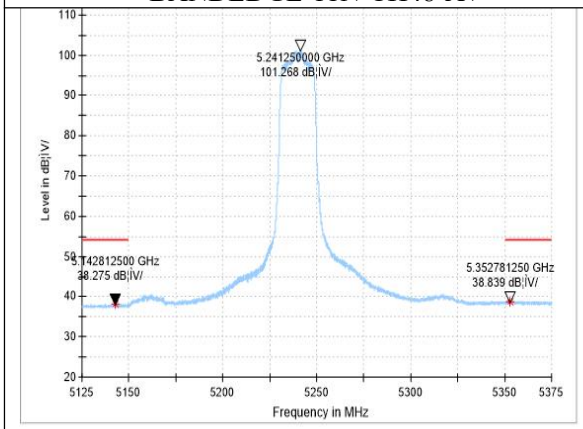

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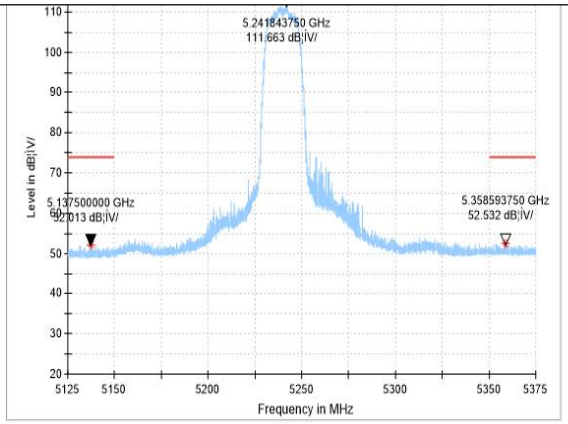

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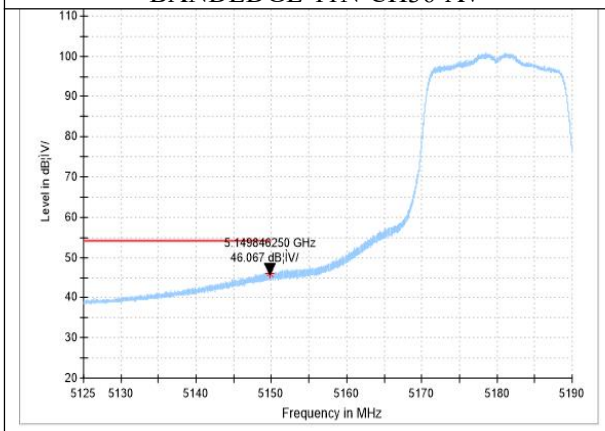

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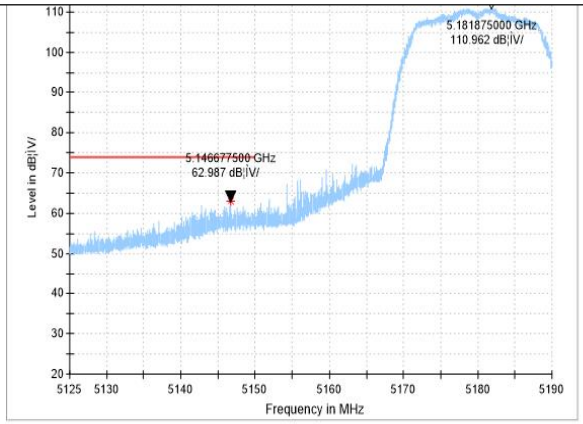

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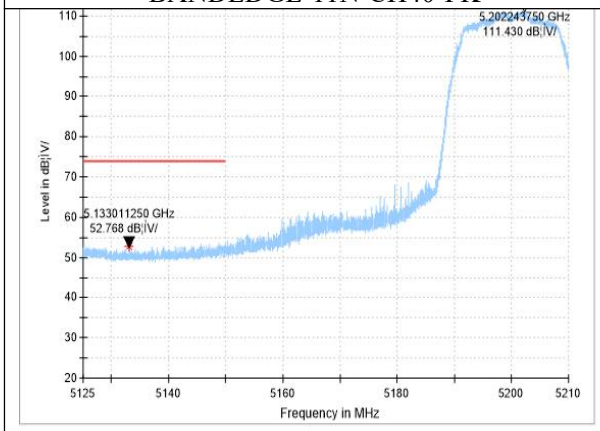

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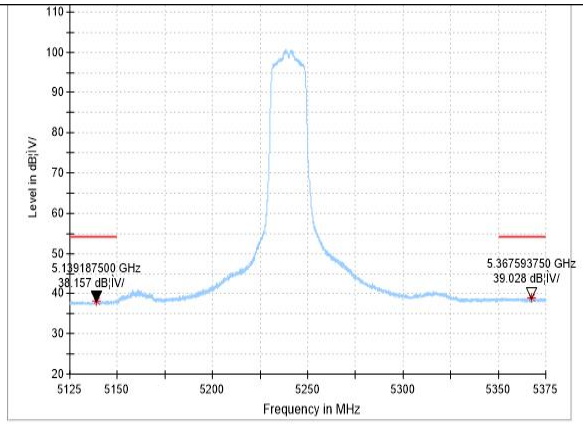

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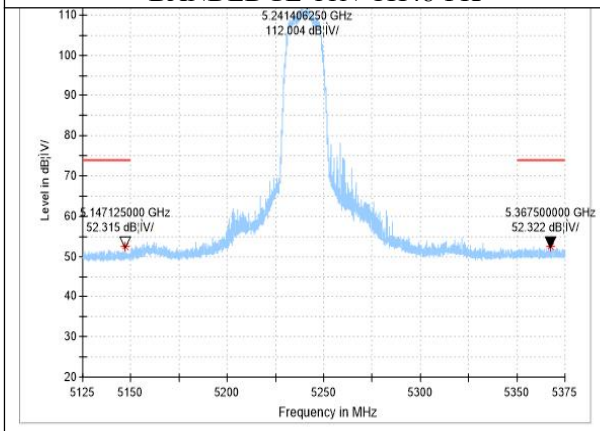

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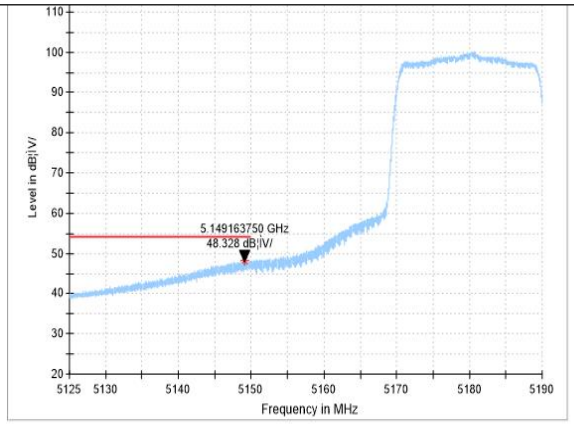

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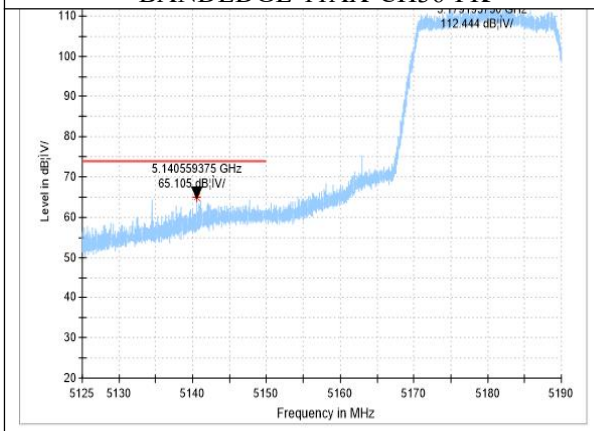

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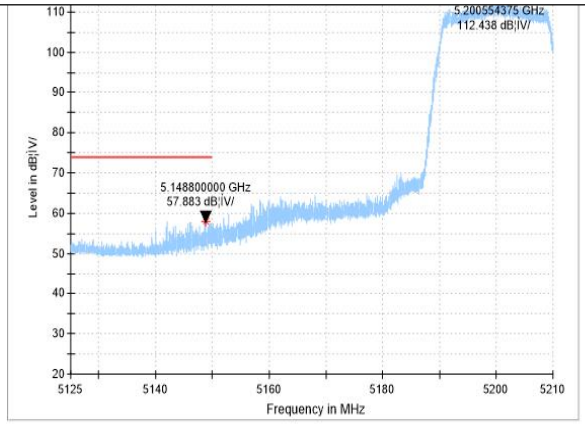
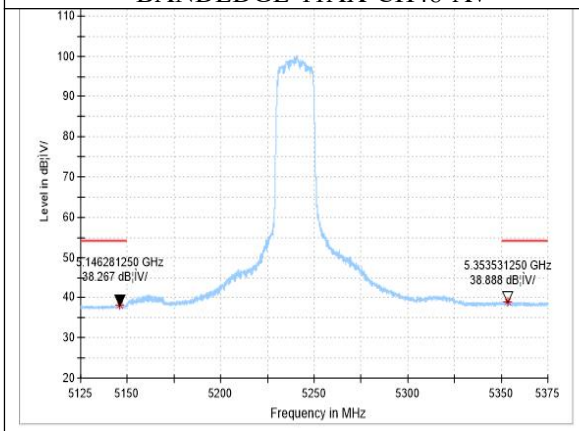
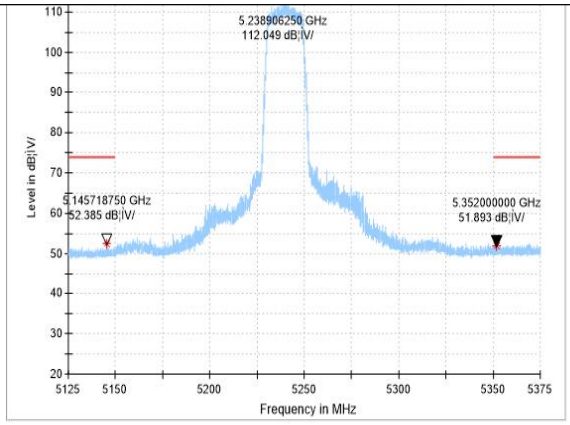


BANDEDGE-11AX-CH48-AV	BANDEDGE-11AX-CH48-PK
	

Note:

1. Only data in worst mode is provided.
2. Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

6.8 Transmitter Spurious Emission

Specifications:	FCC Part 15.209,15.407(b), RSS-247 6.2, RSS-Gen 8.9
DUT Serial Number:	N507D53S10198
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60%
Test Results:	Pass

Limit Level Construction:

Below 1G

Frequency of emission (MHz)	Field strength(dBμV/m)	Measurement distance(m)
0.009-0.490	129-94	3
0.490-1.705	74-63	3
1.705-30	70	3
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

Note: for frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m.

Above 1G, non-restricted band

Standard	EIRP Limit
FCC Part 15.407(b)	-27dBm/MHz
RSS-247 6.2	-27dBm/MHz

Above 1G, Restricted band

Standard	EIRP Limit	
15.209	Peak	74dBμV/m
	Average	54dBμV/m
RSS-Gen 8.9	Peak	74dBμV/m
	Average	54dBμV/m

EIRP[dBm] = E[dBμV/m] + 20 log (d[m]) − 104.7

E[dBμV/m] = EIRP[dBm] - 20 log (d[m]) + 104.7

E[dBμV/m] = EIRP[dBm] + 95.2 = 68.2， for d = 3m

Measurement Uncertainty:

Measurement Uncertainty	30MHz-150MHz 3.82 dB (k=2) 150MHz-1000MHz 3.97 dB (k=2) 1000MHz-3000MHz 3.09 dB (k=2) 3000MHz-6000MHz 3.29 dB (k=2) 6000MHz-18000MHz 3.91 dB (k=2) 18000MHz-26000MHz 4.60 dB (k=2)

Test Procedure:

The measurement is made according to KDB 789033

Set the spectrum analyzer in the following:

Procedure for Unwanted Emissions Measurements below 1000 MHz:

a) Follow the requirements in II.G.3. "General Requirements for Unwanted Emissions Measurements."

b)Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.

Detector: Peak and Quasi-Peak

RBW=100kHz / VBW=300kHz / Sweep=AUTO

Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz:

a) Follow the requirements in II.G.3, "General Requirements for Unwanted Emissions Measurements."

b) Maximum emission levels are measured by setting the analyzer as follows:

(i) RBW = 1 MHz.

(ii) VBW ≥ 3 MHz.

(iii) Detector = Peak.

(iv) Sweep time = auto.

(v) Trace mode = max hold.

(vi) Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle. For example, at 50% duty cycle, the measurement time will increase by a factor of two relative to measurement time for continuous transmission.

Procedures for Average Unwanted Emissions Measurements above 1000 MHz:

a) Follow the requirements in section II.G.3., "General Requirements for Unwanted Emissions Measurements."

b) Average emission levels shall be measured using one of the following two methods.

c) Method AD (Average Detection): Primary method

(i) RBW = 1 MHz.

(ii) VBW ≥ 3 MHz.

(iii) Detector = power averaging (rms), if span/(# of points in sweep) ≤ RBW/2. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, the detector mode shall be set to peak.

(iv) Averaging type = power averaging (rms)

As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.

(v) Sweep time = auto.

(vi) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, the number of traces shall be increased by a factor of 1/x, where x is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—rather than turning on and off with the transmit cycle, at least 100 traces shall be averaged.)

(vii) If tests are performed with the EUT transmitting at a duty cycle less than 98%, a correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

If power averaging (rms) mode was used in step (iv) above, the correction factor is 10 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB must be added to the measured emission levels.

If linear voltage averaging mode was used in step (iv) above, the correction factor is 20 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB must be added to the measured emission levels.

If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning on and off with the transmit cycle, no duty cycle correction is required for that emission.

Portable, small, lightweight, or modular devices that may be handheld, worn on the body, or placed on a table during operation shall be positioned on a non-conducting platform, the top of which is 80 cm above the reference ground plane. The preferred area occupied by the EUT arrangement is 1 m by 1.5 m, For emissions testing at or below 1 GHz, the table height shall be 80 cm above the reference ground plane. For

emission measurements above 1 GHz, the table height shall be 1.5 m. but it may be larger or smaller to accommodate various sized EUTs. For testing purposes, ceiling- and wall-mounted devices also shall be positioned on a tabletop (see also ANSI C63.10-2013 section 6.3.4 and 6.3.5). In making any tests involving handheld, body-worn, or ceiling-mounted equipment, it is essential to recognize that the measured levels may be dependent on the orientation (attitude) of the three orthogonal axes of the EUT. Thus, exploratory tests as specified in 8.3.1 shall be carried out for various axes orientations to determine the attitude having maximum or near-maximum emission level.

The EUT was placed on a non-conductive table. Below 18GHz , the measurement antenna was placed at a distance of 3 meters from the EUT. Above 18GHz , the measurement antenna was placed at a distance of 1 meter from the EUT. During the tests, the antenna height varied from 1m to 4m and the EUT azimuth were varied from 0° to 360° in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Remark:

1. Factor= Antenna Factor + Cable Loss (-Amplifier, is employed)

2. Measured level= Original Receiver Reading + Factor

3. Margin = Limit – Measured level

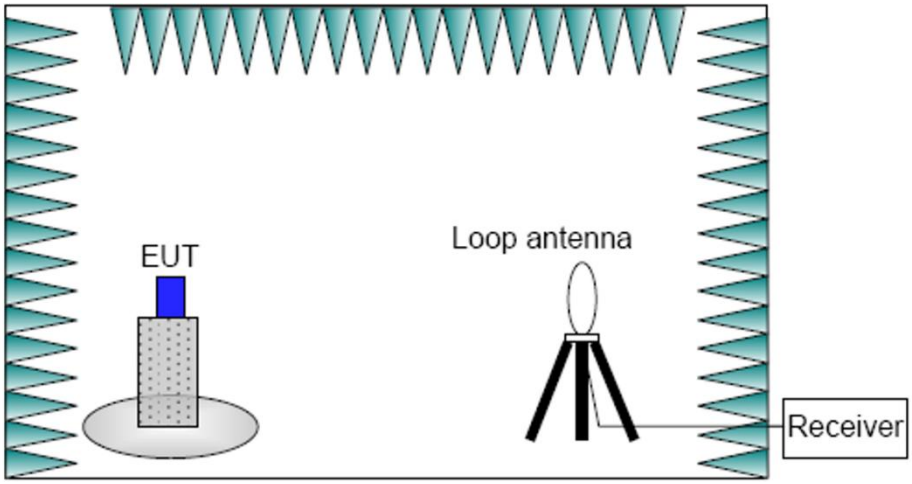
4. If the PK measured level is lower than AV limit, the AV test can be elided

Note：

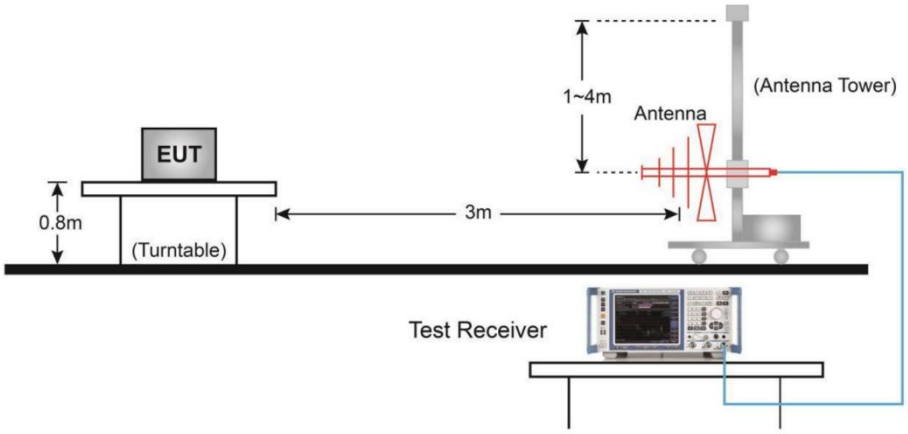
1. The out-of- limit signal in the picture is the main frequency signal.
2. Only data in worst mode is provided.
3. Sweep the whole frequency band through the range from 30MHz to the 10th harmonic of the carrier, the Emissions in the frequency band 18GHz-40GHz is more than 20dB below the limit are not report.
4. The test data below 30MHz is more than 20dB lower than the limit value, so it is not provided in the report.
5. Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

Test Setup

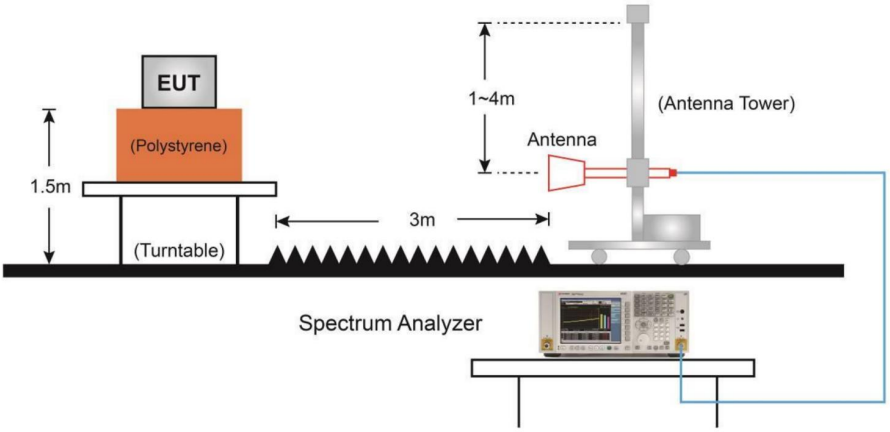
Below 30MHz Test Setup



Below 1GHz Test Setup



Above 1GHz Test Setup



Measurement Results:

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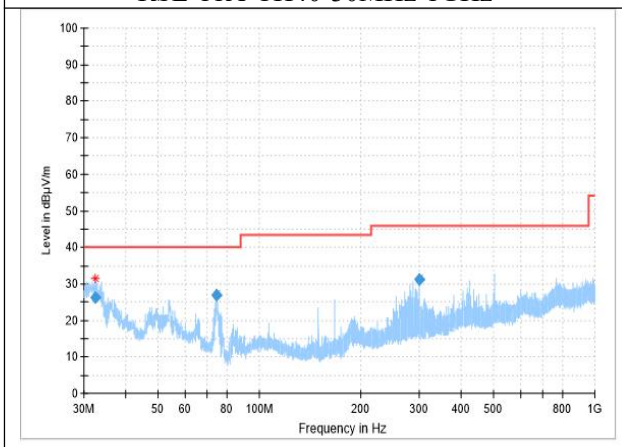
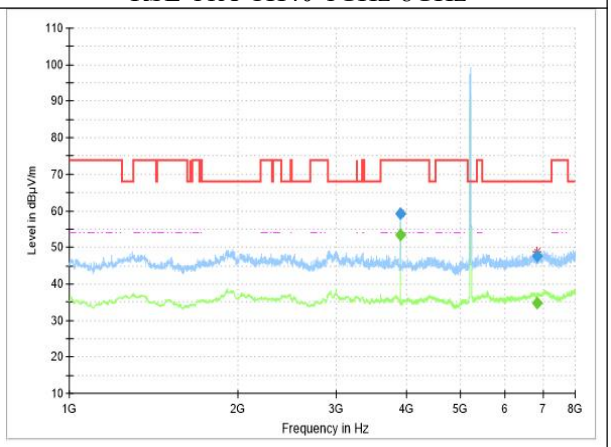
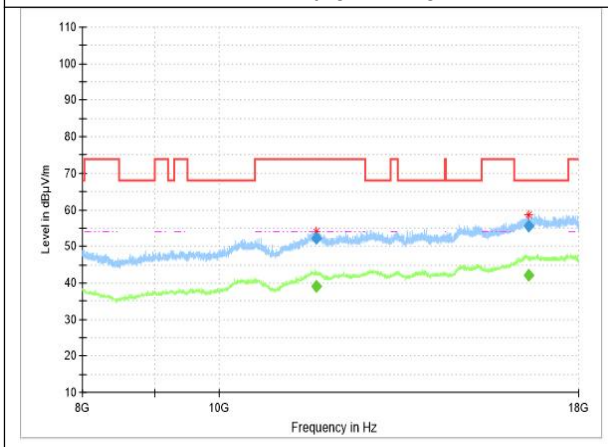
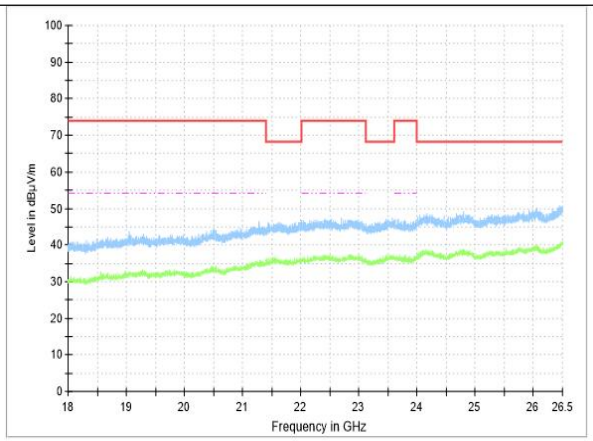
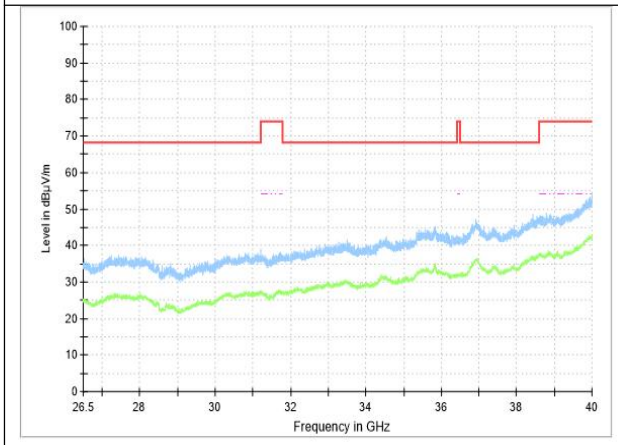
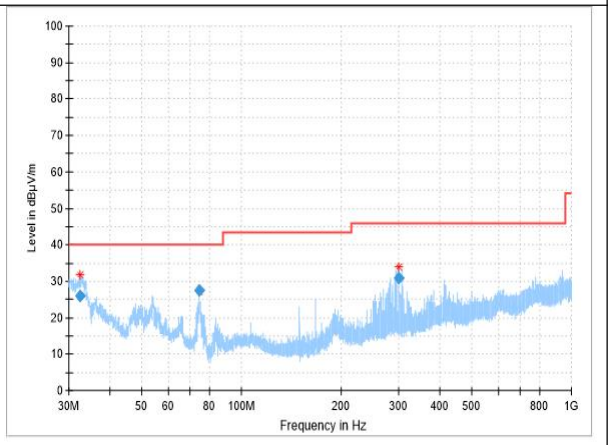
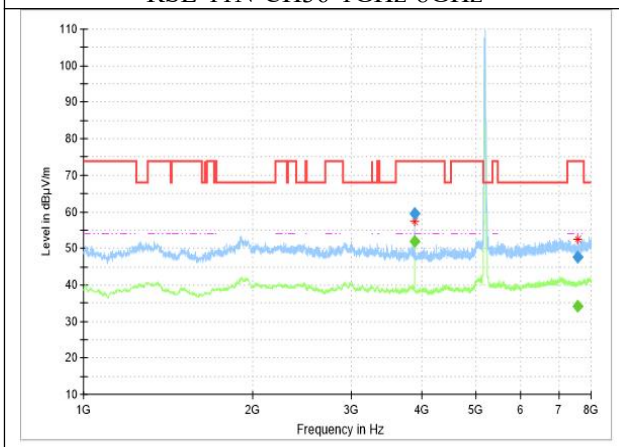
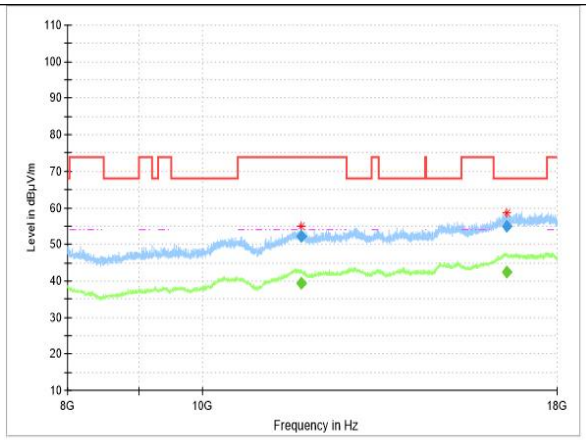
	
RSE-11A-CH40-8GHz-18GHz	RSE-11A-CH40-18GHz-26.5GHz
	
RSE-11A-CH40-26.5GHz-40GHz	RSE-11N-CH36-30MHz-1GHz
	

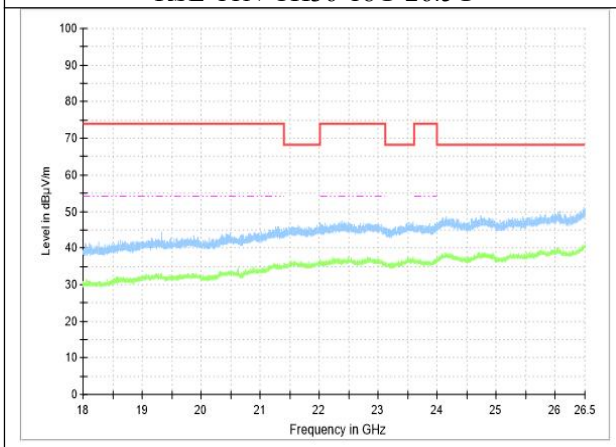
RSE-11N-CH36-1GHz-8GHz



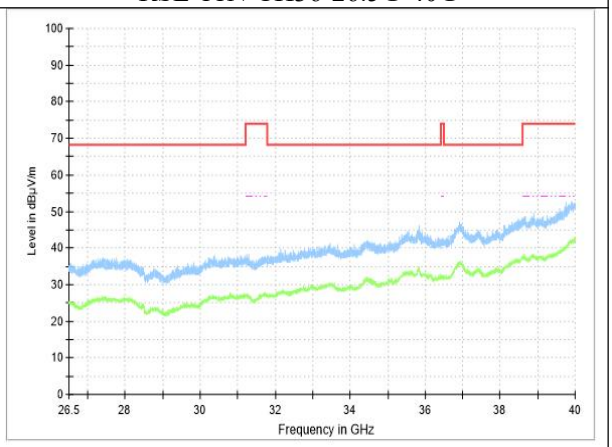
RSE-11N-CH36-8GHz-18GHz



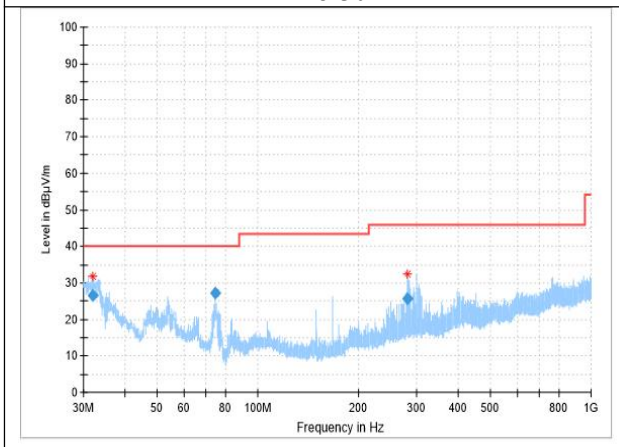
RSE-11N-CH36-18G-26.5G



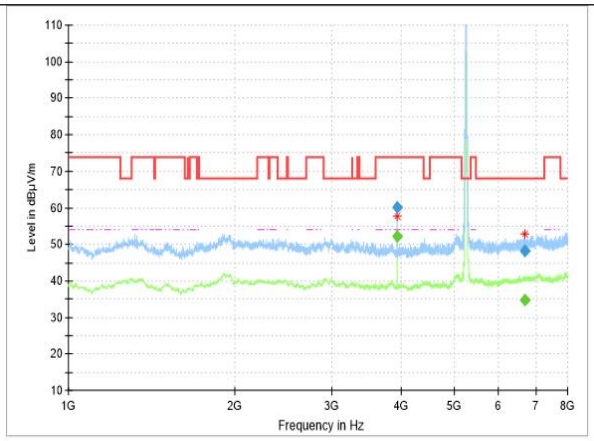
RSE-11N-CH36-26.5G-40G



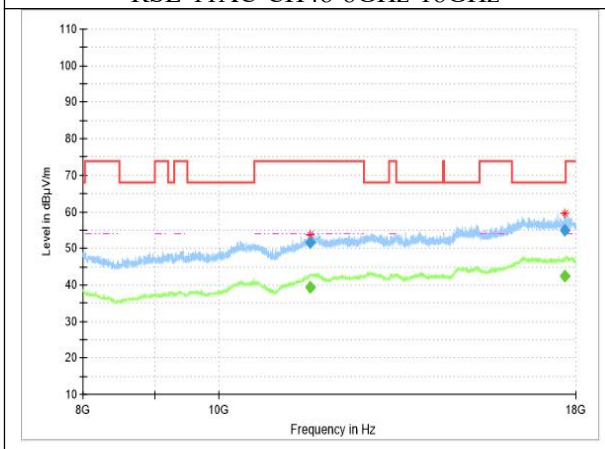
RSE-11AC-CH48-30MHz-1GHz



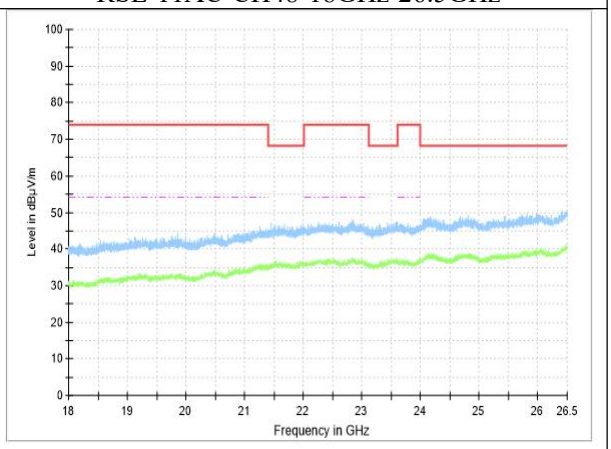
RSE-11AC-CH48-1GHz-8GHz



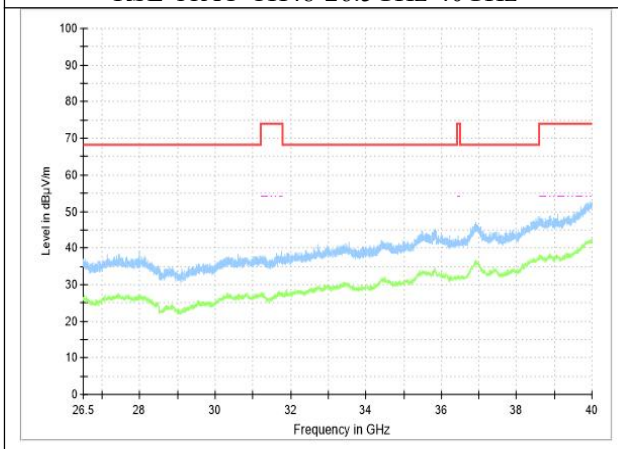
RSE-11AC-CH48-8GHz-18GHz



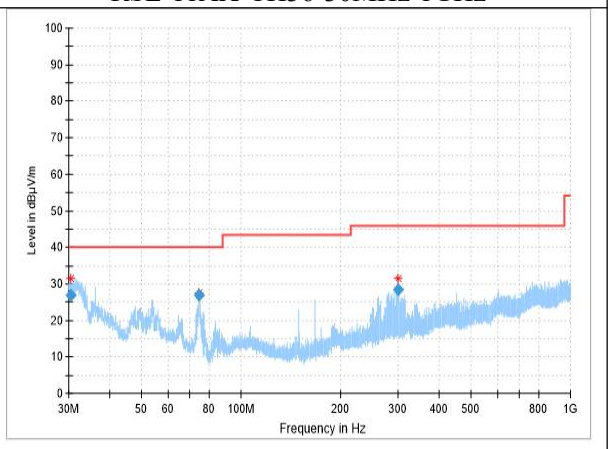
RSE-11AC-CH48-18GHz-26.5GHz



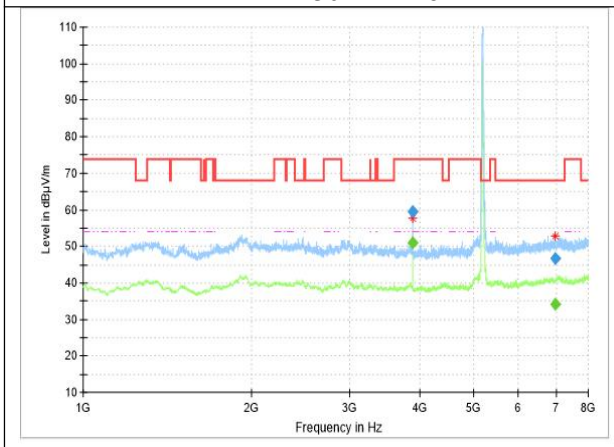
RSE-11AC-CH48-26.5GHz-40GHz



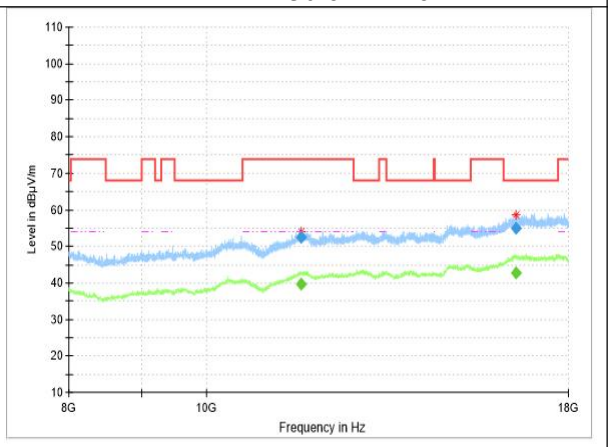
RSE-11AX-CH36-30MHz-1GHz

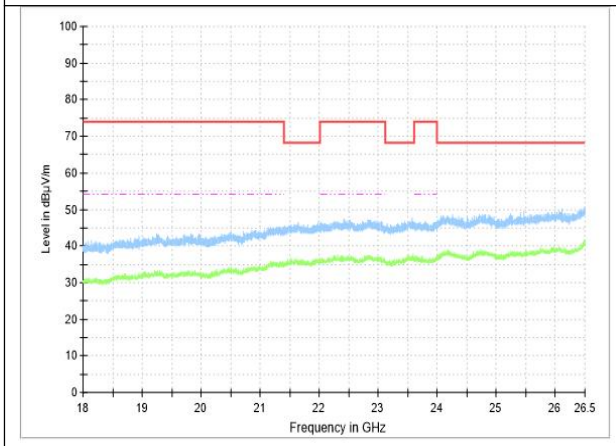
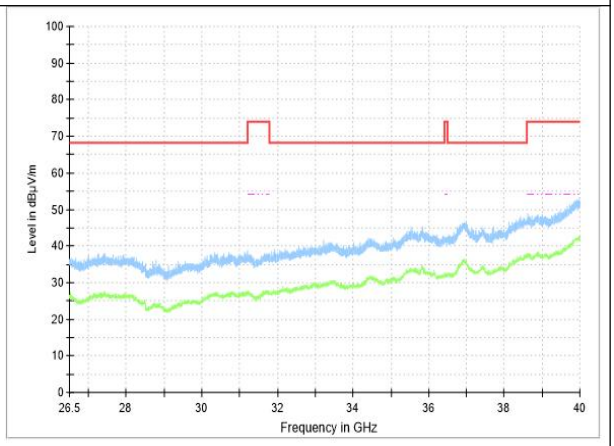


RSE-11AX-CH36-1GHz-8GHz



RSE-11AX-CH36-8GHz-18GHz



RSE-11AX-CH36-18GHz-26.5GHz	RSE-11AX-CH36-26.5GHz-40GHz
	

Note:

1. The out-of- limit signal in the picture is the main frequency signal.
2. Only data in worst mode is provided.
3. The test data of more than 18G is far below the limit, so thereport only shows the pictures of the test data and does not have a data record table.
4. The test data below 30MHz is more than 20dB lower than the limit value, so it is not provided in the report.
5. Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

RSE-11A-CH40-30MHz-1GHz

Frequency (MHz)	QuasiPeak(dBµV/m)	ARpl (dB)	PMea (dBµV/m)	Margin(dB)	Limit(dBµV/m)	Polarity
32.5	26.18	-15	41.18	13.82	40.00	V
74.6	27.02	-17	44.02	12.98	40.00	V
300.0	31.1	-10	41.1	14.90	46.00	H

RSE-11A-CH40-1GHz-8GHz

Frequency (MHz)	MaxPeak(dBµV/m)	ARpl (dB)	PMea (dBµV/m)	Margin(dB)	Limit(dBµV/m)	Polarity
3899.8	59.33	1	58.33	14.67	74.00	H
6822.2	47.69	4	43.69	20.51	68.20	V

RSE-11A-CH40-1GHz-8GHz

Frequency (MHz)	Average(dBµV/m)	ARpl (dB)	PMea (dBµV/m)	Margin(dB)	Limit(dBµV/m)	Polarity
3899.8	53.44	1	52.44	0.56	54.00	H

6822.2	34.87	4	30.87	---	---	V

RSE-11A-CH40-8GHz-18GHz

Frequency (MHz)	MaxPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
11715.0	52.26	11	41.26	21.74	74.00	V
16586.0	55.65	17	38.65	12.55	68.20	H

RSE-11A-CH40-8GHz-18GHz

Frequency (MHz)	Average(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
11715.0	39.13	11	28.13	14.87	54.00	V
16586.0	42.23	17	25.23	---	---	H

RSE-11N-CH36-30MHz-1GHz

Frequency (MHz)	QuasiPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
32.5	26.05	-15	41.05	13.95	40.00	V
74.6	27.42	-17	44.42	12.58	40.00	V
300.0	30.86	-10	40.86	15.14	46.00	H

RSE-11N-CH36-1GHz-8GHz

Frequency (MHz)	MaxPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
3884.9	59.51	1	58.51	14.49	74.00	H
7566.9	47.49	4	43.49	26.51	74.00	H

RSE-11N-CH36-1GHz-8GHz

Frequency (MHz)	Average(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
3884.9	51.83	1	50.83	2.17	54.00	H
7566.9	34.24	4	30.24	19.76	54.00	H

RSE-11N-CH36-8GHz-18GHz

Frequency (MHz)	MaxPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
11776.5	52.25	11	41.25	21.75	74.00	H

16558.0	54.92	18	36.92	13.28	68.20	H

RSE-11N-CH36-8GHz-18GHz

Frequency (MHz)	Average(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
11776.5	39.37	11	28.37	14.63	54.00	H
16558.0	42.37	18	24.37	---	---	H

RSE-11AC-CH48-30MHz-1GHz

Frequency (MHz)	QuasiPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
32.1	26.58	-15	41.58	13.42	40.00	V
74.6	27.21	-17	44.21	12.79	40.00	V
281.9	25.83	-11	36.83	20.17	46.00	H

RSE-11AC-CH48-1GHz-8GHz

Frequency (MHz)	MaxPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
3930.0	60	1	59	14.00	74.00	H
6680.4	48.12	4	44.12	20.08	68.20	H

RSE-11AC-CH48-1GHz-8GHz

Frequency (MHz)	Average(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
3930.0	52.35	1	51.35	1.65	54.00	H
6680.4	34.92	4	30.92	---	---	H

RSE-11AC-CH48-8GHz-18GHz

Frequency (MHz)	MaxPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
11631.8	51.67	11	40.67	22.33	74.00	H
17683.0	54.87	18	36.87	13.33	68.20	H

RSE-11AC-CH48-8GHz-18GHz

Frequency (MHz)	Average(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
11631.8	39.5	11	28.5	14.50	54.00	H
17683.0	42.39	18	24.39	---	---	H

RSE-11AX-CH36-30MHz-1GHz

Frequency (MHz)	QuasiPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
30.4	26.8	-16	42.8	13.20	40.00	V
74.6	26.78	-17	43.78	13.22	40.00	V
300.0	28.32	-10	38.32	17.68	46.00	H

RSE-11AX-CH36-1GHz-8GHz

Frequency (MHz)	MaxPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
3884.9	59.53	1	58.53	14.47	74.00	H
6981.9	46.81	4	42.81	21.39	68.20	H

RSE-11AX-CH36-1GHz-8GHz

Frequency (MHz)	Average(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
3884.9	51.04	1	50.04	2.96	54.00	H
6981.9	34.12	4	30.12	---	---	H

RSE-11AX-CH36-8GHz-18GHz

Frequency (MHz)	MaxPeak(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
11657.0	52.65	11	41.65	21.35	74.00	H
16530.2	54.94	18	36.94	13.26	68.20	H

RSE-11AX-CH36-8GHz-18GHz

Frequency (MHz)	Average(dBμV/m)	ARpl (dB)	PMea (dBμV/m)	Margin(dB)	Limit(dBμV/m)	Polarity
11657.0	39.64	11	28.64	14.36	54.00	H
16530.2	42.63	18	24.63	---	---	H

6.9 Frequency Stability

Manufacturers ensured the EUT meet the requirement of 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.(According to15.407(g), RSS-247 6.2).

6.10 AC Powerline Conducted Emission

Specifications:	FCC Part 15.207, RSS Gen 6.8
DUT Serial Number:	N507D53S10198
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60%
Test Results:	Pass

Method of Measurement: ANSI C63.10-2013-clause 6.2

1.The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.

2.f the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.

3.The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.

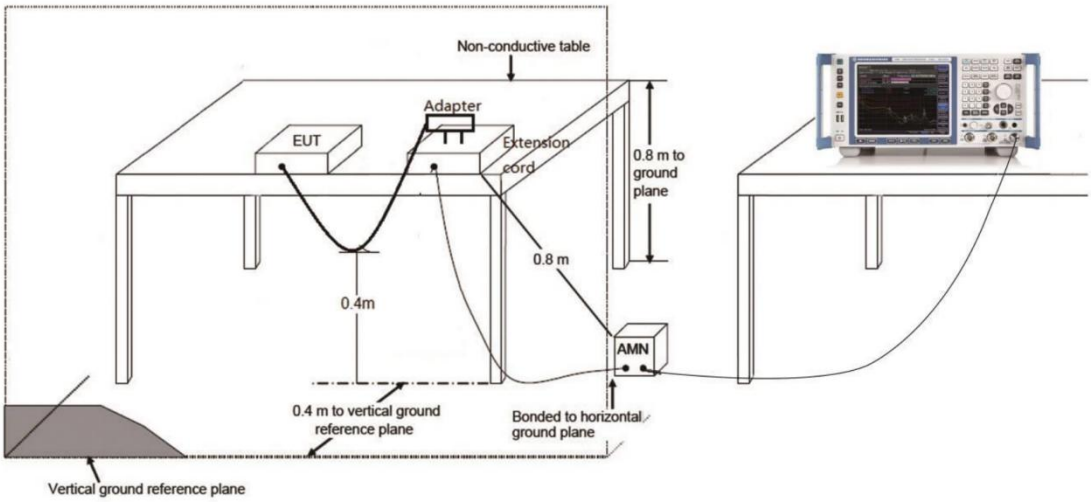
4.If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.

If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.36 Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

Measurement Uncertainty:

Measurement Uncertainty	1.97dB（k=2）

Test Setup



Test Condition

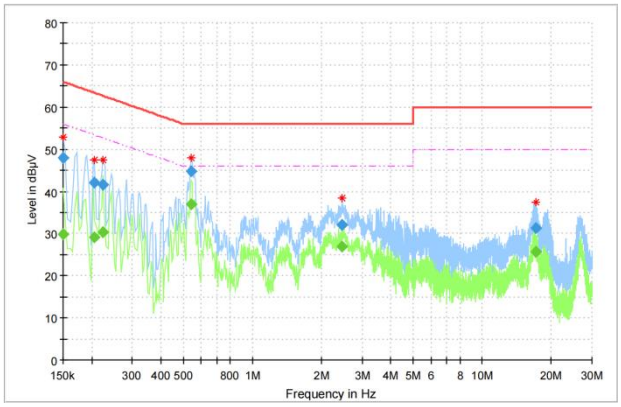
Voltage（V）	Frequency（Hz）
120	60

Measurement Result and limit:

(Quasi-peak-average Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Conclusion
0.15 to 0.5	66 to 56	56 to 46	P
0.5 to 5	56	46	
5 to 30	60	50	
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

Measurement Results:

11A CH5200	/
	/

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.150000	47.92	---	66.00	18.08	15000.0	9.000	N	ON	10.3
0.150000	---	29.96	56.00	26.04	15000.0	9.000	N	ON	10.3
0.205969	---	29.03	53.37	24.34	15000.0	9.000	N	ON	10.2
0.205969	42.08	---	63.37	21.28	15000.0	9.000	N	ON	10.2
0.224625	41.47	---	62.65	21.17	15000.0	9.000	N	ON	10.2
0.224625	---	30.22	52.65	22.42	15000.0	9.000	N	ON	10.2
0.541781	44.72	---	56.00	11.28	15000.0	9.000	N	ON	10.1
0.541781	---	37.05	46.00	8.95	15000.0	9.000	N	ON	10.1
2.467106	31.94	---	56.00	24.06	15000.0	9.000	L1	ON	9.9
2.467106	---	26.92	46.00	19.08	15000.0	9.000	L1	ON	9.9
17.112263	---	25.71	50.00	24.29	15000.0	9.000	N	ON	9.8
17.112263	31.25	---	60.00	28.75	15000.0	9.000	N	ON	9.8

Note:

1. All modes have been tested and only the worst mode is recorded in the report.
2. L1 and N is all have been tested, the result of them is synthesized in the above data diagram.

ANNEX A EUT Photos

See the document" 25B02W000009-External Photos".
See the document" 25B02W000009-Internal Photos".

ANNEX B Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

*****END OF REPORT*****

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