中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **Fujian Newland Payment Technology Co.,Ltd.**

Address: No. B602, Building #1, Haixia Jingmao Plaza,Fuzhou Bonded Area 350015, Fuzhou,Fujian, China

FCC ID: **2AM6U-NA950S**

Product Name: **POS Terminal**

Standard(s): **47 CFR Part 15, Subpart E(15.407)**
ANSI C63.10-2013
KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

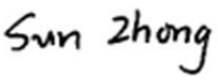
The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **2403U82009E-RF-00D**

Date Of Issue: **2024/8/9**

Reviewed By: **Calvin Chen**
Title: RF Engineer

Approved By: **Sun Zhong**
Title: Manager



Test Laboratory: **China Certification ICT Co., Ltd (Dongguan)**
No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China

Tel: +86-769-82016888

Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2403U82009E-RF-00D	Original Report	2024/8/9

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

1.1.1 General:

EUT Name:	POS Terminal
EUT Model:	N950S
Operation Frequency:	Band 1: 5180-5240 MHz (802.11a/n ht20/ac vht20) 5190-5230 MHz(802.11n ht40/ac vht40) 5210 MHz(802.11ac vht800) Band 2: 5260-5320 MHz (802.11a/n ht20/ac vht20) 5270-5310 MHz(802.11n ht40/ac vht40) 5290 MHz(802.11ac vht80) Band 3: 5500-5720 MHz (802.11a/n ht20/ac vht20) 5510-5710 MHz(802.11n ht40/ac vht40) 5530-5690 MHz(802.11ac vht80) Band 4: 5745-5825 MHz (802.11a/n ht20/ac vht20) 5755-5795 MHz(802.11n ht40/ac vht40) 5775 MHz(802.11ac vht80)
Maximum Average Conducted Output Power:	8.97 dBm in 5150-5250 MHz Band 10.0 dBm in 5250-5350 MHz Band 13.37 dBm in 5470-5725 MHz Band 15.23 dBm in 5725-5850 MHz Band
Modulation Type:	802.11a/n/ac: OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM
Rated Input Voltage:	DC 5V from Type-c port or DC 9V from DC power port or DC 7.2V from battery
Serial Number:	RF: 2NHV-1 RE&CE: 2NHV-2
EUT Received Date:	2024/6/26
EUT Received Status:	Good

1.1.2 Operation Frequency Detail:

For 802.11a/n ht20/ac vht20:

5150-5250MHz Band		5250-5350 MHz Band		5470-5725 MHz Band		5725-5850MHz Band	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
36	5180	52	5260	100	5500	149	5745
40	5200	56	5280	104	5520	153	5765
44	5220	60	5300	108	5540	157	5785
48	5240	64	5320	112	5560	161	5805
/	/	/	/	116	5580	165	5825
/	/	/	/	120	5600	/	/
/	/	/	/	124	5620	/	/
/	/	/	/	128	5640	/	/
/	/	/	/	132	5660	/	/
/	/	/	/	136	5680	/	/
/	/	/	/	140	5700	/	/
/	/	/	/	144	5720	/	/

Per section 15.31(m), the below channels were performed the test as below:

Test Channel	Test Frequency (MHz)			
	5150-5250 MHz	5250-5350 MHz	5470-5725 MHz	5725-5850 MHz
Lowest	5180	5260	5500	5745
Middle	5200	5280	5580	5785
Highest	5240	5320	5700	5825
Additional	/	/	5720	/

For 802.11n ht40/ac vht40:

5150-5250MHz		5250-5350 MHz		5470-5725 MHz		5725-5850MHz	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	54	5270	102	5510	151	5755
46	5230	62	5310	110	5550	159	5795
/	/	/	/	118	5590	/	/
/	/	/	/	126	5630	/	/
/	/	/	/	134	5670	/	/
/	/	/	/	142	5710	/	/

Per section 15.31(m), the below channels were performed the test as below:

Test Channel	Test Frequency (MHz)			
	5150-5250 MHz	5250-5350 MHz	5470-5725 MHz	5725-5850 MHz
Lowest	5190	5270	5510	5755
Middle	/	/	5550	/
Highest	5230	5310	5670	5795
Additional	/	/	5710	/

For 802.11ac vht80:

5150-5250MHz		5250-5350 MHz		5470-5725 MHz		5725-5850MHz	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	58	5290	106	5530	155	5775
/	/	/	/	122	5610	/	/
/	/	/	/	138	5690	/	/

Per section 15.31(m), the below channels were performed the test as below:

Test Channel	Test Frequency (MHz)			
	5150-5250 MHz	5250-5350 MHz	5470-5725 MHz	5725-5850 MHz
Lowest	/	/	5530	/
Middle	5210	5290	5610	5775
Highest	/	/	/	/
Additional	/	/	5690	/

Note: Additional channels cross the band 5470-5725MHz and 5725-5850 MHz, Conducted output power/ Power Spectral Density/bandwidth test with the additional channel to compliance with stricter limit of the two bands(5470-5725MHz more stricter).

1.1.3 Antenna Information Detail▲:

Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
FPC	50	5.15~5.25GHz	1.3
		5.25~5.35 GHz	1.42
		5.47~5.725 GHz	1.04
		5.725~5.85 GHz	0.43

The Method of §15.203 Compliance:

☒ Antenna was permanently attached to the unit.

☐ Antenna uses a unique type of connector to attach to the EUT.

☐ Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

1.1.4 Accessory Information:

Accessory Description	Manufacturer	Model
Adapter	SHENZHEN HONOR ELECTRONIC CO.,LTD.	ADS-25SGP-12 09023E

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer. Per DSS report test, Radiated emissions test with charging from DC IN was the worst, AC Line Conducted Emissions test with charging from Type-C was the worst.
Equipment Modifications:	No
EUT Exercise Software:	Pandora.exe

The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:

5150-5250 MHz Band:

Test Modes	Test Channels	Test Frequency (MHz)	Data rate	Power Level Setting
802.11a	Lowest	5180	6Mbps	15
	Middle	5200	6Mbps	15
	Highest	5240	6Mbps	15
802.11n ht20	Lowest	5180	MCS0	15
	Middle	5200	MCS0	15
	Highest	5240	MCS0	15
802.11n ht40	Lowest	5190	MCS0	15
	Highest	5230	MCS0	15
802.11ac vht80	Middle	5210	MCS0	15

5250-5350 MHz Band:

Test Modes	Test Channels	Test Frequency (MHz)	Data rate	Power Level Setting
802.11a	Lowest	5260	6Mbps	15
	Middle	5280	6Mbps	15
	Highest	5320	6Mbps	15
802.11n ht20	Lowest	5260	MCS0	15
	Middle	5280	MCS0	15
	Highest	5320	MCS0	15
802.11n ht40	Lowest	5270	MCS0	15
	Highest	5310	MCS0	15
802.11ac vht80	Middle	5290	MCS0	15

5470-5725 MHz Band:				
Test Modes	**Test Channels**	**Test Frequency (MHz)**	**Data rate**	**Power Level Setting**
802.11a	Lowest	5500	6Mbps	18
	Middle	5580	6Mbps	18
	Highest	5700	6Mbps	18
	Cross	5720	6Mbps	18
802.11n ht20	Lowest	5500	MCS0	18
	Middle	5580	MCS0	18
	Highest	5700	MCS0	18
	Cross	5720	MCS0	18
802.11n ht40	Lowest	5510	MCS0	17
	Highest	5550	MCS0	17
	Lowest	5670	MCS0	17
	Cross	5710	MCS0	17
802.11ac vht80	Lowest	5530	MCS0	17
	Middle	5610	MCS0	17
	Highest	5690	MCS0	17
5725-5850 MHz Band:				
Test Modes	**Test Channels**	**Test Frequency (MHz)**	**Data rate**	**Power Level Setting**
802.11a	Lowest	5745	6Mbps	18
	Middle	5785	6Mbps	18
	Highest	5825	6Mbps	18
802.11n ht20	Lowest	5745	MCS0	18
	Middle	5785	MCS0	18
	Highest	5825	MCS0	18
802.11n ht40	Lowest	5755	MCS0	18
	Highest	5795	MCS0	18
802.11ac vht80	Middle	5775	MCS0	18

Note:
1.The system support 802.11a/n ht20/n ht40/ac vht20/vht40/vht80, the vht20/vht40 were reduced since the identical parameters with 802.11n ht20/ht40.
2. The above are the worst-case data rates, which are determined for each mode based upon investigations by measuring the average power and PSD across all data rates, bandwidths, and modulations.

1.2.2 Support Equipment List and Details

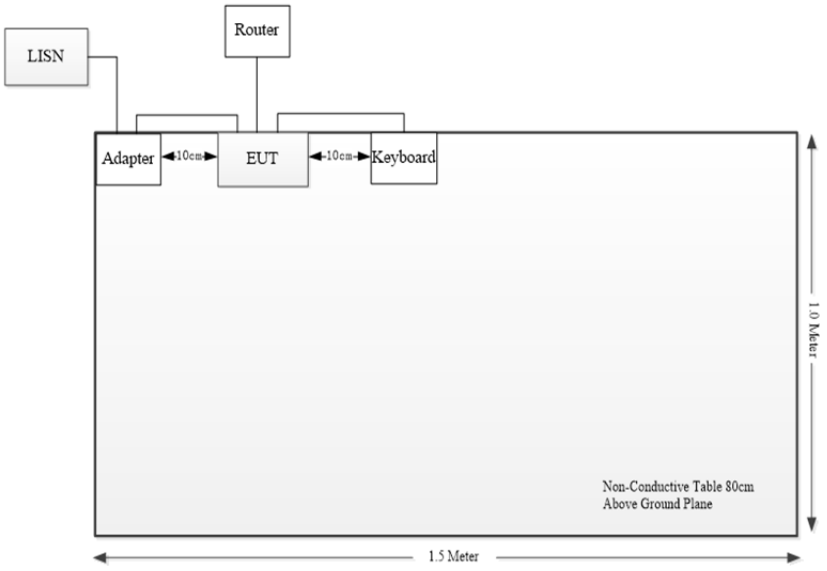
Manufacturer	Description	Model	Serial Number
Tenda	Router	RX12 Pro	ED331010215000033
Newland Payment	Keyboard	SP100	PD6A0013500
Fangxin	Adapter	FX2U-050200U	AD220930001

1.2.3 Support Cable List and Details

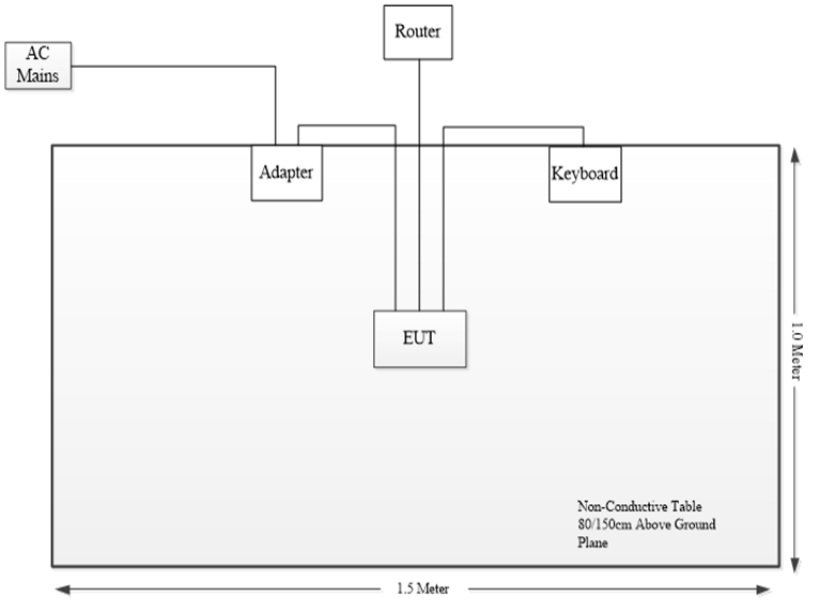
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Power Cable	No	Yes	2	Adapter	EUT
Type-C to RJ11 Cable	No	No	0.2	EUT	Keyboard Cable
Keyboard Cable	No	No	0.8	Keyboard	Type-C to RJ11 Cable
RJ45 Cable	No	No	2.5	EUT	Router
USB-C Cable	No	No	0.8	EUT	Adapter

1.2.4 Block Diagram of Test Setup

AC line conducted emissions:



Spurious Emissions:



1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9k~30MHz: 4.12dB, 30M~200MHz: 4.15 dB, 200M~1GHz: 5.61 dB, 1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB, 18G~26.5G: 5.47 dB, 26.5G~40G: 5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.203	Antenna Requirement	PASS
FCC §15.207(a)	AC Line Conducted Emissions	PASS
FCC 15.205& §15.209 &§15.407(b)	Undesirable Emission& Restricted Bands	PASS
FCC§15.407(a) (e)	Emission Bandwidth	PASS
FCC§15.407(a) (e)	99% Occupied Bandwidth	PASS
FCC§15.407 (a)	Maximum Conducted Output Power	PASS
FCC§15.407 (a)	Power Spectral Density	PASS
C63.10 §11.6	Duty Cycle	PASS

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, 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 or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

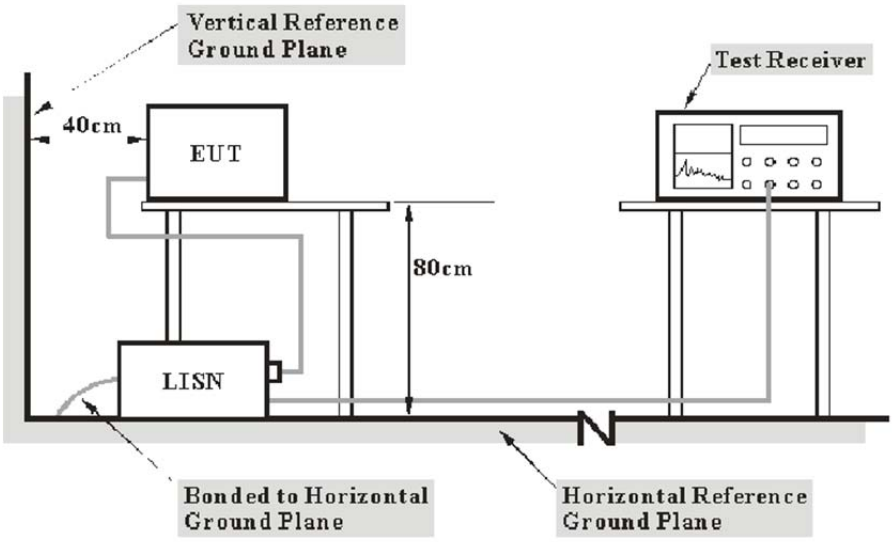
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μV within the frequency band 535-1705 kHz, as measured using a 50 μH/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtainig their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

3.1.2 EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

3.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

3.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase ("hot") line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

3.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor = attenuation caused by cable loss + voltage division factor of AMN

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

3.2 Radiation Spurious Emissions

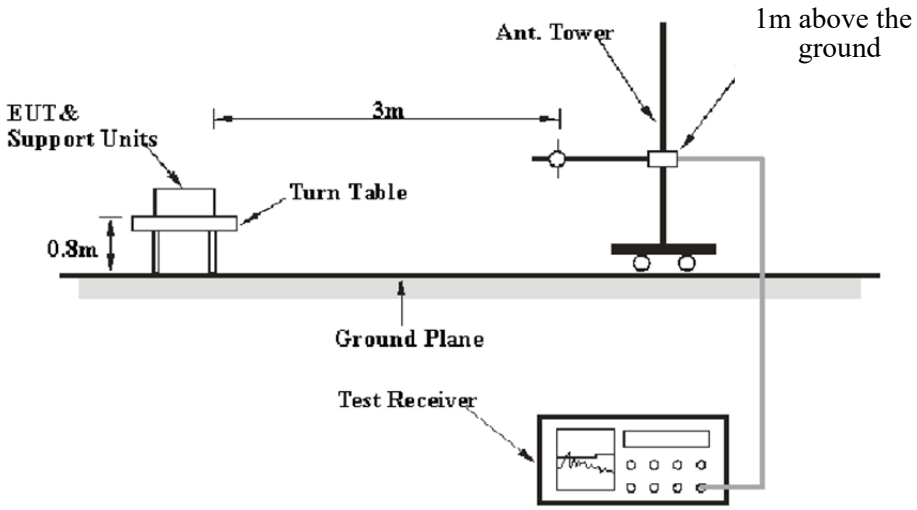
3.2.1 Applicable Standard

FCC §15.407 (b);

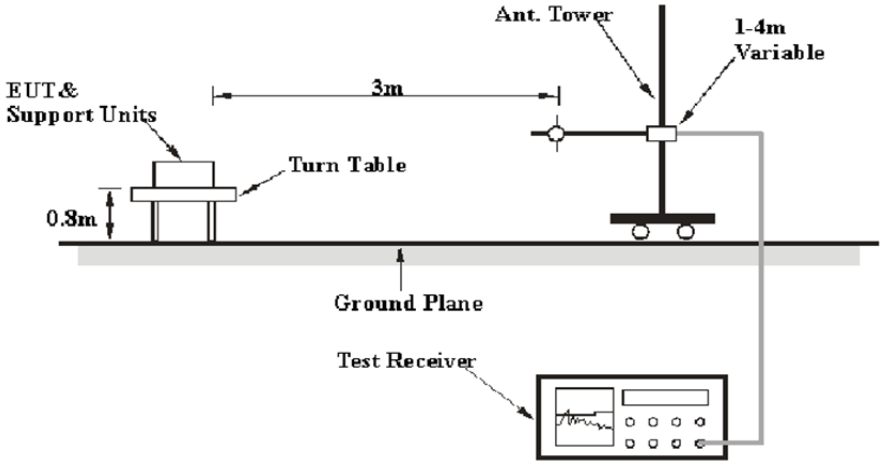
Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
(4) For transmitters operating solely in the 5.725-5.850 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.
(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
(8) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
(9) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in § 15.207.
(10) The provisions of § 15.205 apply to intentional radiators operating under this section.
(11) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.
(c) The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

3.2.2 EUT Setup

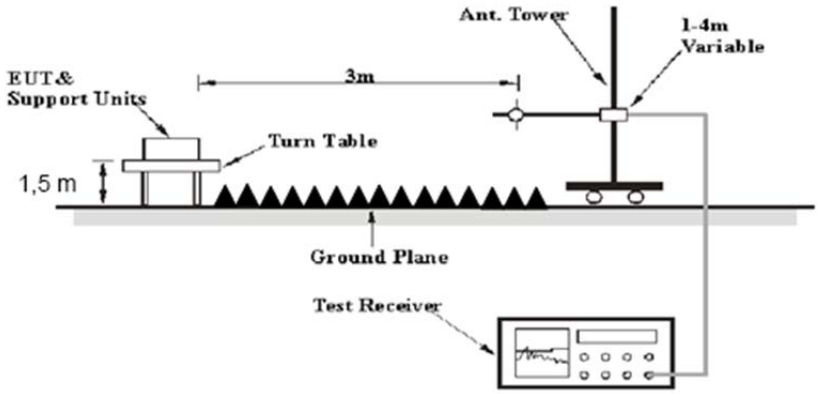
9kHz - 30MHz:



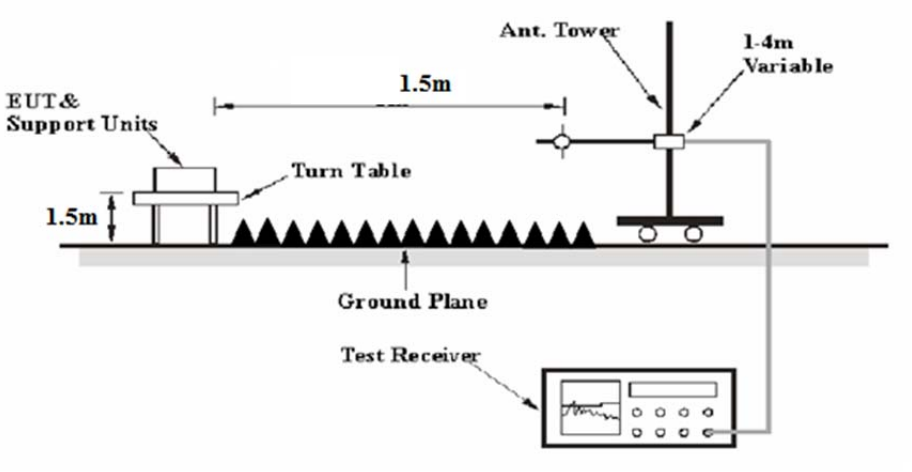
30MHz - 1GHz:



1GHz – 26.5GHz:



26.5GHz - 40 GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was FCC 15.209, FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

3.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

9kHz-1000MHz:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	300 Hz	1 kHz	/	PK
	/	/	200 Hz	QP/AV
150 kHz – 30 MHz	10 kHz	30 kHz	/	PK
	/	/	9 kHz	QP/AV
30 MHz – 1000 MHz	100 kHz	300 kHz	/	PK
	/	/	120 kHz	QP

1GHz- 40GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	10 Hz
	<98%	1MHz	≥1/T

Note: T is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

3.2.4 Test Procedure

During the radiated emission test, the adapter was connected to the first AC floor outlet.

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz except 9–90 kHz, 110–490 kHz, employing an average detector, peak and Average detection modes for frequencies above 1 GHz.

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: E [dBμV/m] = EIRP[dBm] + 95.2, for d = 3 meters.

According to C63.10, the above 1G test result shall be extrapolated to the specified distance using an extrapolation Factor of 20dB/decade from 3m to 1.5m
Distance extrapolation Factor =20 log (specific distance [3m]/test distance [1.5m]) dB= 6.02 dB

All emissions under the average limit and under the noise floor have not recorded in the report.

3.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

For 9kHz-26.5GHz:
Factor = Antenna Factor + Cable Loss- Amplifier Gain

For 26.5GHz-40GHz
Factor = Antenna Factor + Cable Loss- Amplifier Gain -Distance extrapolation Factor

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

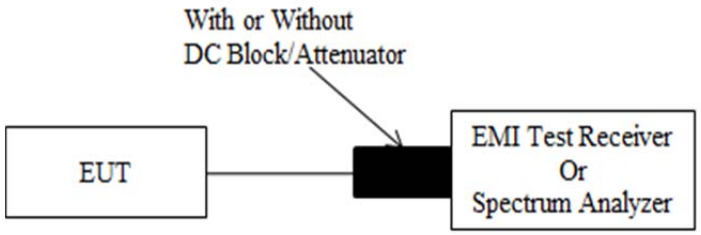
3.3 Emission Bandwidth

3.3.1 Applicable Standard

FCC §15.407 (a),(h)
(h)(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.

FCC §15.407 (e)
Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

3.3.2 EUT Setup



3.3.3 Test Procedure

26dB Emission Bandwidth:

According to ANSI C63.10-2013 Section 12.4.1

a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the 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 instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

6 dB emission bandwidth:

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 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.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described in this section. For devices that use channel aggregation refer to III.A and III.C for determining emission bandwidth.

99% Occupied Bandwidth:

According to ANSI C63.10-2013 Section 12.4.2&6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:
a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
d) Step a) through step c) might require iteration to adjust within the specified range.
e) 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.
f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. 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% power bandwidth is the difference between these two frequencies.
h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

3.4 Maximum Conducted Output Power

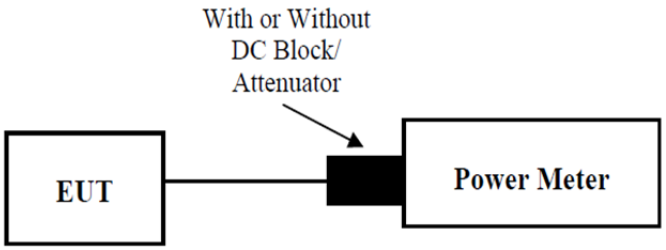
3.4.1 Applicable Standard

FCC §15.407(a) (1)(iv)
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. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (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 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (3)(i)
For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

3.4.2 EUT Setup



3.4.3 Test Procedure

According to ANSI C63.10-2013 Section 12.3.3.1
Method PM-G is measurement using a gated RF average power meter.
Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

3.5 3.5 Maximum Power Spectral Density

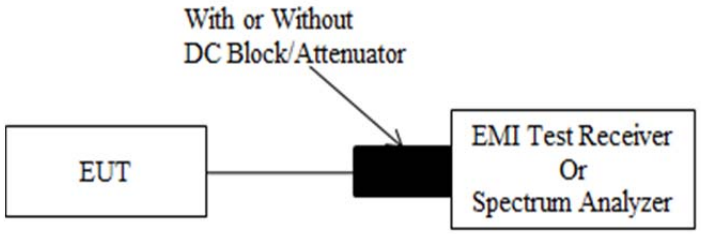
3.5.1 Applicable Standard

FCC §15.407(a) (1)(iv)
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. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (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 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (3)(i)
For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

3.5.2 EUT Setup



3.5.3 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Duty cycle ≥98%

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1 should be applied.

Duty cycle <98%, duty cycle variations are less than ±2%

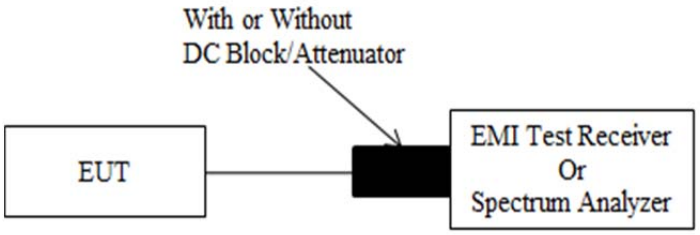
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-2 should be applied.

Duty cycle <98%, duty cycle variations exceed ±2%

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.

3.6 Duty Cycle

3.6.1 EUT Setup



3.6.2 Test Procedure

According to ANSI C63.10-2013 Section 12.2

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:
1) Set the center frequency of the instrument to the center frequency of the transmission.
2) Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value.
3) Set VBW ≥ RBW. Set detector = peak or average.
4) The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if T ≤ 16.7 μs.)

3.7 Antenna Requirement

3.7.1 Applicable Standard

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

3.7.2 Judgment

Result: Compliant. Please refer to the Antenna Information detail in Section 1.

4. Test DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2NHV-2	Test Date:	2024/7/1
Test Site:	CE	Test Mode:	Transmitting (maximum output power mode, 802.11n ht20 5825MHz)
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (℃)	25.3	Relative Humidity: (%)	52	ATM Pressure: (kPa)	100.6

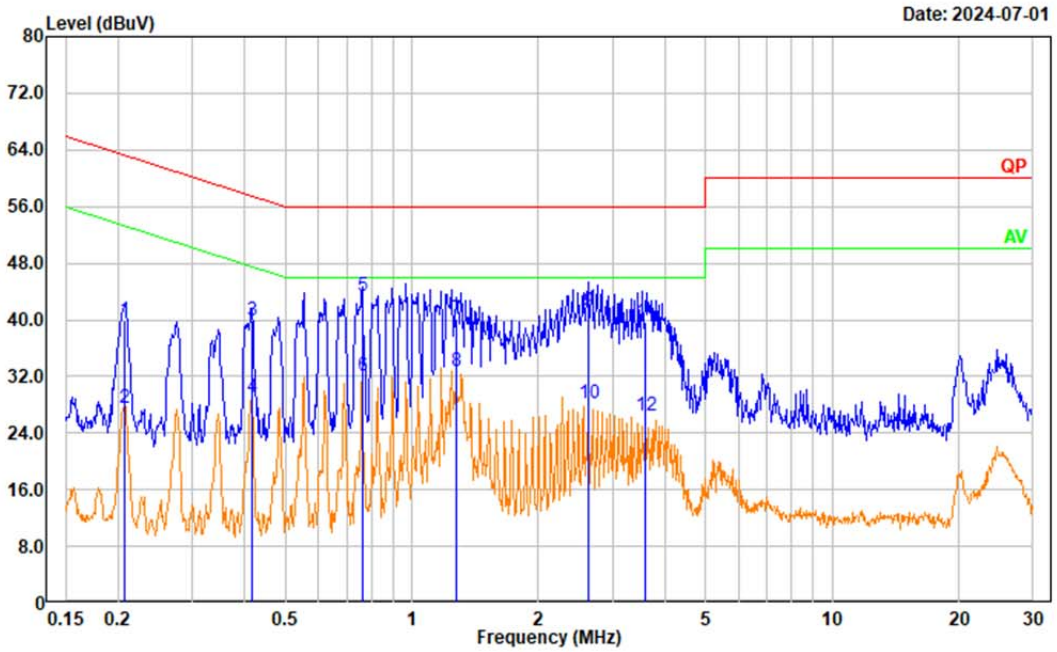
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101132	2024/4/1	2025/3/31
R&S	EMI Test Receiver	ESR3	103104	2024/5/10	2025/5/9
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2024/1/15	2025/1/14
Audix	Test Software	E3	191218 (V9)	N/A	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

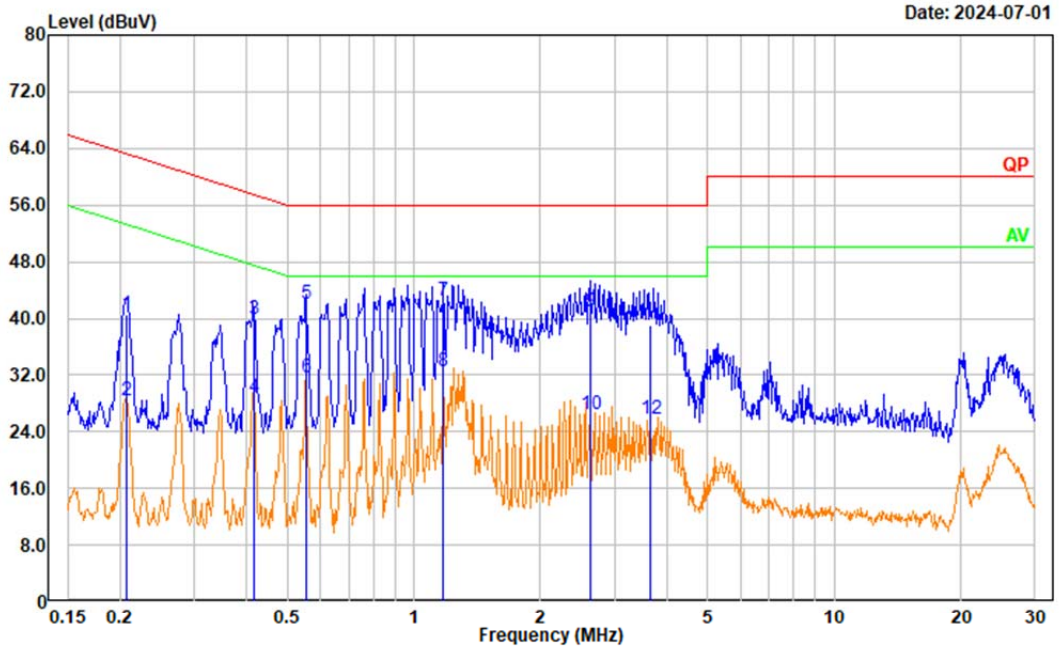
Charging by Type-C:

Project No.: 2403U82009E-RF
Tester: David Huang
Port: Line
Note: Transmitting(5G WIFI)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.208	29.78	10.02	39.80	63.30	23.50	QP
2	0.208	17.55	10.02	27.57	53.30	25.73	Average
3	0.415	29.56	10.37	39.93	57.55	17.62	QP
4	0.415	18.64	10.37	29.01	47.55	18.54	Average
5	0.761	32.78	10.63	43.41	56.00	12.59	QP
6	0.761	21.48	10.63	32.11	46.00	13.89	Average
7	1.272	29.49	10.64	40.13	56.00	15.87	QP
8	1.272	22.04	10.64	32.68	46.00	13.32	Average
9	2.627	30.87	10.38	41.25	56.00	14.75	QP
10	2.627	17.88	10.38	28.26	46.00	17.74	Average
11	3.590	29.29	10.29	39.58	56.00	16.42	QP
12	3.590	16.08	10.29	26.37	46.00	19.63	Average

Project No.: 2403U82009E-RF
Tester: David Huang
Port: neutral
Note: Transmitting(5G WIFI)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.207	29.96	10.51	40.47	63.32	22.85	QP
2	0.207	17.78	10.51	28.29	53.32	25.03	Average
3	0.416	29.37	10.58	39.95	57.52	17.57	QP
4	0.416	18.18	10.58	28.76	47.52	18.76	Average
5	0.554	31.53	10.48	42.01	56.00	13.99	QP
6	0.554	21.18	10.48	31.66	46.00	14.34	Average
7	1.177	31.99	10.42	42.41	56.00	13.59	QP
8	1.177	22.01	10.42	32.43	46.00	13.57	Average
9	2.625	30.59	10.41	41.00	56.00	15.00	QP
10	2.625	16.03	10.41	26.44	46.00	19.56	Average
11	3.661	28.70	10.37	39.07	56.00	16.93	QP
12	3.661	15.37	10.37	25.74	46.00	20.26	Average

4.2 Radiation Spurious Emissions

9 kHz – 1 GHz

Serial Number:	2NHV-2	Test Date:	2024/7/2
Test Site:	966-2	Test Mode:	Transmitting (maximum output power mode, 802.11n ht20 5825MHz)
Tester:	Carl Xue	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	26.1	Relative Humidity: (%)	59	ATM Pressure: (kPa)	100.2

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2023/12/1	2026/11/30
BACL	Loop Antenna	1313-1A	3110611	2023/12/4	2026/12/3
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0300-01	2024/1/11	2025/1/10
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0500-01	2024/1/11	2025/1/10
R&S	EMI Test Receiver	ESR3	102724	2024/2/29	2025/2/28
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0100-03	2023/12/4	2024/12/3
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0370-01	2023/12/4	2024/12/3
XQY	Coaxial Cable	XQY-CMR400UF-NJ-NJ-7M	24056379	2024/6/11	2025/6/10
Sonoma	Amplifier	310N	186165	2023/12/4	2024/12/3
Audix	Test Software	E3	191218 (V9)	N/A	N/A

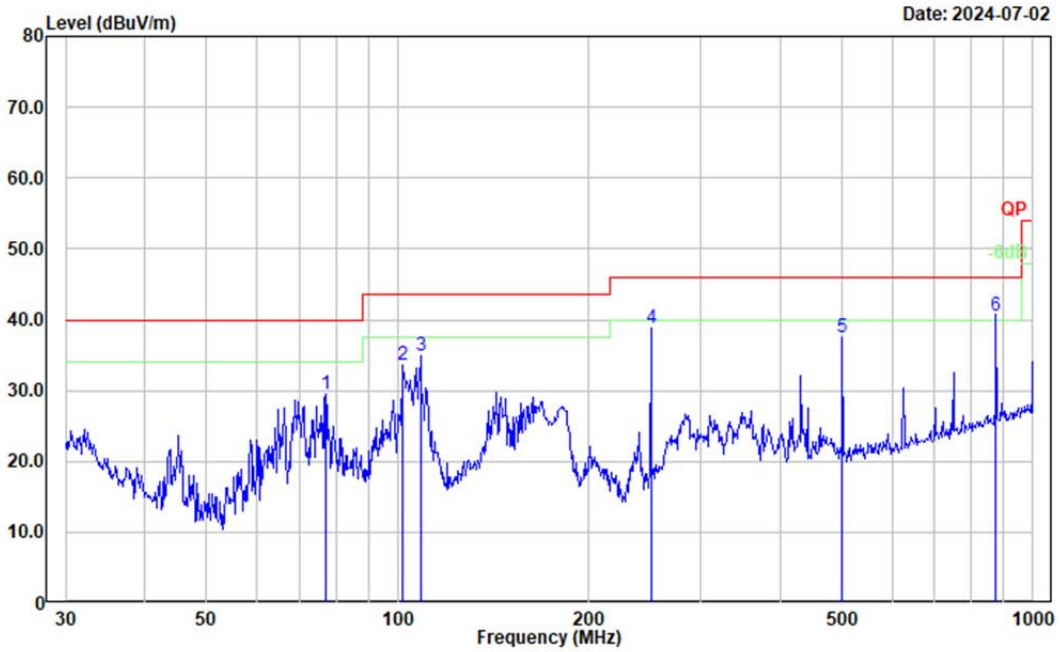
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

After pre-scan in the X, Y and Z axes of orientation, the worst case is refer to plots.
For 9kHz-30MHz, The amplitude of spurious emissions attenuated more than 20 dB below the limit was not be reported.

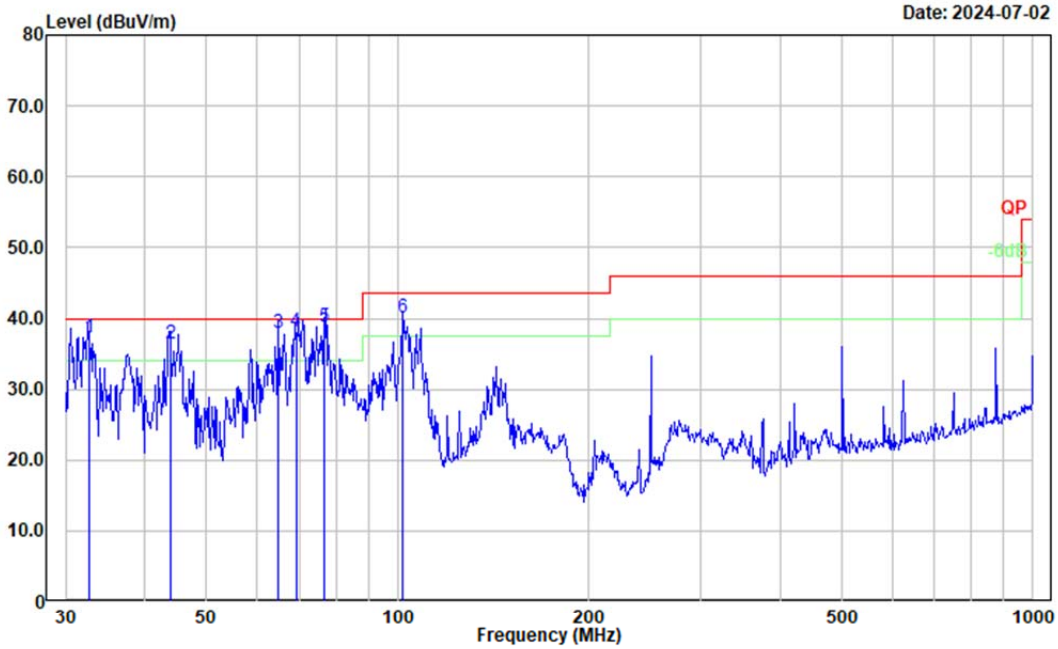
Charging by DC IN:

Project No.: 2403U82009E-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting 5G WIFI



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	77.051	46.67	-17.10	29.57	40.00	10.43	Peak
2	102.001	47.35	-13.83	33.52	43.50	9.98	Peak
3	108.647	47.37	-12.48	34.89	43.50	8.61	Peak
4	250.301	51.67	-12.91	38.76	46.00	7.24	Peak
5	501.179	43.25	-5.83	37.42	46.00	8.58	Peak
6	875.037	41.14	-0.50	40.64	46.00	5.36	QP

Project No.: 2403U82009E-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting 5G WIFI



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	32.604	43.05	-5.69	37.36	40.00	2.64	QP
2	43.812	50.46	-13.97	36.49	40.00	3.51	QP
3	64.768	55.51	-17.47	38.04	40.00	1.96	QP
4	69.130	55.27	-17.19	38.08	40.00	1.92	QP
5	76.549	55.85	-17.09	38.76	40.00	1.24	QP
6	101.895	53.96	-13.86	40.10	43.50	3.40	QP

1GHz – 40 GHz:

Serial Number:	2NHV-2	Test Date:	2024/7/5-2024/8/7
Test Site:	966-1	Test Mode:	Transmitting
Tester:	Mack Huang , Tao Zhu	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24.9~26.9	Relative Humidity: (%)	53~70	ATM Pressure: (kPa)	99.9~100.9

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-Lindgren	Horn Antenna	3115	9912-5985	2023/12/6	2026/12/5
R&S	Spectrum Analyzer	FSV40	101591	2024/4/1	2025/3/31
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2024/1/15	2025/1/14
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2024/1/15	2025/1/14
BACL	Preamplifier	1313-A20M18G	4032311	2024/4/1	2025/3/31
Audix	Test Software	E3	191218 (V9)	N/A	N/A
PASTERNACK	Horn Antenna	PE9852/2F-20	112002	2024/2/4	2027/2/3
PASTERNACK	Horn Antenna	PE9850/2F-20	072001	2024/2/4	2027/2/3
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2024/1/15	2025/1/14
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2024/1/15	2025/1/14
JD	Multiplex Switch Test Control Set	DT7220SCU	DQ77925	2023/8/6	2024/8/5
JD	Filter Switch Unit	DT7220FSU	DQ77928	2023/8/6	2024/8/5
JD	Multiplex Switch Test Control Set	DT7220SCU	DQ77925	2024/8/5	2025/8/4
JD	Filter Switch Unit	DT7220FSU	DQ77928	2024/8/5	2025/8/4

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

5150-5250MHz:

802.11a Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5180 MHz							
5150.000	50.23	PK	H	9.48	59.71	74.00	14.29
5150.000	32.25	AV	H	9.48	41.73	54.00	12.27
5150.000	51.42	PK	V	9.48	60.90	74.00	13.10
5150.000	33.36	AV	V	9.48	42.84	54.00	11.16
10360.000	34.28	PK	H	13.24	47.52	68.20	20.68
10360.000	34.85	PK	V	13.24	48.09	68.20	20.11
15540.000	34.66	PK	H	17.28	51.94	74.00	22.06
15540.000	22.52	AV	H	17.28	39.80	54.00	14.20
15540.000	35.20	PK	V	17.28	52.48	74.00	21.52
15540.000	23.08	AV	V	17.28	40.36	54.00	13.64
Middle Channel: 5200 MHz							
10400.000	34.59	PK	H	13.61	48.20	68.20	20.00
10400.000	35.15	PK	V	13.61	48.76	68.20	19.44
15600.000	37.18	PK	H	16.58	53.76	74.00	20.24
15600.000	25.63	AV	H	16.58	42.21	54.00	11.79
15600.000	37.42	PK	V	16.58	54.00	74.00	20.00
15600.000	25.03	AV	V	16.58	41.61	54.00	12.39
High Channel: 5240 MHz							
5350.000	43.72	PK	H	9.34	53.06	74.00	20.94
5350.000	30.33	AV	H	9.34	39.67	54.00	14.33
5350.000	43.81	PK	V	9.34	53.15	74.00	20.85
5350.000	30.49	AV	V	9.34	39.83	54.00	14.17
10480.000	34.15	PK	H	14.13	48.28	68.20	19.92
10480.000	34.20	PK	V	14.13	48.33	68.20	19.87
15720.000	37.65	PK	H	16.07	53.72	74.00	20.28
15720.000	25.52	AV	H	16.07	41.59	54.00	12.41
15720.000	37.65	PK	V	16.07	53.72	74.00	20.28
15720.000	25.70	AV	V	16.07	41.77	54.00	12.23

802.11n20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5180 MHz							
5150.000	50.52	PK	H	9.48	60.00	74.00	14.00
5150.000	31.29	AV	H	9.48	40.77	54.00	13.23
5150.000	51.57	PK	V	9.48	61.05	74.00	12.95
5150.000	32.53	AV	V	9.48	42.01	54.00	11.99
10360.000	34.31	PK	H	13.24	47.55	68.20	20.65
10360.000	34.62	PK	V	13.24	47.86	68.20	20.34
15540.000	35.26	PK	H	17.28	52.54	74.00	21.46
15540.000	23.37	AV	H	17.28	40.65	54.00	13.35
15540.000	35.09	PK	V	17.28	52.37	74.00	21.63
15540.000	23.41	AV	V	17.28	40.69	54.00	13.31
Middle Channel: 5200 MHz							
10400.000	35.19	PK	H	13.61	48.80	68.20	19.40
10400.000	35.05	PK	V	13.61	48.66	68.20	19.54
15600.000	37.45	PK	H	16.58	54.03	74.00	19.97
15600.000	25.20	AV	H	16.58	41.78	54.00	12.22
15600.000	37.28	PK	V	16.58	53.86	74.00	20.14
15600.000	25.47	AV	V	16.58	42.05	54.00	11.95
High Channel: 5240 MHz							
5350.000	43.55	PK	H	9.34	52.89	74.00	21.11
5350.000	30.36	AV	H	9.34	39.70	54.00	14.30
5350.000	43.58	PK	V	9.34	52.92	74.00	21.08
5350.000	30.77	AV	V	9.34	40.11	54.00	13.89
10480.000	34.43	PK	H	14.13	48.56	68.20	19.64
10480.000	34.20	PK	V	14.13	48.33	68.20	19.87
15720.000	37.88	PK	H	16.07	53.95	74.00	20.05
15720.000	25.64	AV	H	16.07	41.71	54.00	12.29
15720.000	38.74	PK	V	16.07	54.81	74.00	19.19
15720.000	26.32	AV	V	16.07	42.39	54.00	11.61

802.11n40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5190 MHz							
5150.000	53.03	PK	H	9.48	62.51	74.00	11.49
5150.000	32.70	AV	H	9.48	42.18	54.00	11.82
5150.000	52.36	PK	V	9.48	61.84	74.00	12.16
5150.000	32.39	AV	V	9.48	41.87	54.00	12.13
10380.000	34.28	PK	H	13.43	47.71	68.20	20.49
10380.000	34.43	PK	V	13.43	47.86	68.20	20.34
15570.000	35.78	PK	H	16.93	52.71	74.00	21.29
15570.000	23.69	AV	H	16.93	40.62	54.00	13.38
15570.000	36.63	PK	V	16.93	53.56	74.00	20.44
15570.000	24.28	AV	V	16.93	41.21	54.00	12.79
High Channel: 5230 MHz							
5350.000	43.58	PK	H	9.34	52.92	74.00	21.08
5350.000	31.20	AV	H	9.34	40.54	54.00	13.46
5350.000	43.74	PK	V	9.34	53.08	74.00	20.92
5350.000	30.96	AV	V	9.34	40.30	54.00	13.70
10460.000	33.94	PK	H	14.00	47.94	68.20	20.26
10460.000	34.19	PK	V	14.00	48.19	68.20	20.01
15690.000	37.84	PK	H	15.98	53.82	74.00	20.18
15690.000	25.34	AV	H	15.98	41.32	54.00	12.68
15690.000	37.73	PK	V	15.98	53.71	74.00	20.29
15690.000	25.11	AV	V	15.98	41.09	54.00	12.91

802.11ac80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Middle Channel: 5210 MHz							
5150.000	50.14	PK	H	9.48	59.62	74.00	14.38
5150.000	32.76	AV	H	9.48	42.24	54.00	11.76
5150.000	50.64	PK	V	9.48	60.12	74.00	13.88
5150.000	31.56	AV	V	9.48	41.04	54.00	12.96
5350.000	43.44	PK	H	9.34	52.78	74.00	21.22
5350.000	30.18	AV	H	9.34	39.52	54.00	14.48
5350.000	43.69	PK	V	9.34	53.03	74.00	20.97
5350.000	30.58	AV	V	9.34	39.92	54.00	14.08
10420.000	34.23	PK	H	13.74	47.97	68.20	20.23
10420.000	33.85	PK	V	13.74	47.59	68.20	20.61
15630.000	37.83	PK	H	16.38	54.21	74.00	19.79
15630.000	25.47	AV	H	16.38	41.85	54.00	12.15
15630.000	37.40	PK	V	16.38	53.78	74.00	20.22
15630.000	25.39	AV	V	16.38	41.77	54.00	12.23

5250-5350MHz:

802.11a Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5260 MHz							
5150.000	43.68	PK	H	9.48	53.16	74.00	20.84
5150.000	30.20	AV	H	9.48	39.68	54.00	14.32
5150.000	44.12	PK	V	9.48	53.60	74.00	20.40
5150.000	31.09	AV	V	9.48	40.57	54.00	13.43
10520.000	34.07	PK	H	14.35	48.42	68.20	19.78
10520.000	33.69	PK	V	14.35	48.04	68.20	20.16
15780.000	37.66	PK	H	16.56	54.22	74.00	19.78
15780.000	25.19	AV	H	16.56	41.75	54.00	12.25
15780.000	37.07	PK	V	16.56	53.63	74.00	20.37
15780.000	25.66	AV	V	16.56	42.22	54.00	11.78
Middle Channel: 5280 MHz							
10560.000	34.93	PK	H	14.54	49.47	68.20	18.73
10560.000	34.87	PK	V	14.54	49.41	68.20	18.79
15840.000	37.32	PK	H	17.07	54.39	74.00	19.61
15840.000	25.45	AV	H	17.07	42.52	54.00	11.48
15840.000	37.10	PK	V	17.07	54.17	74.00	19.83
15840.000	25.22	AV	V	17.07	42.29	54.00	11.71
High Channel: 5320 MHz							
5350.000	47.73	PK	H	9.34	57.07	74.00	16.93
5350.000	30.82	AV	H	9.34	40.16	54.00	13.84
5350.000	47.69	PK	V	9.34	57.03	74.00	16.97
5350.000	30.88	AV	V	9.34	40.22	54.00	13.78
10640.000	35.28	PK	H	13.87	49.15	74.00	24.85
10640.000	23.39	AV	H	13.87	37.26	54.00	16.74
10640.000	35.31	PK	V	13.87	49.18	74.00	24.82
10640.000	23.34	AV	V	13.87	37.21	54.00	16.79
15960.000	37.85	PK	H	17.44	55.29	74.00	18.71
15960.000	25.25	AV	H	17.44	42.69	54.00	11.31
15960.000	37.88	PK	V	17.44	55.32	74.00	18.68
15960.000	25.56	AV	V	17.44	43.00	54.00	11.00

802.11n20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5260 MHz							
5150.000	43.65	PK	H	9.48	53.13	74.00	20.87
5150.000	30.45	AV	H	9.48	39.93	54.00	14.07
5150.000	43.72	PK	V	9.48	53.20	74.00	20.80
5150.000	30.61	AV	V	9.48	40.09	54.00	13.91
10520.000	34.07	PK	H	14.35	48.42	68.20	19.78
10520.000	34.05	PK	V	14.35	48.40	68.20	19.80
15780.000	37.63	PK	H	16.56	54.19	74.00	19.81
15780.000	25.47	AV	H	16.56	42.03	54.00	11.97
15780.000	37.65	PK	V	16.56	54.21	74.00	19.79
15780.000	25.46	AV	V	16.56	42.02	54.00	11.98
Middle Channel: 5280 MHz							
10560.000	34.02	PK	H	14.54	48.56	68.20	19.64
10560.000	34.34	PK	V	14.54	48.88	68.20	19.33
15840.000	37.32	PK	H	17.07	54.39	74.00	19.61
15840.000	25.30	AV	H	17.07	42.37	54.00	11.63
15840.000	37.35	PK	V	17.07	54.42	74.00	19.58
15840.000	25.56	AV	V	17.07	42.63	54.00	11.37
High Channel: 5320 MHz							
5350.000	46.89	PK	H	9.34	56.23	74.00	17.77
5350.000	30.58	AV	H	9.34	39.92	54.00	14.08
5350.000	47.02	PK	V	9.34	56.36	74.00	17.64
5350.000	30.87	AV	V	9.34	40.21	54.00	13.79
10640.000	35.09	PK	H	13.87	48.96	74.00	25.04
10640.000	23.45	AV	H	13.87	37.32	54.00	16.68
10640.000	35.31	PK	V	13.87	49.18	74.00	24.82
10640.000	23.42	AV	V	13.87	37.29	54.00	16.71
15960.000	37.95	PK	H	17.44	55.39	74.00	18.61
15960.000	25.47	AV	H	17.44	42.91	54.00	11.09
15960.000	37.68	PK	V	17.44	55.12	74.00	18.88
15960.000	25.58	AV	V	17.44	43.02	54.00	10.98

802.11n40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5270 MHz							
5150.000	43.58	PK	H	9.48	53.06	74.00	20.94
5150.000	30.25	AV	H	9.48	39.73	54.00	14.27
5150.000	44.20	PK	V	9.48	53.68	74.00	20.32
5150.000	31.14	AV	V	9.48	40.62	54.00	13.38
10540.000	34.12	PK	H	14.44	48.56	68.20	19.64
10540.000	33.95	PK	V	14.44	48.39	68.20	19.81
15810.000	37.98	PK	H	16.80	54.78	74.00	19.22
15810.000	25.46	AV	H	16.80	42.26	54.00	11.74
15810.000	36.98	PK	V	16.80	53.78	74.00	20.22
15810.000	24.87	AV	V	16.80	41.67	54.00	12.33
High Channel: 5310 MHz							
5350.000	47.52	PK	H	9.34	56.86	74.00	17.14
5350.000	30.69	AV	H	9.34	40.03	54.00	13.97
5350.000	48.52	PK	V	9.34	57.86	74.00	16.14
5350.000	31.32	AV	V	9.34	40.66	54.00	13.34
10620.000	35.18	PK	H	14.29	49.47	74.00	24.53
10620.000	23.64	AV	H	14.29	37.93	54.00	16.07
10620.000	34.78	PK	V	14.29	49.07	74.00	24.93
10620.000	22.55	AV	V	14.29	36.84	54.00	17.16
15930.000	37.41	PK	H	17.53	54.94	74.00	19.06
15930.000	25.40	AV	H	17.53	42.93	54.00	11.07
15930.000	37.28	PK	V	17.53	54.81	74.00	19.19
15930.000	24.59	AV	V	17.53	42.12	54.00	11.88

802.11ac80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Middle Channel: 5290 MHz							
5150.000	44.12	PK	H	9.48	53.60	74.00	20.40
5150.000	30.82	AV	H	9.48	40.30	54.00	13.70
5150.000	44.36	PK	V	9.48	53.84	74.00	20.16
5150.000	31.25	AV	V	9.48	40.73	54.00	13.27
5350.000	46.55	PK	H	9.34	55.89	74.00	18.11
5350.000	30.71	AV	H	9.34	40.05	54.00	13.95
5350.000	47.60	PK	V	9.34	56.94	74.00	17.06
5350.000	31.34	AV	V	9.34	40.68	54.00	13.32
10580.000	33.92	PK	H	14.63	48.55	68.20	19.65
10580.000	34.13	PK	V	14.63	48.76	68.20	19.44
15870.000	36.65	PK	H	17.34	53.99	74.00	20.01
15870.000	24.21	AV	H	17.34	41.55	54.00	12.45
15870.000	36.87	PK	V	17.34	54.21	74.00	19.79
15870.000	23.86	AV	V	17.34	41.20	54.00	12.80

5470-5725MHz

802.11a Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5500 MHz							
5470.000	48.58	PK	H	10.09	58.67	68.20	9.53
5470.000	50.07	PK	V	10.09	60.16	68.20	8.04
11000.000	35.85	PK	H	14.62	50.47	74.00	23.53
11000.000	23.76	AV	H	14.62	38.38	54.00	15.62
11000.000	36.33	PK	V	14.62	50.95	74.00	23.05
11000.000	24.12	AV	V	14.62	38.74	54.00	15.26
16500.000	37.20	PK	H	18.36	55.56	68.20	12.64
16500.000	36.74	PK	V	18.36	55.10	68.20	13.10
Middle Channel: 5580 MHz							
11160.000	36.53	PK	H	14.64	51.17	74.00	22.83
11160.000	24.66	AV	H	14.64	39.30	54.00	14.70
11160.000	35.54	PK	V	14.64	50.18	74.00	23.82
11160.000	23.10	AV	V	14.64	37.74	54.00	16.26
16740.000	36.79	PK	H	18.30	55.09	68.20	13.11
16740.000	37.11	PK	V	18.30	55.41	68.20	12.79
High Channel: 5700 MHz							
5725.000	48.98	PK	H	9.41	58.39	68.20	9.81
5725.000	46.24	PK	V	9.41	55.65	68.20	12.55
11400.000	36.12	PK	H	13.59	49.71	74.00	24.29
11400.000	24.39	AV	H	13.59	37.98	54.00	16.02
11400.000	35.84	PK	V	13.59	49.43	74.00	24.57
11400.000	23.44	AV	V	13.59	37.03	54.00	16.97
17100.000	37.21	PK	H	21.60	58.81	68.20	9.39
17100.000	36.33	PK	H	21.60	57.93	68.20	10.27

802.11n20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5500 MHz							
5470.000	54.92	PK	H	10.09	65.01	68.20	3.19
5470.000	55.44	PK	V	10.09	65.53	68.20	2.67
11000.000	35.61	PK	H	14.62	50.23	74.00	23.77
11000.000	23.49	AV	H	14.62	38.11	54.00	15.89
11000.000	35.20	PK	V	14.62	49.82	74.00	24.18
11000.000	23.16	AV	V	14.62	37.78	54.00	16.22
16500.000	37.20	PK	H	18.36	55.56	68.20	12.64
16500.000	37.44	PK	V	18.36	55.80	68.20	12.40
Middle Channel: 5580 MHz							
11160.000	37.97	PK	H	14.64	52.61	74.00	21.39
11160.000	25.23	AV	H	14.64	39.87	54.00	14.13
11160.000	36.44	PK	V	14.64	51.08	74.00	22.92
11160.000	24.92	AV	V	14.64	39.56	54.00	14.44
16740.000	37.74	PK	H	18.30	56.04	68.20	12.16
16740.000	36.59	PK	V	18.30	54.89	68.20	13.31
High Channel: 5700 MHz							
5725.000	49.06	PK	H	9.41	58.47	68.20	9.73
5725.000	47.33	PK	V	9.41	56.74	68.20	11.46
11400.000	35.67	PK	H	13.59	49.26	74.00	24.74
11400.000	23.33	AV	H	13.59	36.92	54.00	17.08
11400.000	34.87	PK	V	13.59	48.46	74.00	25.54
11400.000	22.53	AV	V	13.59	36.12	54.00	17.88
17100.000	36.93	PK	H	21.60	58.53	68.20	9.67
17100.000	36.47	PK	H	21.60	58.07	68.20	10.13

802.11n40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5510 MHz							
5470.000	51.09	PK	H	10.09	61.18	68.20	7.02
5470.000	52.80	PK	V	10.09	62.89	68.20	5.31
11020.000	35.39	PK	H	14.54	49.93	74.00	24.07
11020.000	23.15	AV	H	14.54	37.69	54.00	16.31
11020.000	36.50	PK	V	14.54	51.04	74.00	22.96
11020.000	24.87	AV	V	14.54	39.41	54.00	14.59
16530.000	37.64	PK	H	18.64	56.28	68.20	11.92
16530.000	36.44	PK	V	18.64	55.08	68.20	13.12
Middle Channel: 5550 MHz							
11100.000	35.93	PK	H	14.18	50.11	74.00	23.89
11100.000	23.35	AV	H	14.18	37.53	54.00	16.47
11100.000	35.66	PK	V	14.18	49.84	74.00	24.16
11100.000	23.74	AV	V	14.18	37.92	54.00	16.08
16650.000	38.39	PK	H	18.76	57.15	68.20	11.05
16650.000	37.14	PK	V	18.76	55.90	68.20	12.30
High Channel: 5670 MHz							
5725.000	44.65	PK	H	9.41	54.06	68.20	14.14
5725.000	44.52	PK	V	9.41	53.93	68.20	14.27
11340.000	36.56	PK	H	14.40	50.96	74.00	23.04
11340.000	24.88	AV	H	14.40	39.28	54.00	14.72
11340.000	36.23	PK	V	14.40	50.63	74.00	23.37
11340.000	24.19	AV	V	14.40	38.59	54.00	15.41
17010.000	35.28	PK	H	20.10	55.38	68.20	12.82
17010.000	37.72	PK	H	20.10	57.82	68.20	10.38

802.11ac80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5530 MHz							
5470.000	48.87	PK	H	10.09	58.96	68.20	9.24
5470.000	52.78	PK	V	10.09	62.87	68.20	5.33
11060.000	35.45	PK	H	14.36	49.81	74.00	24.19
11060.000	23.11	AV	H	14.36	37.47	54.00	16.53
11060.000	36.77	PK	V	14.36	51.13	74.00	22.87
11060.000	24.52	AV	V	14.36	38.88	54.00	15.12
16590.000	36.62	PK	H	19.19	55.81	68.20	12.39
16590.000	36.20	PK	V	19.19	55.39	68.20	12.81
High Channel: 5610 MHz							
5725.000	44.56	PK	H	9.41	53.97	68.20	14.23
5725.000	44.20	PK	V	9.41	53.61	68.20	14.59
11220.000	36.68	PK	H	14.95	51.63	74.00	22.37
11220.000	24.18	AV	H	14.95	39.13	54.00	14.87
11220.000	35.96	PK	V	14.95	50.91	74.00	23.09
11220.000	23.77	AV	V	14.95	38.72	54.00	15.28
16830.000	36.68	PK	H	18.92	55.60	68.20	12.60
16830.000	36.44	PK	H	18.92	55.36	68.20	12.84

5725-5850MHz

802.11a Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5745 MHz							
5725.000	63.66	PK	H	9.41	73.07	122.20	49.13
5720.000	57.61	PK	H	9.41	67.02	110.80	43.78
5700.000	46.35	PK	H	9.42	55.77	105.20	49.43
5650.000	45.94	PK	H	9.61	55.55	68.20	12.65
5725.000	61.78	PK	V	9.41	71.19	122.20	51.01
5720.000	58.22	PK	V	9.41	67.63	110.80	43.17
5700.000	47.14	PK	V	9.42	56.56	105.20	48.64
5650.000	45.96	PK	V	9.61	55.57	68.20	12.63
11490.000	35.55	PK	H	14.06	49.61	74.00	24.39
11490.000	23.46	AV	H	14.06	37.52	54.00	16.48
11490.000	36.02	PK	V	14.06	50.08	74.00	23.92
11490.000	24.99	AV	V	14.06	39.05	54.00	14.95
17235.000	36.84	PK	H	21.38	58.22	68.20	9.98
17235.000	35.78	PK	V	21.38	57.16	68.20	11.04
Middle Channel: 5785 MHz							
11570.000	35.58	PK	H	15.47	51.05	74.00	22.95
11570.000	23.66	AV	H	15.47	39.13	54.00	14.87
11570.000	35.47	PK	V	15.47	50.94	74.00	23.06
11570.000	23.15	AV	V	15.47	38.62	54.00	15.38
17355.000	37.01	PK	H	21.48	58.49	68.20	9.71
17355.000	36.87	PK	V	21.48	58.35	68.20	9.85
High Channel: 5825 MHz							
5850.000	54.61	PK	H	9.27	63.88	122.20	58.32
5855.000	52.18	PK	H	9.31	61.49	110.80	49.31
5875.000	46.29	PK	H	9.44	55.73	105.20	49.47
5925.000	45.33	PK	H	9.83	55.16	68.20	13.04
5850.000	49.95	PK	V	9.27	59.22	122.20	62.98
5855.000	47.50	PK	V	9.31	56.81	110.80	53.99
5875.000	46.20	PK	V	9.44	55.64	105.20	49.56
5925.000	45.85	PK	V	9.83	55.68	68.20	12.52
11650.000	36.82	PK	H	15.54	52.36	74.00	21.64
11650.000	24.53	AV	H	15.54	40.07	54.00	13.93
11650.000	35.52	PK	V	15.54	51.06	74.00	22.94
11650.000	23.64	AV	V	15.54	39.18	54.00	14.82
17475.000	38.31	PK	H	22.53	60.84	68.20	7.36
17475.000	37.88	PK	V	22.53	60.41	68.20	7.79

802.11n20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5745 MHz							
5725.000	60.64	PK	H	9.41	70.05	122.20	52.15
5720.000	58.44	PK	H	9.41	67.85	110.80	42.95
5700.000	46.47	PK	H	9.42	55.89	105.20	49.31
5650.000	45.23	PK	H	9.61	54.84	68.20	13.36
5725.000	58.67	PK	V	9.41	68.08	122.20	54.12
5720.000	56.74	PK	V	9.41	66.15	110.80	44.65
5700.000	47.10	PK	V	9.42	56.52	105.20	48.68
5650.000	46.33	PK	V	9.61	55.94	68.20	12.26
11490.000	36.19	PK	H	14.06	50.25	74.00	23.75
11490.000	24.39	AV	H	14.06	38.45	54.00	15.55
11490.000	35.91	PK	V	14.06	49.97	74.00	24.03
11490.000	23.20	AV	V	14.06	37.26	54.00	16.74
17235.000	36.14	PK	H	21.38	57.52	68.20	10.68
17235.000	36.55	PK	V	21.38	57.93	68.20	10.27
Middle Channel: 5785 MHz							
11570.000	35.53	PK	H	15.47	51.00	74.00	23.00
11570.000	23.11	AV	H	15.47	38.58	54.00	15.42
11570.000	35.82	PK	V	15.47	51.29	74.00	22.71
11570.000	23.66	AV	V	15.47	39.13	54.00	14.87
17355.000	37.05	PK	H	21.48	58.53	68.20	9.67
17355.000	36.59	PK	V	21.48	58.07	68.20	10.13
High Channel: 5825 MHz							
5850.000	54.93	PK	H	9.27	64.20	122.20	58.00
5855.000	51.03	PK	H	9.31	60.34	110.80	50.46
5875.000	46.35	PK	H	9.44	55.79	105.20	49.41
5925.000	45.28	PK	H	9.83	55.11	68.20	13.09
5850.000	52.44	PK	V	9.27	61.71	122.20	60.49
5855.000	50.39	PK	V	9.31	59.70	110.80	51.10
5875.000	46.21	PK	V	9.44	55.65	105.20	49.55
5925.000	45.78	PK	V	9.83	55.61	68.20	12.59
11650.000	36.55	PK	H	15.55	52.10	74.00	21.90
11650.000	24.13	AV	H	15.55	39.68	54.00	14.32
11650.000	35.87	PK	V	15.55	51.42	74.00	22.58
11650.000	23.31	AV	V	15.55	38.86	54.00	15.14
17475.000	37.49	PK	H	22.53	60.02	68.20	8.18
17475.000	36.67	PK	V	22.53	59.20	68.20	9.00

802.11n40 Mode:

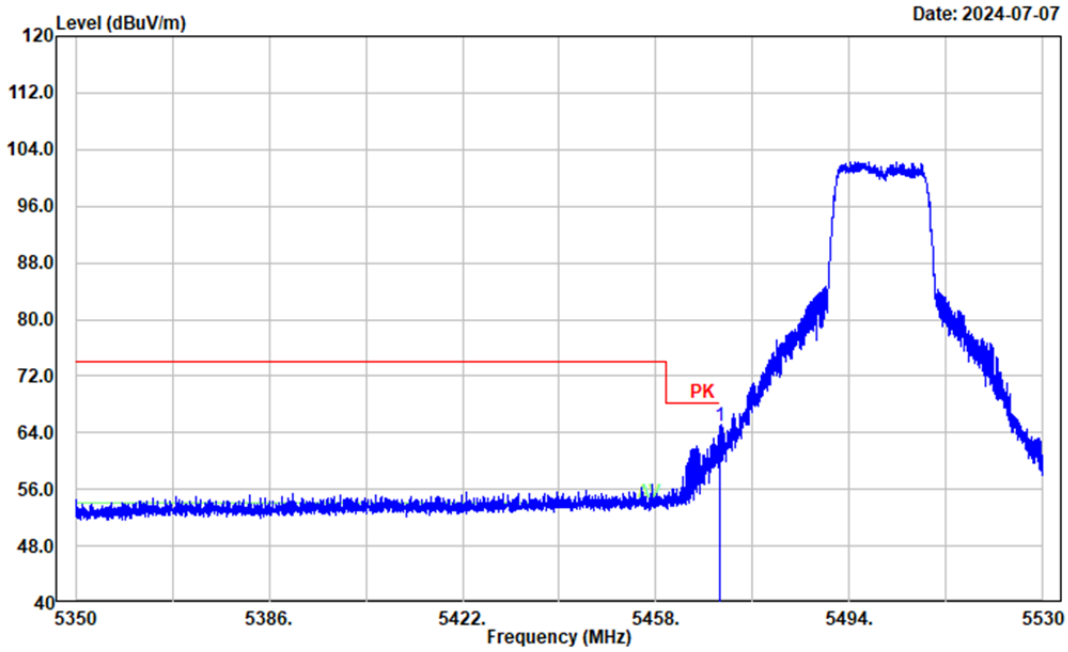
Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5755 MHz							
5725.000	61.02	PK	H	9.41	70.43	122.20	51.77
5720.000	61.86	PK	H	9.41	71.27	110.80	39.53
5700.000	46.24	PK	H	9.42	55.66	105.20	49.54
5650.000	45.42	PK	H	9.61	55.03	68.20	13.17
5725.000	58.97	PK	V	9.41	68.38	122.20	53.82
5720.000	57.41	PK	V	9.41	66.82	110.80	43.98
5700.000	47.23	PK	V	9.42	56.65	105.20	48.55
5650.000	46.02	PK	V	9.61	55.63	68.20	12.57
11510.000	36.58	PK	H	14.31	50.89	74.00	23.11
11510.000	24.87	AV	H	14.31	39.18	54.00	14.82
11510.000	36.22	PK	V	14.31	50.53	74.00	23.47
11510.000	24.13	AV	V	14.31	38.44	54.00	15.56
17265.000	37.32	PK	H	21.25	58.57	68.20	9.63
17265.000	36.99	PK	V	21.25	58.24	68.20	9.96
High Channel: 5795 MHz							
5850.000	47.07	PK	H	9.27	56.34	122.20	65.86
5855.000	48.02	PK	H	9.31	57.33	110.80	53.47
5875.000	46.10	PK	H	9.44	55.54	105.20	49.66
5925.000	45.63	PK	H	9.83	55.46	68.20	12.74
5850.000	48.74	PK	V	9.27	58.01	122.20	64.19
5855.000	46.55	PK	V	9.31	55.86	110.80	54.94
5875.000	45.39	PK	V	9.44	54.83	105.20	50.37
5925.000	45.12	PK	V	9.83	54.95	68.20	13.25
11590.000	35.87	PK	H	15.85	51.72	74.00	22.28
11590.000	23.44	AV	H	15.85	39.29	54.00	14.71
11590.000	36.65	PK	V	15.85	52.50	74.00	21.50
11590.000	24.12	AV	V	15.85	39.97	54.00	14.03
17385.000	37.18	PK	H	21.68	58.86	68.20	9.34
17385.000	36.97	PK	V	21.68	58.65	68.20	9.55

802.11ac80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Middle Channel:				5775	MHz		
5725.000	61.02	PK	H	9.41	70.43	122.20	51.77
5720.000	60.47	PK	H	9.41	69.88	110.80	40.92
5700.000	51.86	PK	H	9.42	61.28	105.20	43.92
5650.000	46.99	PK	H	9.61	56.60	68.20	11.60
5725.000	54.37	PK	V	9.41	63.78	122.20	58.42
5720.000	55.21	PK	V	9.41	64.62	110.80	46.18
5700.000	48.16	PK	V	9.42	57.58	105.20	47.62
5650.000	45.66	PK	V	9.61	55.27	68.20	12.93
5850.000	49.11	PK	H	9.27	58.38	122.20	63.82
5855.000	48.56	PK	H	9.31	57.87	110.80	52.93
5875.000	46.47	PK	H	9.44	55.91	105.20	49.29
5925.000	47.20	PK	H	9.83	57.03	68.20	11.17
5850.000	48.10	PK	V	9.27	57.37	122.20	64.83
5855.000	46.80	PK	V	9.31	56.11	110.80	54.69
5875.000	46.24	PK	V	9.44	55.68	105.20	49.52
5925.000	47.20	PK	V	9.83	57.03	68.20	11.17
11550.000	35.60	PK	H	15.08	50.68	74.00	23.32
11550.000	23.12	AV	H	15.08	38.20	54.00	15.80
11550.000	36.27	PK	V	15.08	51.35	74.00	22.65
11550.000	24.33	AV	V	15.08	39.41	54.00	14.59
17325.000	36.65	PK	H	21.27	57.92	68.20	10.28
17325.000	35.48	PK	V	21.27	56.75	68.20	11.45

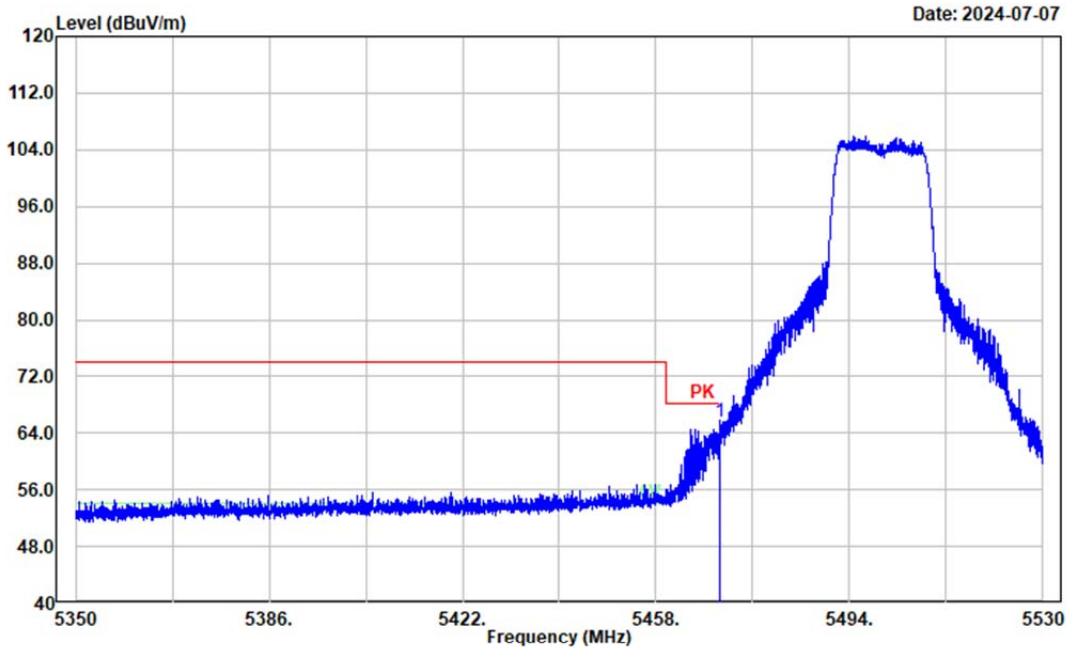
Worst Band edge test plots

```
Project No.: 2403U82009E-RF
     Tester: Mack Huang
Polarization: Horizontal
       Note: 802.11n20 Low Channel 5500MHz
```



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5470.000	54.92	10.09	65.01	68.20	3.19	Peak

Project No.: 2403U82009E-RF
Tester: Mack Huang
Polarization: Vertical
Note: 802.11n20 Low Channel 5500MHz



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5470.000	55.44	10.09	65.53	68.20	2.67	Peak

Worst radiation spurious emissions margin test plots

```
Project No.: 2403U82009E-RF
     Tester: Mack Huang
Polarization: horizontal
       Note: 802.11a Mode High Channel 5825MHz
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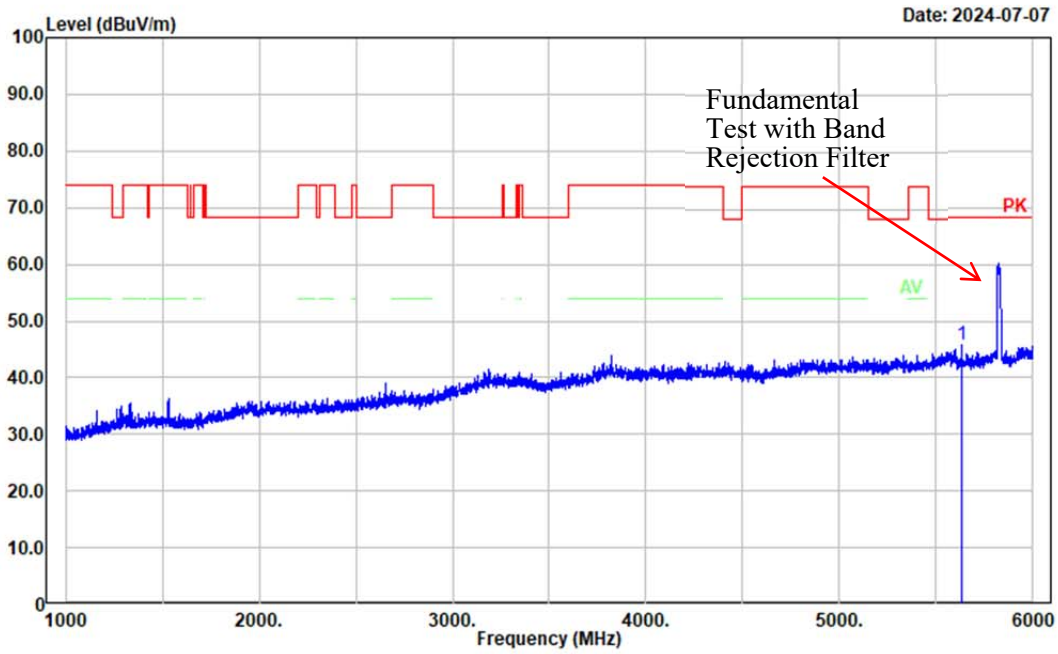
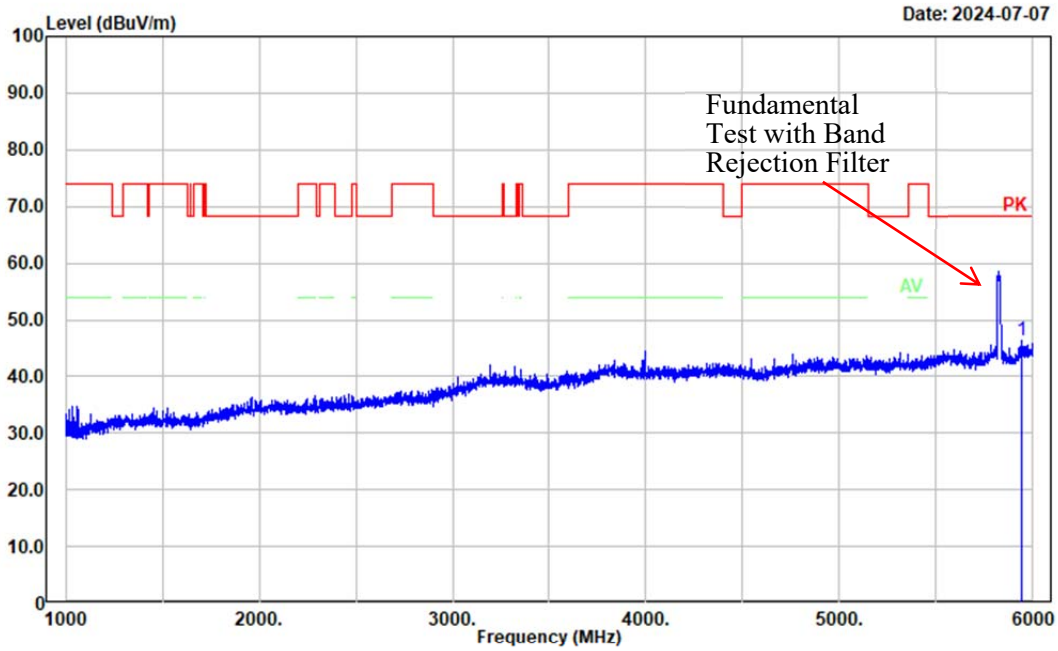


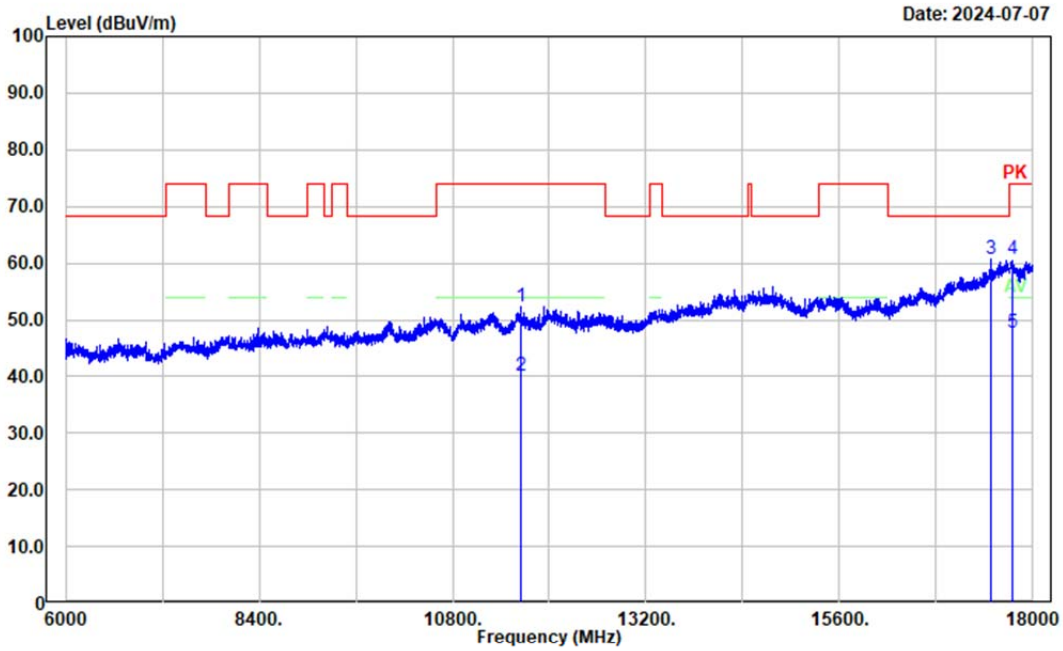
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5629.000	36.02	9.67	45.69	68.20	22.51	Peak

Project No.: 2403U82009E-RF
Tester: Mack Huang
Polarization: vertical
Note: 802.11a Mode High Channel 5825MHz



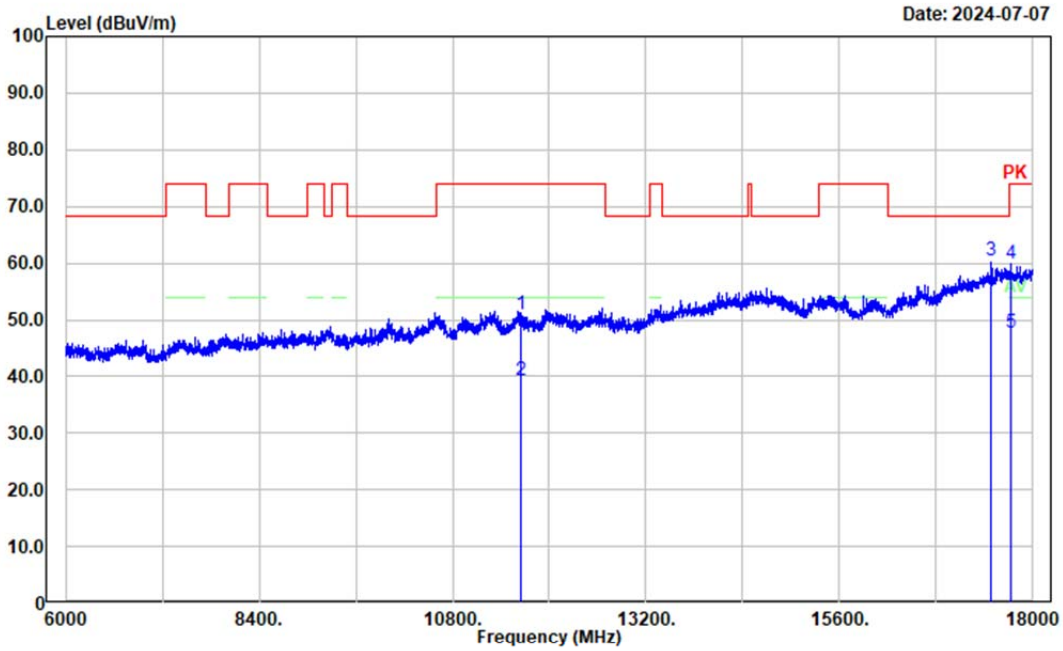
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5944.000	36.32	10.01	46.33	68.20	21.87	Peak

Project No.: 2403U82009E-RF
Tester: Mack Huang
Polarization: horizontal
Note: 802.11a Mode High Channel 5825MHz



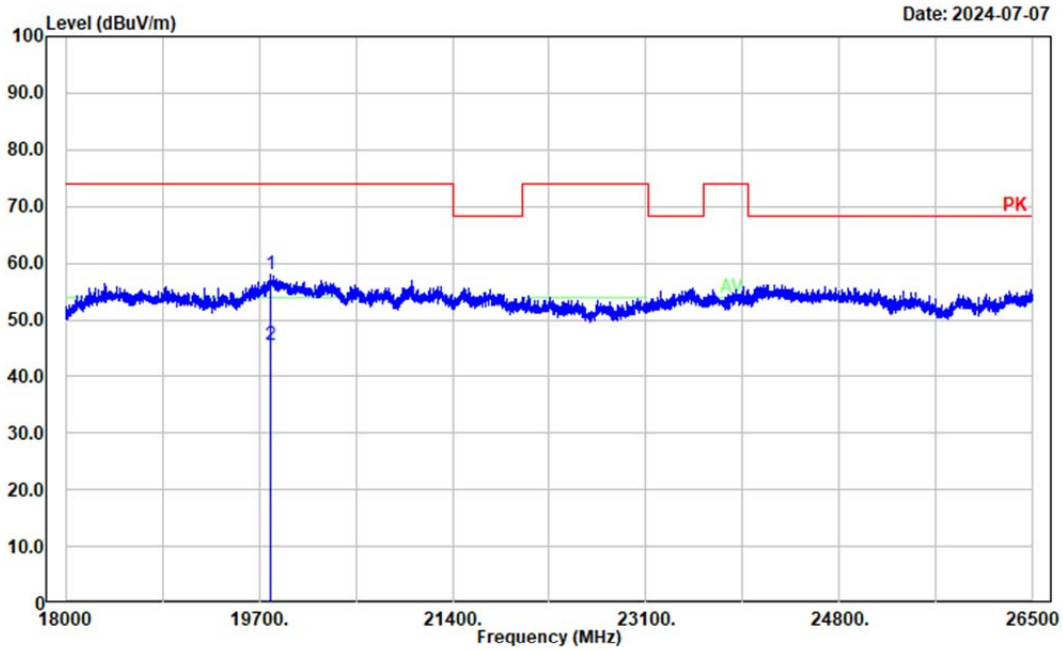
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	11650.000	36.82	15.54	52.36	74.00	21.64	Peak
2	11650.000	24.53	15.54	40.07	54.00	13.93	Average
3	17475.000	38.31	22.53	60.84	68.20	7.36	Peak
4	17738.400	34.71	25.86	60.57	74.00	13.43	Peak
5	17738.400	21.92	25.86	47.78	54.00	6.22	Average

Project No.: 2403U82009E-RF
Tester: Mack Huang
Polarization: vertical
Note: 802.11a Mode High Channel 5825MHz



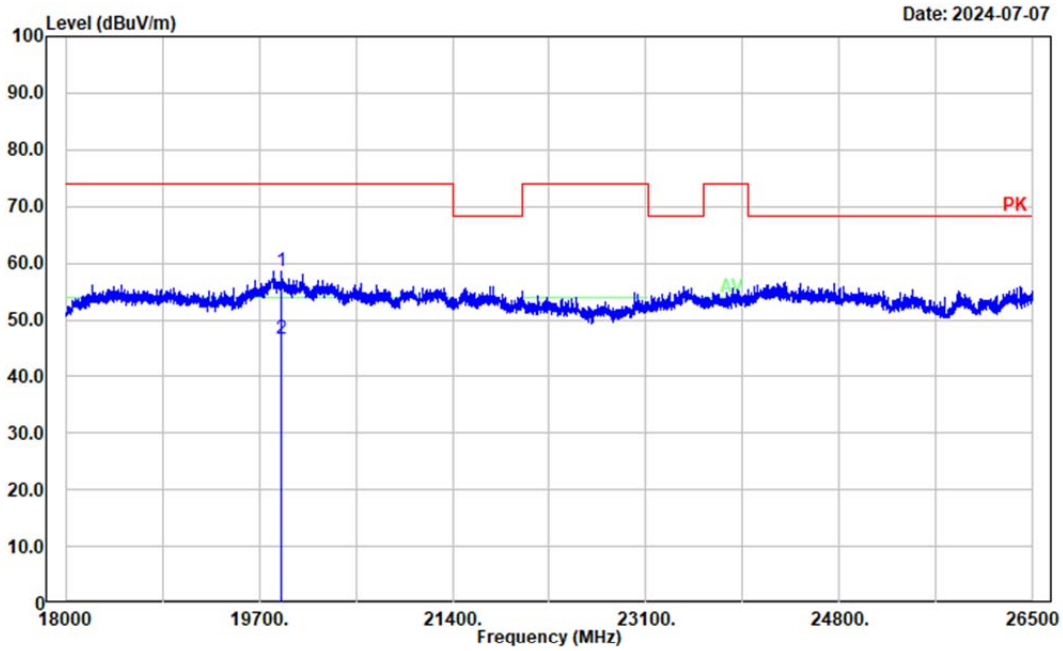
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	11650.000	35.52	15.54	51.06	74.00	22.94	Peak
2	11650.000	23.64	15.54	39.18	54.00	14.82	Average
3	17475.000	37.88	22.53	60.41	68.20	7.79	Peak
4	17719.200	34.09	25.89	59.98	74.00	14.02	Peak
5	17719.200	21.76	25.89	47.65	54.00	6.35	Average

Project No.: 2403U82009E-RF
Tester: Mack Huang
Polarization: Horizontal
Note: 802.11a Mode High Channel 5825MHz



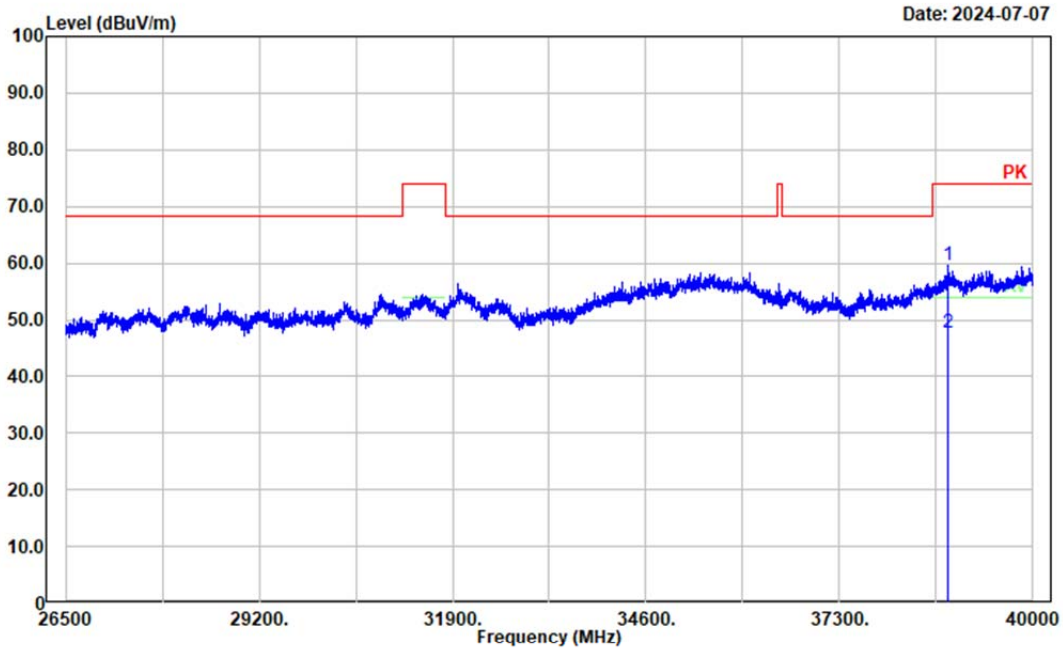
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	19802.000	50.03	7.95	57.98	74.00	16.02	Peak
2	19802.000	37.60	7.95	45.55	54.00	8.45	Average

Project No.: 2403U82009E-RF
Tester: Mack Huang
Polarization: Vertical
Note: 802.11a Mode High Channel 5825MHz



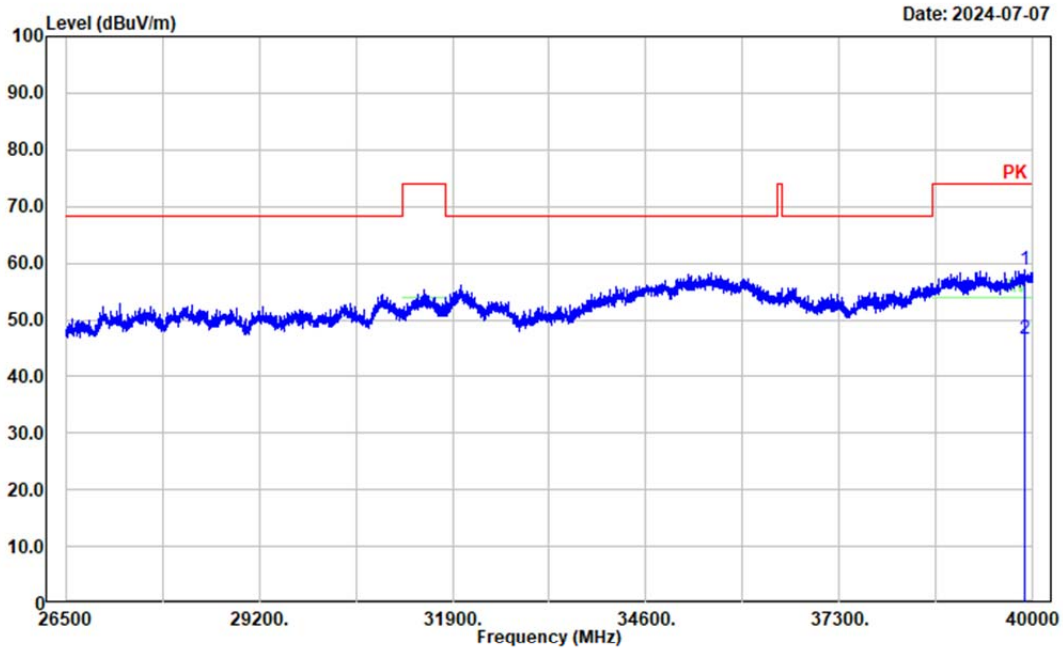
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	19892.100	50.59	7.97	58.56	74.00	15.44	Peak
2	19892.100	38.54	7.97	46.51	54.00	7.49	Average

Project No.: 2403U82009E-RF
Tester: Mack Huang
Polarization: Horizontal
Note: 802.11a Mode High Channel 5825MHz



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	38806.600	50.95	8.65	59.60	74.00	14.40	Peak
2	38806.600	39.01	8.65	47.66	54.00	6.34	Average

Project No.: 2403U82009E-RF
Tester: Mack Huang
Polarization: Vertical
Note: 802.11a Mode High Channel 5825MHz



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	39878.500	51.66	7.23	58.89	74.00	15.11	Peak
2	39878.500	39.30	7.23	46.53	54.00	7.47	Average

4.3 Emission Bandwidth

Test Information:

Serial No.:	2NHV-1	**Test Date:**	2024/7/18~2024/8/8
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Tao Zhu, Mack Huang	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	26.3~26.5	**Relative Humidity: (%)**	66~68	**ATM Pressure: (kPa)**	100.3~100.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101591	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
HuiXunDa	DC Block	SMA-JK 18G	DCB181108042	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

5.2G 26 dB EBW

Mode	Value (MHz)
a_5180MHz_Chain 0	27.866
a_5200MHz_Chain 0	28.976
a_5240MHz_Chain 0	29.515
n20_5180MHz_Chain 0	28.783
n20_5200MHz_Chain 0	28.599
n20_5240MHz_Chain 0	27.736
n40_5190MHz_Chain 0	55.755
n40_5230MHz_Chain 0	48.148
ac80_5210MHz_Chain 0	93.293

5.3G 26 dB EBW

Mode	Value (MHz)
a_5260MHz_Chain 0	27.913
a_5280MHz_Chain 0	26.904
a_5320MHz_Chain 0	28.433
n20_5260MHz_Chain 0	26.666
n20_5280MHz_Chain 0	28.085
n20_5320MHz_Chain 0	28.024
n40_5270MHz_Chain 0	47.447
n40_5310MHz_Chain 0	55.499
ac80_5290MHz_Chain 0	87.487

5.6G 26 dB EBW

Mode	Value (MHz)
a_5500MHz_Chain 0	28.624
a_5580MHz_Chain 0	27.203
a_5700MHz_Chain 0	26.563
a_5720MHz_Chain 0	27.446
n20_5500MHz_Chain 0	29.758
n20_5580MHz_Chain 0	28.367
n20_5700MHz_Chain 0	26.819
n20_5720MHz_Chain 0	29.261
n40_5510MHz_Chain 0	49.950

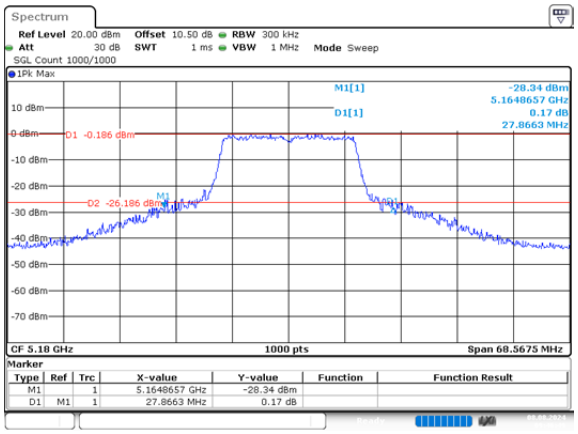
Mode	Value (MHz)
n40_5550MHz_Chain 0	49.049
n40_5670MHz_Chain 0	48.549
n40_5710MHz_Chain 0	43.944
ac80_5530MHz_Chain 0	85.485
ac80_5610MHz_Chain 0	92.092
ac80_5690MHz_Chain 0	91.491

5.8G 6 dB EBW

Mode	Value (MHz)	Limit (MHz)	Result
a_5745MHz_Chain 0	16.466	0.5	Pass
a_5785MHz_Chain 0	16.416	0.5	Pass
a_5825MHz_Chain 0	16.416	0.5	Pass
n20_5745MHz_Chain 0	17.668	0.5	Pass
n20_5785MHz_Chain 0	17.668	0.5	Pass
n20_5825MHz_Chain 0	17.618	0.5	Pass
n40_5755MHz_Chain 0	36.036	0.5	Pass
n40_5795MHz_Chain 0	36.036	0.5	Pass
ac80_5775MHz_Chain 0	76.076	0.5	Pass

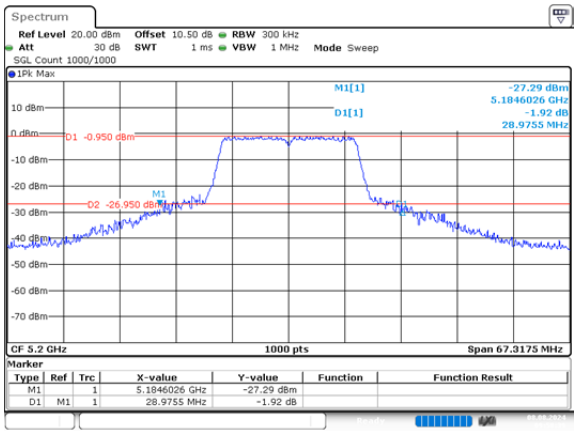
5.2G

a_5180MHz_Chain 0 27.866MHz



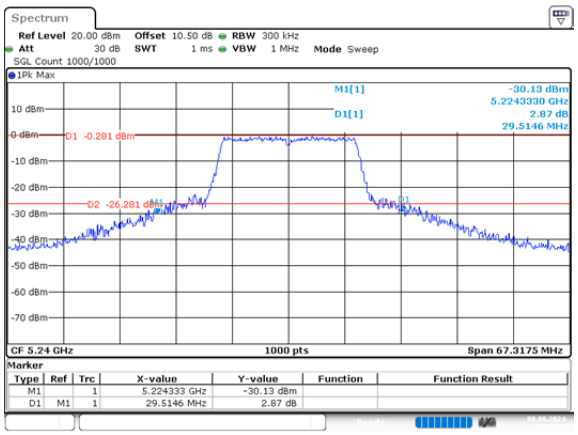
ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 09:46:49

a_5200MHz_Chain 0 28.976MHz



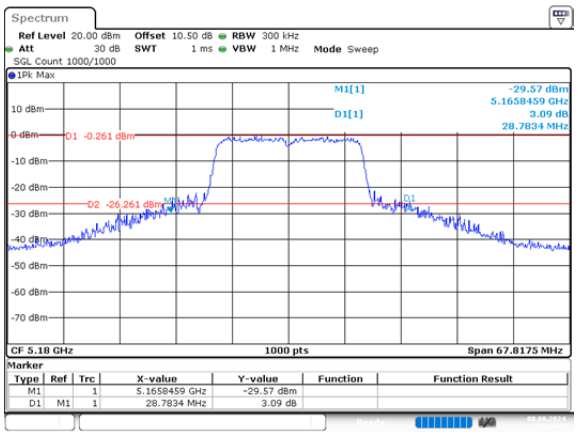
ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 09:58:39

a_5240MHz_Chain 0 29.515MHz



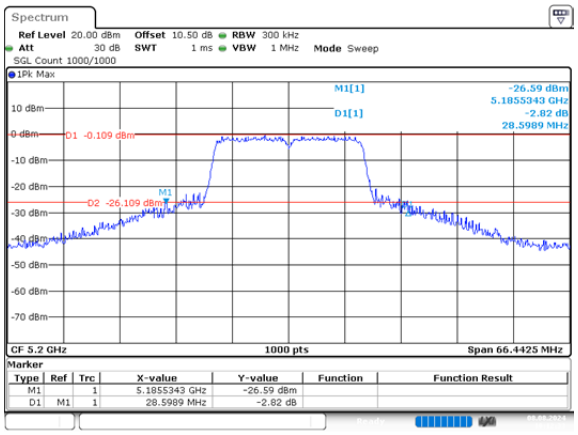
ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:00:36

n20_5180MHz_Chain 0 28.783MHz



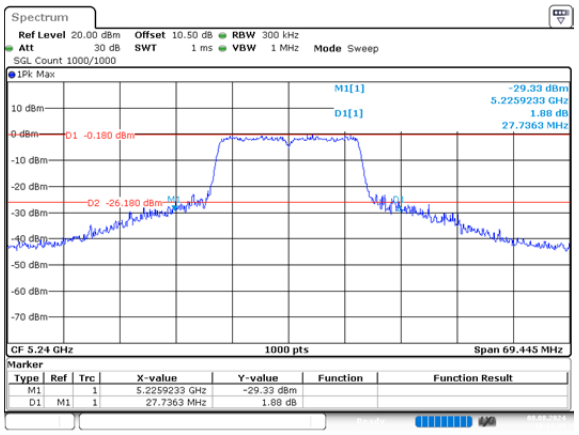
ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:10:41

n20_5200MHz_Chain 0 28.599MHz



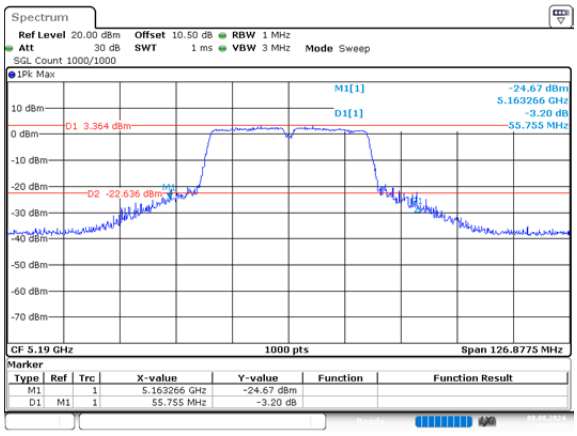
ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:12:33

n20_5240MHz_Chain 0 27.736MHz

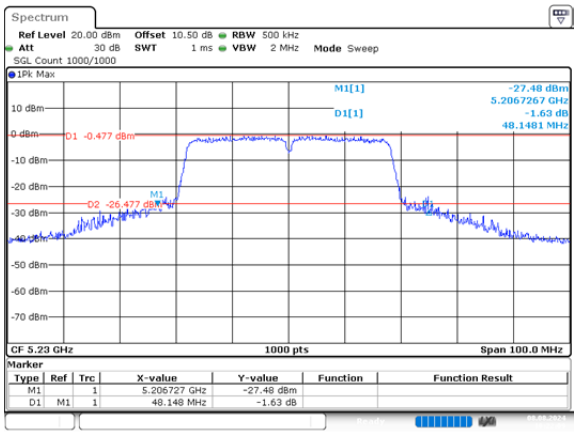


ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:14:44

n40_5190MHz_Chain 0 55.755MHz

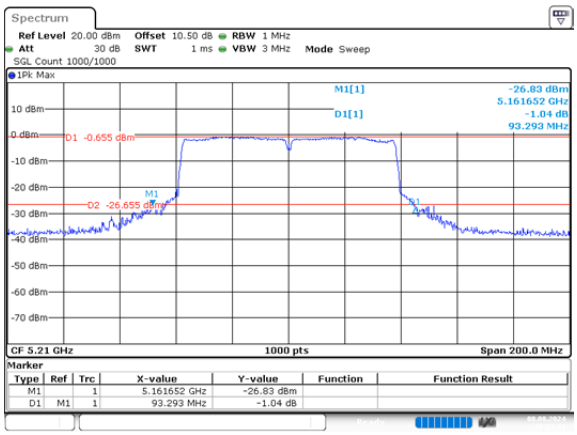


n40_5230MHz_Chain 0 48.148MHz

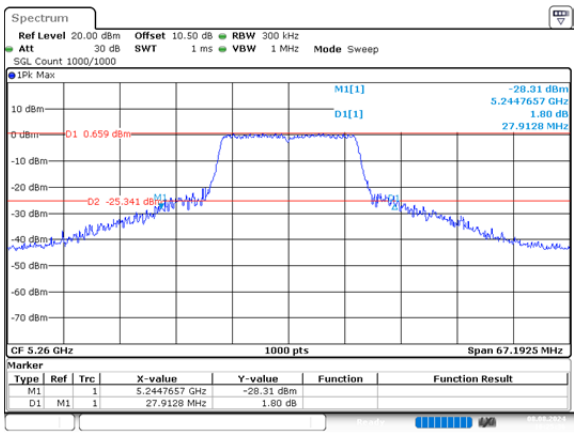


5.3G

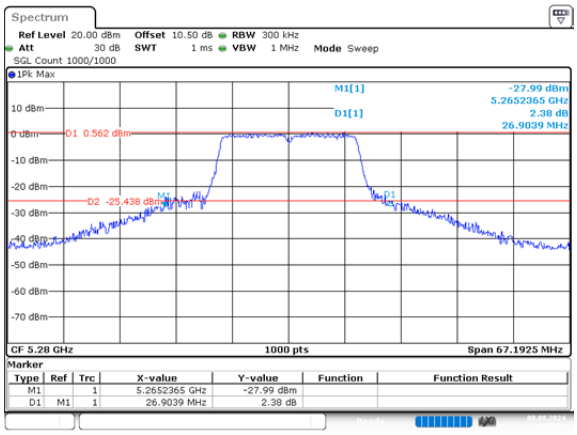
ac80_5210MHz_Chain 0 93.293MHz



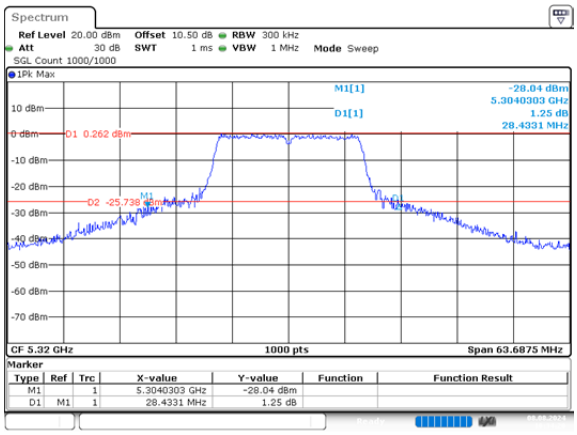
a_5260MHz_Chain 0 27.913MHz



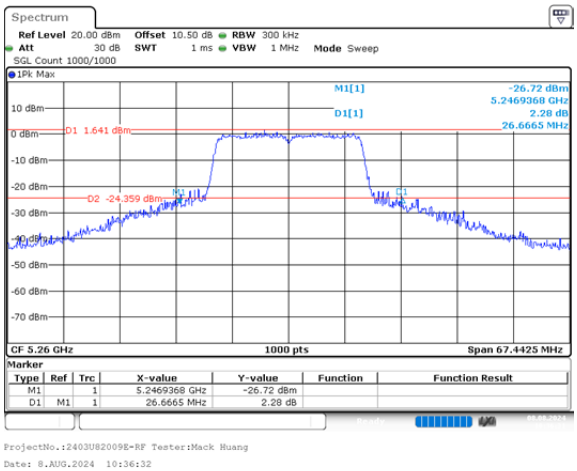
a_5280MHz_Chain 0 26.904MHz



a_5320MHz_Chain 0 28.433MHz

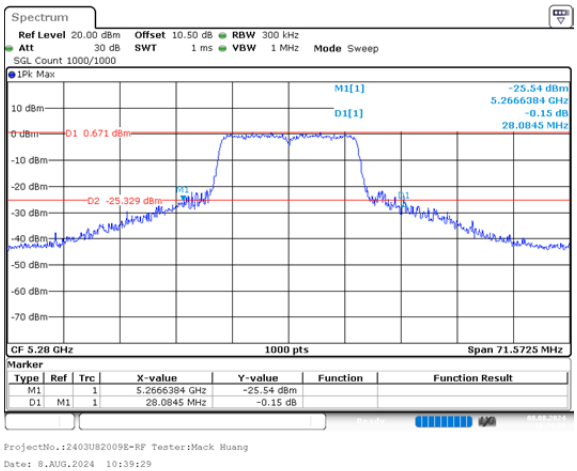


n20_5260MHz_Chain 0 26.666MHz



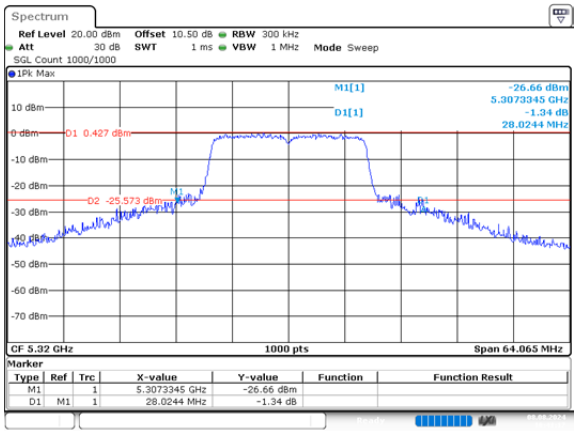
ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:36:32

n20_5280MHz_Chain 0 28.085MHz



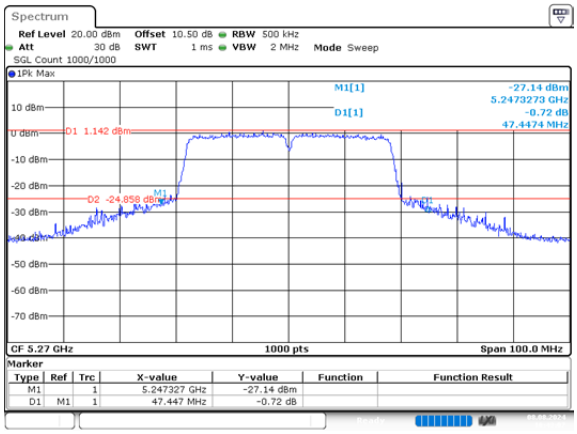
ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:39:29

n20_5320MHz_Chain 0 28.024MHz



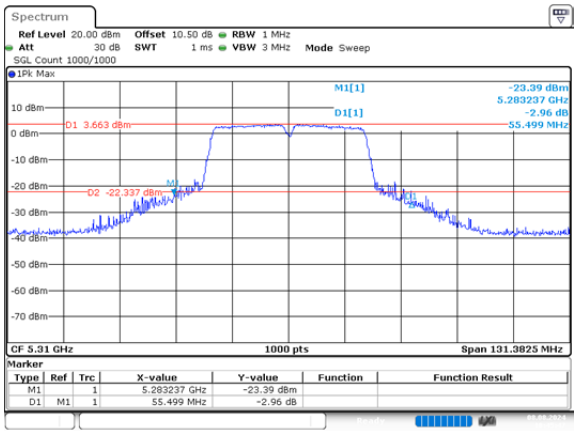
ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:41:17

n40_5270MHz_Chain 0 47.447MHz



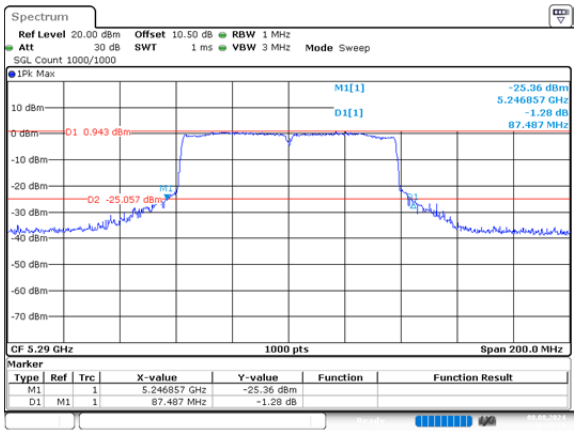
ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:43:07

n40_5310MHz_Chain 0 55.499MHz



ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:45:47

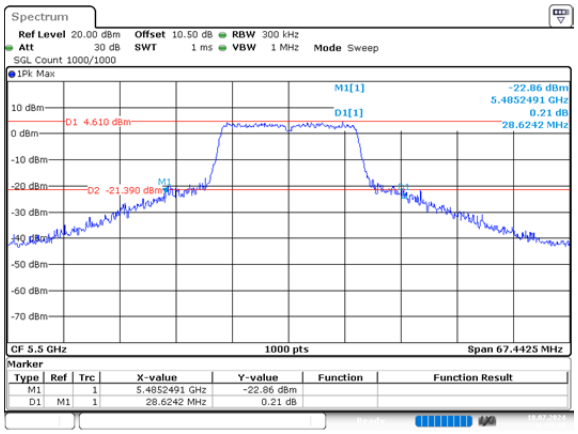
ac80_5290MHz_Chain 0 87.487MHz



ProjectNo.:2403U82009E-RF Tester:Mack Huang
Date: 8.AUG.2024 10:47:20

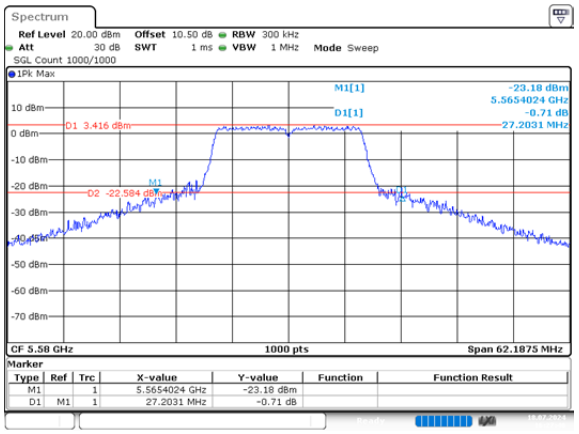
5.6G

a_5500MHz_Chain 0 28.624MHz



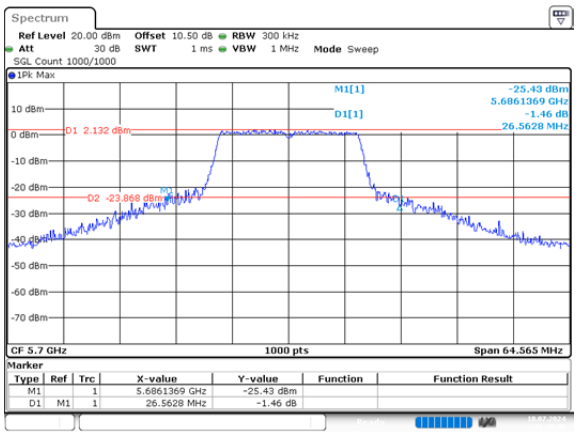
ProjectNo.:2403U82009E-RF Tester:Tao Zhu
Date: 18.JUL.2024 16:25:19

a_5580MHz_Chain 0 27.203MHz



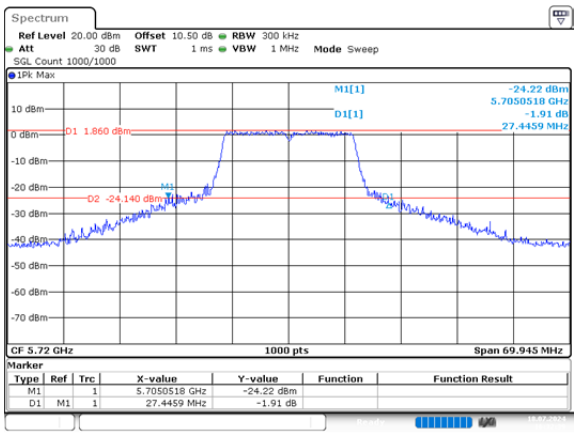
ProjectNo.:2403U82009E-RF Tester:Tao Zhu
Date: 18.JUL.2024 16:27:41

a_5700MHz_Chain 0 26.563MHz



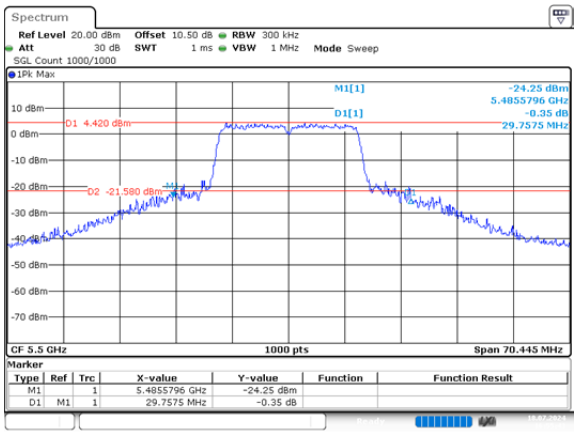
ProjectNo.:2403U82009E-RF Tester:Tao Zhu
Date: 18.JUL.2024 16:30:40

a_5720MHz_Chain 0 27.446MHz



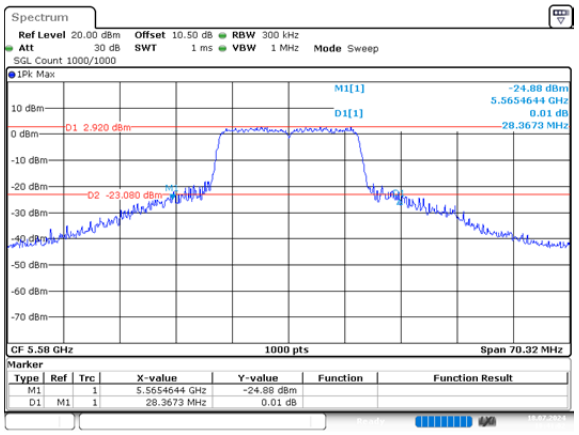
ProjectNo.:2403U82009E-RF Tester:Tao Zhu
Date: 18.JUL.2024 16:32:40

n20_5500MHz_Chain 0 29.758MHz



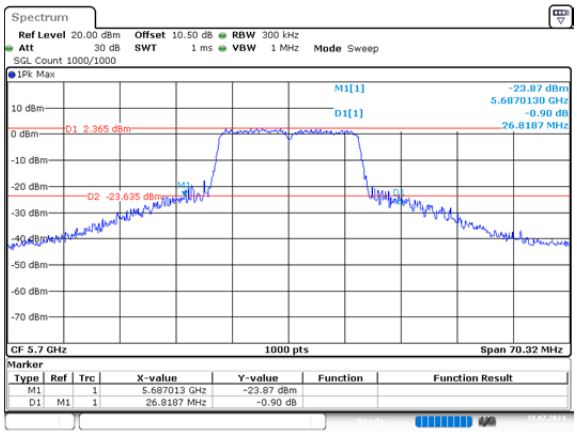
ProjectNo.:2403U82009E-RF Tester:Tao Zhu
Date: 18.JUL.2024 16:55:43

n20_5580MHz_Chain 0 28.367MHz

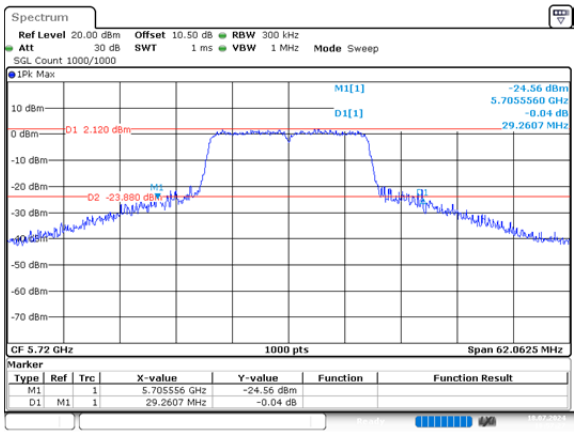


ProjectNo.:2403U82009E-RF Tester:Tao Zhu
Date: 18.JUL.2024 18:41:03

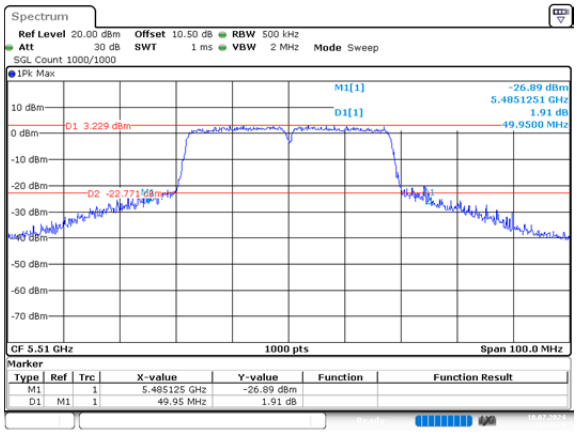
n20_5700MHz_Chain 0 26.819MHz



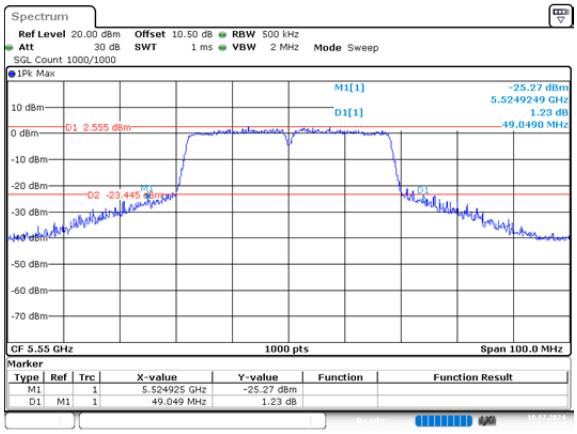
n20_5720MHz_Chain 0 29.261MHz



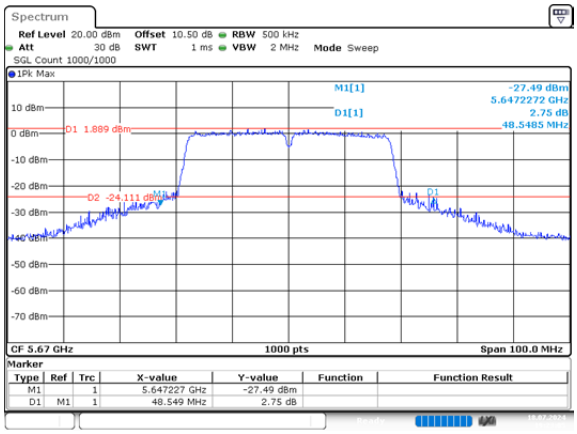
n40_5510MHz_Chain 0 49.950MHz



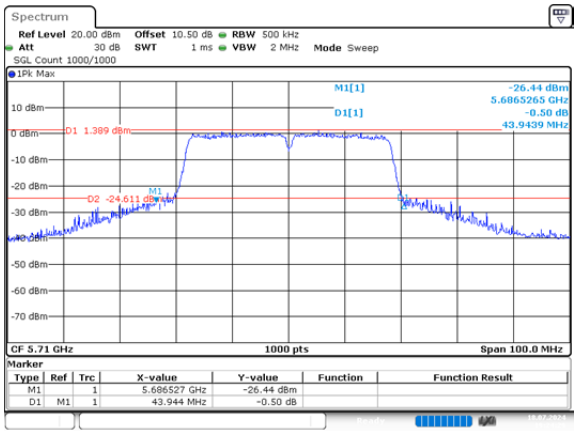
n40_5550MHz_Chain 0 49.049MHz



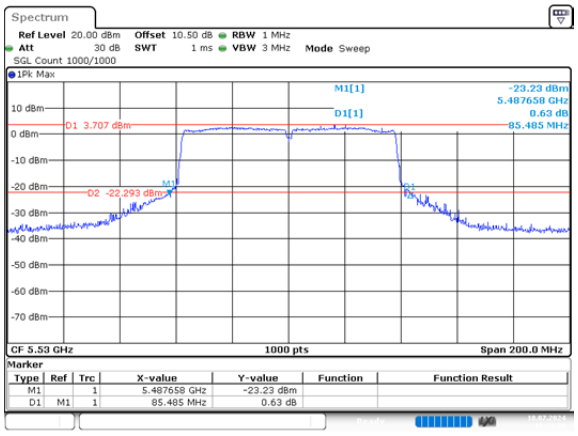
n40_5670MHz_Chain 0 48.549MHz



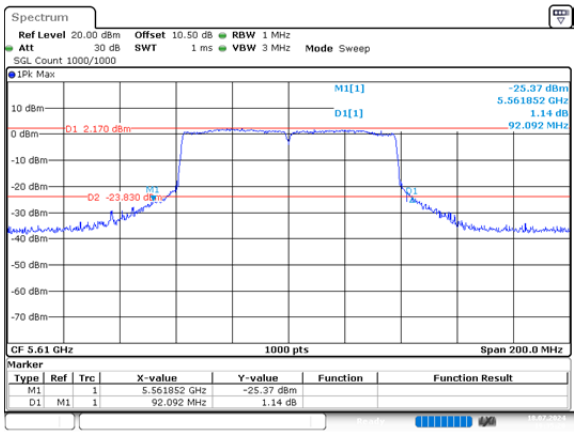
n40_5710MHz_Chain 0 43.944MHz



ac80_5530MHz_Chain 0 85.485MHz

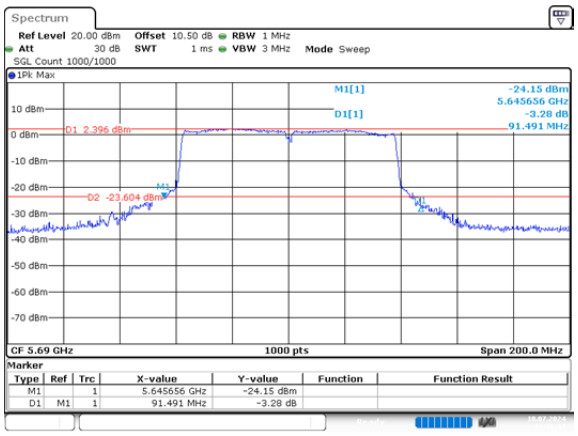


ac80_5610MHz_Chain 0 92.092MHz

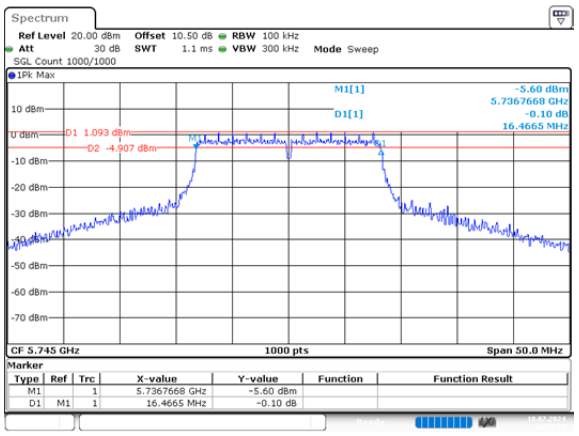


5.8G

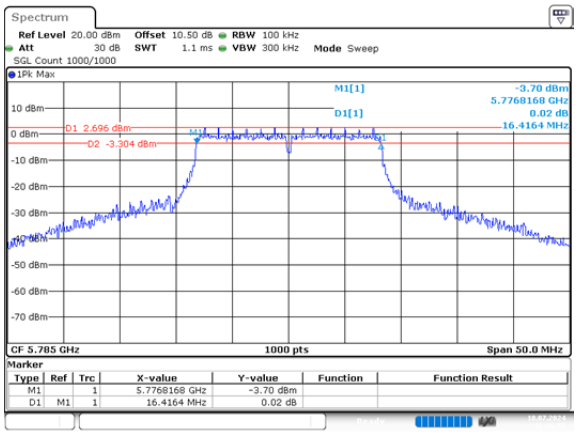
ac80_5690MHz_Chain 0 91.491MHz



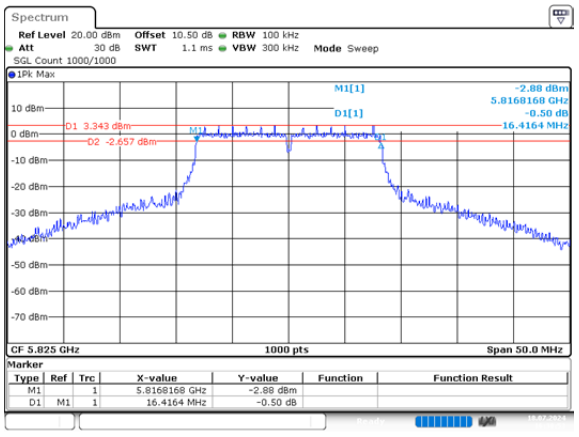
a_5745MHz_Chain 0 16.466MHz



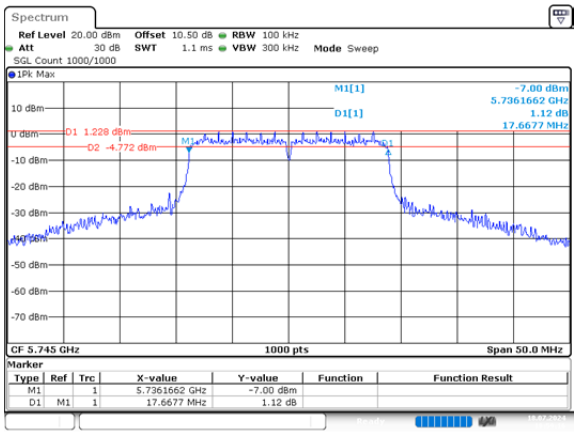
a_5785MHz_Chain 0 16.416MHz



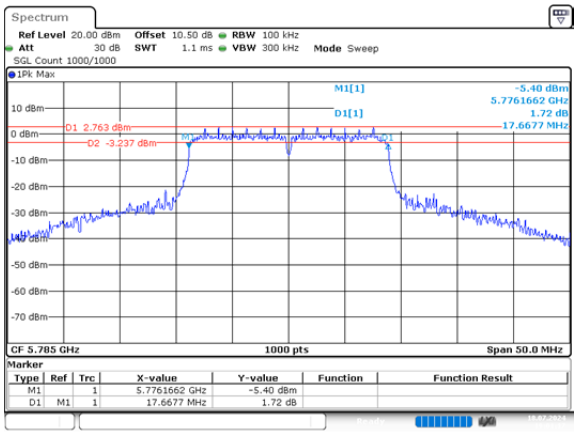
a_5825MHz_Chain 0 16.416MHz



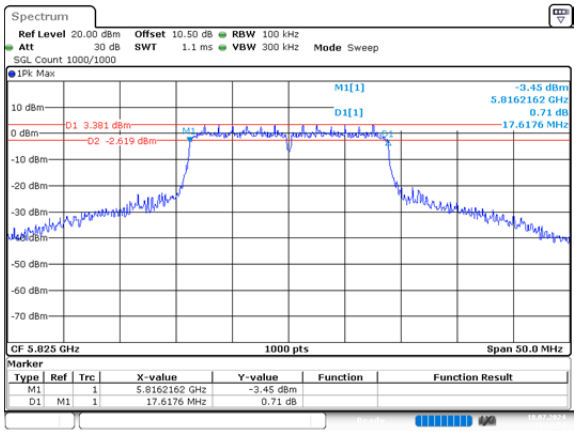
n20_5745MHz_Chain 0 17.668MHz



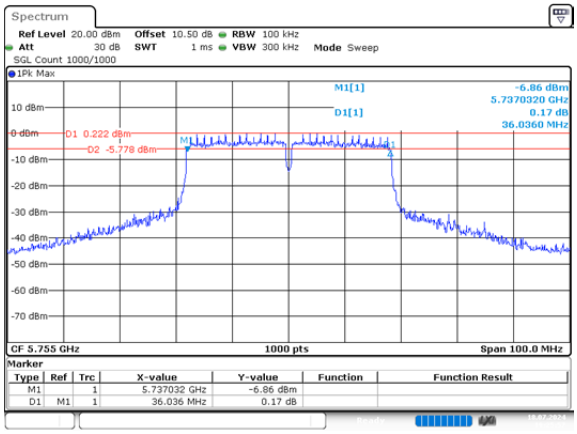
n20_5785MHz_Chain 0 17.668MHz



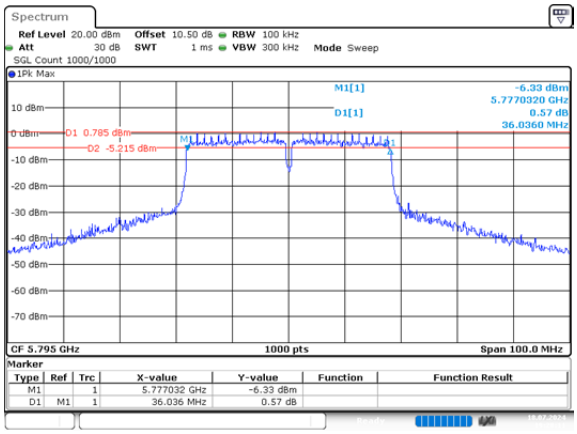
n20_5825MHz_Chain 0 17.618MHz



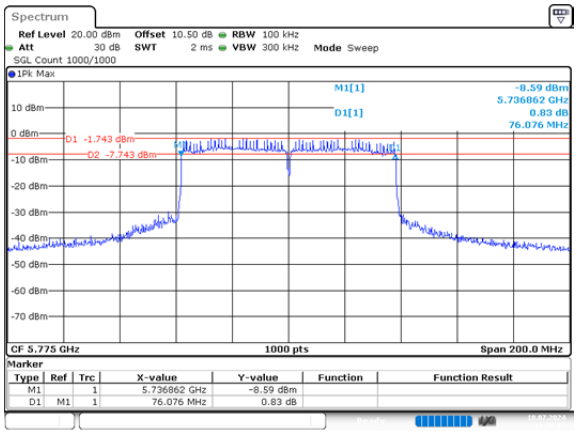
n40_5755MHz_Chain 0 36.036MHz



n40_5795MHz_Chain 0 36.036MHz



ac80_5775MHz_Chain 0 76.076MHz



4.4 99% Occupied Bandwidth

Test Information:

Serial No.:	2NHV-1	**Test Date:**	2024/7/18~2024/8/8
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Tao Zhu, Mack Huang	**Test Result:**	N/A

Environmental Conditions:

Temperature: (°C):	26.3~26.5	**Relative Humidity: (%)**	66~68	**ATM Pressure: (kPa)**	100.3~100.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101591	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
HuiXunDa	DC Block	SMA-JK 18G	DCB181108042	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

5.2G

Mode	99% OBW (MHz)
a_5180MHz_Chain 0	16.700
a_5200MHz_Chain 0	16.700
a_5240MHz_Chain 0	16.700
n20_5180MHz_Chain 0	17.650
n20_5200MHz_Chain 0	17.700
n20_5240MHz_Chain 0	17.700
n40_5190MHz_Chain 0	36.200
n40_5230MHz_Chain 0	36.300
ac80_5210MHz_Chain 0	75.600

Note:
The 99% Occupied Bandwidth have not fall into the band 5250-5350MHz, please refer to the test plots of 99% Occupied Bandwidth.

5.3G

Mode	99% OBW (MHz)
a_5260MHz_Chain 0	16.700
a_5280MHz_Chain 0	16.700
a_5320MHz_Chain 0	16.650
n20_5260MHz_Chain 0	17.700
n20_5280MHz_Chain 0	17.700
n20_5320MHz_Chain 0	17.650
n40_5270MHz_Chain 0	36.200
n40_5310MHz_Chain 0	36.300
ac80_5290MHz_Chain 0	75.600

5.6G

Mode	99% OBW (MHz)
a_5500MHz_Chain 0	16.700
a_5580MHz_Chain 0	16.700
a_5700MHz_Chain 0	16.700
a_5720MHz_Chain 0	16.700
n20_5500MHz_Chain 0	17.700
n20_5580MHz_Chain 0	17.600
n20_5700MHz_Chain 0	17.700

Mode	99% OBW (MHz)
n20_5720MHz_Chain 0	17.650
n40_5510MHz_Chain 0	36.300
n40_5550MHz_Chain 0	36.200
n40_5670MHz_Chain 0	36.300
n40_5710MHz_Chain 0	36.300
ac80_5530MHz_Chain 0	75.600
ac80_5610MHz_Chain 0	75.600
ac80_5690MHz_Chain 0	75.600

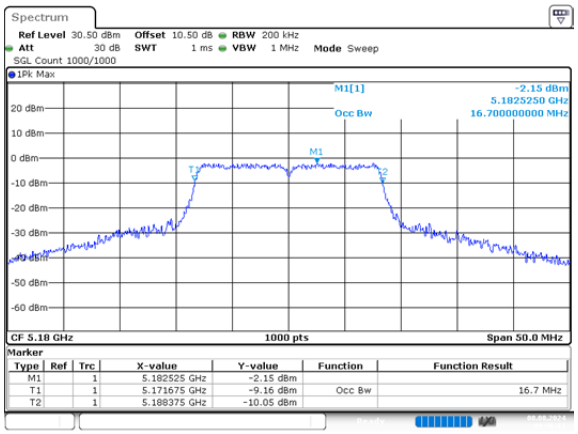
5.8G

Mode	99% OBW (MHz)
a_5745MHz_Chain 0	16.700
a_5785MHz_Chain 0	16.700
a_5825MHz_Chain 0	16.700
n20_5745MHz_Chain 0	17.650
n20_5785MHz_Chain 0	17.700
n20_5825MHz_Chain 0	17.700
n40_5755MHz_Chain 0	36.300
n40_5795MHz_Chain 0	36.300
ac80_5775MHz_Chain 0	75.600

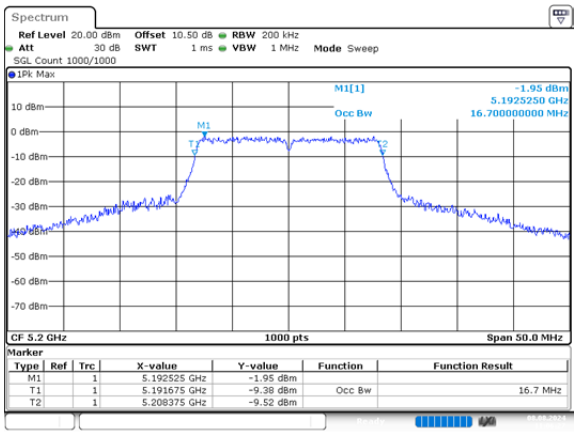
Note:
The 99% Occupied Bandwidth have not fall into the band 5470-5725MHz, please refer to the test plots of 99% Occupied Bandwidth.

5.2G

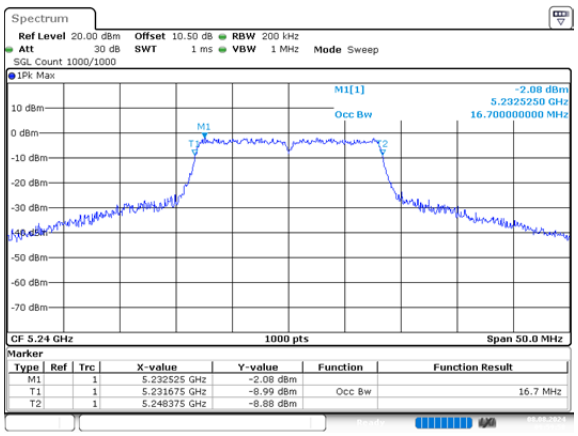
a_5180MHz_Chain 0 16.700MHz



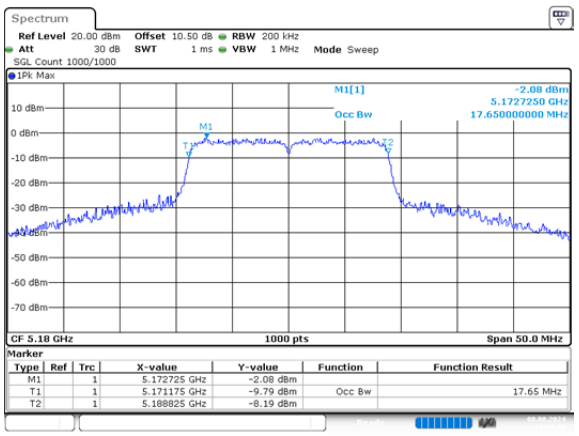
a_5200MHz_Chain 0 16.700MHz



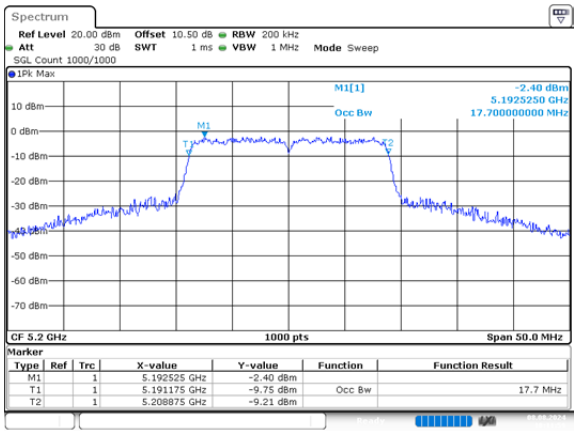
a_5240MHz_Chain 0 16.700MHz



n20_5180MHz_Chain 0 17.650MHz



n20_5200MHz_Chain 0 17.700MHz



n20_5240MHz_Chain 0 17.700MHz