



中认信通

CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



TEST REPORT

Applicant: D-ROBOTICS HOLDING LIMITED

Address: SUITE 603, 6/F LAWS COMM PLAZA 788 CHEUNG SHA WAN RD
KLN HONG KONG, CHINA

FCC ID: 2BGUG-RDKX3K

Product Name: RDK X3

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: 2403T78338E-RF-00D

Date Of Issue: 2024/7/2

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

This report cannot be reproduced except in full, without prior written approval of the Company.

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

This report may contain data that are not covered by the accreditation scope and shall be marked with an asterisk “★”.

CONTENTS

DOCUMENT REVISION HISTORY	5
1. GENERAL INFORMATION	6
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	6
1.1.1 General:.....	6
1.1.2 Operation Frequency Detail:	6
1.1.3 Antenna Information Detail▲:	8
1.1.4 Accessory Information:.....	8
1.2 DESCRIPTION OF TEST CONFIGURATION.....	9
1.2.1 EUT Operation Condition:.....	9
1.2.2 Support Equipment List and Details	10
1.2.3 Support Cable List and Details	10
1.2.4 Block Diagram of Test Setup.....	10
1.3 MEASUREMENT UNCERTAINTY	12
2. SUMMARY OF TEST RESULTS	13
3. REQUIREMENTS AND TEST PROCEDURES	14
3.1 AC LINE CONDUCTED EMISSIONS.....	14
3.1.1 Applicable Standard.....	14
3.1.2 EUT Setup.....	15
3.1.3 EMI Test Receiver Setup	15
3.1.4 Test Procedure	16
3.1.5 Corrected Amplitude & Margin Calculation.....	16
3.2 RADIATION SPURIOUS EMISSIONS.....	17
3.2.1 Applicable Standard.....	17
3.2.2 EUT Setup.....	18
3.2.3 EMI Test Receiver & Spectrum Analyzer Setup	19
3.2.4 Test Procedure	20
3.2.5 Corrected Amplitude & Margin Calculation.....	20
3.3 EMISSION BANDWIDTH.....	21
3.3.1 Applicable Standard.....	21
3.3.2 EUT Setup.....	21
3.3.3 Test Procedure	21
3.4 MAXIMUM CONDUCTED OUTPUT POWER.....	23
3.4.1 Applicable Standard.....	23
3.4.2 EUT Setup.....	23
3.4.3 Test Procedure	23
3.5 MAXIMUM POWER SPECTRAL DENSITY	24
3.5.1 Applicable Standard.....	24
3.5.2 EUT Setup.....	24
3.5.3 Test Procedure	24
3.6 DUTY CYCLE	26
3.6.1 EUT Setup.....	26
3.6.2 Test Procedure	26
3.7 ANTENNA REQUIREMENT.....	27
3.7.1 Applicable Standard.....	27
3.7.2 Judgment.....	27
4. Test DATA AND RESULTS	28

4.1 AC LINE CONDUCTED EMISSIONS	28
4.2 RADIATION SPURIOUS EMISSIONS	31
4.2.1 9 kHz – 1 GHz	31
4.2.2 1GHz – 40 GHz:	34
4.3 EMISSION BANDWIDTH.....	60
4.4 99% OCCUPIED BANDWIDTH.....	65
4.5 POWER SPECTRAL DENSITY	70
4.6 DUTY CYCLE	75
4.7 MAXIMUM CONDUCTED OUTPUT POWER.....	78
5. EUT PHOTOGRAPHS	80
6. TEST SETUP PHOTOGRAPHS	81

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2403T78338E-RF-00D	Original Report	2024/7/2

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

1.1.1 General:

EUT Name:	RDK X3
EUT Model:	RDK X3 4G
Multiple Model:	RDK X3 2G
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 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:	13.65dBm(5150-5250 MHz Band) 13.46dBm(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
Serial Number:	CE&RE:2M3J-1 RF: 2M3J-2
EUT Received Date:	2024/5/24
EUT Received Status:	Good

Note: The multiple models are electrically identical with the test model except internal storage. Please refer to the declaration letter for more detail, which was provided by manufacturer.

1.1.2 Operation Frequency Detail:

For 802.11a/n ht20/ac vht20:

5150-5250MHz Band		5725-5850MHz Band	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	149	5745
40	5200	153	5765
44	5220	157	5785
48	5240	161	5805
/	/	165	5825

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

Test Channel	Test Frequency (MHz)	
	5150-5250 MHz	5725-5850 MHz
Lowest	5180	5745
Middle	5200	5785
Highest	5240	5825

For 802.11n ht40/ac vht40:

5150-5250MHz		5725-5850MHz	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	151	5755
46	5230	159	5795

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

Test Channel	Test Frequency (MHz)	
	5150-5250 MHz	5725-5850 MHz
Lowest	5190	5755
Highest	5230	5795

For 802.11ac vht80:

5150-5250MHz		5725-5850MHz	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	155	5775

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

Test Channel	Test Frequency (MHz)	
	5150-5250 MHz	5725-5850 MHz
Middle	5210	5775

1.1.3 Antenna Information Detail▲:

Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
PCB Antenna	50	5.15~5.85GHz	2.25
		5.725~5.85 GHz	2.24
Dipole Antenna	50	5.15~5.85GHz	2.33
		5.725~5.85 GHz	1.56
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
/	/	/

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.			
Equipment Modifications:	No			
EUT Exercise Software:	MobaXterm			
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	Data rate	Power Level Setting
802.11a	Lowest	5180	6Mbps	52
	Middle	5200	6Mbps	52
	Highest	5240	6Mbps	52
802.11n ht20	Lowest	5180	MCS0	52
	Middle	5200	MCS0	52
	Highest	5240	MCS0	52
802.11n ht40	Lowest	5190	MCS0	47
	Highest	5230	MCS0	47
802.11ac vht80	Middle	5210	MCS0	47
5725-5850 MHz Band:				
Test Modes	Test Channels	Test Frequency	Data rate	Power Level Setting
802.11a	Lowest	5745	6Mbps	58
	Middle	5785	6Mbps	58
	Highest	5825	6Mbps	58
802.11n ht20	Lowest	5745	MCS0	58
	Middle	5785	MCS0	58
	Highest	5825	MCS0	58
802.11n ht40	Lowest	5755	MCS0	58
	Highest	5795	MCS0	58
802.11ac vht80	Middle	5775	MCS0	58
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 and 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.				
3. The manufacturer declares that due to the specifications of the RF switching integrated circuit (IC) MXD8721, although the device supports dual antennas, it only supports 1T1R (SISO mode) and does not support MIMO mode.				

1.2.2 Support Equipment List and Details

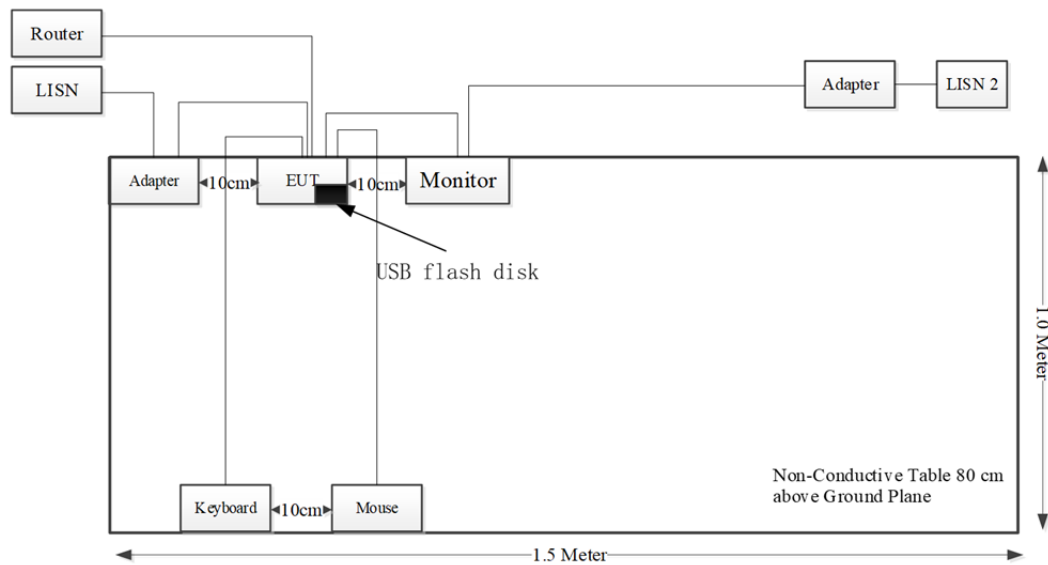
Manufacturer	Description	Model	Serial Number
PHILIPS	Keyboard	SPT6234	K234210510746
PHILIPS	Mouse	SPT6234	C234210506222
Tenda	Router	RX12 Pro	ED331010215000033
Fangxin	Adapter	FX2U-050200U	AD220930001
HP	USB Disk	HPFD206W-32	PAA6902271
ViewSonic	Monitor	VX1630-4K-HD	W9F203900071
ViewSonic	Adapter	HKA01212010-XQ	H12G94218P010302

1.2.3 Support Cable List and Details

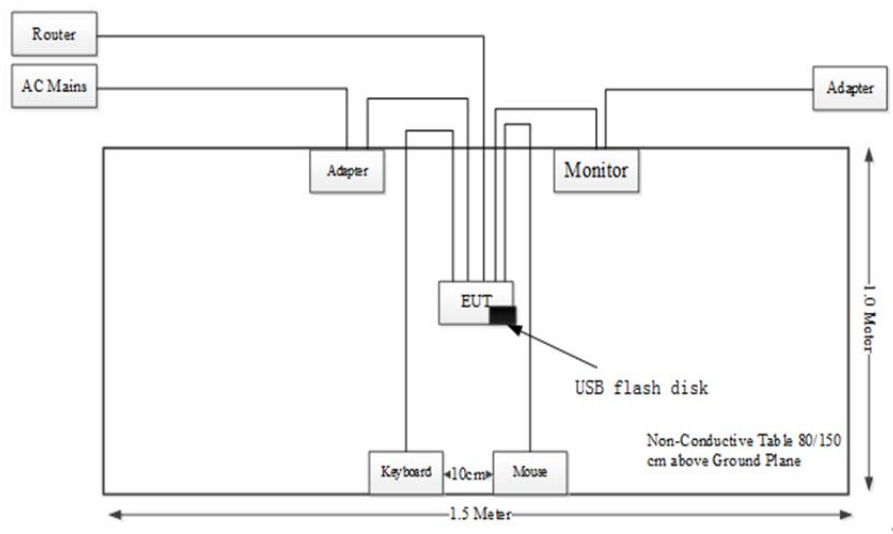
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Keyboard Cable	No	No	1.5	EUT	Keyboard
Mouse Cable	No	Yes	1.5	EUT	Mouse
Power Cable	No	No	1.2	Adapter	EUT
Power Cable	NO	Yes	1.5	Adapter	Monitor
RJ45 Cable	No	No	1.5	Router	EUT
HDMI Cable	Yes	Yes	1.2	EUT	Monitor

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 °C
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 §15.207(a)	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 μ H/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 (dB μ V)	
	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:

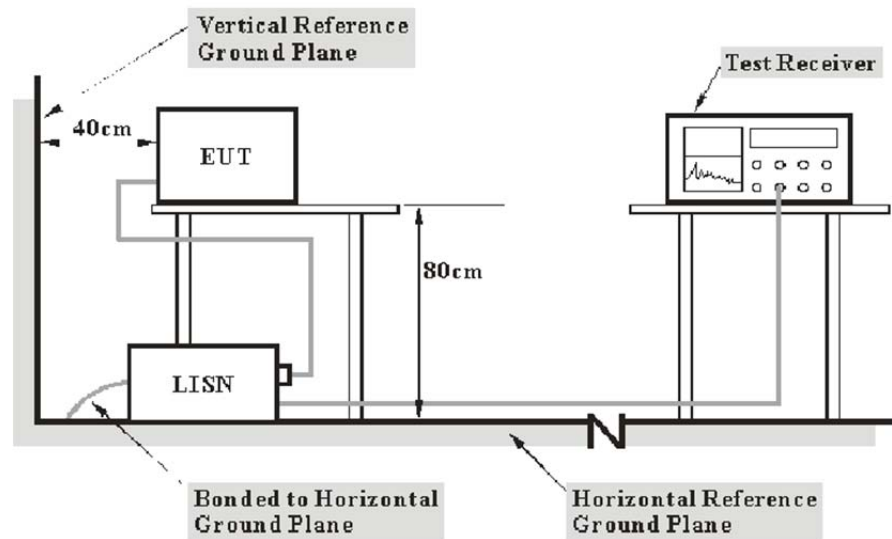
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μ V within the frequency band 535-1705 kHz, as measured using a 50 μ H/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, obtaining 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

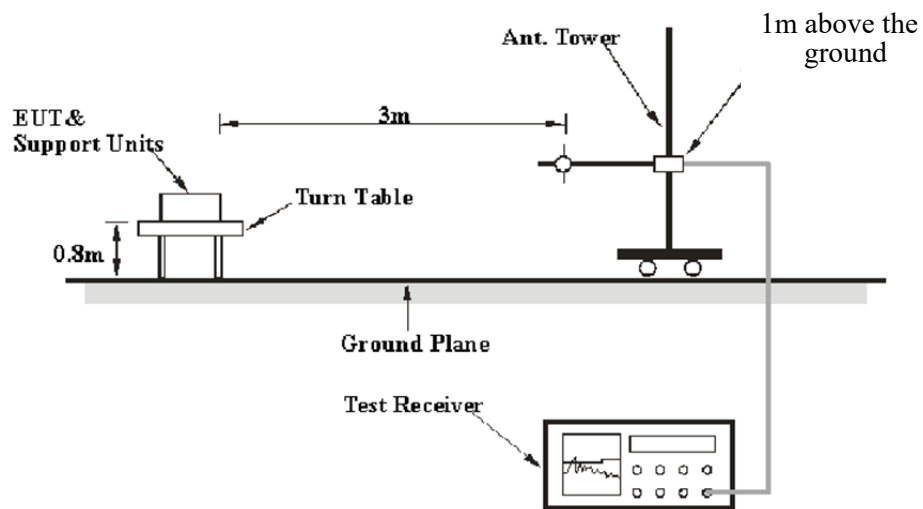
FCC §15.407 (b);

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:

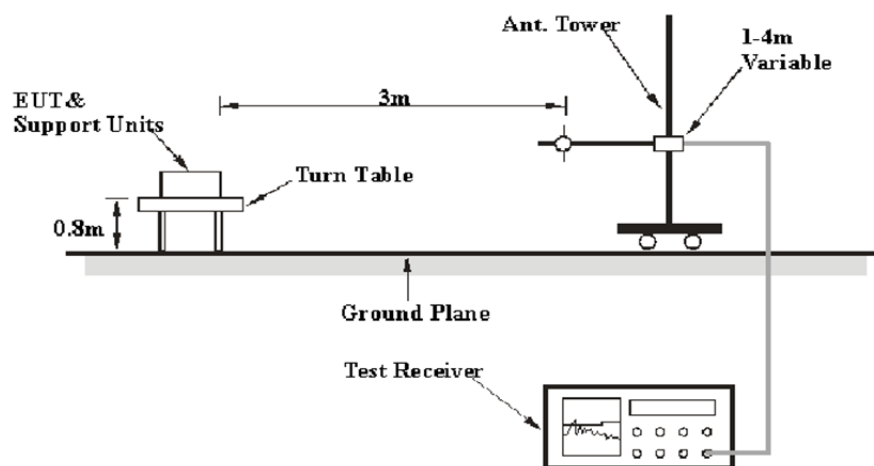
- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (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

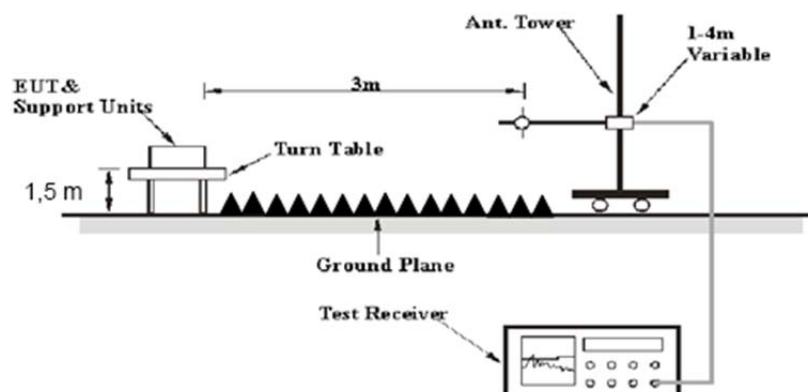
9kHz - 30MHz:

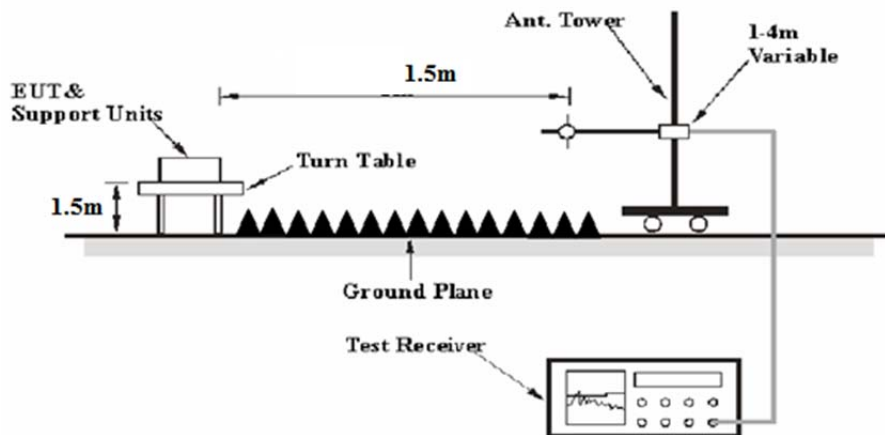


30MHz - 1GHz:



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: $E [dB\mu V/m] = EIRP[dBm] + 95.2$, 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 = $20 \log (\text{specific distance } [3m] / \text{test distance } [1.5m])$ 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

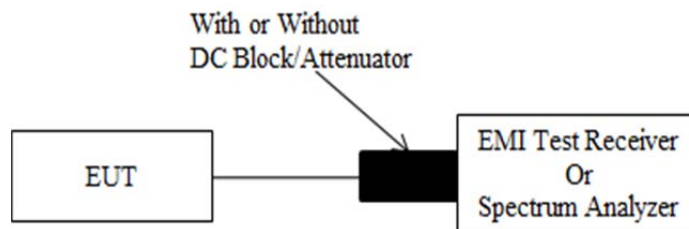
FCC §15.407 (a),(h)

(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

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = peak.
- Trace mode = max hold
- 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

- Set RBW = 100 kHz.
- Set the video bandwidth (VBW) ≥ 3 RBW.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize.
- 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.

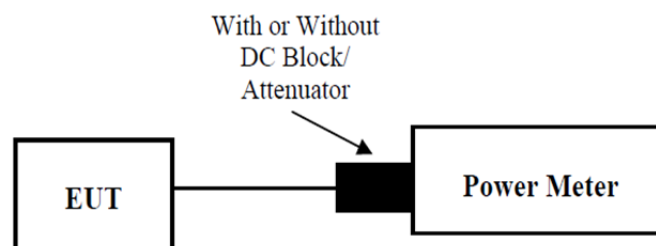
FCC §15.407(a) (2)

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 $11 \text{ dBm} + 10 \log B$, 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 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.

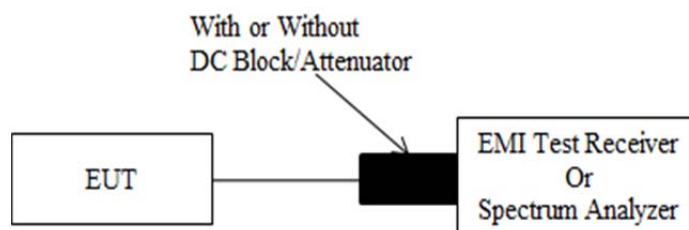
FCC §15.407(a) (2)

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 $11 \text{ dBm} + 10 \log B$, 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 $\geq 98\%$

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 $\pm 2\%$

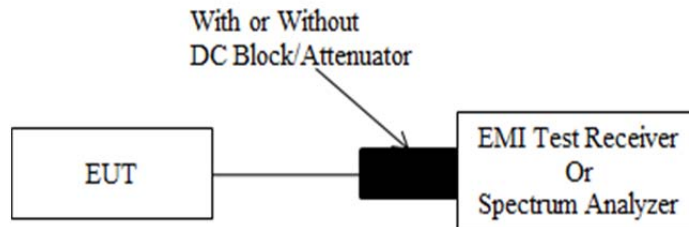
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-2 should be applied.

Duty cycle <98%, duty cycle variations exceed $\pm 2\%$

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 $RBW \geq OBW$ if possible; otherwise, set RBW to the largest available value.
- 3) Set $VBW \geq RBW$. 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 $T \leq 16.7 \mu s$.)

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:	2M3J-1	Test Date:	2024/6/4
Test Site:	CE	Test Mode:	Transmitting (maximum conducted output power mode, Dipole Antenna 802.11a 5240MHz)
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:

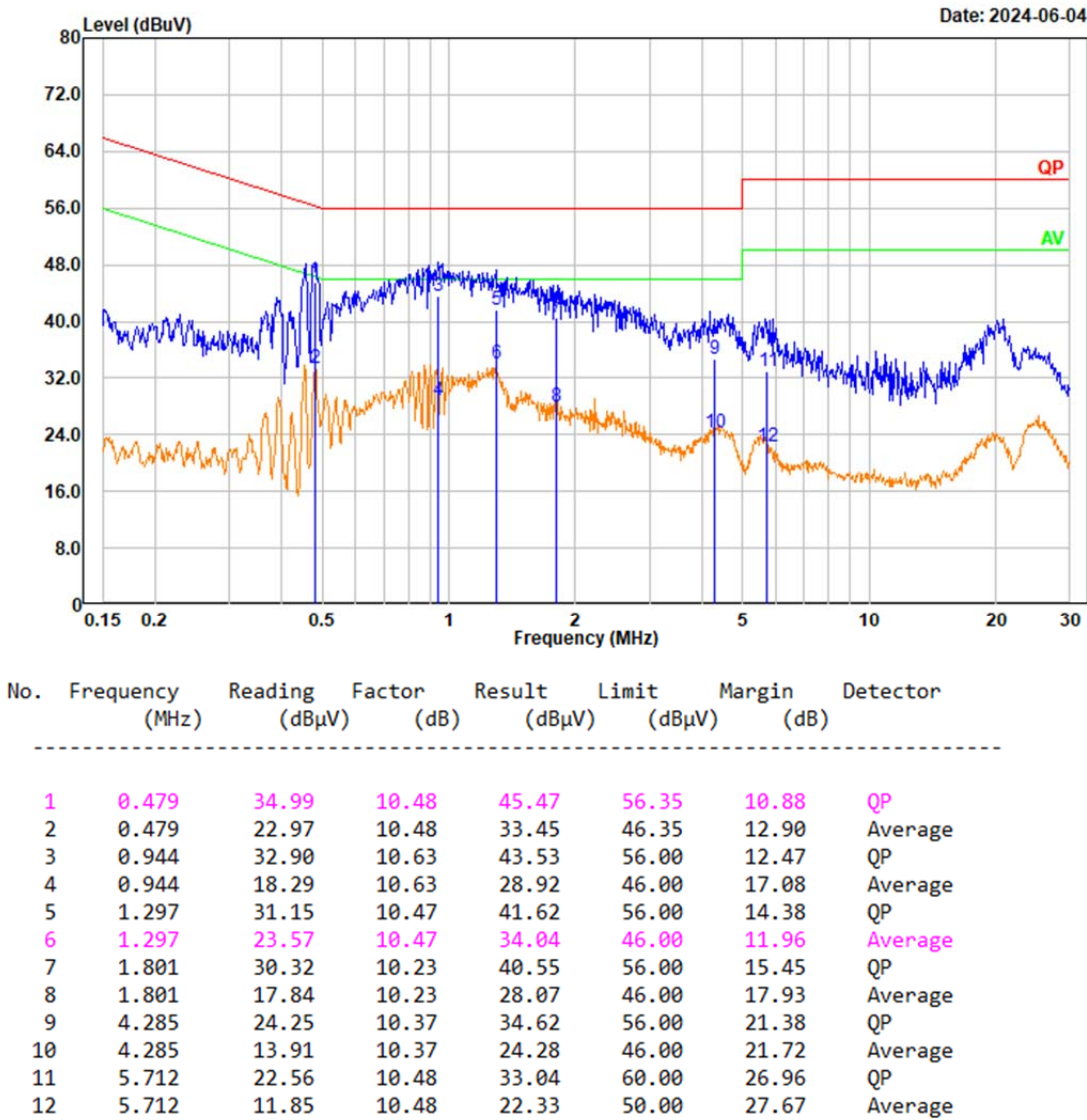
Temperature: (°C)	26.1	Relative Humidity: (%)	65	ATM Pressure: (kPa)	100.1
-------------------	------	------------------------	----	---------------------	-------

Test Equipment List and Details:

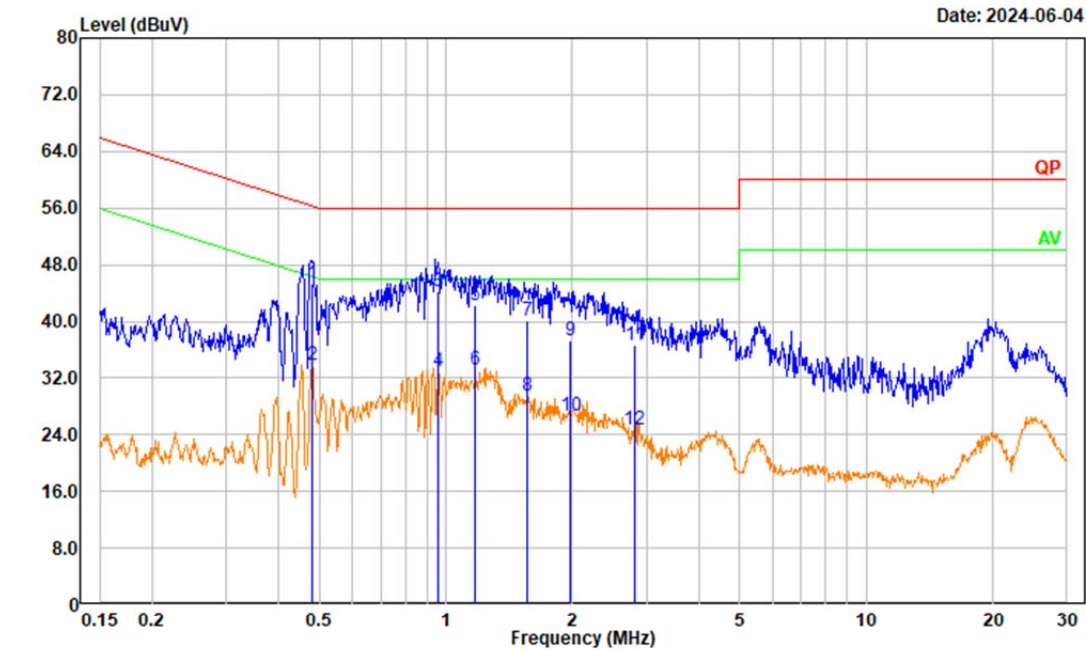
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101132	2024/4/1	2025/3/31
R&S	EMI Test Receiver	ESR3	103104	2024/5/10	2025/5/9
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2024/1/15	2025/1/14
Audix	Test Software	E3	191218 (V9)	N/A	N/A

* 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).

Project No.: 2403T78338E-RF
Tester: David Huang
Port: Line
Note: Transmitting(5G Wifi)



Project No.: 2403T78338E-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	0.481	34.72	10.50	45.22	56.33	11.11	QP
2	0.481	23.34	10.50	33.84	46.33	12.49	Average
3	0.961	33.66	10.48	44.14	56.00	11.86	QP
4	0.961	22.46	10.48	32.94	46.00	13.06	Average
5	1.177	31.87	10.48	42.35	56.00	13.65	QP
6	1.177	22.79	10.48	33.27	46.00	12.73	Average
7	1.562	29.78	10.42	40.20	56.00	15.80	QP
8	1.562	19.12	10.42	29.54	46.00	16.46	Average
9	1.970	27.05	10.34	37.39	56.00	18.61	QP
10	1.970	16.26	10.34	26.60	46.00	19.40	Average
11	2.801	26.31	10.26	36.57	56.00	19.43	QP
12	2.801	14.37	10.26	24.63	46.00	21.37	Average

4.2 Radiation Spurious Emissions

4.2.1 9 kHz – 1 GHz

Serial Number:	2M3J-1	Test Date:	2024/6/23-2024/6/24
Test Site:	966-2	Test Mode:	Transmitting (maximum conducted output power mode, Dipole Antenna 802.11a 5240MHz)
Tester:	Carl Xue	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.4-26.2	Relative Humidity: (%)	59-60	ATM Pressure: (kPa)	100.1-100.2
----------------------	-----------	---------------------------	-------	---------------------------	-------------

Test Equipment List and Details:

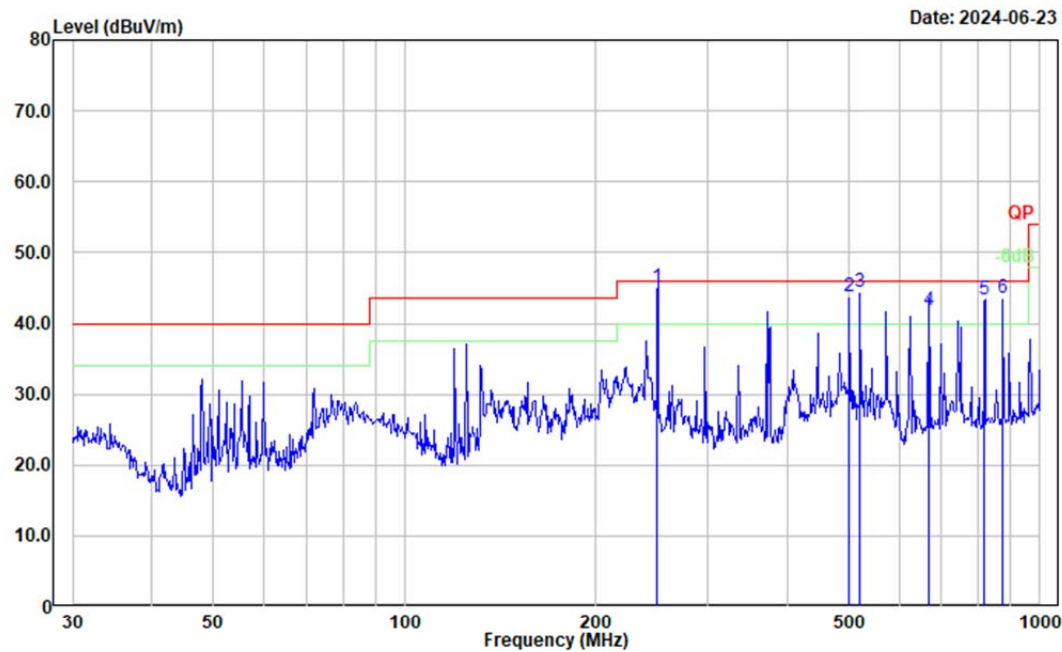
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2023/12/1	2026/11/30
BACL	Loop Antenna	1313-1A	3110611	2023/12/4	2026/12/3
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0300-01	2024/1/11	2025/1/10
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0500-01	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:

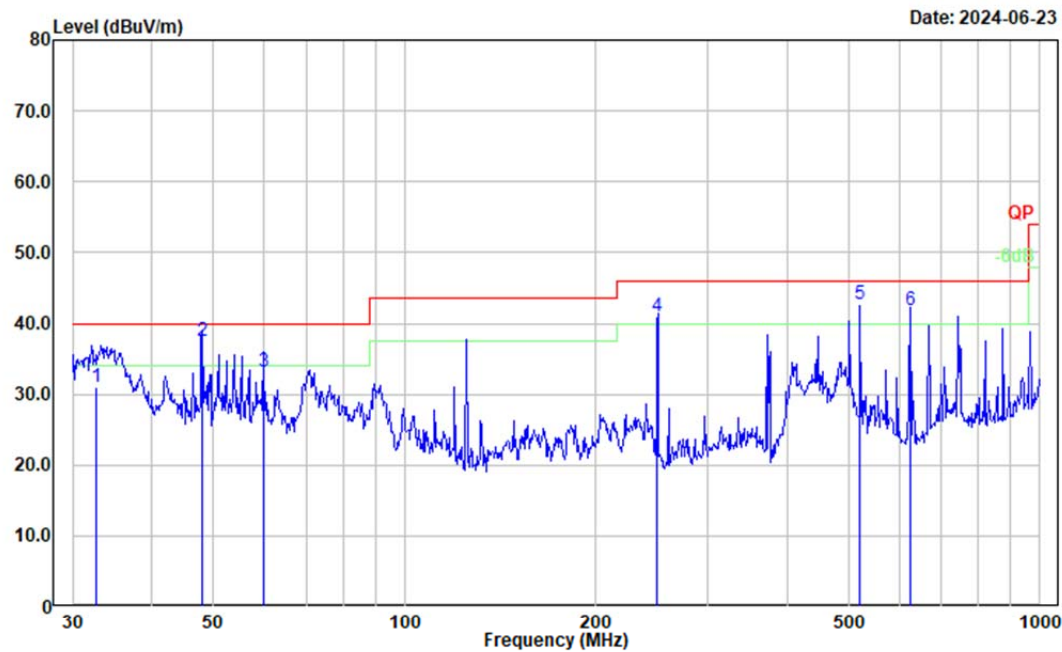
After pre-scan in the X, Y and Z axes of orientation, the worst case is refer to plots.
For 9kHz-30MHz, The amplitude of spurious emissions attenuated more than 20 dB below the limit was not be reported.

Project No.: 2403T78338E-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	249.991	57.99	-12.93	45.06	46.00	0.94	QP
2	500.017	49.57	-5.85	43.72	46.00	2.28	QP
3	520.888	49.87	-5.50	44.37	46.00	1.63	QP
4	668.303	45.45	-3.50	41.95	46.00	4.05	QP
5	816.805	44.63	-1.27	43.36	46.00	2.64	QP
6	875.037	43.98	-0.50	43.48	46.00	2.52	QP

Project No.: 2403T78338E-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	32.741	36.90	-5.80	31.10	40.00	8.90	QP
2	48.013	53.79	-16.37	37.42	40.00	2.58	QP
3	59.995	50.89	-17.69	33.20	40.00	6.80	QP
4	250.001	53.99	-12.93	41.06	46.00	4.94	QP
5	519.764	48.30	-5.51	42.79	46.00	3.21	QP
6	625.004	46.28	-4.48	41.80	46.00	4.20	QP

4.2.2 1GHz – 40 GHz:

Serial Number:	2M3J-1	Test Date:	2024/6/21-2024/6/22
Test Site:	966-1	Test Mode:	Transmitting
Tester:	Tao Zhu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.8~26.9	Relative Humidity: (%)	63~67	ATM Pressure: (kPa)	99.9~100
----------------------	-----------	---------------------------	-------	---------------------------	----------

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
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	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
E-Microwave	Band Rejection Filter	5150-5850MHz	OE01902423	2023/8/6	2024/8/5
Mini Circuits	High Pass Filter	VHF-6010+	31119	2023/8/6	2024/8/5
PASTERNAK	Horn Antenna	PE9850/2F-20	072001	2024/2/4	2027/2/3

* 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:

Dipole Antenna:**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	50.90	PK	H	9.48	60.38	74.00	13.62
5150.000	32.66	AV	H	9.48	42.14	54.00	11.86
5150.000	59.26	PK	V	9.48	68.74	74.00	5.26
5150.000	37.60	AV	V	9.48	47.08	54.00	6.92
10360.000	34.57	PK	H	13.24	47.81	68.20	20.39
10360.000	34.92	PK	V	13.24	48.16	68.20	20.04
15540.000	35.30	PK	H	17.28	52.58	74.00	21.42
15540.000	22.50	AV	H	17.28	39.78	54.00	14.22
15540.000	35.52	PK	V	17.28	52.80	74.00	21.20
15540.000	22.63	AV	V	17.28	39.91	54.00	14.09
Middle Channel:				5200	MHz		
10400.000	35.33	PK	H	13.61	48.94	68.20	19.26
10400.000	35.21	PK	V	13.61	48.82	68.20	19.38
15600.000	37.12	PK	H	16.58	53.70	74.00	20.30
15600.000	24.56	AV	H	16.58	41.14	54.00	12.86
15600.000	37.67	PK	V	16.58	54.25	74.00	19.75
15600.000	24.28	AV	V	16.58	40.86	54.00	13.14
High Channel:				5240	MHz		
5350.000	43.88	PK	H	9.34	53.22	74.00	20.78
5350.000	30.23	AV	H	9.34	39.57	54.00	14.43
5350.000	44.16	PK	V	9.34	53.50	74.00	20.50
5350.000	30.69	AV	V	9.34	40.03	54.00	13.97
10480.000	33.17	PK	H	14.13	47.30	68.20	20.90
10480.000	33.29	PK	V	14.13	47.42	68.20	20.78
15720.000	38.25	PK	H	16.07	54.32	74.00	19.68
15720.000	25.14	AV	H	16.07	41.21	54.00	12.79
15720.000	38.18	PK	V	16.07	54.25	74.00	19.75
15720.000	25.39	AV	V	16.07	41.46	54.00	12.54

802.11n ht20 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	46.52	PK	H	9.48	56.00	74.00	18.00
5150.000	31.82	AV	H	9.48	41.30	54.00	12.70
5150.000	56.63	PK	V	9.48	66.11	74.00	7.89
5150.000	37.60	AV	V	9.48	47.08	54.00	6.92
10360.000	36.18	PK	H	13.24	49.42	68.20	18.78
10360.000	38.77	PK	V	13.24	52.01	68.20	16.19
15540.000	35.33	PK	H	17.28	52.61	74.00	21.39
15540.000	22.17	AV	H	17.28	39.45	54.00	14.55
15540.000	35.15	PK	V	17.28	52.43	74.00	21.57
15540.000	22.46	AV	V	17.28	39.74	54.00	14.26
Middle Channel:				5200	MHz		
10400.000	34.30	PK	H	13.61	47.91	68.20	20.29
10400.000	34.50	PK	V	13.61	48.11	68.20	20.09
15600.000	36.93	PK	H	16.58	53.51	74.00	20.49
15600.000	23.87	AV	H	16.58	40.45	54.00	13.55
15600.000	36.56	PK	V	16.58	53.14	74.00	20.86
15600.000	23.72	AV	V	16.58	40.30	54.00	13.70
High Channel:				5240	MHz		
5350.000	43.56	PK	H	9.34	52.90	74.00	21.10
5350.000	30.88	AV	H	9.34	40.22	54.00	13.78
5350.000	44.10	PK	V	9.34	53.44	74.00	20.56
5350.000	31.52	AV	V	9.34	40.86	54.00	13.14
10480.000	33.23	PK	H	14.13	47.36	68.20	20.84
10480.000	33.52	PK	V	14.13	47.65	68.20	20.55
15720.000	38.65	PK	H	16.07	54.72	74.00	19.28
15720.000	25.47	AV	H	16.07	41.54	54.00	12.46
15720.000	38.77	PK	V	16.07	54.84	74.00	19.16
15720.000	25.65	AV	V	16.07	41.72	54.00	12.28

802.11n ht40 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	49.47	PK	H	9.48	58.95	74.00	15.05
5150.000	33.01	AV	H	9.48	42.49	54.00	11.51
5150.000	60.72	PK	V	9.48	70.20	74.00	3.80
5150.000	41.20	AV	V	9.48	50.68	54.00	3.32
10380.000	34.84	PK	H	13.43	48.27	68.20	19.93
10380.000	34.69	PK	V	13.43	48.12	68.20	20.08
15570.000	35.15	PK	H	16.93	52.08	74.00	21.92
15570.000	22.32	AV	H	16.93	39.25	54.00	14.75
15570.000	38.65	PK	V	16.93	55.58	74.00	18.42
15570.000	25.72	AV	V	16.93	42.65	54.00	11.35
High Channel:				5230	MHz		
5350.000	43.77	PK	H	9.34	53.11	74.00	20.89
5350.000	30.55	AV	H	9.34	39.89	54.00	14.11
5350.000	43.86	PK	V	9.34	53.20	74.00	20.80
5350.000	30.48	AV	V	9.34	39.82	54.00	14.18
10460.000	33.60	PK	H	14.00	47.60	68.20	20.60
10460.000	33.43	PK	V	14.00	47.43	68.20	20.77
15690.000	38.13	PK	H	15.98	54.11	74.00	19.89
15690.000	25.18	AV	H	15.98	41.16	54.00	12.84
15690.000	38.20	PK	V	15.98	54.18	74.00	19.82
15690.000	25.36	AV	V	15.98	41.34	54.00	12.66

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	47.94	PK	H	9.48	57.42	74.00	16.58
5150.000	33.06	AV	H	9.48	42.54	54.00	11.46
5150.000	57.78	PK	V	9.48	67.26	74.00	6.74
5150.000	40.99	AV	V	9.48	50.47	54.00	3.53
5350.000	43.52	PK	H	9.34	52.86	74.00	21.14
5350.000	30.22	AV	H	9.34	39.56	54.00	14.44
5350.000	43.33	PK	V	9.34	52.67	74.00	21.33
5350.000	30.47	AV	V	9.34	39.81	54.00	14.19
10420.000	33.68	PK	H	13.74	47.42	68.20	20.78
10420.000	33.80	PK	V	13.74	47.54	68.20	20.66
15630.000	37.53	PK	H	16.38	53.91	74.00	20.09
15630.000	24.53	AV	H	16.38	40.91	54.00	13.09
15630.000	37.49	PK	V	16.38	53.87	74.00	20.13
15630.000	24.55	AV	V	16.38	40.93	54.00	13.07

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	46.64	PK	H	9.41	56.05	122.20	66.15
5720.000	45.21	PK	H	9.41	54.62	110.80	56.18
5700.000	43.21	PK	H	9.42	52.63	105.20	52.57
5650.000	42.98	PK	H	9.61	52.59	68.20	15.61
5725.000	58.60	PK	V	9.41	68.01	122.20	54.19
5720.000	49.98	PK	V	9.41	59.39	110.80	51.41
5700.000	44.71	PK	V	9.42	54.13	105.20	51.07
5650.000	43.32	PK	V	9.61	52.93	68.20	15.27
11490.000	34.57	PK	H	14.06	48.63	74.00	25.37
11490.000	21.52	AV	H	14.06	35.58	54.00	18.42
11490.000	34.28	PK	V	14.06	48.34	74.00	25.66
11490.000	21.40	AV	V	14.06	35.46	54.00	18.54
17235.000	35.10	PK	H	21.38	56.48	68.20	11.72
17235.000	35.03	PK	V	21.38	56.41	68.20	11.79
Middle Channel:				5785	MHz		
11570.000	34.73	PK	H	15.47	50.20	74.00	23.80
11570.000	21.28	AV	H	15.47	36.75	54.00	17.25
11570.000	34.29	PK	V	15.47	49.76	74.00	24.24
11570.000	21.63	AV	V	15.47	37.10	54.00	16.90
17355.000	35.12	PK	H	21.48	56.60	68.20	11.60
17355.000	35.10	PK	V	21.48	56.58	68.20	11.62
High Channel:				5825	MHz		
5850.000	44.21	PK	H	9.27	53.48	122.20	68.72
5855.000	43.20	PK	H	9.31	52.51	110.80	58.29
5875.000	43.15	PK	H	9.44	52.59	105.20	52.61
5925.000	42.87	PK	H	9.83	52.70	68.20	15.50
5850.000	47.44	PK	V	9.27	56.71	122.20	65.49
5855.000	45.20	PK	V	9.31	54.51	110.80	56.29
5875.000	44.63	PK	V	9.44	54.07	105.20	51.13
5925.000	42.98	PK	V	9.83	52.81	68.20	15.39
11650.000	34.52	PK	H	15.54	50.06	74.00	23.94
11650.000	21.59	AV	H	15.54	37.13	54.00	16.87
11650.000	34.65	PK	V	15.54	50.19	74.00	23.81
11650.000	21.47	AV	V	15.54	37.01	54.00	16.99
17475.000	33.45	PK	H	22.53	55.98	68.20	12.22
17475.000	33.36	PK	V	22.53	55.89	68.20	12.31

802.11n ht20 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	51.36	PK	H	9.41	60.77	122.20	61.43
5720.000	46.64	PK	H	9.41	56.05	110.80	54.75
5700.000	43.68	PK	H	9.42	53.10	105.20	52.10
5650.000	43.28	PK	H	9.61	52.89	68.20	15.31
5725.000	60.93	PK	V	9.41	70.34	122.20	51.86
5720.000	51.35	PK	V	9.41	60.76	110.80	50.04
5700.000	45.45	PK	V	9.42	54.87	105.20	50.33
5650.000	44.11	PK	V	9.61	53.72	68.20	14.48
11490.000	34.32	PK	H	14.06	48.38	74.00	25.62
11490.000	21.28	AV	H	14.06	35.34	54.00	18.66
11490.000	34.44	PK	V	14.06	48.50	74.00	25.50
11490.000	21.69	AV	V	14.06	35.75	54.00	18.25
17235.000	34.58	PK	H	21.38	55.96	68.20	12.24
17235.000	34.69	PK	V	21.38	56.07	68.20	12.13
Middle Channel:				5785	MHz		
11570.000	34.02	PK	H	15.47	49.49	74.00	24.51
11570.000	21.45	AV	H	15.47	36.92	54.00	17.08
11570.000	34.18	PK	V	15.47	49.65	74.00	24.35
11570.000	21.39	AV	V	15.47	36.86	54.00	17.14
17355.000	34.25	PK	H	21.48	55.73	68.20	12.47
17355.000	34.63	PK	V	21.48	56.11	68.20	12.09
High Channel:				5825	MHz		
5850.000	45.16	PK	H	9.27	54.43	122.20	67.77
5855.000	43.69	PK	H	9.31	53.00	110.80	57.80
5875.000	43.52	PK	H	9.44	52.96	105.20	52.24
5925.000	42.58	PK	H	9.83	52.41	68.20	15.79
5850.000	51.07	PK	V	9.27	60.34	122.20	61.86
5855.000	45.91	PK	V	9.31	55.22	110.80	55.58
5875.000	44.16	PK	V	9.44	53.60	105.20	51.60
5925.000	43.66	PK	V	9.83	53.49	68.20	14.71
11650.000	34.52	PK	H	15.55	50.07	74.00	23.93
11650.000	21.25	AV	H	15.55	36.80	54.00	17.20
11650.000	34.99	PK	V	15.55	50.54	74.00	23.46
11650.000	21.38	AV	V	15.55	36.93	54.00	17.07
17475.000	33.65	PK	H	22.53	56.18	68.20	12.02
17475.000	33.45	PK	V	22.53	55.98	68.20	12.22

802.11n ht40 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	51.88	PK	H	9.41	61.29	122.20	60.91
5720.000	50.36	PK	H	9.41	59.77	110.80	51.03
5700.000	44.23	PK	H	9.42	53.65	105.20	51.55
5650.000	43.69	PK	H	9.61	53.30	68.20	14.90
5725.000	58.63	PK	V	9.41	68.04	122.20	54.16
5720.000	58.20	PK	V	9.41	67.61	110.80	43.19
5700.000	48.82	PK	V	9.42	58.24	105.20	46.96
5650.000	43.65	PK	V	9.61	53.26	68.20	14.94
11510.000	33.82	PK	H	14.31	48.13	74.00	25.87
11510.000	20.36	AV	H	14.31	34.67	54.00	19.33
11510.000	34.11	PK	V	14.31	48.42	74.00	25.58
11510.000	21.21	AV	V	14.31	35.52	54.00	18.48
17265.000	34.44	PK	H	21.25	55.69	68.20	12.51
17265.000	34.47	PK	V	21.25	55.72	68.20	12.48
High Channel: 5795 MHz							
5850.000	44.36	PK	H	9.27	53.63	122.20	68.57
5855.000	43.52	PK	H	9.31	52.83	110.80	57.97
5875.000	43.20	PK	H	9.44	52.64	105.20	52.56
5925.000	42.18	PK	H	9.83	52.01	68.20	16.19
5850.000	45.32	PK	V	9.27	54.59	122.20	67.61
5855.000	44.65	PK	V	9.31	53.96	110.80	56.84
5875.000	43.57	PK	V	9.44	53.01	105.20	52.19
5925.000	42.21	PK	V	9.83	52.04	68.20	16.16
11590.000	34.63	PK	H	15.85	50.48	74.00	23.52
11590.000	21.28	AV	H	15.85	37.13	54.00	16.87
11590.000	34.35	PK	V	15.85	50.20	74.00	23.80
11590.000	21.71	AV	V	15.85	37.56	54.00	16.44
17385.000	31.22	PK	H	21.68	52.90	68.20	15.30
17385.000	34.51	PK	V	21.68	56.19	68.20	12.01

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	51.40	PK	H	9.41	60.81	122.20	61.39
5720.000	50.06	PK	H	9.41	59.47	110.80	51.33
5700.000	47.73	PK	H	9.42	57.15	105.20	48.05
5650.000	42.68	PK	H	9.61	52.29	68.20	15.91
5725.000	57.75	PK	V	9.41	67.16	122.20	55.04
5720.000	56.94	PK	V	9.41	66.35	110.80	44.45
5700.000	54.52	PK	V	9.42	63.94	105.20	41.26
5650.000	45.94	PK	V	9.61	55.55	68.20	12.65
5850.000	50.01	PK	H	9.27	59.28	122.20	62.92
5855.000	48.27	PK	H	9.31	57.58	110.80	53.22
5875.000	44.26	PK	H	9.44	53.70	105.20	51.50
5925.000	43.32	PK	H	9.83	53.15	68.20	15.05
5850.000	57.10	PK	V	9.27	66.37	122.20	55.83
5855.000	55.01	PK	V	9.31	64.32	110.80	46.48
5875.000	49.23	PK	V	9.44	58.67	105.20	46.53
5925.000	42.35	PK	V	9.83	52.18	68.20	16.02
11550.000	33.98	PK	H	15.08	49.06	74.00	24.94
11550.000	21.06	AV	H	15.08	36.14	54.00	17.86
11550.000	34.21	PK	V	15.08	49.29	74.00	24.71
11550.000	21.54	AV	V	15.08	36.62	54.00	17.38
17325.000	34.20	PK	H	21.27	55.47	68.20	12.73
17325.000	34.53	PK	V	21.27	55.80	68.20	12.40

PCB Antenna:
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	47.27	PK	H	9.48	56.75	74.00	17.25
5150.000	31.33	AV	H	9.48	40.81	54.00	13.19
5150.000	44.90	PK	V	9.48	54.38	74.00	19.62
5150.000	30.89	AV	V	9.48	40.37	54.00	13.63
10360.000	34.66	PK	H	13.24	47.90	68.20	20.30
10360.000	35.01	PK	V	13.24	48.25	68.20	19.95
15540.000	35.80	PK	H	17.28	53.08	74.00	20.92
15540.000	23.11	AV	H	17.28	40.39	54.00	13.61
15540.000	35.39	PK	V	17.28	52.67	74.00	21.33
15540.000	23.02	AV	V	17.28	40.30	54.00	13.70
Middle Channel:				5200	MHz		
10400.000	34.66	PK	H	13.61	48.27	68.20	19.93
10400.000	35.23	PK	V	13.61	48.84	68.20	19.36
15600.000	37.66	PK	H	16.58	54.24	74.00	19.76
15600.000	25.39	AV	H	16.58	41.97	54.00	12.03
15600.000	37.41	PK	V	16.58	53.99	74.00	20.01
15600.000	25.11	AV	V	16.58	41.69	54.00	12.31
High Channel:				5240	MHz		
5350.000	44.21	PK	H	9.34	53.55	74.00	20.45
5350.000	30.69	AV	H	9.34	40.03	54.00	13.97
5350.000	44.88	PK	V	9.34	54.22	74.00	19.78
5350.000	31.03	AV	V	9.34	40.37	54.00	13.63
10480.000	34.66	PK	H	14.13	48.79	68.20	19.41
10480.000	35.08	PK	V	14.13	49.21	68.20	18.99
15720.000	39.19	PK	H	16.07	55.26	74.00	18.74
15720.000	27.33	AV	H	16.07	43.40	54.00	10.60
15720.000	38.56	PK	V	16.07	54.63	74.00	19.37
15720.000	26.75	AV	V	16.07	42.82	54.00	11.18

802.11n ht20 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	47.21	PK	H	9.48	56.69	74.00	17.31
5150.000	31.58	AV	H	9.48	41.06	54.00	12.94
5150.000	44.30	PK	V	9.48	53.78	74.00	20.22
5150.000	31.09	AV	V	9.48	40.57	54.00	13.43
10360.000	34.41	PK	H	13.24	47.65	68.20	20.55
10360.000	34.66	PK	V	13.24	47.90	68.20	20.30
15540.000	34.79	PK	H	17.28	52.07	74.00	21.93
15540.000	22.20	AV	H	17.28	39.48	54.00	14.52
15540.000	35.90	PK	V	17.28	53.18	74.00	20.82
15540.000	23.13	AV	V	17.28	40.41	54.00	13.59
Middle Channel:				5200	MHz		
10400.000	34.77	PK	H	13.61	48.38	68.20	19.82
10400.000	35.01	PK	V	13.61	48.62	68.20	19.58
15600.000	37.20	PK	H	16.58	53.78	74.00	20.22
15600.000	25.13	AV	H	16.58	41.71	54.00	12.29
15600.000	37.41	PK	V	16.58	53.99	74.00	20.01
15600.000	25.65	AV	V	16.58	42.23	54.00	11.77
High Channel:				5240	MHz		
5350.000	44.58	PK	H	9.34	53.92	74.00	20.08
5350.000	31.11	AV	H	9.34	40.45	54.00	13.55
5350.000	44.20	PK	V	9.34	53.54	74.00	20.46
5350.000	30.34	AV	V	9.34	39.68	54.00	14.32
10480.000	35.20	PK	H	14.13	49.33	68.20	18.87
10480.000	34.87	PK	V	14.13	49.00	68.20	19.20
15720.000	38.54	PK	H	16.07	54.61	74.00	19.39
15720.000	26.33	AV	H	16.07	42.40	54.00	11.60
15720.000	37.98	PK	V	16.07	54.05	74.00	19.95
15720.000	25.74	AV	V	16.07	41.81	54.00	12.19

802.11n ht40 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	57.44	PK	H	9.48	66.92	74.00	7.08
5150.000	40.27	AV	H	9.48	49.75	54.00	4.25
5150.000	52.76	PK	V	9.48	62.24	74.00	11.76
5150.000	37.86	AV	V	9.48	47.34	54.00	6.66
10380.000	34.44	PK	H	13.43	47.87	68.20	20.33
10380.000	34.65	PK	V	13.43	48.08	68.20	20.12
15570.000	35.09	PK	H	16.93	52.02	74.00	21.98
15570.000	23.14	AV	H	16.93	40.07	54.00	13.93
15570.000	35.75	PK	V	16.93	52.68	74.00	21.32
15570.000	23.23	AV	V	16.93	40.16	54.00	13.84
High Channel:				5230	MHz		
5350.000	45.02	PK	H	9.34	54.36	74.00	19.64
5350.000	31.23	AV	H	9.34	40.57	54.00	13.43
5350.000	44.96	PK	V	9.34	54.30	74.00	19.70
5350.000	30.57	AV	V	9.34	39.91	54.00	14.09
10460.000	35.10	PK	H	14.00	49.10	68.20	19.10
10460.000	34.88	PK	V	14.00	48.88	68.20	19.32
15690.000	38.20	PK	H	15.98	54.18	74.00	19.82
15690.000	26.11	AV	H	15.98	42.09	54.00	11.91
15690.000	37.46	PK	V	15.98	53.44	74.00	20.56
15690.000	25.58	AV	V	15.98	41.56	54.00	12.44

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	55.24	PK	H	9.48	64.72	74.00	9.28
5150.000	40.69	AV	H	9.48	50.17	54.00	3.83
5150.000	52.76	PK	V	9.48	62.24	74.00	11.76
5150.000	38.97	AV	V	9.48	48.45	54.00	5.55
5350.000	44.65	PK	H	9.34	53.99	74.00	20.01
5350.000	30.58	AV	H	9.34	39.92	54.00	14.08
5350.000	44.93	PK	V	9.34	54.27	74.00	19.73
5350.000	30.54	AV	V	9.34	39.88	54.00	14.12
10420.000	34.08	PK	H	13.74	47.82	68.20	20.38
10420.000	35.21	PK	V	13.74	48.95	68.20	19.25
15630.000	36.76	PK	H	16.38	53.14	74.00	20.86
15630.000	24.55	AV	H	16.38	40.93	54.00	13.07
15630.000	35.87	PK	V	16.38	52.25	74.00	21.75
15630.000	23.69	AV	V	16.38	40.07	54.00	13.93

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	69.58	PK	H	9.41	78.99	122.20	43.21
5720.000	64.25	PK	H	9.41	73.66	110.80	37.14
5700.000	49.21	PK	H	9.42	58.63	105.20	46.57
5650.000	41.72	PK	H	9.61	51.33	68.20	16.87
5725.000	69.01	PK	V	9.41	78.42	122.20	43.78
5720.000	62.71	PK	V	9.41	72.12	110.80	38.68
5700.000	48.45	PK	V	9.42	57.87	105.20	47.33
5650.000	41.50	PK	V	9.61	51.11	68.20	17.09
11490.000	44.47	PK	H	14.06	58.53	74.00	15.47
11490.000	31.01	AV	H	14.06	45.07	54.00	8.93
11490.000	45.11	PK	V	14.06	59.17	74.00	14.83
11490.000	32.10	AV	V	14.06	46.16	54.00	7.84
17235.000	34.75	PK	H	21.38	56.13	68.20	12.07
17235.000	35.84	PK	V	21.38	57.22	68.20	10.98
Middle Channel:				5785	MHz		
11570.000	44.08	PK	H	15.47	59.55	74.00	14.45
11570.000	31.69	AV	H	15.47	47.16	54.00	6.84
11570.000	46.09	PK	V	15.47	61.56	74.00	12.44
11570.000	33.77	AV	V	15.47	49.24	54.00	4.76
17355.000	35.34	PK	H	21.48	56.82	68.20	11.38
17355.000	34.96	PK	V	21.48	56.44	68.20	11.76
High Channel:				5825	MHz		
5850.000	57.88	PK	H	9.27	67.15	122.20	55.05
5855.000	54.70	PK	H	9.31	64.01	110.80	46.79
5875.000	43.10	PK	H	9.44	52.54	105.20	52.66
5925.000	42.55	PK	H	9.83	52.38	68.20	15.82
5850.000	58.49	PK	V	9.27	67.76	122.20	54.44
5855.000	55.34	PK	V	9.31	64.65	110.80	46.15
5875.000	44.55	PK	V	9.44	53.99	105.20	51.21
5925.000	42.30	PK	V	9.83	52.13	68.20	16.07
11650.000	43.05	PK	H	15.54	58.59	74.00	15.41
11650.000	30.64	AV	H	15.54	46.18	54.00	7.82
11650.000	43.09	PK	V	15.54	58.63	74.00	15.37
11650.000	30.85	AV	V	15.54	46.39	54.00	7.61
17475.000	35.94	PK	H	22.53	58.47	68.20	9.73
17475.000	36.18	PK	V	22.53	58.71	68.20	9.49

802.11n ht20 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	72.52	PK	H	9.41	81.93	122.20	40.27
5720.000	65.44	PK	H	9.41	74.85	110.80	35.95
5700.000	51.09	PK	H	9.42	60.51	105.20	44.69
5650.000	42.74	PK	H	9.61	52.35	68.20	15.85
5725.000	69.91	PK	V	9.41	79.32	122.20	42.88
5720.000	62.63	PK	V	9.41	72.04	110.80	38.76
5700.000	47.18	PK	V	9.42	56.60	105.20	48.60
5650.000	42.74	PK	V	9.61	52.35	68.20	15.85
11490.000	44.34	PK	H	14.06	58.40	74.00	15.60
11490.000	32.20	AV	H	14.06	46.26	54.00	7.74
11490.000	44.27	PK	V	14.06	58.33	74.00	15.67
11490.000	32.37	AV	V	14.06	46.43	54.00	7.57
17235.000	35.12	PK	H	21.38	56.50	68.20	11.70
17235.000	34.58	PK	V	21.38	55.96	68.20	12.24
Middle Channel: 5785 MHz							
11570.000	44.16	PK	H	15.47	59.63	74.00	14.37
11570.000	31.45	AV	H	15.47	46.92	54.00	7.08
11570.000	43.93	PK	V	15.47	59.40	74.00	14.60
11570.000	30.85	AV	V	15.47	46.32	54.00	7.68
17355.000	35.02	PK	H	21.48	56.50	68.20	11.70
17355.000	34.54	PK	V	21.48	56.02	68.20	12.18
High Channel: 5825 MHz							
5850.000	62.77	PK	H	9.27	72.04	122.20	50.16
5855.000	58.59	PK	H	9.31	67.90	110.80	42.90
5875.000	44.00	PK	H	9.44	53.44	105.20	51.76
5925.000	42.31	PK	H	9.83	52.14	68.20	16.06
5850.000	60.73	PK	V	9.27	70.00	122.20	52.20
5855.000	55.68	PK	V	9.31	64.99	110.80	45.81
5875.000	45.59	PK	V	9.44	55.03	105.20	50.17
5925.000	43.07	PK	V	9.83	52.90	68.20	15.30
11650.000	42.60	PK	H	15.55	58.15	74.00	15.85
11650.000	30.01	AV	H	15.55	45.56	54.00	8.44
11650.000	42.03	PK	V	15.55	57.58	74.00	16.42
11650.000	30.22	AV	V	15.55	45.77	54.00	8.23
17475.000	34.83	PK	H	22.53	57.36	68.20	10.84
17475.000	34.57	PK	V	22.53	57.10	68.20	11.10

802.11n ht40 Mode:

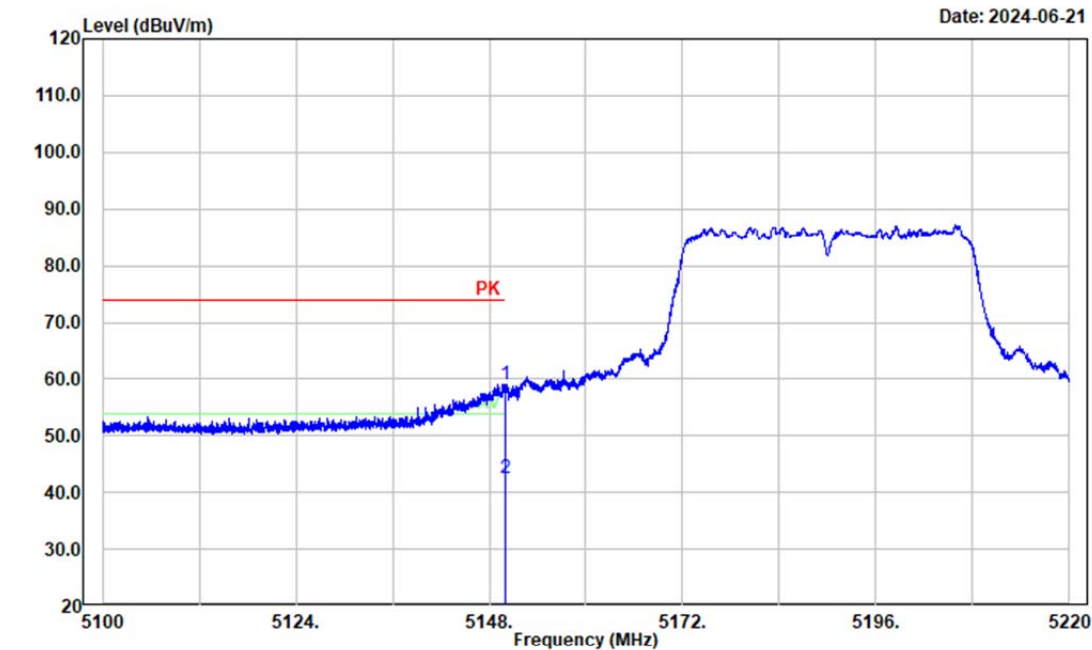
Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel:				5755	MHz		
5725.000	69.63	PK	H	9.41	79.04	122.20	43.16
5720.000	68.71	PK	H	9.41	78.12	110.80	32.68
5700.000	57.84	PK	H	9.42	67.26	105.20	37.94
5650.000	44.72	PK	H	9.61	54.33	68.20	13.87
5725.000	68.26	PK	V	9.41	77.67	122.20	44.53
5720.000	66.79	PK	V	9.41	76.20	110.80	34.60
5700.000	55.84	PK	V	9.42	65.26	105.20	39.94
5650.000	43.15	PK	V	9.61	52.76	68.20	15.44
11510.000	41.27	PK	H	14.31	55.58	74.00	18.42
11510.000	29.66	AV	H	14.31	43.97	54.00	10.03
11510.000	41.03	PK	V	14.31	55.34	74.00	18.66
11510.000	29.33	AV	V	14.31	43.64	54.00	10.36
17265.000	34.87	PK	H	21.25	56.12	68.20	12.08
17265.000	35.42	PK	V	21.25	56.67	68.20	11.53
High Channel:				5795	MHz		
5850.000	58.46	PK	H	9.27	67.73	122.20	54.47
5855.000	57.89	PK	H	9.31	67.20	110.80	43.60
5875.000	49.13	PK	H	9.44	58.57	105.20	46.63
5925.000	42.72	PK	H	9.83	52.55	68.20	15.65
5850.000	55.09	PK	V	9.27	64.36	122.20	57.84
5855.000	52.61	PK	V	9.31	61.92	110.80	48.88
5875.000	45.06	PK	V	9.44	54.50	105.20	50.70
5925.000	41.31	PK	V	9.83	51.14	68.20	17.06
11590.000	42.54	PK	H	15.85	58.39	74.00	15.61
11590.000	30.20	AV	H	15.85	46.05	54.00	7.95
11590.000	41.52	PK	V	15.85	57.37	74.00	16.63
11590.000	29.29	AV	V	15.85	45.14	54.00	8.86
17385.000	35.59	PK	H	21.68	57.27	68.20	10.93
17385.000	34.52	PK	V	21.68	56.20	68.20	12.00

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	69.08	PK	H	9.41	78.49	122.20	43.71
5720.000	69.54	PK	H	9.41	78.95	110.80	31.85
5700.000	65.41	PK	H	9.42	74.83	105.20	30.37
5650.000	51.56	PK	H	9.61	61.17	68.20	7.03
5725.000	66.10	PK	V	9.41	75.51	122.20	46.69
5720.000	66.38	PK	V	9.41	75.79	110.80	35.01
5700.000	62.68	PK	V	9.42	72.10	105.20	33.10
5650.000	49.35	PK	V	9.61	58.96	68.20	9.24
5850.000	68.22	PK	H	9.27	77.49	122.20	44.71
5855.000	66.46	PK	H	9.31	75.77	110.80	35.03
5875.000	58.95	PK	H	9.44	68.39	105.20	36.81
5925.000	50.31	PK	H	9.83	60.14	68.20	8.06
5850.000	64.45	PK	V	9.27	73.72	122.20	48.48
5855.000	62.70	PK	V	9.31	72.01	110.80	38.79
5875.000	55.09	PK	V	9.44	64.53	105.20	40.67
5925.000	44.94	PK	V	9.83	54.77	68.20	13.43
11550.000	39.85	PK	H	15.08	54.93	74.00	19.07
11550.000	27.71	AV	H	15.08	42.79	54.00	11.21
11550.000	39.58	PK	V	15.08	54.66	74.00	19.34
11550.000	27.45	AV	V	15.08	42.53	54.00	11.47
17325.000	34.95	PK	H	21.27	56.22	68.20	11.98
17325.000	34.66	PK	V	21.27	55.93	68.20	12.27

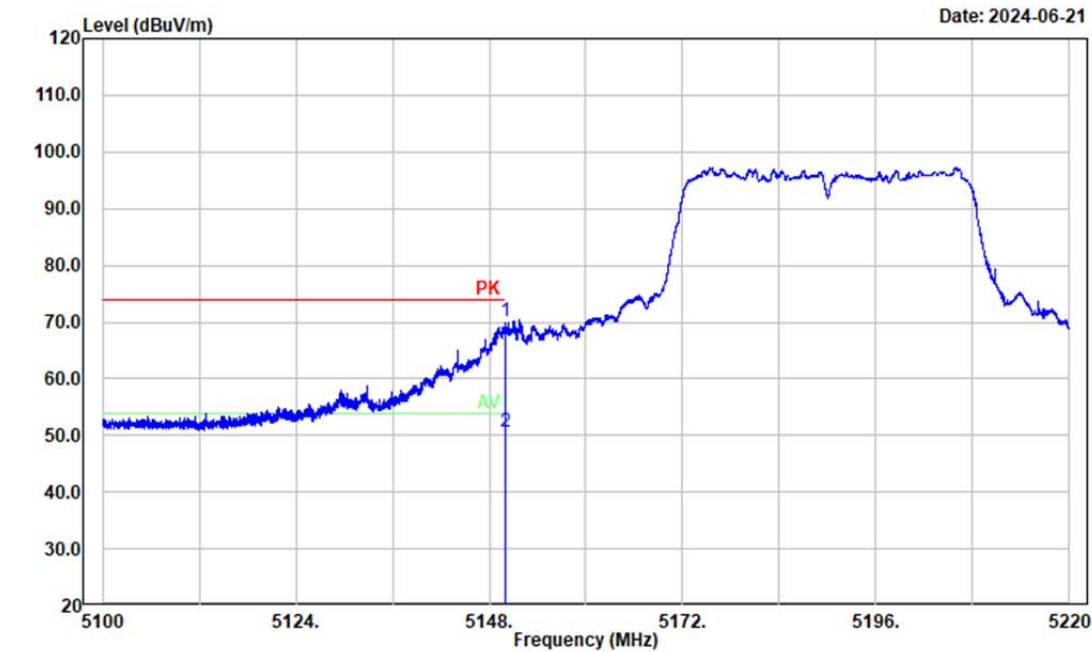
Band edge test plots(Dipole Antenna)

Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: Horizontal
Note: n40 Low 5190MHz Band1



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	5150.000	49.47	9.48	58.95	74.00	15.05	Peak
2	5150.000	33.01	9.48	42.49	54.00	11.51	Average

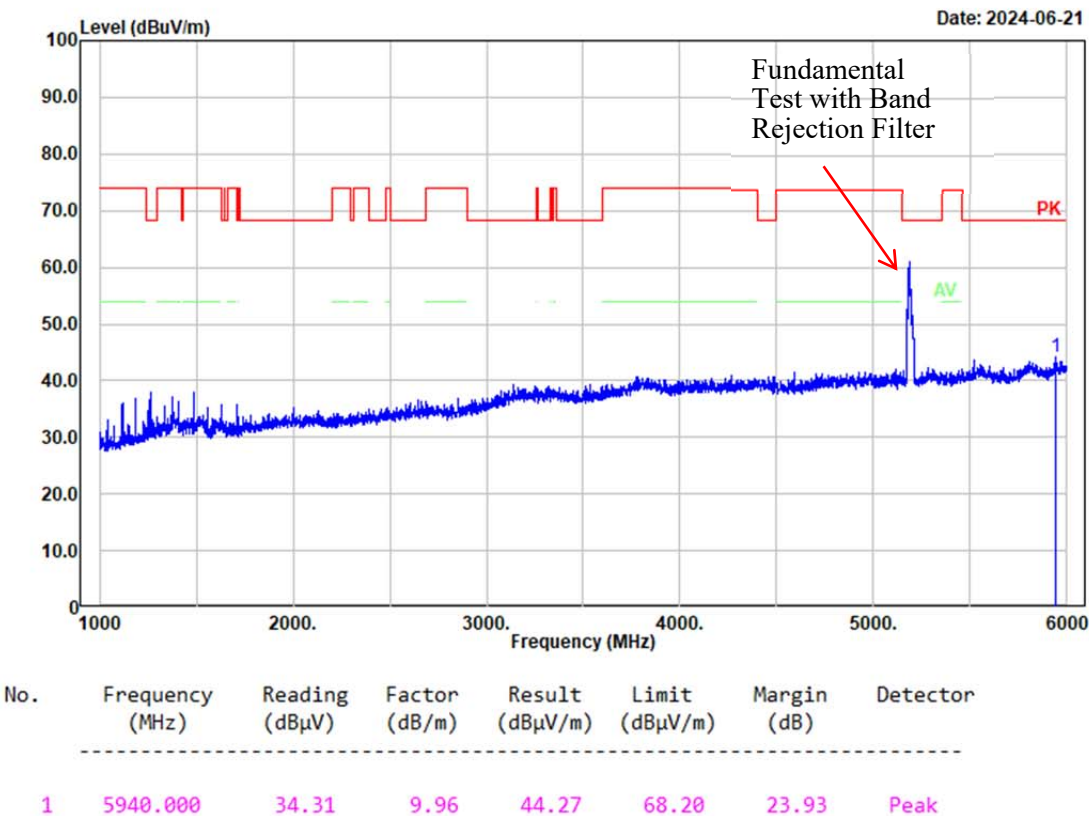
Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: Vertical
Note: n40 Low 5190MHz Band1



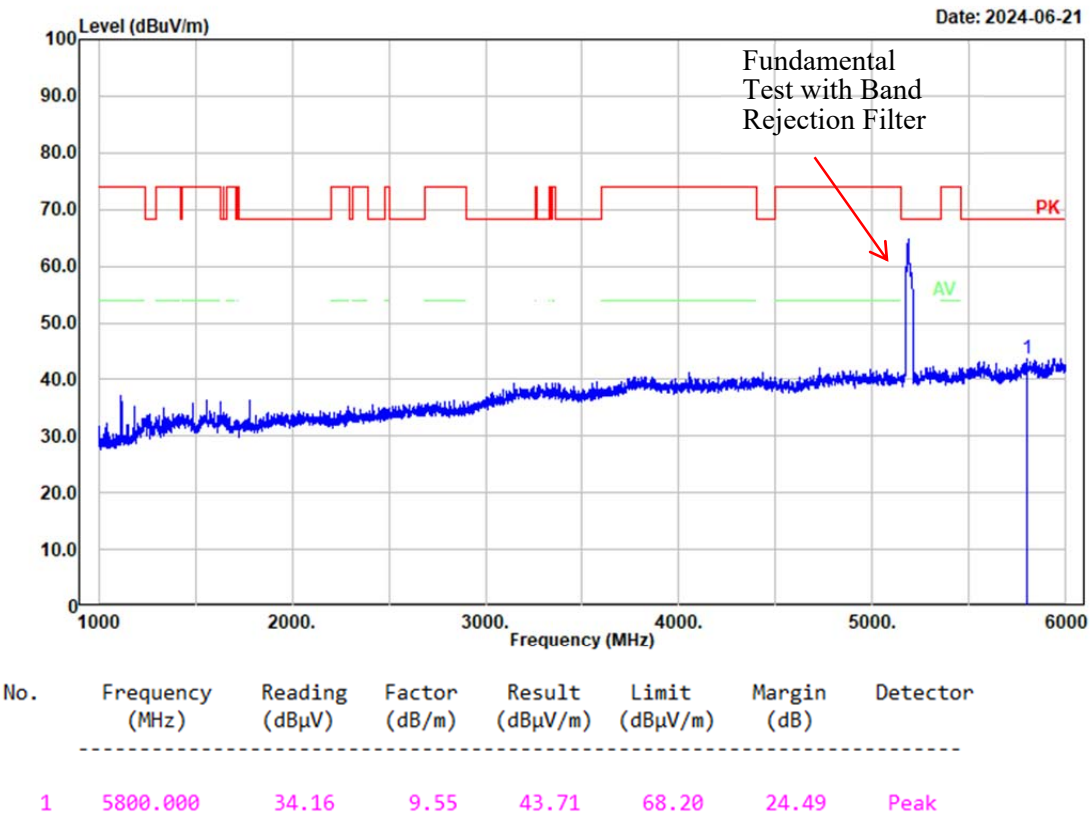
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	5150.000	60.72	9.48	70.20	74.00	3.80	Peak
2	5150.000	41.20	9.48	50.68	54.00	3.32	Average

Worst radiation spurious emissions margin test plots(Dipole Antenna)

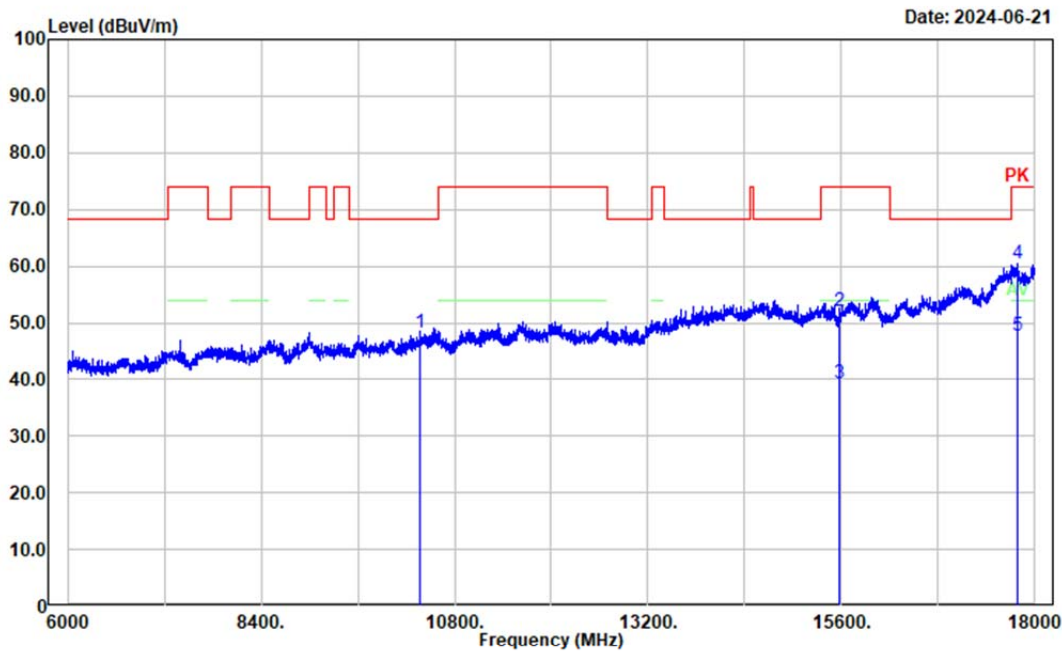
Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: horizontal
Note: n40 Low 5190MHz Band1



Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: vertical
Note: n40 Low 5190MHz Band1

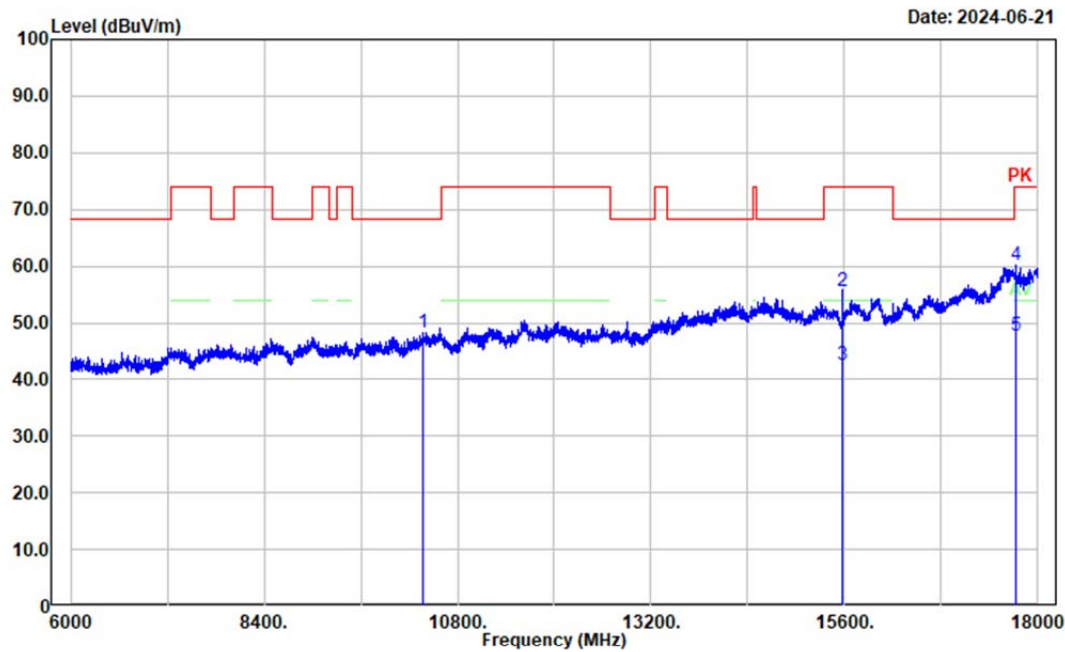


Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: horizontal
Note: n40 Low 5190MHz Band1



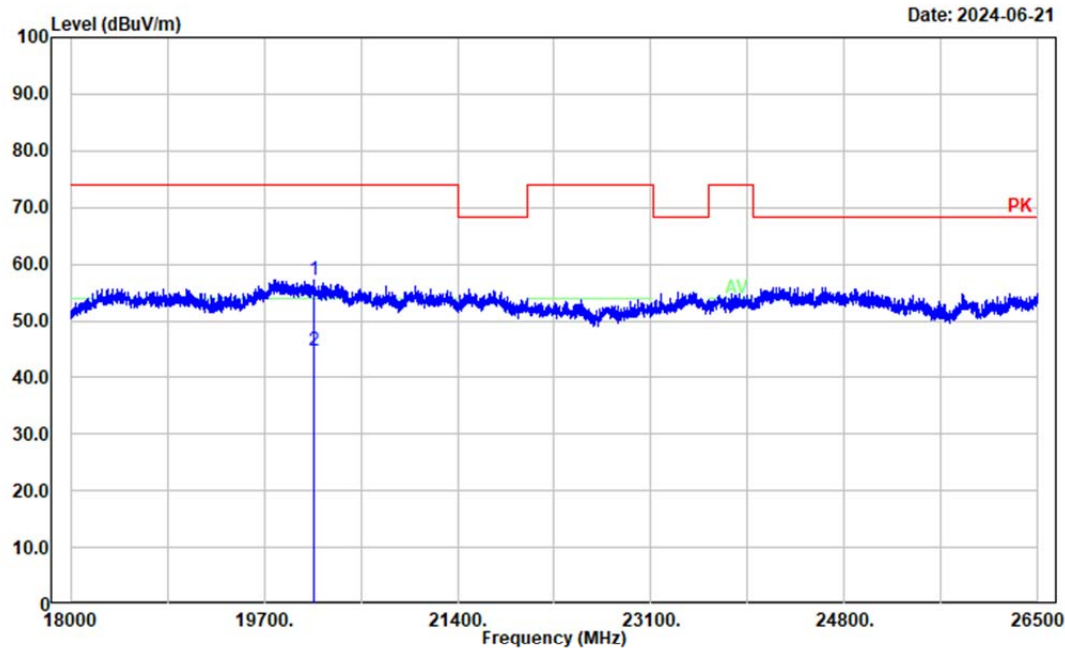
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	10380.000	34.84	13.43	48.27	68.20	19.93	Peak
2	15570.000	35.15	16.93	52.08	74.00	21.92	Peak
3	15570.000	22.32	16.93	39.25	54.00	14.75	Average
4	17776.800	34.63	25.80	60.43	74.00	13.57	Peak
5	17776.800	21.86	25.80	47.66	54.00	6.34	Average

Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: vertical
Note: n40 Low 5190MHz Band1



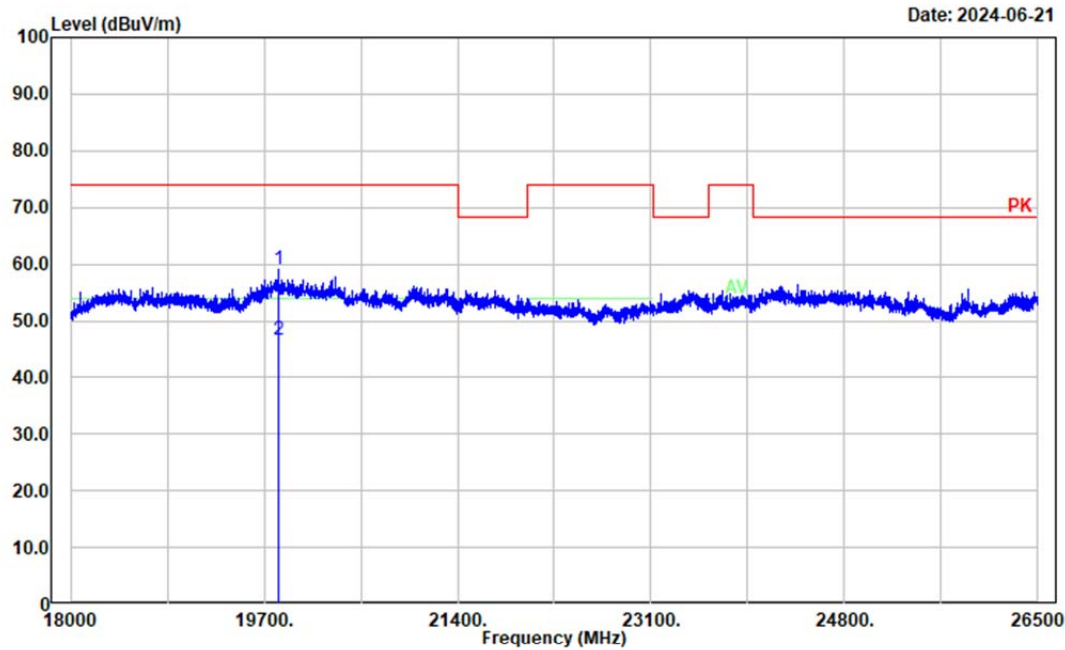
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	10380.000	34.69	13.43	48.12	68.20	20.08	Peak
2	15570.000	38.65	16.93	55.58	74.00	18.42	Peak
3	15570.000	25.72	16.93	42.65	54.00	11.35	Average
4	17728.800	34.18	25.87	60.05	74.00	13.95	Peak
5	17728.800	21.75	25.87	47.62	54.00	6.38	Average

Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: Horizontal
Note: n40 Low 5190MHz Band1



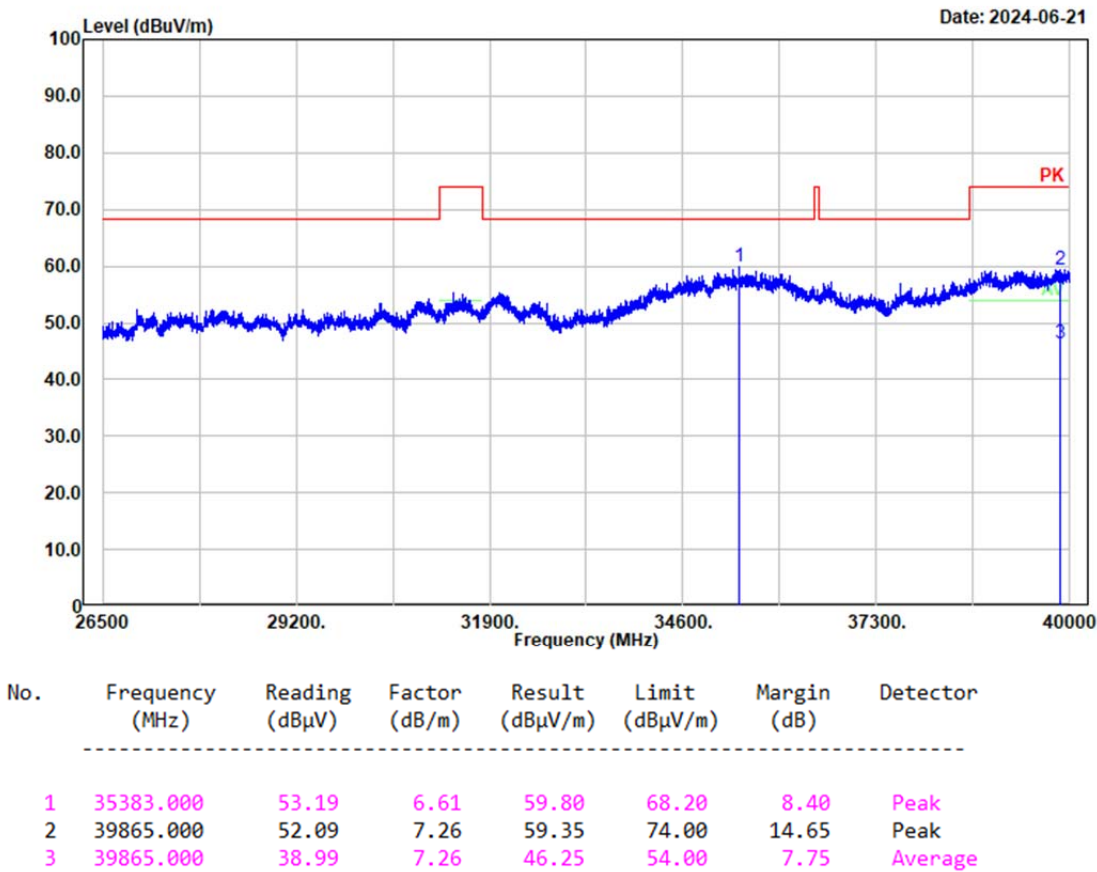
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	20140.300	50.54	6.53	57.07	74.00	16.93	Peak
2	20140.300	38.15	6.53	44.68	54.00	9.32	Average

Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: vertical
Note: n40 Low 5190MHz Band1

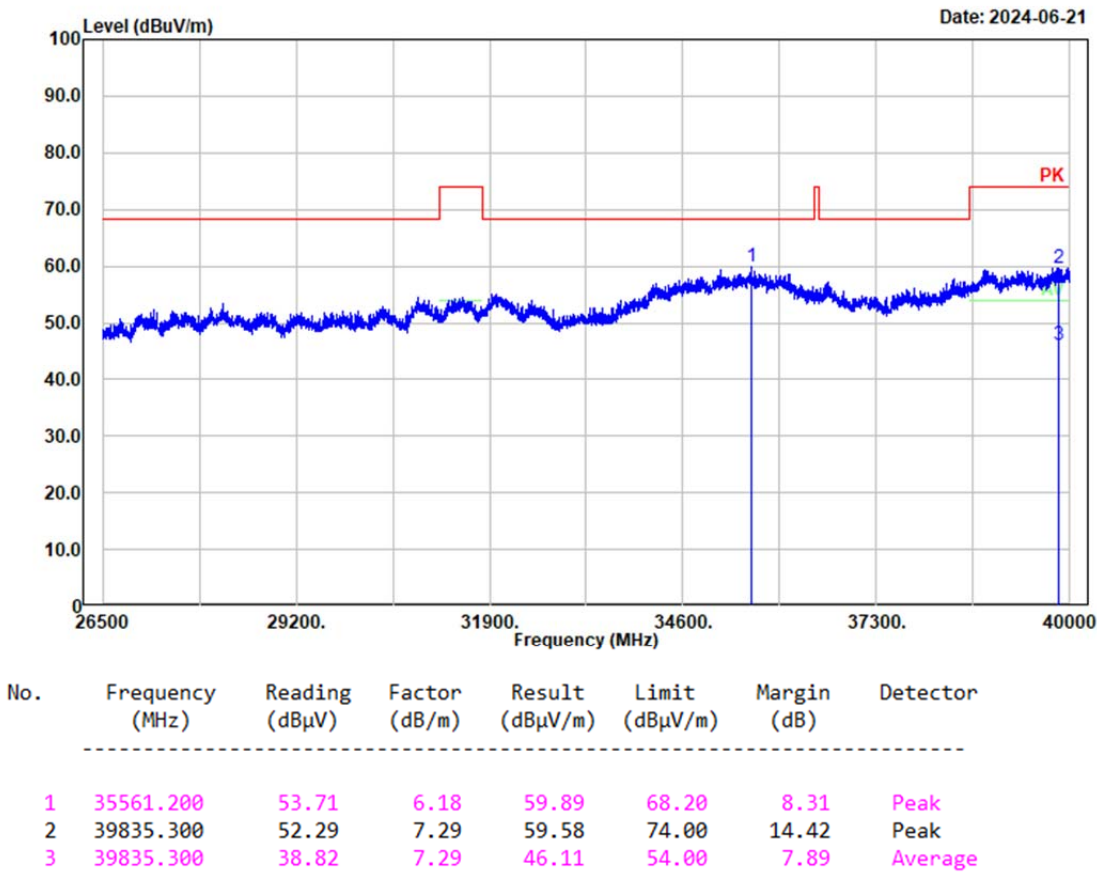


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	19829.200	51.18	7.96	59.14	74.00	14.86	Peak
2	19829.200	38.66	7.96	46.62	54.00	7.38	Average

Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: Horizontal
Note: n40 Low 5190MHz Band1



Project No.: 2403T78338E-RF
Tester: Tao Zhu
Polarization: vertical
Note: n40 Low 5190MHz Band1



4.3 Emission Bandwidth

Test Information:

Serial No.:	2M3J-2	Test Date:	2024/06/19~2024/06/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Chin Qin	Test Result:	Pass

Environmental Conditions:

Temperature: (°C):	25.7-25.9	Relative Humidity: (%)	51-52	ATM Pressure: (kPa)	99.9-100.5
-----------------------	-----------	------------------------------	-------	------------------------	------------

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211001	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

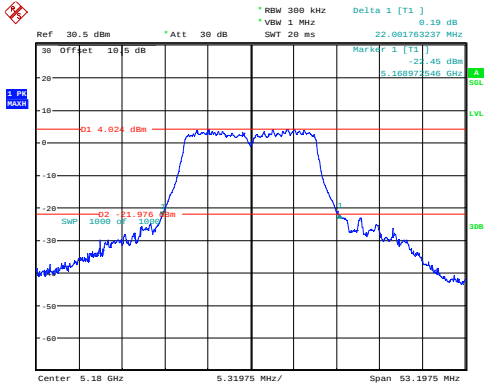
Mode	Value (MHz)
a_5180MHz_Chain 0	22.002
a_5200MHz_Chain 0	21.895
a_5240MHz_Chain 0	24.752
n20_5180MHz_Chain 0	22.209
n20_5200MHz_Chain 0	25.055
n20_5240MHz_Chain 0	23.926
n40_5190MHz_Chain 0	43.057
n40_5230MHz_Chain 0	42.857
ac80_5210MHz_Chain 0	83.916

5.8G_6 dB EBW

Mode	Value (MHz)	Limit (MHz)	Result
a_5745MHz_Chain 0	16.484	0.5	Pass
a_5785MHz_Chain 0	16.484	0.5	Pass
a_5825MHz_Chain 0	16.484	0.5	Pass
n20_5745MHz_Chain 0	17.033	0.5	Pass
n20_5785MHz_Chain 0	17.033	0.5	Pass
n20_5825MHz_Chain 0	17.133	0.5	Pass
n40_5755MHz_Chain 0	35.964	0.5	Pass
n40_5795MHz_Chain 0	36.164	0.5	Pass
ac80_5775MHz_Chain 0	75.724	0.5	Pass

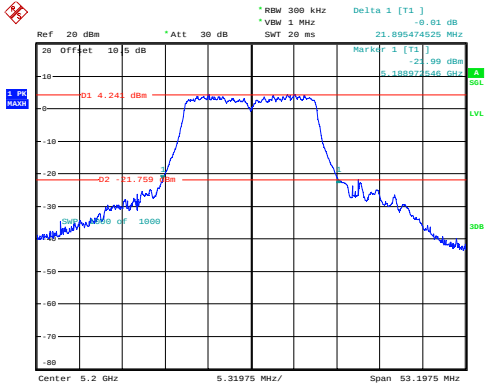
5.2G

a_5180MHz_Chain 0 22.002MHz



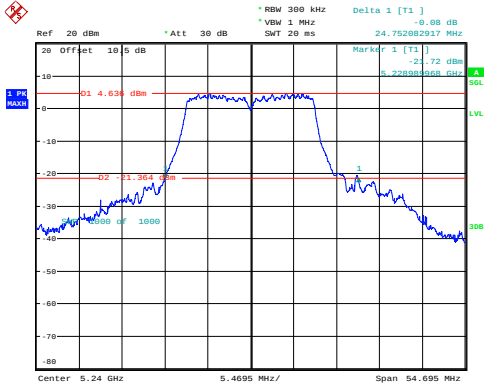
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:42:24

a_5200MHz_Chain 0 21.895MHz



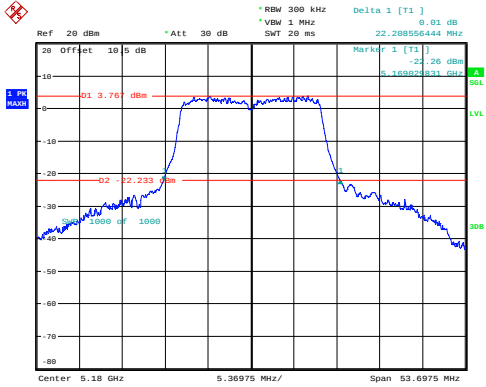
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:45:08

a_5240MHz_Chain 0 24.752MHz



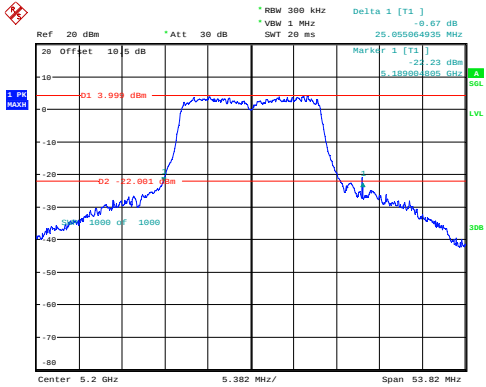
ProjectNo.:2403T78343E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:47:25

n20_5180MHz_Chain 0 22.209MHz



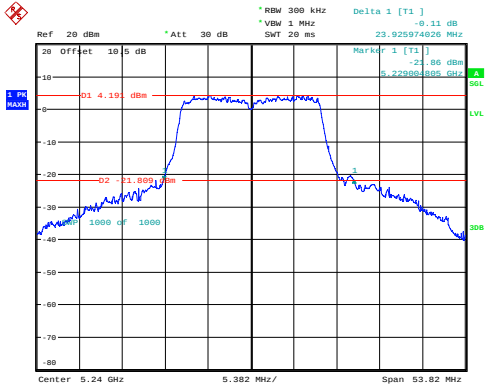
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:51:20

n20_5200MHz_Chain 0 25.055MHz



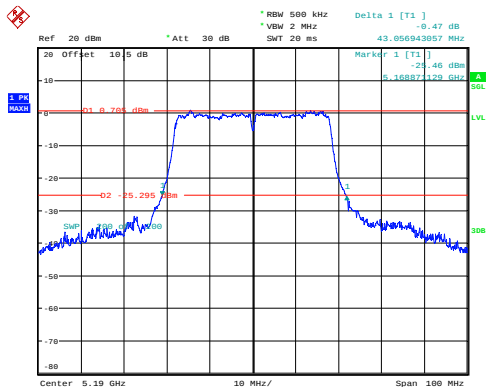
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:54:04

n20_5240MHz_Chain 0 23.926MHz



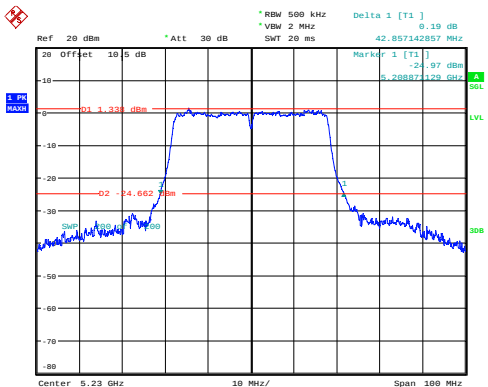
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:56:56

n40_5190MHz_Chain 0 43.057MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26.JUN.2024 22:37:54

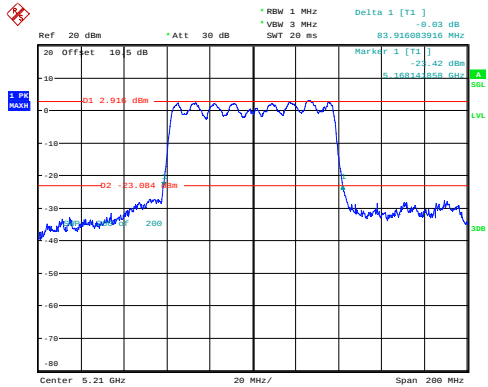
n40_5230MHz_Chain 0 42.857MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26.JUN.2024 22:42:11

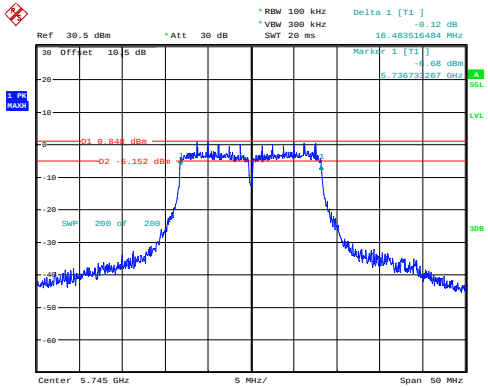
5.8G

ac80_5210MHz_Chain 0 83.916MHz



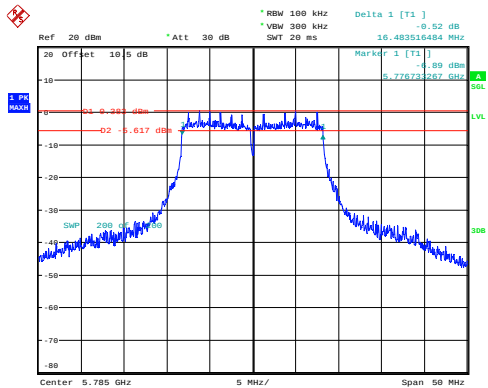
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26.JUN.2024 22:50:26

a_5745MHz_Chain 0 16.484MHz



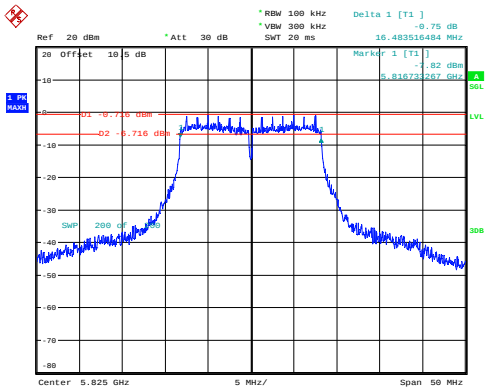
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19.JUN.2024 20:25:48

a_5785MHz_Chain 0 16.484MHz



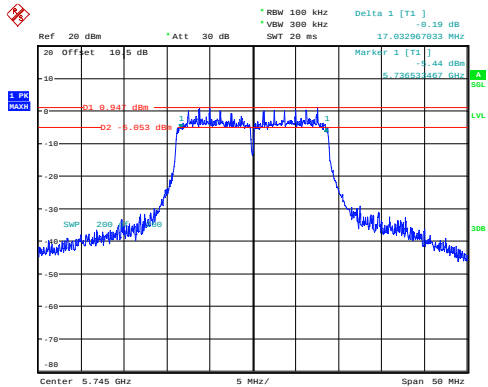
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19.JUN.2024 20:26:37

a_5825MHz_Chain 0 16.484MHz



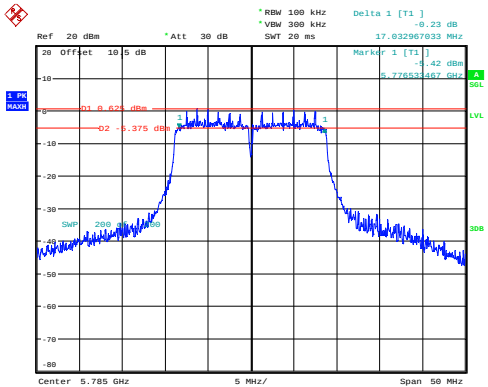
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19.JUN.2024 20:27:29

n20_5745MHz_Chain 0 17.033MHz



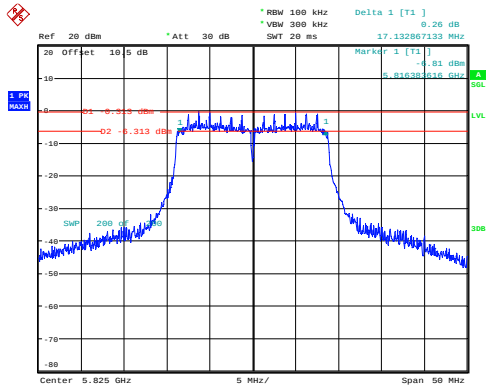
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:28:54

n20_5785MHz_Chain 0 17.033MHz



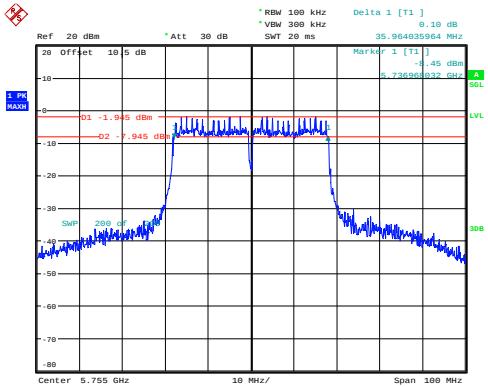
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:30:20

n20_5825MHz_Chain 0 17.133MHz



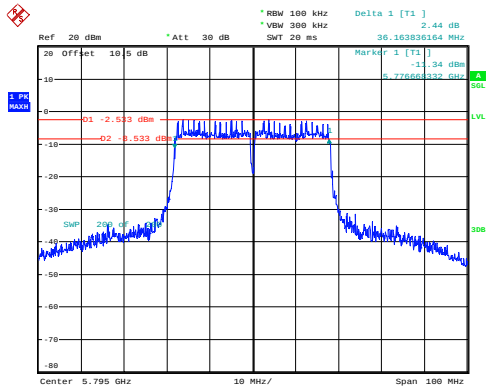
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:31:45

n40_5755MHz_Chain 0 35.964MHz



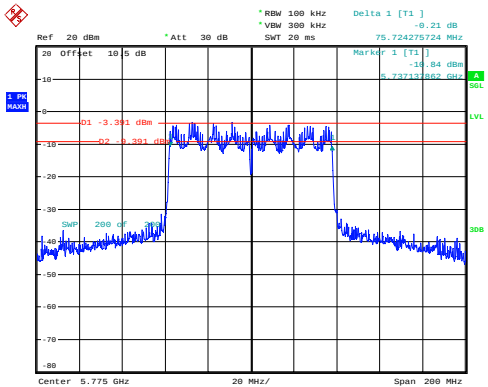
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:32:49

n40_5795MHz_Chain 0 36.164MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:34:53

ac80_5775MHz_Chain 0 75.724MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:35:48

4.4 99% Occupied Bandwidth

Test Information:

Serial No.:	2M3J-2	Test Date:	2024/06/19~2024/06/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Chin Qin	Test Result:	N/A

Environmental Conditions:

Temperature: (°C):	25.7-25.9	Relative Humidity: (%)	51-52	ATM Pressure: (kPa)	99.9-100.5
-----------------------	-----------	------------------------------	-------	------------------------	------------

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211001	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	16.750
n20_5180MHz_Chain 0	17.800
n20_5200MHz_Chain 0	17.800
n20_5240MHz_Chain 0	17.750
n40_5190MHz_Chain 0	36.400
n40_5230MHz_Chain 0	36.400
ac80_5210MHz_Chain 0	76.600

Note:

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

5.8G

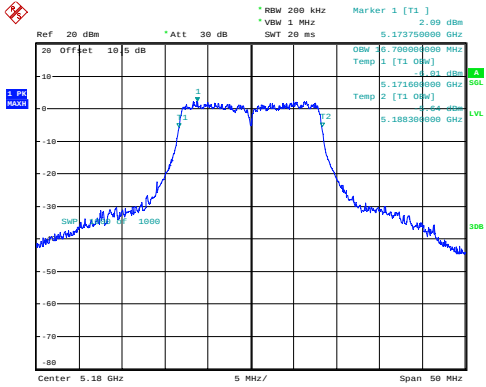
Mode	99% OBW (MHz)
a_5745MHz_Chain 0	16.750
a_5785MHz_Chain 0	16.750
a_5825MHz_Chain 0	16.700
n20_5745MHz_Chain 0	17.800
n20_5785MHz_Chain 0	17.750
n20_5825MHz_Chain 0	17.750
n40_5755MHz_Chain 0	36.600
n40_5795MHz_Chain 0	36.700
ac80_5775MHz_Chain 0	76.200

Note:

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

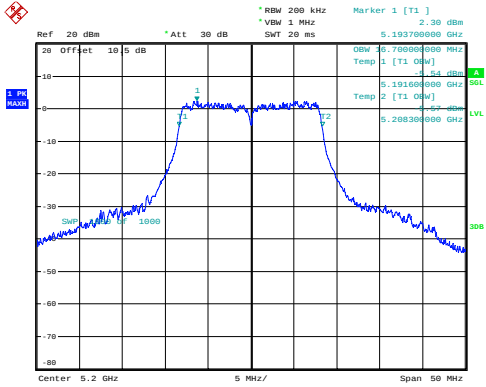
5.2G

a_5180MHz_Chain 0 16.700MHz



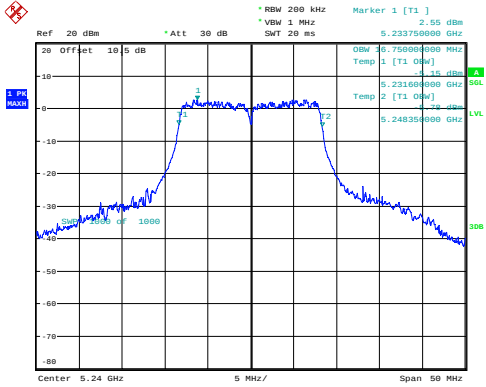
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 18:55:31

a_5200MHz_Chain 0 16.700MHz



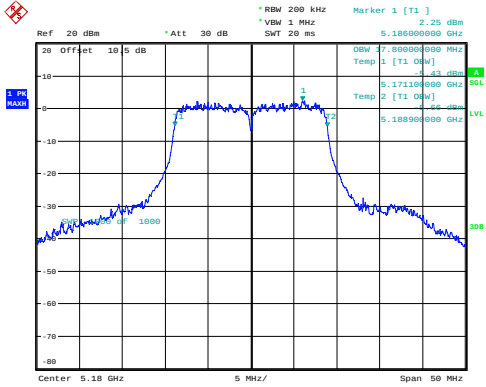
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 18:59:09

a_5240MHz_Chain 0 16.750MHz



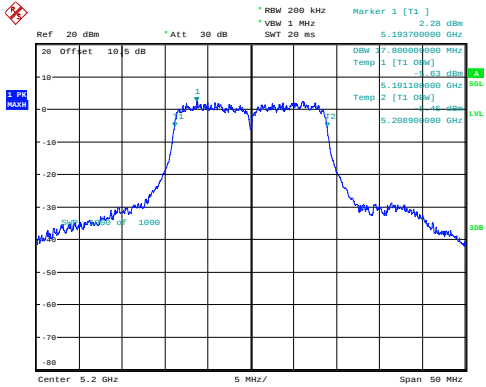
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:04:35

n20_5180MHz_Chain 0 17.800MHz



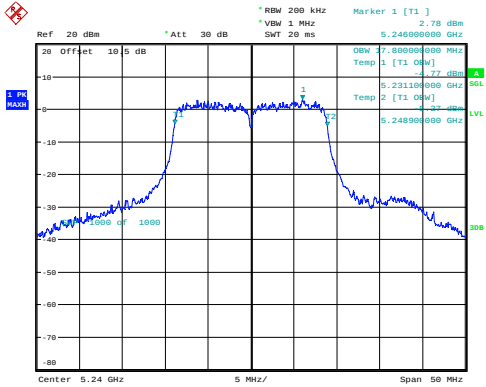
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:08:09

n20_5200MHz_Chain 0 17.800MHz



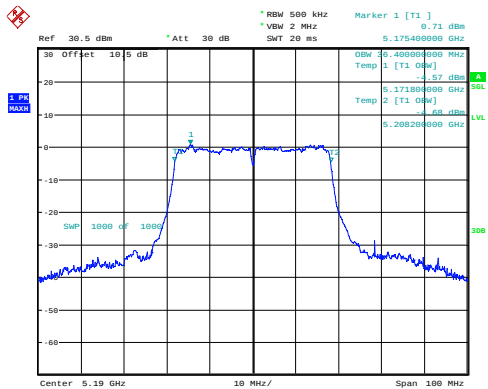
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:11:24

n20_5240MHz_Chain 0 17.750MHz



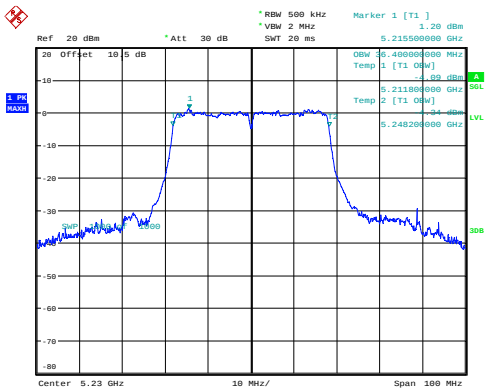
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:15:02

n40_5190MHz_Chain 0 36.400MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26.JUN.2024 22:37:18

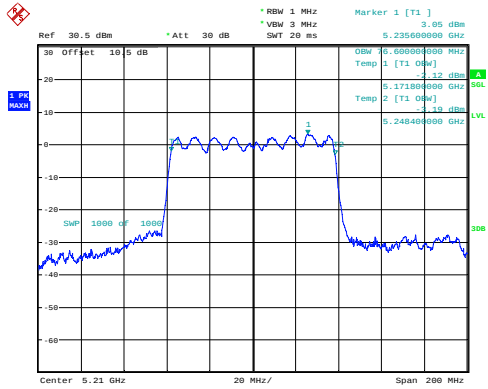
n40_5230MHz_Chain 0 36.400MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26.JUN.2024 22:41:35

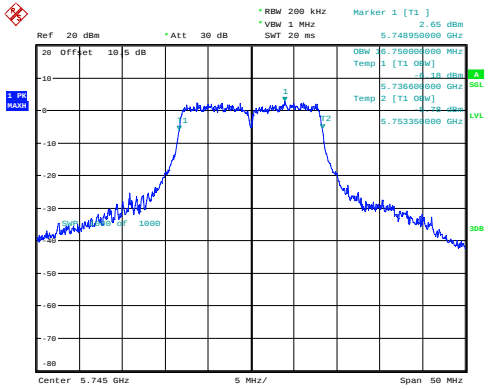
5.8G

ac80_5210MHz_Chain 0 76.600MHz



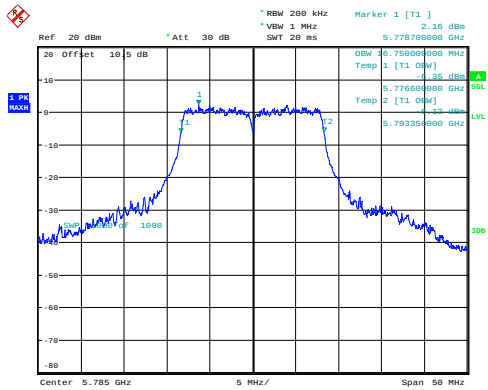
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26.JUN.2024 22:49:58

a_5745MHz_Chain 0 16.750MHz



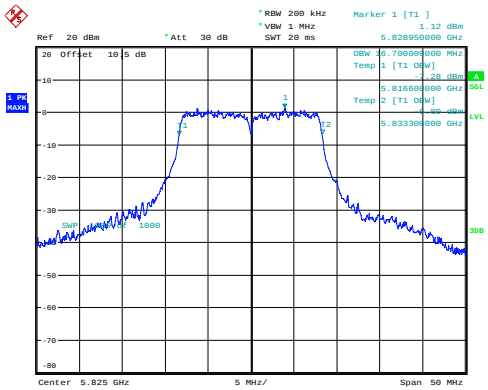
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19.JUN.2024 19:35:36

a_5785MHz_Chain 0 16.750MHz



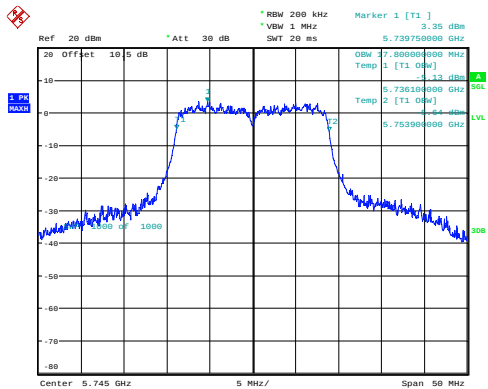
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19.JUN.2024 19:39:52

a_5825MHz_Chain 0 16.700MHz



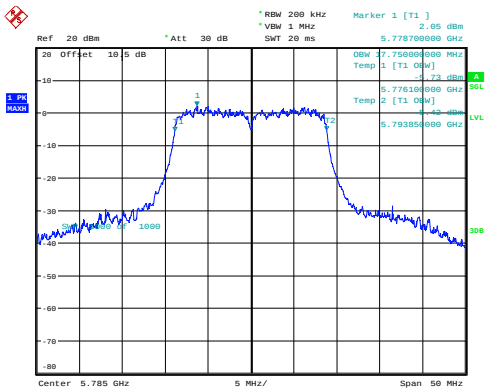
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19.JUN.2024 19:43:57

n20_5745MHz_Chain 0 17.800MHz



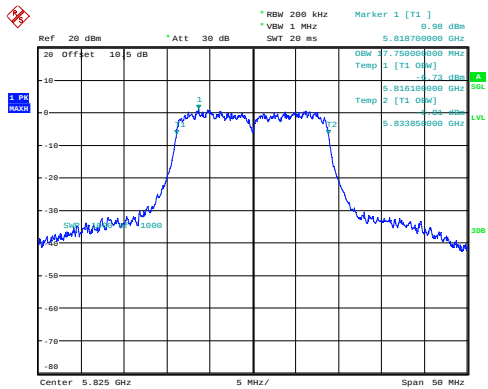
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:47:27

n20_5785MHz_Chain 0 17.750MHz



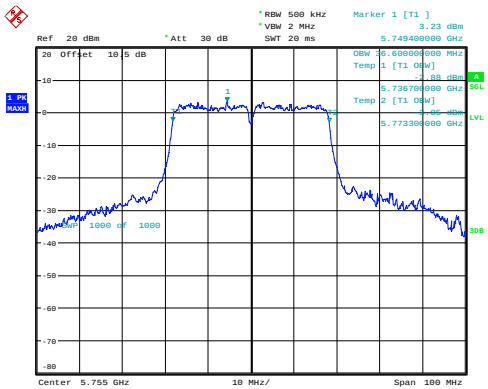
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:58:42

n20_5825MHz_Chain 0 17.750MHz



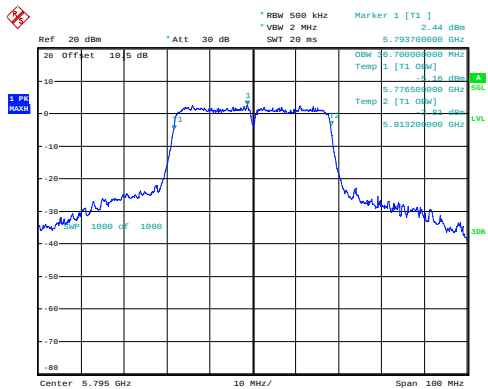
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:54:09

n40_5755MHz_Chain 0 36.600MHz



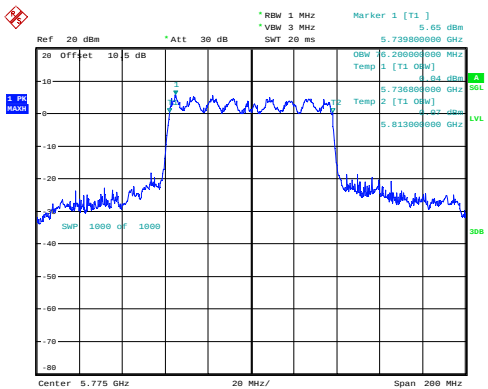
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:19:11

n40_5795MHz_Chain 0 36.700MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:05:57

ac80_5775MHz_Chain 0 76.200MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:11:17

4.5 Power Spectral Density

Test Information:

Serial No.:	2M3J-2	Test Date:	2024/06/19~2024/06/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Chin Qin	Test Result:	Pass

Environmental Conditions:

Temperature: (°C):	25.7-25.9	Relative Humidity: (%)	51-52	ATM Pressure: (kPa)	99.9-100.5
-----------------------	-----------	------------------------------	-------	------------------------	------------

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211001	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

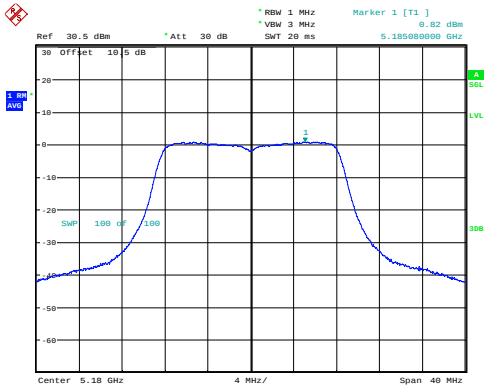
Mode	Value (dBm/MHz)	Duty Cycle Factor (dB)	PSD (dBm/MHz)	Limit (dBm/MHz)	Result
a_5180MHz_Chain 0	0.82	0.27	1.09	11.00	Pass
a_5200MHz_Chain 0	1.01	0.27	1.28	11.00	Pass
a_5240MHz_Chain 0	1.32	0.27	1.59	11.00	Pass
n20_5180MHz_Chain 0	0.43	0.21	0.64	11.00	Pass
n20_5200MHz_Chain 0	0.73	0.21	0.94	11.00	Pass
n20_5240MHz_Chain 0	1.08	0.21	1.29	11.00	Pass
n40_5190MHz_Chain 0	-4.54	0.59	-3.95	11.00	Pass
n40_5230MHz_Chain 0	-4.31	0.59	-3.72	11.00	Pass
ac80_5210MHz_Chain 0	-6.46	1.09	-5.37	11.00	Pass

5.8G

Mode	Value (dBm/500kHz)	Duty Cycle Factor (dB)	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
a_5745MHz_Chain 0	-2.40	0.27	-2.13	30	Pass
a_5785MHz_Chain 0	-2.90	0.27	-2.63	30	Pass
a_5825MHz_Chain 0	-3.62	0.27	-3.35	30	Pass
n20_5745MHz_Chain 0	-2.62	0.21	-2.41	30	Pass
n20_5785MHz_Chain 0	-3.06	0.21	-2.85	30	Pass
n20_5825MHz_Chain 0	-3.86	0.21	-3.65	30	Pass
n40_5755MHz_Chain 0	-5.65	0.59	-5.06	30	Pass
n40_5795MHz_Chain 0	-5.99	0.59	-5.40	30	Pass
ac80_5775MHz_Chain 0	-7.36	1.09	-6.27	30	Pass

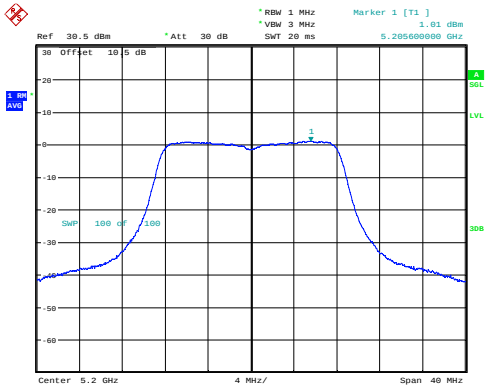
5.2G

a_5180MHz_Chain 0 0.82dBm/MHz



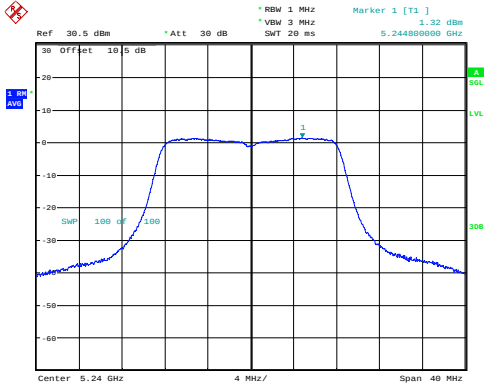
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 18:56:20

a_5200MHz_Chain 0 1.01dBm/MHz



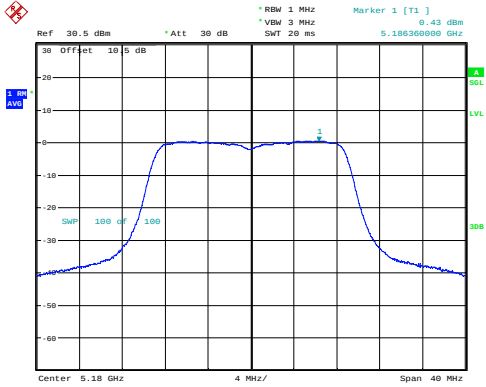
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 18:59:57

a_5240MHz_Chain 0 1.32dBm/MHz



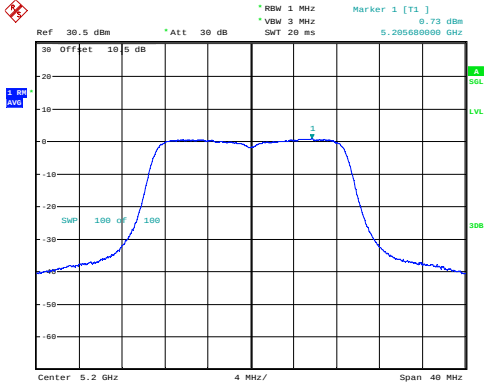
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:05:24

n20_5180MHz_Chain 0 0.43dBm/MHz



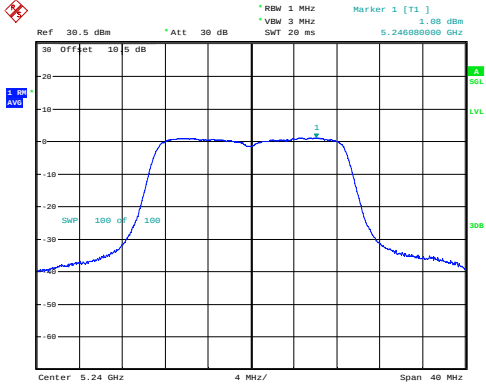
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:08:58

n20_5200MHz_Chain 0 0.73dBm/MHz



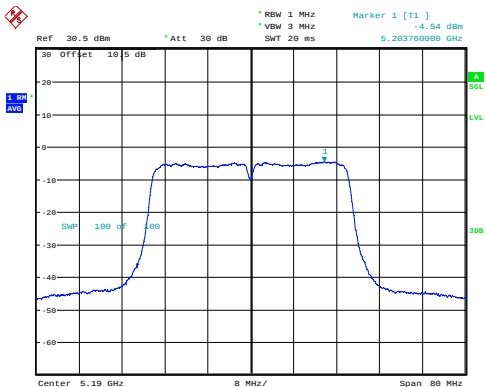
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:12:13

n20_5240MHz_Chain 0 1.08dBm/MHz



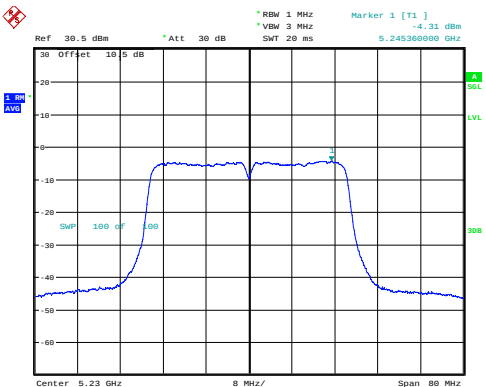
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:15:50

n40_5190MHz_Chain 0 -4.54dBm/MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26.JUN.2024 22:38:24

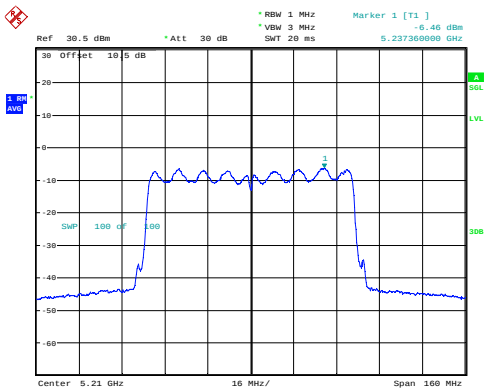
n40_5230MHz_Chain 0 -4.31dBm/MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26.JUN.2024 22:42:32

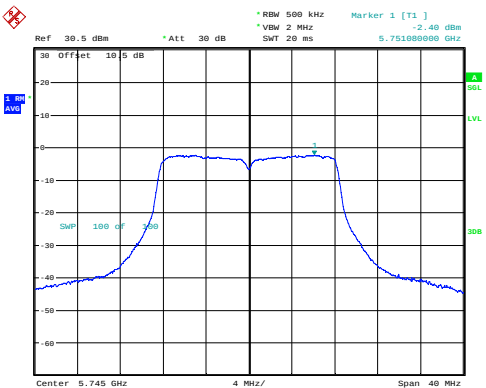
5.8G

ac80_5210MHz_Chain 0 -6.46dBm/MHz



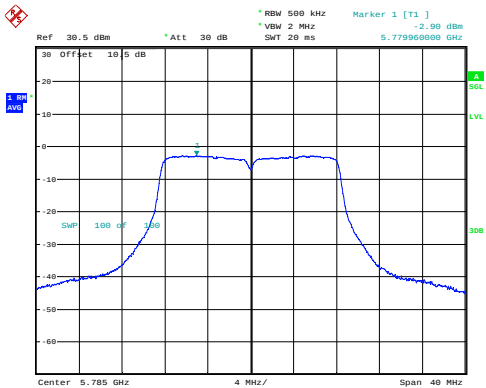
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26.JUN.2024 22:58:52

a_5745MHz_Chain 0 -2.40dBm/MHz



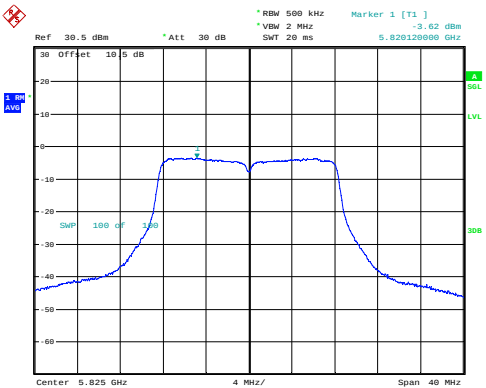
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19.JUN.2024 19:36:23

a_5785MHz_Chain 0 -2.90dBm/MHz



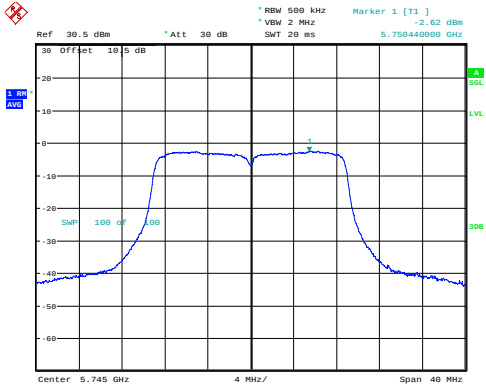
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19.JUN.2024 19:40:39

a_5825MHz_Chain 0 -3.62dBm/MHz



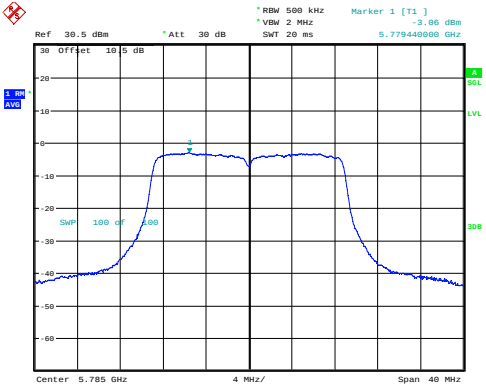
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19.JUN.2024 19:44:45

n20_5745MHz_Chain 0 -2.62dBm/MHz



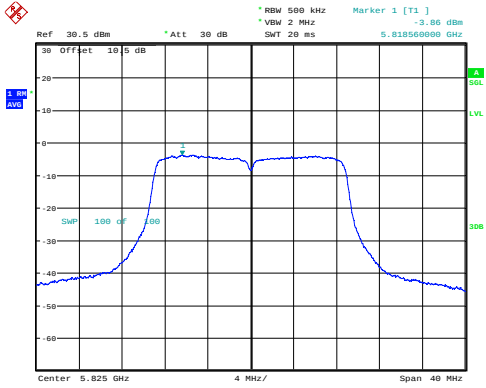
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:48:15

n20_5785MHz_Chain 0 -3.06dBm/MHz



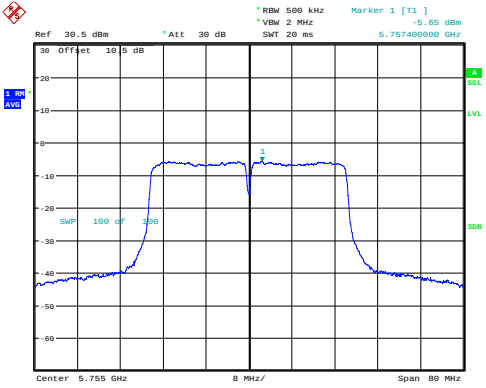
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:51:30

n20_5825MHz_Chain 0 -3.86dBm/MHz



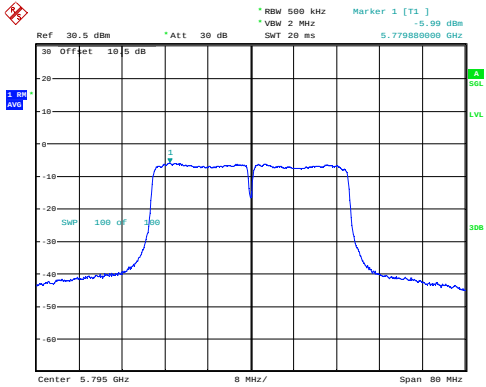
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 19:54:58

n40_5755MHz_Chain 0 -5.65dBm/MHz



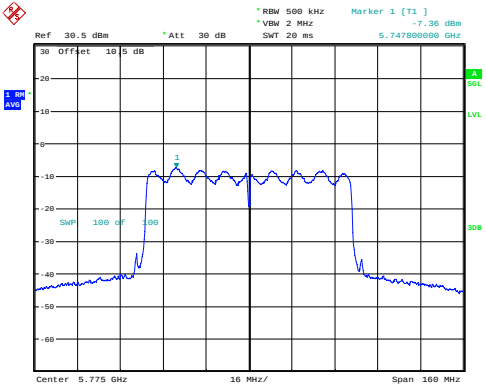
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:02:11

n40_5795MHz_Chain 0 -5.99dBm/MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:06:54

ac80_5775MHz_Chain 0 -7.36dBm/MHz



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN. 2024 20:12:17

4.6 Duty Cycle

Test Information:

Serial No.:	2M3J-2	Test Date:	2024/06/19~2024/06/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Chin Qin	Test Result:	N/A

Environmental Conditions:

Temperature: (°C):	25.7-25.9	Relative Humidity: (%)	51-52	ATM Pressure: (kPa)	99.9-100.5
-----------------------	-----------	------------------------------	-------	------------------------	------------

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211001	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).*

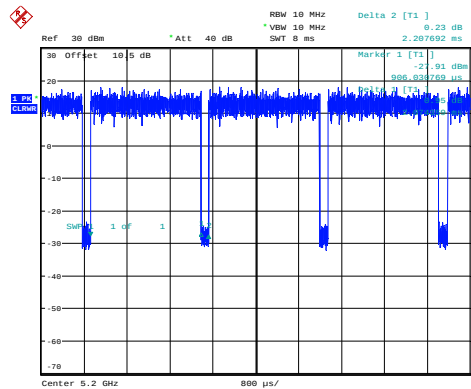
5.2G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)	1/Ton (Hz)	VBW Setting (kHz)
a_5200MHz_Chain 0	2.074	2.208	93.93	0.27	482.0	0.500
n20_5200MHz_Chain 0	1.938	2.034	95.28	0.21	516.0	1.000
n40_5190MHz_Chain 0	0.958	1.098	87.25	0.59	1044.0	2.000
ac80_5210MHz_Chain 0	0.465	0.597	77.89	1.09	2151.0	3.000

Duty Cycle = Ton/(Ton+Toff)*100%

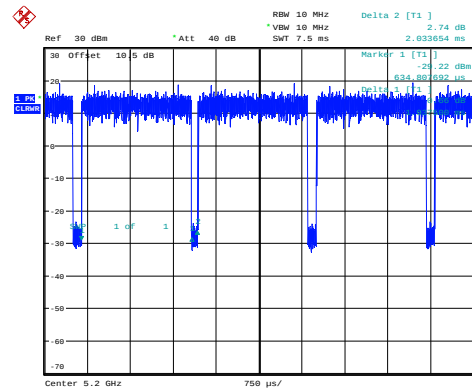
5.2G

a_5200MHz_Chain 0
2.074ms,2.208ms



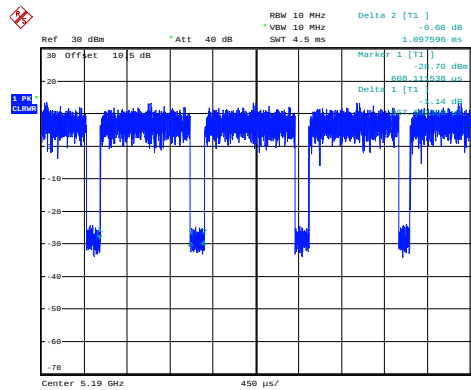
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN.2024 18:37:57

n20_5200MHz_Chain 0
1.938ms,2.034ms



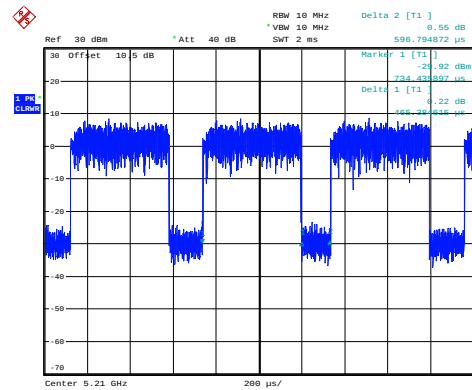
ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 19 JUN.2024 18:42:24

n40_5190MHz_Chain 0
0.958ms,1.098ms



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26 JUN.2024 22:33:48

ac80_5210MHz_Chain 0
0.465ms,0.597ms



ProjectNo.:2403T78338E-RF Tester:Chin Qin
Date: 26 JUN.2024 22:46:23

4.7 Maximum Conducted Output Power

Serial Number:	2M3J-2	Test Date:	2024/6/19~2024/6/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Chin Qin	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	25.7-25.9	Relative Humidity: (%)	51-52	ATM Pressure: (kPa)	99.9-100.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Anritsu	Power Meter	ML2495A	1106009	2023/8/4	2024/8/3
Anritsu	Pulse Power Sensor	MA2411A	10780	2023/8/4	2024/8/3
zhuoxiang	Coaxial Cable	SMA-178	211001	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).

Test Data:

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)	
		Result	Limit
802.11a	5180	13.31	24
	5200	13.52	24
	5240	13.65	24
802.11n ht20	5180	13.34	24
	5200	13.41	24
	5240	13.63	24
802.11n ht40	5190	10.86	24
	5230	11.03	24
802.11ac vht80	5210	11.22	24
Note: The device is a client device.			

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)	
		Result	Limit
802.11a	5745	12.93	30
	5785	12.55	30
	5825	11.73	30
802.11n ht20	5745	13.01	30
	5785	12.78	30
	5825	11.83	30
802.11n ht40	5755	13.46	30
	5795	12.85	30
802.11ac vht80	5775	13.23	30

5. EUT PHOTOGRAPHS

Please refer to the attachment 2403T78338E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2403T78338E-RF-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2403T78338E-RF-00D-TSP TEST SETUP PHOTOGRAPHS.

===== END OF REPORT =====