TEST REPORT

Applicant Name:	Fanvil Technology Co., Ltd
Address:	10/F Block A, Dualshine Global Science Innovation Center, Honglang North 2nd Road, Bao'an District, Shenzhen, 518101, China
Report Number:	2401Y99992E-RFC
FCC ID:	2APPZ-V66PRO
IC:	27176-V66PRO

Test Standard (s)

FCC PART 15.247; RSS-GEN ISSUE 5, FEBRUARY 2021 AMENDMENT 2;

RSS-247 ISSUE 3, AUGUST 2023

Sample Description

Product Type:	IP Phone
Model No.:	V66 Pro
Multiple Model(s) No.:	J660 Pro
Trade Mark:	Fanvil
Date Received:	2024-10-21
Issue Date:	2025-01-23

Test Result:	Pass▲

▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Ekko Wu

RF Engineer

Approved By:

Nancy Wang

RF Supervisor

Note: The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk "▼".

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2401Y99992E-RFC	Original Report	2025-01-23

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

HVIN	V66 Pro, J660 Pro
FVIN	2.12.18.16
Product	IP Phone
Tested Model	V66 Pro
Multiple Model(s)	J660 Pro
Frequency Range	2402-2480MHz
Transmit Peak Power	ANT1: 9.26dBm, ANT2: 9.10dBm
Modulation Technique	Bluetooth: GFSK, π/4-DQPSK, 8DPSK
Antenna Specification#	ANT1(Chain 0): 4.2dBi, ANT2(Chain 1): 4.2dBi (provided by the applicant)
Voltage Range	DC 12V from Adapter or DC 48V from PoE
Sample serial number	CE/RE: 2T2R-2 for V66 Pro, 2T2R-13 for J660 Pro RF: 2T2R-3 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	Adapter 1 Model: DCT18W120150US-A0 Input: 100-240V~50/60Hz 0.7A max Output:12.0V, 1.5A Adapter 2 Model: F18L16-120150SPAU Input: 100-240V~50/60Hz 0.6A Output: 12.0V, 1.5A 18.0W
Note: 1. The Multiple models are electrically identical with the test model except for model name, touch screen, appearance structural. Please refer to the declaration letter# for more detail, which was provided by manufacturer. 2. The EUT powered by two adapters or POE, the worst case power supply adapter 2 was selected to test for radiated emission below 1GHz according to the 2.4G Wi-Fi report test result.	

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commissions rules and RSS-247 Issue 3, August 2023, RSS-GEN Issue 5, Feb. 2021Amendment 2 of the Innovation, Science and Economic Development Canada rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices and RSS-247 Issue 3, August 2023, RSS-GEN Issue 5, Feb. 2021Amendment 2 of the Innovation, Science and Economic Development Canada rules.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		109.2kHz(k=2, 95% level of confidence)
RF output power, conducted		0.86dB(k=2, 95% level of confidence)
AC Power Lines Conducted Emissions	9kHz-150kHz	3.63dB(k=2, 95% level of confidence)
	150kHz-30MHz	3.66dB(k=2, 95% level of confidence)
Radiated Emissions	0.009MHz~30MHz	3.60dB(k=2, 95% level of confidence)
	30MHz~200MHz (Horizontal)	5.32dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	5.43dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	5.77dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.73dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.34dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.40dB(k=2, 95% level of confidence)
	18GHz - 40GHz	5.64dB(k=2, 95% level of confidence)
Temperature		±1℃
Humidity		±1%
Supply voltages		±0.4%

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

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, 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. : 715558, the FCC Designation No. : CN5045.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0023.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in an engineering mode.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	**2402**	40	2442
1	2403	41	2443
2	2404	42	2444
…	…	…	…
…	…	…	…
36	2438	75	2477
37	2439	76	2478
38	2440	77	2479
39	**2441**	**78**	**2480**
EUT was tested with Channel 0, 39 and 78. Note#: The EUT has two RF modules, according to the manufacturer, the two modules can't transmit simultaneously.			

EUT Exercise Software

Exercise Software#	ANT1: SecureCRTPortable.exe, ANT2: BT-Tool-V.1.1.2.exe
Power Level#	ANT1: Default, ANT2: 7

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
DELL	PC	Latitude E5430	37K4X AOO
HIKVISION	Router	DS-3WR03	10021642429
Unknown	USB disk	Unknown	Unknown
BACL	Load	Unknown	Unknown
Unknown	Headset	Unknown	Unknown
Fanvil	Handset	Unknown	Unknown
GOSPEL	PoE	G0720-480-050	200200019

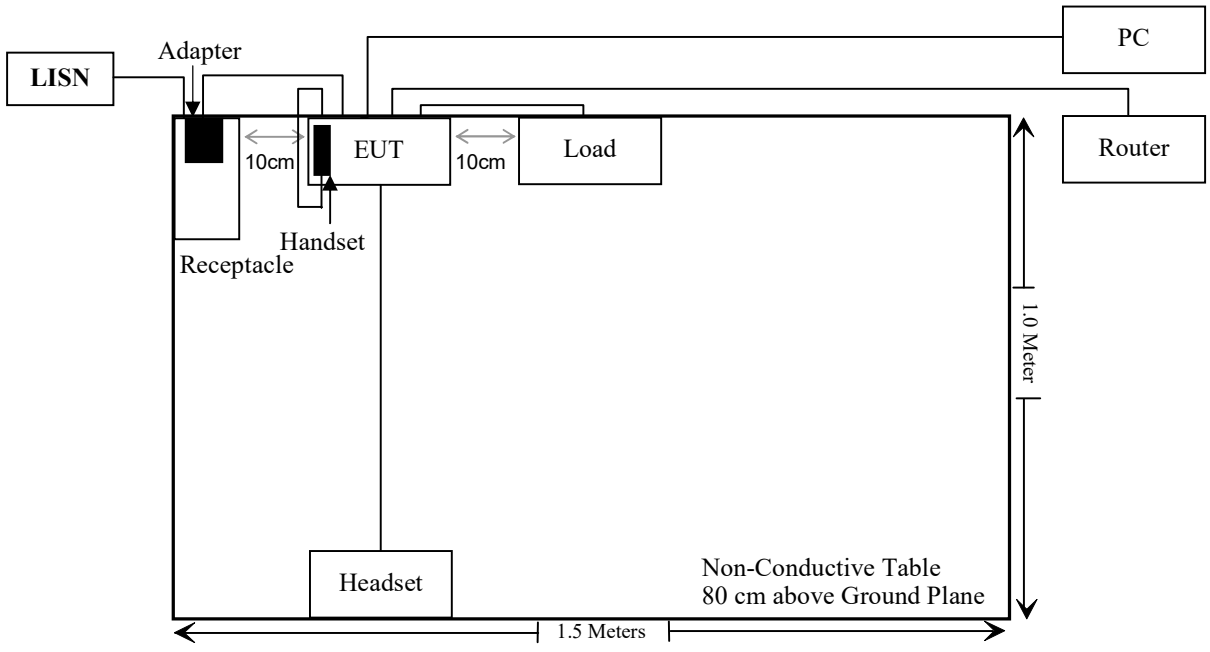
External I/O Cable

Cable Description	Length (m)	From Port	To
Unshielded Detachable AC cable	1.5	Receptacle	LISN/AC Mains
Unshielded Un-detachable DC cable	1.5	Adapter	EUT
Unshielded Un-detachable Audio cable	1.0	EUT	Headset
Unshielded Un-detachable RJ11 cable	0.2	EUT	Handset
Unshielded Un-detachable USB cable	0.3	EUT	Load
Unshielded Detachable RJ45 cable	1.5	EUT	PC
Unshielded Detachable RJ45 cable	3.0	EUT	PC
Unshielded Detachable RJ45 cable	1.5	EUT	Router
Unshielded Detachable RJ45 cable	3.0	EUT	Router
Unshielded Detachable AC cable	0.5	PoE	Receptacle
Unshielded Detachable RJ45 cable	1.0	PoE	EUT

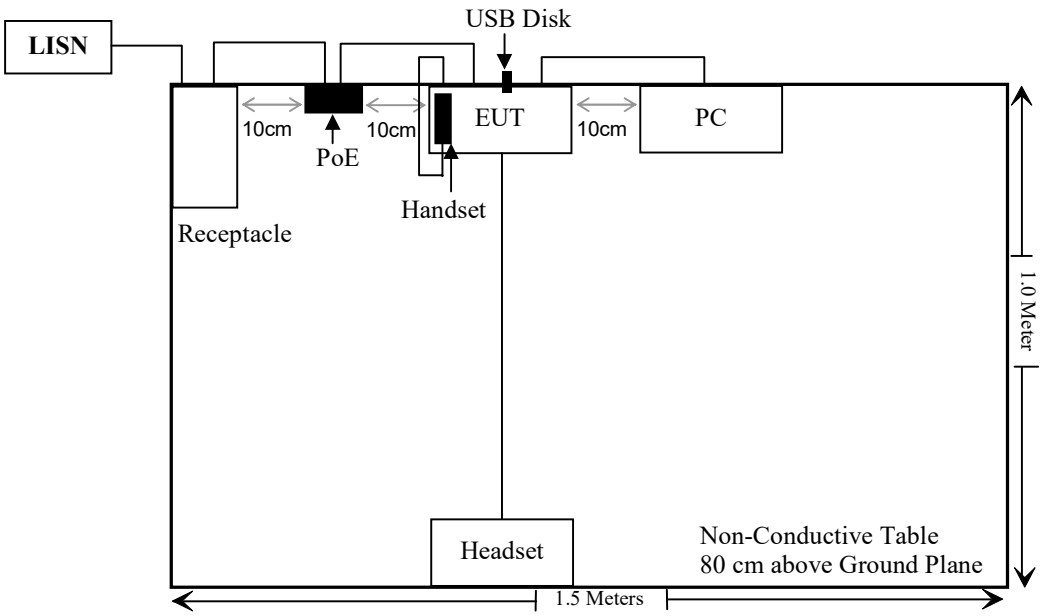
Block Diagram of Test Setup

For Conducted Emissions:

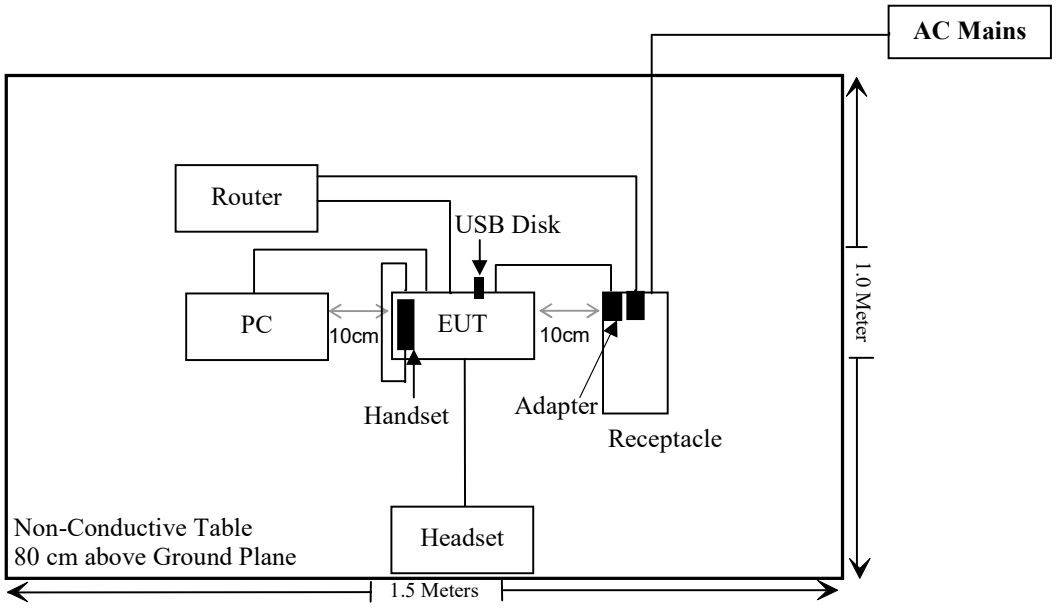
Powered by adapter



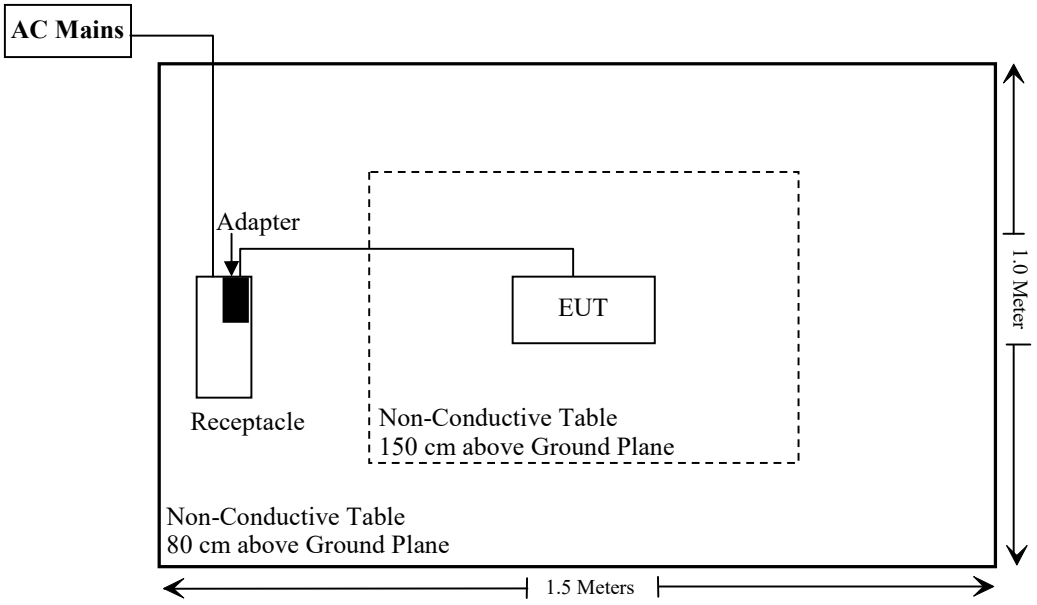
Powered by POE



For Radiated Emissions below 1GHz



For Radiated Emissions above 1GHz:



SUMMARY OF TEST RESULTS

FCC Rules	RSS Rules	Description of Test	Result
FCC §15.203	RSS-Gen §6.8	Antenna Requirement	Compliant
FCC §15.207(a)	RSS-Gen §8.8	AC Line Conducted Emissions	Compliant
FCC §15.205, §15.209, §15.247(d)	RSS-247 § 5.5, RSS-GEN § 8.10	Radiated Emissions	Compliant
FCC §15.247(a)(1)	RSS-247 § 5.1(a), RSS-GEN § 6.7	20 dB Emission Bandwidth & 99% Occupied Bandwidth	Compliant
FCC §15.247(a)(1)	RSS-247 § 5.1 (b)	Channel Separation Test	Compliant
FCC §15.247(a)(1)(iii)	RSS-247 § 5.1 (d)	Quantity of hopping channel Test	Compliant
FCC §15.247(a)(1)(iii)	RSS-247 § 5.1 (d)	Time of Occupancy (Dwell Time)	Compliant
FCC §15.247(b)(1)	RSS-247 § 5.1(b) &§ 5.4(b)	Peak Output Power Measurement	Compliant
FCC §15.247(d)	RSS-247 § 5.5	Band edges	Compliant
FCC §1.1307 ,§2.1091	/	MPE-Based Exemption	Compliant
/	RSS-102 § 6.6	Field Reference Level Exposure Exemption Limits	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2024/01/16	2025/01/15
Rohde & Schwarz	LISN	ENV216	101613	2024/01/16	2025/01/15
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2024/05/21	2025/05/20
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2024/05/21	2025/05/20
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
Radiated Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310 N	186238	2024/05/21	2025/05/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber A Cable 1	N/A	2024/06/18	2025/06/17
Unknown	Cable	XH500C	J-10M-A	2024/06/18	2025/06/17
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Unknown	Cable	2Y194	0735	2024/05/21	2025/05/20
Unknown	Cable	PNG214	1354	2024/05/21	2025/05/20
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2024/03/27	2025/03/26
COM-POWER	Pre-amplifier	PA-122	181919	2024/06/18	2025/06/17
Schwarzbeck	Horn Antenna	BBHA9120D(1201)	1143	2023/07/26	2026/07/25
Unknown	RF Cable	KMSE	735	2024/06/18	2025/06/17
Unknown	RF Cable	UFA147	219661	2024/06/18	2025/06/17
Unknown	RF Cable	XH750A-N	J-10M	2024/06/18	2025/06/17
JD	Filter Switch Unit	DT7220FSU	DS79906	2024/09/09	2025/09/08
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2024/09/09	2025/09/08
A.H.System	Pre-amplifier	PAM-1840VH	190	2024/06/18	2025/06/17
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2024/06/18	2025/06/17
Audix	EMI Test software	E3	191218(V9)	NCR	NCR

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSU26	200982	2024/09/20	2025/09/19
Unknown	10dB Attenuator	Unknown	F-03-EM190	2024/06/27	2025/06/26

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

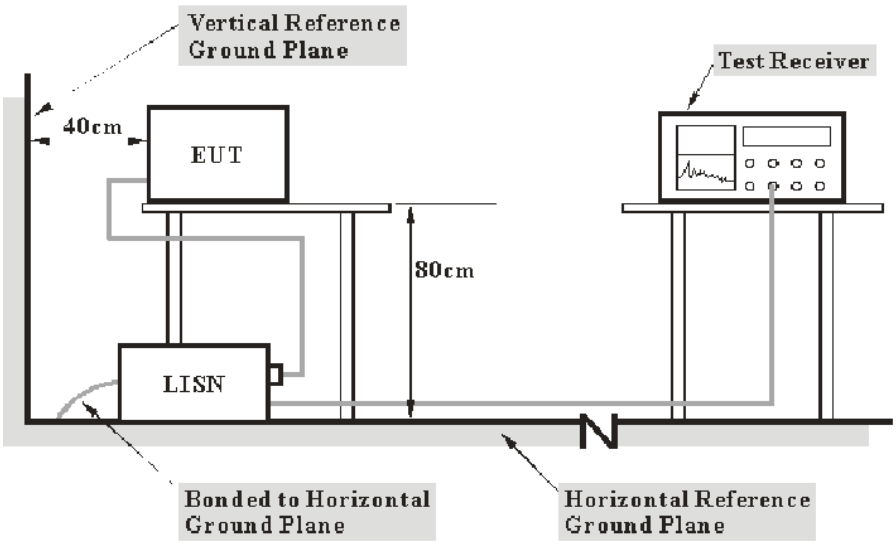
REQUIREMENTS AND TEST PROCEDURES

AC Line Conducted Emissions

Applicable Standard

FCC §15.207(a), RSS-GEN § 8.8

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 measurement procedure of EUT setup is according with ANSI C63.10-2013. The related limit was specified in FCC Part 15.207 & RSS-Gen.

The spacing between the peripherals was 10 cm.

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

Test Procedure

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak and average detection mode.

Factor & Over Limit Calculation

The factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

Factor = LISN VDF + Cable Loss

The "**Over limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over limit of -7 dB means the emission is 7 dB below the limit. The equation for calculation is as follows:

Over Limit = Level – Limit
Level = Read Level + Factor

Note: The term "cable loss" refers to the combination of a cable and a 10dB transient limiter (attenuator).

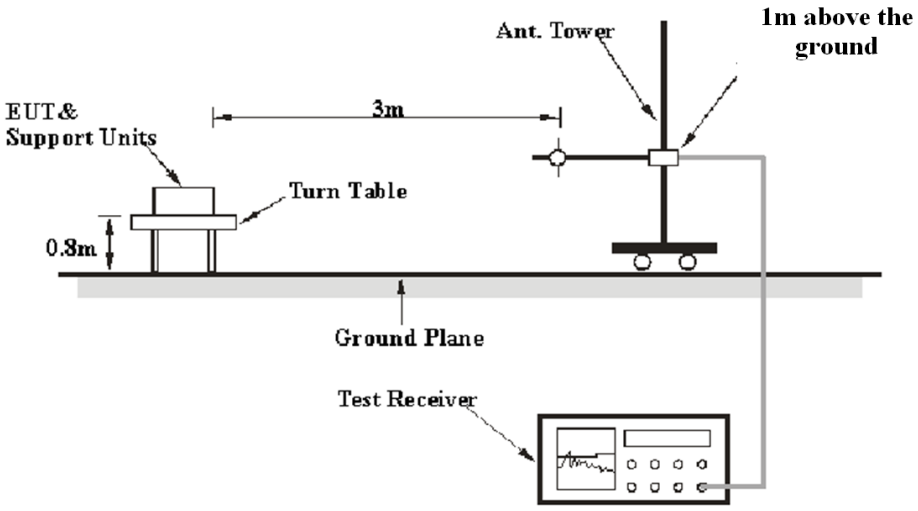
Radiated Emissions

Applicable Standard

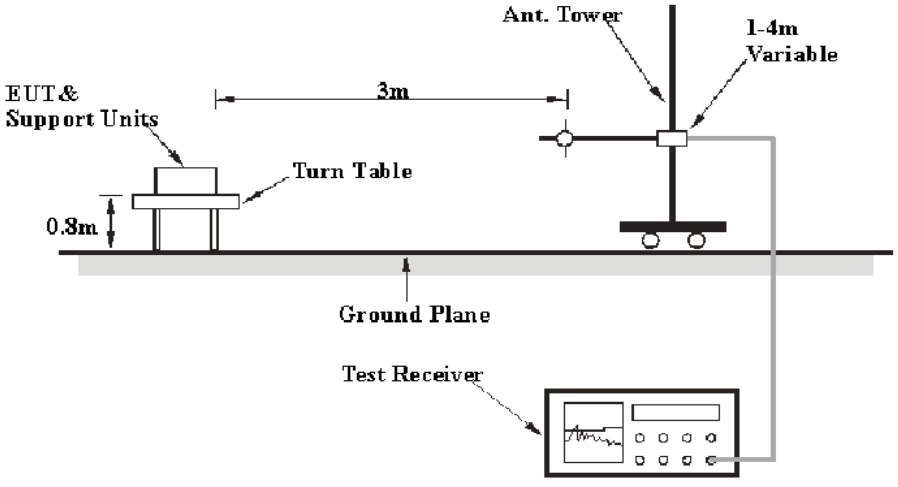
FCC §15.205; §15.209; §15.247(d); RSS-247§ 5.5; RSS-GEN § 8.10

EUT Setup

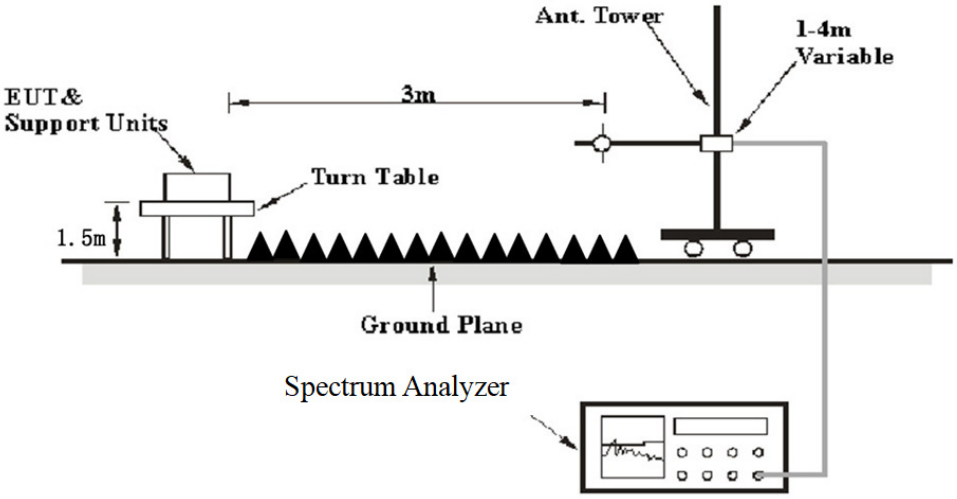
9 kHz-30MHz:



30MHz-1GHz:



Above 1GHz:



The radiated emission performed in the 3 meters, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, FCC 15.247, RSS-247, RSS-Gen limits.

EMI Test Receiver & Spectrum Analyzer Setup

The EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	/	/	200 Hz	QP
	300 Hz	1 kHz	/	PK
150 kHz – 30 MHz	/	/	9 kHz	QP
	10 kHz	30 kHz	/	PK
30 MHz – 1000 MHz	/	/	120 kHz	QP
	100 kHz	300 kHz	/	PK
Above 1 GHz	Harmonics			
	1MHz	3 MHz	/	PK
	Average Emission Level=Peak Emission Level+20*log(Duty cycle)			
	Band Edge & Other Emissions			
	1MHz	3 MHz	/	PK
	1MHz	≥10 Hz	/	Average

For Duty cycle measurement:

Use the duty cycle factor correction factor method per 15.35(c).
Duty cycle=On time/100milliseconds, On time=N1*L1+N2*L2+…Nn-1*Ln-1+Nn*Ln,
Where N1 is number of type 1 pulses, L1 is length of type 1 pulse, etc.

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All final data was recorded in Quasi-peak detection mode except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, average detection modes for frequency bands 9–90 kHz and 110–490 kHz, peak and average detection modes for frequencies above 1 GHz.

For 9 kHz-30MHz, the report shall list the six emissions with the smallest margin relative to the limit, for each of the three antenna orientations (parallel, perpendicular, and ground-parallel) unless the margin is greater than 20 dB.

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.

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

Factor & Over Limit/Margin Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

Factor = Antenna Factor + Cable Loss - Amplifier Gain

The "**Over Limit/Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

Over Limit/Margin = Level/Corrected Amplitude – Limit
Level / Corrected Amplitude = Read Level + Factor

20 dB Emission Bandwidth & 99% Occupied Bandwidth

According to FCC §15.247(a) (1):

Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

According to RSS-247 § 5.1 (a), RSS-GEN § 6.7:

The occupied bandwidth or the "99% emission bandwidth" is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

In some cases, the "20 dB bandwidth" is required, which is defined as the frequency range between two points, one at the lowest frequency below and one at the highest frequency above the carrier frequency, at which the maximum power level of the transmitted emission is attenuated 20 dB below the maximum in-band power level of the modulated signal, where the two points are on the outskirts of the in-band emission.

Test Procedure

Test Method: ANSI C63.10-2013 Clause 7.8.7 & Clause 6.9.2

The following conditions shall be observed for measuring the occupied bandwidth and 20 dB bandwidth:

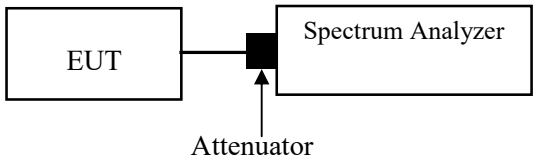
• The transmitter shall be operated at its maximum carrier power measured under normal test conditions.

• The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.

• The detector of the spectrum analyzer shall be set to "Sample". However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or "Max Hold") may be necessary to determine the occupied / 20 dB bandwidth if the device is not transmitting continuously.

• The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / 20 dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.
For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level 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, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).



Channel Separation Test

According to FCC §15.247(a) (1):

Frequency hopping systems shall have hoping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

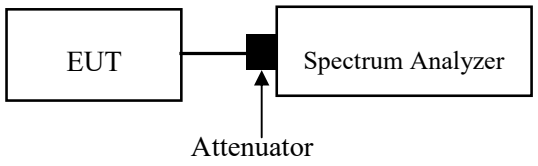
According to RSS-247 § 5.1 (b):

Frequency hopping systems (FHSs) shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the -20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, FHSs operating in the band 2400-2483.5 MHz may have hopping channel carrier frequencies that are separated by 25 kHz or two thirds of the -20 dB bandwidth of the hopping channel, whichever is greater, provided that the systems operate with an output power no greater than 0.125 W. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

Test Procedure

Test Method: ANSI C63.10-2013 Clause 7.8.2

1. Set the EUT in transmitting mode, max hold the channel.
2. Set the adjacent channel of the EUT and max hold another trace.
3. Measure the channel separation.



Quantity of Hopping Channel Test

Applicable Standard

According to FCC §15.247(a) (1) (iii):

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

According to RSS-247 § 5.1 (d):

Frequency hopping systems (FHSS) operating in the band 2400-2483.5 MHz shall use at least 15 hopping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds, multiplied by the number of hopping channels employed. Transmissions on particular hopping frequencies may be avoided or suppressed provided that at least 15 hopping channels are used.

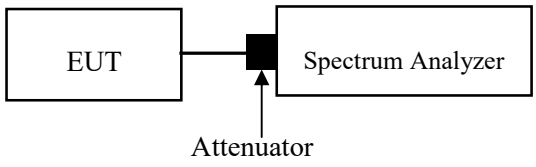
Test Procedure

Test Method: ANSI C63.10-2013 Clause 7.8.3

1. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.

2. Set the EUT in hopping mode from first channel to last.

3. By using the max-hold function record the quantity of the channel.



Time of Occupancy (Dwell Time)

Applicable Standard

According to FCC §15.247(a) (1) (iii):

Frequency hopping systems in the 2400-2483.5 MHz shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

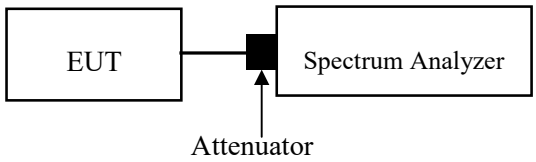
According to RSS-247 § 5.1 (d):

Frequency hopping systems (FHSs) operating in the band 2400-2483.5 MHz shall use at least 15 hopping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds, multiplied by the number of hopping channels employed. Transmissions on particular hopping frequencies may be avoided or suppressed provided that at least 15 hopping channels are used.

Test Procedure

Test Method: ANSI C63.10-2013 Clause 7.8.4

1. The EUT was worked in channel hopping.
2. Set the RBW to: 1MHz.
3. Set the VBW ≥ 3×RBW.
4. Set the span to 0Hz.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Recorded the time of single pulses



Peak Output Power Measurement

Applicable Standard

According to FCC §15.247(b) (1):

For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. And for all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

According to RSS-247§ 5.1(b) &§ 5.4(b):

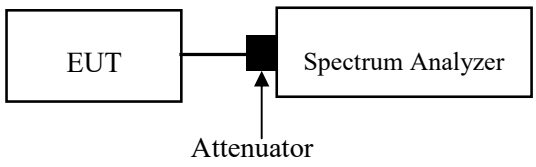
For frequency hopping systems (FHSs) operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1.0 W if the hopset uses 75 or more hopping channels; the maximum peak conducted output power shall not exceed 0.125 W if the hopset uses less than 75 hopping channels. The e.i.r.p. shall not exceed 4 W (see Section 5.4(e) for exceptions).

Frequency hopping systems (FHSs) shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the -20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, FHSs operating in the band 2400-2483.5 MHz may have hopping channel carrier frequencies that are separated by 25 kHz or two thirds of the -20 dB bandwidth of the hopping channel, whichever is greater, provided that the systems operate with an output power no greater than 0.125 W.

Test Procedure

Test Method: ANSI C63.10-2013 Clause 7.8.5

1. Place the EUT on a bench and set in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.



Note: A short RF cable with low cable loss connected to the EUT antenna port,which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable loss

Band Edges

Applicable Standard

According to FCC §15.247(d).

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

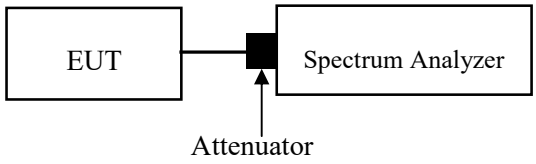
According to RSS-247 § 5.5.

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(e), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

Test Procedure

Test Method: ANSI C63.10-2013 Clause 7.8.6 & Clause 6.10

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.



ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. 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.

According to FCC § 15.203, the applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer. The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device. Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

Antenna Connector Construction

The EUT has two internal antennas arrangement, which were permanently attached fulfill the requirement of this section. Please refer to the EUT photos.

Antenna	Antenna Type	Antenna Gain[#]	Impedance	Frequency Range
ANT1	FPC	4.2	50Ω	2.4~2.5GHz
ANT2	FPC	4.2	50Ω	2.4~2.5GHz

Result: Compliant

TEST DATA AND RESULTS

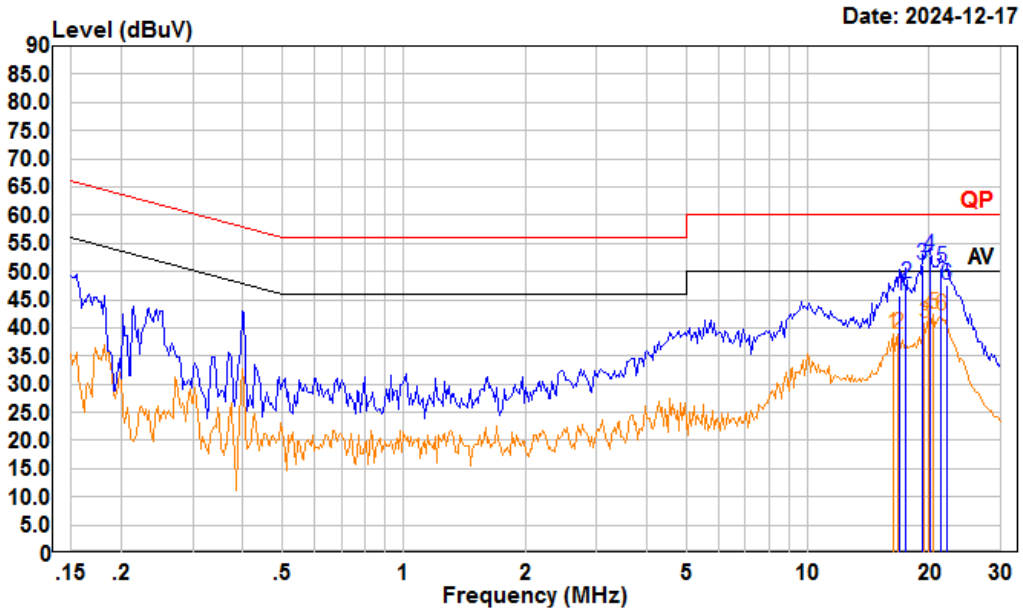
AC Line Conducted Emissions

Environmental Conditions

Temperature (℃)	24-26	**Relative Humidity (%)**	58-62
ATM Pressure (kPa)	101	**Test engineer**	Macy.shi
Test date	2024.11.20-2024.12.31		
EUT operation mode	Transmitting(Maximum output power mode, ANT1 EDR (8DPSK) Low Channel)		

For model V66 Pro

AC 120V 60 Hz, Line (POE)



Trace: 1

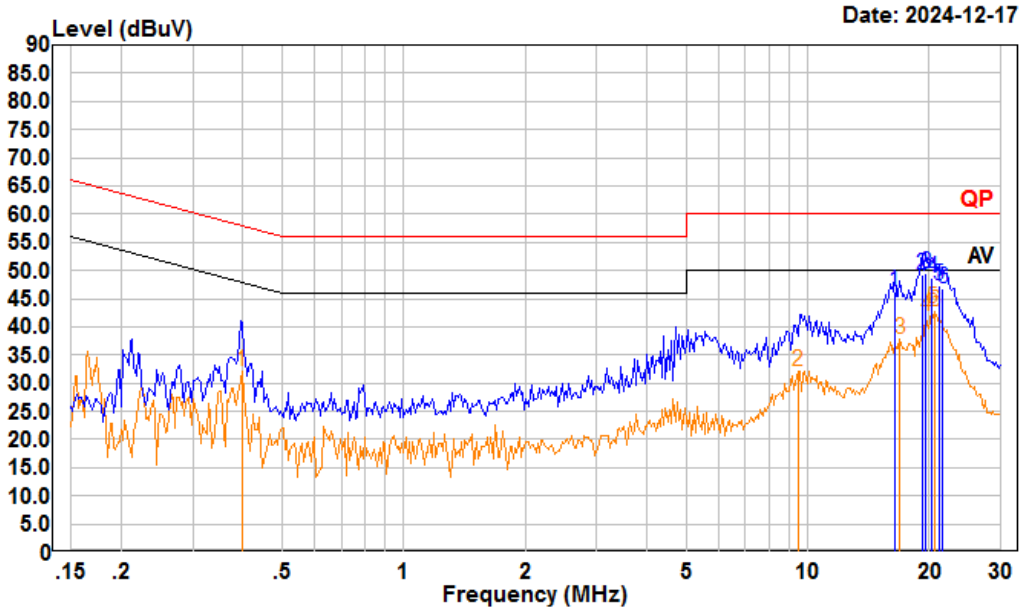
Condition: Line
Project : 2401Y99992E-RF
tester : Macy.shi
Note : Transmitting
Detector : RBW:9KHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	16.928	24.83	45.76	10.73	10.20	60.00	-14.24	QP
2	17.475	26.98	47.94	10.76	10.20	60.00	-12.06	QP
3	19.224	30.05	51.09	10.86	10.18	60.00	-8.91	QP
4	20.056	31.60	52.67	10.90	10.17	60.00	-7.33	QP
5	21.373	29.63	50.64	10.83	10.18	60.00	-9.36	QP
6	22.063	26.65	47.63	10.80	10.18	60.00	-12.37	QP

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	16.226	17.92	38.90	10.77	10.21	50.00	-11.10	Average
2	16.750	17.86	38.82	10.76	10.20	50.00	-11.18	Average
3	19.428	19.82	40.71	10.71	10.18	50.00	-9.29	Average
4	19.845	20.99	41.86	10.70	10.17	50.00	-8.14	Average
5	20.486	21.54	42.40	10.69	10.17	50.00	-7.60	Average

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
6	21.373	21.21	42.06	10.67	10.18	50.00	-7.94	Average

AC 120V 60 Hz, Neutral (POE)



Trace: 1

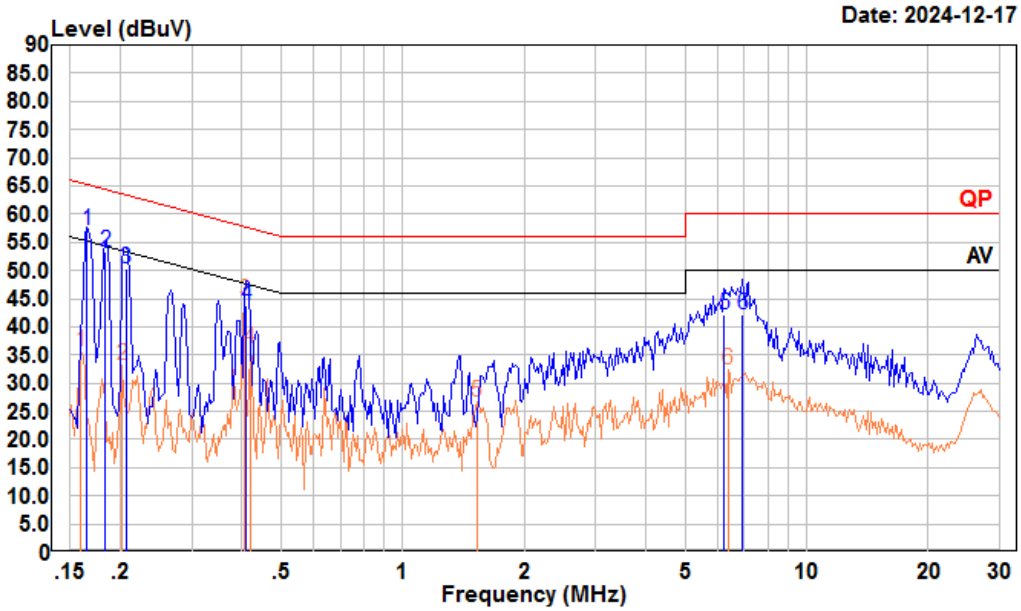
Condition: Neutral
Project : 2401Y99992E-RF
tester : Macy.shi
Note : Transmitting
Detector : RBW:9KHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	16.398	25.30	46.28	10.77	10.21	60.00	-13.72	QP
2	19.224	28.20	49.09	10.71	10.18	60.00	-10.91	QP
3	19.635	28.60	49.48	10.71	10.17	60.00	-10.52	QP
4	20.270	27.90	48.76	10.69	10.17	60.00	-11.24	QP
5	21.147	26.61	47.45	10.67	10.17	60.00	-12.55	QP
6	21.600	25.90	46.74	10.66	10.18	60.00	-13.26	QP

	Freq	Read Level	LISN Level	Cable Factor	Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.398	11.46	32.18	10.62	10.10	47.90	-15.72	Average
2	9.451	11.12	32.11	10.78	10.21	50.00	-17.89	Average
3	16.928	16.90	37.86	10.76	10.20	50.00	-12.14	Average
4	19.635	21.00	41.88	10.71	10.17	50.00	-8.12	Average
5	20.270	22.46	43.32	10.69	10.17	50.00	-6.68	Average

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
6	20.704	21.94	42.79	10.68	10.17	50.00	-7.21	Average

AC 120V 60 Hz, Line (Adapter1)



Trace: 1

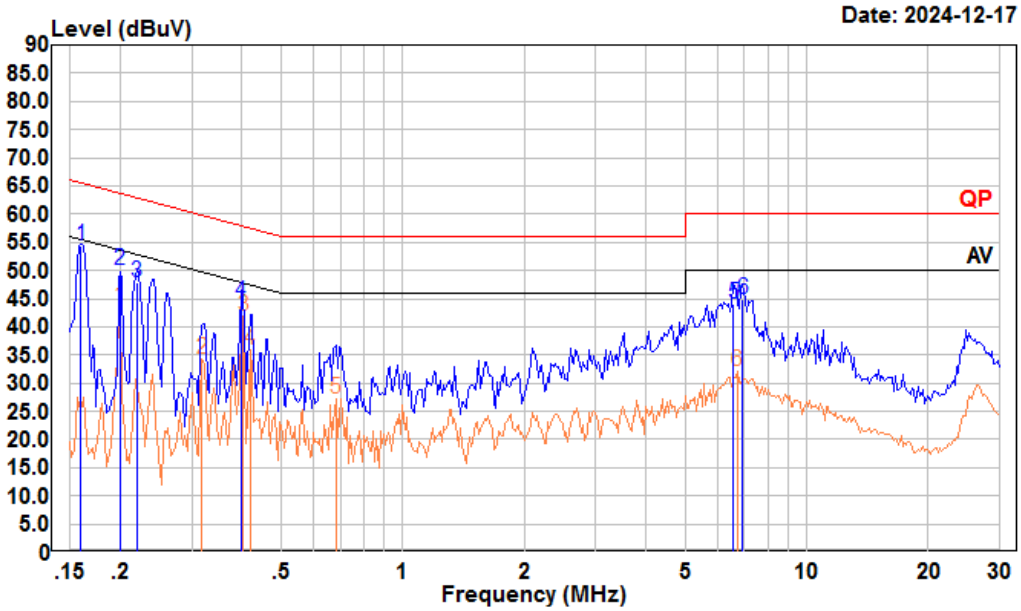
Condition: Line
Project : 2401Y99992E-RF
tester : Macy.shi
Note : Transmitting
Detector : RBW:9KHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.165	36.09	57.07	10.87	10.11	65.21	-8.14	QP
2	0.183	32.40	53.33	10.83	10.10	64.33	-11.00	QP
3	0.206	29.30	50.18	10.79	10.09	63.36	-13.18	QP
4	0.410	23.11	43.77	10.56	10.10	57.64	-13.87	QP
5	6.252	21.40	42.05	10.46	10.19	60.00	-17.95	QP
6	6.951	21.60	42.29	10.50	10.19	60.00	-17.71	QP

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.160	14.65	35.65	10.88	10.12	55.47	-19.82	Average
2	0.202	12.19	33.08	10.80	10.09	53.54	-20.46	Average
3	0.406	23.94	44.61	10.57	10.10	47.73	-3.12	Average
4	0.419	15.38	36.05	10.56	10.11	47.46	-11.41	Average
5	1.527	6.07	26.75	10.52	10.16	46.00	-19.25	Average

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
6	6.386	11.84	32.50	10.47	10.19	50.00	-17.50	Average

AC 120V 60 Hz, Neutral (Adapter1)



Trace: 1

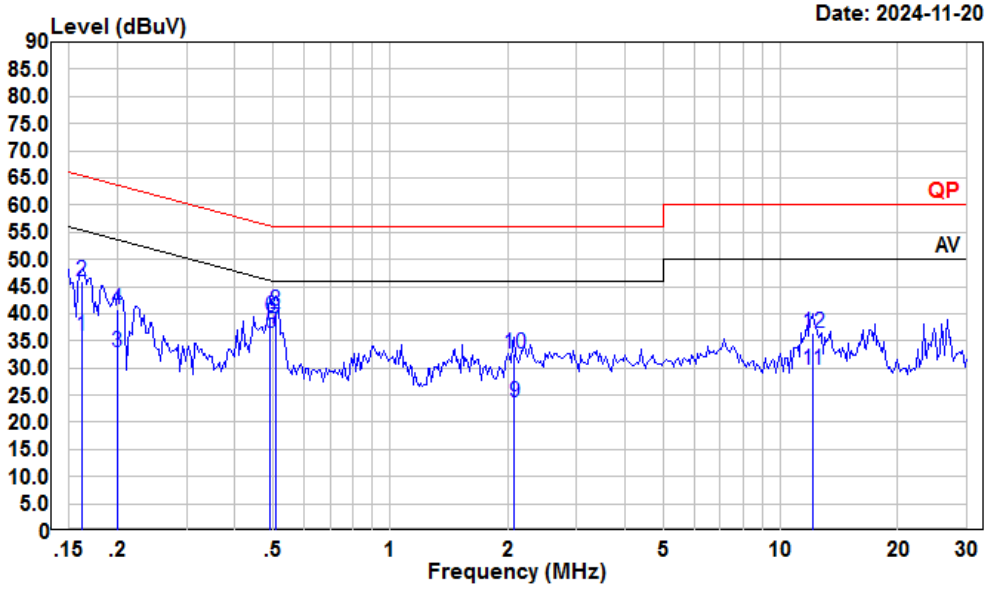
Condition: Neutral
Project : 2401Y99992E-RF
tester : Macy.shi
Note : Transmitting
Detector : RBW:9KHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.160	33.79	54.47	10.56	10.12	65.47	-11.00	QP
2	0.200	29.50	49.99	10.40	10.09	63.62	-13.63	QP
3	0.220	27.40	47.92	10.43	10.09	62.83	-14.91	QP
4	0.398	23.61	44.33	10.62	10.10	57.90	-13.57	QP
5	6.592	23.20	44.06	10.67	10.19	60.00	-15.94	QP
6	6.951	23.90	44.79	10.70	10.19	60.00	-15.21	QP

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.200	23.02	43.51	10.40	10.09	53.62	-10.11	Average
2	0.318	13.60	34.26	10.55	10.11	49.75	-15.49	Average
3	0.402	21.03	41.76	10.63	10.10	47.81	-6.05	Average
4	0.419	15.15	35.90	10.64	10.11	47.46	-11.56	Average
5	0.683	6.27	27.11	10.70	10.14	46.00	-18.89	Average

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
6	6.733	11.19	32.06	10.68	10.19	50.00	-17.94	Average

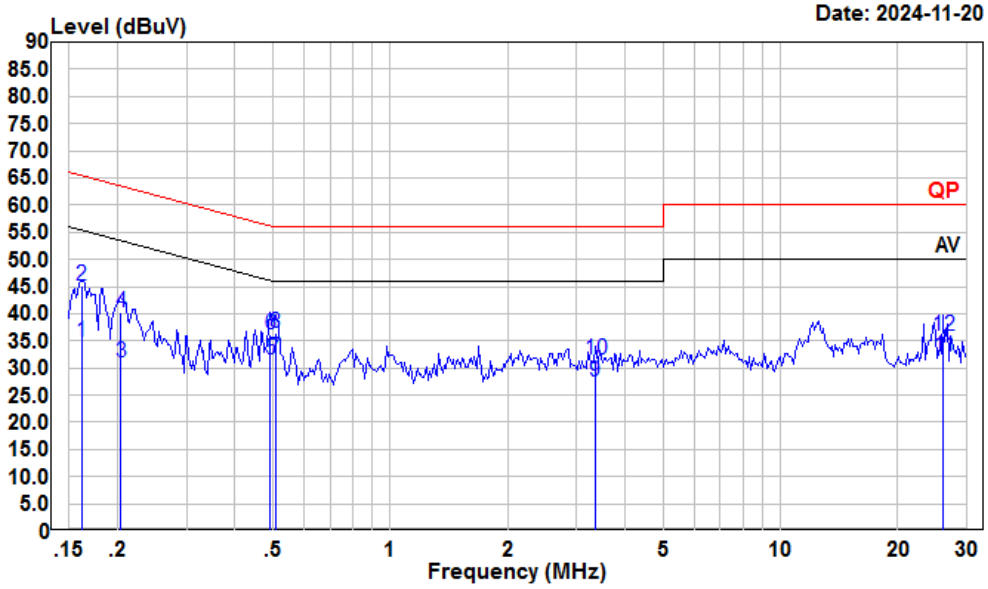
AC 120V 60 Hz, Line (Adapter2)



Condition: Line
Project : 2401Y99992E-RF
tester : Macy.shi
Note : Transmitting

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.162	15.01	35.99	10.87	10.11	55.38	-19.39	Average
2	0.162	25.07	46.05	10.87	10.11	65.38	-19.33	QP
3	0.200	12.01	32.90	10.80	10.09	53.62	-20.72	Average
4	0.200	20.01	40.90	10.80	10.09	63.62	-22.72	QP
5	0.492	15.91	36.56	10.51	10.14	46.14	-9.58	Average
6	0.492	18.68	39.33	10.51	10.14	56.14	-16.81	QP
7	0.507	16.62	37.26	10.50	10.14	46.00	-8.74	Average
8	0.507	19.97	40.61	10.50	10.14	56.00	-15.39	QP
9	2.077	2.82	23.59	10.58	10.19	46.00	-22.41	Average
10	2.077	11.90	32.67	10.58	10.19	56.00	-23.33	QP
11	12.060	8.71	29.52	10.60	10.21	50.00	-20.48	Average
12	12.060	15.67	36.48	10.60	10.21	60.00	-23.52	QP

AC 120V 60 Hz, Neutral (Adapter2)



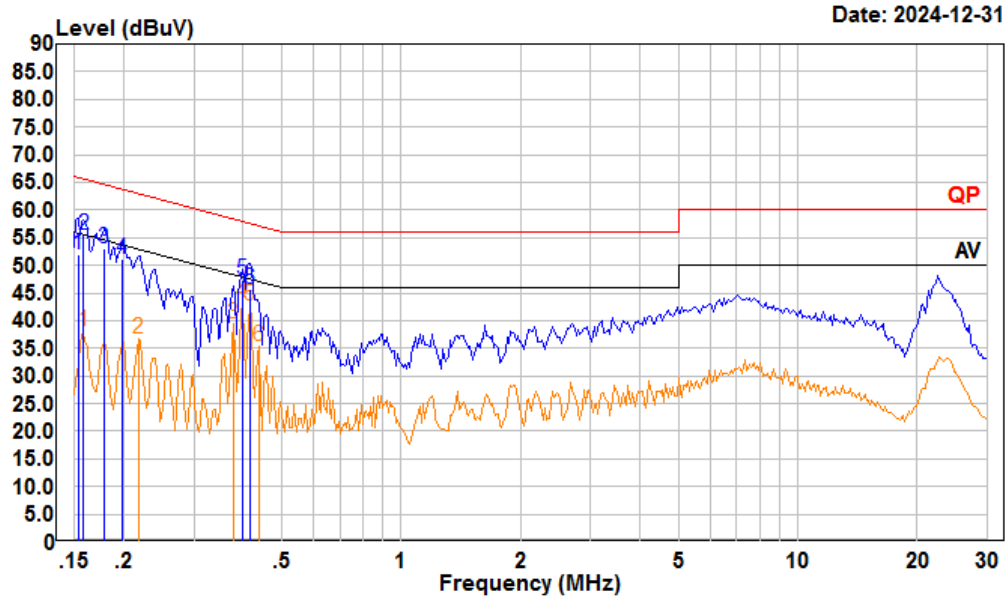
Condition: Neutral
Project : 2401Y99992E-RF
tester : Macy.shi
Note : Transmitting

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.162	14.20	34.86	10.55	10.11	55.38	-20.52	Average
2	0.162	24.42	45.08	10.55	10.11	65.38	-20.30	QP
3	0.204	10.46	30.96	10.41	10.09	53.45	-22.49	Average
4	0.204	19.87	40.37	10.41	10.09	63.45	-23.08	QP
5	0.492	10.69	31.52	10.69	10.14	46.14	-14.62	Average
6	0.492	15.39	36.22	10.69	10.14	56.14	-19.92	QP
7	0.507	11.04	31.88	10.70	10.14	46.00	-14.12	Average
8	0.507	15.59	36.43	10.70	10.14	56.00	-19.57	QP
9	3.346	6.89	27.48	10.40	10.19	46.00	-18.52	Average
10	3.346	11.00	31.59	10.40	10.19	56.00	-24.41	QP
11	26.139	11.34	32.11	10.57	10.20	50.00	-17.89	Average
12	26.139	15.23	36.00	10.57	10.20	60.00	-24.00	QP

For model J660 Pro

Worst Case:

AC 120V 60 Hz, Line (Adapter1)



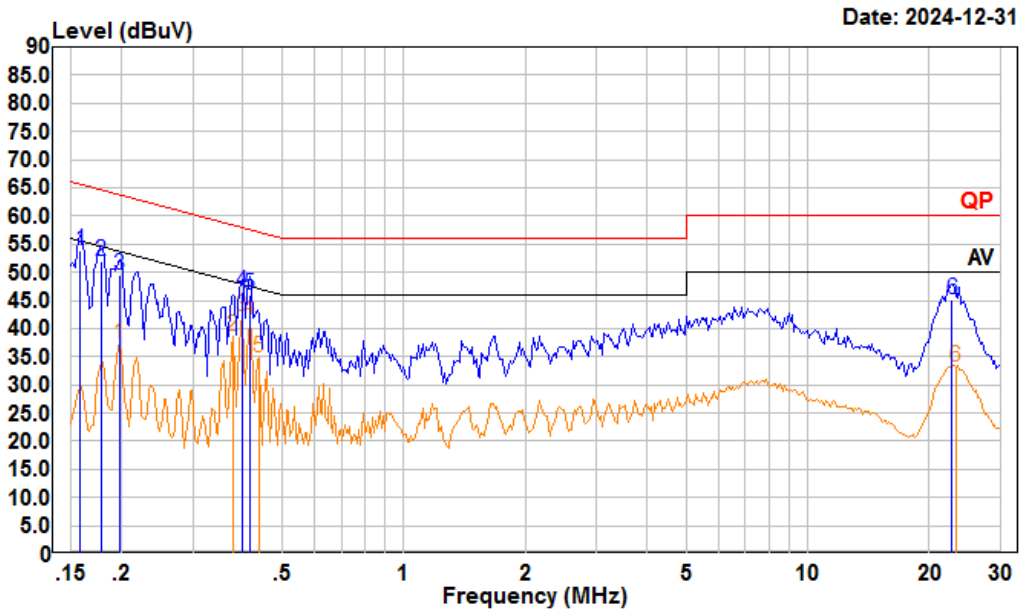
Trace: 1

Condition: Line
Project : 2401Y99992E-RF
tester : Macy.shi Note:Transmitting
Setting : RBW:9kHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.153	30.90	51.92	10.89	10.13	65.82	-13.90	QP
2	0.158	34.40	55.40	10.88	10.12	65.56	-10.16	QP
3	0.178	32.10	53.04	10.84	10.10	64.59	-11.55	QP
4	0.198	30.11	51.00	10.80	10.09	63.71	-12.71	QP
5	0.398	26.60	47.28	10.58	10.10	57.90	-10.62	QP
6	0.415	25.10	45.77	10.56	10.11	57.55	-11.78	QP

	Freq	Read Level	LISN Level	Cable Factor	Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.158	17.21	38.21	10.88	10.12	55.56	-17.35	Average
2	0.217	15.87	36.73	10.77	10.09	52.92	-16.19	Average
3	0.377	18.82	39.52	10.59	10.11	48.34	-8.82	Average
4	0.398	22.50	43.18	10.58	10.10	47.90	-4.72	Average
5	0.415	21.90	42.57	10.56	10.11	47.55	-4.98	Average
6	0.437	14.69	35.34	10.54	10.11	47.11	-11.77	Average

AC 120V 60 Hz, Neutral (Adapter1)



Trace: 1

Condition: Neutral
Project : 2401Y99992E-RF
tester : Macy.shi Note:Transmitting
Setting : RBW:9kHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.158	33.10	53.78	10.56	10.12	65.56	-11.78	QP
2	0.178	31.40	51.98	10.48	10.10	64.59	-12.61	QP
3	0.198	29.10	49.60	10.41	10.09	63.71	-14.11	QP
4	0.398	25.81	46.53	10.62	10.10	57.90	-11.37	QP
5	0.415	25.09	45.84	10.64	10.11	57.55	-11.71	QP
6	22.775	24.20	45.02	10.64	10.18	60.00	-14.98	QP

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.198	16.87	37.37	10.41	10.09	53.71	-16.34	Average
2	0.377	17.92	38.64	10.61	10.11	48.34	-9.70	Average
3	0.398	21.39	42.11	10.62	10.10	47.90	-5.79	Average
4	0.415	20.83	41.58	10.64	10.11	47.55	-5.97	Average
5	0.437	14.06	34.83	10.66	10.11	47.11	-12.28	Average
6	23.263	12.39	33.20	10.63	10.18	50.00	-16.80	Average

Radiated Emissions

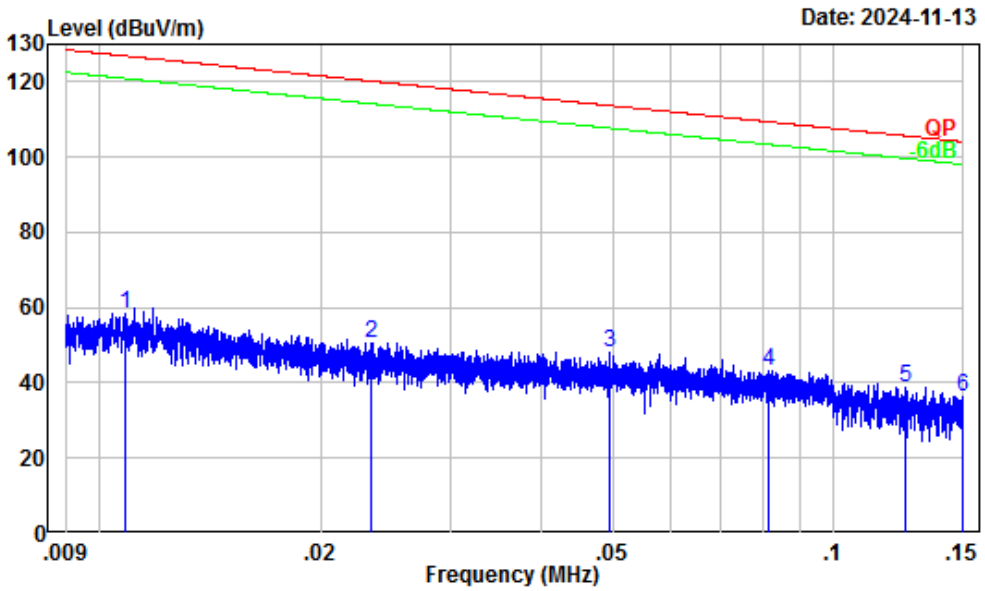
Environmental Conditions

Temperature (ºC)	25-26	**Relative Humidity (%)**	49-50
ATM Pressure (kPa):	101-101.4	**Test engineer:**	Carl.zhu&Zenos.qiao
Test date:	2024.11.13-2024.12.31		
EUT operation mode:	Below 1GHz: Transmitting (Maximum output power mode, 8DPSK Low Channel) Above 1GHz: Transmitting(Maximum output power mode, EDR (8DPSK))		
Note:	For the radiated spurious emission below 30MHz, only the worst case (parallel) was recorded. For the radiated spurious emission below 30MHz, When the test result of peak was less than the limit of QP/Average more than 6dB, just peak value were recorded. The spurious emission from 9 kHz-30MHz of IC RSS-Gen standard, the unit of final result on the test plots are dBµV/m, so the limit should be added by 51,5 dB from dBµA/m to dBµV/m.		

Below 1GHz:

For model V66 Pro

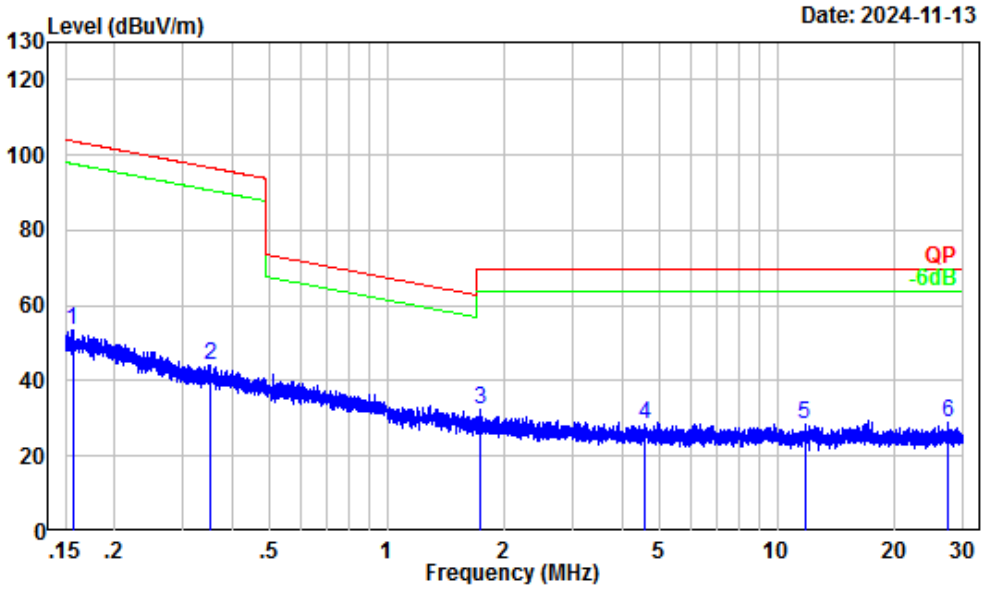
9kHz-150kHz_ANT1



Site : Chamber A
Condition : 3m
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	32.14	26.48	58.62	126.91	-68.29	Peak
2	0.02	29.74	20.96	50.70	120.20	-69.50	Peak
3	0.05	26.46	21.60	48.06	113.72	-65.66	Peak
4	0.08	23.29	20.02	43.31	109.38	-66.07	Peak
5	0.13	20.50	18.41	38.91	105.64	-66.73	Peak
6	0.15	19.07	17.39	36.46	104.11	-67.65	Peak

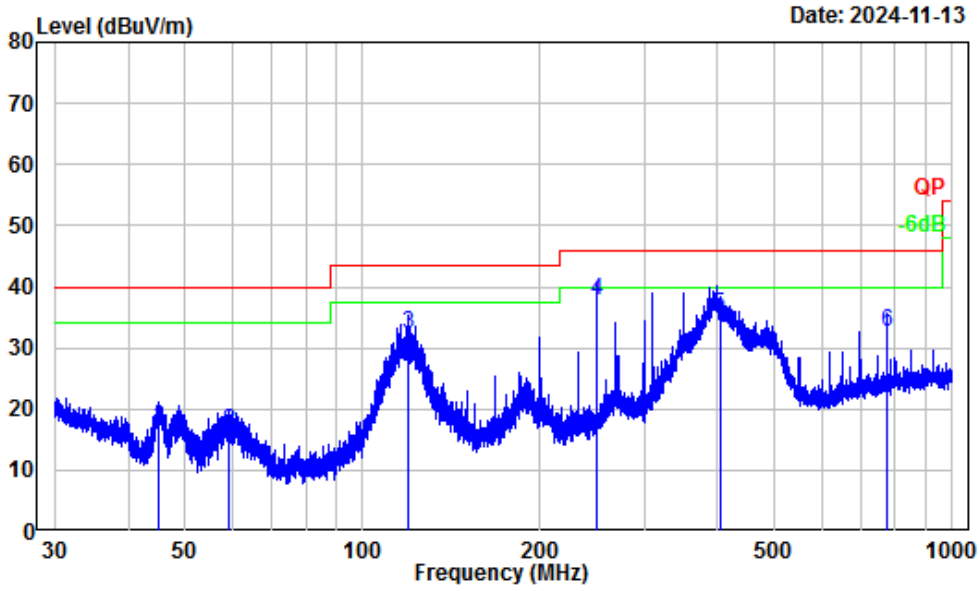
150kHz-30MHz_ANT1



Site : Chamber A
Condition : 3m
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.16	18.67	34.99	53.66	103.72	-50.06	Peak
2	0.35	9.23	35.04	44.27	96.69	-52.42	Peak
3	1.73	-0.84	33.14	32.30	69.54	-37.24	Peak
4	4.58	-2.76	31.32	28.56	69.54	-40.98	Peak
5	11.77	-2.80	31.39	28.59	69.54	-40.95	Peak
6	27.49	-2.93	31.98	29.05	69.54	-40.49	Peak

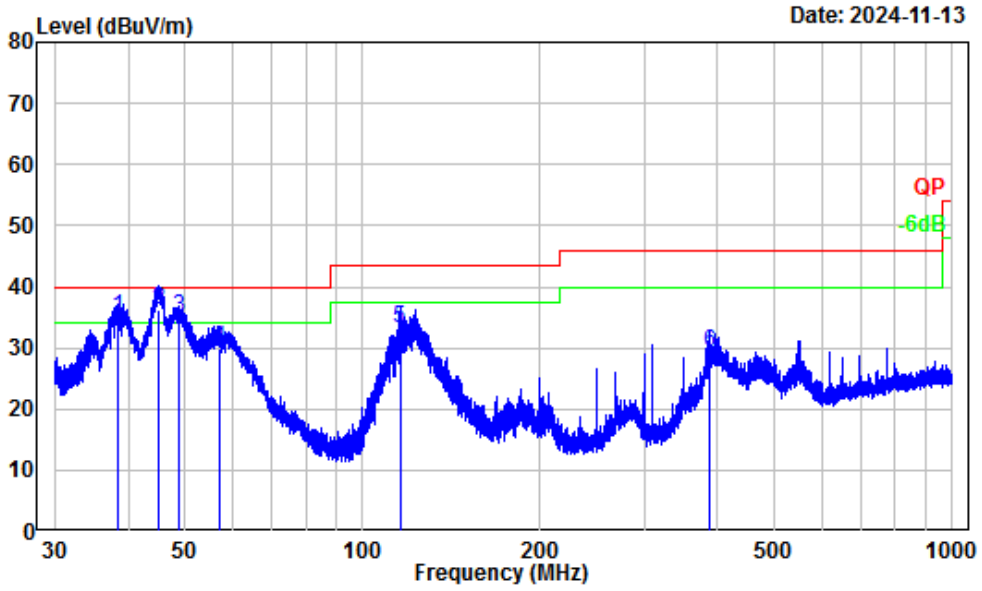
30MHz-1GHz-H_ANT1



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.18	-15.99	33.00	17.01	40.00	-22.99	QP
2	59.36	-18.18	34.42	16.24	40.00	-23.76	QP
3	119.23	-11.54	43.73	32.19	43.50	-11.31	QP
4	249.97	-13.09	50.71	37.62	46.00	-8.38	QP
5	403.25	-8.30	43.69	35.39	46.00	-10.61	QP
6	775.18	-2.47	35.05	32.58	46.00	-13.42	QP

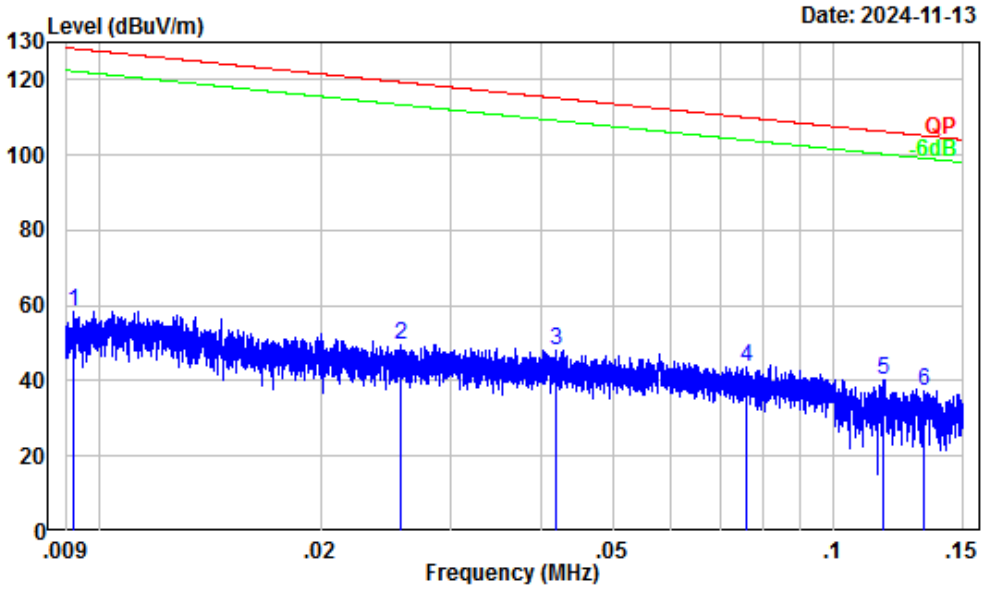
30MHz-1GHz_Vertical_ANT1



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	38.41	-11.27	46.34	35.07	40.00	-4.93	QP
2	45.02	-15.89	52.07	36.18	40.00	-3.82	QP
3	48.69	-17.61	52.50	34.89	40.00	-5.11	QP
4	57.22	-18.30	48.26	29.96	40.00	-10.04	QP
5	115.62	-12.05	45.31	33.26	43.50	-10.24	QP
6	387.48	-8.95	38.36	29.41	46.00	-16.59	QP

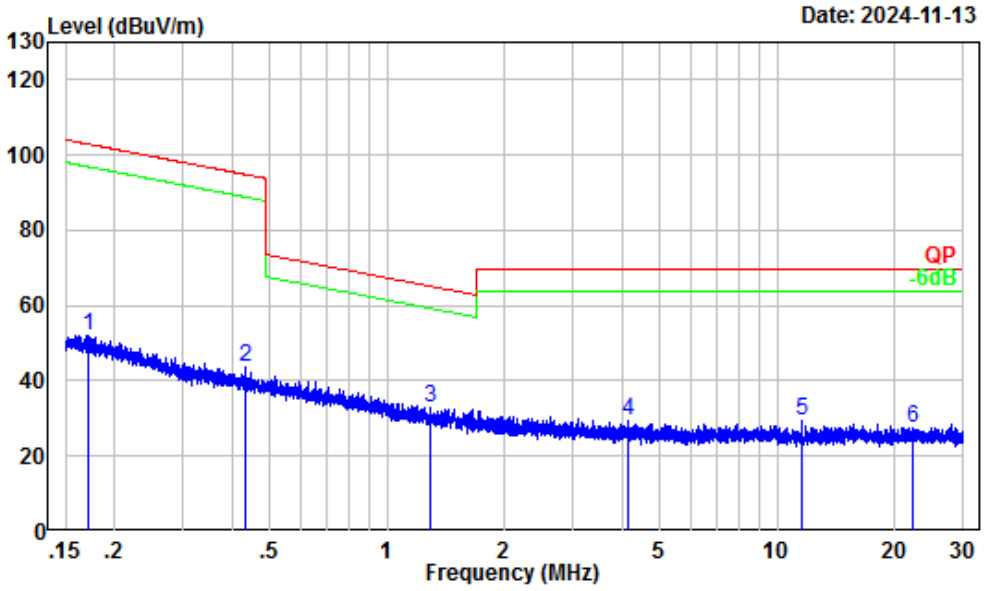
9kHz-150kHz_ANT2



Site : Chamber A
Condition : 3m
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	32.46	26.04	58.50	128.31	-69.81	Peak
2	0.03	29.32	20.21	49.53	119.42	-69.89	Peak
3	0.04	27.26	20.94	48.20	115.18	-66.98	Peak
4	0.08	23.78	19.73	43.51	109.97	-66.46	Peak
5	0.12	20.99	19.42	40.41	106.24	-65.83	Peak
6	0.13	20.08	17.17	37.25	105.16	-67.91	Peak

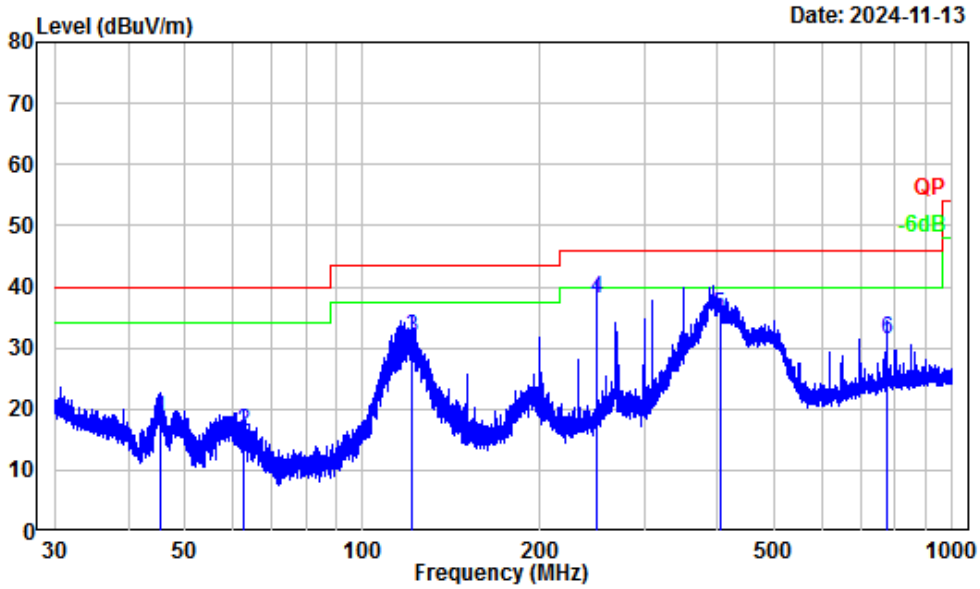
150kHz-30MHz_ANT2



Site : Chamber A
Condition : 3m
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.17	17.76	34.35	52.11	102.90	-50.79	Peak
2	0.43	7.66	36.13	43.79	94.86	-51.07	Peak
3	1.29	0.40	32.37	32.77	65.23	-32.46	Peak
4	4.17	-2.72	32.10	29.38	69.54	-40.16	Peak
5	11.61	-2.80	32.07	29.27	69.54	-40.27	Peak
6	22.39	-3.10	30.47	27.37	69.54	-42.17	Peak

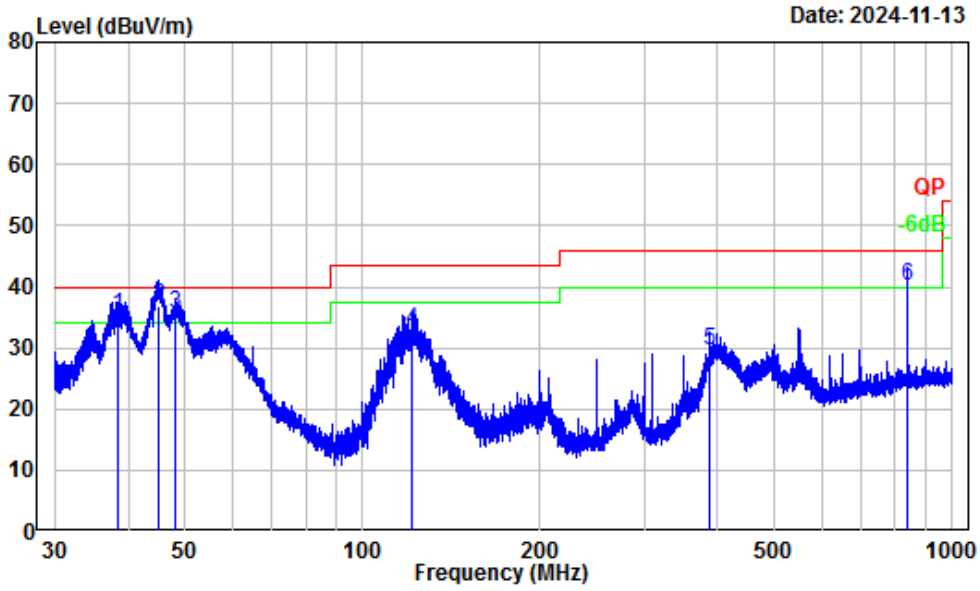
30MHz-1GHz_Horizontal_ANT2



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.32	-16.07	34.59	18.52	40.00	-21.48	QP
2	62.84	-18.11	34.44	16.33	40.00	-23.67	QP
3	121.39	-11.31	43.10	31.79	43.50	-11.71	QP
4	249.97	-13.09	51.04	37.95	46.00	-8.05	QP
5	403.25	-8.30	43.59	35.29	46.00	-10.71	QP
6	775.18	-2.47	33.86	31.39	46.00	-14.61	QP

30MHz-1GHz_Vertical_ANT2



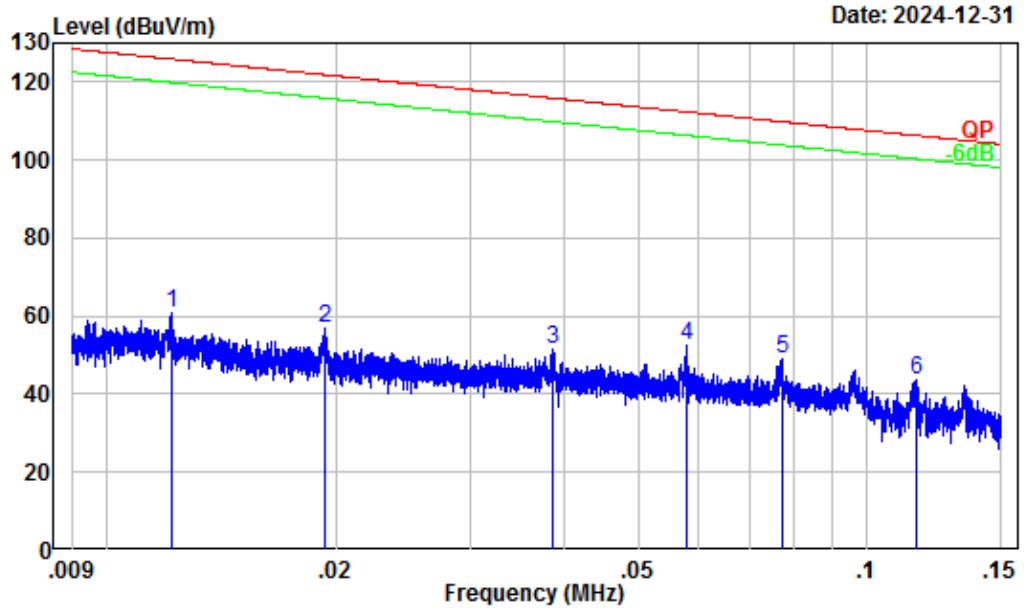
Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	38.45	-11.29	46.75	35.46	40.00	-4.54	QP
2	45.10	-15.94	52.87	36.93	40.00	-3.07	QP
3	47.99	-17.34	52.98	35.64	40.00	-4.36	QP
4	121.39	-11.31	44.13	32.82	43.50	-10.68	QP
5	387.65	-8.94	38.53	29.59	46.00	-16.41	QP
6	838.45	-1.82	41.91	40.09	46.00	-5.91	QP

For model J660 Pro

Worst Case is Adapter 2:

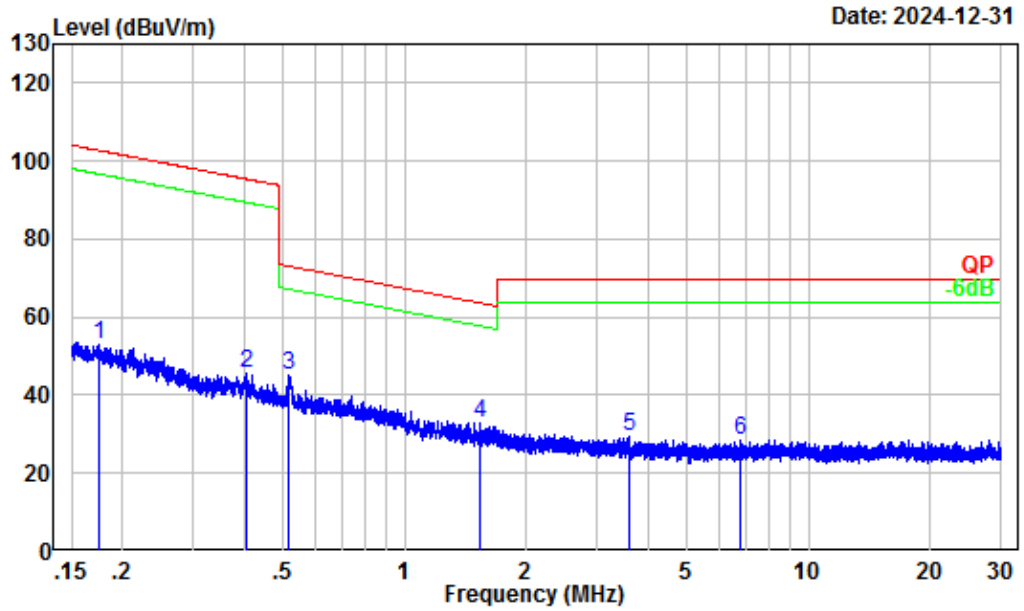
9kHz-150kHz



Site : Chamber A
Condition : 3m
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Setting QP RBW: 0.3KHz VBW:1KHz
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	31.89	29.09	60.98	125.91	-64.93	Peak
2	0.02	30.53	26.42	56.95	121.88	-64.93	Peak
3	0.04	27.60	23.79	51.39	115.87	-64.48	Peak
4	0.06	25.61	26.65	52.26	112.35	-60.09	Peak
5	0.08	23.68	25.29	48.97	109.86	-60.89	Peak
6	0.12	21.07	22.52	43.59	106.33	-62.74	Peak

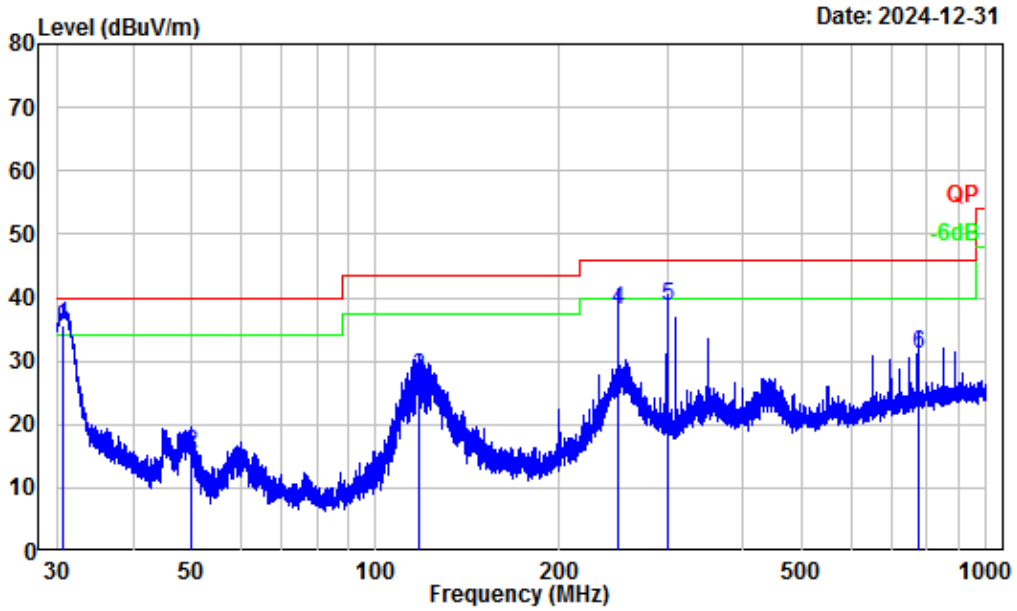
150kHz-30MHz



Site : Chamber A
Condition : 3m
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Setting QP RBW: 10KHz VBW:30KHz
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.18	17.51	35.33	52.84	102.69	-49.85	Peak
2	0.41	8.19	37.36	45.55	95.44	-49.89	Peak
3	0.52	6.19	38.85	45.04	73.32	-28.28	Peak
4	1.54	-0.30	33.21	32.91	63.66	-30.75	Peak
5	3.60	-2.48	32.15	29.67	69.54	-39.87	Peak
6	6.78	-2.94	31.58	28.64	69.54	-40.90	Peak

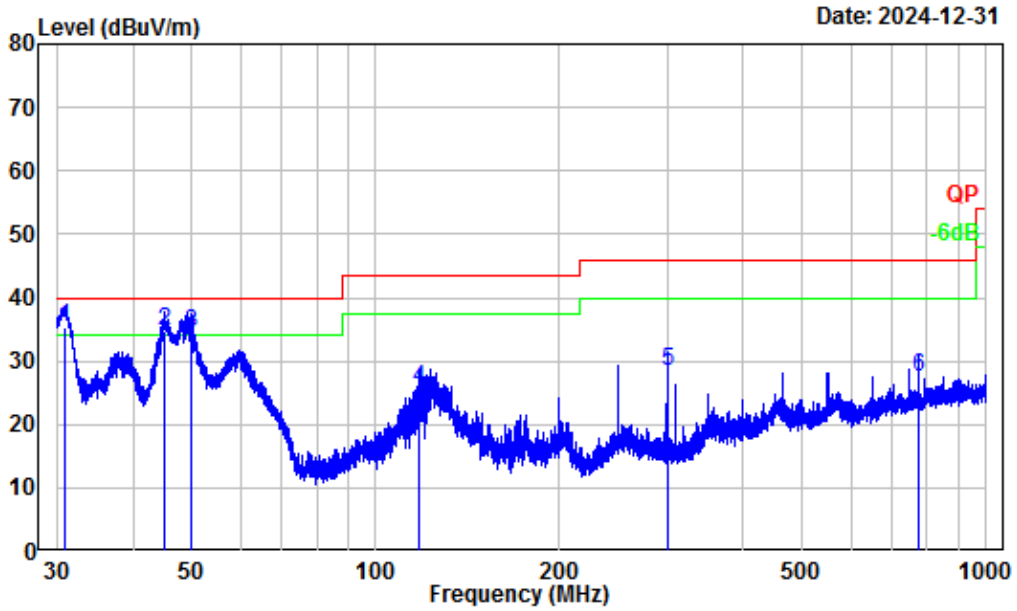
30MHz-1GHz_Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Setting QP RBW: 120KHz
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.65	-6.30	41.87	35.57	40.00	-4.43	QP
2	49.97	-17.91	33.39	15.48	40.00	-24.52	QP
3	117.41	-11.75	39.37	27.62	43.50	-15.88	QP
4	249.97	-13.09	51.24	38.15	46.00	-7.85	QP
5	299.97	-11.20	49.73	38.53	46.00	-7.47	QP
6	775.18	-2.47	33.67	31.20	46.00	-14.80	QP

30MHz-1GHz_Vertical



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y99992E-RF
Test Mode : Transmitting
Setting QP RBW: 120KHz
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.92	-6.43	41.76	35.33	40.00	-4.67	QP
2	45.06	-15.92	50.52	34.60	40.00	-5.40	QP
3	49.99	-17.92	52.41	34.49	40.00	-5.51	QP
4	118.08	-11.67	37.32	25.65	43.50	-17.85	QP
5	299.97	-11.20	39.63	28.43	46.00	-17.57	QP
6	775.18	-2.47	30.06	27.59	46.00	-18.41	QP

Above 1GHz:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave					
ANT1							
Low Channel							
4804	54.36	PK	H	2.42	56.78	74	-17.22
4804	53.19	PK	V	2.42	55.61	74	-18.39
Middle Channel							
4882	52.27	PK	H	2.58	54.85	74	-19.15
4882	51.04	PK	V	2.58	53.62	74	-20.38
High Channel							
4960	50.48	PK	H	2.68	53.16	74	-20.84
4960	49.25	PK	V	2.68	51.93	74	-22.07
ANT2							
Low Channel							
4804	66.8	PK	H	2.42	69.22	74	-4.78
4804	65.33	PK	V	2.42	67.75	74	-6.25
Middle Channel							
4882	63.09	PK	H	2.58	65.67	74	-8.33
4882	61.56	PK	V	2.58	64.14	74	-9.86
High Channel							
4960	63.72	PK	H	2.68	66.4	74	-7.60
4960	62.25	PK	V	2.68	64.93	74	-9.07

Note:
Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Factor + Reading
Margin = Corrected. Amplitude - Limit
The other spurious emission which is in the noise floor level was not recorded.

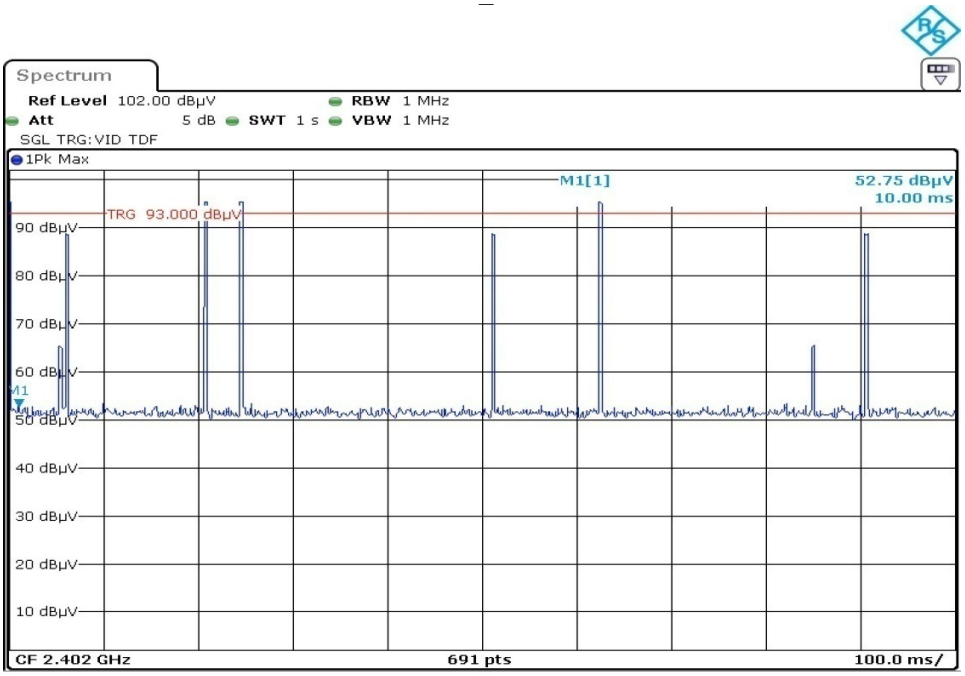
Field Strength of Average							
Frequency (MHz)	**Peak Measurement @3m (dBμV/m)**	**Polar (H/V)**	**Duty Cycle Correction Factor (dB)**	**Average Level (dBμV/m)**	**Limit (dBμV/m)**	**Margin (dB)**	**Comment**
ANT1							
Low Channel							
4804	56.78	H	-24.73	32.05	54	-21.95	Harmonic
4804	55.61	V	-24.73	30.88	54	-23.12	Harmonic
Middle Channel							
4882	54.85	H	-24.73	30.12	54	-23.88	Harmonic
4882	53.62	V	-24.73	28.89	54	-25.11	Harmonic
High Channel							
4960	53.16	H	-24.73	28.43	54	-25.57	Harmonic
4960	51.93	V	-24.73	27.2	54	-26.8	Harmonic
ANT2							
Low Channel							
4804	69.22	H	-24.73	44.49	54	-9.51	Harmonic
4804	67.75	V	-24.73	43.02	54	-10.98	Harmonic
Middle Channel							
4882	65.67	H	-24.73	40.94	54	-13.06	Harmonic
4882	64.14	V	-24.73	39.41	54	-14.59	Harmonic
High Channel							
4960	66.4	H	-24.73	41.67	54	-12.33	Harmonic
4960	64.93	V	-24.73	40.2	54	-13.8	Harmonic

Note: Average level= Peak level + Duty Cycle Corrected Factor

Worst case duty cycle:
Duty cycle = Ton/100ms = 2.899*2/100=0.05798
Duty Cycle Corrected Factor = 20lg (Duty cycle) = 20lg0.05798 = -24.73

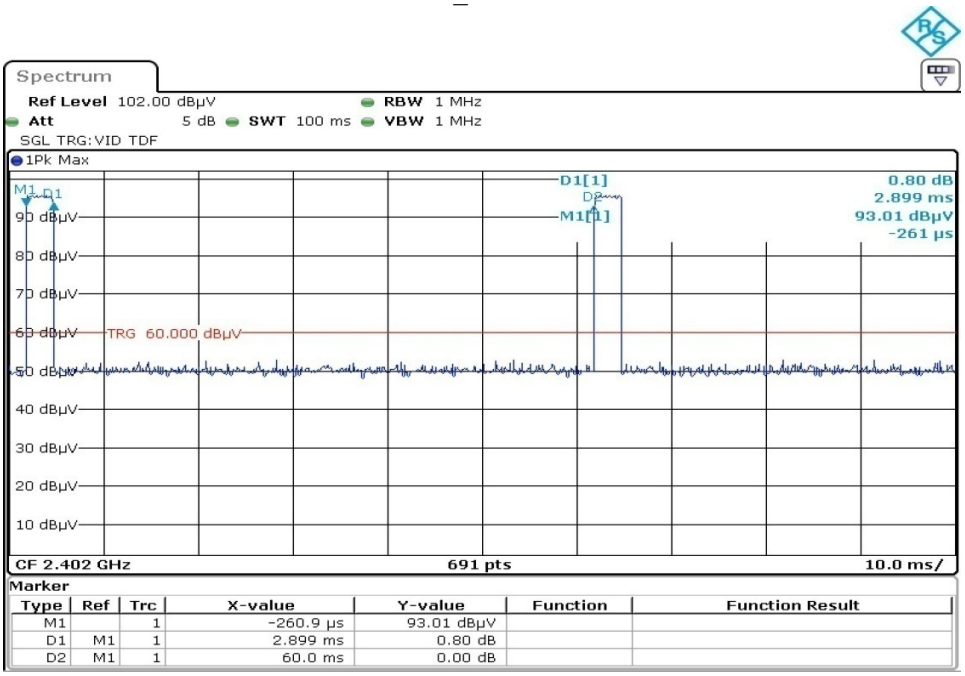
ANT1

BT_1s



ProjectNo.:2401Y99992E-RF Tester:Zenos Qiao
Date: 21.NOV.2024 05:27:56

BT_100ms



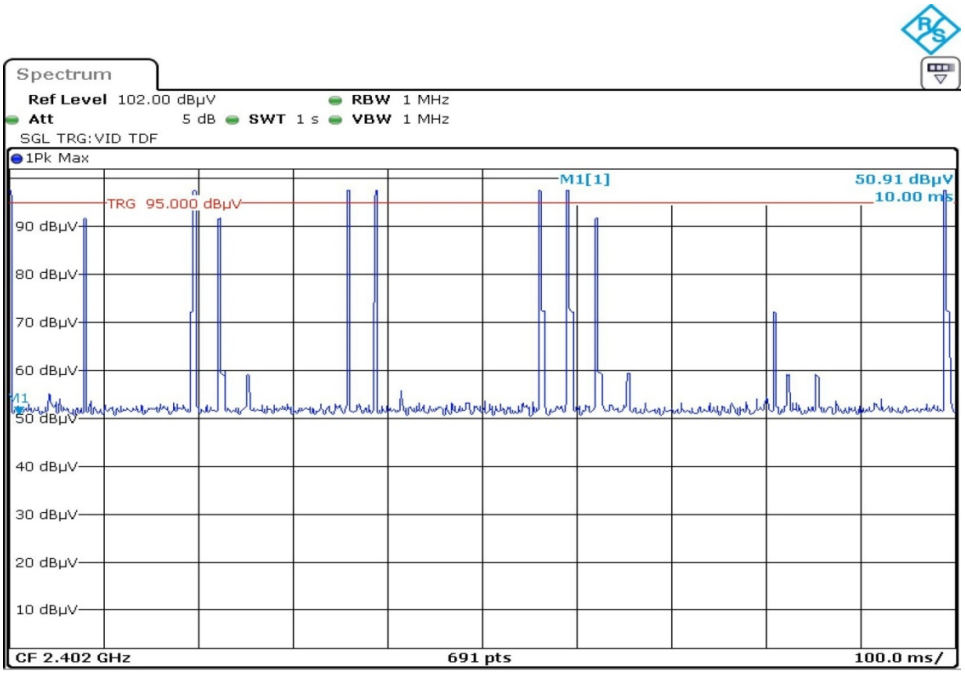
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	-260.9 µs	93.01 dBµV		
D1	M1	1	2.899 ms	0.80 dB		
D2	M1	1	60.0 ms	0.00 dB		

ProjectNo.:2401Y99992E-RF Tester:Zenos Qiao
Date: 21.NOV.2024 05:30:13

ANT2

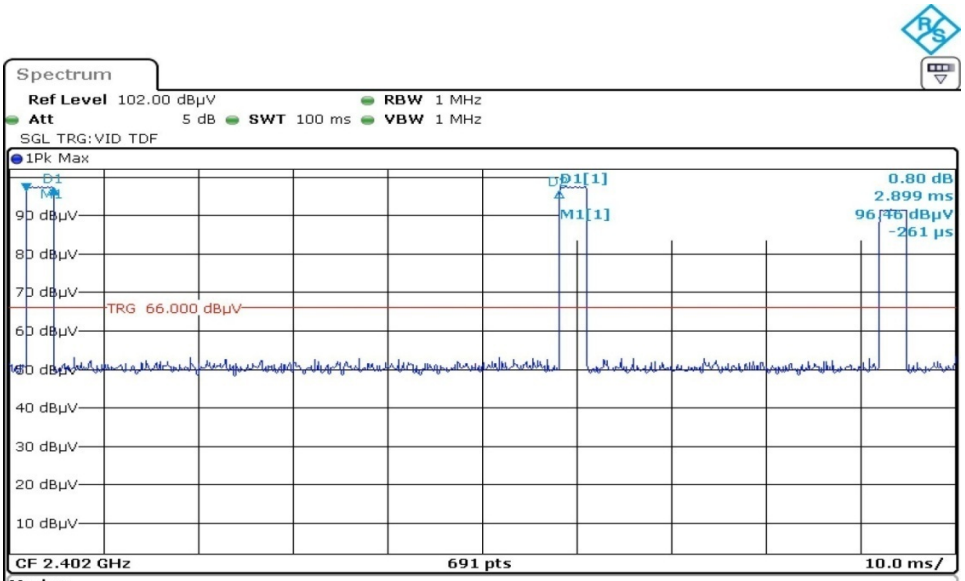
BT-1s



ProjectNo.:2401Y99992E-RF Tester:Zenos Qiao

Date: 24.NOV.2024 05:42:31

BT-100ms



Marker

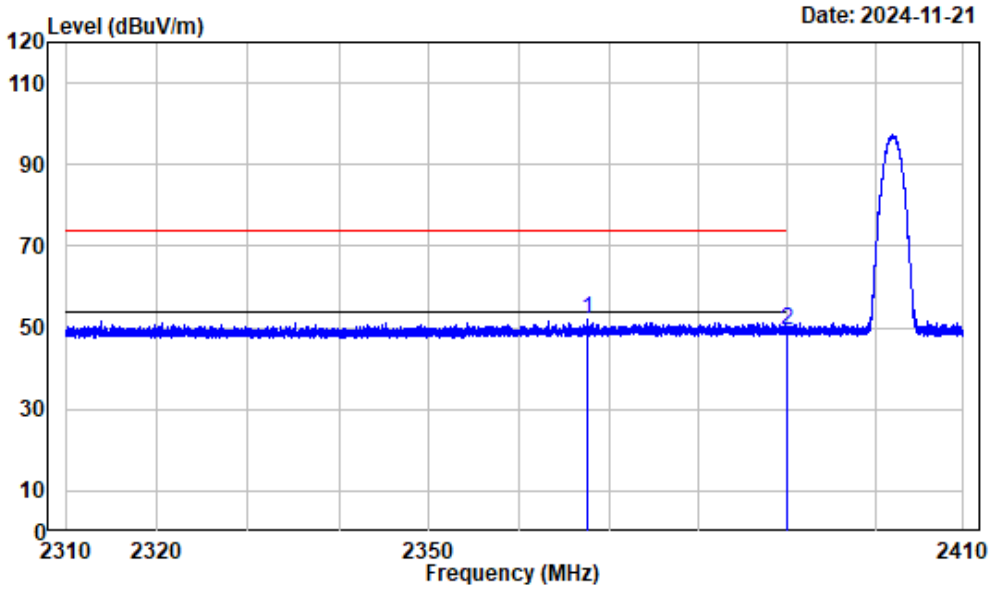
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	-260.9 µs	96.46 dBµV		
D1	M1	1	2.899 ms	0.80 dB		
D2	M1	1	56.377 ms	0.00 dB		

ProjectNo.:2401Y99992E-RF Tester:Zenos Qiao

Date: 24.NOV.2024 05:44:16

Test plots

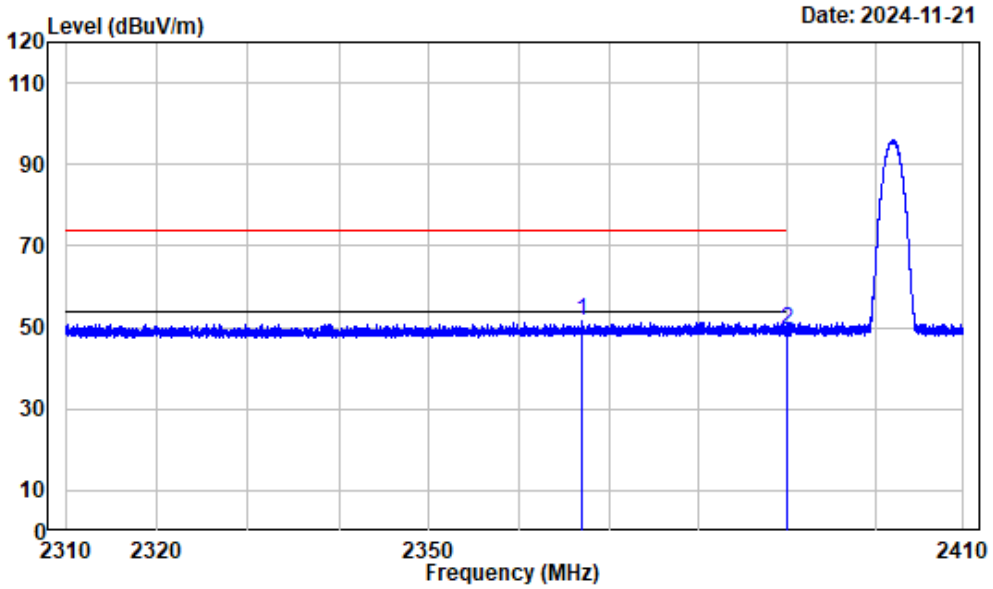
Left Band edge_Horizontal_ANT1



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2367.682	-3.17	55.04	51.87	74.00	-22.13	Peak
2	2390.000	-3.20	52.69	49.49	74.00	-24.51	Peak

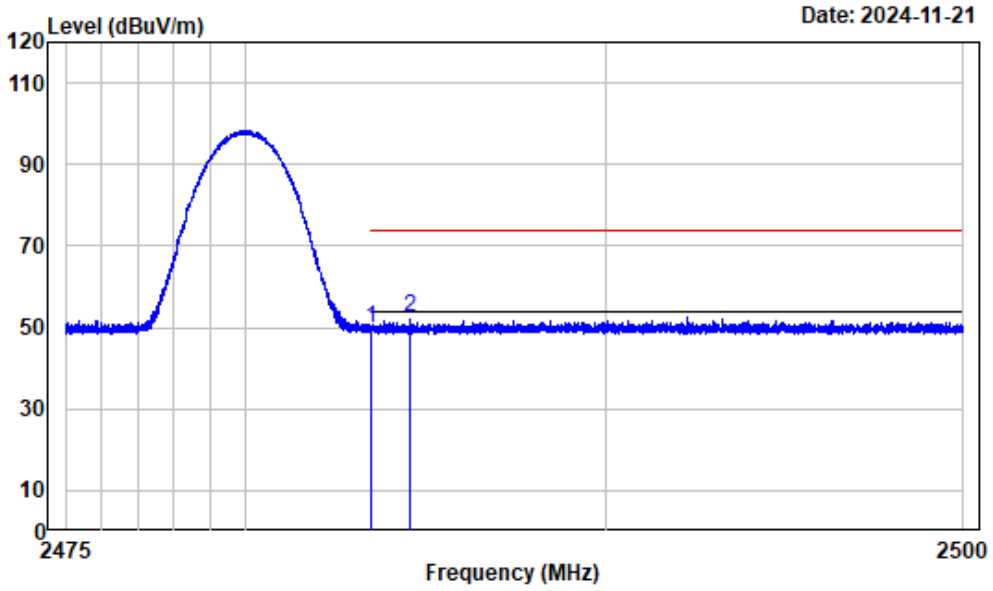
Left Band edge_Vertical_ANT1



Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2367.020	-3.16	54.67	51.51	74.00	-22.49	Peak
2	2390.000	-3.20	52.50	49.30	74.00	-24.70	Peak

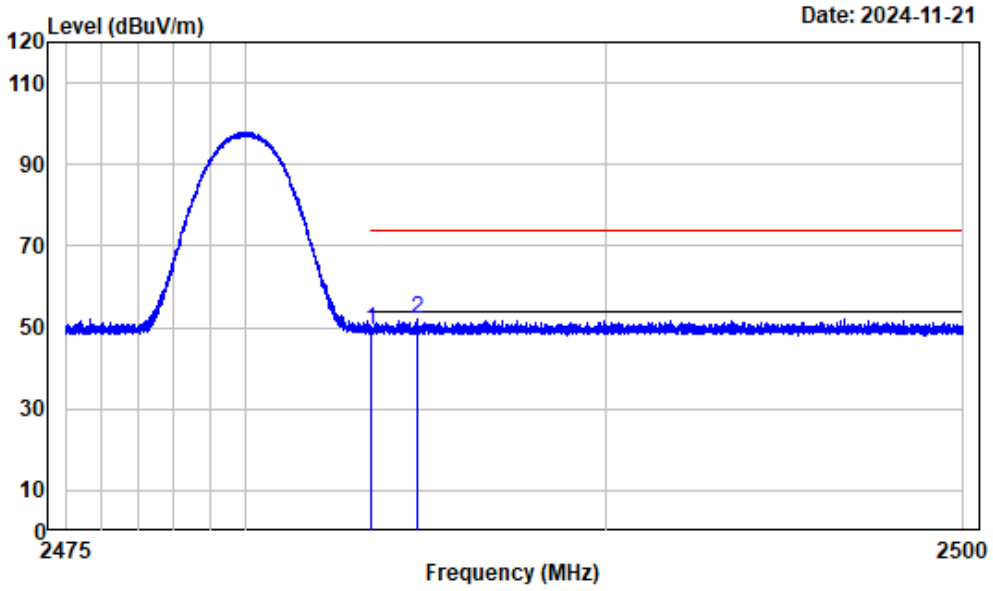
Right Band edge_Horizontal_ANT1



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	52.95	49.78	74.00	-24.22	Peak
2	2484.564	-3.17	55.53	52.36	74.00	-21.64	Peak

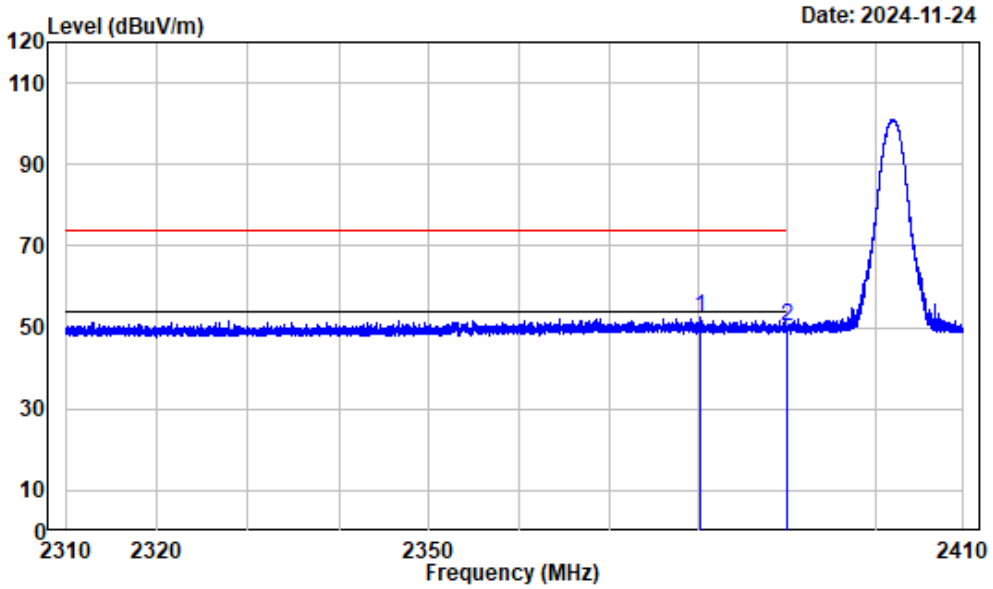
Right Band edge_Vertical_ANT1



Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	52.60	49.43	74.00	-24.57	Peak
2	2484.770	-3.17	55.16	51.99	74.00	-22.01	Peak

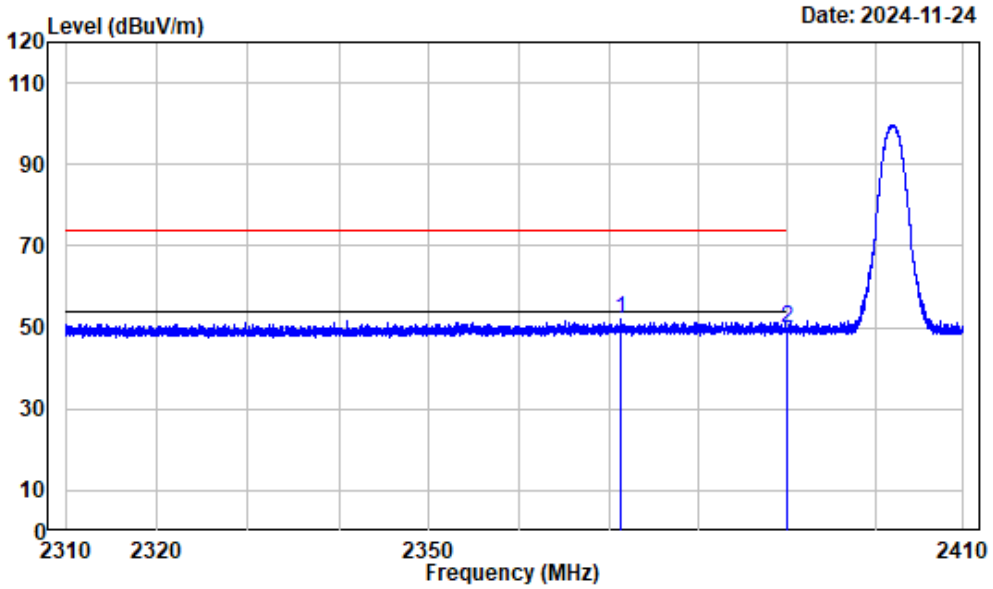
Left Band edge_Horizontal_ANT2



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2380.359	-3.19	55.51	52.32	74.00	-21.68	Peak
2	2390.000	-3.20	53.60	50.40	74.00	-23.60	Peak

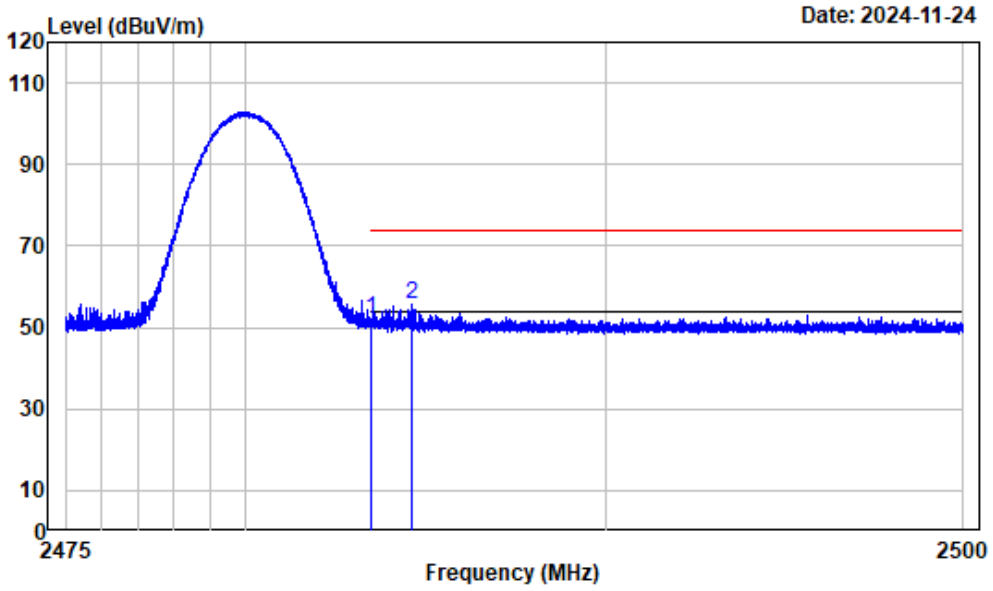
Left Band edge_Vertical_ANT2



Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2371.408	-3.17	55.16	51.99	74.00	-22.01	Peak
2	2390.000	-3.20	53.07	49.87	74.00	-24.13	Peak

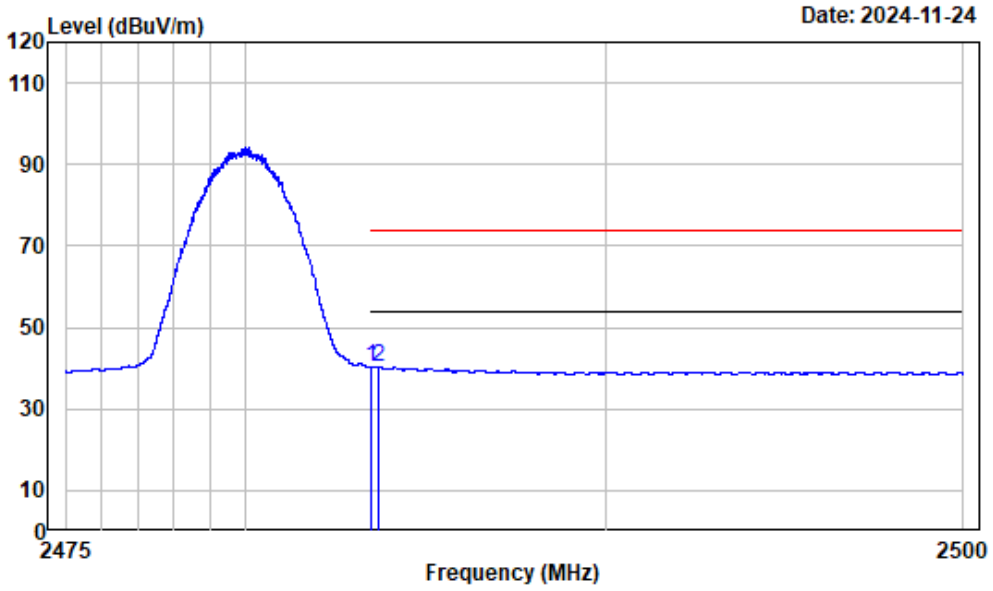
Right Band edge_Horizontal _Peak_ANT2



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	55.03	51.86	74.00	-22.14	Peak
2	2484.635	-3.17	58.66	55.49	74.00	-18.51	Peak

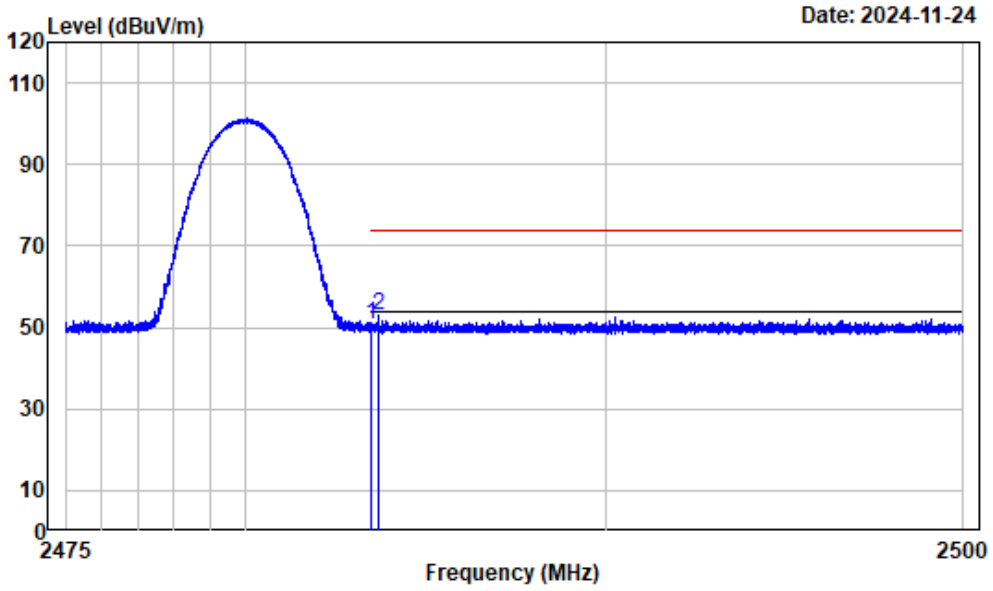
Right Band edge_Horizontal_Average_ANT2



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	43.38	40.21	54.00	-13.79	Average
2	2483.701	-3.17	43.65	40.48	54.00	-13.52	Average

Right Band edge_Vertical_ANT2

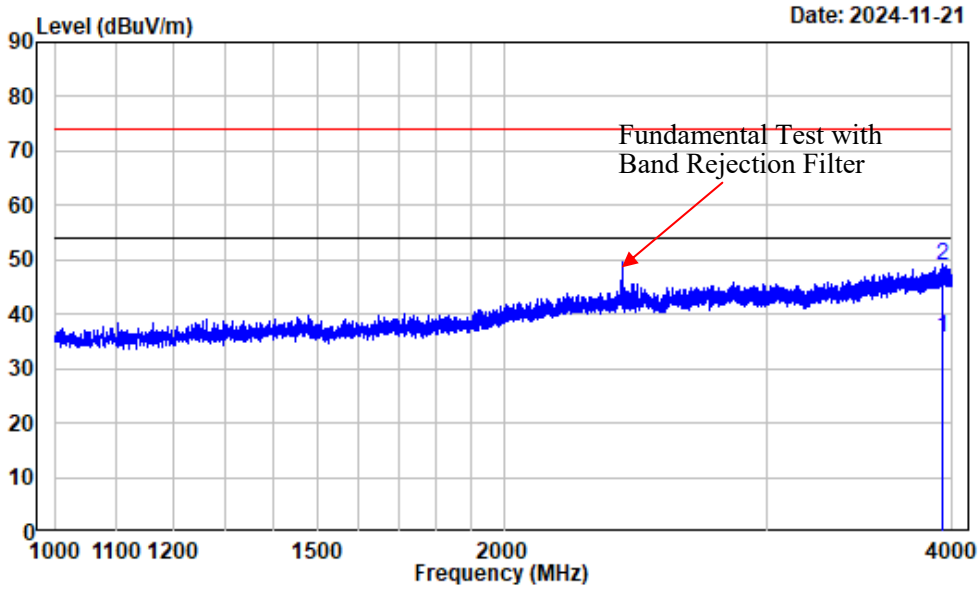


Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	53.72	50.55	74.00	-23.45	Peak
2	2483.707	-3.17	56.15	52.98	74.00	-21.02	Peak

Listed with the worst harmonic margin test plot:

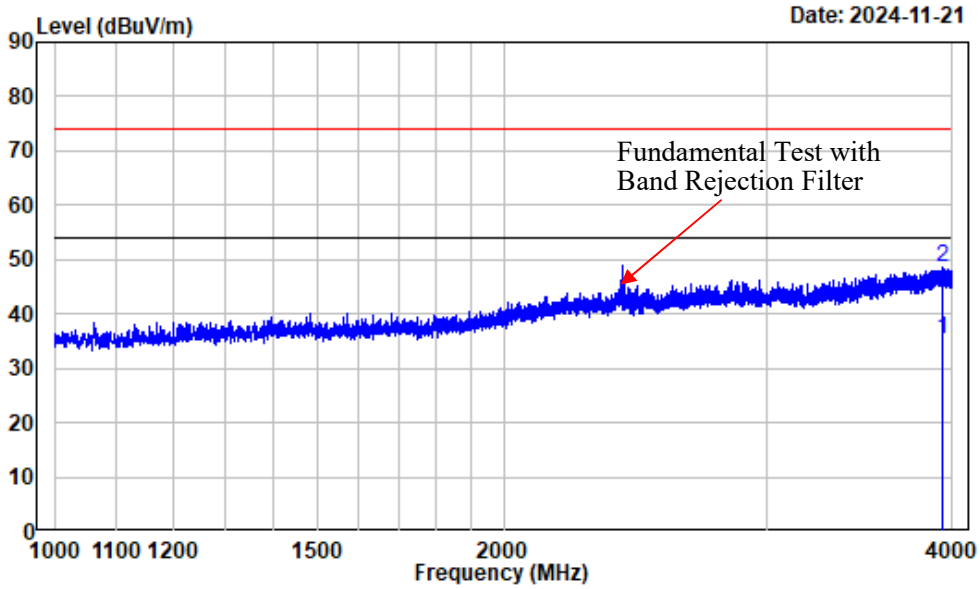
1-4GHz_Horizontal_ANT1



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3937.742	-0.25	35.77	35.52	54.00	-18.48	Average
2	3937.742	-0.25	49.03	48.78	74.00	-25.22	Peak

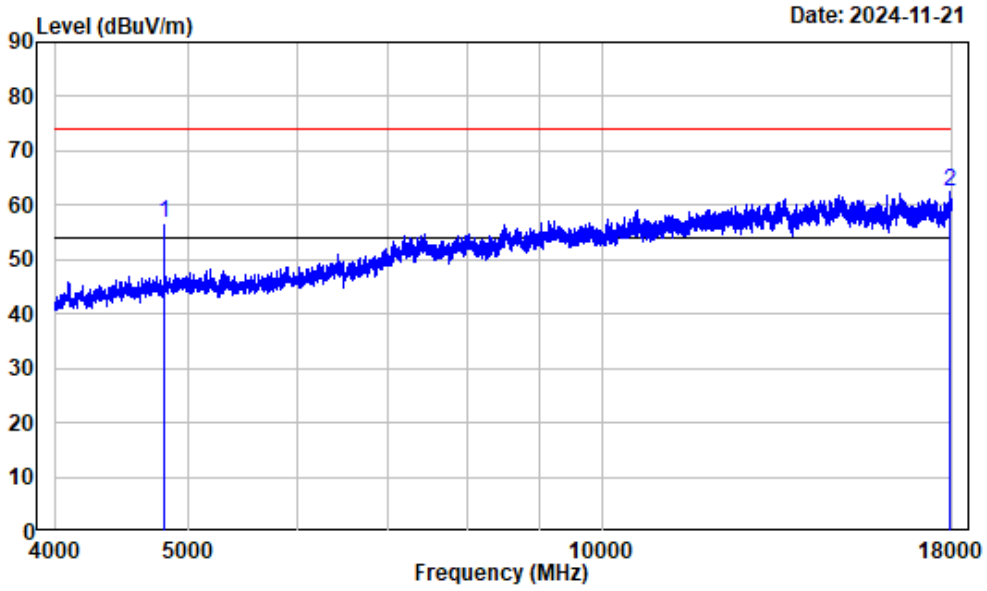
1-4GHz_Vertical_ANT1



Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3935.117	-0.28	35.53	35.25	54.00	-18.75	Average
2	3935.117	-0.28	48.70	48.42	74.00	-25.58	Peak

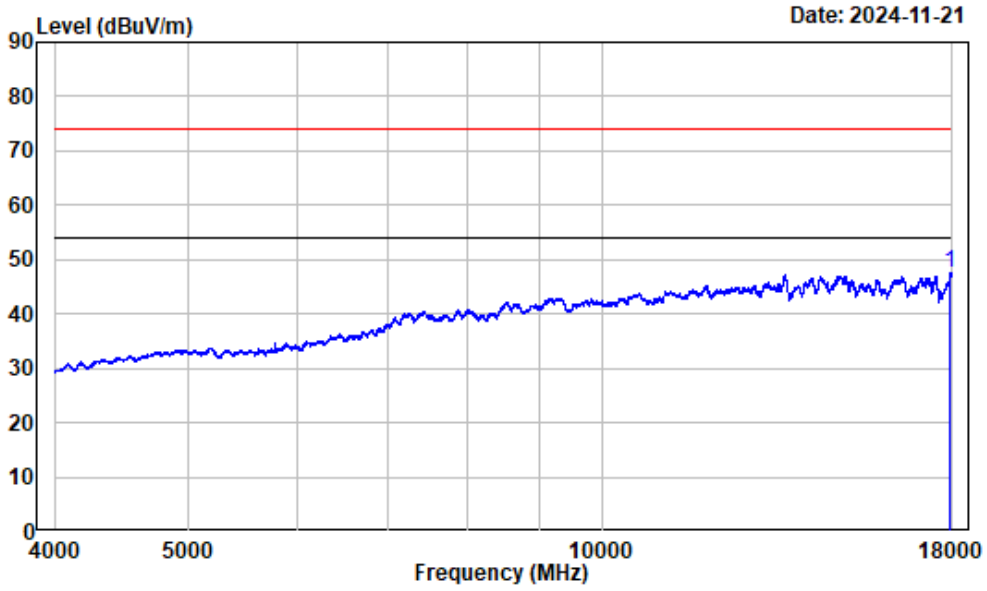
4-18GHz_Horizontal_Peak_ANT1



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4804.000	2.42	54.36	56.78	74.00	-17.22	Peak
2	17938.740	24.18	38.30	62.48	74.00	-11.52	Peak

4-18GHz_Horizontal_Average_ANT1

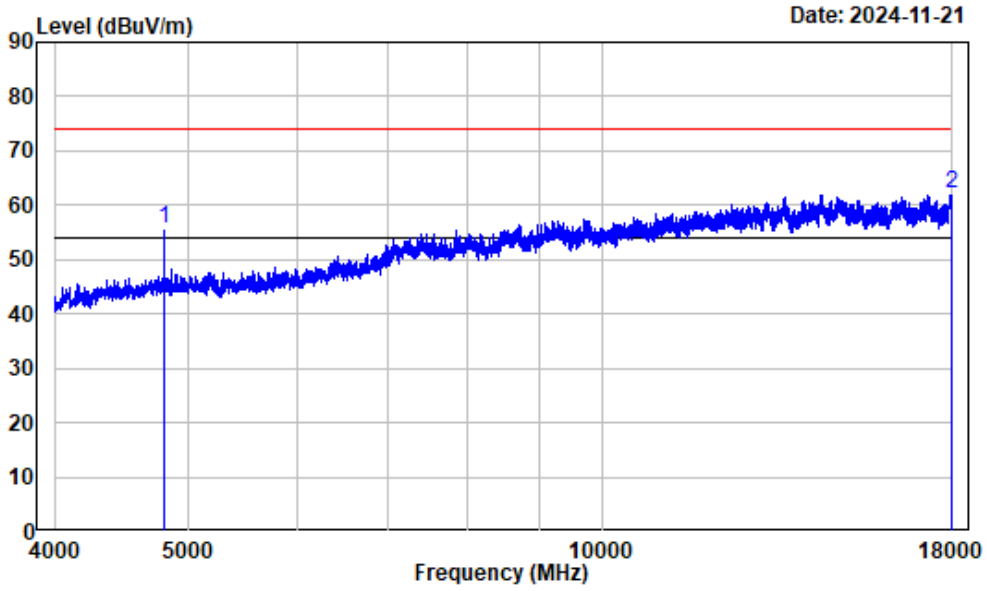


Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17950.990	24.28	23.37	47.65	54.00	-6.35	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

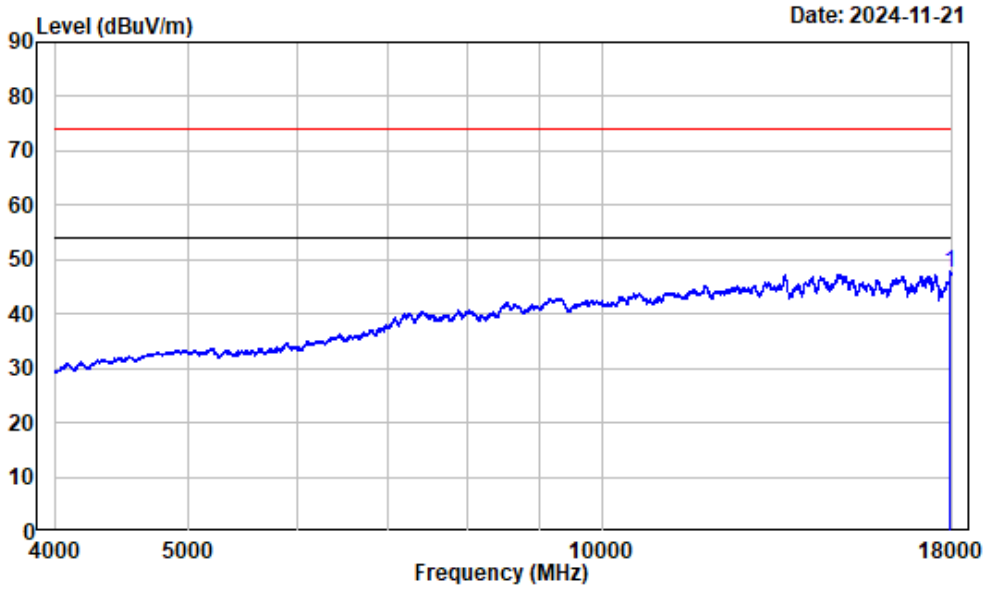
4-18GHz_Vertical_Peak_ANT1



Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4804.000	2.42	53.19	55.61	74.00	-18.39	Peak
2	18000.000	24.62	37.44	62.06	74.00	-11.94	Peak

4-18GHz_Vertical_Average_ANT1

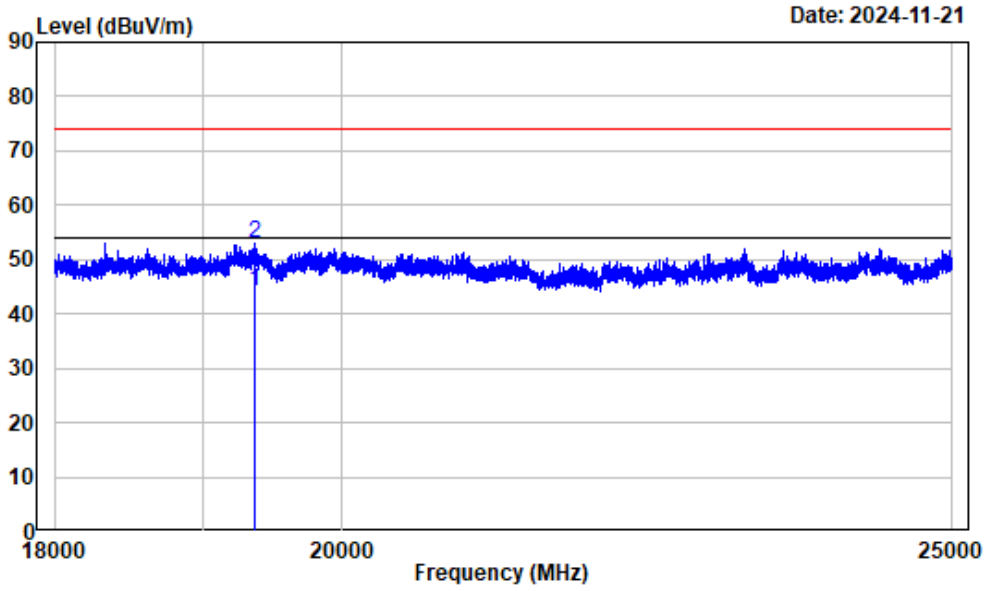


Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17954.490	24.30	23.10	47.40	54.00	-6.60	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

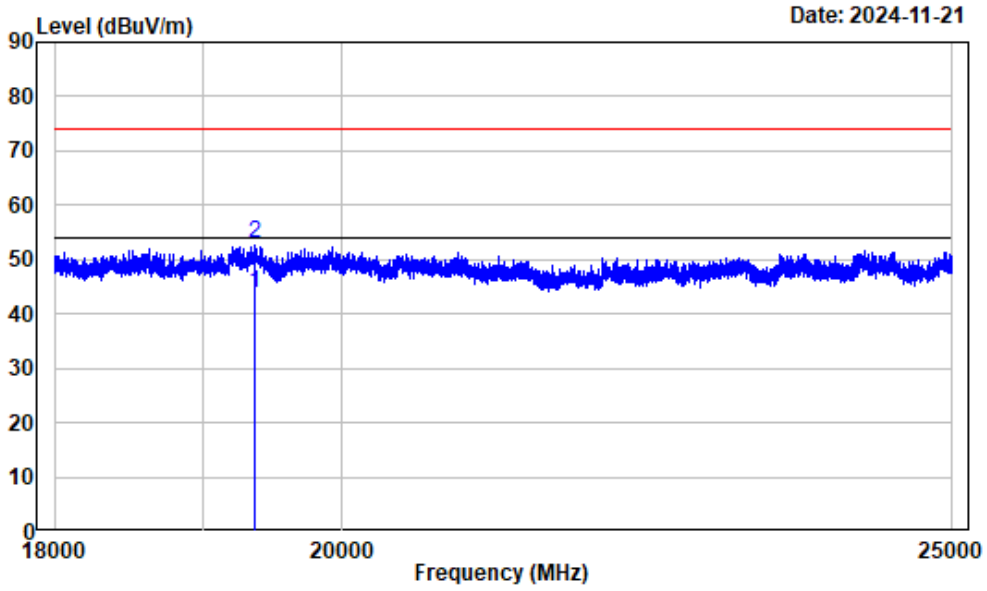
18-25GHz_Horizontal_ANT1



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19373.050	15.11	28.88	43.99	54.00	-10.01	Average
2	19373.050	15.11	37.92	53.03	74.00	-20.97	Peak

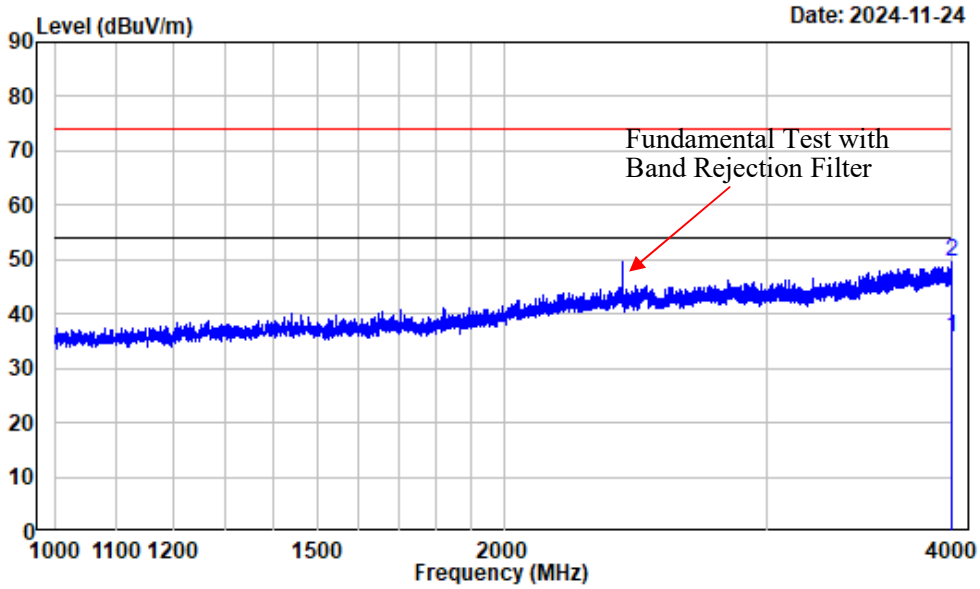
18-25GHz_Vertical_ANT1



Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19364.290	15.12	28.58	43.70	54.00	-10.30	Average
2	19364.290	15.12	37.70	52.82	74.00	-21.18	Peak

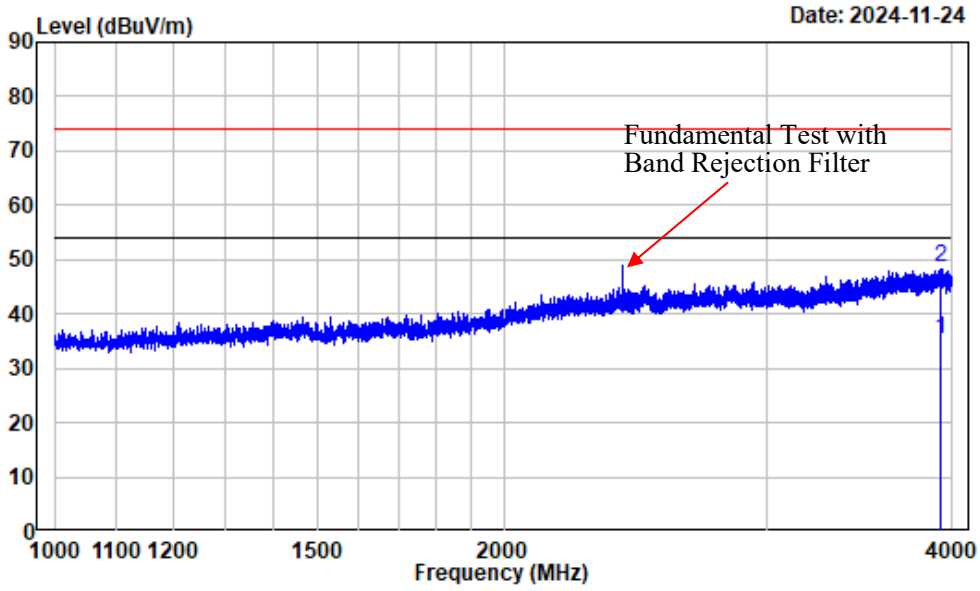
1-4GHz_Horizontal_ANT2



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3994.749	-0.20	35.87	35.67	54.00	-18.33	Average
2	3994.749	-0.20	49.73	49.53	74.00	-24.47	Peak

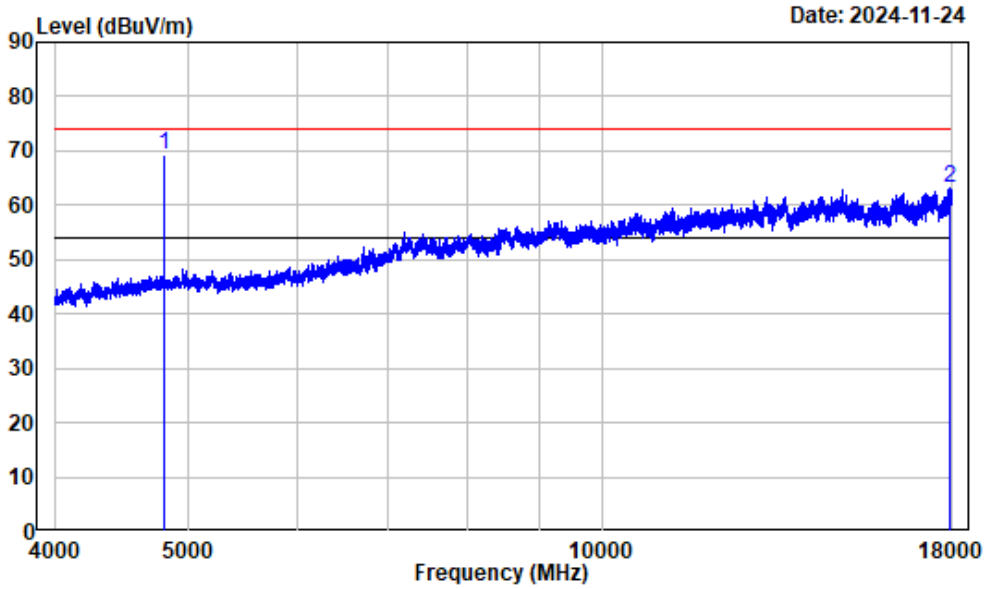
1-4GHz_Vertical_ANT2



Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3926.116	-0.33	35.66	35.33	54.00	-18.67	Average
2	3926.116	-0.33	49.02	48.69	74.00	-25.31	Peak

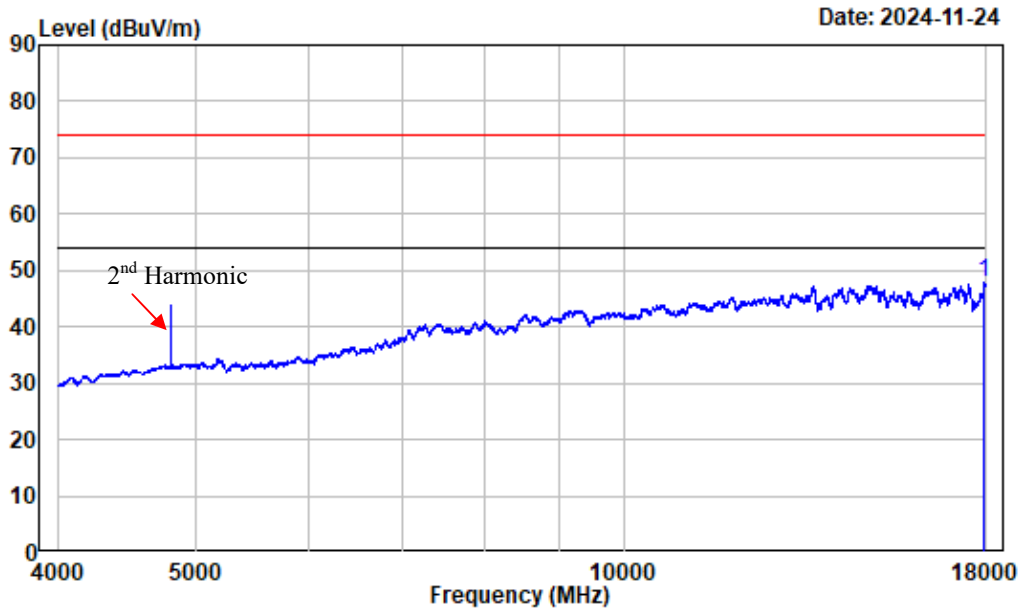
4-18GHz_Horizontal_Peak_ANT2



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4804.000	2.42	66.80	69.22	74.00	-4.78	Peak
2	17929.990	24.12	38.95	63.07	74.00	-10.93	Peak

4-18GHz_Horizontal_Average_ANT2

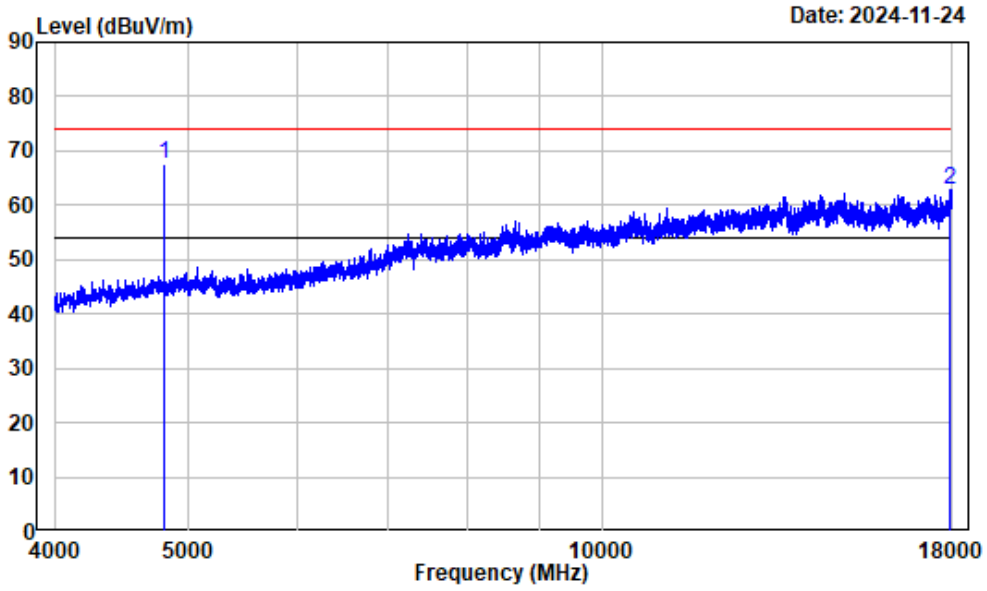


Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17942.240	24.21	23.68	47.89	54.00	-6.11	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

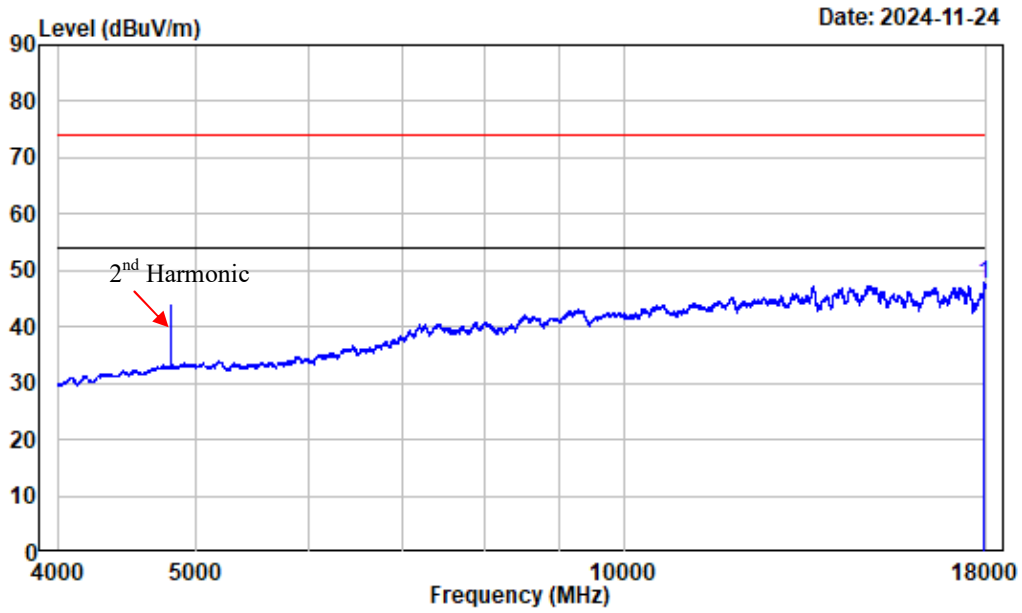
4-18GHz_Vertical_Peak_ANT2



Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4804.000	2.42	65.33	67.75	74.00	-6.25	Peak
2	17940.490	24.19	38.77	62.96	74.00	-11.04	Peak

4-18GHz_Vertical_Average_ANT2

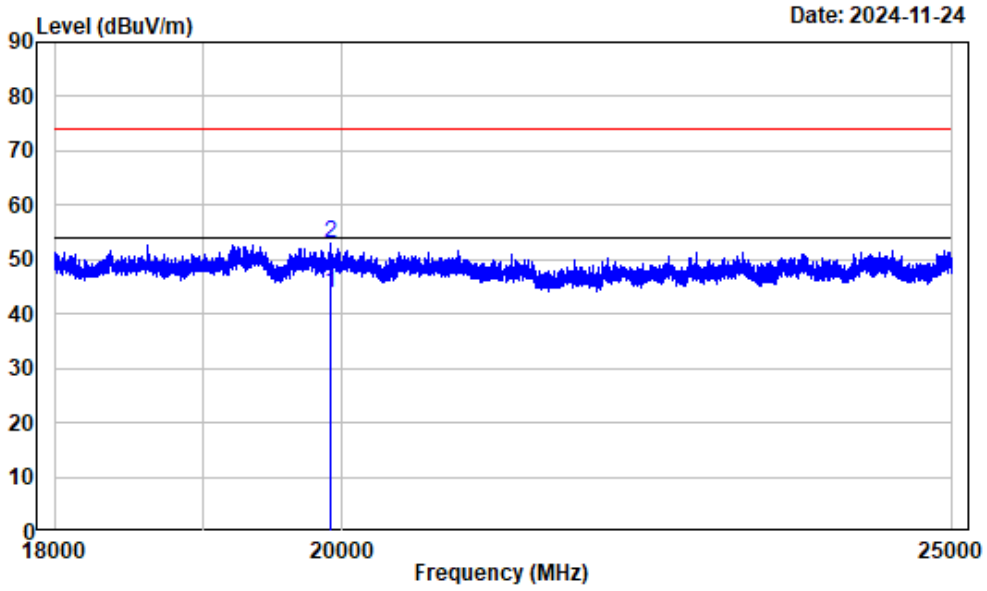


Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17943.990	24.22	23.42	47.64	54.00	-6.36	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

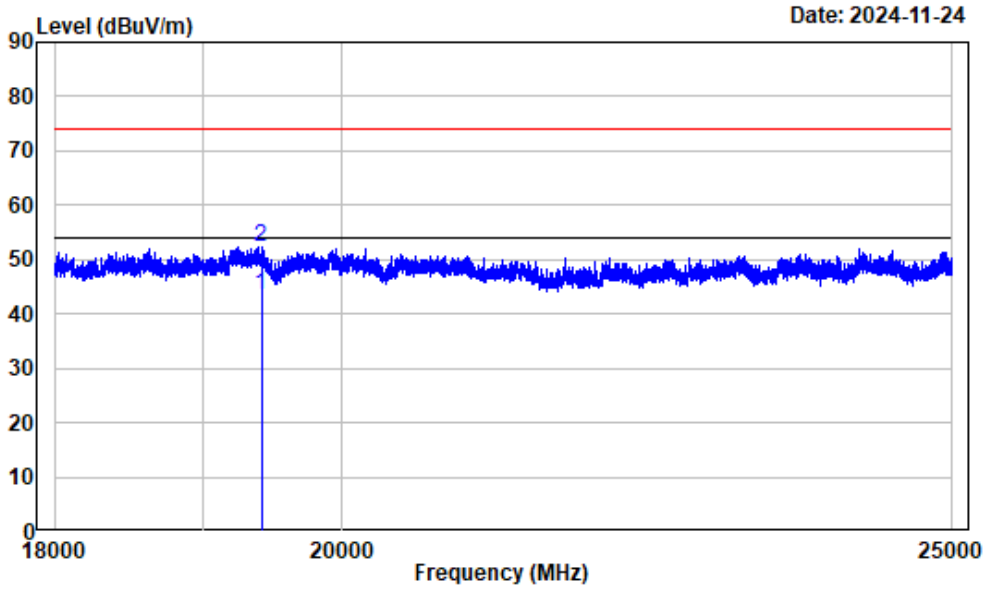
18-25GHz_Horizontal_ANT2



Condition : Horizontal
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19910.360	15.42	28.44	43.86	54.00	-10.14	Average
2	19910.360	15.42	37.50	52.92	74.00	-21.08	Peak

18-25GHz_Vertical_ANT2



Condition : Vertical
Project No.: 2401Y99992E-RF
Tester : Zenos Qiao
Note : BT-3DH5-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19414.180	15.10	28.28	43.38	54.00	-10.62	Average
2	19414.180	15.10	37.11	52.21	74.00	-21.79	Peak

20 dB Emission Bandwidth

Test Information:

Sample No.:	2T2R-3	**Test Date:**	2024/11/09~2024/11/15
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Rainbow Zhu	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	25~26	**Relative Humidity: (%)**	42~58	**ATM Pressure: (kPa)**	101

Test Data:

Chain 0

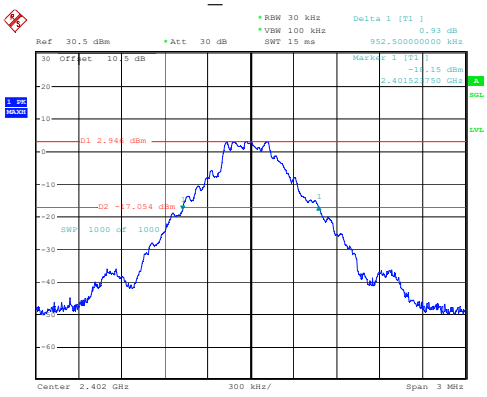
Mode	Channel	Result (MHz)
DH1	Low Channel	0.953
	Middle Channel	0.956
	High Channel	0.953
2DH1	Low Channel	1.316
	Middle Channel	**1.320**
	High Channel	**1.320**
3DH1	Low Channel	1.286
	Middle Channel	1.286
	High Channel	1.290

Chain 1

Mode	Channel	Result (MHz)
DH1	Low Channel	0.938
	Middle Channel	0.938
	High Channel	0.938
2DH1	Low Channel	1.271
	Middle Channel	1.290
	High Channel	**1.294**
3DH1	Low Channel	1.241
	Middle Channel	1.241
	High Channel	1.241

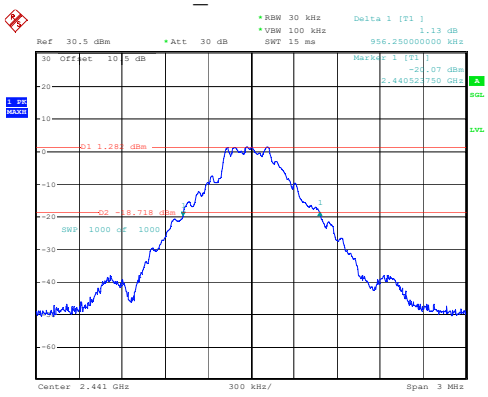
Chain 0

DH1_Low 0.953MHz



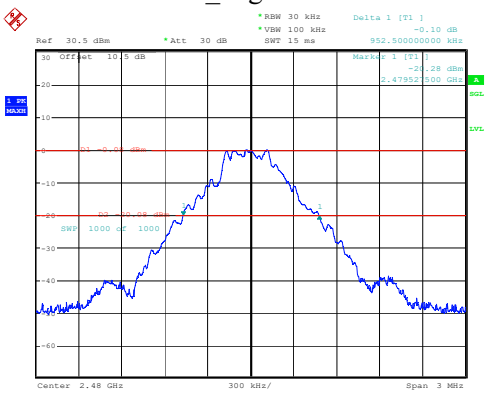
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:42:03

DH1_Middle 0.956MHz



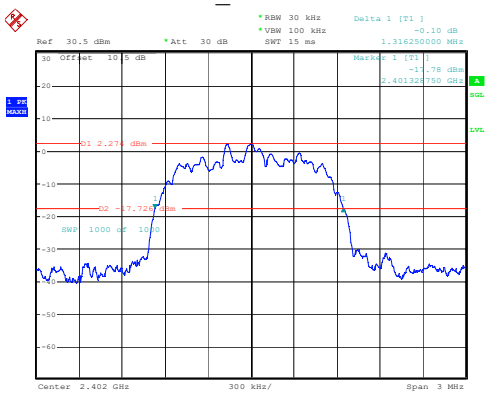
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:44:17

DH1_High 0.953MHz



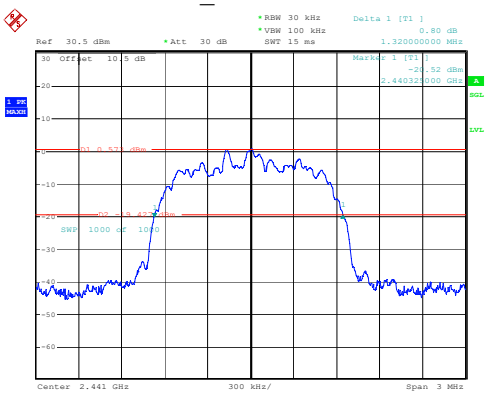
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:46:17

2DH1_Low 1.316MHz



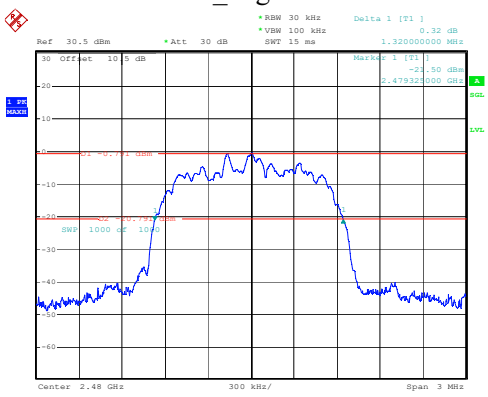
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:48:27

2DH1_Middle 1.320MHz



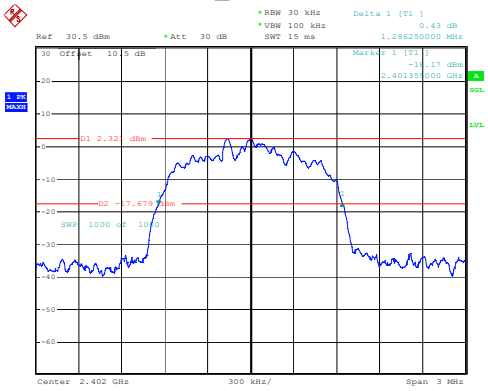
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:50:33

2DH1_High 1.320MHz



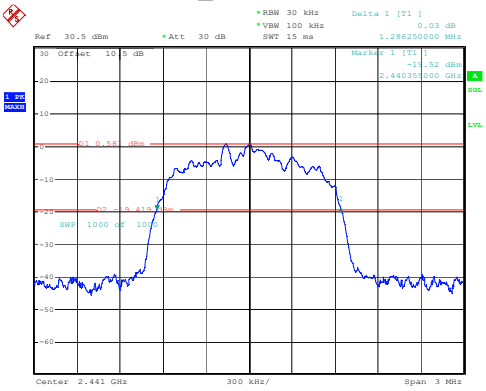
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:52:29

3DH1_Low 1.286MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:54:34

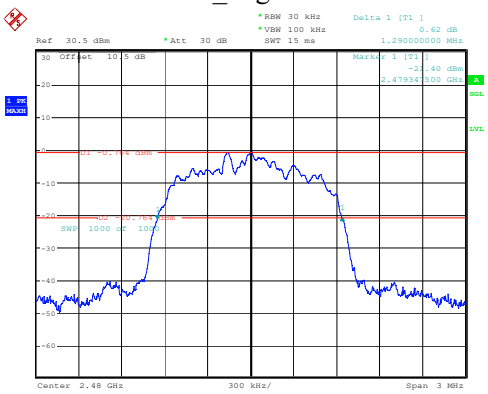
3DH1_Middle 1.286MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:56:36

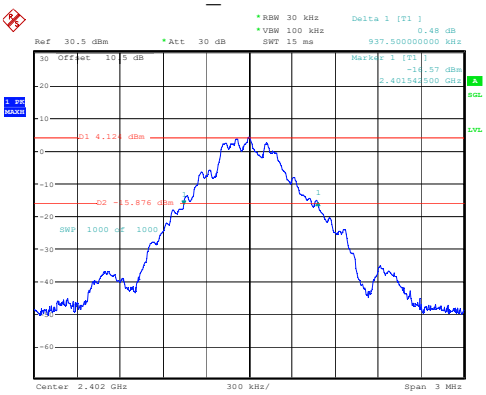
Chain 1

3DH1_High 1.290MHz



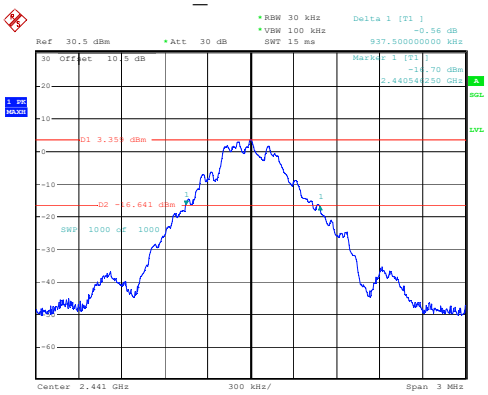
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:58:59

DH1_Low 0.938MHz



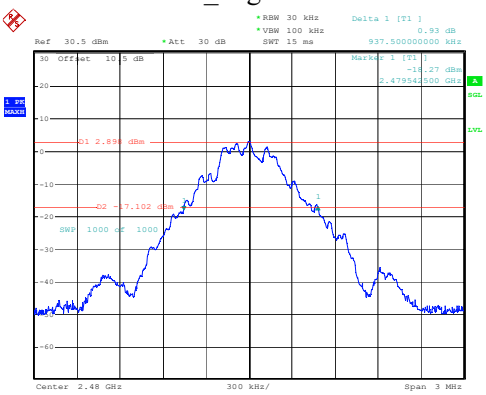
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 03:59:38

DH1_Middle 0.938MHz



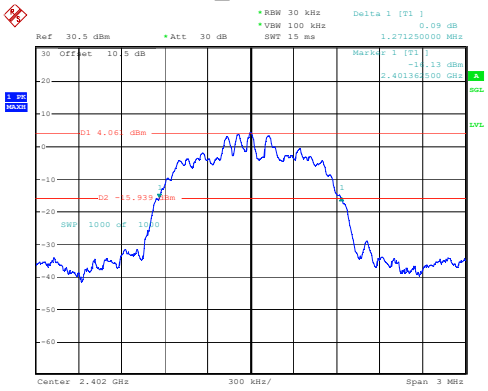
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 04:00:33

DH1_High 0.938MHz



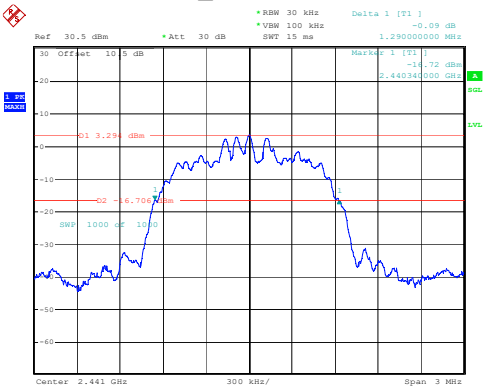
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:03:10

2DH1_Low 1.271MHz



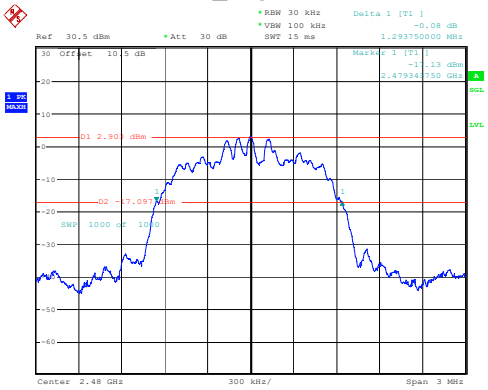
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:04:16

2DH1_Middle 1.290MHz



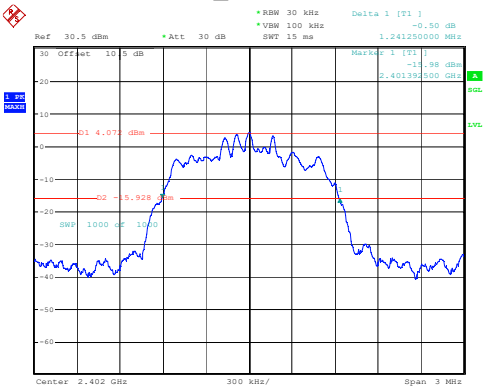
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:05:05

2DH1_High 1.294MHz



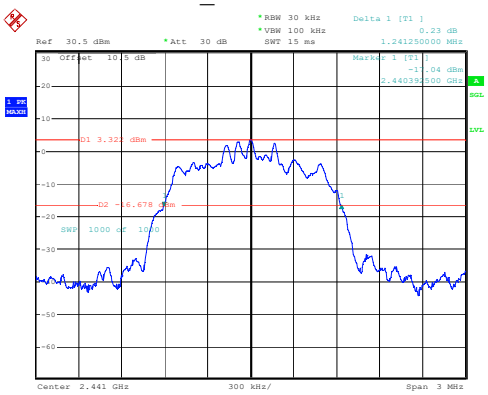
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:05:54

3DH1_Low 1.241MHz



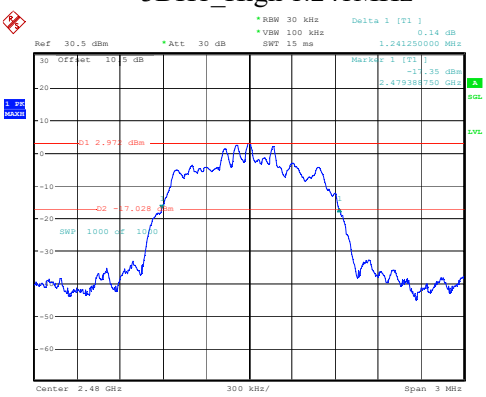
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:06:59

3DH1_Middle 1.241MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:07:55

3DH1_High 1.241MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:08:38

99% Occupied Bandwidth

Test Information:

Sample No.:	2T2R-3	**Test Date:**	2024/11/08~2024/11/15
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Rainbow Zhu	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	25~26	**Relative Humidity: (%)**	42~58	**ATM Pressure: (kPa)**	101

Test Data:

Chain 0

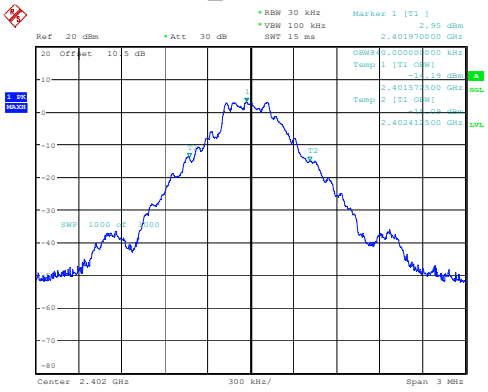
Mode	Channel	99% OBW (MHz)
DH1	Low Channel	0.840
	Middle Channel	0.836
	High Channel	0.836
2DH1	Low Channel	**1.193**
	Middle Channel	1.185
	High Channel	1.181
3DH1	Low Channel	1.174
	Middle Channel	1.166
	High Channel	1.170

Chain 1

Mode	Channel	99% OBW (MHz)
DH1	Low Channel	0.840
	Middle Channel	0.840
	High Channel	0.840
2DH1	Low Channel	**1.159**
	Middle Channel	**1.159**
	High Channel	**1.159**
3DH1	Low Channel	1.148
	Middle Channel	1.144
	High Channel	1.144

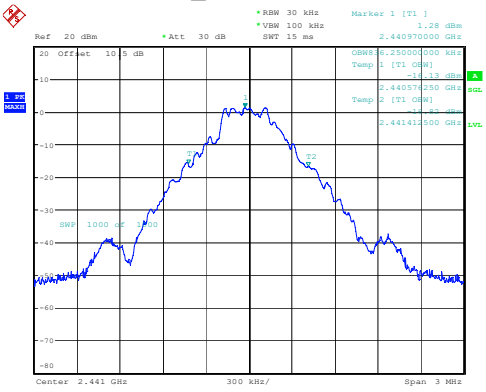
Chain 0

DH1_Low 0.840MHz



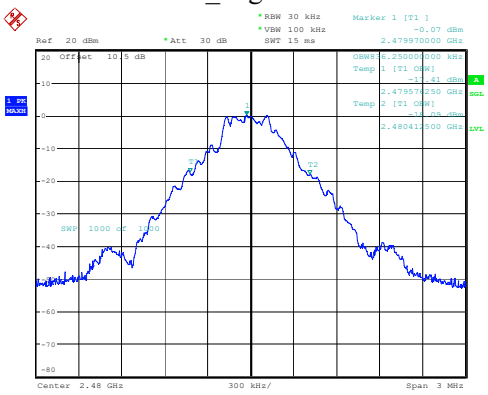
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:42:41

DH1_Middle 0.836MHz



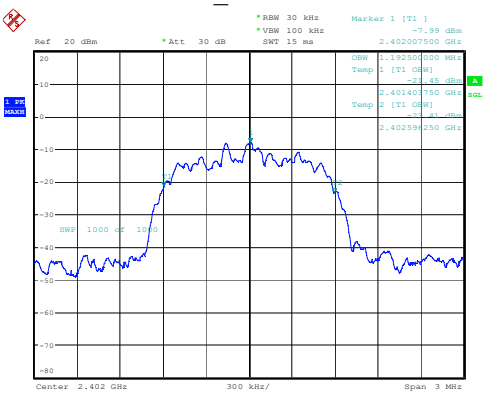
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:44:53

DH1_High 0.836MHz



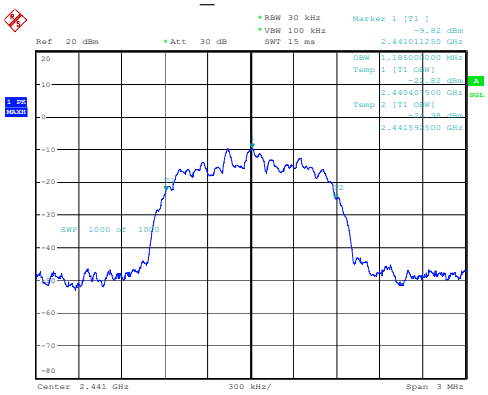
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:46:53

2DH1_Low 1.193MHz



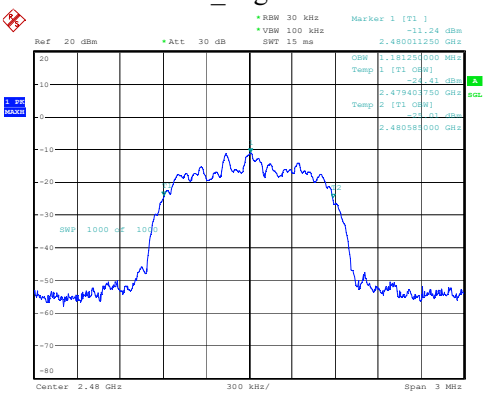
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 8.NOV.2024 07:33:39

2DH1_Middle 1.185MHz



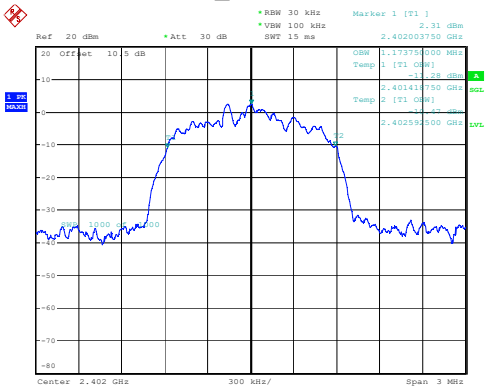
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 8.NOV.2024 07:34:45

2DH1_High 1.181MHz



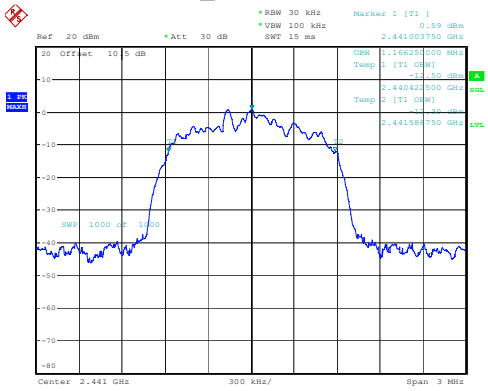
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 8.NOV.2024 07:35:57

3DH1_Low 1.174MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:55:12

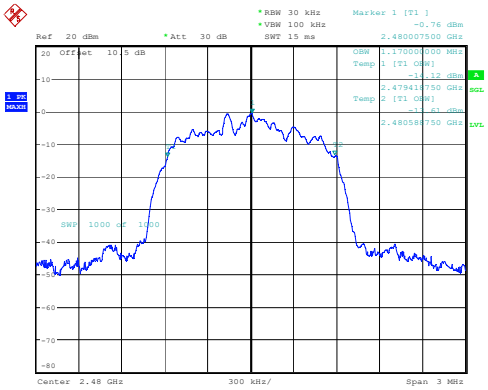
3DH1_Middle 1.166MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:57:12

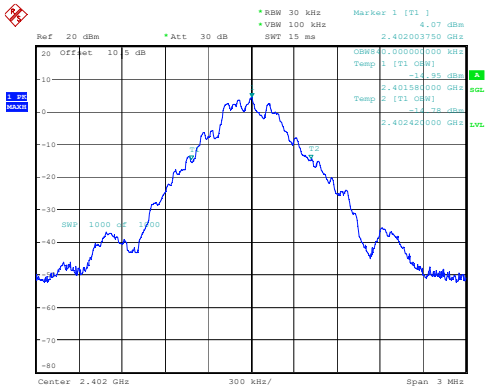
Chain 1

3DH1_High 1.170MHz



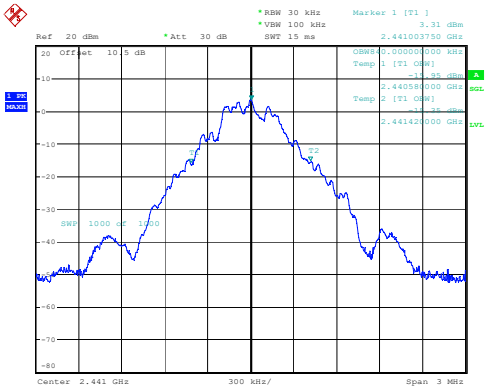
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:59:34

DH1_Low 0.840MHz



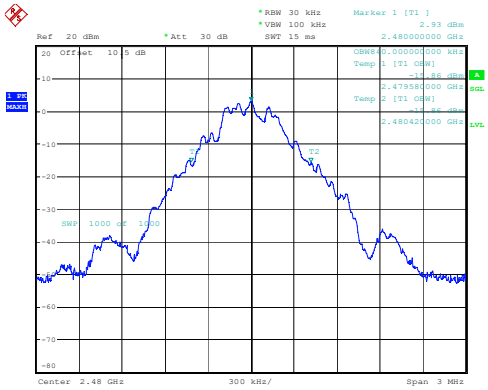
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:10:47

DH1_Middle 0.840MHz



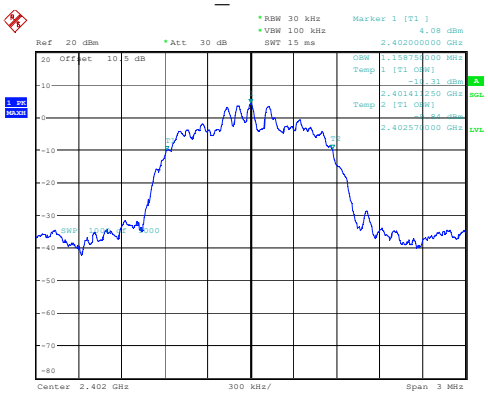
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:11:41

DH1_High 0.840MHz



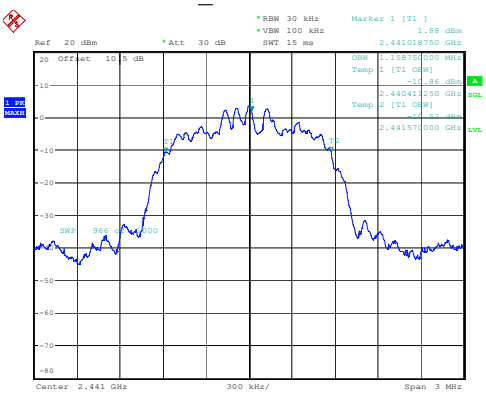
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:12:32

2DH1_Low 1.159MHz



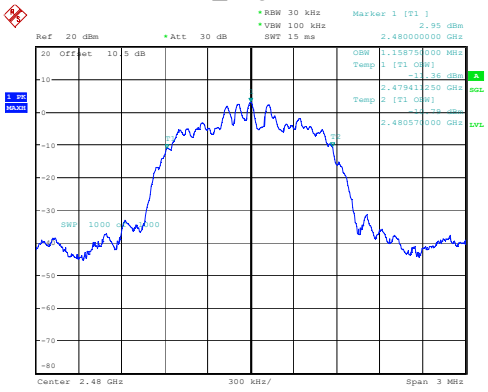
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:13:21

2DH1_Middle 1.159MHz



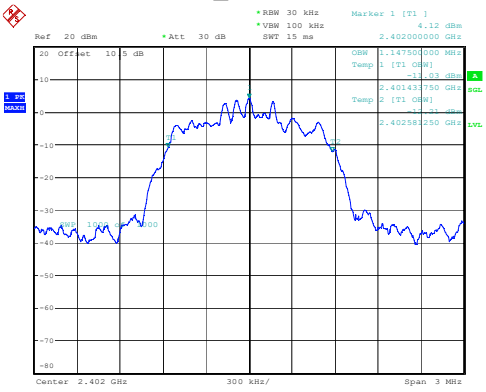
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:14:41

2DH1_High 1.159MHz



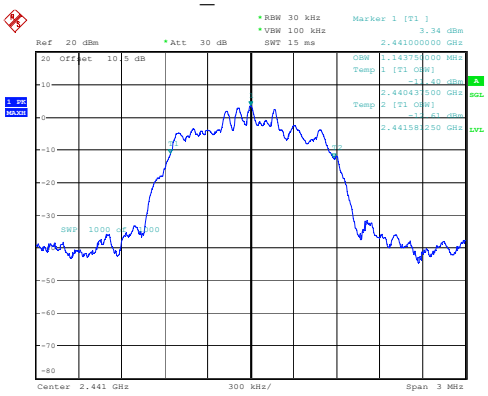
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:16:36

3DH1_Low 1.148MHz



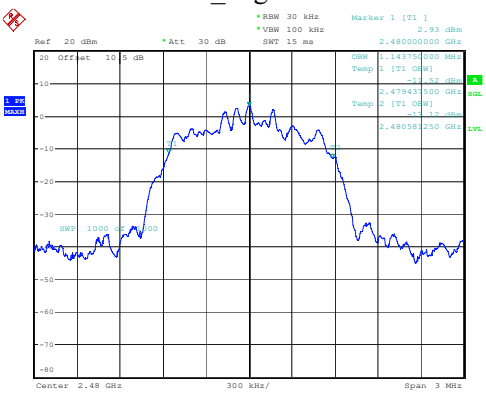
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:17:37

3DH1_Middle 1.144MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:18:25

3DH1_High 1.144MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:19:13

Channel Separation

Test Information:

Sample No.:	2T2R-3	**Test Date:**	2024/11/09~2024/11/15
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Rainbow Zhu	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	25~26	**Relative Humidity: (%)**	42~58	**ATM Pressure: (kPa)**	101

Test Data:

Chain 0

Mode	Channel	Result (MHz)	Limit (MHz)	Verdict
DH1	Low Channel	**1.005**	0.877	Pass
	Middle Channel	1.001	0.880	Pass
	High Channel	0.998	0.880	Pass

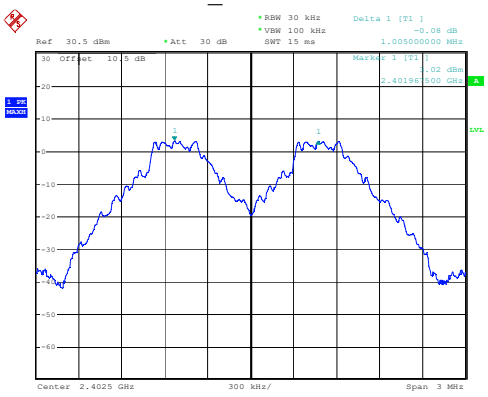
Chain 1

Mode	Channel	Result (MHz)	Limit (MHz)	Verdict
DH1	Low Channel	1.001	0.847	Pass
	Middle Channel	**1.005**	0.860	Pass
	High Channel	0.998	0.863	Pass

Note: Only the BDR (GFSK) mode result is reported since EDR (π/4-DQPSK) and EDR (8DPSK) modes have the exact same channel plan, and the limit is the maximum 20dB bandwidth *2/3

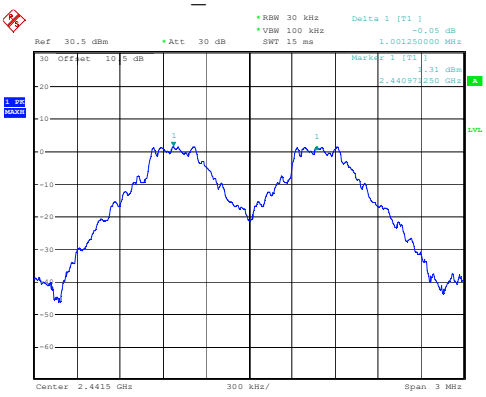
Chain 0

DH1_Low 1.005MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:02:59

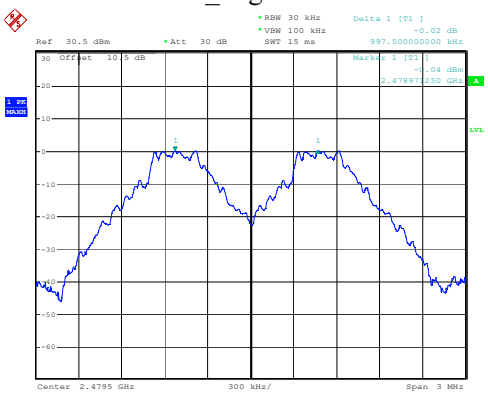
DH1_Middle 1.001MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:04:31

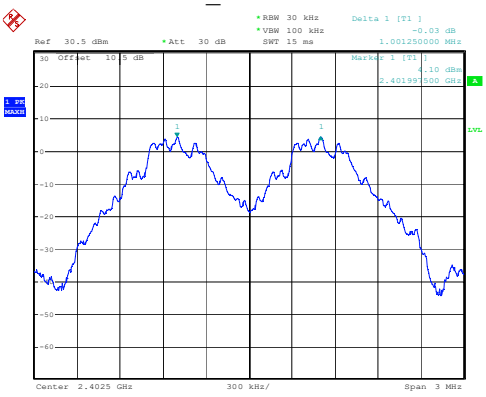
Chain 1

DH1_High 0.998MHz



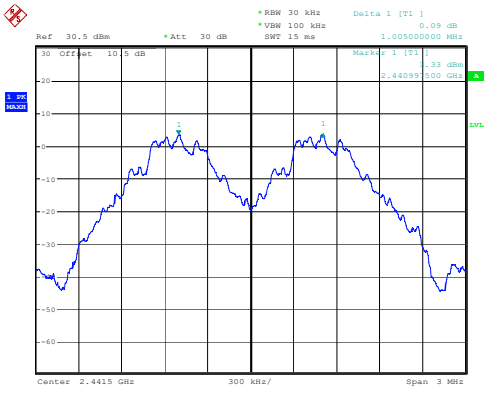
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:06:14

DH1_Low 1.001MHz



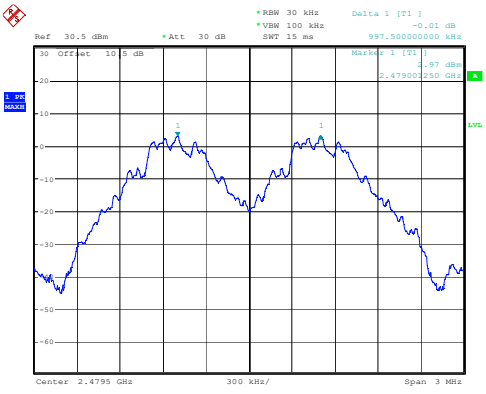
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:20:55

DH1_Middle 1.005MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:22:29

DH1_High 0.998MHz



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:23:41

Number of Hopping Frequency

Test Information:

Sample No.:	2T2R-3	**Test Date:**	2024/11/09~2024/11/15
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Rainbow Zhu	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	25~26	**Relative Humidity: (%)**	42~58	**ATM Pressure: (kPa)**	101

Test Data:

Chain 0

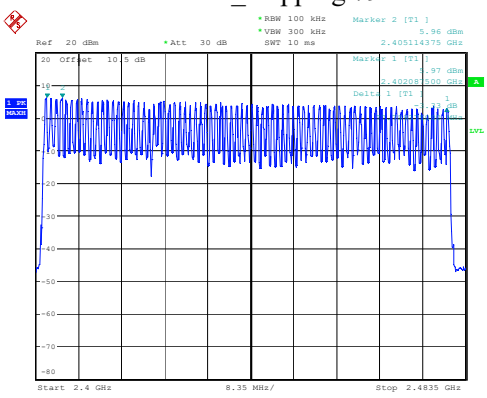
Mode	Channel	Result	Limit	Verdict
DH1	Hopping Channel	**79**	15	Pass
2DH1	Hopping Channel	**79**	15	Pass
3DH1	Hopping Channel	**79**	15	Pass

Chain 1

Mode	Channel	Result	Limit	Verdict
DH1	Hopping Channel	**79**	15	Pass
2DH1	Hopping Channel	**79**	15	Pass
3DH1	Hopping Channel	**79**	15	Pass

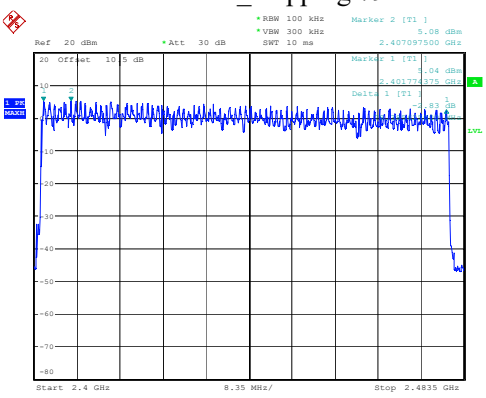
Chain 0

DH1_Hopping 79



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:18:12

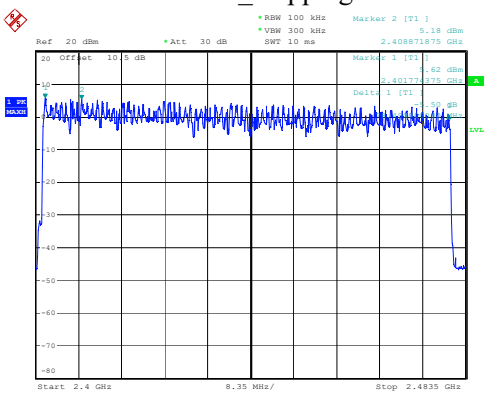
2DH1_Hopping 79



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:26:32

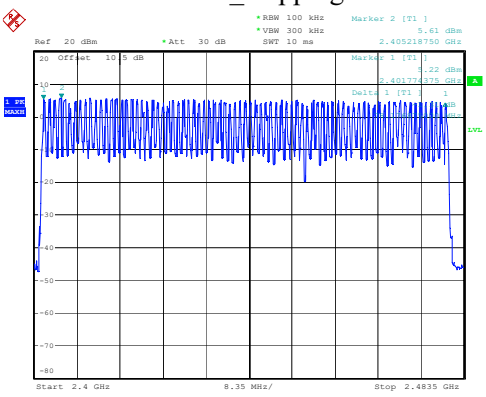
Chain 1

3DH1_Hopping 79



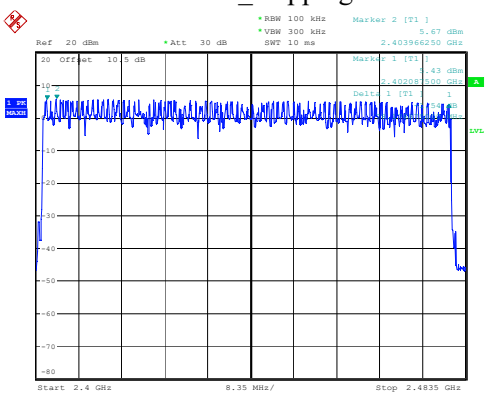
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:35:54

DH1_Hopping 79



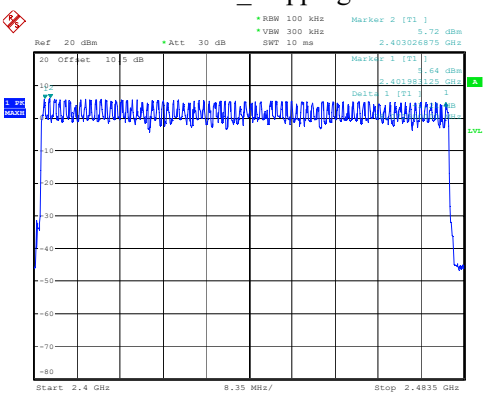
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:25:13

2DH1_Hopping 79



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:26:31

3DH1_Hopping 79



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:28:14

Time of Occupancy (dwell time)

Test Information:

Sample No.:	2T2R-3	**Test Date:**	2024/11/09~2024/11/15
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Rainbow Zhu	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	25~26	**Relative Humidity: (%)**	42~58	**ATM Pressure: (kPa)**	101

Test Data:

Chain 0

Mode	Channel	Pulse width (ms)	Dwell time (s)	Limit (s)	Verdict
DH1	Hopping Channel	0.374	0.120	0.400	Pass
DH3	Hopping Channel	1.639	0.262	0.400	Pass
DH5	Hopping Channel	2.906	0.310	0.400	Pass
2DH1	Hopping Channel	0.385	0.123	0.400	Pass
2DH3	Hopping Channel	1.646	0.263	0.400	Pass
2DH5	Hopping Channel	2.913	0.311	0.400	Pass
3DH1	Hopping Channel	0.384	0.123	0.400	Pass
3DH3	Hopping Channel	1.646	0.263	0.400	Pass
3DH5	Hopping Channel	**2.919**	0.311	0.400	Pass

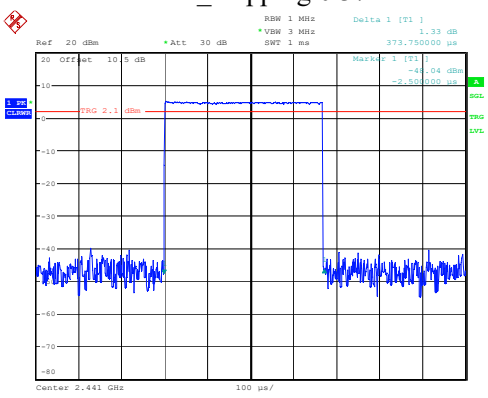
Chain 1

Mode	Channel	Pulse width (ms)	Dwell time (s)	Limit (s)	Verdict
DH1	Hopping Channel	0.415	0.133	0.400	Pass
DH3	Hopping Channel	1.684	0.269	0.400	Pass
DH5	Hopping Channel	2.950	0.315	0.400	Pass
2DH1	Hopping Channel	0.425	0.136	0.400	Pass
2DH3	Hopping Channel	1.688	0.270	0.400	Pass
2DH5	Hopping Channel	2.950	0.315	0.400	Pass
3DH1	Hopping Channel	0.426	0.136	0.400	Pass
3DH3	Hopping Channel	1.688	0.270	0.400	Pass
3DH5	Hopping Channel	**2.956**	0.315	0.400	Pass

Note:
DH1:Dwell time=Pulse width (ms) × (1600/2/79) ×31.6 s
DH3:Dwell time=Pulse width (ms) × (1600/4/79) ×31.6 s
DH5:Dwell time=Pulse width (ms) × (1600/6/79) ×31.6 s
2DH1: Dwell time=Pulse width (ms) × (1600/2/79) ×31.6 s
2DH3: Dwell time=Pulse width (ms) × (1600/4/79) ×31.6 s
2DH5: Dwell time=Pulse width (ms) × (1600/6/79) ×31.6 s
3DH1: Dwell time=Pulse width (ms) × (1600/2/79) ×31.6 s
3DH3: Dwell time=Pulse width (ms) × (1600/4/79) ×31.6 s
3DH5: Dwell time=Pulse width (ms) × (1600/6/79) ×31.6 s

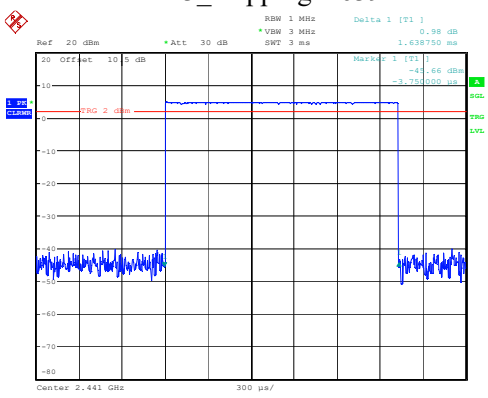
Chain 0

DH1_Hopping 0.374ms



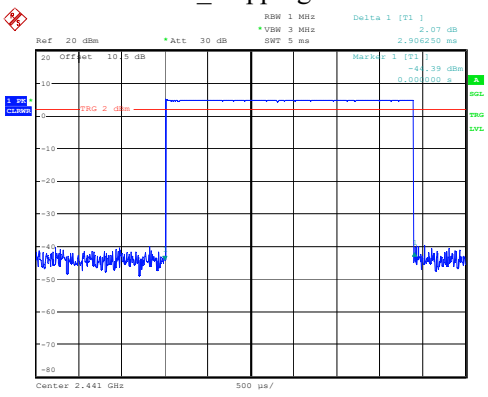
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:40:07

DH3_Hopping 1.639ms



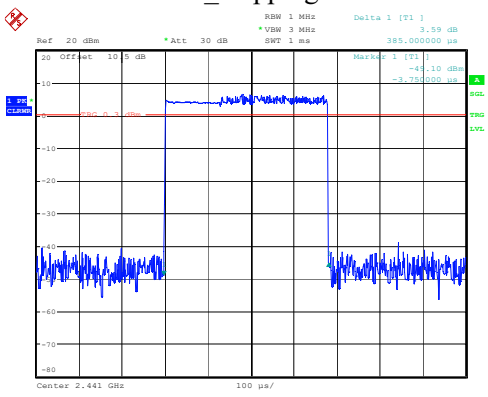
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:41:21

DH5_Hopping 2.906ms



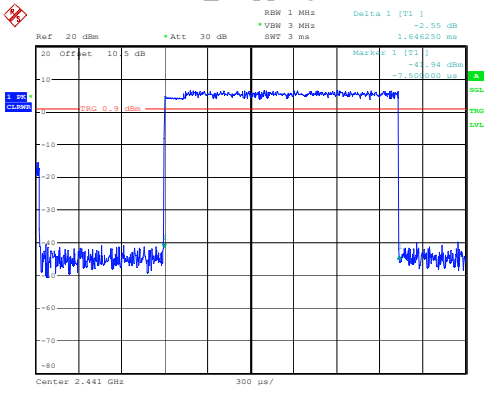
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:42:30

2DH1_Hopping 0.385ms



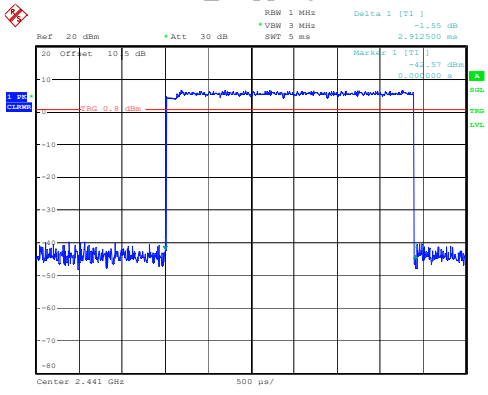
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:43:49

2DH3_Hopping 1.646ms



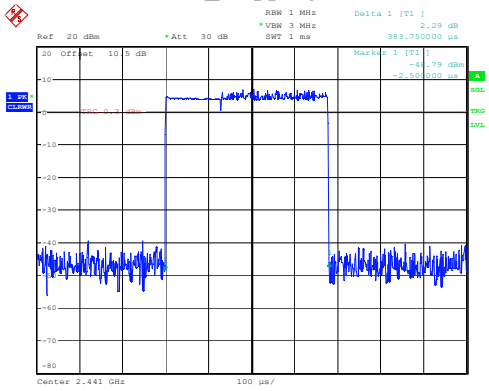
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 12:01:58

2DH5_Hopping 2.913ms



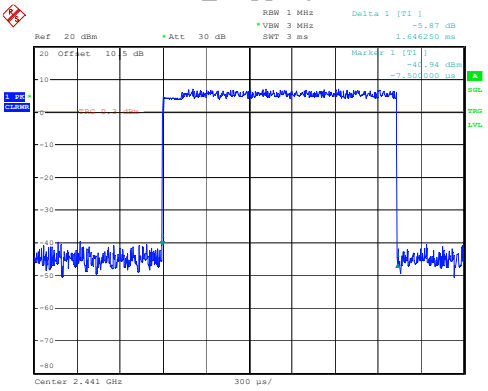
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 12:03:16

3DH1_Hopping 0.384ms



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 12:04:28

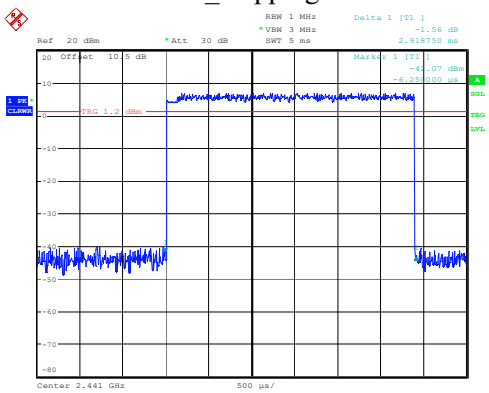
3DH3_Hopping 1.646ms



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 12:05:41

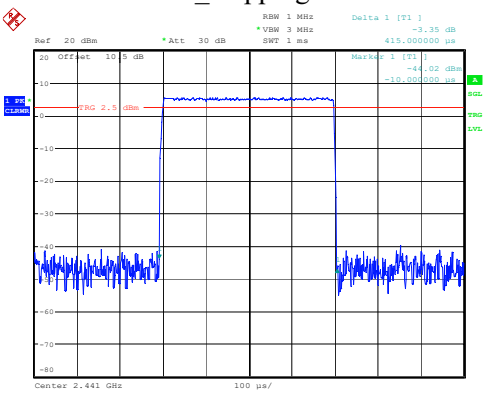
Chain 1

3DH5_Hopping 2.919ms



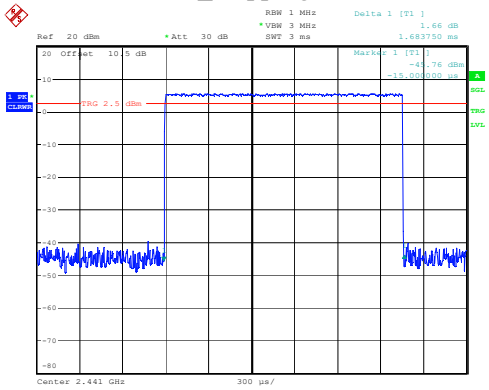
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 12:08:00

DH1_Hopping 0.415ms



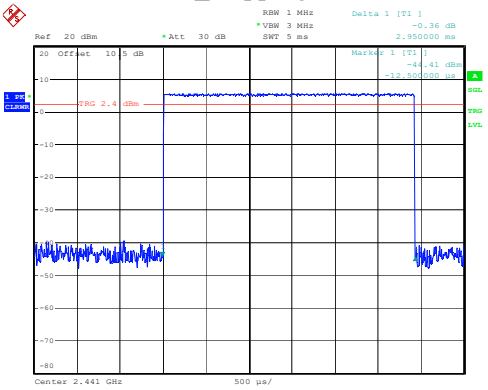
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 08:54:50

DH3_Hopping 1.684ms



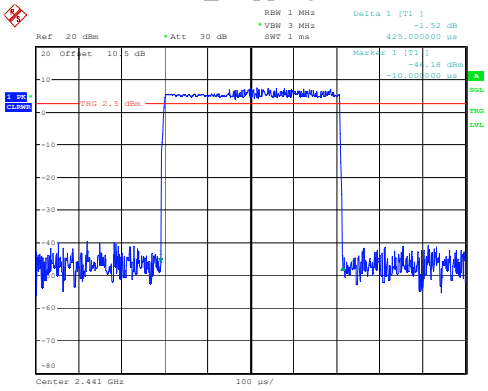
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 08:55:58

DH5_Hopping 2.950ms



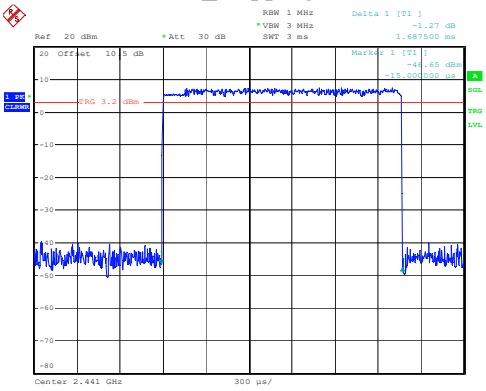
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 08:57:00

2DH1_Hopping 0.425ms



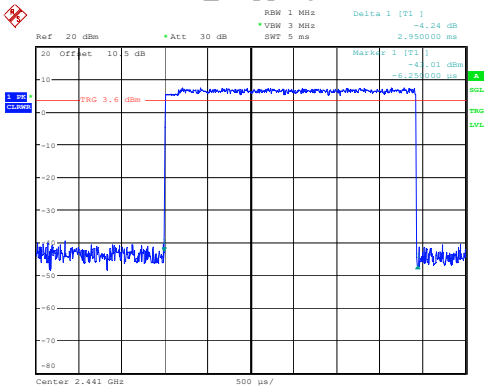
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 08:58:23

2DH3_Hopping 1.688ms



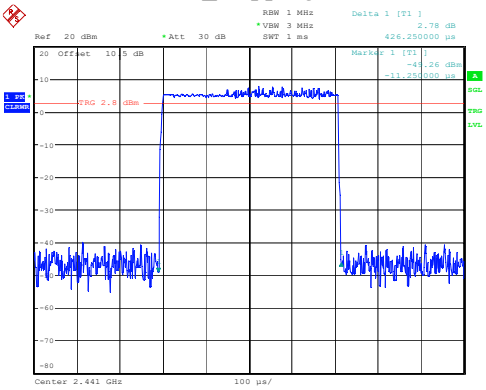
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 08:59:26

2DH5_Hopping 2.950ms



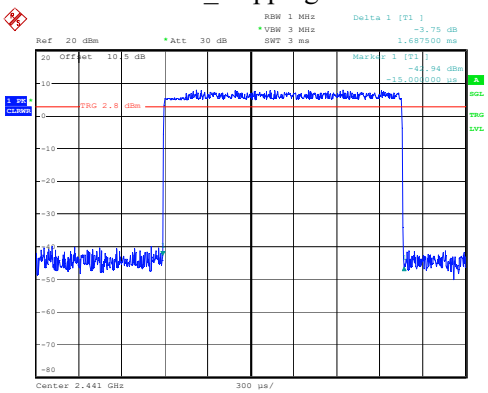
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 09:00:32

3DH1_Hopping 0.426ms



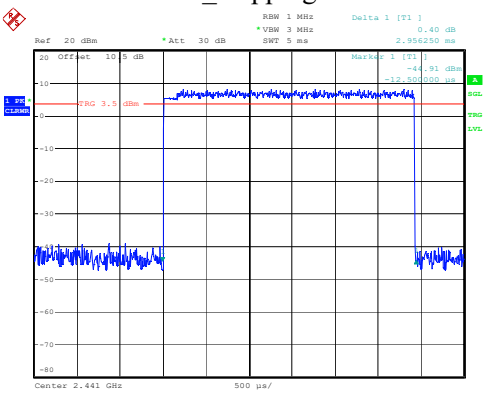
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 09:02:13

3DH3_Hopping 1.688ms



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 09:03:32

3DH5_Hopping 2.956ms



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 09:04:49

Maximum Conducted Output Power

Test Information:

Sample No.:	2T2R-3	**Test Date:**	2024/11/09~2024/11/15
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Rainbow Zhu	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	25~26	**Relative Humidity: (%)**	42~58	**ATM Pressure: (kPa)**	101

Test Data:

Chain 0

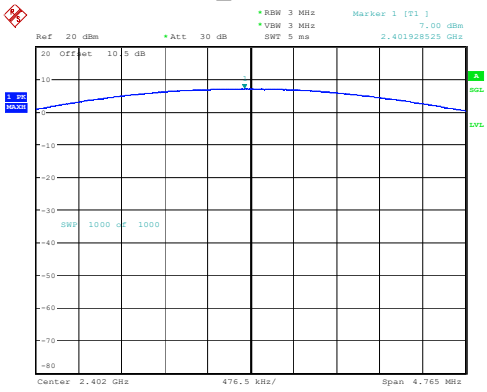
Mode	Channel	Result (dBm)	Limit (dBm)	EIRP(dBm)	EIRP Limit (dBm)	Verdict
DH1	Low Channel	7.00	21.00	11.20	36.00	Pass
	Middle Channel	5.28	21.00	9.48	36.00	Pass
	High Channel	3.91	21.00	8.11	36.00	Pass
2DH1	Low Channel	8.85	21.00	13.05	36.00	Pass
	Middle Channel	7.16	21.00	11.36	36.00	Pass
	High Channel	5.81	21.00	10.01	36.00	Pass
3DH1	Low Channel	**9.26**	21.00	13.46	36.00	Pass
	Middle Channel	7.55	21.00	11.75	36.00	Pass
	High Channel	6.18	21.00	10.38	36.00	Pass

Chain 1

Mode	Channel	Result (dBm)	Limit (dBm)	EIRP(dBm)	EIRP Limit (dBm)	Verdict
DH1	Low Channel	6.27	21.00	10.47	36.00	Pass
	Middle Channel	5.45	21.00	9.65	36.00	Pass
	High Channel	5.06	21.00	9.26	36.00	Pass
2DH1	Low Channel	8.54	21.00	12.74	36.00	Pass
	Middle Channel	7.76	21.00	11.96	36.00	Pass
	High Channel	7.45	21.00	11.65	36.00	Pass
3DH1	Low Channel	**9.10**	21.00	13.30	36.00	Pass
	Middle Channel	8.31	21.00	12.51	36.00	Pass
	High Channel	7.98	21.00	12.18	36.00	Pass

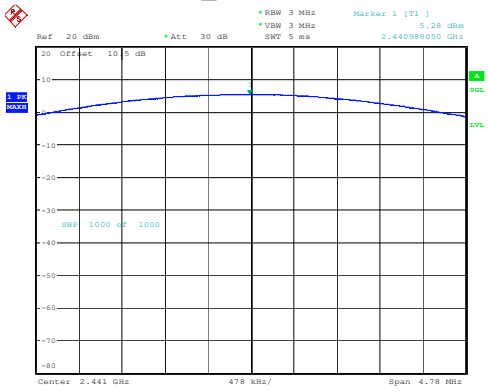
Chain 0

DH1_Low 7.00dBm



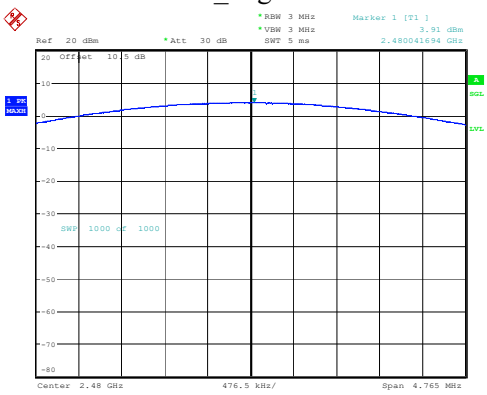
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:43:14

DH1_Middle 5.28dBm



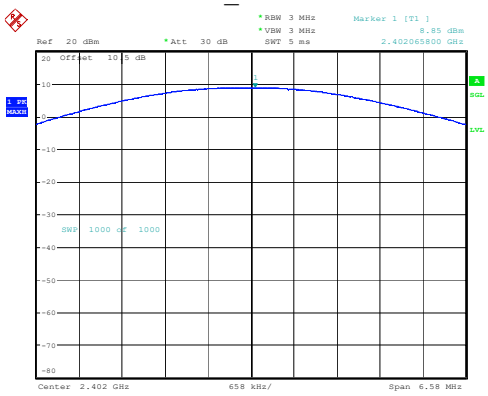
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:45:16

DH1_High 3.91dBm



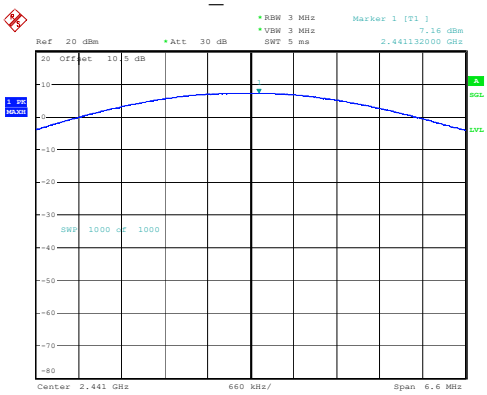
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:47:16

2DH1_Low 8.85dBm



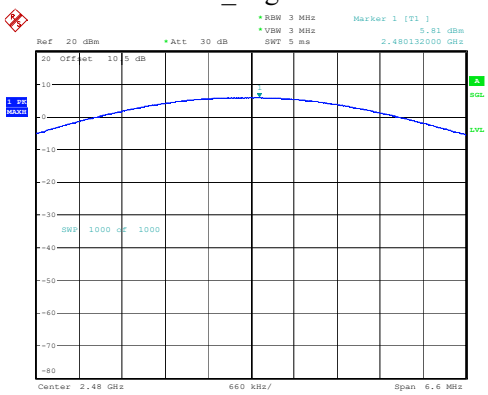
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:49:27

2DH1_Middle 7.16dBm



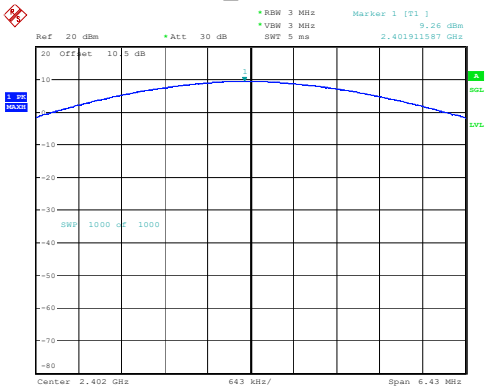
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:51:31

2DH1_High 5.81dBm



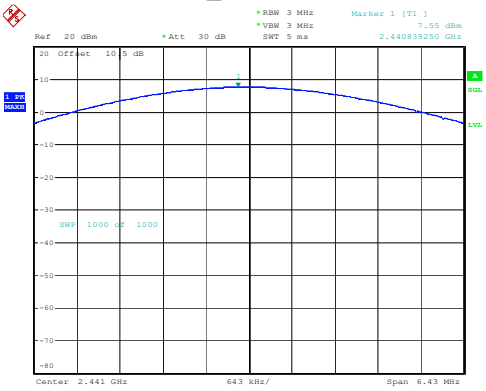
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:53:28

3DH1_Low 9.26dBm



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:55:34

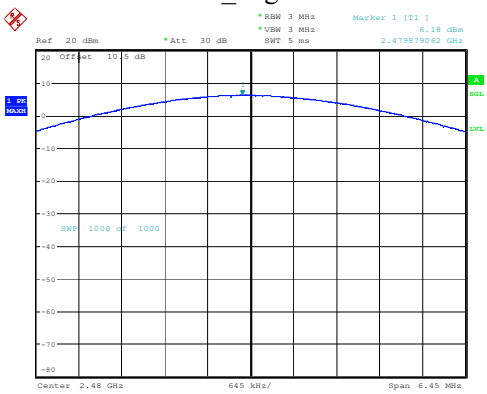
3DH1_Middle 7.55dBm



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:57:35

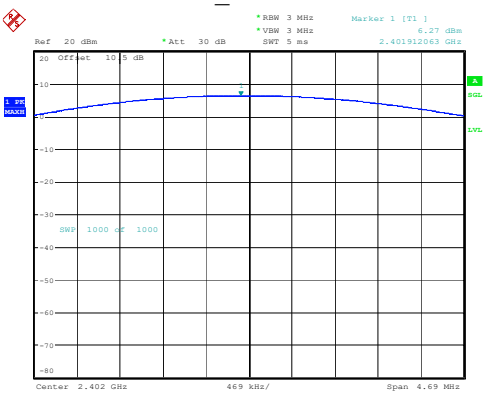
Chain 1

3DH1_High 6.18dBm



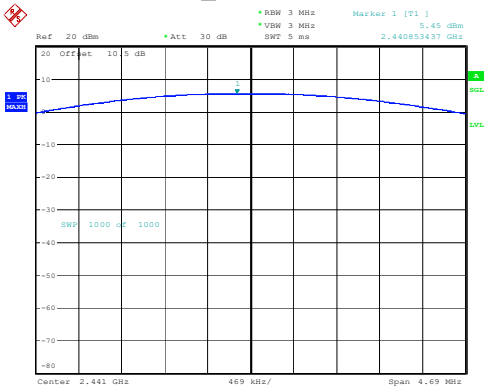
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 10:59:57

DH1_Low 6.27dBm



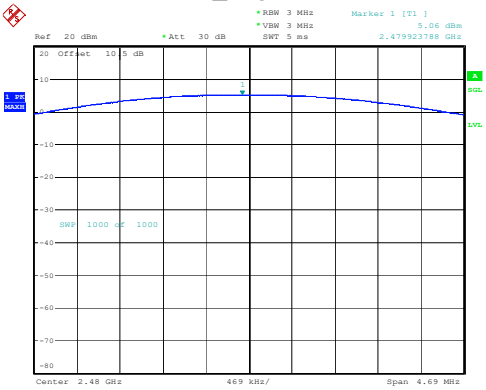
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:30:02

DH1_Middle 5.45dBm



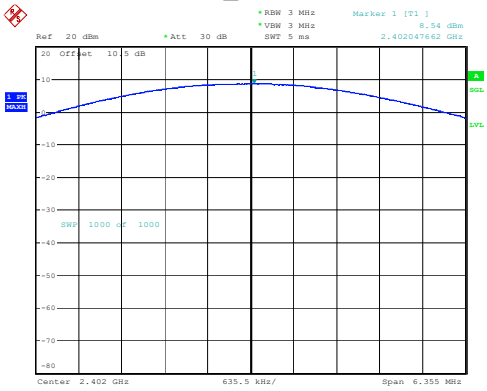
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:30:36

DH1_High 5.06dBm



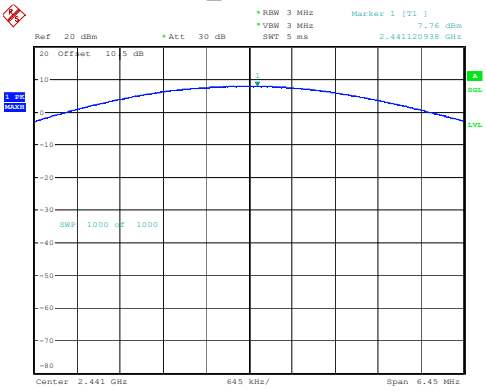
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:32:17

2DH1_Low 8.54dBm



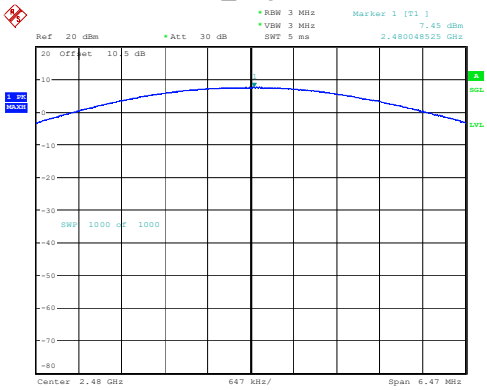
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:33:20

2DH1_Middle 7.76dBm



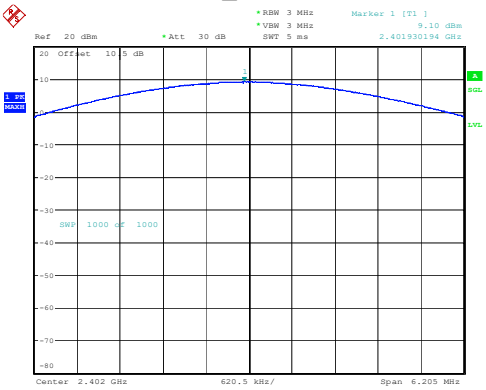
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:34:13

2DH1_High 7.45dBm



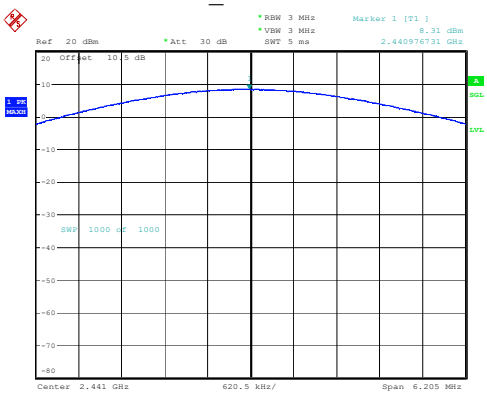
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:35:00

3DH1_Low 9.10dBm



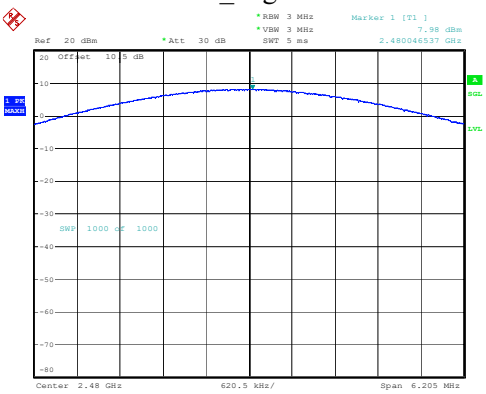
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:37:35

3DH1_Middle 8.31dBm



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:38:22

3DH1_High 7.98dBm



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:39:42

100 kHz Bandwidth of Frequency Band Edge

Test Information:

Sample No.:	2T2R-3	**Test Date:**	2024/11/09~2024/11/15
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Rainbow Zhu	**Test Result:**	Pass

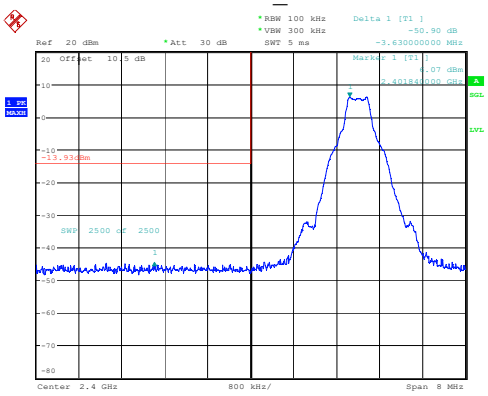
Environmental Conditions:

Temperature: (°C):	25~26	**Relative Humidity: (%)**	42~58	**ATM Pressure: (kPa)**	101

Test Data:

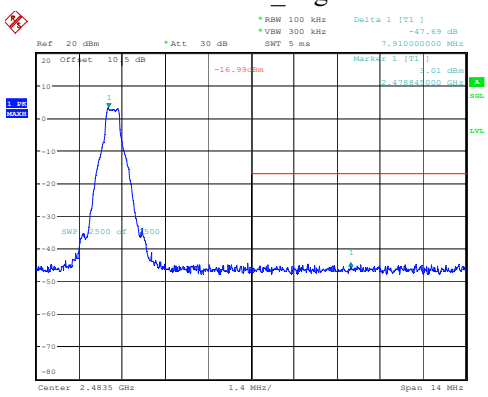
Chain 0

DH1_Low



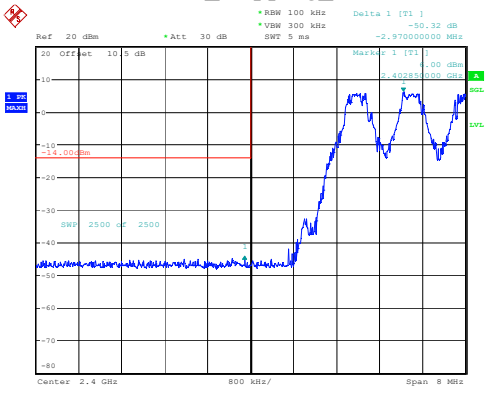
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:11:22

DH1_High



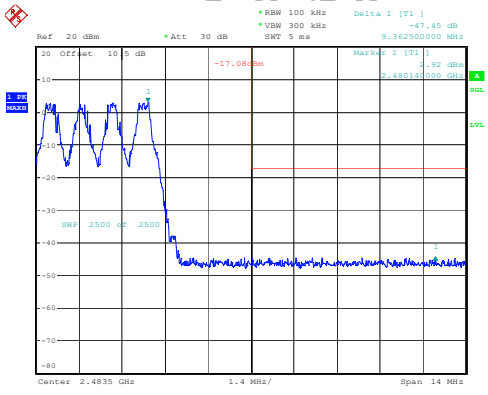
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:13:27

DH1_Hopping_Lower



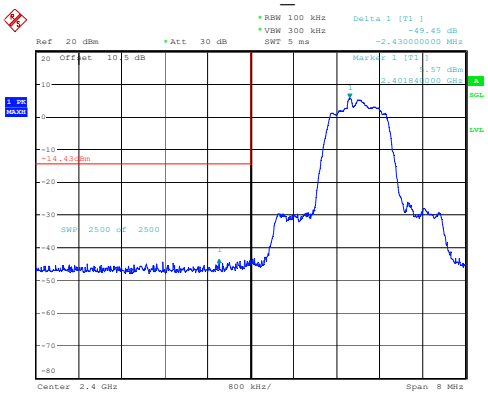
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:15:27

DH1_Hopping_Upper



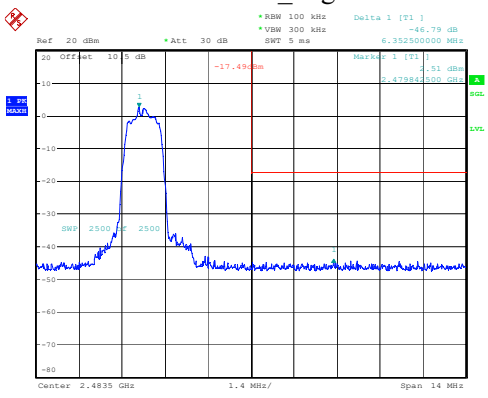
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:17:08

2DH1_Low



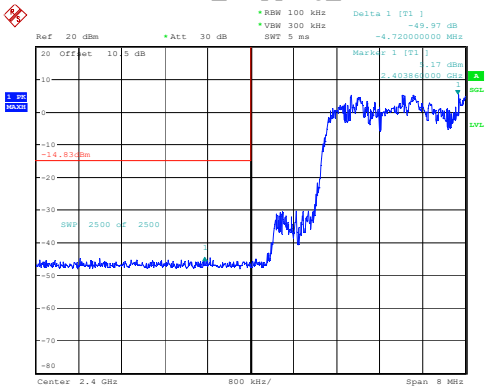
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:20:06

2DH1_High



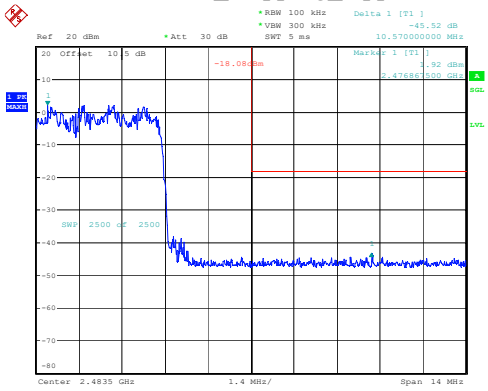
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:22:15

2DH1_Hopping_Lower



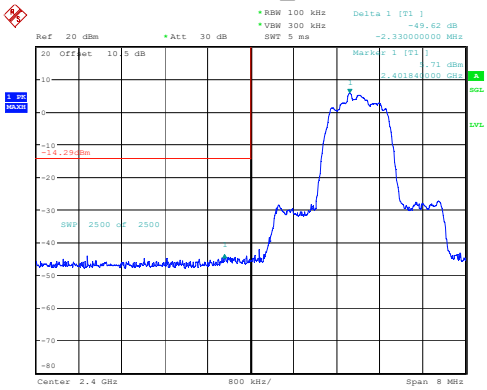
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:23:39

2DH1_Hopping_Upper



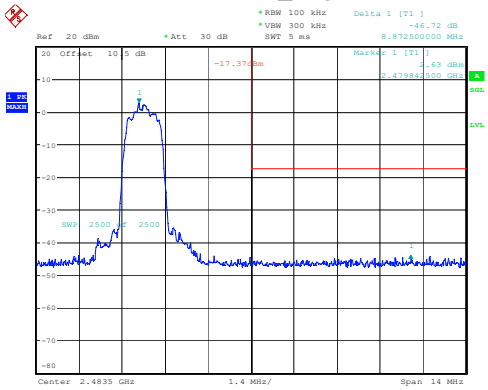
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:25:21

3DH1_Low



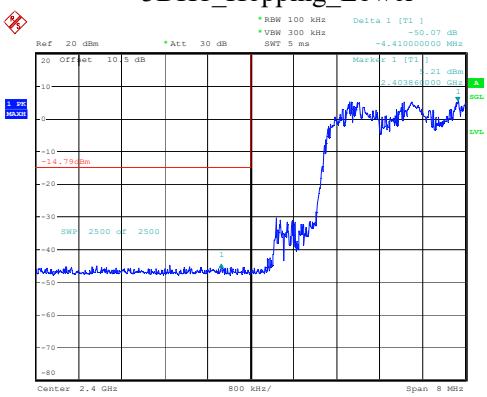
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:28:04

3DH1_High



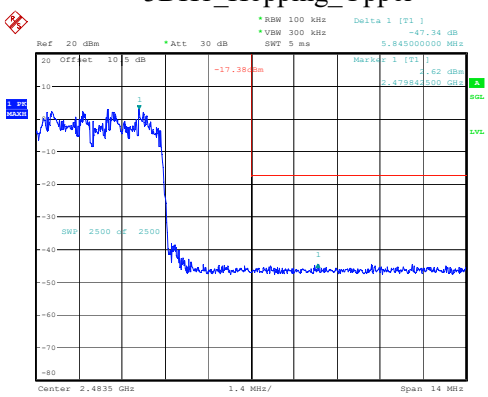
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:30:10

3DH1_Hopping_Lower



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:31:50

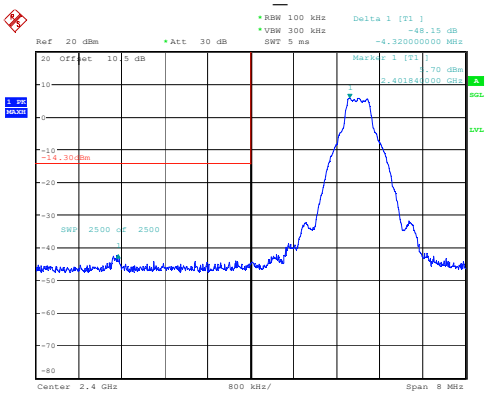
3DH1_Hopping_Upper



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 9.NOV.2024 11:34:47

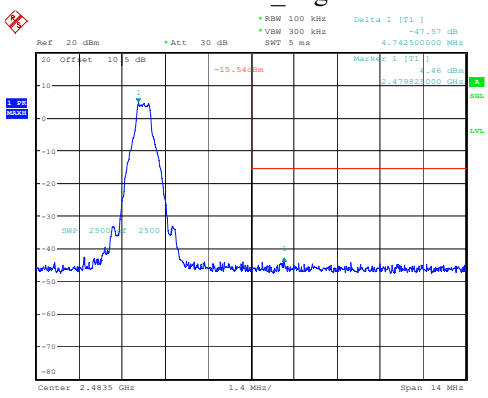
Chain 1

DH1_Low



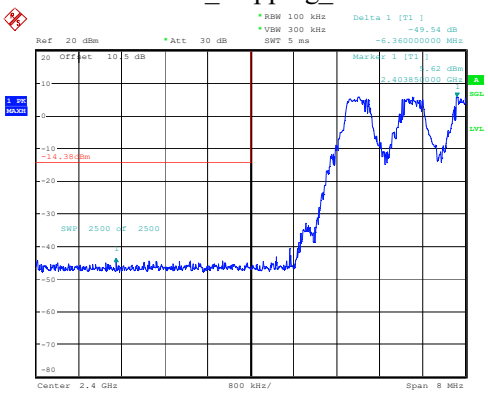
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:48:15

DH1_High



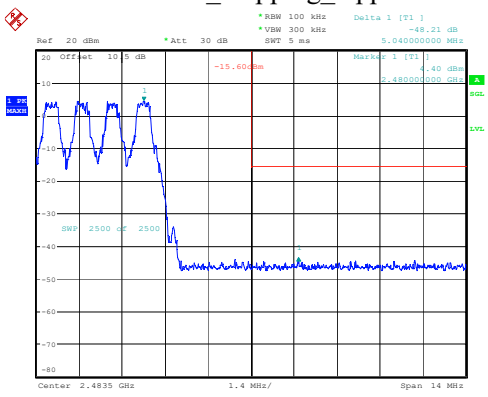
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:50:17

DH1_Hopping_Lower



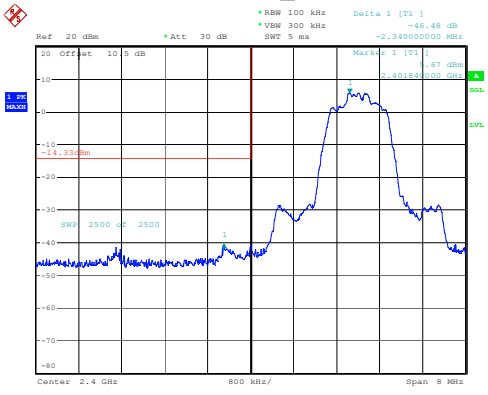
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:44:44

DH1_Hopping_Upper



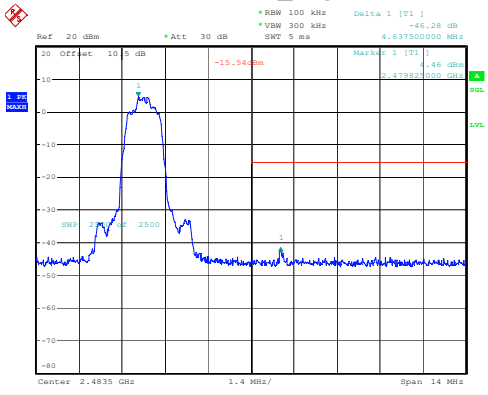
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:46:44

2DH1_Low



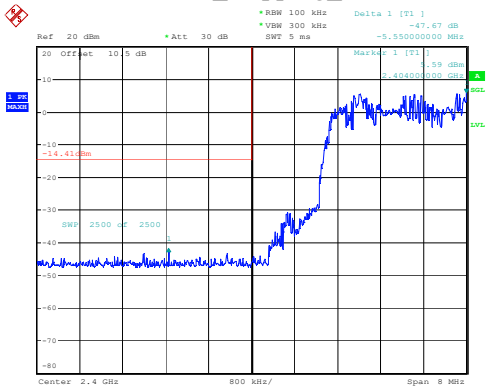
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:54:56

2DH1_High



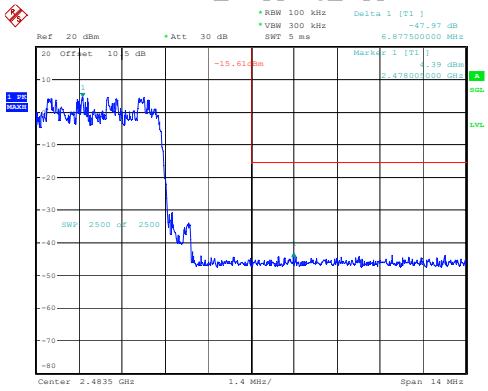
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:57:58

2DH1_Hopping_Lower



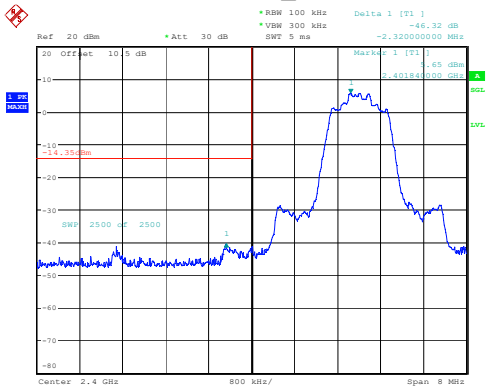
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:51:32

2DH1_Hopping_Upper



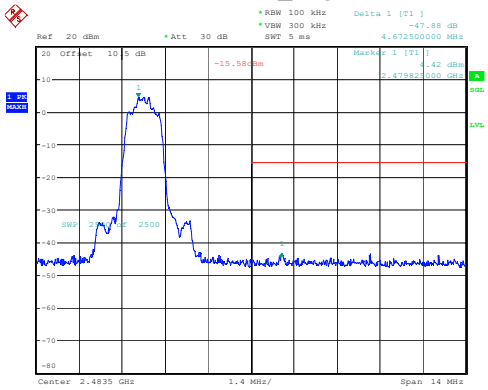
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 05:53:26

3DH1_Low



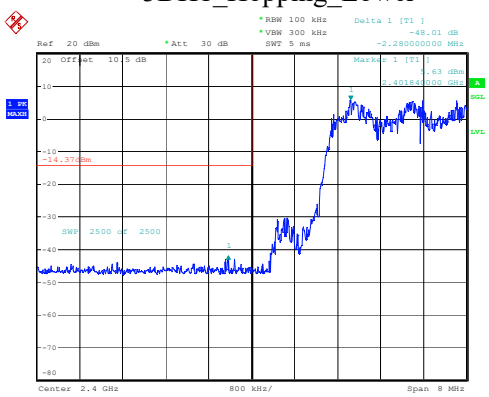
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 06:13:47

3DH1_High



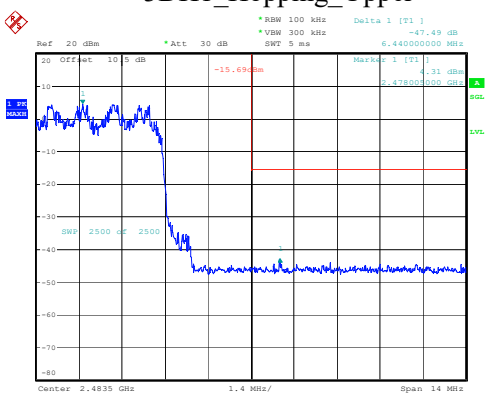
ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 06:15:36

3DH1_Hopping_Lower



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 06:10:50

3DH1_Hopping_Upper



ProjectNo.:2401Y99992E-RF Tester:Rainbow Zhu
Date: 15.NOV.2024 06:12:31

RF EXPOSURE EVALUATION

MPE-Based Exemption

Applicable Standard

According to subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(3)(i)(C)] to support an exemptionfrom further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

R is the minimum separation distance in meters
f = frequency in MHz

Result

Mode	Frequency (MHz)	Tune up conducted power#	Antenna Gain#		ERP		Evaluation Distance (m)	ERP Limit (mW)
		(dBm)	(dBi)	(dBd)	(dBm)	(mW)		
BT	2402-2480	9.5	4.2	2.05	11.55	14.289	0.2	768
BLE	2402-2480	7.0	4.2	2.05	9.05	8.035	0.2	768
2.4G Wi-Fi	2412-2462	25.0	4.2	2.05	27.05	506.991	0.2	768
5.2G Wi-Fi	5180-5240	14.5	5.2	3.05	17.55	56.885	0.2	768
5.8G Wi-Fi	5745-5825	15.5	5.2	3.05	18.55	71.614	0.2	768

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.
2. The BT, 2.4G Wi-Fi and 5G Wi-Fi cannot transmit at same time.
3. 0dBd=2.15dBi

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliant.

Field Reference Level Exposure Exemption Limits

Applicable Standard

According to RSS-102 Issue 6 § (6.6):

6.6 Field reference level exposure exemption limits

Field reference level (FRL) exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm (i.e. mobile devices), except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 1 W (adjusted for tune-up tolerance)
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $4.49/f^{0.5} W$ (adjusted for tune-up tolerance), where f is in MHz
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance)
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834} W$ (adjusted for tune-up tolerance), where f is in MHz
- at or above 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 5 W (adjusted for tune-up tolerance)

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the EIRP was derived.

Result

For worst case:

Mode	Frequency (MHz)	Maximum tune-up conducted power#	Antenna Gain#	Maximum tune-up EIRP		Evaluation Distance (cm)	Limit (mW)
		(dBm)	(dBi)	(dBm)	(mW)		
BT	2402-2480	9.5	4.2	13.70	23.442	20	2676
BLE	2402-2480	7.0	4.2	11.20	13.183	20	2676
2.4G Wi-Fi	2412-2462	25.0	4.2	29.20	831.764	20	2684
5.2G Wi-Fi	5180-5240	14.5	5.2	19.70	93.325	20	4525
5.8G Wi-Fi	5745-5825	15.5	5.2	20.70	117.490	20	4857

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.
2. The BT, 2.4G Wi-Fi and 5G Wi-Fi cannot transmit at same time.

To maintain compliance with the IC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: The RF Exposure evaluation can be exempted.

EUT PHOTOGRAPHS

Please refer to the attachment 2401Y99992E-RF External photo and 2401Y99992E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401Y99992E-RFC Test Setup photo.

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