

TEST REPORT

Report No...... : **ATA0126080202**

FCC ID..... : **2BBRSMSNAI**

Applicant..... : **FAIRLAND GROUP LIMITED**

Address..... : 19H MAXGRAND PLAZA, NO.3 TAI YAU STREET, SAN PO KONG, KOWLOON, HONGKONG

Manufacturer..... : **FAIRLAND GROUP LIMITED**

Address..... : 19H MAXGRAND PLAZA, NO.3 TAI YAU STREET, SAN PO KONG, KOWLOON, HONGKONG

Product Name..... : **iGarden Pool Cleaner**

Trade Mark..... : iGarden,FAIRLAND,YITUO,INVERX,sunblazer

Model/Type reference..... : MX12501-SJ

Listed Model(s)..... : Xyy, MNyy, SEyy, GTyy, KXyy, TXyy, Tyy,Kyy, Myy, MAYy,XMyy, M1-AI yy, M1-yy,MXyy-SJ,MXyy-GN,GRy (y can be 00- 99) M1-AI yy, M1-AI Pro yy, GR-AI yy, GR-AI Pro yy

Standard..... : **FCC CFR Title 47 Part 15 Subpart C Section 15.247**

Test procedure..... : **ANSI C63.10-2020 + Cor.1-2023**
KDB 558074 D01 15.247 Meas Guidance v05r02

Date of Receipt..... : Aug. 10, 2026

Date of Test Date..... : Aug. 10, 2026~Aug. 14, 2026

Date of issue..... : Aug. 14, 2026

Test result..... : **Pass**

Compiled by:

(Printed name+signature)

Lily Zheng

Lily Zheng

Supervised by:

(Printed name+signature)

Travis Young

Travis Young

Approved by:

(Printed name+signature)

Jason Chen

Jasonchen

Testing Laboratory Name..... : **Shenzhen ATA Testing Lab. Inc**

Address..... : 4th Floor, Building 10, No. 60 Nanchang Road, Nanchang Community,Xixiang Street, Bao'an District, Shenzhen City, Guangdong, China

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1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.247: Operation within the bands of 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz.

ANSI C63.10-2020 + Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024: American National Standard for Testing Unlicensed Wireless Devices.

1.2. Report version

Revised No.	Date of issue	Description
01	Aug. 14, 2026	Original



1.3. Test Description

FCC Part 15 Subpart C(15.247)			
Test Item	Standard Section	Result	Remark
	FCC		
Antenna Requirement	15.203	Pass	
Conducted Emission	15.207	Pass	
Restricted Bands	15.205	Pass	
Output Power	15.247(b)	Pass	
Band Edge Emissions	15.247(d)	Pass	
Power Spectral Density	15.247(e)	Pass	
Radiated Emission	15.205&15.209	Pass	
Occupied Bandwidth	15.247(a)(1)(i)(2)	Pass	

Note:(1) "N/A" denotes test is not applicable to this device.



1.4. Test Facility

Test Site	Shenzhen ATA Testing Lab. Inc
Test Site Location	4th Floor, Building 10, No. 60 Nanchang Road, Nanchang Community, Xixiang Street, Bao'an District, Shenzhen City, Guangdong, People' s Republic of China
Telephone:	+86 0755-2783-0095
Fax:	+86 0755-2783-0095

The test facility is recognized, certified, or accredited by these organizations:	A2LA Accreditation Lab Certificate Number: 839205
	FCC Accreditation Lab Designation Number: CN1455
	ISED Accreditation Lab Designation Number: CN0201



1.5. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the Shenzhen ATA Testing Lab. Inc. system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device. Below is the best measurement capability for Shenzhen ATA Testing Lab. Inc.

Test Items	Measurement Uncertainty	U(k=2)
Radiated Emissions 9K-30MHz	± 2.70 dB	1.96
Radiated Emissions 30~1000MHz	± 5.432 dB	1.96
Radiated Emissions 1~18GHz	± 3.88 dB	1.96
Radiated Emissions 18~40GHz	± 5.32 dB	1.96
Conducted Emissions 9kHz~150KHz	± 3.90 dB	1.96
Conducted Emissions 150Hz~30MHz	± 3.52 dB	1.96
Conducted spurious emissions	± 1.60 dB	1.96
RF Output Power Conducted	± 0.58 dB	1.96
Power Spectral Density Conducted	± 1.52 dB	1.96
Occupied Bandwidth	$\pm 0.463\%$	1.96
Humidity uncertainty	$\pm 2.0\%$ RH	1.96
Temperature uncertainty	$\pm 0.6^{\circ}\text{C}$	1.96
Barometric pressure uncertainty	0.5hPa	1.96

Note (1): This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.

1.6. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35°C
Relative Humidity:	30~60 %
Air Pressure:	950~1050hPa

2. GENERAL INFORMATION

2.1. General Description of EUT

Product Name:	iGarden Pool Cleaner
Model/Type reference:	iGarden,FAIRLAND,YITUO,INVERX,sunblazer
Listed Model(s):	MX12501-SJ
Model Difference:	Xyy, MNyy, SEyy, GTyy, KXyy, TXyy, Tyy,Kyy, Myy, MAyy,XMyy, M1-AI yy, M1-yy,MXyy-SJ,MXyy-GN,GRy (y can be 00- 99) M1-AI yy, M1-AI Pro yy, GR-AI yy, GR-AI Pro yy
Power Source:	Rating power: 110W Working Voltage: 25.2V= Power Supply: 29.4V= 2.0A
Adapter	Model:TS-A088-2943002 Input:110-240V~ 50/60Hz 2A Output:29.4= 3.0A 88.2W
Battery	Working Voltage: 25.2V= 2.0A
Hardware version:	N/A
Software version:	N/A
2.4GHz WIFI	
Modulation:	IEEE 802.11b : DSSS (DBPSK, DQPSK, CCK) IEEE 802.11g/n (HT20/HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK)
Operation frequency:	802.11b/g/n20:2412~2462 MHz 802.11n40:2422~2452 MHz
Max Peak Output Power:	19.13dBm
Channel number:	802.11b/g/n20:11CH 802.11n 40:7CH
Bit Rate of transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6Mbps 802.11n(20MHz) use 800 ns GI: 65.0/58.5/52.0/39.0/26.0/19.5/13.0/6.5 Mbps (MCS0~MCS7) 802.11n(40MHz) use 800 ns GI: 13.5/27/40.5/54/81/108/121.5/135Mbps
Antenna type:	PCB Antenna
Antenna gain:	3.37 dBi
Note:(1)All antenna information is provided by the manufacturer, test laboratory will not be responsible if any error. (2) The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity. (3) "N/A" Indicates in applicability	

2.2. Operation state

Operation Frequency List: The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing. 2.4GWIFI, 11 channels are provided to the EUT. were selected for testing.

Operation Frequency List:

Channel List for 802.11b/g/n (20)

Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	\	\

Channel List for 802.11n (40)

Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	2422	07	2442
04	2427	08	2447
05	2432	09	2452
06	2437	\	\

2.3. DESCRIPTION OF THE TEST MODES

Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was Evaluated respectively.

Test Items	Mode	Data Rate	Channel	Ant
AC Power Line Conducted Emissions	Normal Link	-	-	-
Maximum Conducted Output Power	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1
Power Spectral Density	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1
6dB Spectrum Bandwidth	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1
Radiated Emissions Below 1GHz	Normal Link	-	-	-
Radiated Emissions Above 1GHz	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1
Band Edge Emissions	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1

Note: 1. The measurements are performed at the highest, middle, lowest available channels. 2. During the test, the duty cycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

2.4. BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test

EUT

AC Conducted Emission Test



RF Conducted Test

EUT



2.5. DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test Configuration during the tests.

Item	Equipment	Mfr/Brand	Mode/Type	Note
E-2	Adapter	Trthink	TS-A088-2943002	Product combination use

Item	Equipment	Mfr/Brand	Length	Note
C-1	line	N/A	1m	Product combination use

Note : (1) For detachable type VO cable should be specified the length in cm in Length a column.

(2)"YES" is means"with core";"NO" is means "without core".

2.6. Measurement Instruments List

Radiation emission							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	ATA-E-001	966 chamber	CRT	9*6*6M	CRTNDCR 966	2025-03-21	2028-03-20
2	ATA-E-011	AC Power Source	XINOUHUA	APW-1300N	202504292 663	2026-05-07	2027-05-06
3	ATA-E-013	DC Power Source	XINOUHUA	ADC250-32 D	202504292 667	2026-05-07	2027-05-06
4	ATA-E-033	Receiver	R&S	ESPI7	100092	2026-05-07	2027-05-06
5	ATA-E-034	Broadband antenna	Schwarzbeck	VULB9168	01839	2025-07-17	2026-07-17
6	ATA-E-035	High Frequency Horn Antenna	Schwarzbeck	BBHA 9120D	03169	2025-07-17	2026-07-17
7	ATA-E-049	High Frequency Horn Antenna	ECHO	OBH100400	12221225	2026-05-07	2027-05-06
8	ATA-E-038	Cable	Times	0-18GHz	/	2026-05-07	2027-05-06
9	ATA-E-040	6dB attenuator	Zhengchang Liubo	6dB	/	2026-05-07	2027-05-06
10	ATA-E-039	Cable	Times	0-1GHz	/	2026-05-07	2027-05-06
11	ATA-E-052	Cable	HELPLIGHT	18-40GHz	/	2026-05-07	2027-05-06
12	ATA-E-041	Preamplifier	COM MV	DLNA8-1-18 G-2705	10241234	2026-05-07	2027-05-06
13	ATA-E-042	Preamplifier	COM MV	DLNA8-0.00 9-1000-103 4	5252881	2026-05-07	2027-05-06
14	ATA-E-050	Preamplifier	COM MV	DLAN-1800 0-40000-02	10229104	2026-05-07	2027-05-06
15	ATA-E-044	Filter	MWRFTesT	ZHPF6-C30 00-18000-3 129	08252098	2026-05-07	2027-05-06
16	ATA-E-045	Filter	MWRFTesT	ZHPF6-C65 00-18000-1 75	08252097	2026-05-07	2027-05-06
17	ATA-E-046	Filter	MWRFTesT	ZBSF6-C24 00-2483.5-5 43	08252096	2026-05-07	2027-05-06
18	ATA-E-047	Filter	MWRFTesT	ZBSF6-C51 00-5900-57 13	08252095	2026-05-07	2027-05-06
19	ATA-E-051	Spectrum Analyzer	R&S	FSV40-N	101779	2025-07-29	2026-07-28
20	ATA-E-052	Cable	HELPLIGHT	2.92J/2.92J 10M	/	2026-01-19	2027-01-18
21	ATA-E-054	Cable	HELPLIGHT	2.92J/2.92J 0.8M	/	2026-01-19	2027-01-18
22	ATA-E-059	Antenna Tower	CRT	AT-1	/	/	/
23	ATA-E-005	Temperature and humidity meter	deli	LE502-WH	/	2026-05-07	2027-05-06
24	ATA-E-064	Barometer	Qingping	CGP23W	/	2026-01-28	2027-01-27
25	ATA-E-048	Loop Antenna	ZHINA	ZN30900C	21104CCU TSE019	2026-05-07	2027-05-06

Conduction emission							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	ATA-E-032	EMI TEST RECEIVER	Schwarzbeck	ESC13	1009300	2026-05-07	2027-05-06
2	ATA-E-037	Pulse Limiter	Schwarzbeck	VTSD 9561 F-N	/	2026-05-07	2027-05-06
3	ATA-E-069	Conductive test cable	Schwarzbeck	2.5m	N/A	2026-01-28	2027-01-27
4	ATA-E-036	Artificial Mains Network	Schwarzbeck	NSLK 8127	01169	2026-05-07	2027-05-06
5	ATA-E-072	Three-Line V-Network	ZHINAN	2N33770A	13003	2026-01-28	2027-01-27
6	ATA-E-009	Temperature and humidity meter	deli	LE502-WH	/	2026-05-07	2027-05-06
7	ATA-E-010	Barometer	Qingping	CGP23W	/	2026-05-07	2027-05-06

Conduction emission							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	ATA-E-032	EMI TEST RECEIVER	Schwarzbeck	ESC13	1009300	2026-05-07	2027-05-06
2	ATA-E-037	Pulse Limiter	Schwarzbeck	VTSD 9561 F-N	/	2026-05-07	2027-05-06
3	ATA-E-069	Conductive test cable	Schwarzbeck	2.5m	N/A	2026-01-28	2027-01-27
4	ATA-E-036	Artificial Mains Network	Schwarzbeck	NSLK 8127	01169	2026-05-07	2027-05-06
5	ATA-E-072	Three-Line V-Network	ZHINAN	2N33770A	13003	2026-01-28	2027-01-27
6	ATA-E-009	Temperature and humidity meter	deli	LE502-WH	/	2026-05-07	2027-05-06
7	ATA-E-010	Barometer	Qingping	CGP23W	/	2026-05-07	2027-05-06

RF Conducted Test							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
	ATA-E-029	Spectrum Analyzer	Keysight	N9020A	MY50530404	2026-05-07	2027-05-06
1	ATA-E-030	MXG Analog Signal Generator	Agilent	N5181A	MY47420598	2026-05-07	2027-05-06
2	ATA-E-031	WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW500	161163	2026-05-07	2027-05-06
3	ATA-E-043	Radio Control Unit	MWRFTest	MW100-RFCB	MW250428A TA-55	2026-05-07	2027-05-06

Note:

1)The Cal. Interval was one year.

2)The cable loss has calculated in test result which connection between each test instruments.

Add:4th Floor, Building 10, No. 60 Nanchang Road, Nanchang Community, Xixiang Street, Bao'an District, Shenzhen City, Guangdong, People's Republic of China

Tel: +86 0755-82828582

Mobile phone: +86 13728818899

E-mail: ata@certata.com

Web: www.certata.com

2.7. Test Software

Software name	Model	Version
Conducted emission Measurement Software	EZ-EMC	FARAD-3A1.1+
Radiated emission Measurement Software	EZ-EMC	FARAD-3A1.1+
Bluetooth and WIFI Test System	MWRF8310	2.0.0.0



3. TEST ITEM AND RESULTS

3.1. Antenna requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 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, 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.

FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i):

(i) Systems operating in the 2400~2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Antenna Information

The maximum gain of antenna was 3.37 dBi. The EUT antenna is permanent attached Monopole antenna. It comply with the standard requirement.



3.2. Conducted Emission

Limit

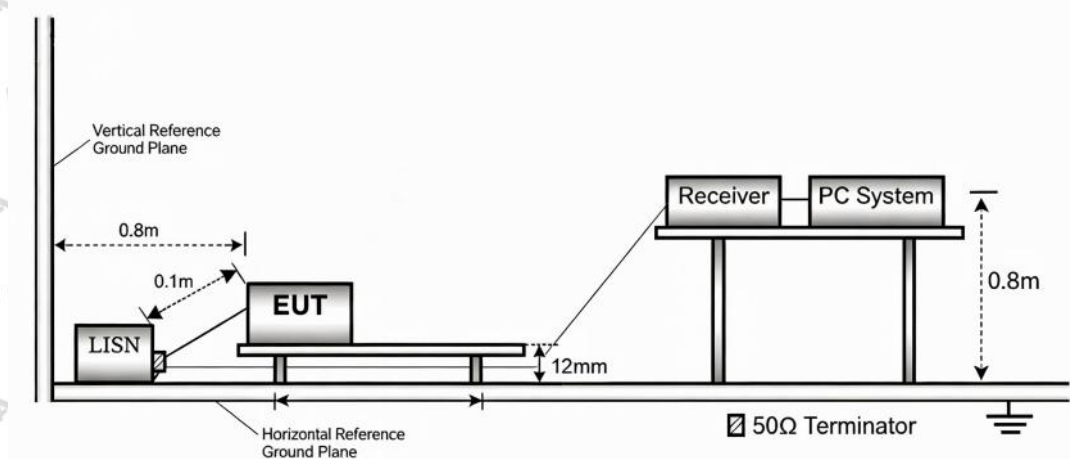
Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage (dB μ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Notes:

- (1) *Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

Test Configuration



Test Procedure

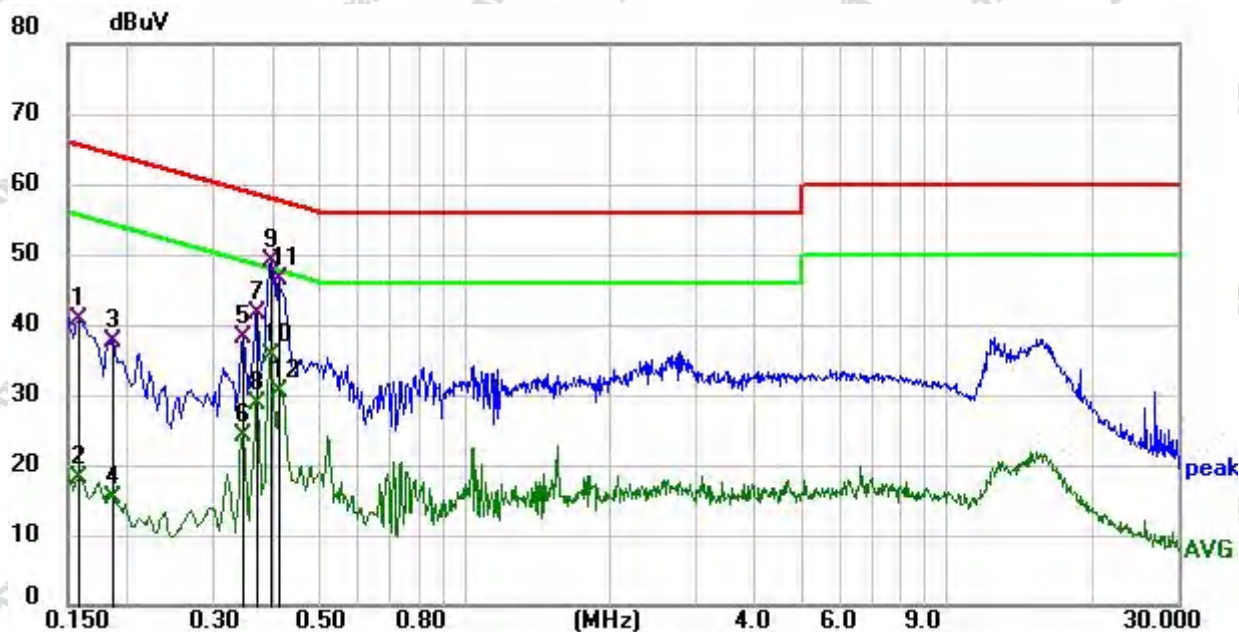
1. The EUT was setup according to ANSI C63.10-2020 + Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 requirements.
2. According to the requirements in Section 6.2 of ANSI C63.10. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.
3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
4. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
5. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
6. Conducted Emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
7. During the above scans, the emissions were maximized by cable manipulation.

Test Mode:

Please refer to the clause 2.3.

Test Results

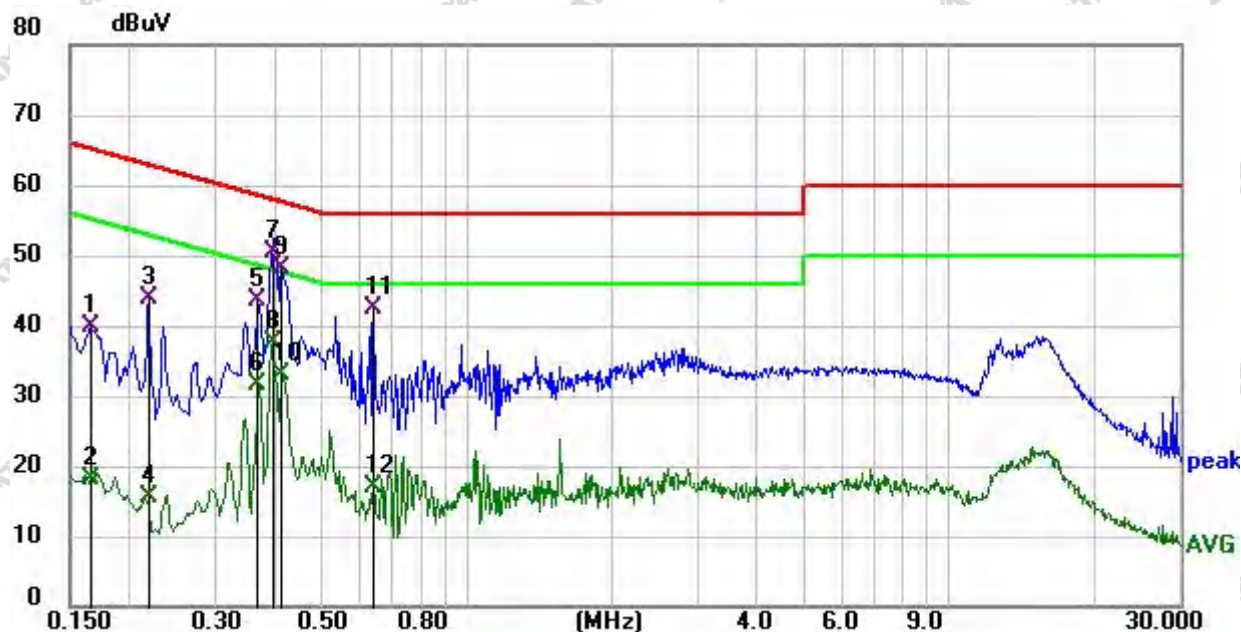
EUT:	iGarden Pool Cleaner	Model Name:	MX12501-SJ
Pressure:	1010 hPa	Phase:	N
Temperature	24.8℃	Humidity	52.1%
Test Mode:	Normal Link	Test Voltage:	AC 120V/60Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1660	29.76	10.11	39.87	65.16	-25.29	QP
2	0.1660	8.15	10.11	18.26	55.16	-36.90	AVG
3	0.2180	33.85	10.10	43.95	62.89	-18.94	QP
4	0.2180	5.36	10.10	15.46	52.89	-37.43	AVG
5	0.3660	33.44	10.12	43.56	58.59	-15.03	QP
6	0.3660	21.50	10.12	31.62	48.59	-16.97	AVG
7	0.3980	40.25	10.12	50.37	57.90	-7.53	QP
8	0.3980	27.58	10.12	37.70	47.90	-10.20	AVG
9 *	0.4100	37.89	10.12	48.01	57.65	-9.64	QP
10	0.4100	22.90	10.12	33.02	47.65	-14.63	AVG
11	0.6380	32.37	10.15	42.52	56.00	-13.48	QP
12	0.6380	6.75	10.15	16.90	46.00	-29.10	AVG

Remark: 1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = LISN factor + Cable loss + Limiter (10dB)

EUT:	iGarden Pool Cleaner	Model Name:	MX12501-SJ
Pressure:	1010 hPa	Phase:	L
Temperature	24.8°C	Humidity	52.1%
Test Mode:	Normal Link	Test Voltage:	AC 120V/60Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	30.69	10.11	40.80	65.57	-24.77	QP
2	0.1580	8.11	10.11	18.22	55.57	-37.35	AVG
3 *	0.1860	27.51	10.10	37.61	64.21	-26.60	QP
4	0.1860	5.23	10.10	15.33	54.21	-38.88	AVG
5	0.3460	28.16	10.11	38.27	59.06	-20.79	QP
6	0.3460	14.10	10.11	24.21	49.06	-24.85	AVG
7	0.3700	31.33	10.12	41.45	58.50	-17.05	QP
8	0.3700	18.71	10.12	28.83	48.50	-19.67	AVG
9	0.3980	39.02	10.12	49.14	57.90	-8.76	QP
10	0.3980	25.43	10.12	35.55	47.90	-12.35	AVG
11	0.4100	36.35	10.12	46.47	57.65	-11.18	QP
12	0.4100	20.18	10.12	30.30	47.65	-17.35	AVG

Remark: 1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = LISN factor + Cable loss + Limiter (10dB)

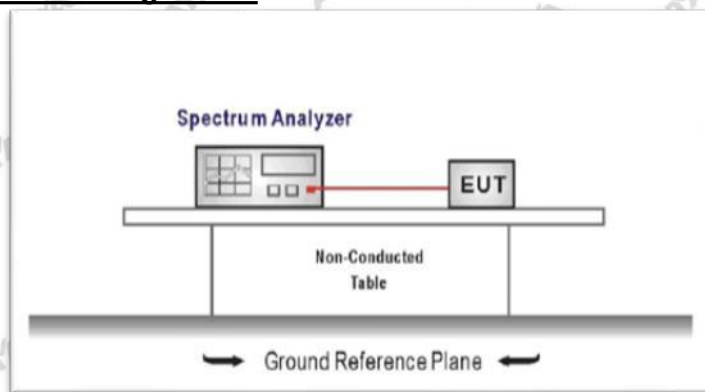
3.3. Band edge and Spurious Emission (conducted)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d):

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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.

Test Configuration



Test Procedure

1. Connect the antenna port(s) to the spectrum analyzer input.
2. Establish a reference level by using the following procedure
Center frequency=DTS channel center frequency
The span = 1.5 times the DTS bandwidth.
RBW = 100 kHz, VBW $\geq 3 \times$ RBW
Detector = peak, Sweep time = auto couple, Trace mode = max hold
Allow trace to fully stabilize
Use the peak marker function to determine the maximum PSD level

Note: the channel found to contain the maximum PSD level can be used to establish the reference level.

3. Emission level measurement
Set the center frequency and span to encompass frequency range to be measured
RBW = 100 kHz, VBW $\geq 3 \times$ RBW
Detector = peak, Sweep time = auto couple, Trace mode = max hold
Allow trace to fully stabilize
Use the peak marker function to determine the maximum amplitude level.
4. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter waveform on the spectrum analyzer.
5. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band excluding restricted frequency bands) are attenuated by at least the minimum requirements specified (at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz). Report the three highest emissions relative to the limit.

Test Mode

Please refer to the clause 2.3.

Test Results

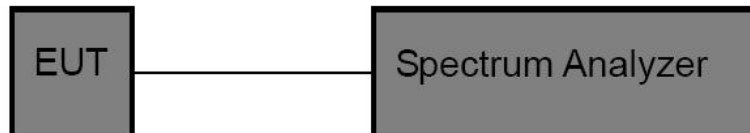
Test data reference attachment X.

3.4. 6dB Bandwidth

Limit

Test Item	Limit	Frequency Range(MHz)
Bandwidth	≥ 500 KHz (6dB bandwidth)	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.
3. The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.
4. Spectrum Setting:
6dB bandwidth:
 - (1) Set RBW= shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.
 - (6) Allow the trace to stabilize.
- (7) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

NOTE: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

Test Mode

Please refer to the clause 2.3.

Test Results

Test data reference attachment X.

3.5. Peak Output Power

Limit

Test Item	Limit	Frequency Range(MHz)
Peak Output Power	1 Watt or 30 dBm	2400~2483.5

Test Configuration



Test Procedure

1. The maximum peak conducted output power may be measured using a broadband peak RF power meter.
2. Spectrum Setting:
Peak Detector: $RBW \geq DTS \text{ Bandwidth}$, $VBW \geq 3 * RBW$.
Sweep time=Auto.
Detector= Peak.
Trace mode= Maxhold.
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.3.

Test Result

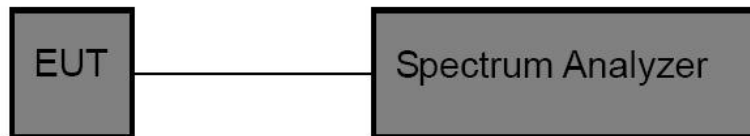
Test data reference attachment X.

3.6. Power Spectral Density

Limit

FCC Part 15 Subpart C(15.247)		
Test Item	Limit	Frequency Range(MHz)
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02
3. Spectrum Setting:
 - Set analyzer center frequency to DTS channel center frequency.
 - Set the span to 1.5 times the DTS bandwidth.
 - Set the RBW to: 30 kHz
 - Set the VBW to: 100 kHz
 - Detector: peak
 - Sweep time: auto
 - Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.3.

Test Result

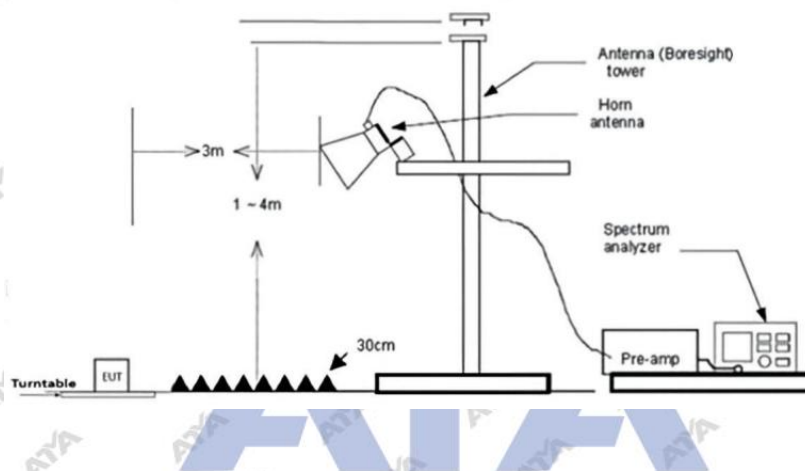
Test data reference attachment X.

3.7. Band Edge Emissions(Radiated)

Limit

Restricted Frequency Band (MHz)	(dBuV/m)(at 3m)	
	Peak	Average
2310 ~2390	74	54
2483.5 ~2500	74	54
Note: All restriction bands have been tested, only the worst case is reported.		

Test Configuration



Test Procedure

1. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
2. The EUT was placed on a turntable with 12 mm above ground.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2020 + Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 on radiated measurement.
5. The receiver set as follow:
 RBW=1MHz, VBW=3MHz PEAK detector for Peak value.
 RBW=1MHz, VBW=10Hz with PEAK Detector for Average Value.

Test Mode

Please refer to the clause 2.2.

Test Results

Note:

Measurement = Reading level + Correct Factor

Correct Factor=Antenna Factor + Cable Loss -Preamplifier Factor

Test Data**Radiated Band Edge**

Frequency (MHz)	Meter Reading (dBμV)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
802.11b									
2310.00	56.93	2.4	27.7	40.4	46.63	74	-27.37	Pk	Horizontal
2310.00	46.03	2.4	27.7	40.4	35.73	54	-18.27	AV	Horizontal
2310.00	57.56	2.4	27.7	40.4	47.26	74	-26.74	Pk	Vertical
2310.00	44.91	2.4	27.7	40.4	34.61	54	-19.39	AV	Vertical
2390.00	58.43	2.44	28.3	40.1	49.07	74	-24.93	Pk	Vertical
2390.00	43.55	2.44	28.3	40.1	34.19	54	-19.81	AV	Vertical
2390.00	56.41	2.44	28.3	40.1	47.05	74	-26.95	Pk	Horizontal
2390.00	44.56	2.44	28.3	40.1	35.2	54	-18.8	AV	Horizontal
2483.50	58.93	2.48	28.7	39.8	50.31	74	-23.69	Pk	Vertical
2483.50	44.43	2.48	28.7	39.8	35.81	54	-18.19	AV	Vertical
2483.50	58.98	2.48	28.7	39.8	50.36	74	-23.64	Pk	Horizontal
2483.50	46.58	2.48	28.7	39.8	37.96	54	-16.04	AV	Horizontal
2500.00	48.49	3.49	29.2	32.66	48.52	74	-25.48	Pk	Vertical
2500.00	36.13	3.49	29.2	32.66	36.16	54	-17.84	AV	Vertical
2500.00	48.48	3.49	29.2	32.66	48.51	74	-25.49	Pk	Horizontal
2500.00	56.93	3.49	29.2	32.66	36.52	54	-17.48	AV	Horizontal
802.11g									
2310.00	56.54	2.4	27.7	40.4	46.24	74	-27.76	Pk	Horizontal
2310.00	46.44	2.4	27.7	40.4	36.14	54	-17.86	AV	Horizontal
2310.00	57.55	2.4	27.7	40.4	47.25	74	-26.75	Pk	Vertical
2310.00	46.49	2.4	27.7	40.4	36.19	54	-17.81	AV	Vertical
2390.00	58.61	2.44	28.3	40.1	49.25	74	-24.75	Pk	Vertical
2390.00	47.43	2.44	28.3	40.1	38.07	54	-15.93	AV	Vertical
2390.00	59.11	2.44	28.3	40.1	49.75	74	-24.25	Pk	Horizontal
2390.00	47.22	2.44	28.3	40.1	37.86	54	-16.14	AV	Horizontal
2483.50	57.55	2.48	28.7	39.8	48.93	74	-25.07	Pk	Vertical
2483.50	44.93	2.48	28.7	39.8	36.31	54	-17.69	AV	Vertical
2483.50	56.71	2.48	28.7	39.8	48.09	74	-25.91	Pk	Horizontal
2483.50	46.72	2.48	28.7	39.8	38.1	54	-15.9	AV	Horizontal
2500.00	49.18	3.49	29.2	32.66	49.21	74	-24.79	Pk	Vertical
2500.00	37.44	3.49	29.2	32.66	37.47	54	-16.53	AV	Vertical
2500.00	49.00	3.49	29.2	32.66	49.03	74	-24.97	Pk	Horizontal
2500.00	36.63	3.49	29.2	32.66	36.66	54	-17.34	AV	Horizontal

Radiated Band Edge

802.11n20									
2310.00	58.92	2.4	27.7	40.4	48.62	74	-25.38	Pk	Horizontal
2310.00	46.22	2.4	27.7	40.4	35.92	54	-18.08	AV	Horizontal
2310.00	57.55	2.4	27.7	40.4	47.25	74	-26.75	Pk	Vertical
2310.00	46.59	2.4	27.7	40.4	36.29	54	-17.71	AV	Vertical
2390.00	58.35	2.44	28.3	40.1	48.99	74	-25.01	Pk	Vertical
2390.00	47.48	2.44	28.3	40.1	38.12	54	-15.88	AV	Vertical
2390.00	59.1	2.44	28.3	40.1	49.74	74	-24.26	Pk	Horizontal
2390.00	47.3	2.44	28.3	40.1	37.94	54	-16.06	AV	Horizontal
2483.50	57.52	2.48	28.7	39.8	48.9	74	-25.1	Pk	Vertical
2483.50	43.49	2.48	28.7	39.8	34.87	54	-19.13	AV	Vertical
2483.50	56.59	2.48	28.7	39.8	47.97	74	-26.03	Pk	Horizontal
2483.50	42.63	2.48	28.7	39.8	34.01	54	-19.99	AV	Horizontal
2500.00	48.93	3.49	29.2	32.66	48.96	74	-25.04	Pk	Vertical
2500.00	37.44	3.49	29.2	32.66	37.47	54	-16.53	AV	Vertical
2500.00	49.09	3.49	29.2	32.66	49.12	74	-24.88	Pk	Horizontal
2500.00	36.03	3.49	29.2	32.66	36.06	54	-17.94	AV	Horizontal
802.11n40									
2310.00	58.03	2.4	27.7	40.4	47.73	74	-26.27	Pk	Horizontal
2310.00	43.58	2.4	27.7	40.4	33.28	54	-20.72	AV	Horizontal
2310.00	57.53	2.4	27.7	40.4	47.23	74	-26.77	Pk	Vertical
2310.00	46.54	2.4	27.7	40.4	36.24	54	-17.76	AV	Vertical
2390.00	58.41	2.44	28.3	40.1	49.05	74	-24.95	Pk	Vertical
2390.00	46.99	2.44	28.3	40.1	37.63	54	-16.37	AV	Vertical
2390.00	57.56	2.44	28.3	40.1	48.2	74	-25.8	Pk	Horizontal
2390.00	45.51	2.44	28.3	40.1	36.15	54	-17.85	AV	Horizontal
2483.50	56.13	2.48	28.7	39.8	47.51	74	-26.49	Pk	Vertical
2483.50	44.18	2.48	28.7	39.8	35.56	54	-18.44	AV	Vertical
2483.50	55.53	2.48	28.7	39.8	46.91	74	-27.09	Pk	Horizontal
2483.50	42.63	2.48	28.7	39.8	34.01	54	-19.99	AV	Horizontal
2500.00	49.73	3.49	29.2	32.66	49.76	74	-24.24	Pk	Vertical
2500.00	38	3.49	29.2	32.66	38.03	54	-15.97	AV	Vertical
2500.00	49.32	3.49	29.2	32.66	49.35	74	-24.65	Pk	Horizontal
2500.00	35.54	3.49	29.2	32.66	35.57	54	-18.43	AV	Horizontal

3.8. Spurious Emission (Radiated)

Limit

Radiated Emission Limits (9 kHz~1000 MHz)

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

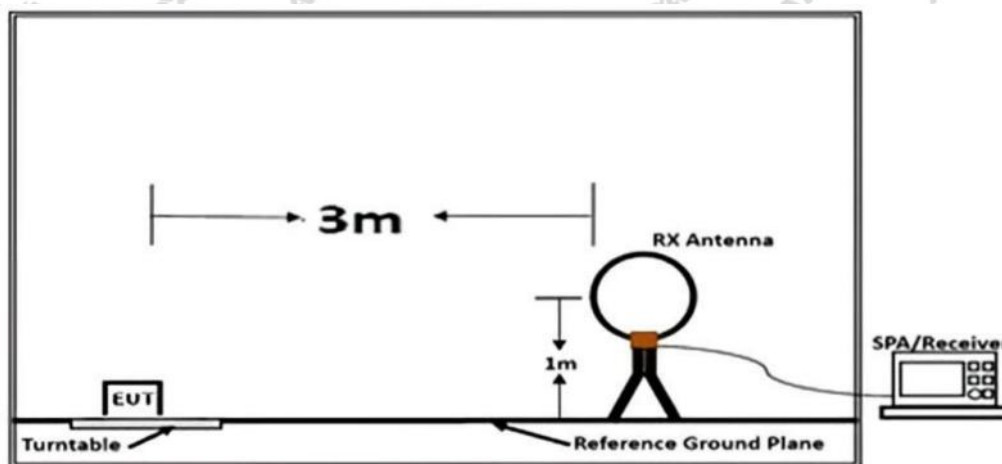
Radiated Emission Limit (Above 1000MHz)

Frequency (MHz)	Distance Meters(at 3m)	
	Peak	Average
Above 1000	74	54

Note:

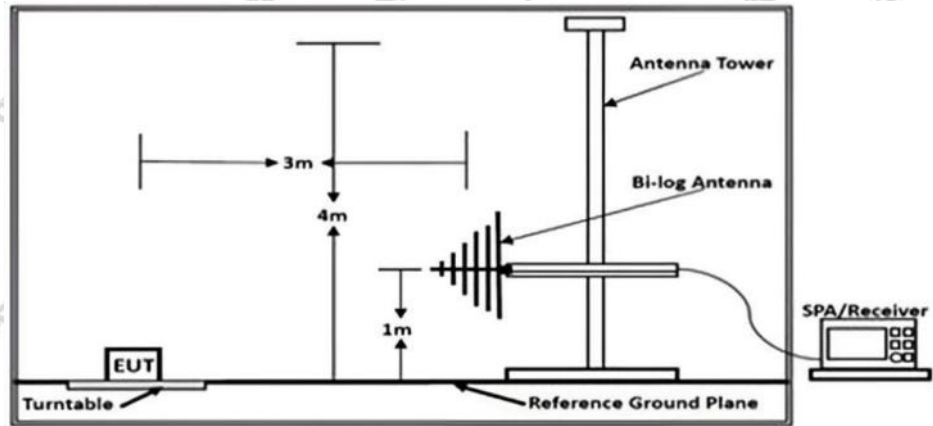
- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)=20log Emission Level (uV/m).

Test Configuration

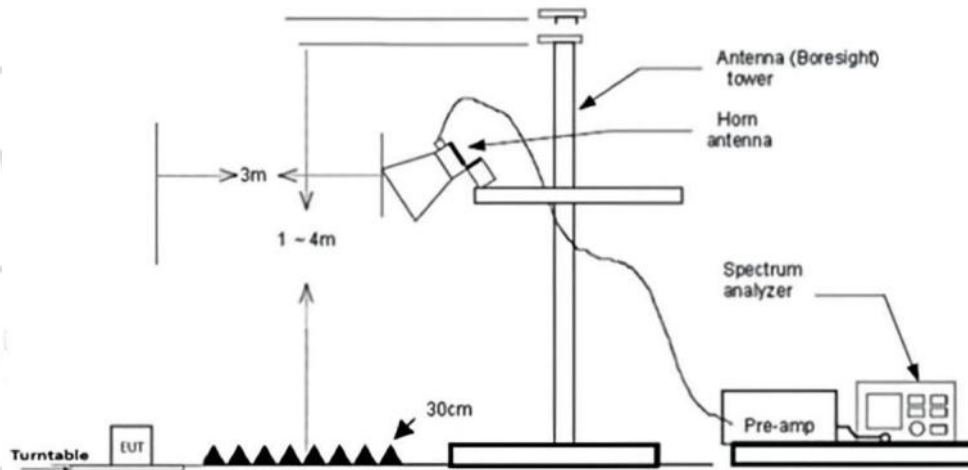


Below 30MHz

Below 30MHz Test Setup



Below 1000MHz Test Setup



Above 1GHz Test Setup

Test Procedure

1. The EUT was setup and tested according to ANSI C63.10-2020 + Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024
2. The EUT was placed on a turntable with 12 mm above ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Below 1 GHz:
RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;
If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
 - (3) From 1 GHz to 10th harmonic:
RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW=10Hz RMS detector for Average value.

Test Mode

Please refer to the clause 2.3.

Test Result**9 KHz~30 MHz**

From 9 KHz~30 MHz : Conclusion: PASS

EUT:	iGarden Pool Cleaner	Model Name:	MX12501-SJ
Pressure:	1010 hPa	Phase:	H/V
Temperature	24.8°C	Humidity	52.1%
Test Mode:	Normal Link	Test Voltage:	DC 25.2V

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	--
--	--	--	--	--

Note:

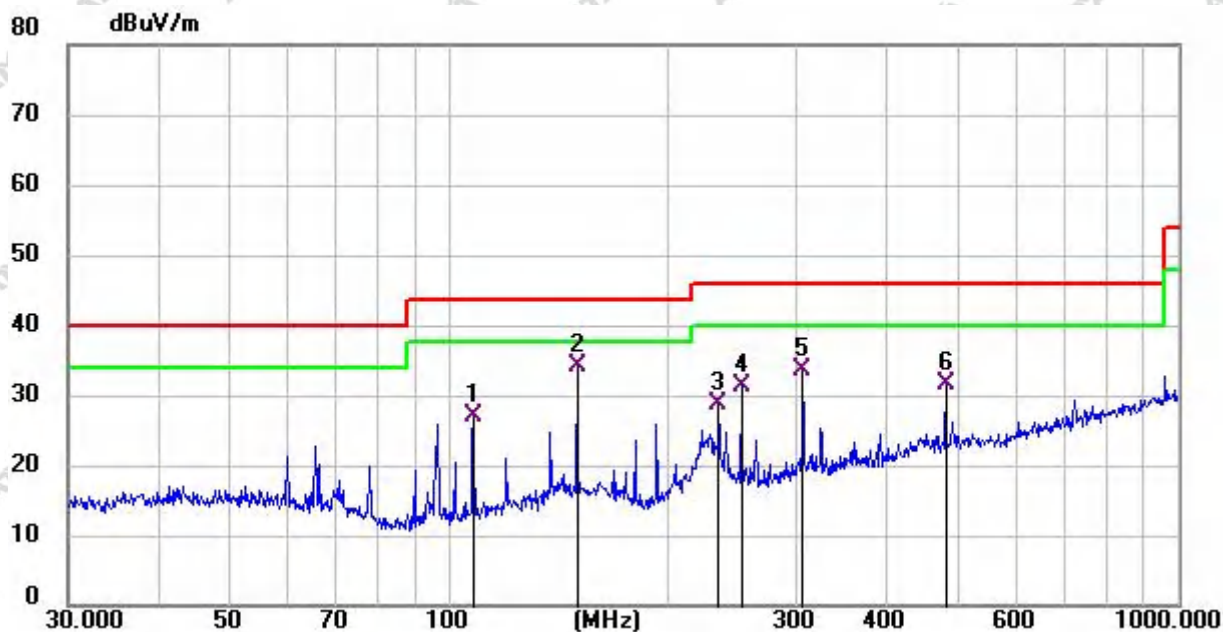
1. For 9kHz-30MHz, the amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Distance extrapolation factor = $40 \log (\text{specific distance}/\text{test distance})$ (dB);
3. Limit line = specific limits (dBuV) + distance extrapolation factor.

Note:

- 1) Measurement = Reading level + Correct Factor
Correct Factor=Antenna Factor + Cable Loss -Preamplifier Factor
- 2) The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
- 3) The emission levels of other frequencies are very lower than the limit and not show in test report.
- 4) The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Results of Radiated Emissions (30MHz~ 1000MHz)

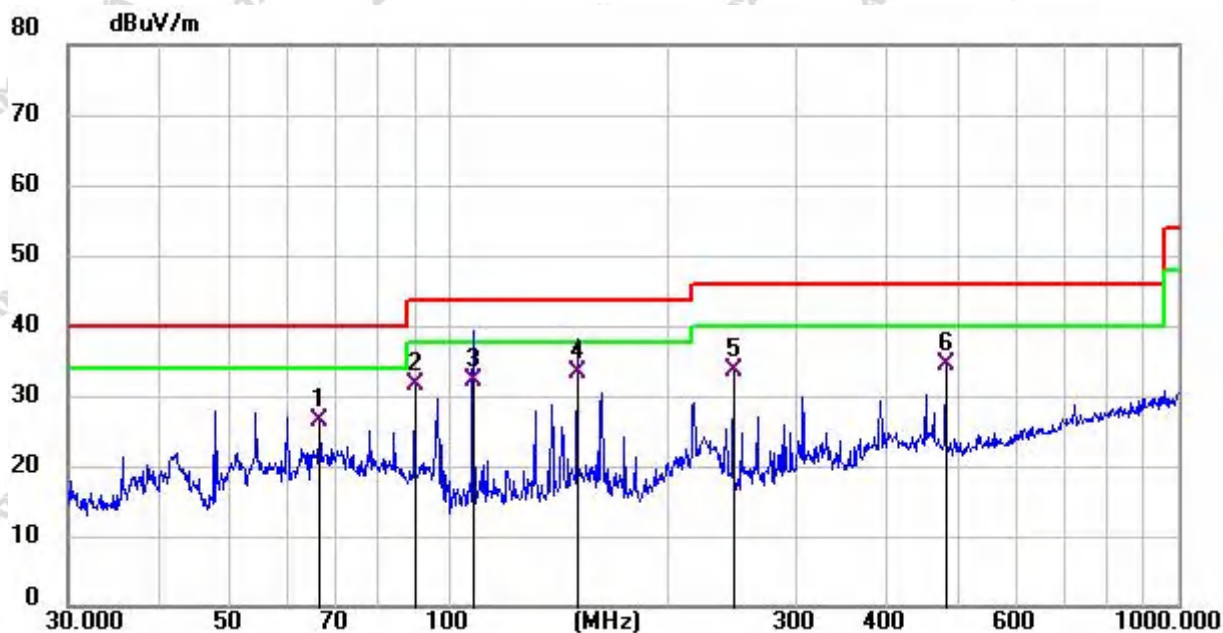
EUT:	iGarden Pool Cleaner	Model Name:	MX12501-SJ
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	24.8℃	Humidity	52.1%
Test Mode:	Normal Link	Test Voltage:	DC 25.2V



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	107.8877	41.91	-14.96	26.95	43.50	-16.55	QP
2	150.0108	45.59	-11.55	34.04	43.50	-9.46	QP
3	234.1683	42.12	-13.53	28.59	46.00	-17.41	QP
4 *	252.0627	44.39	-13.15	31.24	46.00	-14.76	QP
5 !	305.6800	45.01	-11.44	33.57	46.00	-12.43	QP
6 !	480.5276	38.85	-7.32	31.53	46.00	-14.47	QP

Emission Level= Read Level+ Correct Factor

EUT:	iGarden Pool Cleaner	Model Name:	MX12501-SJ
Pressure:	1010 hPa	Phase:	Vertical
Temperature	24.8℃	Humidity	52.1%
Test Mode:	Normal Link	Test Voltage:	DC 25.2V



No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	66.4990	41.43	-14.87	26.56	40.00	-13.44	QP
2*	89.9046	48.17	-16.64	31.53	43.50	-11.97	QP
3	107.8877	47.06	-14.96	32.10	43.50	-11.40	QP
4 !	150.0108	44.95	-11.55	33.40	43.50	-10.10	QP
5	245.9510	46.89	-13.29	33.60	46.00	-12.40	QP
6 !	480.5276	41.72	-7.32	34.40	46.00	-11.60	QP

Emission Level= Read Level+ Correct Factor

Spurious Emission (1GHz-25GHz)

Frequency (MHz)	Read Level (dBμV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel (2412 MHz)(802.11g)--Above 1G									
4824.025	66.9	5.7	32.7	53.1	52.20	74	-21.80	Pk	Vertical
4824.025	44.45	5.7	32.7	53.1	29.75	54	-24.25	AV	Vertical
7236.265	64.09	6.9	36.9	53.7	54.19	74	-19.81	Pk	Vertical
7236.265	46.48	6.9	36.9	53.7	36.58	54	-17.42	AV	Vertical
4824.109	64.43	5.7	32.7	53.1	49.73	74	-24.27	Pk	Horizontal
4824.109	45.90	5.7	32.7	53.1	31.20	54	-22.8	AV	Horizontal
7236.224	66.01	6.9	36.9	53.7	56.11	74	-17.89	Pk	Horizontal
7236.224	51.08	6.9	36.9	53.7	41.18	54	-12.82	AV	Horizontal
Mid Channel (2437 MHz)(802.11g)--Above 1G									
4874.396	66.87	5.7	33.1	53.1	49.69	74	-21.43	Pk	Vertical
4874.396	45.96	5.7	33.1	53.1	28.78	54	-22.34	AV	Vertical
7311.241	64.16	6.9	36.9	53.7	51.38	74	-19.74	Pk	Vertical
7311.241	51.06	6.9	36.9	53.7	38.28	54	-12.84	AV	Vertical
4874.108	64.29	5.7	33.1	53.1	47.11	74	-24.01	Pk	Horizontal
4874.108	51.78	5.7	33.1	53.1	34.6	54	-16.52	AV	Horizontal
7311.132	64.37	6.9	36.9	53.7	51.59	74	-19.53	Pk	Horizontal
7311.132	45.02	6.9	36.9	53.7	32.24	54	-18.88	AV	Horizontal
High Channel (2462 MHz)(802.11g)-- Above 1G									
4924.397	46.25	5.7	33.1	53.1	31.95	74	-22.05	Pk	Vertical
4924.397	63.67	5.7	33.1	53.1	53.87	54	-20.13	AV	Vertical
7386.201	47.66	7.2	36.7	53.7	37.86	74	-16.14	Pk	Vertical
7386.201	71.29	7.2	36.7	53.7	56.99	54	-17.01	AV	Vertical
4924.225	50.45	5.7	33.1	53.1	36.15	74	-17.85	Pk	Horizontal
4924.225	63.88	5.7	33.1	53.1	54.08	54	-19.92	AV	Horizontal
7386.298	49.29	7.2	36.7	53.7	39.49	74	-14.51	Pk	Horizontal
7386.298	46.25	7.2	36.7	53.7	31.95	54	-22.05	AV	Horizontal

Note:

All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).

Emission Level= Antenna Factor + Cable Loss + Read Level - Preamplifier Factor.

All the modulation modes have been tested, and only the worst results are reflected in the report.

(2)Other emissions are attenuated more than 20dB below the permissible limits,so it does not recorded in the report.

(3)"802.11g" mode is the worst mode.When PK value is lower than the Average value limit,average don't record.

4. Test data attachment X

4.1 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b SISO	2412	Ant1	98.92	0.05	0.78
NVNT	b SISO	2437	Ant1	98.92	0.05	0.78
NVNT	b SISO	2462	Ant1	98.92	0.05	0.78
NVNT	g SISO	2412	Ant1	32.98	4.82	4.07
NVNT	g SISO	2437	Ant1	32.71	4.85	4.1
NVNT	g SISO	2462	Ant1	32.98	4.82	4.07
NVNT	n20 SISO	2412	Ant1	30.85	5.11	4.46
NVNT	n20 SISO	2437	Ant1	30.85	5.11	4.46
NVNT	n20 SISO	2462	Ant1	30.85	5.11	4.46
NVNT	n40 SISO	2422	Ant1	20.32	6.92	7.81
NVNT	n40 SISO	2437	Ant1	20.63	6.85	7.69
NVNT	n40 SISO	2452	Ant1	20.63	6.85	7.69

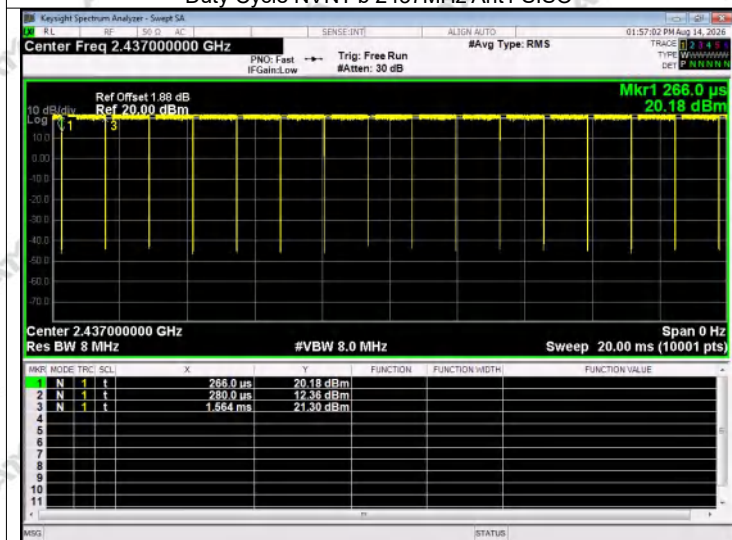


Test Graphs

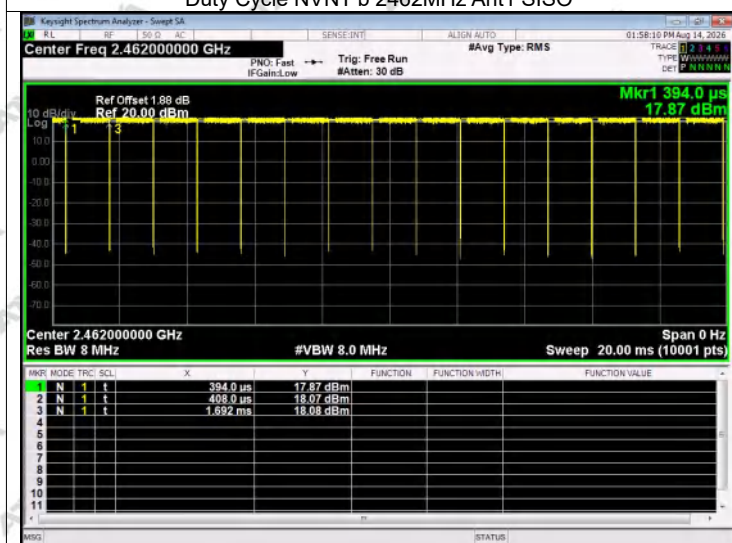
Duty Cycle NVNT b 2412MHz Ant1 SISO



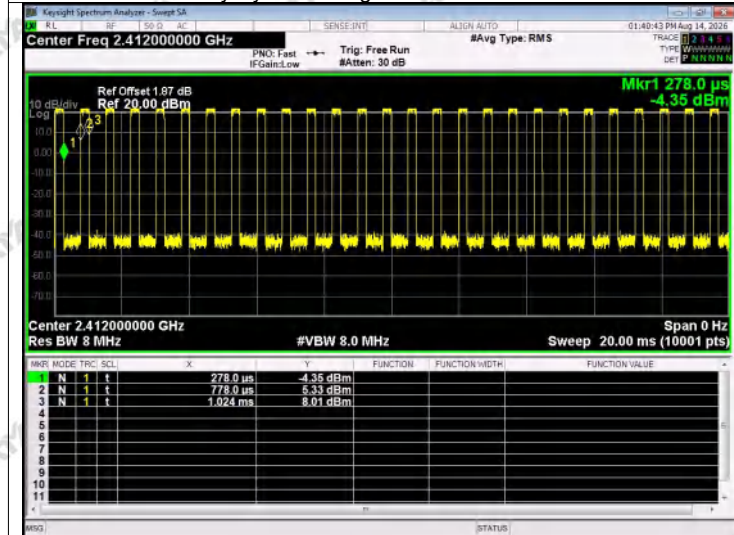
Duty Cycle NVNT b 2437MHz Ant1 SISO



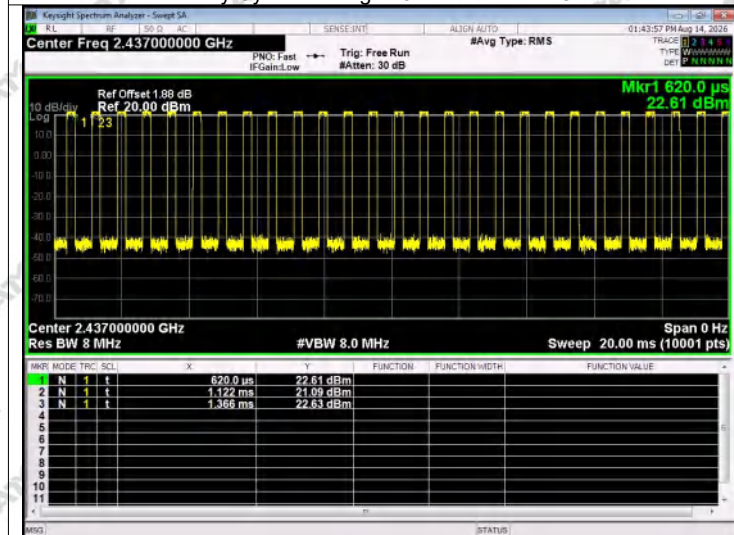
Duty Cycle NVNT b 2462MHz Ant1 SISO



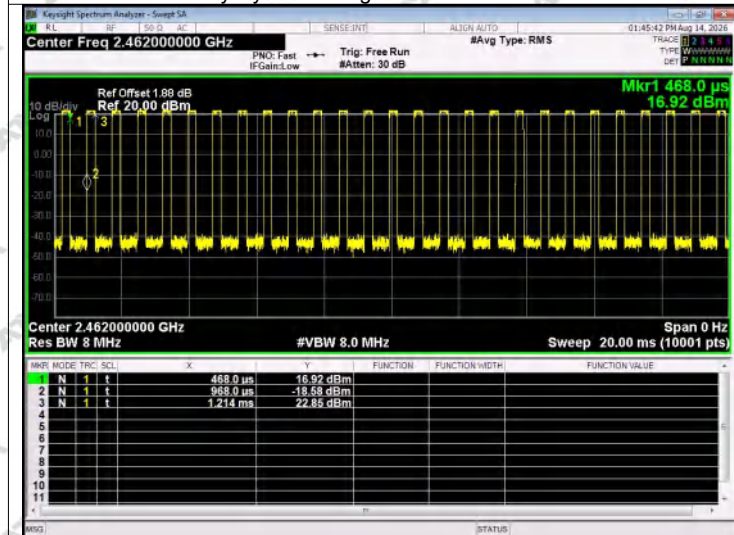
Duty Cycle NVNT g 2412MHz Ant1 SISO

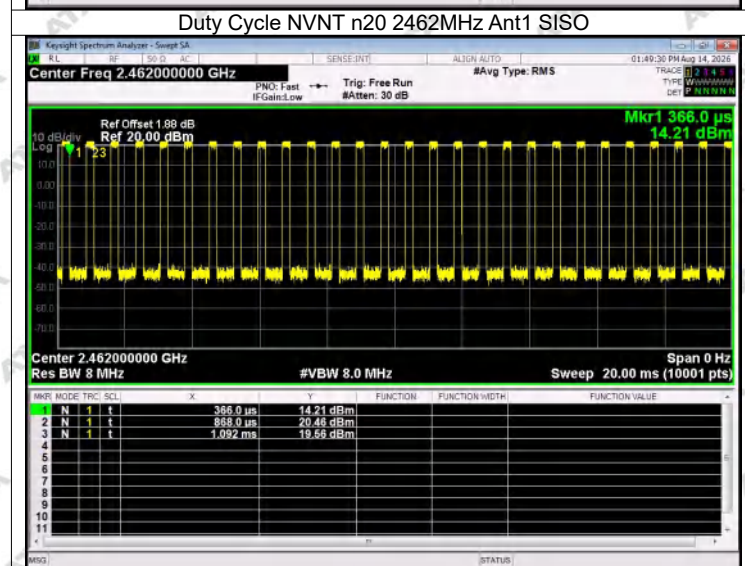
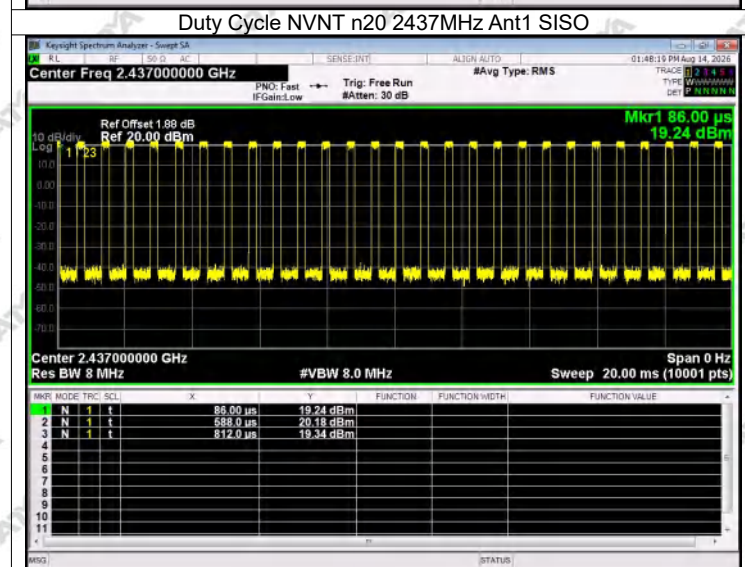
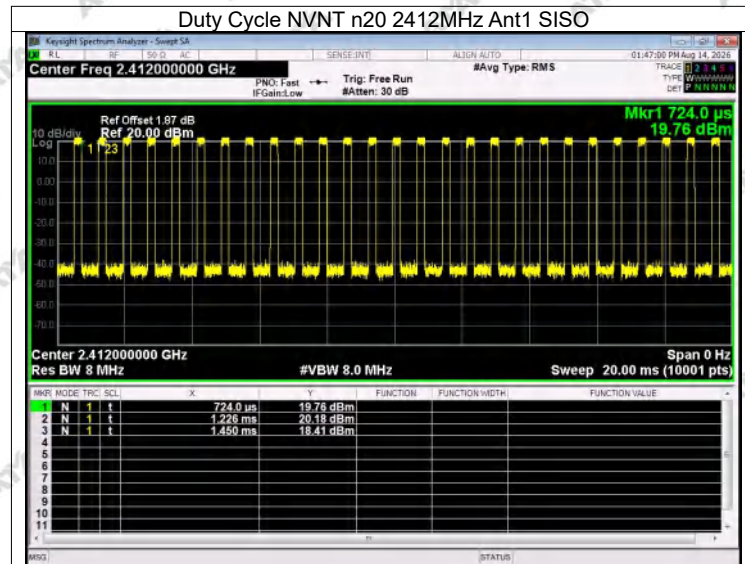


Duty Cycle NVNT g 2437MHz Ant1 SISO

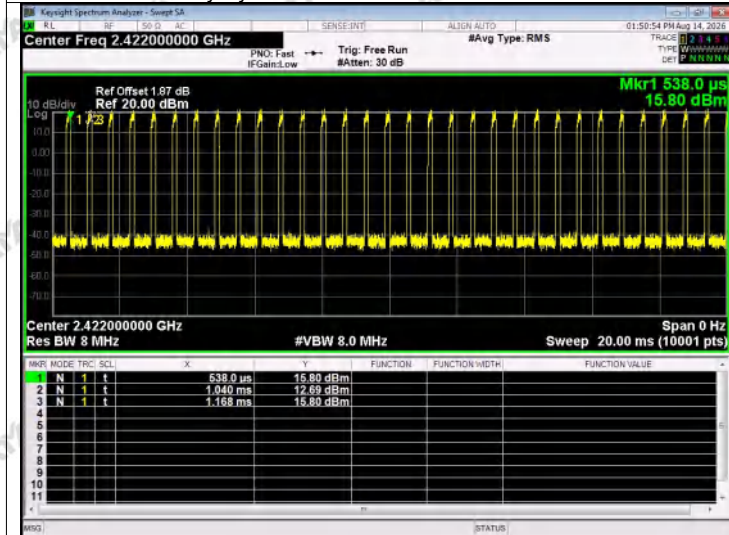


Duty Cycle NVNT g 2462MHz Ant1 SISO

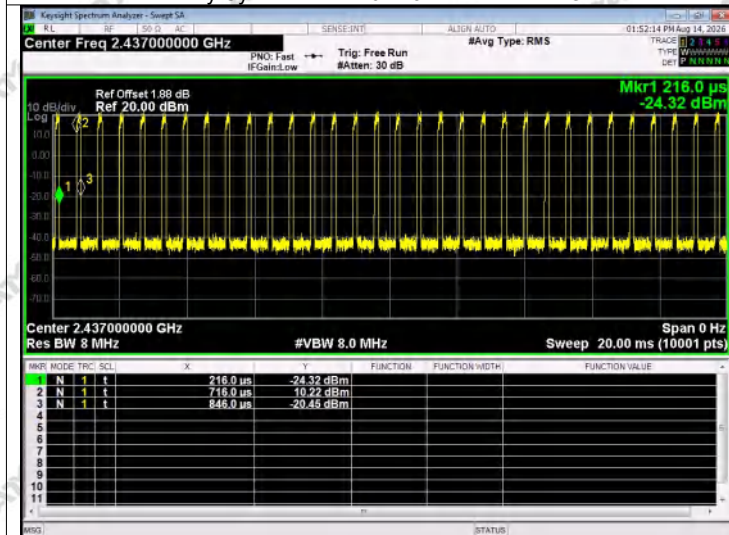




Duty Cycle NVNT n40 2422MHz Ant1 SISO



Duty Cycle NVNT n40 2437MHz Ant1 SISO



Duty Cycle NVNT n40 2452MHz Ant1 SISO



4.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted(dBm)	Verdict
NVNT	b SISO	2412	Ant1	17.8	0.06026	30	Pass
NVNT	b SISO	2437	Ant1	17.77	0.05984	30	Pass
NVNT	b SISO	2462	Ant1	17.73	0.05929	30	Pass
NVNT	g SISO	2412	Ant1	19.09	0.0811	30	Pass
NVNT	g SISO	2437	Ant1	19.13	0.08185	30	Pass
NVNT	g SISO	2462	Ant1	19.08	0.08091	30	Pass
NVNT	n20 SISO	2412	Ant1	18.29	0.06745	30	Pass
NVNT	n20 SISO	2437	Ant1	18.21	0.06622	30	Pass
NVNT	n20 SISO	2462	Ant1	18.26	0.06699	30	Pass
NVNT	n40 SISO	2422	Ant1	18.07	0.06412	30	Pass
NVNT	n40 SISO	2437	Ant1	18.06	0.06397	30	Pass
NVNT	n40 SISO	2452	Ant1	18.12	0.06486	30	Pass



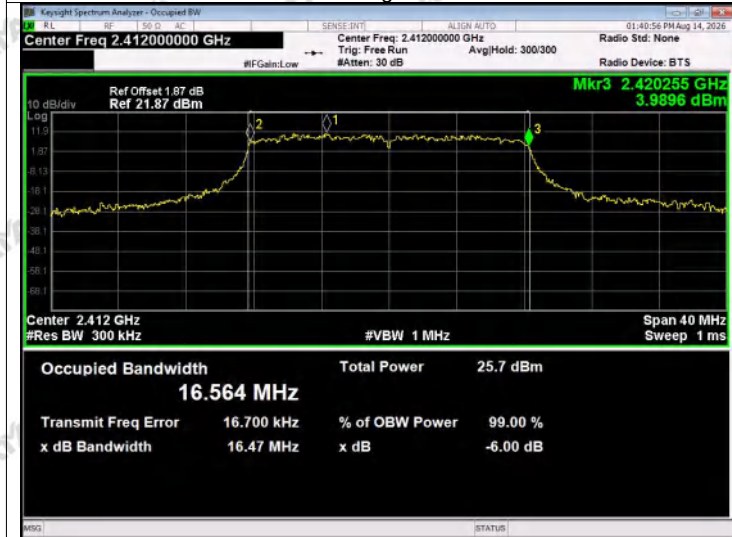
4.3 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b SISO	2412	Ant1	9.5	0.5	Pass
NVNT	b SISO	2437	Ant1	9.377	0.5	Pass
NVNT	b SISO	2462	Ant1	9.62	0.5	Pass
NVNT	g SISO	2412	Ant1	16.47	0.5	Pass
NVNT	g SISO	2437	Ant1	16.22	0.5	Pass
NVNT	g SISO	2462	Ant1	16.46	0.5	Pass
NVNT	n20 SISO	2412	Ant1	17.56	0.5	Pass
NVNT	n20 SISO	2437	Ant1	17.61	0.5	Pass
NVNT	n20 SISO	2462	Ant1	17.61	0.5	Pass
NVNT	n40 SISO	2422	Ant1	35.91	0.5	Pass
NVNT	n40 SISO	2437	Ant1	35.44	0.5	Pass
NVNT	n40 SISO	2452	Ant1	36.08	0.5	Pass

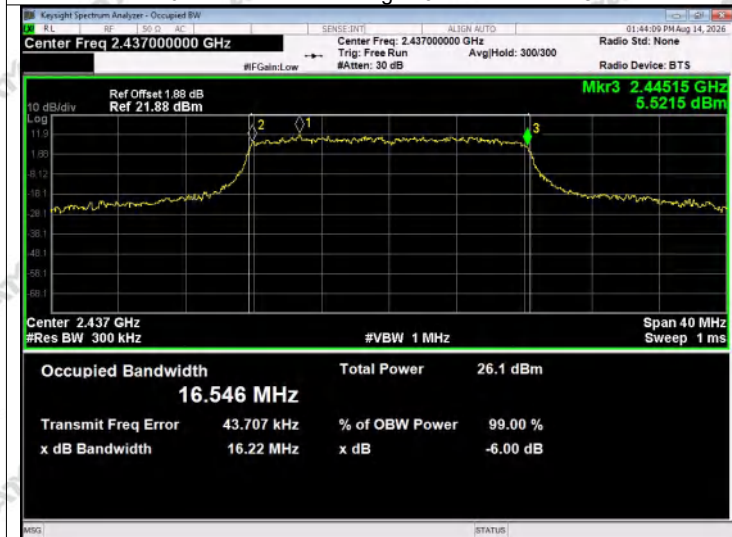




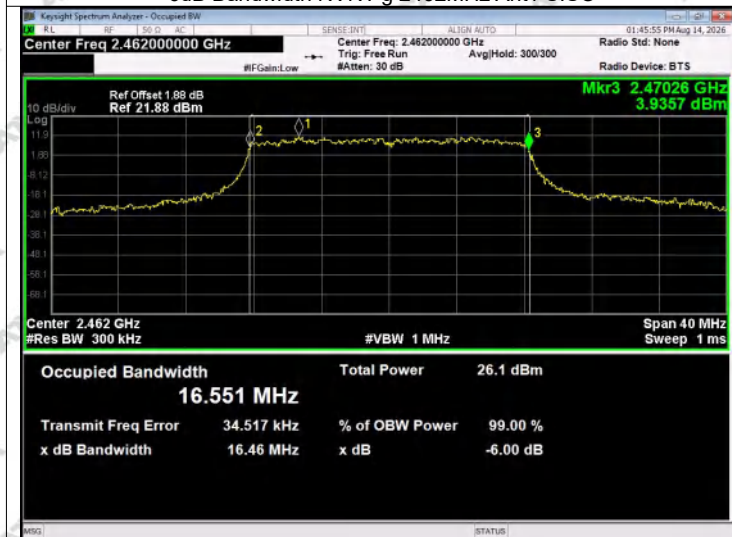
-6dB Bandwidth NVNT g 2412MHz Ant1 SISO

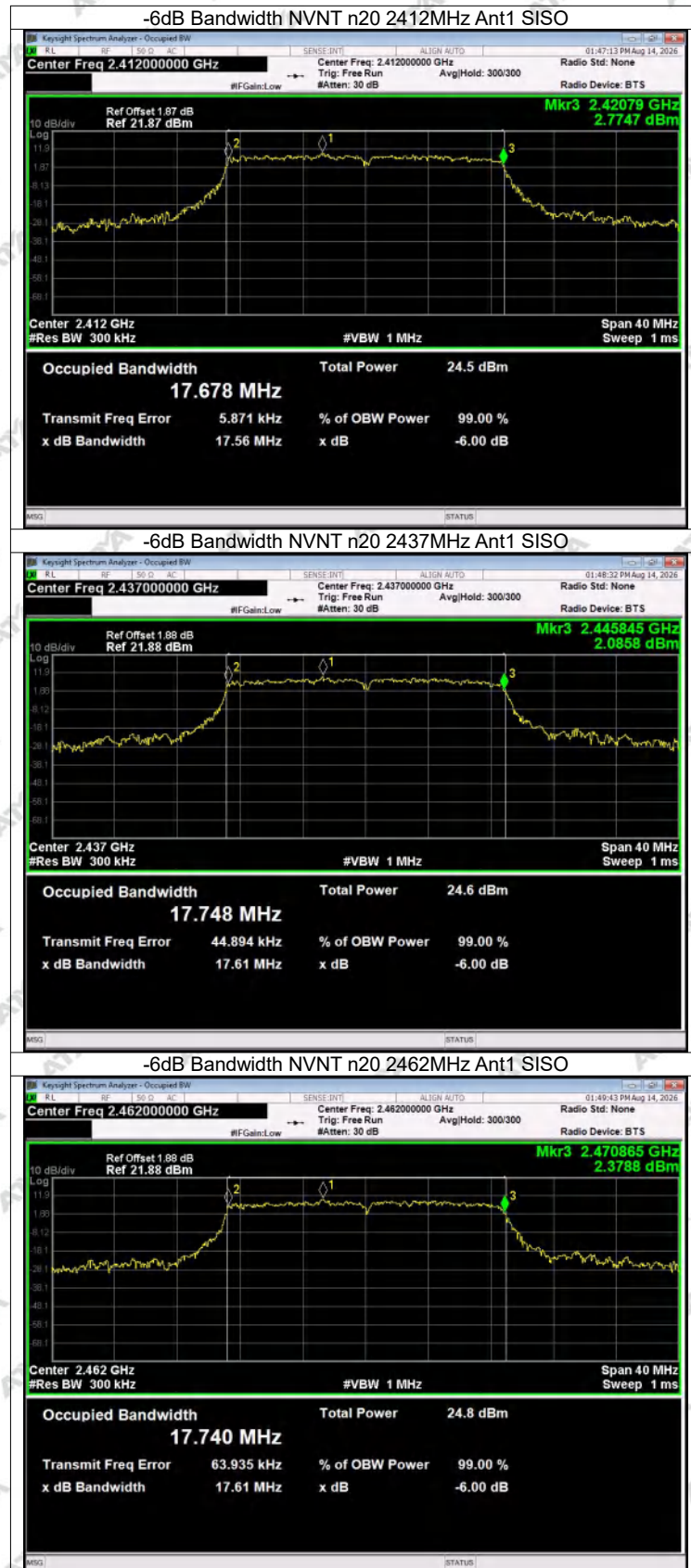


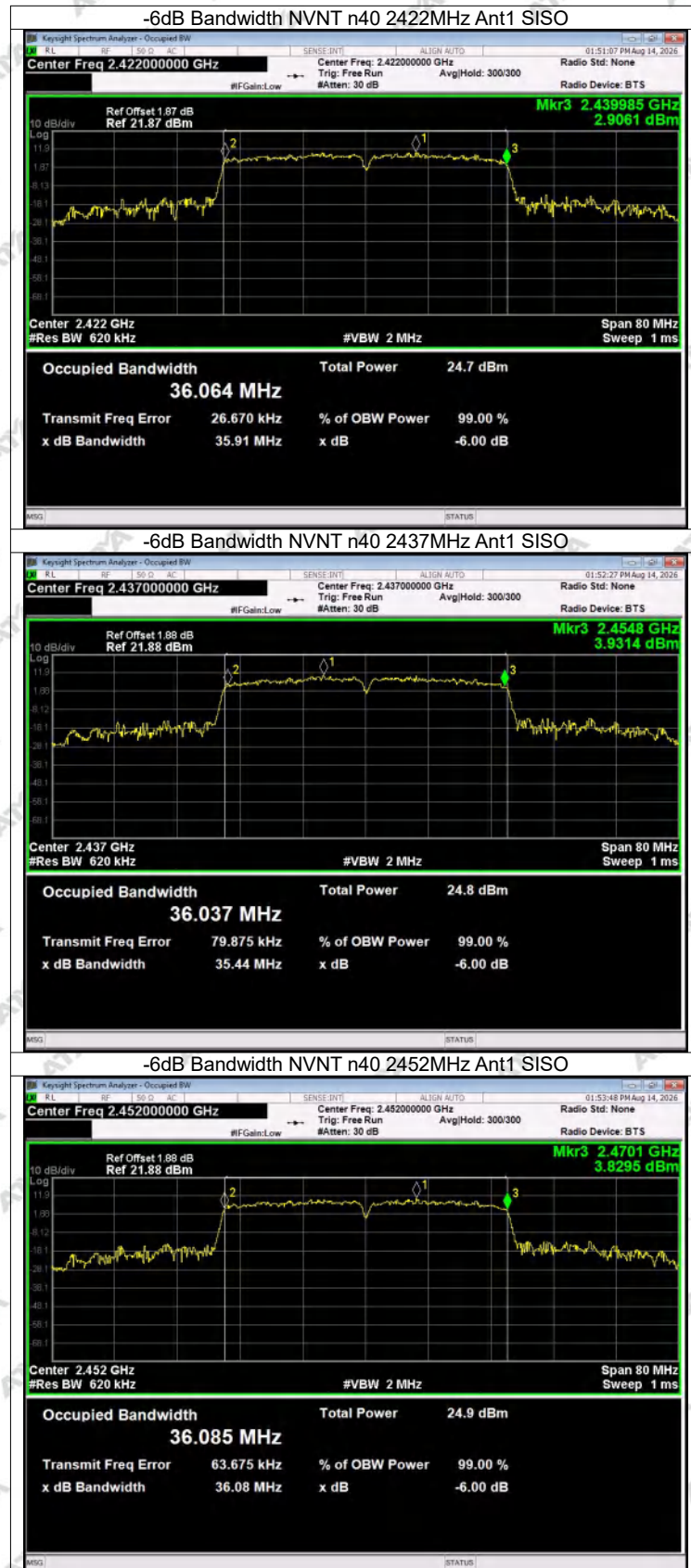
-6dB Bandwidth NVNT g 2437MHz Ant1 SISO



-6dB Bandwidth NVNT g 2462MHz Ant1 SISO



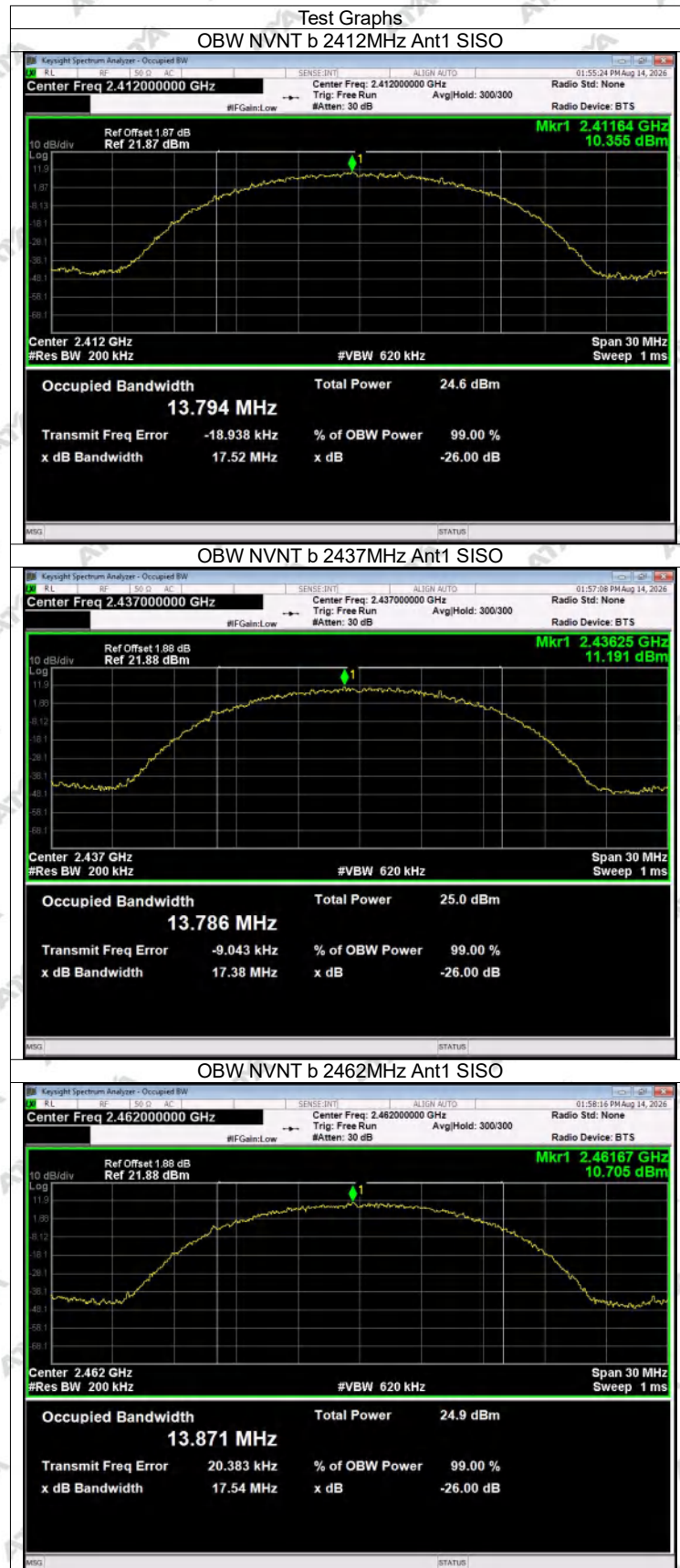




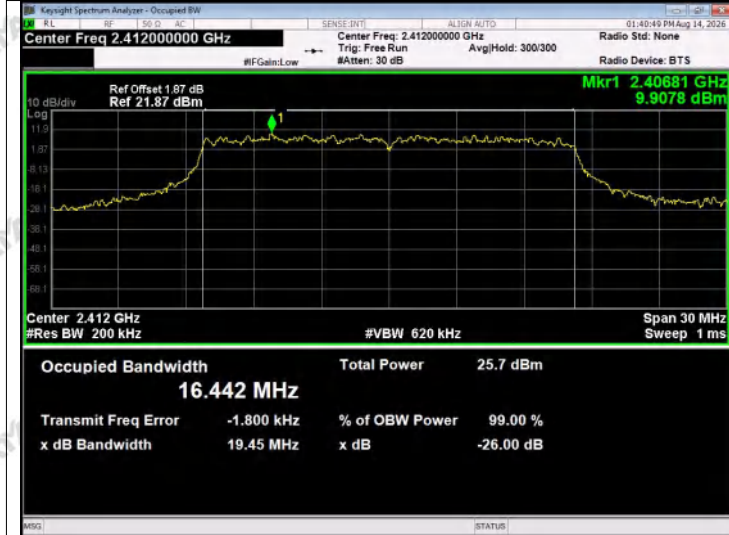
4.4 Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b SISO	2412	Ant1	13.794
NVNT	b SISO	2437	Ant1	13.786
NVNT	b SISO	2462	Ant1	13.871
NVNT	g SISO	2412	Ant1	16.442
NVNT	g SISO	2437	Ant1	16.437
NVNT	g SISO	2462	Ant1	16.424
NVNT	n20 SISO	2412	Ant1	17.599
NVNT	n20 SISO	2437	Ant1	17.607
NVNT	n20 SISO	2462	Ant1	17.635
NVNT	n40 SISO	2422	Ant1	35.978
NVNT	n40 SISO	2437	Ant1	35.957
NVNT	n40 SISO	2452	Ant1	35.94

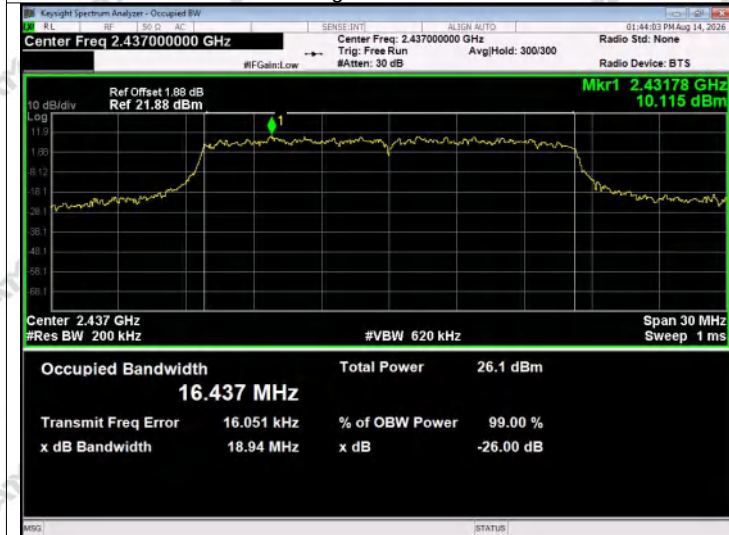




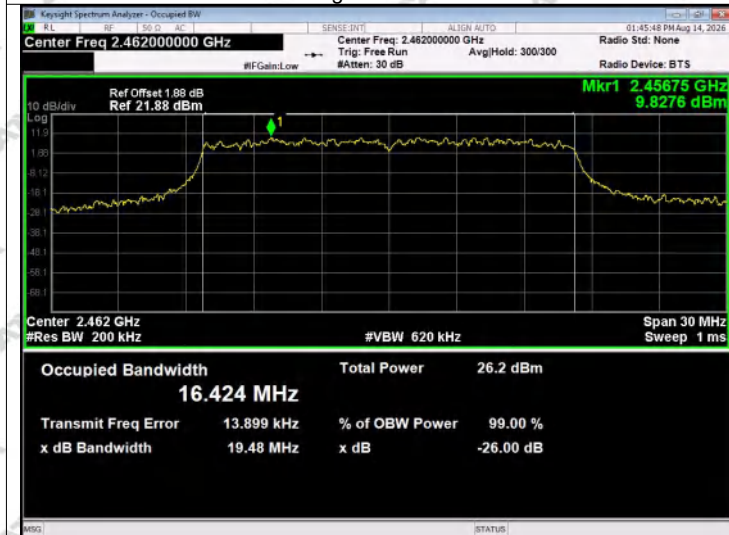
OBW NVNT g 2412MHz Ant1 SISO



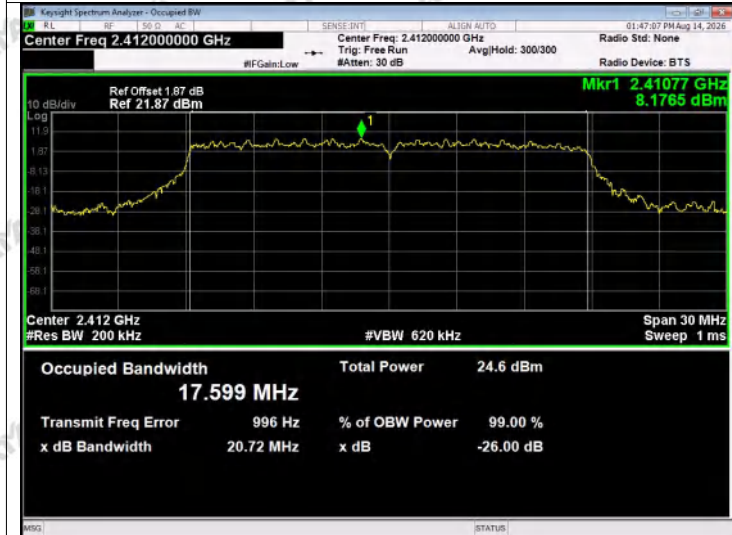
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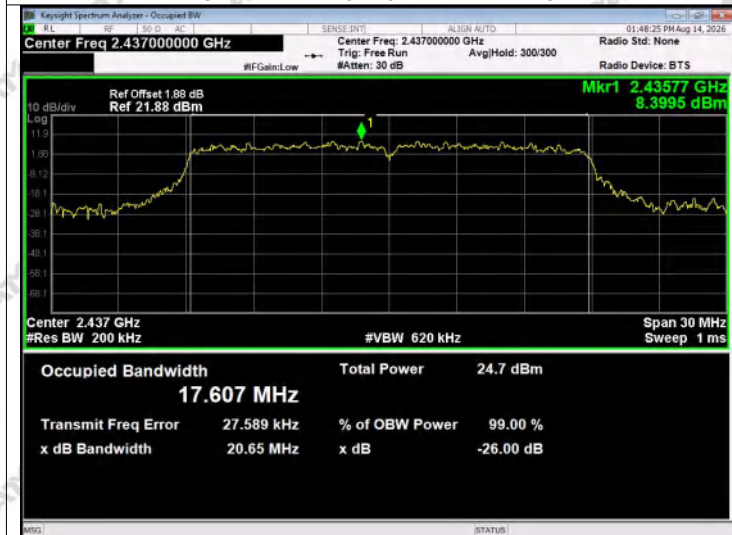
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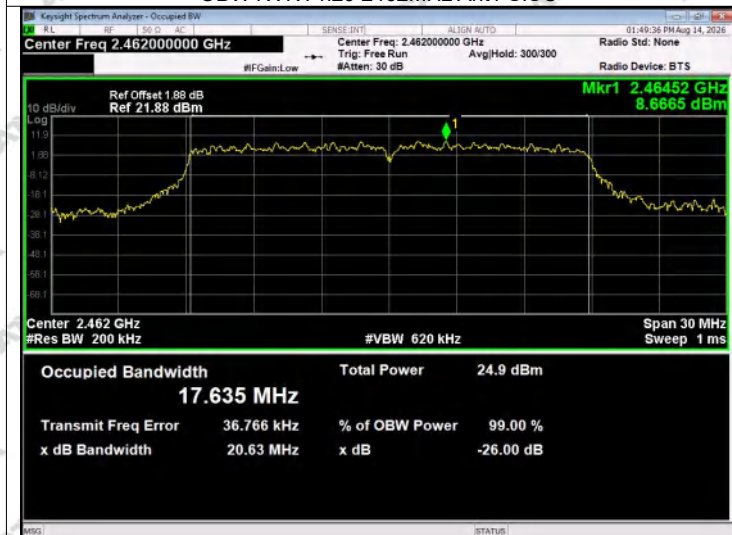
OBW NVNT n20 2412MHz Ant1 SISO



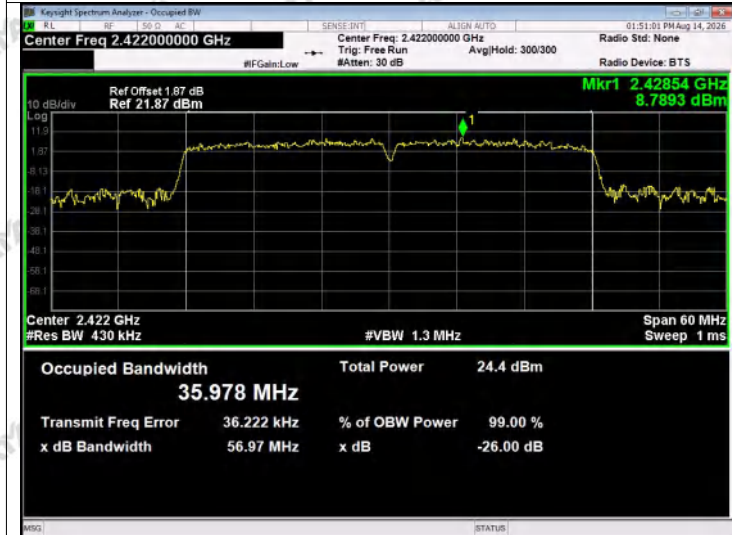
OBW NVNT n20 2437MHz Ant1 SISO



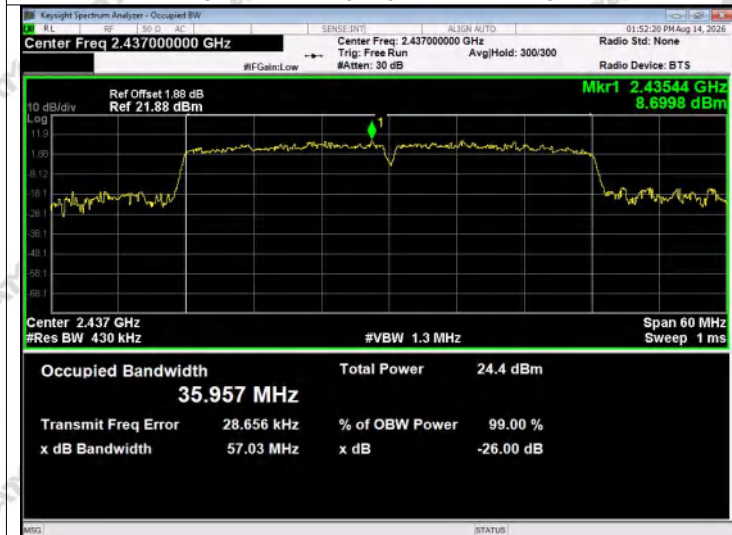
OBW NVNT n20 2462MHz Ant1 SISO



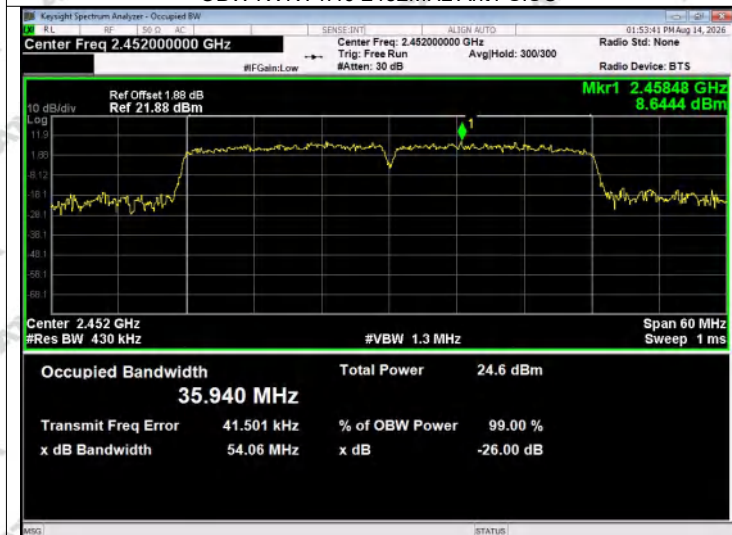
OBW NVNT n40 2422MHz Ant1 SISO



OBW NVNT n40 2437MHz Ant1 SISO



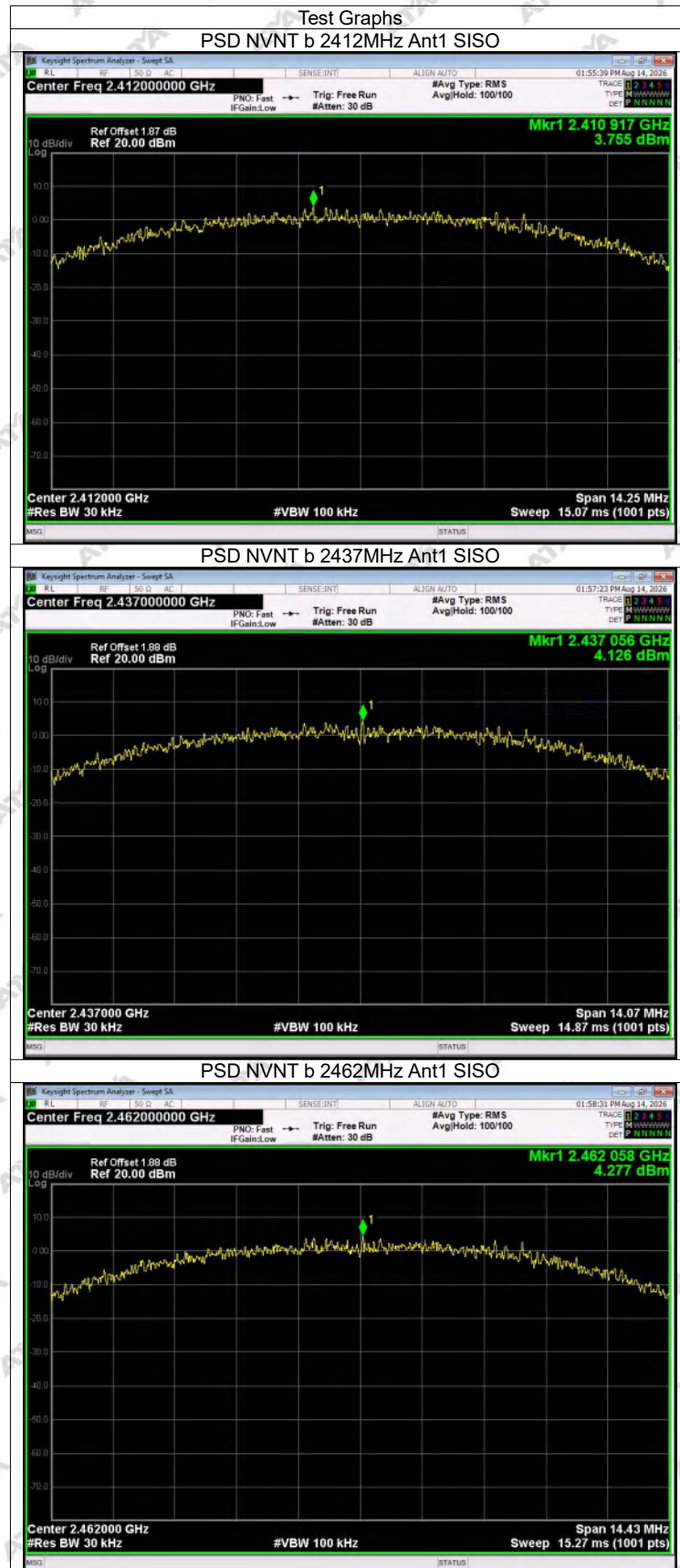
OBW NVNT n40 2452MHz Ant1 SISO

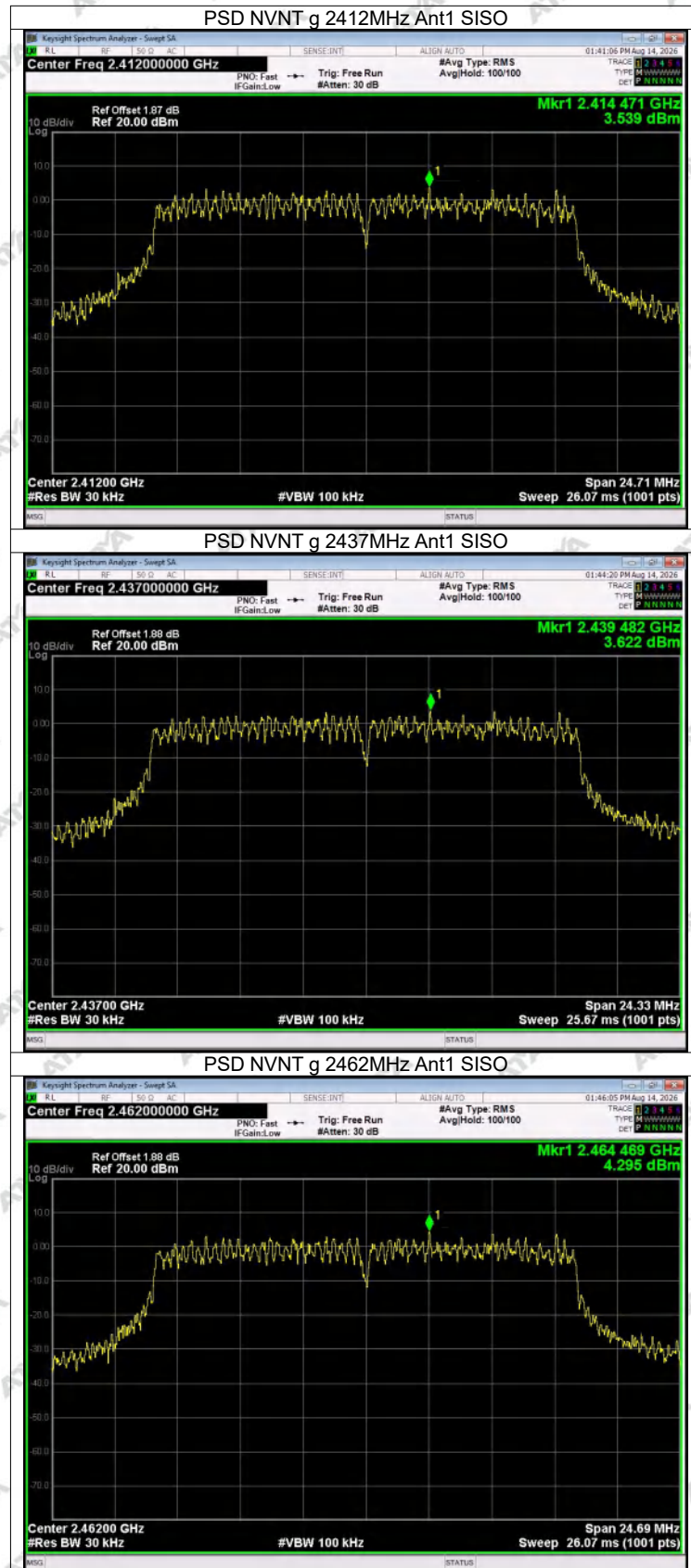


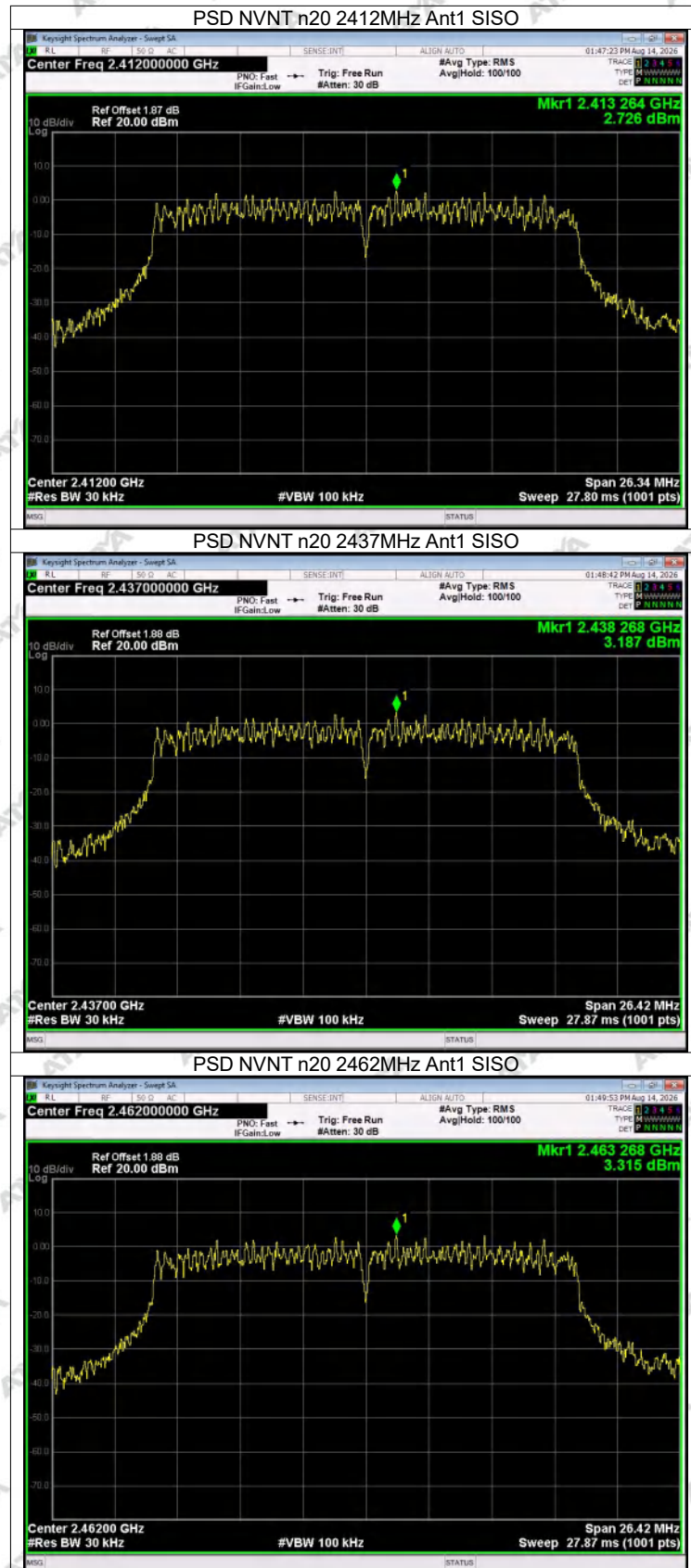
4.5 Maximum Power Spectral Density Level

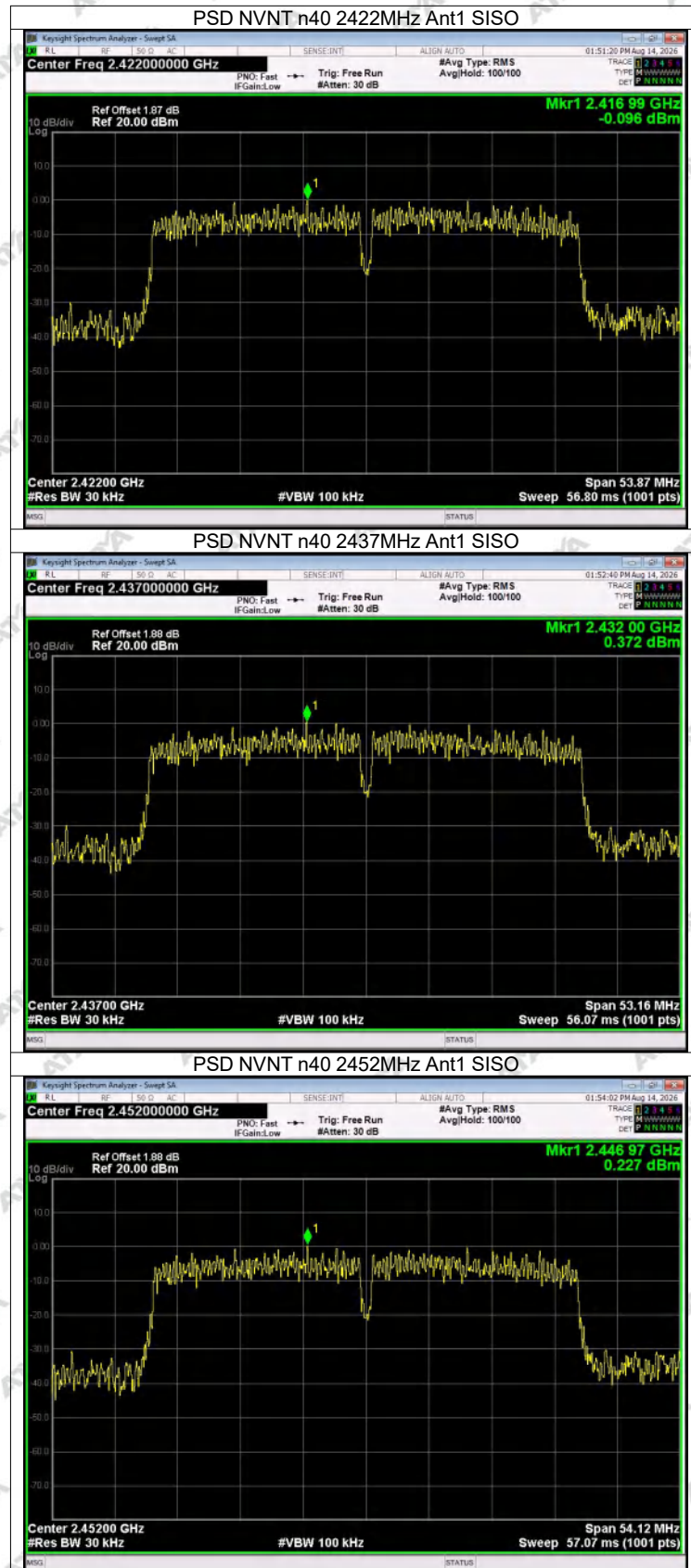
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	11b	2412	Ant1	3.755	8	Pass
NVNT	11b	2437	Ant1	4.126	8	Pass
NVNT	11b	2462	Ant1	4.277	8	Pass
NVNT	11g	2412	Ant1	3.539	8	Pass
NVNT	11g	2437	Ant1	3.622	8	Pass
NVNT	11g	2462	Ant1	4.295	8	Pass
NVNT	11 n20	2412	Ant1	2.726	8	Pass
NVNT	11 n20	2437	Ant1	3.187	8	Pass
NVNT	11 n20	2462	Ant1	3.315	8	Pass
NVNT	11 n40	2422	Ant1	-0.096	8	Pass
NVNT	11 n40	2437	Ant1	0.372	8	Pass
NVNT	11 n40	2452	Ant1	0.227	8	Pass











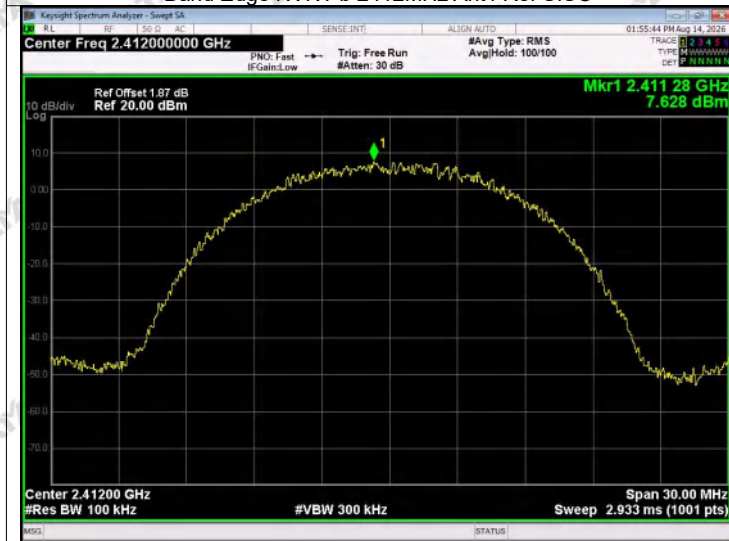
4.6 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b SISO	2412	Ant1	-51.08	-20	Pass
NVNT	b SISO	2462	Ant1	-59.52	-20	Pass
NVNT	g SISO	2412	Ant1	-34.87	-20	Pass
NVNT	g SISO	2462	Ant1	-40.41	-20	Pass
NVNT	n20 SISO	2412	Ant1	-35.63	-20	Pass
NVNT	n20 SISO	2462	Ant1	-40.57	-20	Pass
NVNT	n40 SISO	2422	Ant1	-27.27	-20	Pass
NVNT	n40 SISO	2452	Ant1	-29.15	-20	Pass

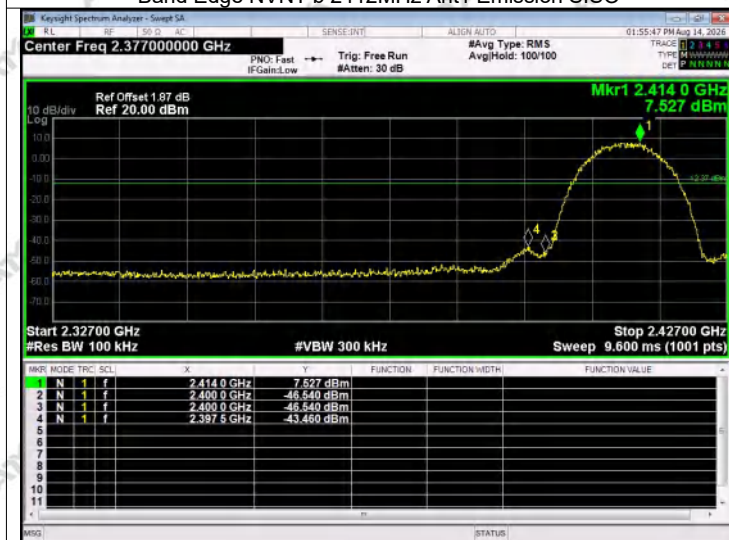


Test Graphs

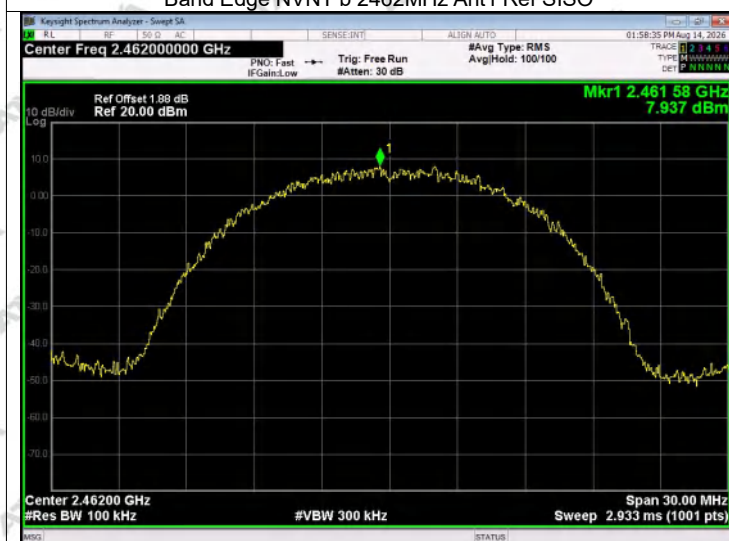
Band Edge NVNT b 2412MHz Ant1 Ref SISO



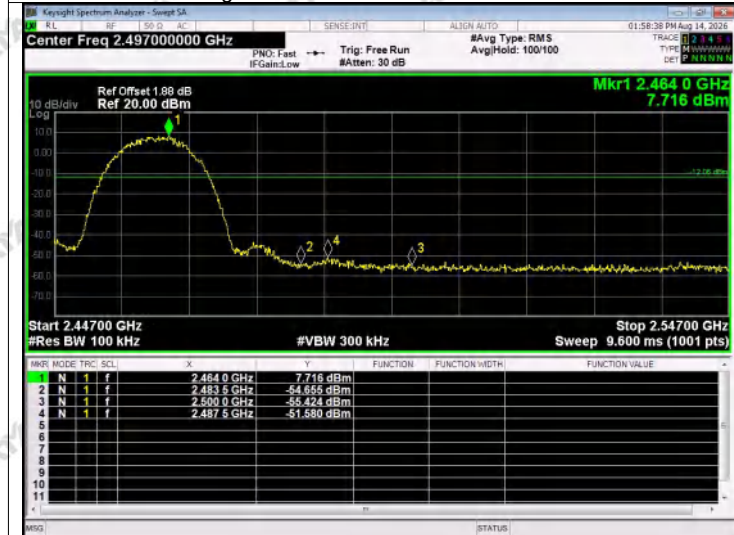
Band Edge NVNT b 2412MHz Ant1 Emission SISO



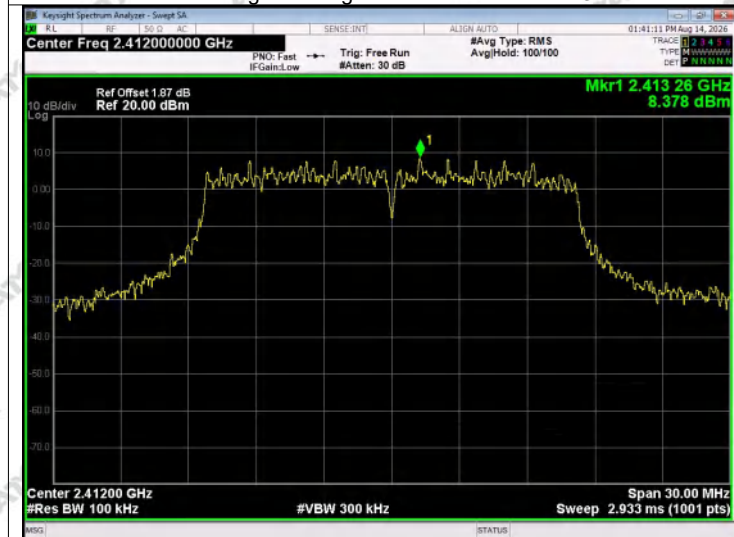
Band Edge NVNT b 2462MHz Ant1 Ref SISO



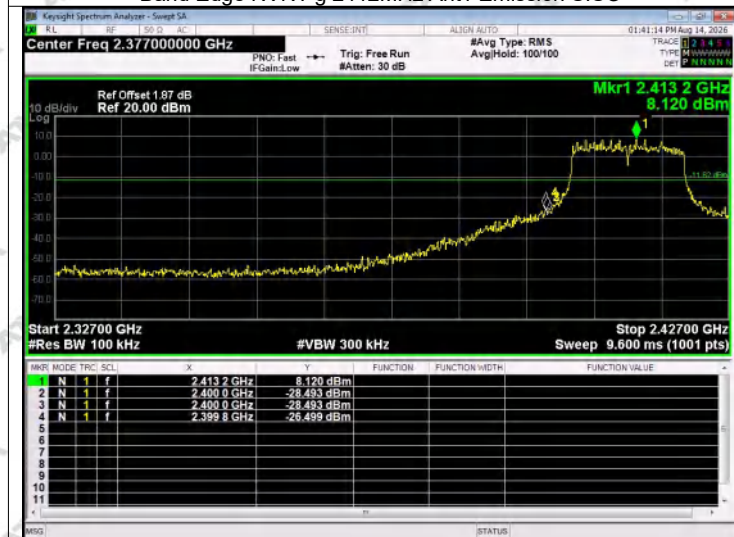
Band Edge NVNT b 2462MHz Ant1 Emission SISO



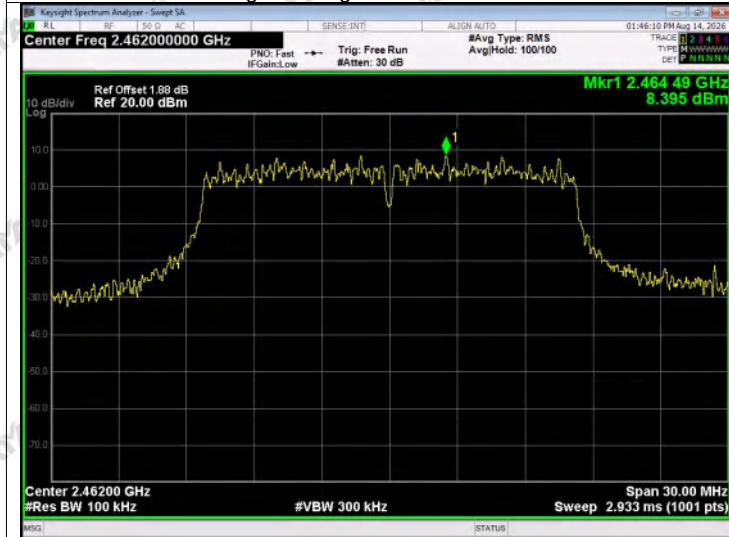
Band Edge NVNT g 2412MHz Ant1 Ref SISO



Band Edge NVNT g 2412MHz Ant1 Emission SISO



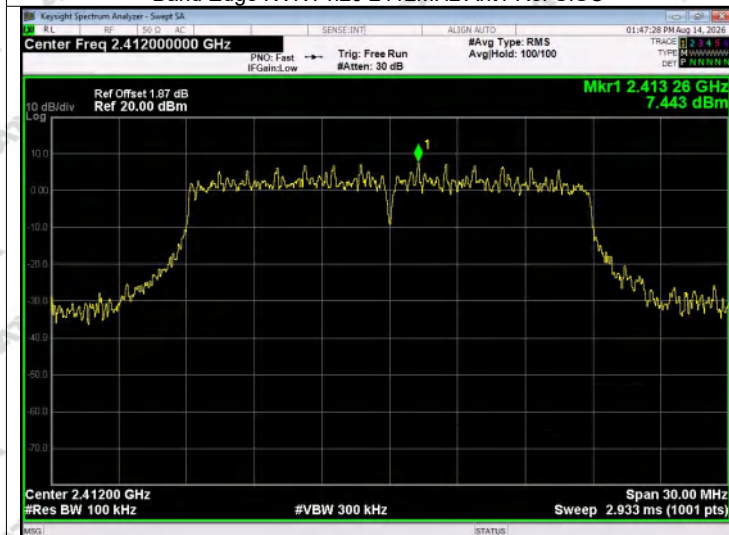
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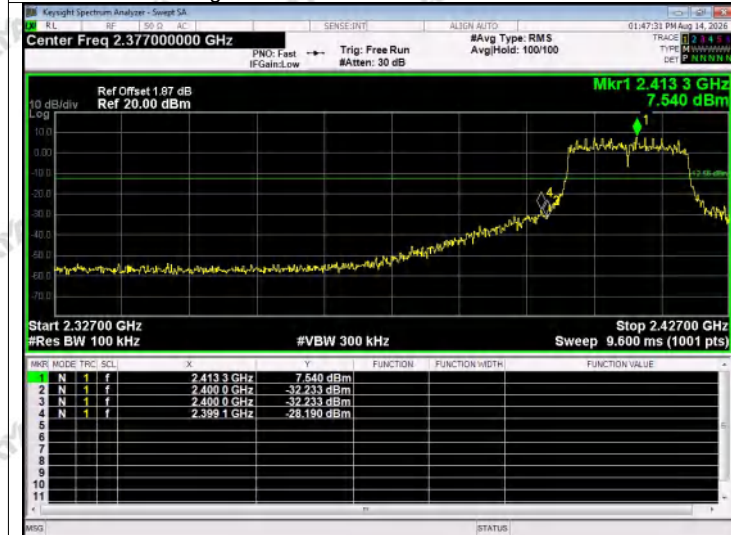
Band Edge NVNT g 2462MHz Ant1 Emission SISO



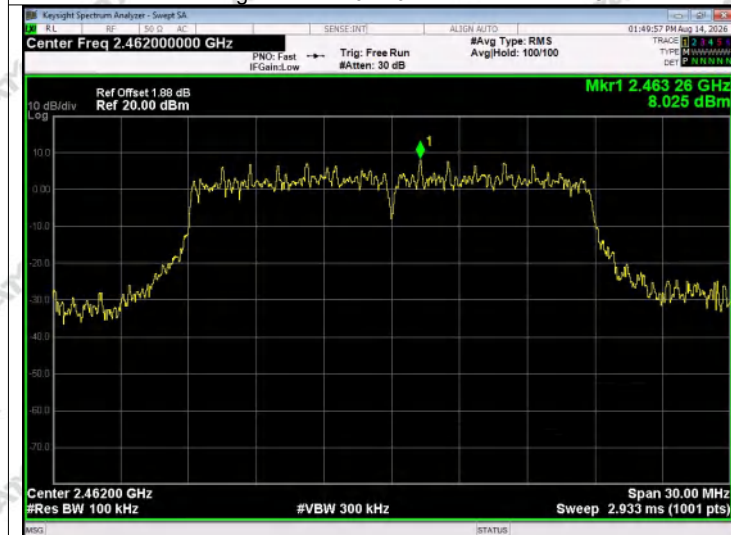
Band Edge NVNT n20 2412MHz Ant1 Ref SISO



Band Edge NVNT n20 2412MHz Ant1 Emission SISO



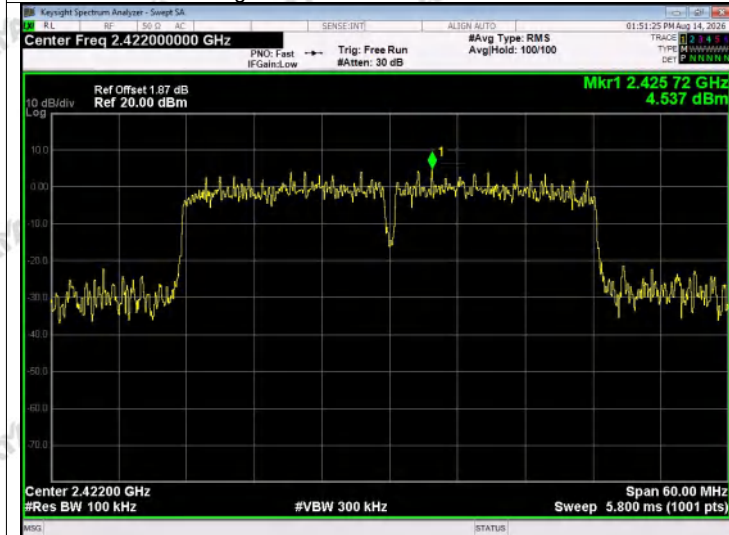
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Band Edge NVNT n20 2462MHz Ant1 Emission SISO



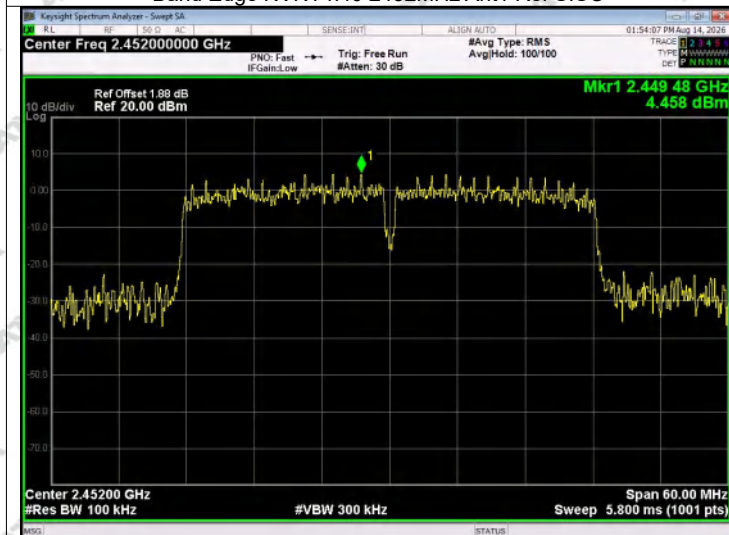
Band Edge NVNT n40 2422MHz Ant1 Ref SISO

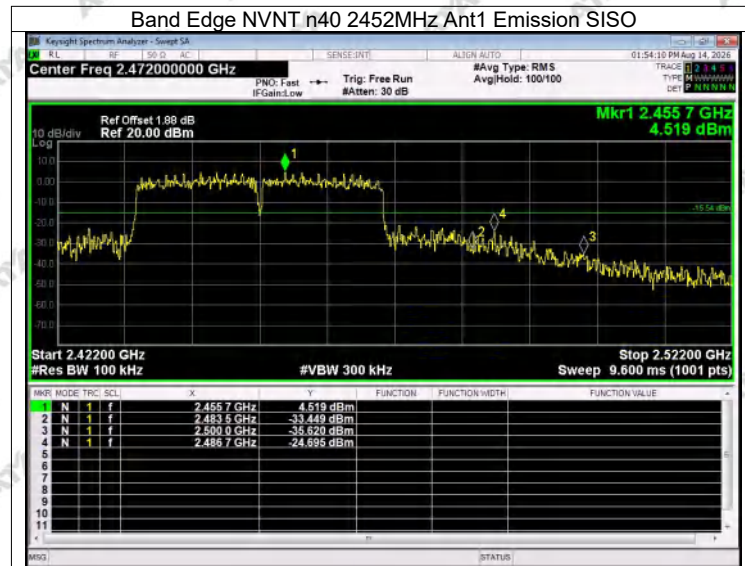


Band Edge NVNT n40 2422MHz Ant1 Emission SISO



Band Edge NVNT n40 2452MHz Ant1 Ref SISO





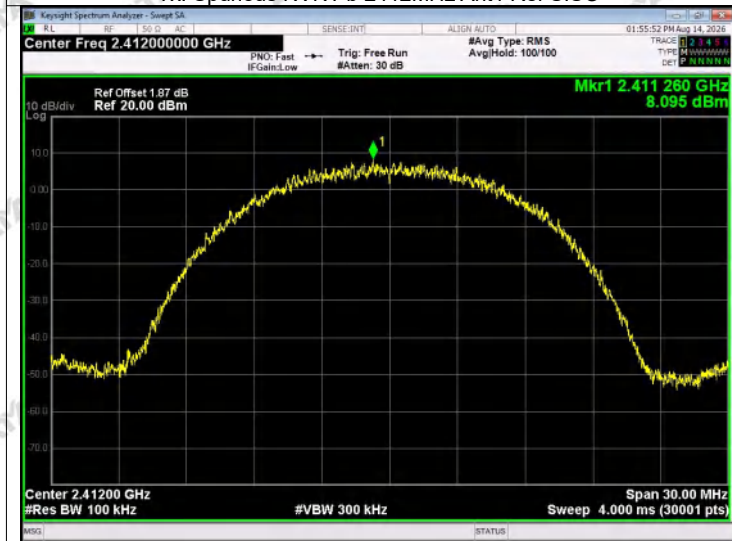
4.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b SISO	2412	Ant1	-43.9	-20	Pass
NVNT	b SISO	2437	Ant1	-47.03	-20	Pass
NVNT	b SISO	2462	Ant1	-48.48	-20	Pass
NVNT	g SISO	2412	Ant1	-47.14	-20	Pass
NVNT	g SISO	2437	Ant1	-49.53	-20	Pass
NVNT	g SISO	2462	Ant1	-49.65	-20	Pass
NVNT	n20 SISO	2412	Ant1	-48.76	-20	Pass
NVNT	n20 SISO	2437	Ant1	-48.11	-20	Pass
NVNT	n20 SISO	2462	Ant1	-48.22	-20	Pass
NVNT	n40 SISO	2422	Ant1	-45.83	-20	Pass
NVNT	n40 SISO	2437	Ant1	-46.03	-20	Pass
NVNT	n40 SISO	2452	Ant1	-42.7	-20	Pass

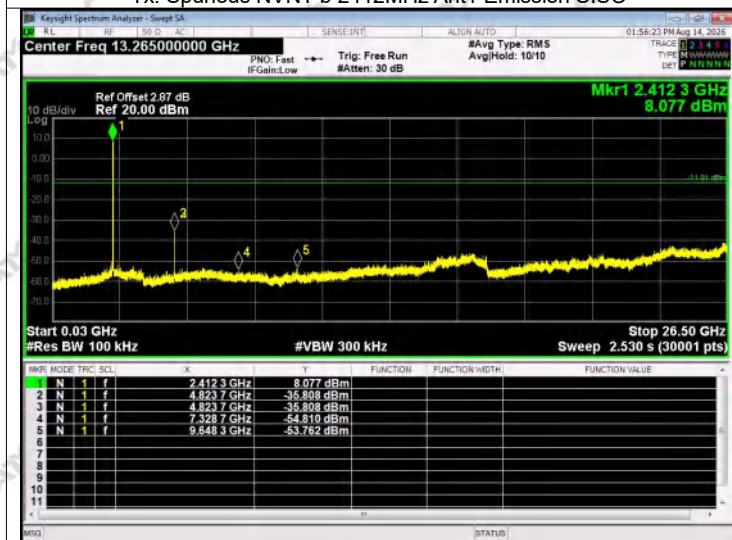


Test Graphs

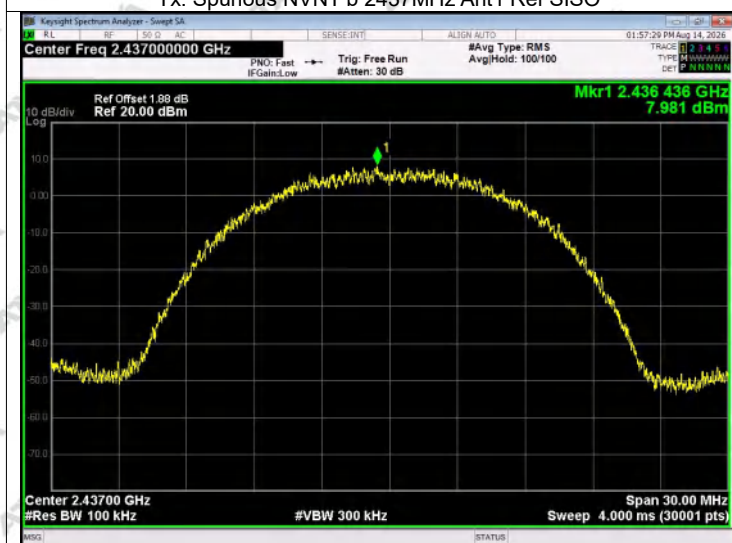
Tx. Spurious NVNT b 2412MHz Ant1 Ref SISO



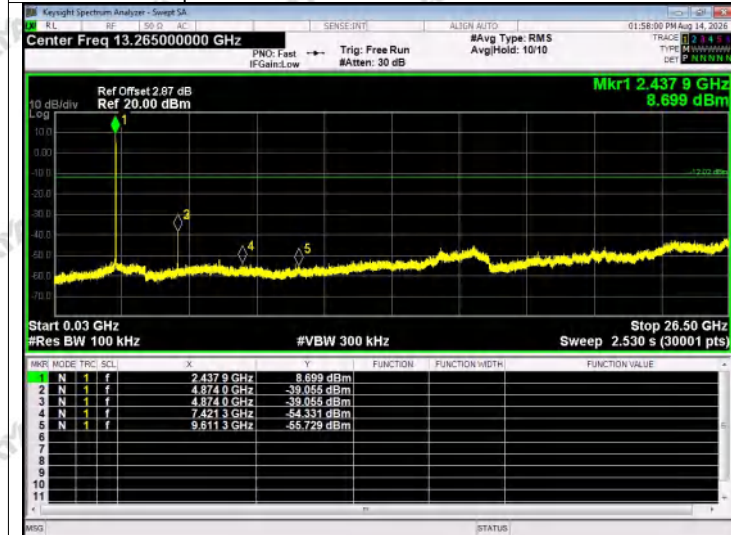
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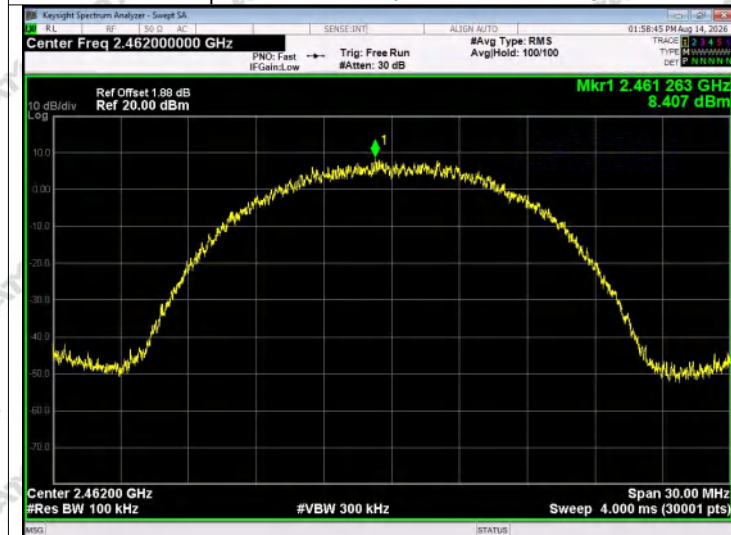
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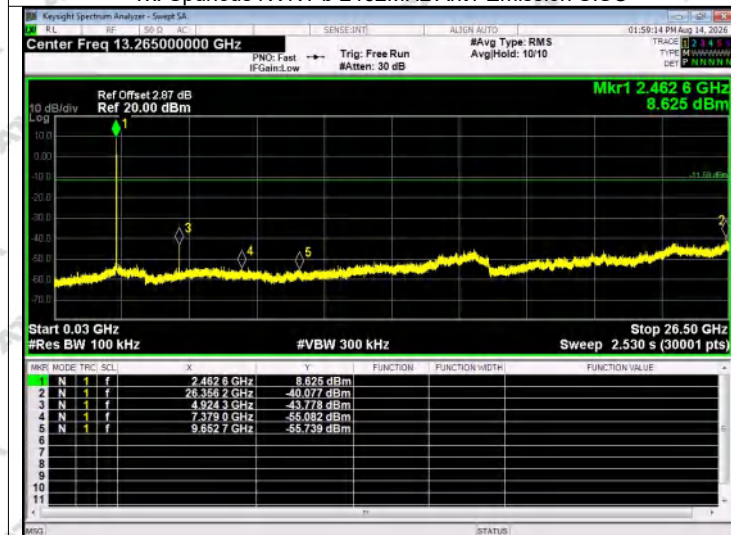
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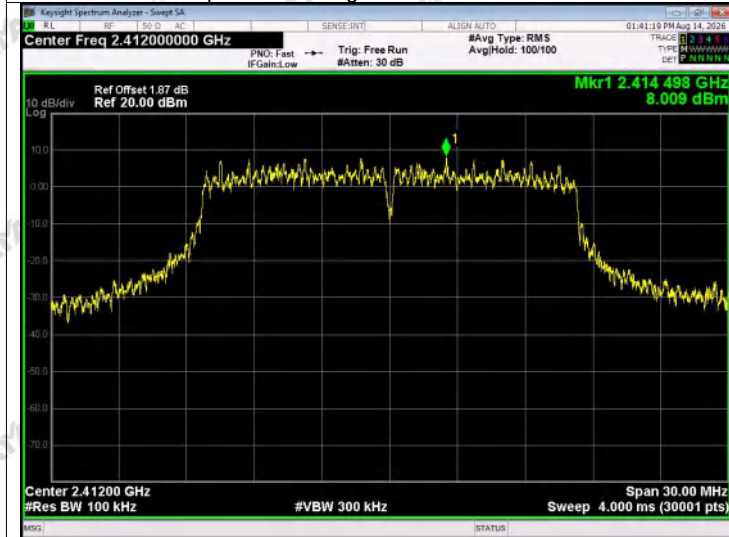
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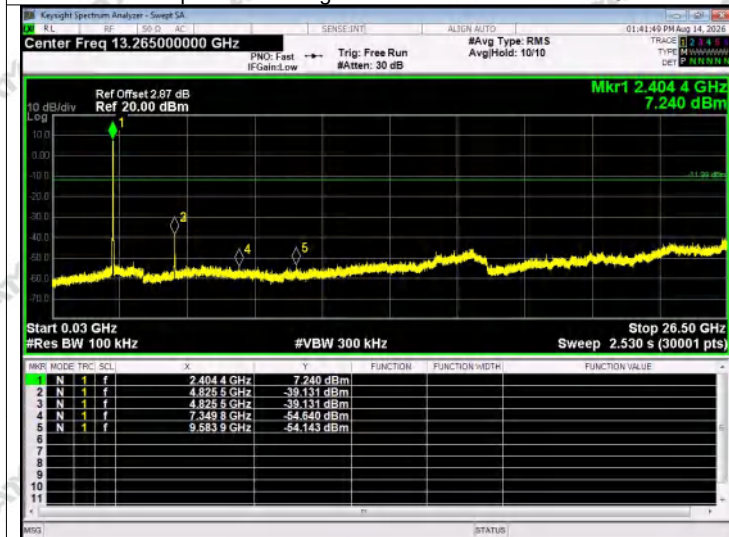
Tx. Spurious NVNT b 2462MHz Ant1 Emission SISO



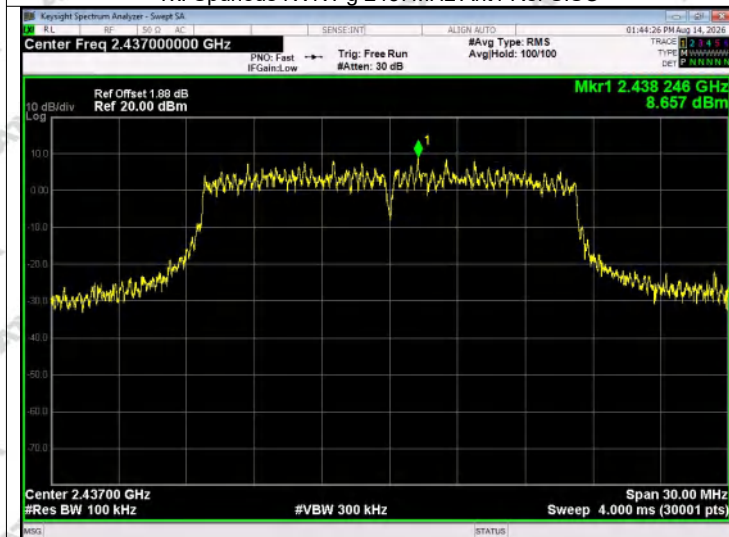
Tx. Spurious NVNT g 2412MHz Ant1 Ref SISO



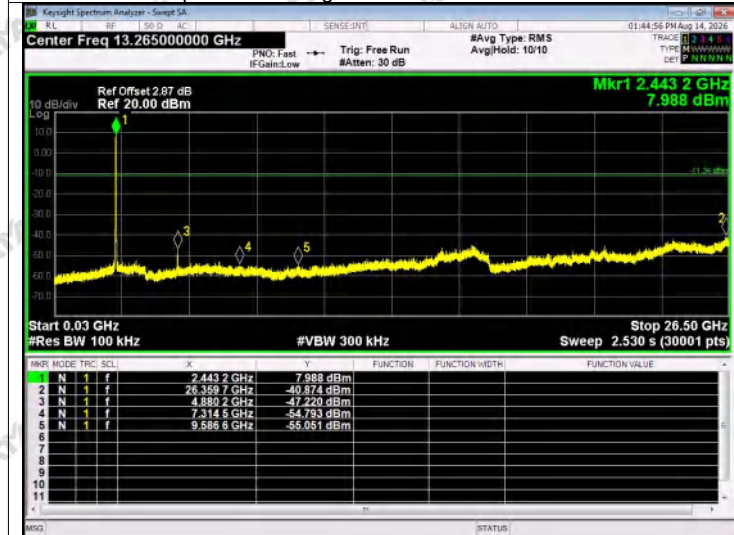
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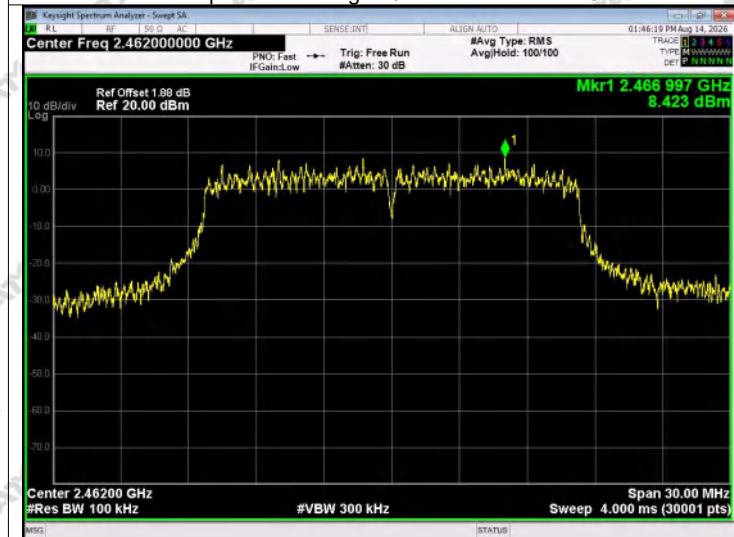
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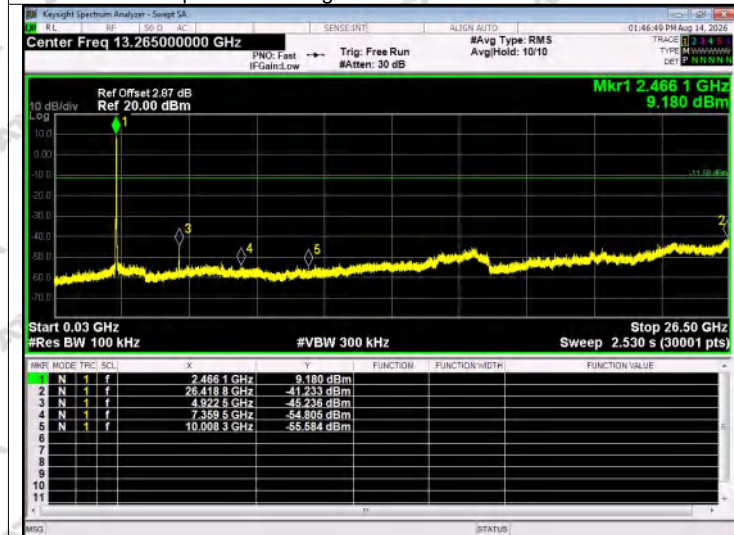
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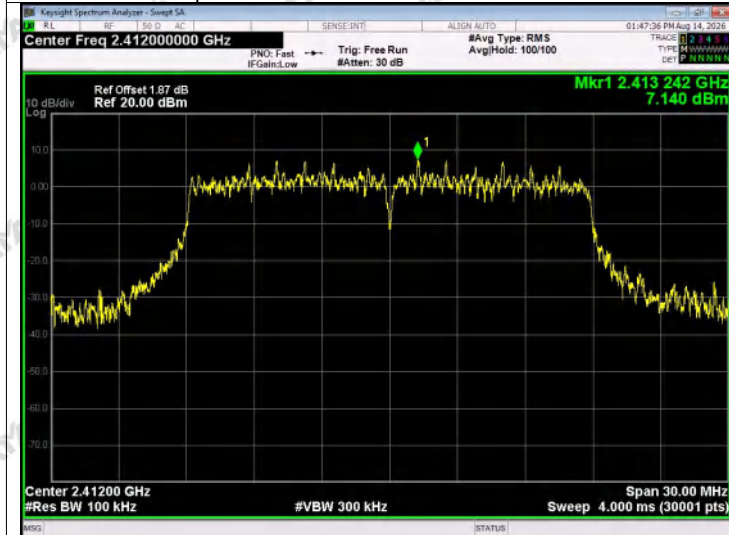
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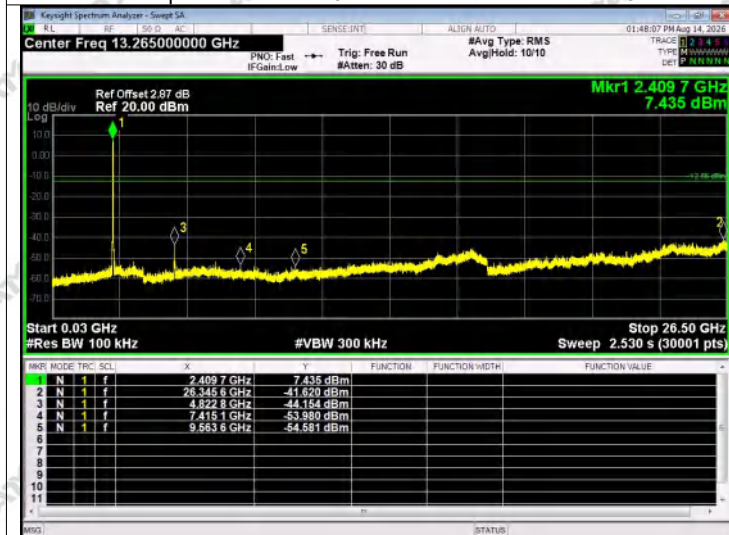
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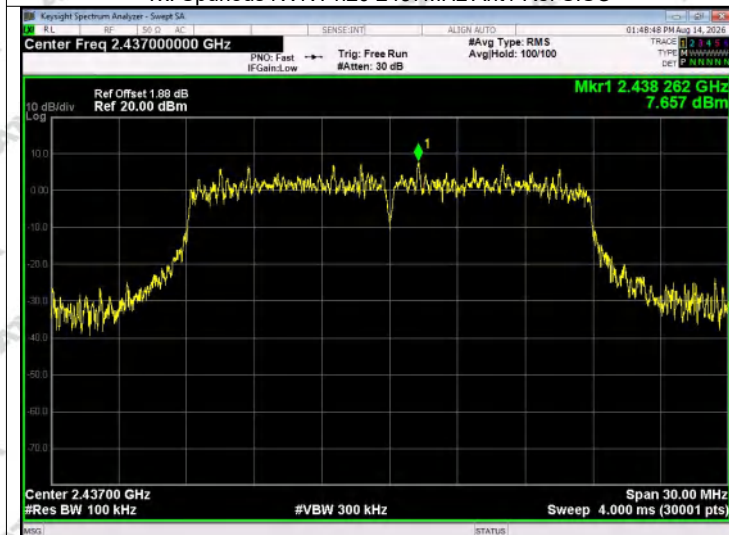
Tx. Spurious NVNT n20 2412MHz Ant1 Ref SISO



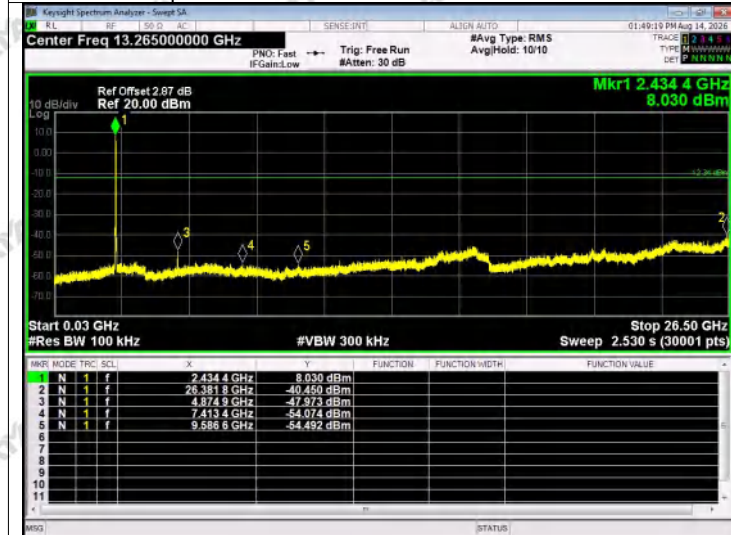
Tx. Spurious NVNT n20 2412MHz Ant1 Emission SISO



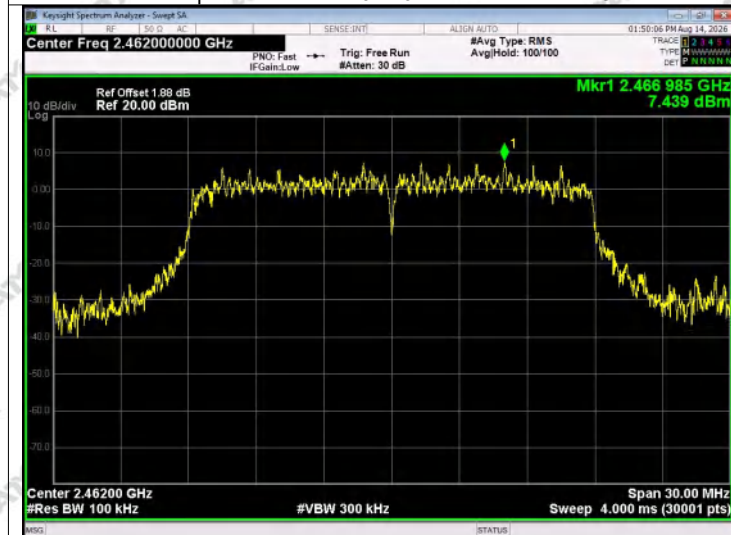
Tx. Spurious NVNT n20 2437MHz Ant1 Ref SISO



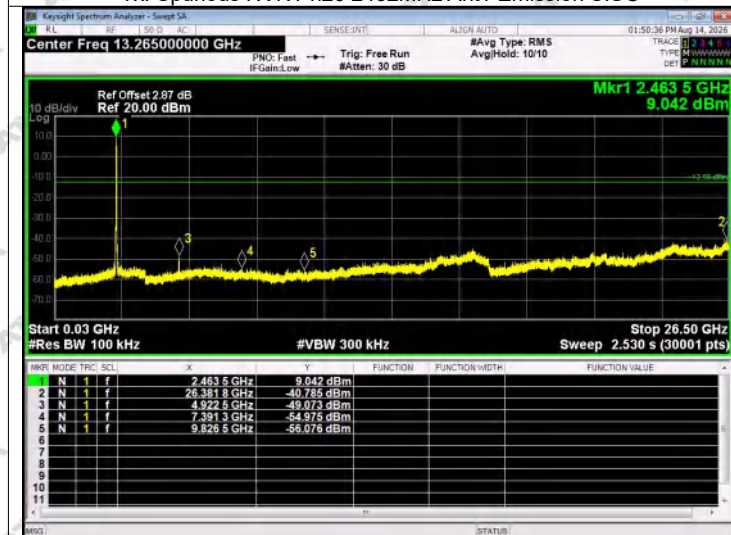
Tx. Spurious NVNT n20 2437MHz Ant1 Emission SISO



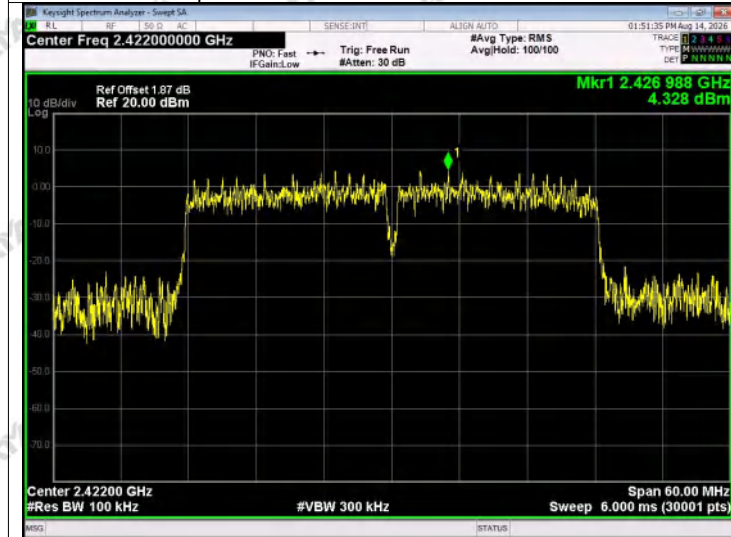
Tx. Spurious NVNT n20 2462MHz Ant1 Ref SISO



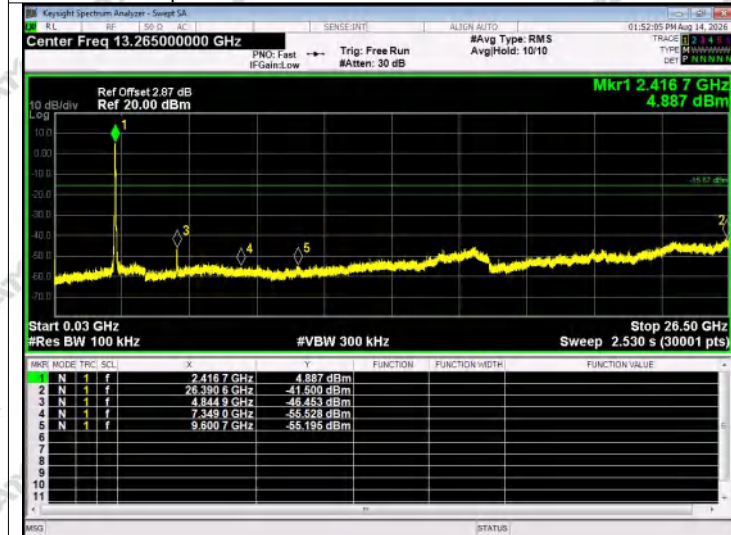
Tx. Spurious NVNT n20 2462MHz Ant1 Emission SISO



Tx. Spurious NVNT n40 2422MHz Ant1 Ref SISO



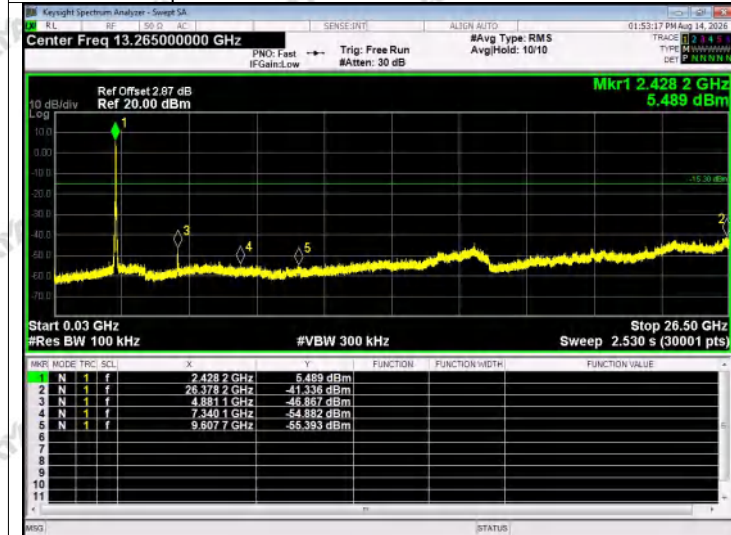
Tx. Spurious NVNT n40 2422MHz Ant1 Emission SISO



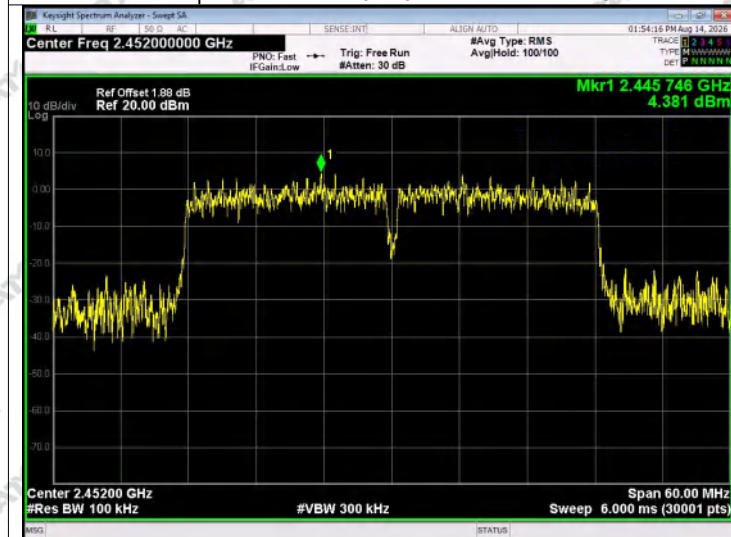
Tx. Spurious NVNT n40 2437MHz Ant1 Ref SISO



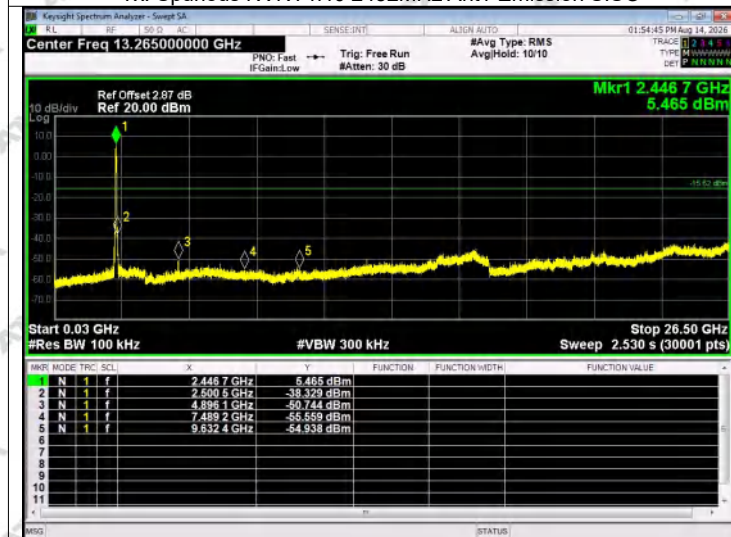
Tx. Spurious NVNT n40 2437MHz Ant1 Emission SISO



Tx. Spurious NVNT n40 2452MHz Ant1 Ref SISO



Tx. Spurious NVNT n40 2452MHz Ant1 Emission SISO



5. EUT TEST PHOTOS

Note: Refer to the attached test photos

6. PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Note: Refer to the attached exterior and interior photos



*****THE END*****