TEST REPORT

Report No.....:	**ATA0126061101**
FCC ID.....:	**2BROZ-SP-GREEN**
Applicant.....:	**Zhejiang Zhaochen Technology Co., Ltd**
Address.....:	2nd Floor, No. 9 Houxi Road, Niansanli Street, Yiwu City, Jinhua City, Zhejiang Province
Manufacturer.....:	**Zhejiang Zhaochen Technology Co., Ltd**
Address.....:	2nd Floor, No. 9 Houxi Road, Niansanli Street, Yiwu City, Jinhua City, Zhejiang Province
Product Name.....:	**SP**
Trade Mark.....:	ARM NEXT
Test Model.....:	SP-Green
Series Model(s).....:	SP-Black
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.....:	June. 06, 2026
Date of Test Date.....:	June. 06, 2026~June. 11, 2026
Date of issue.....:	June. 11, 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, 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: American National Standard for Testing Unlicensed Wireless Devices.

1.2. Report version

Revised No.	Date of issue	Description
01	June. 11, 2026	Original

1.3. Test Description

No.	Standard Section	Test Item	Result	Remark
1	15.203	Antenna requirement	Pass	
2	15.207	Conducted emission	Pass	
3	15.247(d)	Band edge	Pass	
4	15.205/15.209	Spurious emission	Pass	
5	15.247(b)(1)	Peak output power	Pass	
6	15.247(a)(1)	20dB occupied bandwidth	Pass	
7	15.247(a)(1)	Carrier Frequencies Separation	Pass	
8	15.247(a)(1)	Hopping channel number	Pass	
9	15.247(a)(1)	Dwell time	Pass	
10	15.247(d)	Spurious RF Conducted Emissions	Pass	

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, 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

2. GENERAL INFORMATION

2.1. General Description of EUT

Product Name:	SP
Trade Mark:	ARM NEXT
Test Model:	SP-Green
Series Model(s):	SP-Black
Model Difference:	Models SP-Green and SP-Black Only the model and color differ. The PCB layout, electrical schematics and RF components are completely identical.
Power Source:	Battery 3.7V/USB 5V Charging
Adapter:	/
Hardware version:	/
Software version:	/
Modulation type:	GFSK, π/4-DQPSK, 8DPSK
Operation frequency:	2402MHz~2480MHz
Max Peak Output Power:	7.13dBm
Channel number:	79
Bit Rate of transmitter:	1 Mbps, 2Mbps, 3Mbps
Antenna type:	PCB Antenna
Antenna gain:	-0.58 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 (4) Due to the difference in watch band materials, differential tests were carried out for this certification. Only the worst-case test data is recorded in the report.	

2.2. DESCRIPTION OF THE TEST MODES

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. BT EDR, 79 channels are provided to the EUT. Channels 00/39/78 were selected for testing.

Operation Frequency List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454	--	--
26	2428	53	2455	--	--

Following channel(s) was (were) selected for the test as listed below.

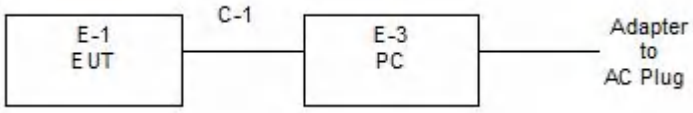
Test Mode	Channel	Frequency (MHz)
1	00	2402
2	39	2441
3	78	2480

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

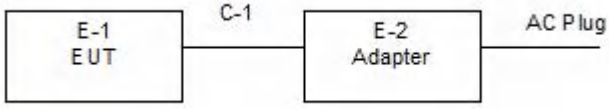
Test Mode	Description	Test Items
Mode 1	Charging+Normal Link Mode	Conducted emission
Mode 2	GFSK, π/4-DQPSK,8DPSK CH 00,CH 39,CH 78	RF Test+Spurious emission
Mode 3	Charging+Aux in	Spurious emission
Mode 4	Hopping mode	RF Test

2.3. BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



AC Conducted Emission Test



RF Conducted Test

2.4. 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	DC power Adapter	/	KDP-AM120100U	Test use
E-3	PC	Lenovo	E43	Test use

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

Note：(1) For detachable type I/O cable should be specified the length in cm in Length the column.
(2)"YES" is means"with core";"NO" is means "without core".

2.5. 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	CRTNDCR966	2025-03-21	2028-03-20
2	ATA-E-011	AC Power Source	XINOUHUA	APW-1300N	202504292663	2026-05-07	2027-05-06
3	ATA-E-013	DC Power Source	XINOUHUA	ADC250-32D	202504292667	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-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-041	Preamplifier	COM MV	DLNA8-1-18G-2705	10241234	2026-05-07	2027-05-06
12	ATA-E-042	Preamplifier	COM MV	DLNA8-0.009-1000-1034	5252881	2026-05-07	2027-05-06
13	ATA-E-044	Filter	MWRFTest	ZHPF6-C3000-18000-3129	08252098	2026-05-07	2027-05-06
14	ATA-E-045	Filter	MWRFTest	ZHPF6-C6500-18000-175	08252097	2026-05-07	2027-05-06
15	ATA-E-046	Filter	MWRFTest	ZBSF6-C2400-2483.5-543	08252096	2026-05-07	2027-05-06
16	ATA-E-047	Filter	MWRFTest	ZBSF6-C5100-5900-5713	08252095	2026-05-07	2027-05-06
17	ATA-E-051	Spectrum Analyzer	R&S	FSV40-N	101779	2025-07-29	2026-07-28
18	ATA-E-052	Cable	HELPLIGHT	2.92J/2.92J 10M	/	2026-01-19	2027-01-18
19	ATA-E-054	Cable	HELPLIGHT	2.92J/2.92J 0.8M	/	2026-01-19	2027-01-18
20	ATA-E-059	Antenna Tower	CRT	AT-1	/	/	/
21	ATA-E-005	Temperature and humidity meter	deli	LE502-WH	/	2026-05-07	2027-05-06
22	ATA-E-064	Barometer	Qingping	CGP23W	/	2026-01-28	2027-01-27
23	ATA-E-048	Loop Antenna	ZHINA	ZN30900C	21104CCUTSE019	2026-05-07	2027-05-06
24	ATA-E-049	Horn Antenna	ECHO MICrowave.,Ltd.	OBH100400	12221225	2026-05-07	2027-05-06
25	ATA-E-051	Spectrum Analyzer	R&S	FSV40-N	101779	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	ESCI3	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 (LISN)	Schwarzbeck	NSLK 8127	01169	2026-05-07	2027-05-06
5	ATA-E-072	Three-Line V-Network	ZHINAN	2N33770A	13003	2026-01-26	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 Anaiog 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	MW250428ATA-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.

2.5. 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

2.6. 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	±0.463%	1.96
Humidity uncertainty	±2.0%RH	1.96
Temperature uncertainty	±0.6℃	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.

2.7. 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

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 -0.58dBi.The EUT antenna is permanent attached PCB antenna.
It comply with the standard requirement.

3.2. Conducted Emission

3.2.1Limit

Conducted Emission Test Limit

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

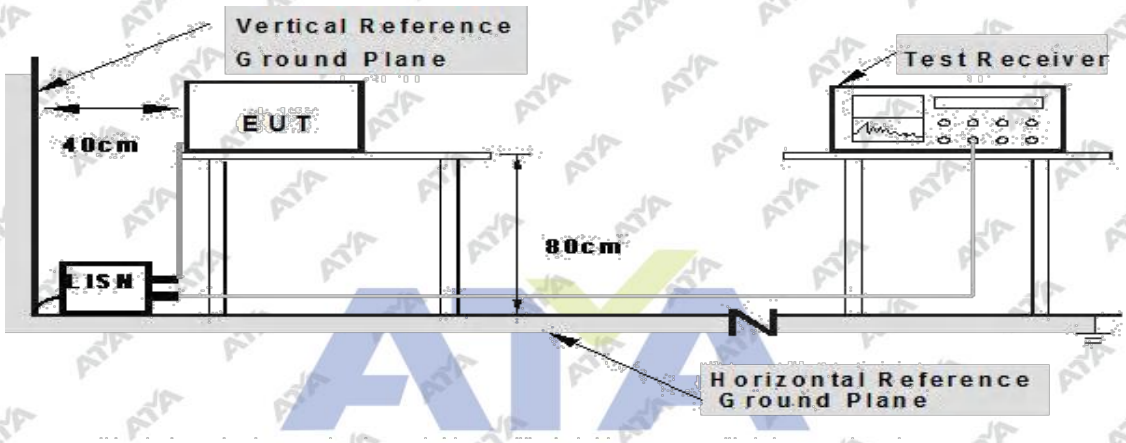
Notes:

(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.

3.2.2 Test Configuration



3.2.3 Test Procedure

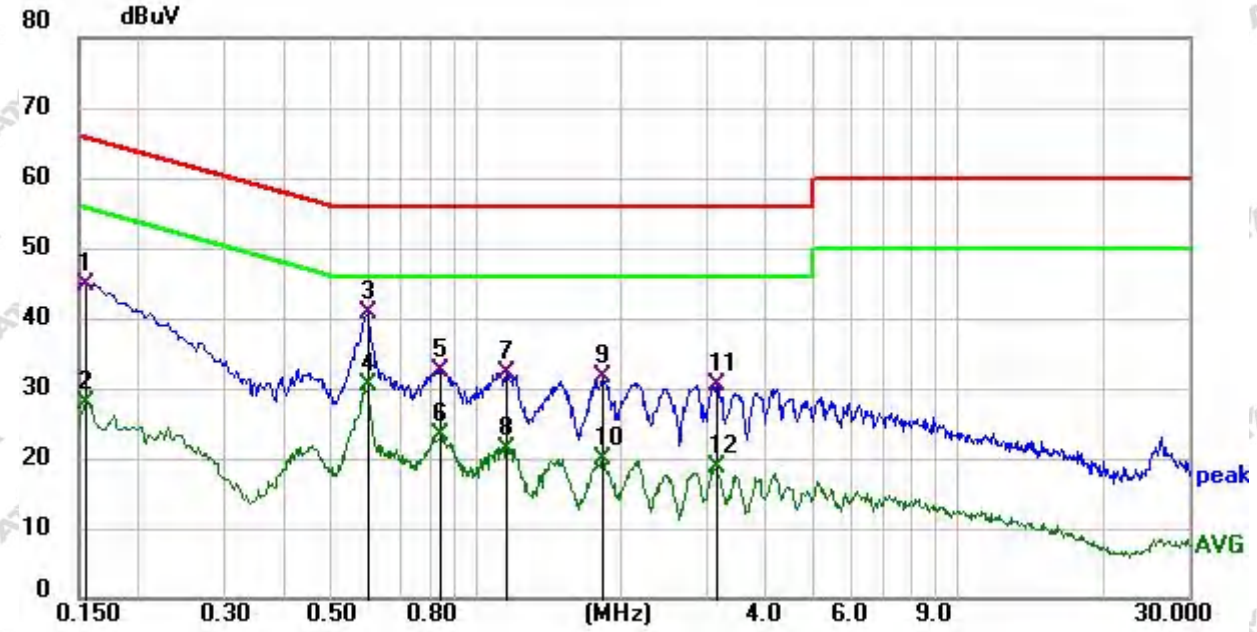
1. The EUT was setup according to ANSI C63.10-2020 + Cor.1-2023 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 0.8m above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 0.8m from any other grounded conducting surface.
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.

3.2.4 Test Mode:

Normal operating mode

3.2.5 Test Results

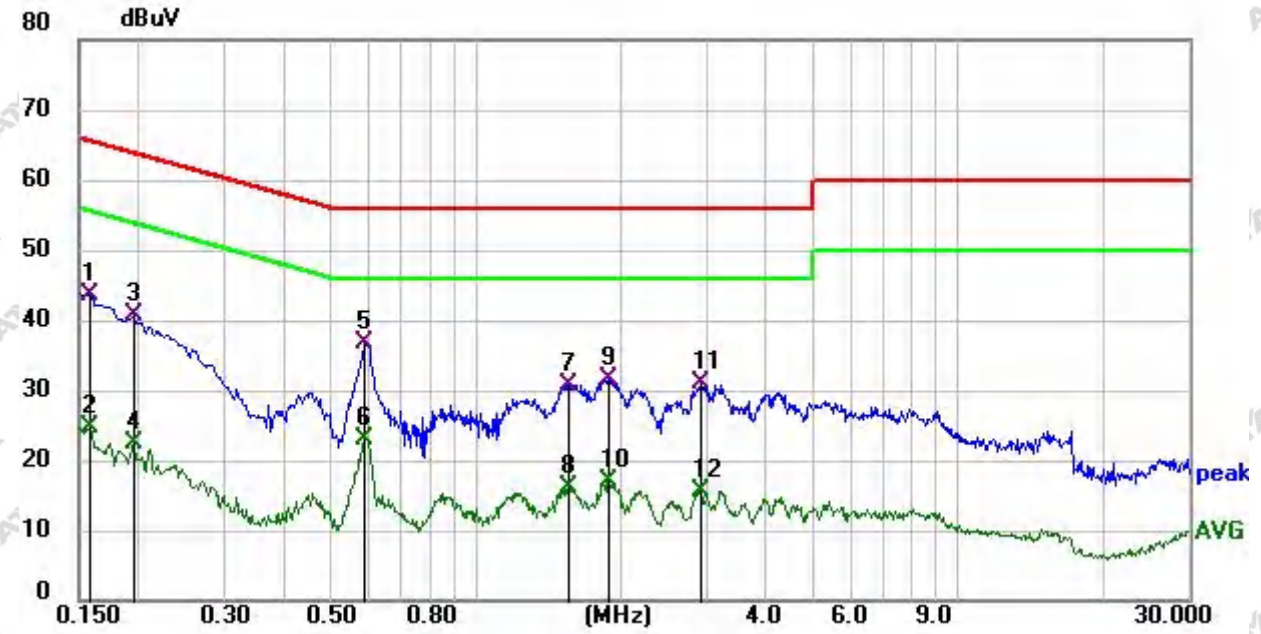
EUT:	SP	Model Name:	SP-Green
Pressure:	1010 hPa	Phase:	L
Temperature	24.8℃	Humidity	52.1%
Test Mode:	Mode 1	Test Voltage:	DC 5V From Adapter



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1564	34.73	10.11	44.84	65.65	-20.81	QP
2	0.1564	17.67	10.11	27.78	55.65	-27.87	AVG
3 *	0.5940	30.61	10.14	40.75	56.00	-15.25	QP
4	0.5940	20.19	10.14	30.33	46.00	-15.67	AVG
5	0.8460	22.37	10.14	32.51	56.00	-23.49	QP
6	0.8460	13.09	10.14	23.23	46.00	-22.77	AVG
7	1.1539	22.02	10.14	32.16	56.00	-23.84	QP
8	1.1539	11.16	10.14	21.30	46.00	-24.70	AVG
9	1.8340	21.35	10.18	31.53	56.00	-24.47	QP
10	1.8340	9.74	10.18	19.92	46.00	-26.08	AVG
11	3.1580	20.18	10.21	30.39	56.00	-25.61	QP
12	3.1580	8.59	10.21	18.80	46.00	-27.20	AVG

Emission Level= Read Level+ Correct Factor

EUT:	SP	Model Name:	SP-Green
Pressure:	1010 hPa	Phase:	N
Temperature	24.8℃	Humidity	52.1%
Test Mode:	Mode 1	Test Voltage:	DC 5V From Adapter



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1580	33.42	10.11	43.53	65.57	-22.04	QP
2	0.1580	14.53	10.11	24.64	55.57	-30.93	AVG
3	0.1940	30.52	10.10	40.62	63.86	-23.24	QP
4	0.1940	12.34	10.10	22.44	53.86	-31.42	AVG
5 *	0.5899	26.53	10.14	36.67	56.00	-19.33	QP
6	0.5899	12.99	10.14	23.13	46.00	-22.87	AVG
7	1.5620	20.68	10.17	30.85	56.00	-25.15	QP
8	1.5620	5.92	10.17	16.09	46.00	-29.91	AVG
9	1.8780	21.41	10.18	31.59	56.00	-24.41	QP
10	1.8780	6.73	10.18	16.91	46.00	-29.09	AVG
11	2.9219	20.78	10.20	30.98	56.00	-25.02	QP
12	2.9219	5.43	10.20	15.63	46.00	-30.37	AVG

Emission Level= Read Level+ Correct Factor

3.3 NUMBER OF HOPPING CHANNEL

3.3.1 Applicable Standard

According to FCC Part 15.247(a)(1)(iii)and ANSI C63.10

3.3.2 Conformance Limit

Frequency hopping systems in the 2400-2483.5MHz band shall use at least 15 channels.

3.3.3 Measuring Instruments

The Measuring equipment is listed in the section 2.5 of this test report.

3.3.4 Test Setup

3.3.5 Test Procedure

The testing follows ANSI C63.10 clause 7.8.3
The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
Set to the maximum power setting and enable the EUT transmit continuously.
The EUT must have its hopping function enabled.
Use the following spectrum analyzer settings:
Span =the frequency band of operation
RBW:To identify clearly the individual channels,set the RBW to less than 30%of the channel spacing or the 20 dB bandwidth,whichever is smaller.
VBW≥RBW
Sweep =auto
Detector function =peak
Trace =max hold

3.3.6 Test Results

EUT:	SP	Model Name:	SP-Green
Temperature:	24℃	Relative Humidity:	52.2%
Test Mode:	Mode 2		

Test data reference attachment X.

3.4 HOPPING CHANNEL SEPARATION MEASUREMENT

3.4.1 Applicable Standard

According to FCC Part 15.247(a)(1)and ANSI C63.10

3.4.2 Conformance Limit

Frequency hopping systems 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,frequency hopping systems operating in the 2400-2483.5MHz band shall have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel,whichever is greater.

3.4.3 Measuring Instruments

The Measuring equipment is listed in the section 2.5 of this test report.

3.4.4 Test Setup

3.4.5 Test Procedure

The testing follows ANSI C63.10 clause 7.8.2
The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
Set to the maximum power setting and enable the EUT transmit continuously.
The EUT was operating in controlled its channel.
Use the following spectrum analyzer settings:
Span =Measurement Bandwidth or Channel Separation
RBW:Start with the RBW set to approximately 3%of the channel spacing;adjust as necessary to best identify the center of each individual channel.
VBW≥RBW
Sweep =auto
Detector function =peak
Trace =max hold

3.4.6 Test Results

EUT:	SP	Model Name:	SP-Green
Temperature:	24℃	Relative Humidity:	52.2%
Test Mode:	Mode 2		

Test data reference attachment X.

3.5 AVERAGE TIME OF OCCUPANCY(DWELL TIME)

3.5.1 Applicable Standard

According to FCC Part 15.247(a)(1)(iii)and ANSI C63.10

3.5.2 Conformance Limit

The average time of occupancy on any channel shall not be greater than 0.4s within a period of 0.4s multiplied by the number of hopping channels employed.

3.5.3 Measuring Instruments

The Measuring equipment is listed in the section 2.5 of this test report.

3.5.4 Test Setup

3.5.5 Test Procedure

The testing follows ANSI C63.10 clause 7.8.4

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT must have its hopping function enabled.

Use the following spectrum analyzer settings:

Span =zero span,centered on a hopping channel

RBW≥1MHz

VBW≥RBW

Sweep =as necessary to capture the entire dwell time per hopping channel

Detector function =peak

Trace =max hold

Measure the maximum time duration of one single pulse.

Set the EUT for DH5,DH3 and DH1 packet transmitting.

Measure the maximum time duration of one single pulse.

3.5.6 Test Results

EUT:	SP	Model Name:	SP-Green
Temperature:	24℃	Relative Humidity:	52.2%
Test Mode:	Mode 2		

Test data reference attachment X.

Note:
A Period Time =(channel number)*0.4
DH1 Dwell time:Reading*(1600/2)*31.6/(channel number)
DH3 Dwell time:Reading*(1600/4)*31.6/(channel number)
DH5 Dwell time:Reading*(1600/6)*31.6/(channel number)

For Example:
1.In normal mode,hopping rate is 1600 hops/s with 6 slots in 79 hopping channels.
With channel hopping rate(1600/6/79)in Occupancy Time Limit(0.4×79)(s),
Hops Over Occupancy Time comes to(1600/6/79)x(0.4×79)=106.67 hops.

2.In AFH mode,hopping rate is 800 hops/s with 6 slots in 20 hopping channels.
With channel hopping rate(800/6/20)in Occupancy Time Limit(0.4×20)(s),
Hops Over Occupancy Time comes to(800/6/20)x(0.4×20)=53.33 hops.
3.Dwell Time(s)=Hops Over Occupancy Time (hops)x Package Transfer Time

3.6 20DB BANDWIDTH TEST

3.6.1 Applicable Standard

According to FCC Part 15.247(a)(1)and ANSI C63.10

3.6.2 Conformance Limit

No limit requirement.

3.6.3 Measuring Instruments

The Measuring equipment is listed in the section 2.5 of this test report.

3.6.4 Test Setup

3.6.5 Test Procedure

The testing follows ANSI C63.10 clause 6.9.2
The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
Set to the maximum power setting and enable the EUT transmit continuously.
The EUT was operating in controlled its channel.
Use the following spectrum analyzer settings:
Span =approximately 2 to 3 times the 20 dB bandwidth,centered on a hopping channel
RBW≥1%of the 20 dB bandwidth
VBW≥RBW
Sweep =auto
Detector function =peak
Trace =max hold

3.6.6 Test Results

EUT:	SP	Model Name:	SP-Green
Temperature:	24℃	Relative Humidity:	52.2%
Test Mode:	Mode 2		

Test data reference attachment X.

3.7 PEAK OUTPUT POWER

3.7.1 Applicable Standard

According to FCC Part 15.247(b)(1)and ANSI C63.10

3.7.2 Conformance Limit

The maximum peak conducted output power of the intentional radiator shall not exceed the following:(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.For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts.

3.7.3 Measuring Instruments

The Measuring equipment is listed in the section 2.5 of this test report.

3.7.4 Test Setup

3.7.5 Test Procedure

The testing follows ANSI C63.10 clause 7.8.5.
The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
Set to the maximum power setting and enable the EUT transmit continuously.
The EUT was operating in controlled its channel.
Use the following spectrum analyzer settings:
Span =approximately 5 times the 20 dB bandwidth,centered on a hopping channel
RBW≥the 20 dB bandwidth of the emission being measured
VBW≥RBW
Sweep =auto
Detector function =peak
Trace =max hold

3.7.6 Test Results

EUT:	SP	Model Name:	SP-Green
Temperature:	24℃	Relative Humidity:	52.2%
Test Mode:	Mode 2		

Test data reference attachment X.

3.8 CONDUCTED BAND EDGE MEASUREMENT

3.8.1 Applicable Standard

According to FCC Part 15.247(d)and ANSI C63.10

3.8.2 Conformance Limit

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)).

3.8.3 Measuring Instruments

The Measuring equipment is listed in the section 2.5 of this test report.

3.8.4 Test Setup

3.8.5 Test Procedure

The testing follows ANSI C63.10 clause 7.8.6.
The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
Set to the maximum power setting and enable the EUT transmit continuously.
The EUT must have its hopping function enabled.
Use the following spectrum analyzer settings:
Span =approximately 5 times the 20 dB bandwidth,centered on a hopping channel
RBW=100KHz
VBW=300KHz
Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW.The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used.
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.
Repeat above procedures until all measured frequencies were complete.

3.8.6 Test Results

EUT:	SP	Model Name:	SP-Green
Temperature:	24℃	Relative Humidity:	52.2%
Test Mode:	Mode 2/4		

Test data reference attachment X.

3.9 SPURIOUS RF CONDUCTED EMISSION

3.9.1 Applicable Standard

According to FCC Part 15.247(d)and ANSI C63.10.

3.9.2 Conformance Limit

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)).

3.9.3 Measuring Instruments

The Measuring equipment is listed in the section 2.5 of this test report.

3.9.4 Test Setup

3.9.5 Test Procedure

Establish an emission level by using the following procedure:

a)Set the center frequency and span to encompass frequency range to be measured.

b)Set the RBW=100 kHz.

c)Set the VBW≥[3×RBW].

d)Detector =peak.

e)Sweep time =auto couple.

f)Trace mode=max hold.

g)Allow trace to fully stabilize.

h)Use the peak marker function to determine the maximum amplitude level.
Then the limit shall be attenuated by at least 20 dB relative to the maximum amplitude level in 100 kHz.

3.9.6 Test Results

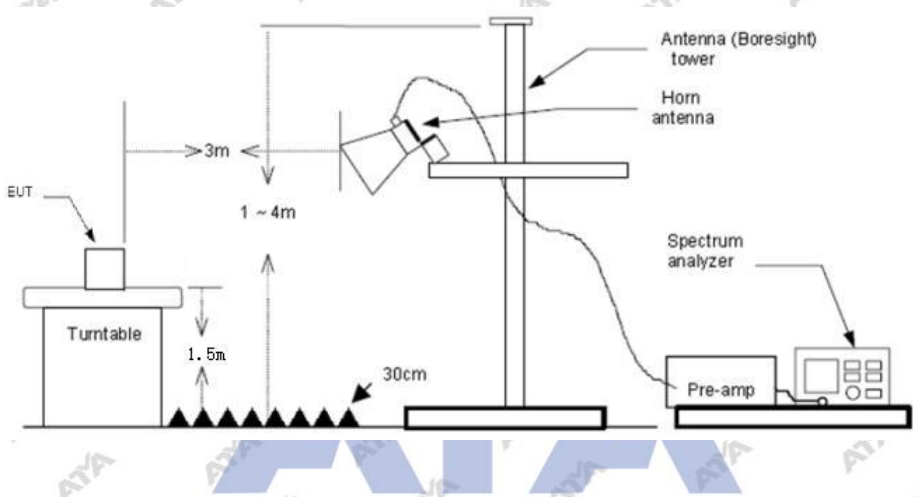
Remark:The measurement frequency range is from 30MHzHz to the 10th harmonic of the fundamental frequency.The lowest,middle and highest channels are tested to verify the spurious emissions and bandege measurement data.

3.10 Band Edge Emissions(Radiated)

3.10.1 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.		

3.10.2 Test Configuration



3.10.3 Test Procedure

1. The EUT was setup and tested according to ANSI C63.10 requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
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 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.

3.10.4 Test Mode

Please refer to the clause 2.3.

3.10.5 Test Results

Note:

Measurement = Reading level + Correct Factor

Correct Factor=Antenna Factor + Cable Loss -Preamplifier Factor

EUT:	SP	Model Name:	SP-Green
Pressure:	1010 hPa		
Temperature	24.8℃	Humidity	52.1%
Test Mode:	TX	Test Voltage:	DC 3.7V

Frequency (MHz)	Meter Reading (dBμV)	Cable Loss (dB)	Antenna Factor dB/m	Preamp Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Polar
8DPSK-Non-hopping 2402MHz									
2310	69.54	3.71	27.7	55.9	45.05	74	-28.95	Pk	Horizontal
2310	46.23	3.71	27.7	55.9	21.74	54	-32.26	AV	Horizontal
2310	68.59	3.71	27.7	55.9	44.1	74	-29.9	Pk	Vertical
2310	45.48	3.71	27.7	55.9	20.99	54	-33.01	AV	Vertical
2390	68.09	3.84	27.8	55.8	43.93	74	-30.07	Pk	Vertical
2390	45.18	3.84	27.8	55.8	21.02	54	-32.98	AV	Vertical
2390	65.29	3.84	27.8	55.8	41.13	74	-32.87	Pk	Horizontal
2390	44.06	3.84	27.8	55.8	19.9	54	-34.1	AV	Horizontal
8DPSK-Non-hopping 2480MHz									
2483.5	68.76	3.88	27.9	55.7	44.84	74	-29.16	Pk	Vertical
2483.5	46.19	3.88	27.9	55.7	22.27	54	-31.73	AV	Vertical
2483.5	67.09	3.88	27.9	55.7	43.17	74	-30.83	Pk	Horizontal
2483.5	45.87	3.88	27.9	55.7	21.95	54	-32.05	AV	Horizontal
2500	65.06	4.00	28.2	55.6	41.66	74	-32.34	Pk	Vertical
2500	45.15	4.00	28.2	55.6	21.75	54	-32.25	AV	Vertical
2500	65.84	4.00	28.2	55.6	42.44	74	-31.56	Pk	Horizontal
2500	43.19	4.00	28.2	55.6	19.79	54	-34.21	AV	Horizontal
8DPSK- hopping									
2310	68.95	3.71	27.7	55.9	44.46	74	-29.54	Pk	Horizontal
2310	47.09	3.71	27.7	55.9	22.6	54	-31.4	AV	Horizontal
2310	68.54	3.71	27.7	55.9	44.05	74	-29.95	Pk	Vertical
2310	47.06	3.71	27.7	55.9	22.57	54	-31.43	AV	Vertical
2390	67.29	3.84	27.8	55.8	43.13	74	-30.87	Pk	Vertical
2390	44.11	3.84	27.8	55.8	19.95	54	-34.05	AV	Vertical
2390	65.83	3.84	27.8	55.8	41.67	74	-32.33	Pk	Horizontal
2390	44.09	3.84	27.8	55.8	19.93	54	-34.07	AV	Horizontal
2483.5	68.59	3.88	27.9	55.7	44.67	74	-29.33	Pk	Vertical
2483.5	45.18	3.88	27.9	55.7	21.26	54	-32.74	AV	Vertical
2483.5	67.59	3.88	27.9	55.7	43.67	74	-30.33	Pk	Horizontal
2483.5	44.22	3.88	27.9	55.7	20.3	54	-33.7	AV	Horizontal
2500	67.59	4.00	28.2	55.6	44.19	74	-29.81	Pk	Vertical
2500	44.03	4.00	28.2	55.6	20.63	54	-33.37	AV	Vertical
2500	64.59	4.00	28.2	55.6	41.19	74	-32.81	Pk	Horizontal
2500	43.76	4.00	28.2	55.6	20.36	54	-33.64	AV	Horizontal

Note:

1. All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
2. All the modulation modes have been tested, and only the worst results are reflected in the report.

3.11 Spurious Emission (Radiated)

3.11.1 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)

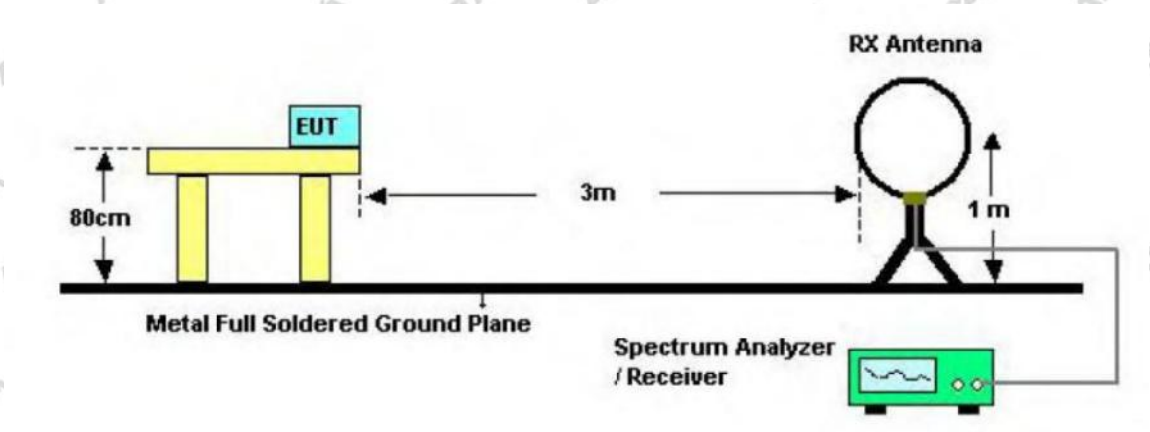
Frequency (MHz)	Distance Meters(at 3m)	
	Peak	Average
Above 1000	74	54

Note:

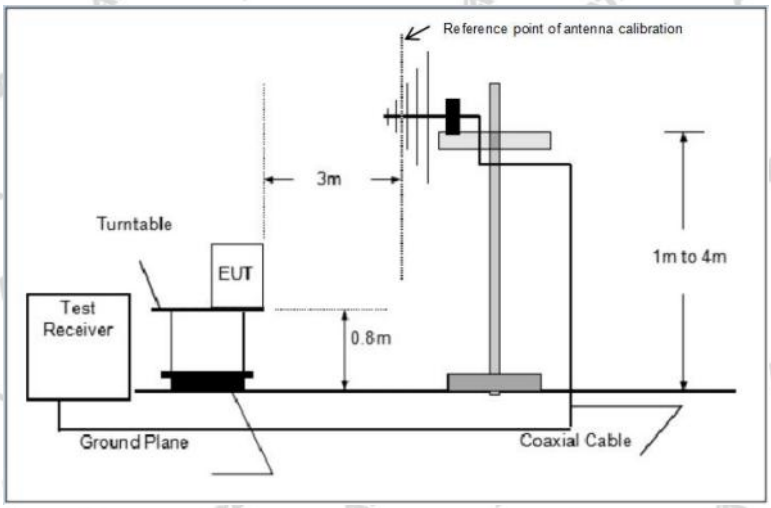
(1) The tighter limit applies at the band edges.

(2) Emission Level (dBuV/m)=20log Emission Level (uV/m).

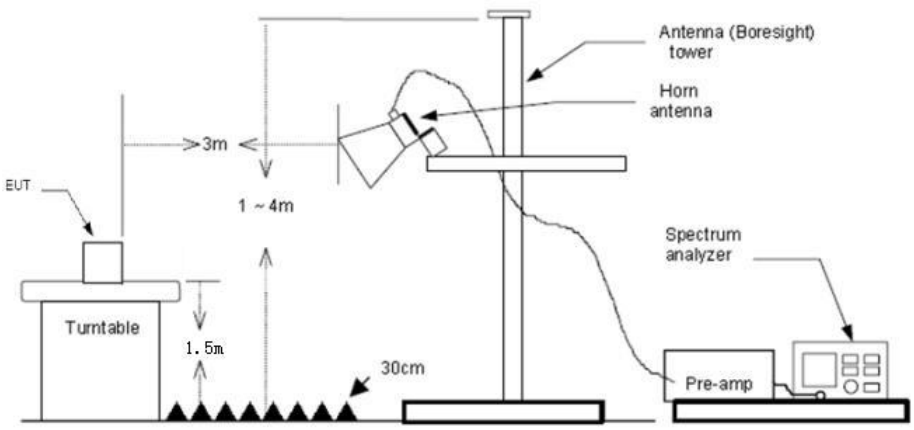
3.11.2 Test Configuration



Below 30MHz Test Setup



Below 1000MHz Test Setup



Above 1GHz Test Setup

3.11.3 Test Procedure

1. The EUT was setup and tested according to ANSI C63.10-2020 + Cor.1-2023
2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
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.

3.11.4 Test Mode

Please refer to the clause 2.2.

Test Result

9 KHz~30 MHz

EUT:	SP	Model Name:	SP-Green
Pressure:	1010 hPa	Phase:	H/V
Temperature	24.8℃	Humidity	52.1%
Test Mode:	Mode 3	Test Voltage:	DC 5V From PC

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 (specific distance/test distance)(dB);
3. Limit line = specific limits (dBuV) + distance extrapolation factor.
4.

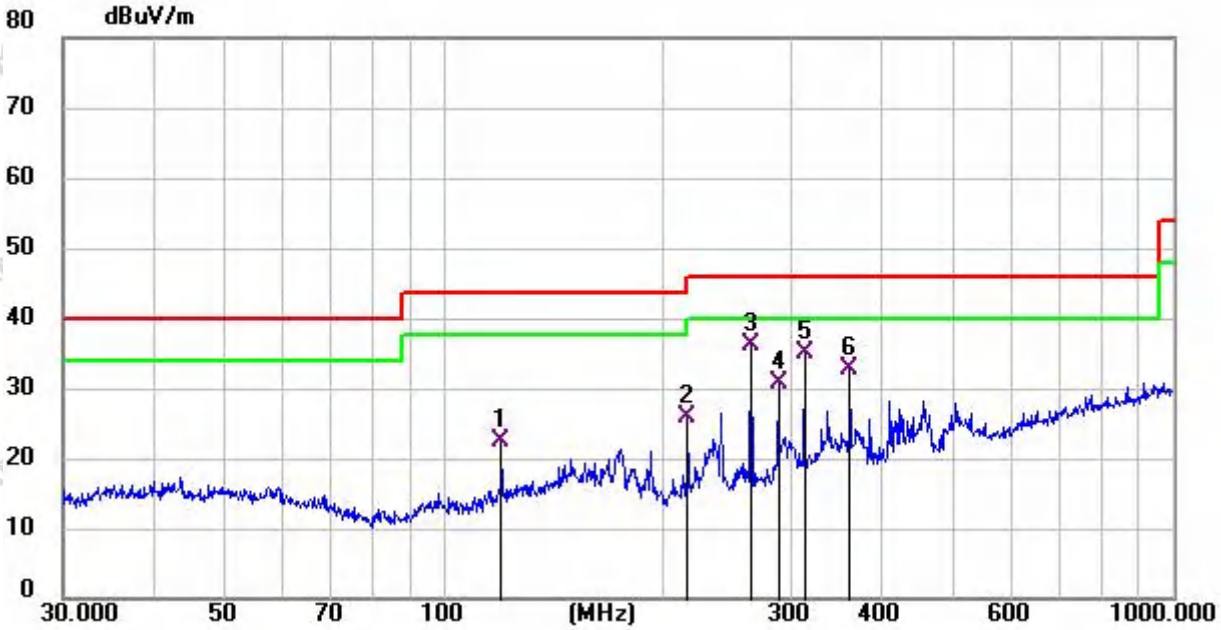
From 9 KHz~30 MHz : Conclusion: PASS

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.

3.11.5 Results of Radiated Emissions (30MHz~ 1000MHz)

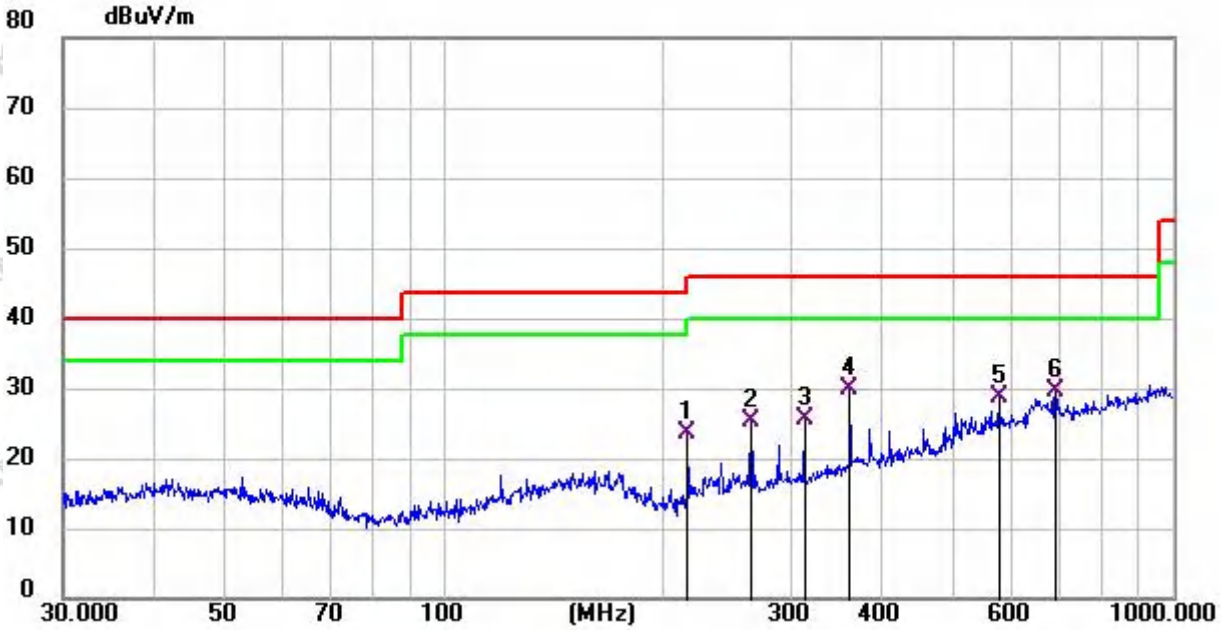
EUT:	SP	Model Name:	SP-Green
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	24.8℃	Humidity	52.1%
Test Mode:	Mode 3	Test Voltage:	DC 5V From PC



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	119.8556	36.20	-13.63	22.57	43.50	-20.93	QP
2	216.0240	40.67	-14.68	25.99	46.00	-20.01	QP
3 *	263.8190	49.00	-12.78	36.22	46.00	-9.78	QP
4	287.9904	42.62	-11.96	30.66	46.00	-15.34	QP
5	312.1794	46.09	-11.21	34.88	46.00	-11.12	QP
6	360.4476	42.61	-9.99	32.62	46.00	-13.38	QP

Emission Level= Read Level+ Correct Factor

EUT:	SP	Model Name:	SP-Green
Pressure:	1010 hPa	Phase:	Vertical
Temperature	24.8℃	Humidity	52.1%
Test Mode:	Mode 3	Test Voltage:	DC 5V From PC



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	216.0240	38.31	-14.68	23.63	46.00	-22.37	QP
2	263.8190	38.16	-12.78	25.38	46.00	-20.62	QP
3	312.1794	36.85	-11.21	25.64	46.00	-20.36	QP
4 *	360.4476	39.77	-9.99	29.78	46.00	-16.22	QP
5	576.6443	33.80	-5.13	28.67	46.00	-17.33	QP
6	691.9865	32.40	-2.95	29.45	46.00	-16.55	QP

Emission Level= Read Level+ Correct Factor

3.11.6 Results of Radiated Emissions (1GHz-25GHz)

Frequency (MHz)	Reading Level (dBμV)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Polar
Low Channel (2402 MHz)(8DPSK)--Above 1G									
4804.211	61.06	4.36	32.92	45.53	52.81	74	-21.19	Pk	Vertical
4804.211	40.22	4.36	32.92	45.53	31.97	54	-22.03	AV	Vertical
7206.606	62.95	5.02	37.63	45.56	60.04	74	-13.96	Pk	Vertical
7206.606	41.62	5.02	37.63	45.56	38.71	54	-15.29	AV	Vertical
4804.155	61.59	4.36	32.92	45.53	53.34	74	-20.66	Pk	Horizontal
4804.155	40.39	4.36	32.92	45.53	32.14	54	-21.86	AV	Horizontal
7206.617	60.22	5.02	37.63	45.56	57.31	74	-16.69	Pk	Horizontal
7206.617	41.26	5.02	37.63	45.56	38.35	54	-15.65	AV	Horizontal
Mid Channel (2440 MHz)(8DPSK)--Above 1G									
4880.055	62.53	4.41	33.01	45.76	54.19	74	-19.81	Pk	Vertical
4880.055	41.61	4.41	33.01	45.76	33.27	54	-20.73	AV	Vertical
7320.445	61.33	5.02	37.68	45.59	58.44	74	-15.56	Pk	Vertical
7320.445	40.95	5.02	37.68	45.59	38.06	54	-15.94	AV	Vertical
4880.038	61.72	4.41	33.01	45.76	53.38	74	-20.62	Pk	Horizontal
4880.038	40.66	4.41	33.01	45.76	32.32	54	-21.68	AV	Horizontal
7320.218	62.19	5.02	37.68	45.59	59.3	74	-14.7	Pk	Horizontal
7320.218	40.19	5.02	37.68	45.59	37.3	54	-16.7	AV	Horizontal
High Channel (2480 MHz)(8DPSK)-- Above 1G									
4960.55	63.26	4.5	33.26	46.07	54.95	74	-19.05	Pk	Vertical
4960.55	41.09	4.5	33.26	46.07	32.78	54	-21.22	AV	Vertical
7440.427	62.22	5.02	37.78	45.77	59.25	74	-14.75	Pk	Vertical
7440.427	41.45	5.02	37.78	45.77	38.48	54	-15.52	AV	Vertical
4960.221	61.03	4.5	33.26	46.07	52.72	74	-21.28	Pk	Horizontal
4960.221	41.51	4.5	33.26	46.07	33.2	54	-20.8	AV	Horizontal
7440.319	62.36	5.02	37.78	45.77	59.39	74	-14.61	Pk	Horizontal
7440.319	41.05	5.02	37.78	45.77	38.08	54	-15.92	AV	Horizontal

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
4. All the modulation modes have been tested, and only the worst results are reflected in the report.

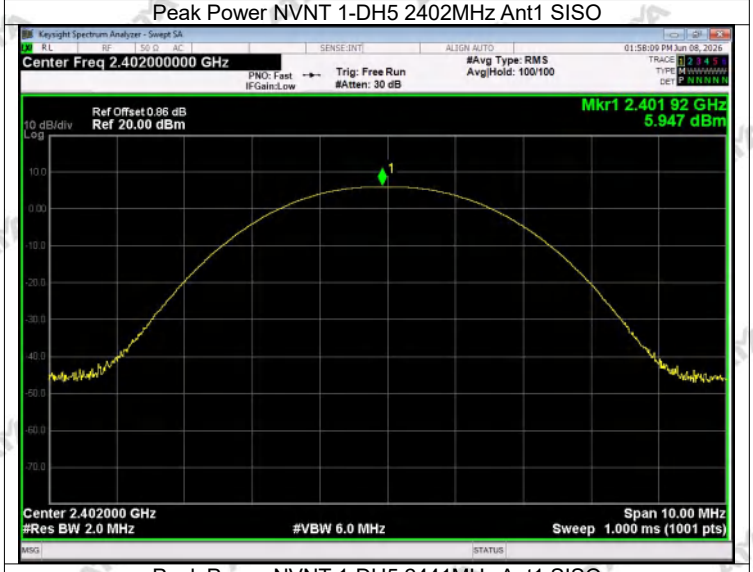
4. APPENDI X

4.1 Maximum Peak Conducted Output Power

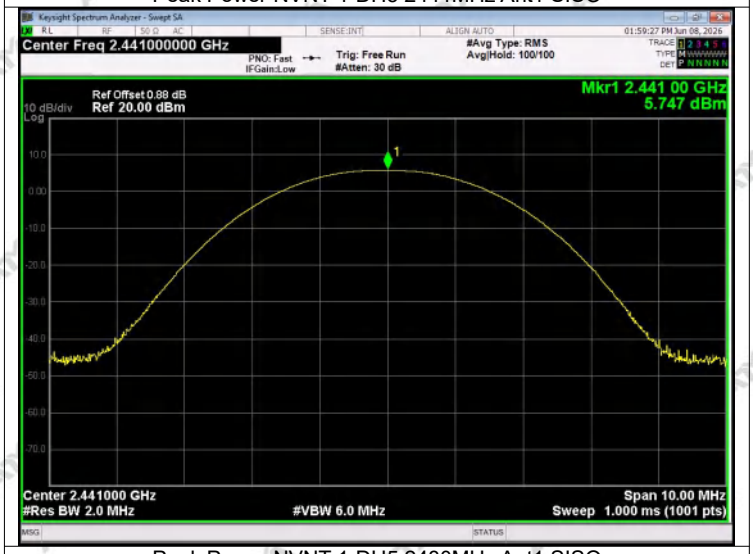
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Conducted Power (W)	Limit Conducted(dBm)	Verdict
NVNT	1-DH5 SISO	2402	Ant1	5.95	0.00394	30	Pass
NVNT	1-DH5 SISO	2441	Ant1	5.75	0.00376	30	Pass
NVNT	1-DH5 SISO	2480	Ant1	5.1	0.00324	30	Pass
NVNT	2-DH5 SISO	2402	Ant1	6.82	0.00481	30	Pass
NVNT	2-DH5 SISO	2441	Ant1	6.67	0.00465	30	Pass
NVNT	2-DH5 SISO	2480	Ant1	6.12	0.00409	30	Pass
NVNT	3-DH5 SISO	2402	Ant1	7.13	0.00516	30	Pass
NVNT	3-DH5 SISO	2441	Ant1	7.04	0.00506	30	Pass
NVNT	3-DH5 SISO	2480	Ant1	6.51	0.00448	30	Pass

Test Graphs

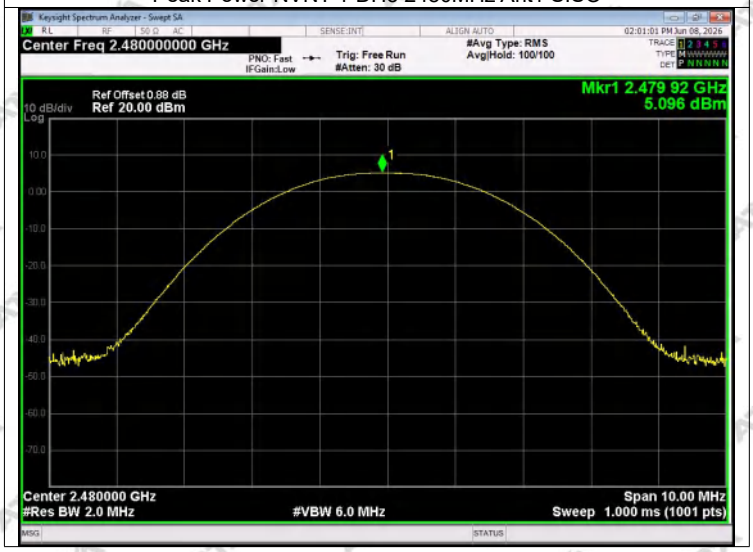
Peak Power NVNT 1-DH5 2402MHz Ant1 SISO



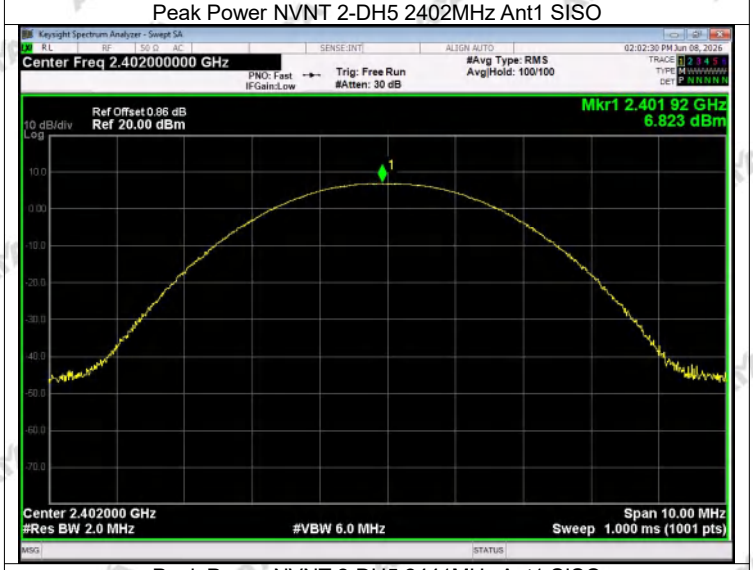
Peak Power NVNT 1-DH5 2441MHz Ant1 SISO



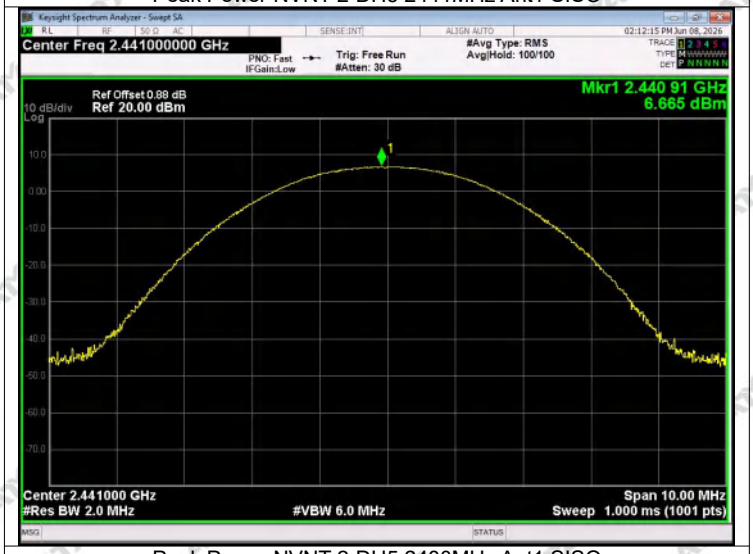
Peak Power NVNT 1-DH5 2480MHz Ant1 SISO



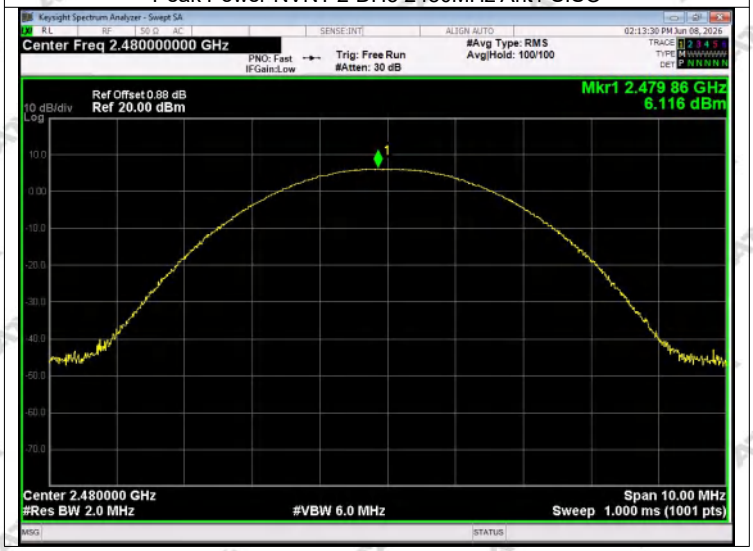
Peak Power NVNT 2-DH5 2402MHz Ant1 SISO



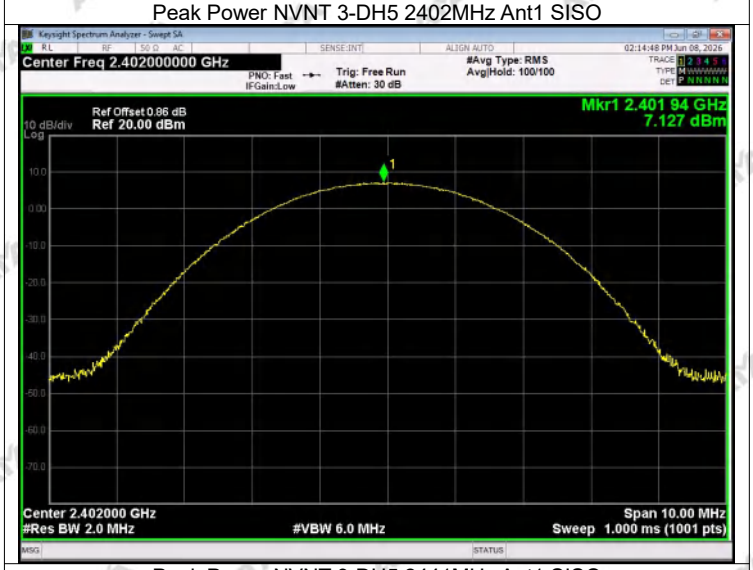
Peak Power NVNT 2-DH5 2441MHz Ant1 SISO



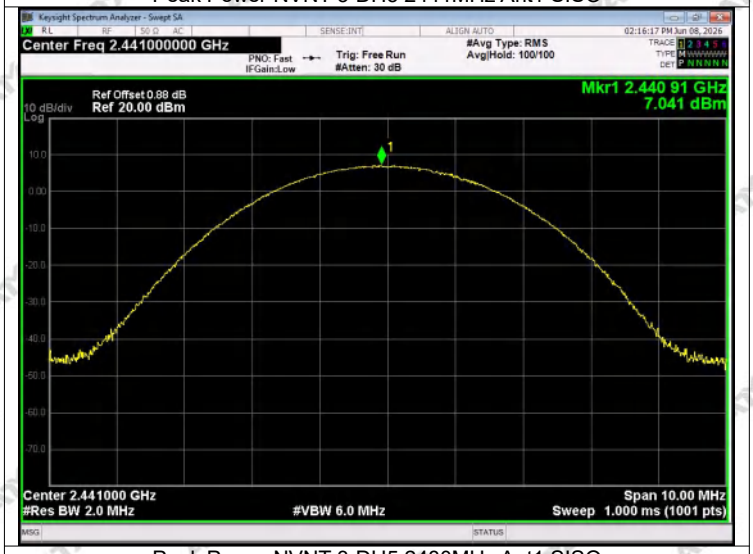
Peak Power NVNT 2-DH5 2480MHz Ant1 SISO



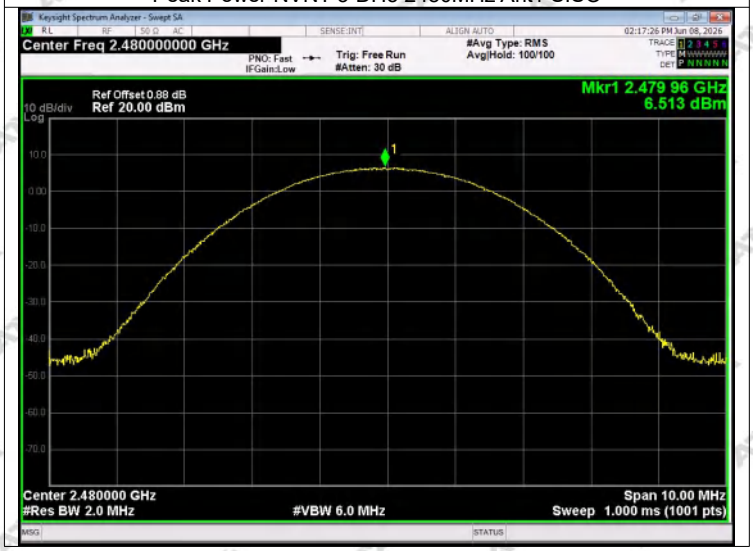
Peak Power NVNT 3-DH5 2402MHz Ant1 SISO



Peak Power NVNT 3-DH5 2441MHz Ant1 SISO



Peak Power NVNT 3-DH5 2480MHz Ant1 SISO

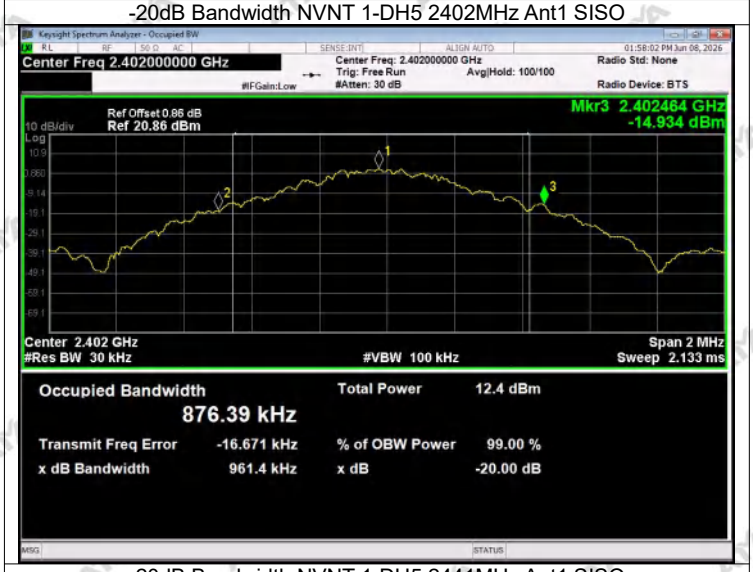


4.2 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5 SISO	2402	Ant1	0.9614	Pass
NVNT	1-DH5 SISO	2441	Ant1	0.9481	Pass
NVNT	1-DH5 SISO	2480	Ant1	0.9544	Pass
NVNT	2-DH5 SISO	2402	Ant1	1.287	Pass
NVNT	2-DH5 SISO	2441	Ant1	1.315	Pass
NVNT	2-DH5 SISO	2480	Ant1	1.271	Pass
NVNT	3-DH5 SISO	2402	Ant1	1.308	Pass
NVNT	3-DH5 SISO	2441	Ant1	1.271	Pass
NVNT	3-DH5 SISO	2480	Ant1	1.265	Pass

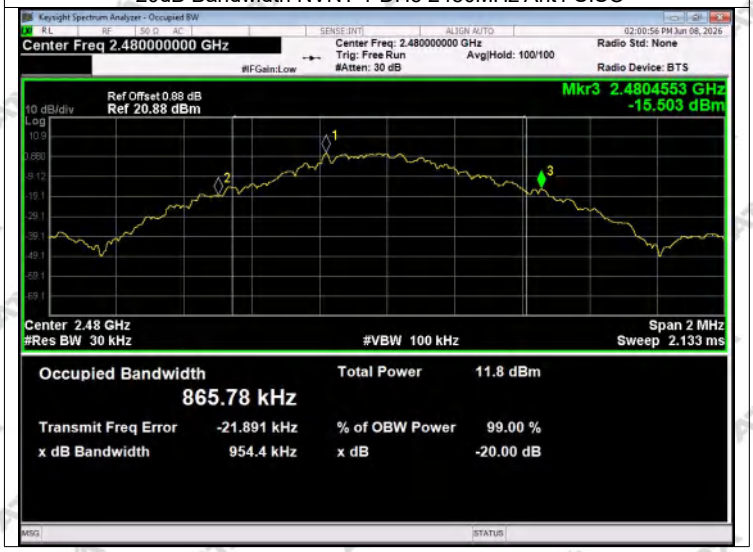
Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1 SISO

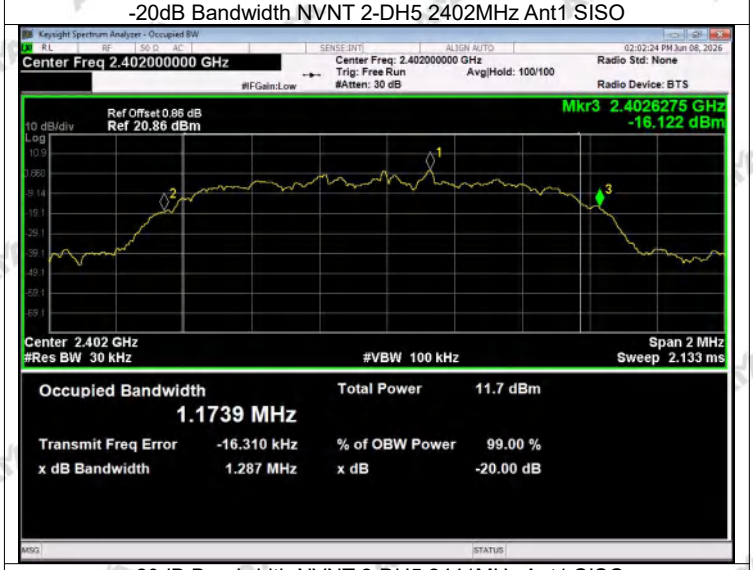


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1 SISO

-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1 SISO

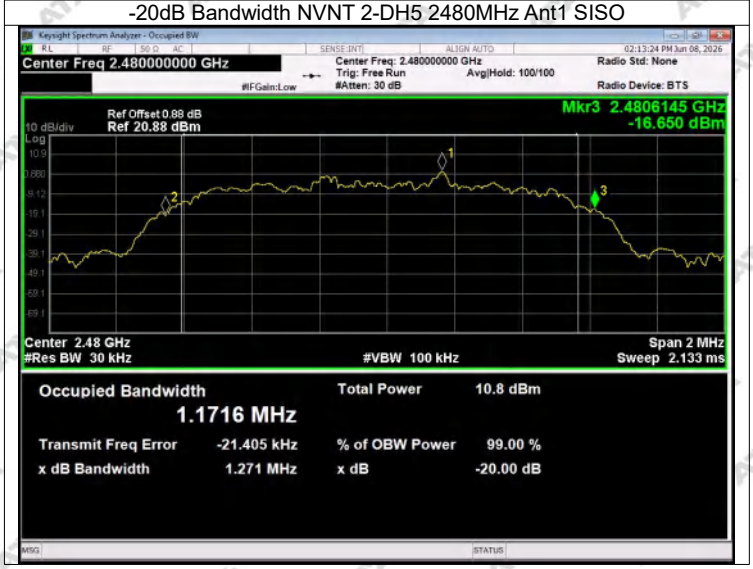


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1 SISO

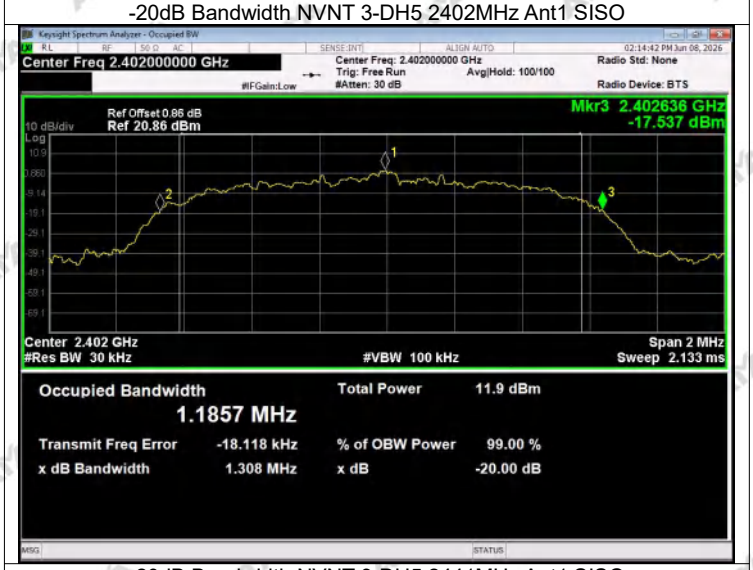


-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1 SISO

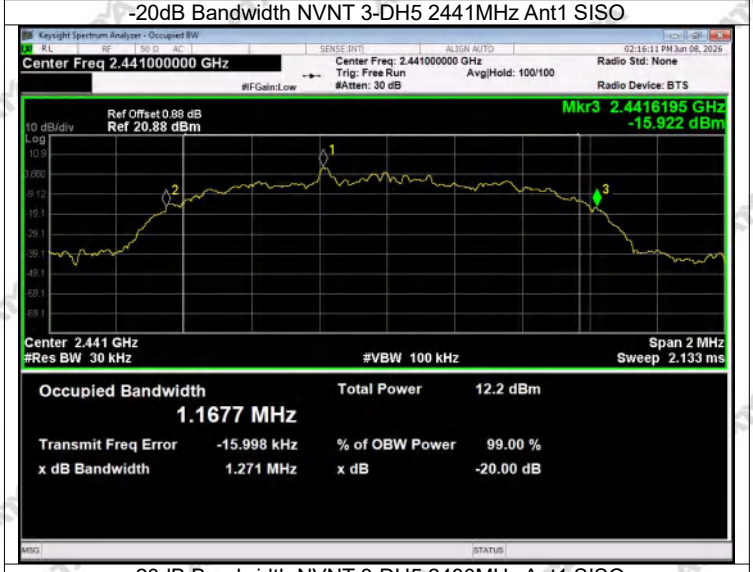
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1 SISO



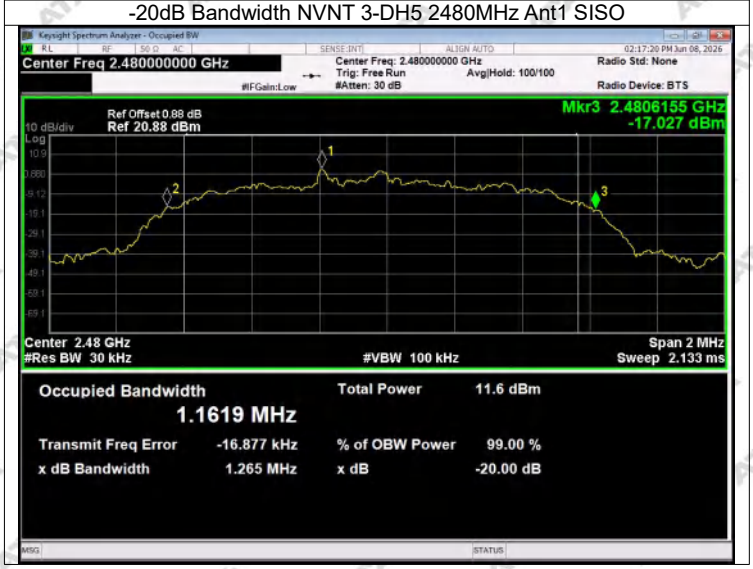
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1 SISO



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1 SISO



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1 SISO

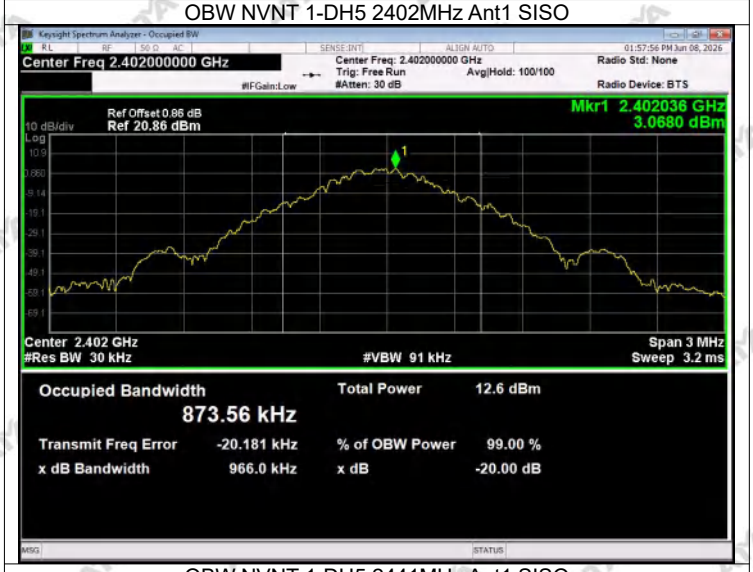


4.3 Occupied Channel Bandwidth

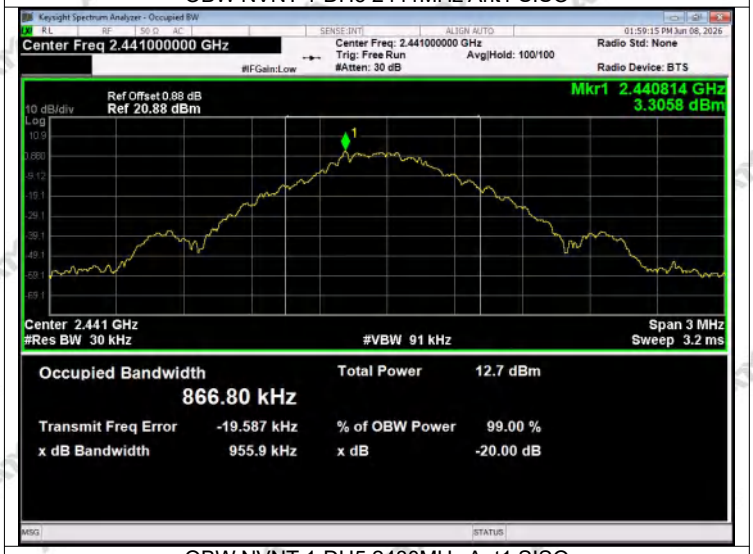
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5 SISO	2402	Ant1	0.87356
NVNT	1-DH5 SISO	2441	Ant1	0.8668
NVNT	1-DH5 SISO	2480	Ant1	0.86948
NVNT	2-DH5 SISO	2402	Ant1	1.1713
NVNT	2-DH5 SISO	2441	Ant1	1.1712
NVNT	2-DH5 SISO	2480	Ant1	1.1724
NVNT	3-DH5 SISO	2402	Ant1	1.1651
NVNT	3-DH5 SISO	2441	Ant1	1.1707
NVNT	3-DH5 SISO	2480	Ant1	1.1618

Test Graphs

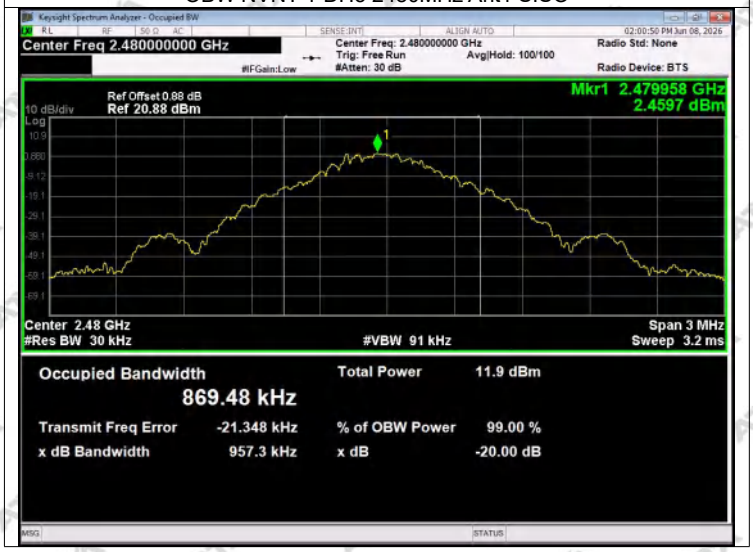
OBW NVNT 1-DH5 2402MHz Ant1 SISO



OBW NVNT 1-DH5 2441MHz Ant1 SISO



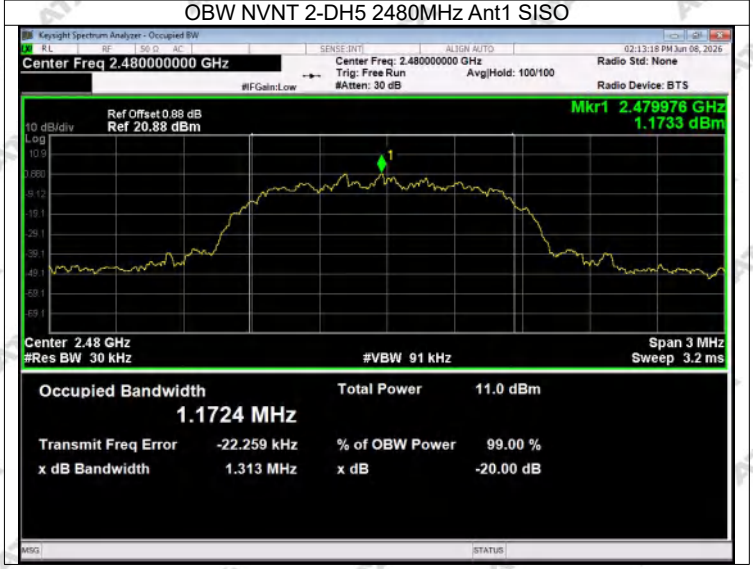
OBW NVNT 1-DH5 2480MHz Ant1 SISO



OBW NVNT 2-DH5 2402MHz Ant1 SISO

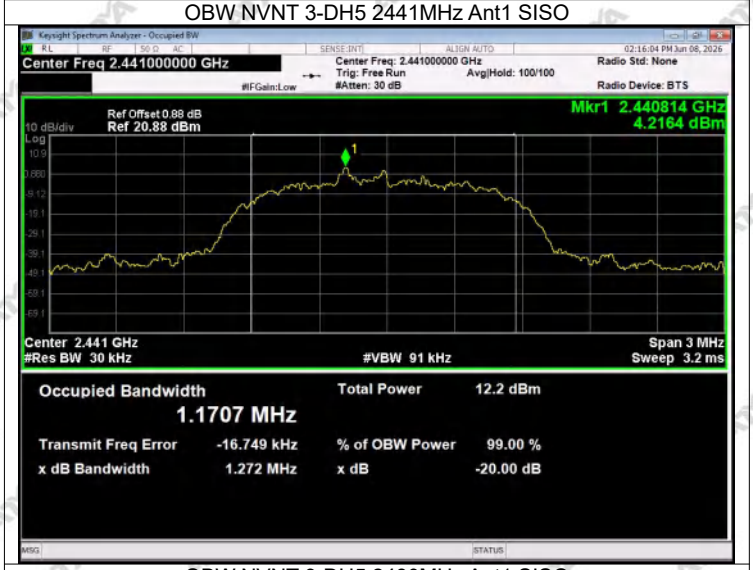
OBW NVNT 2-DH5 2441MHz Ant1 SISO

OBW NVNT 2-DH5 2480MHz Ant1 SISO

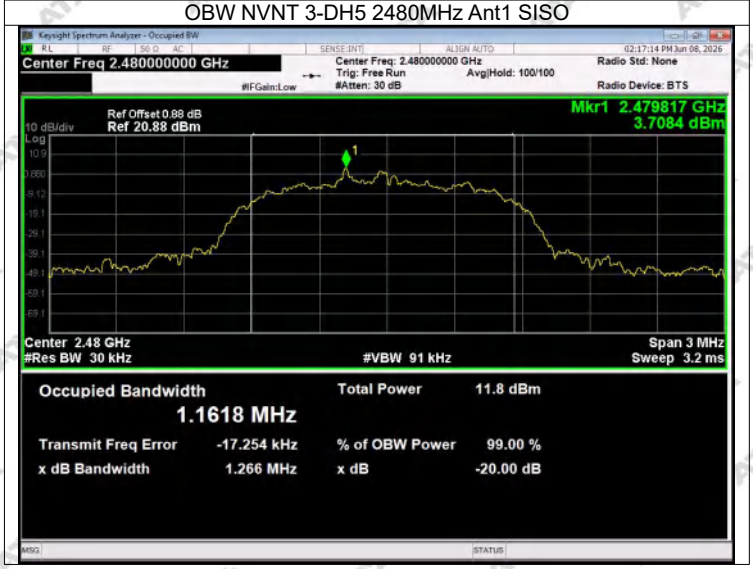


OBW NVNT 3-DH5 2402MHz Ant1 SISO

OBW NVNT 3-DH5 2441MHz Ant1 SISO

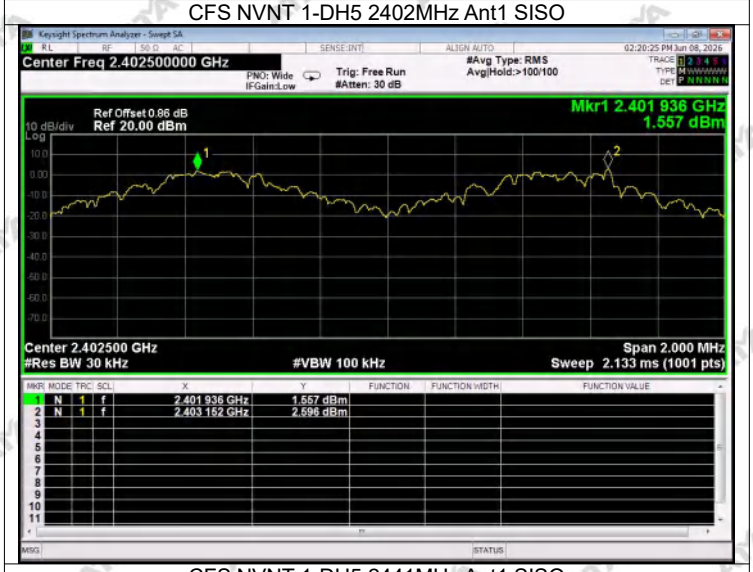
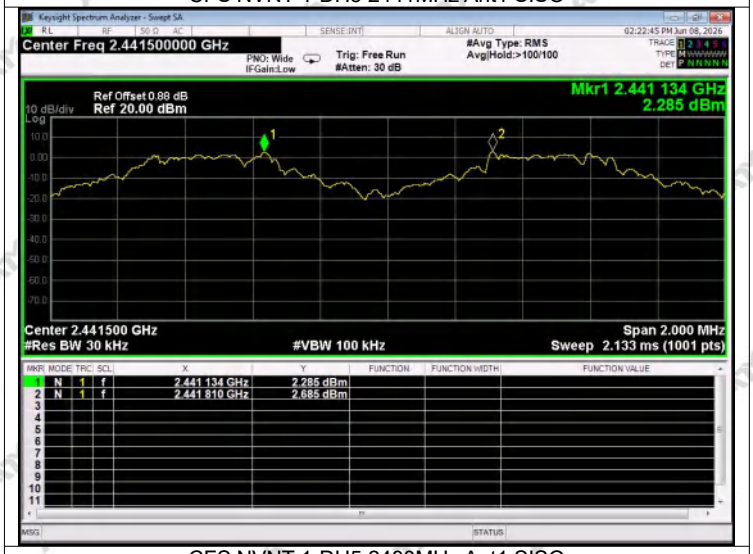
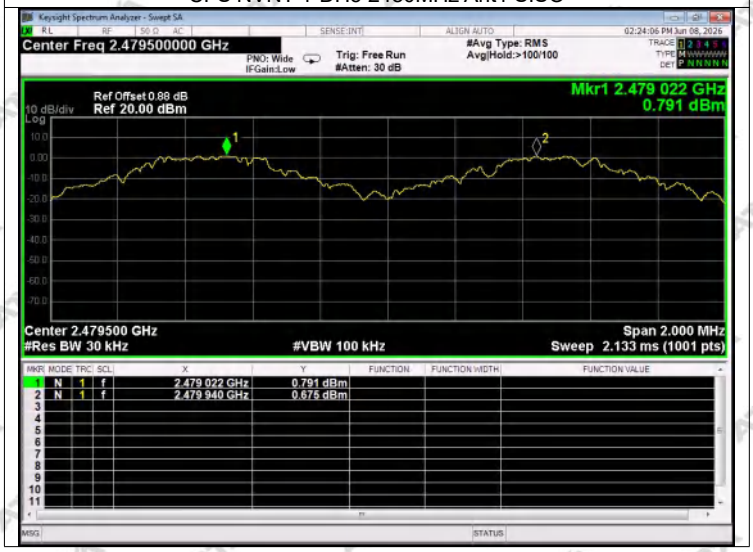


OBW NVNT 3-DH5 2480MHz Ant1 SISO

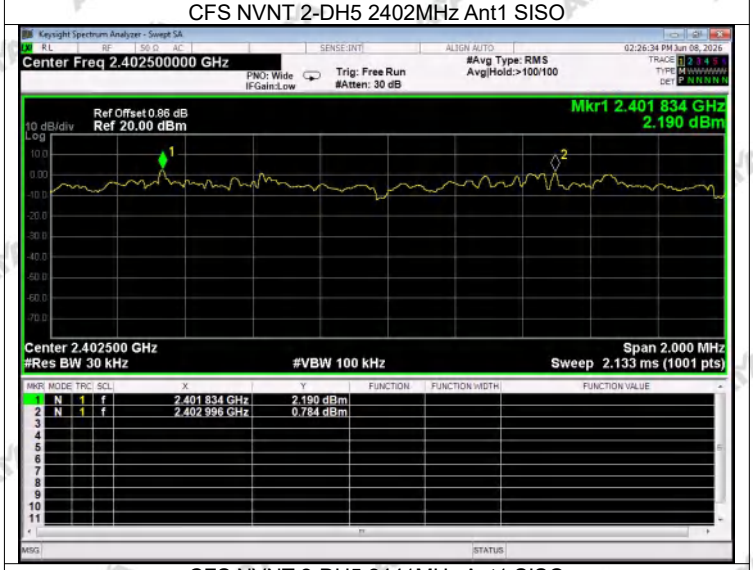


4.4 Carrier Frequencies Separation

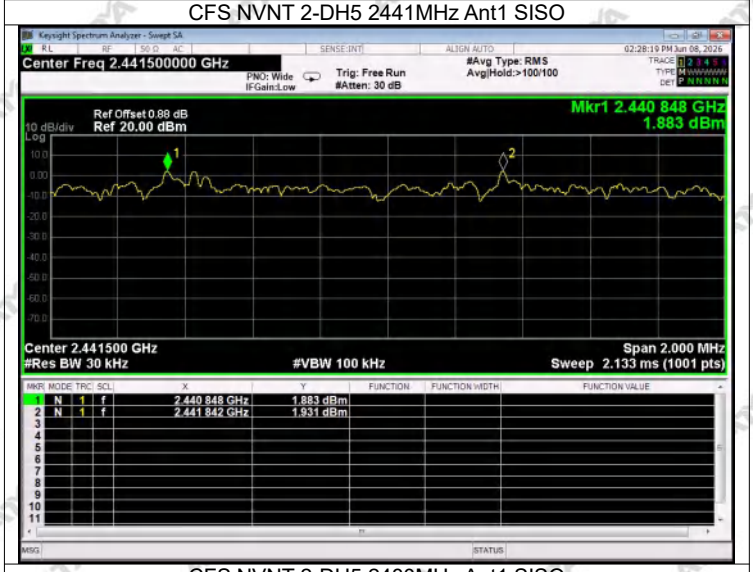
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5 SISO	Ant1	2401.936	2403.152	1.216	0.641	Pass
NVNT	1-DH5 SISO	Ant1	2441.134	2441.81	0.676	0.632	Pass
NVNT	1-DH5 SISO	Ant1	2479.022	2479.94	0.918	0.636	Pass
NVNT	2-DH5 SISO	Ant1	2401.834	2402.996	1.162	0.858	Pass
NVNT	2-DH5 SISO	Ant1	2440.848	2441.842	0.994	0.877	Pass
NVNT	2-DH5 SISO	Ant1	2478.812	2479.826	1.014	0.847	Pass
NVNT	3-DH5 SISO	Ant1	2401.808	2402.95	1.142	0.872	Pass
NVNT	3-DH5 SISO	Ant1	2440.81	2442.14	1.33	0.847	Pass
NVNT	3-DH5 SISO	Ant1	2478.66	2479.668	1.008	0.843	Pass

Test Graphs
CFS NVNT 1-DH5 2402MHz Ant1 SISO

CFS NVNT 1-DH5 2441MHz Ant1 SISO

CFS NVNT 1-DH5 2480MHz Ant1 SISO


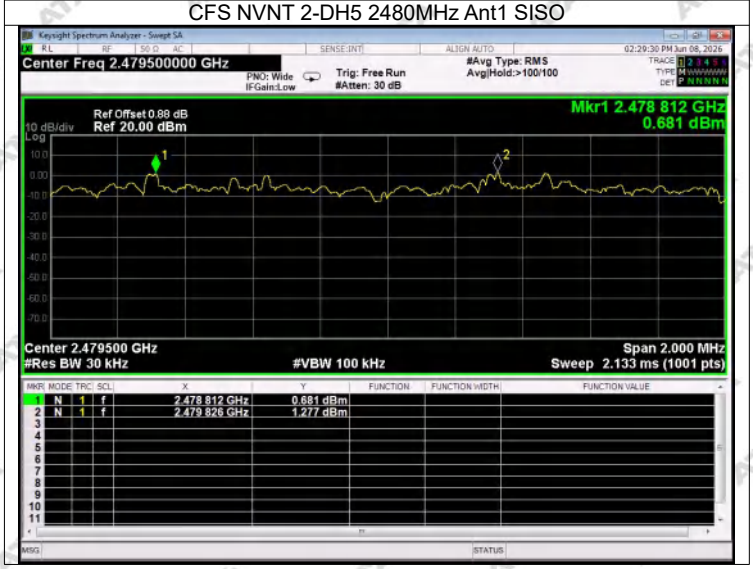
CFS NVNT 2-DH5 2402MHz Ant1 SISO



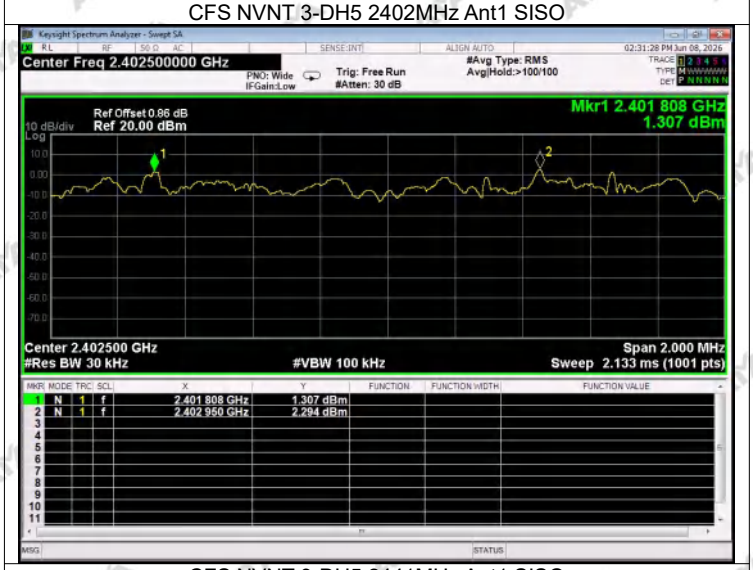
CFS NVNT 2-DH5 2441MHz Ant1 SISO



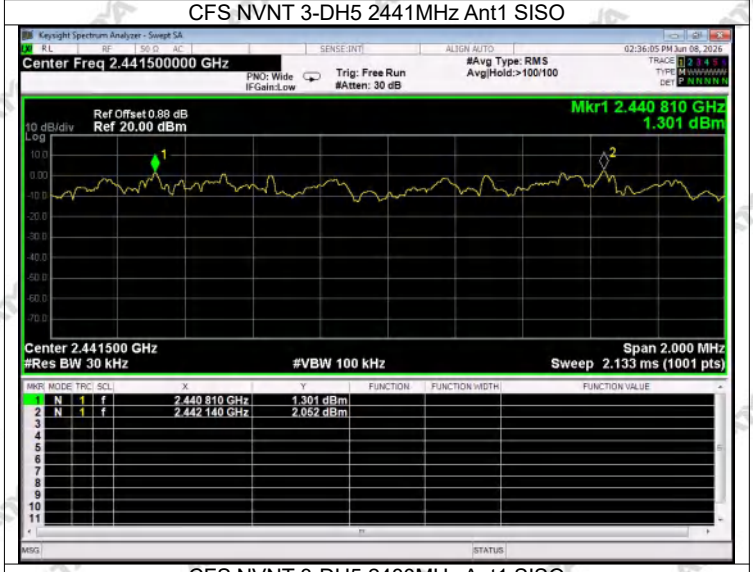
CFS NVNT 2-DH5 2480MHz Ant1 SISO



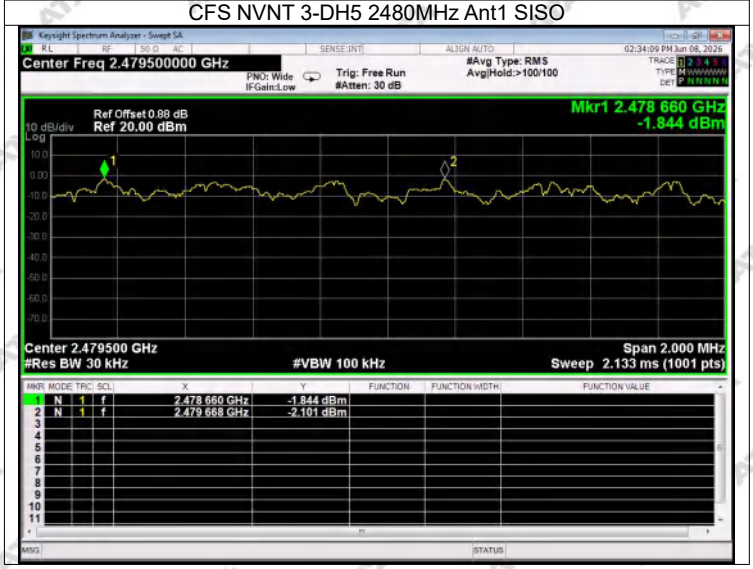
CFS NVNT 3-DH5 2402MHz Ant1 SISO



CFS NVNT 3-DH5 2441MHz Ant1 SISO



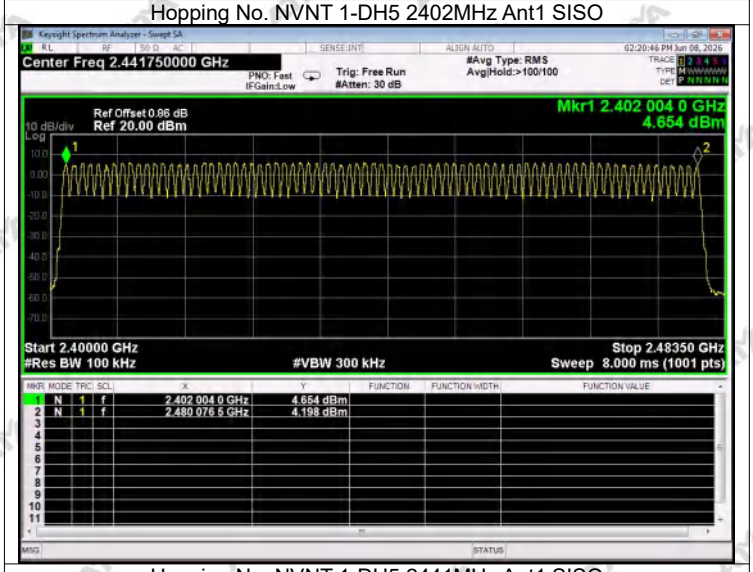
CFS NVNT 3-DH5 2480MHz Ant1 SISO



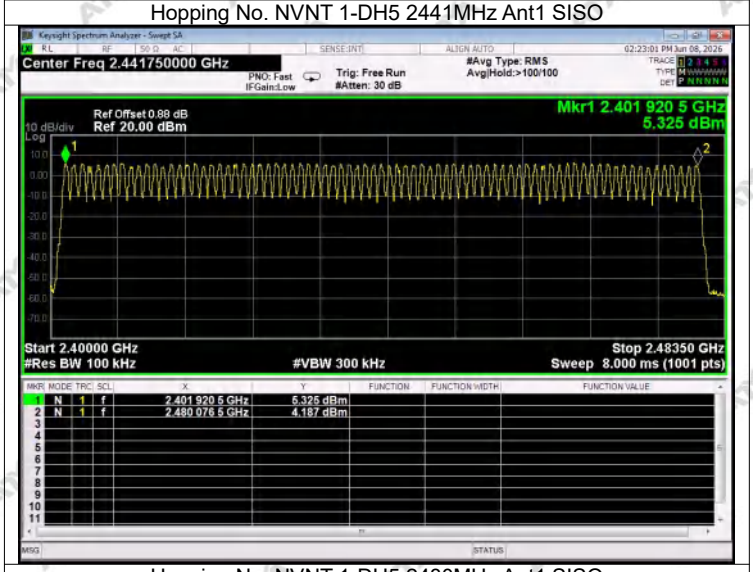
4.5 Number of Hopping Channel

Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5 SISO	Ant1	79	15	Pass
NVNT	1-DH5 SISO	Ant1	79	15	Pass
NVNT	1-DH5 SISO	Ant1	79	15	Pass
NVNT	2-DH5 SISO	Ant1	79	15	Pass
NVNT	2-DH5 SISO	Ant1	79	15	Pass
NVNT	2-DH5 SISO	Ant1	79	15	Pass
NVNT	3-DH5 SISO	Ant1	79	15	Pass
NVNT	3-DH5 SISO	Ant1	79	15	Pass
NVNT	3-DH5 SISO	Ant1	79	15	Pass

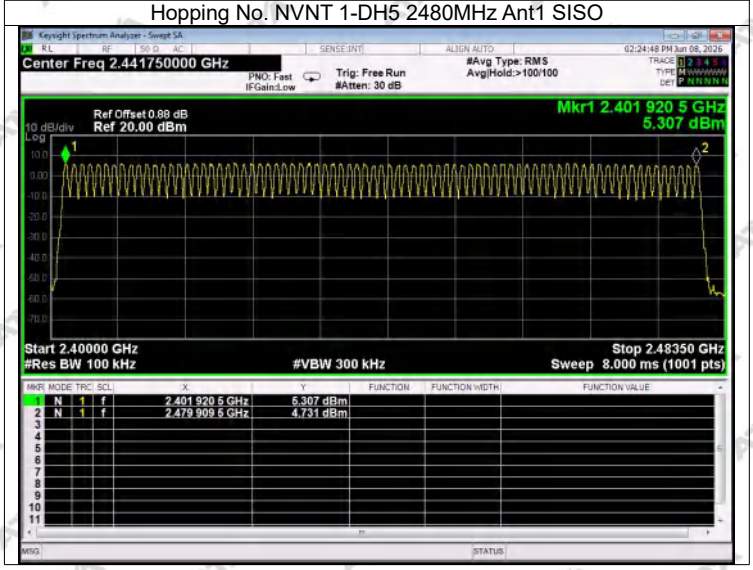
Test Graphs
Hopping No. NVNT 1-DH5 2402MHz Ant1 SISO



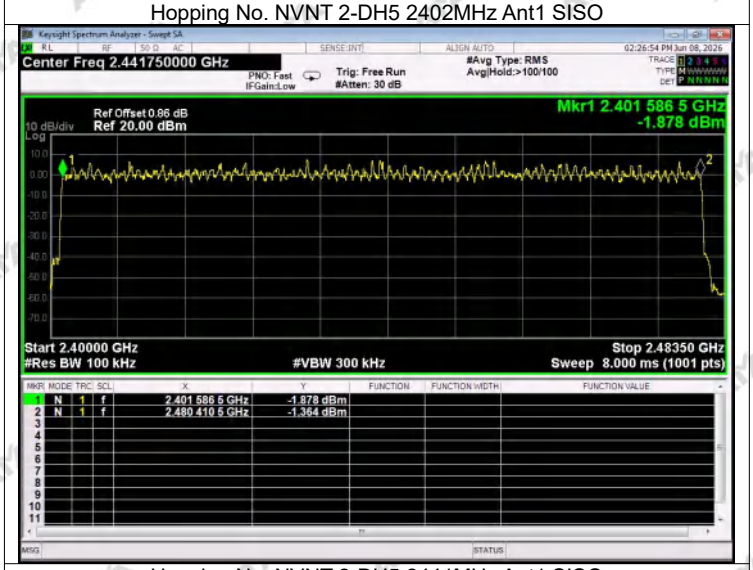
Hopping No. NVNT 1-DH5 2441MHz Ant1 SISO



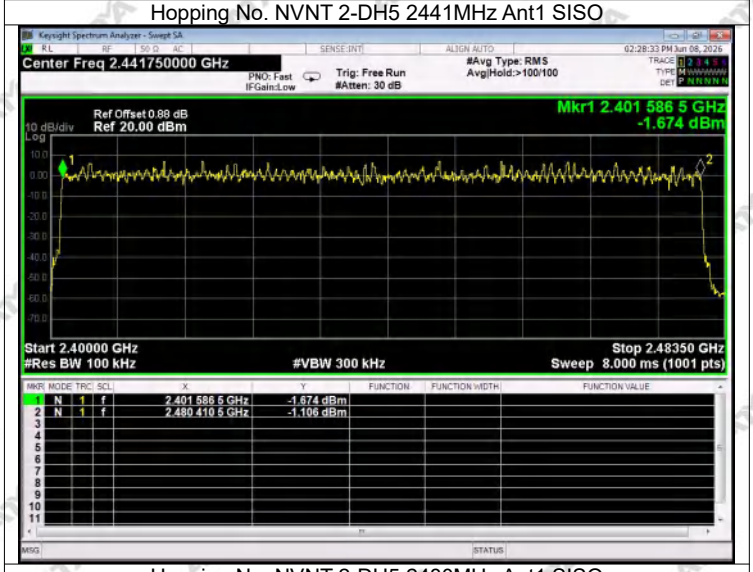
Hopping No. NVNT 1-DH5 2480MHz Ant1 SISO



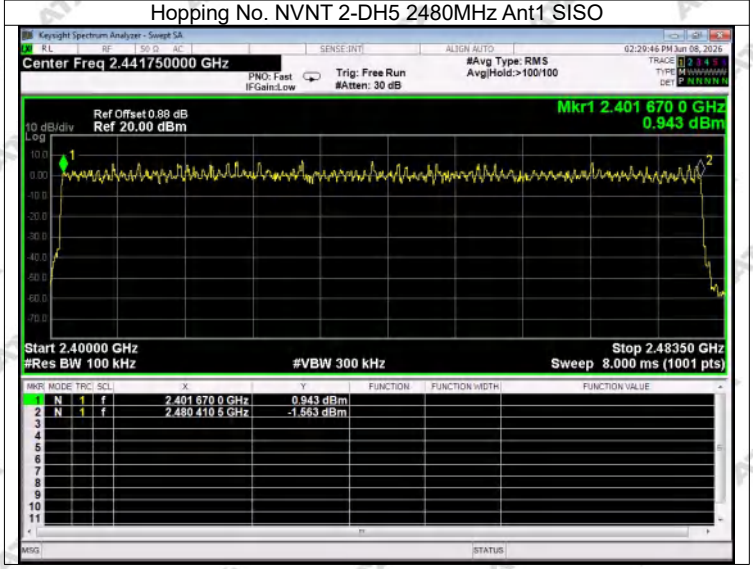
Hopping No. NVNT 2-DH5 2402MHz Ant1 SISO



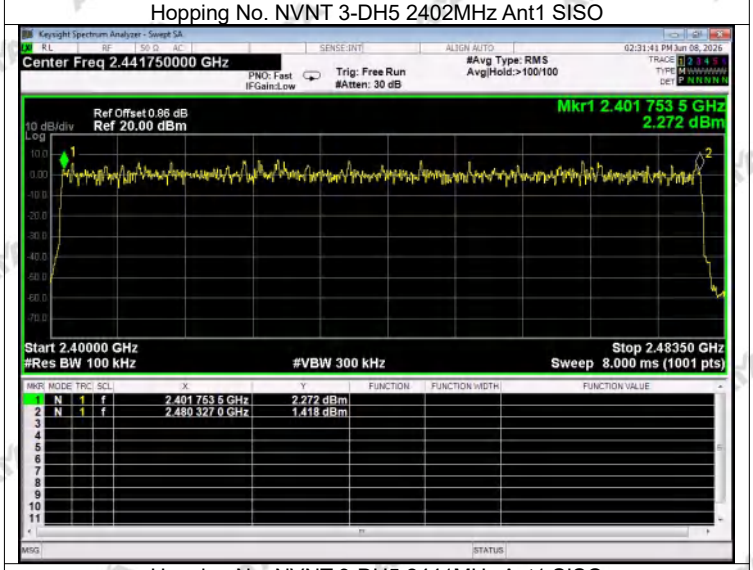
Hopping No. NVNT 2-DH5 2441MHz Ant1 SISO



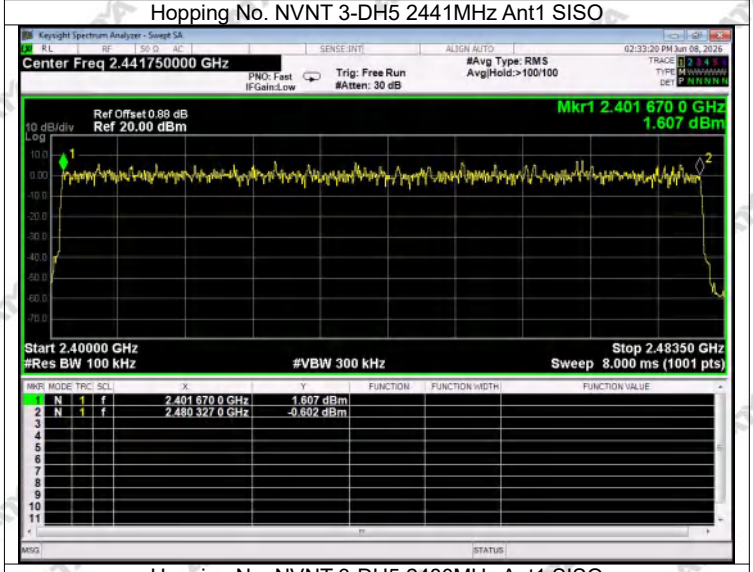
Hopping No. NVNT 2-DH5 2480MHz Ant1 SISO



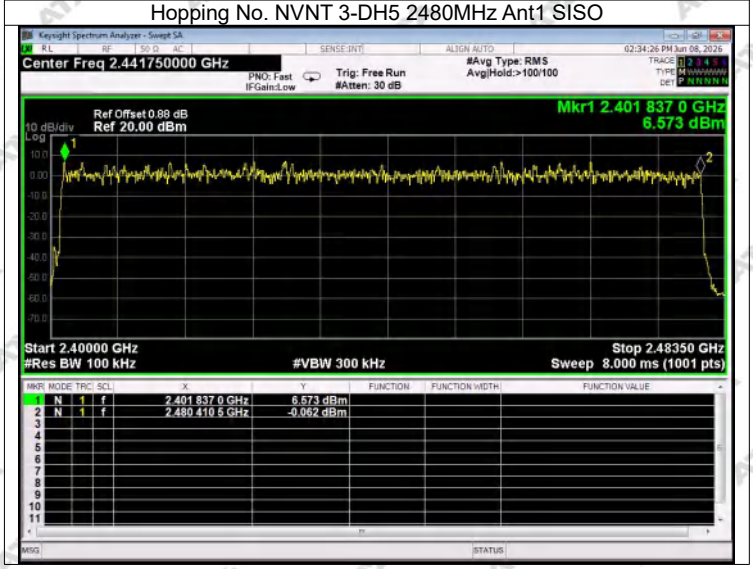
Hopping No. NVNT 3-DH5 2402MHz Ant1 SISO



Hopping No. NVNT 3-DH5 2441MHz Ant1 SISO

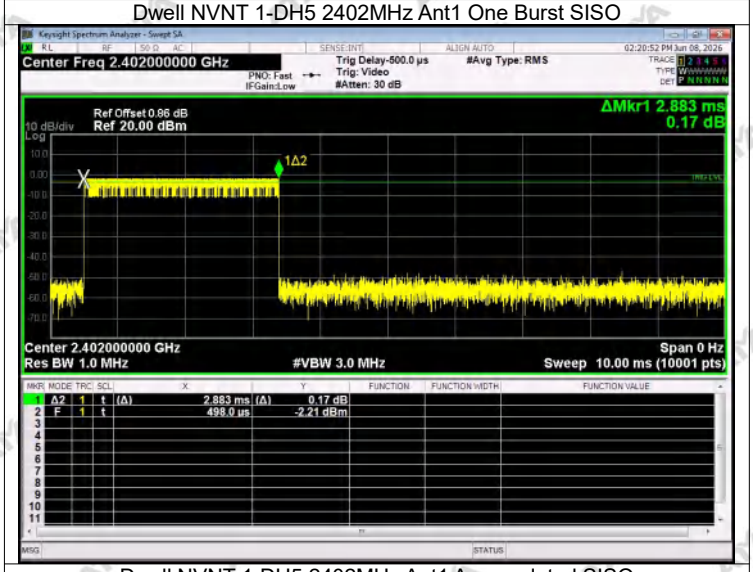
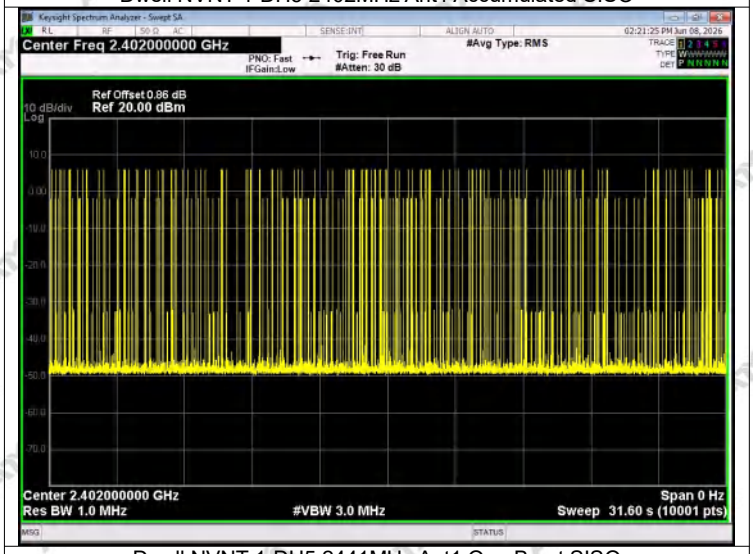
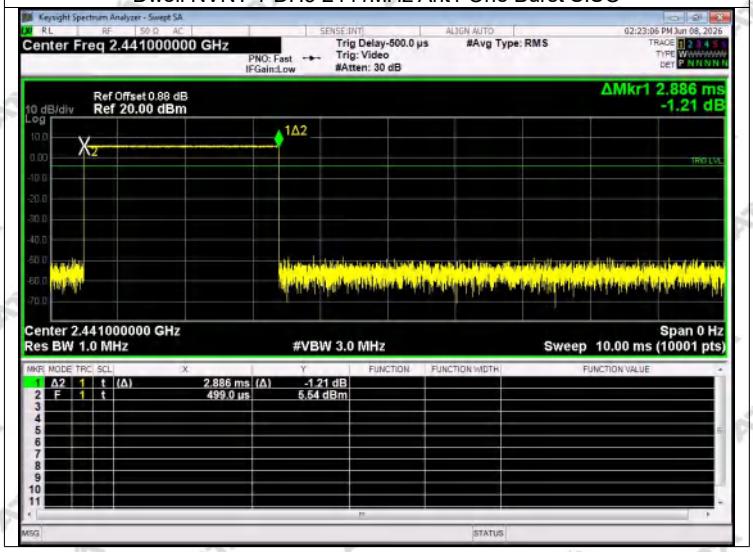


Hopping No. NVNT 3-DH5 2480MHz Ant1 SISO

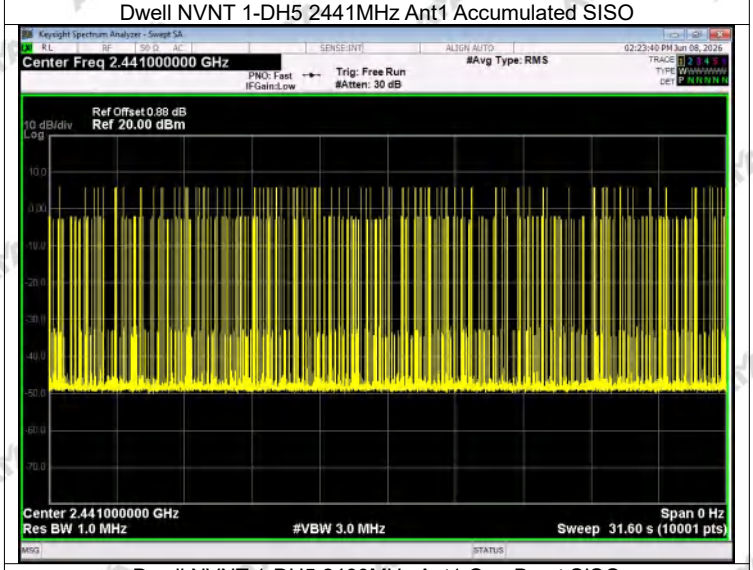


4.6 Dwell Time

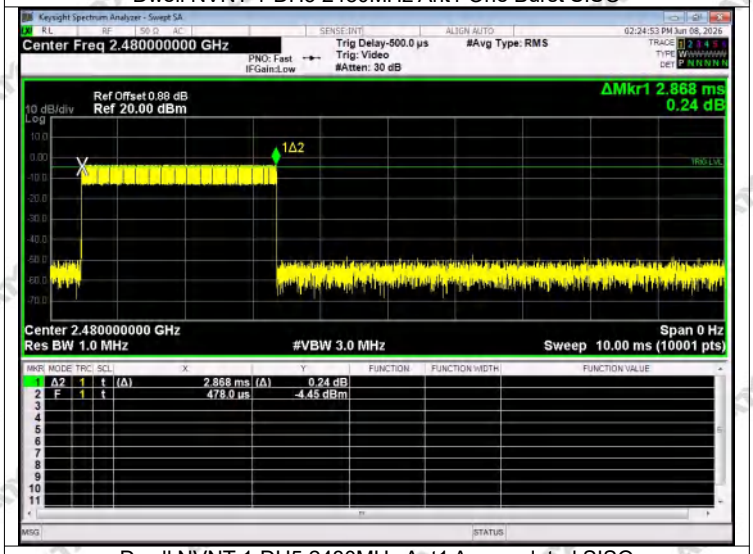
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5 SISO	2402	Ant1	2.883	334.428	116	31600	400	Pass
NVNT	1-DH5 SISO	2441	Ant1	2.886	288.6	100	31600	400	Pass
NVNT	1-DH5 SISO	2480	Ant1	2.868	292.536	102	31600	400	Pass
NVNT	2-DH5 SISO	2402	Ant1	2.883	325.779	113	31600	400	Pass
NVNT	2-DH5 SISO	2441	Ant1	2.885	317.35	110	31600	400	Pass
NVNT	2-DH5 SISO	2480	Ant1	2.833	328.628	116	31600	400	Pass
NVNT	3-DH5 SISO	2402	Ant1	2.892	286.308	99	31600	400	Pass
NVNT	3-DH5 SISO	2441	Ant1	2.892	335.472	116	31600	400	Pass
NVNT	3-DH5 SISO	2480	Ant1	2.893	312.444	108	31600	400	Pass

Test Graphs
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst SISO

Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated SISO

Dwell NVNT 1-DH5 2441MHz Ant1 One Burst SISO


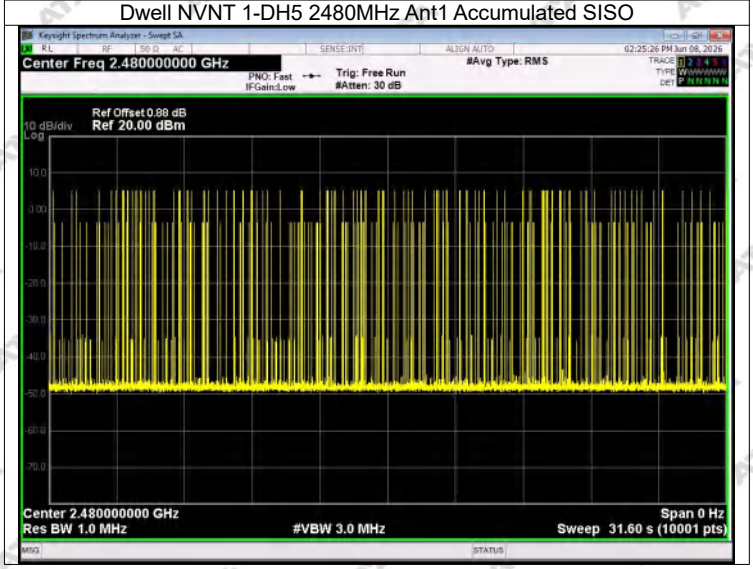
Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated SISO



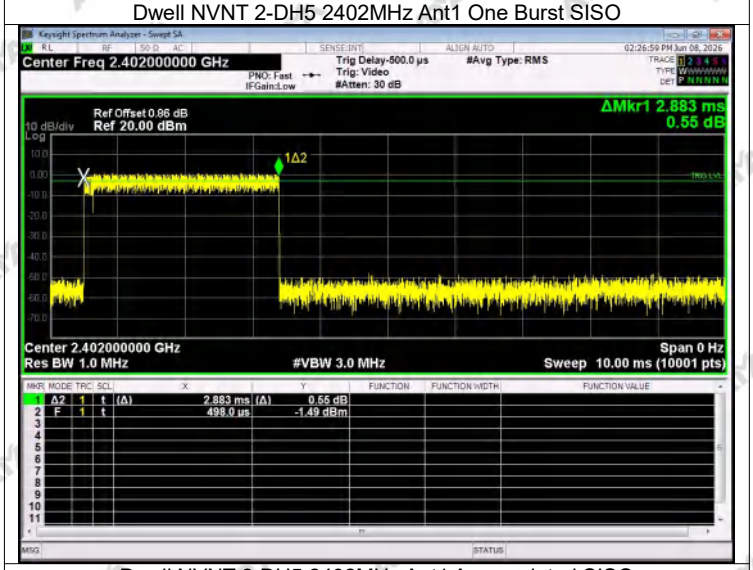
Dwell NVNT 1-DH5 2480MHz Ant1 One Burst SISO



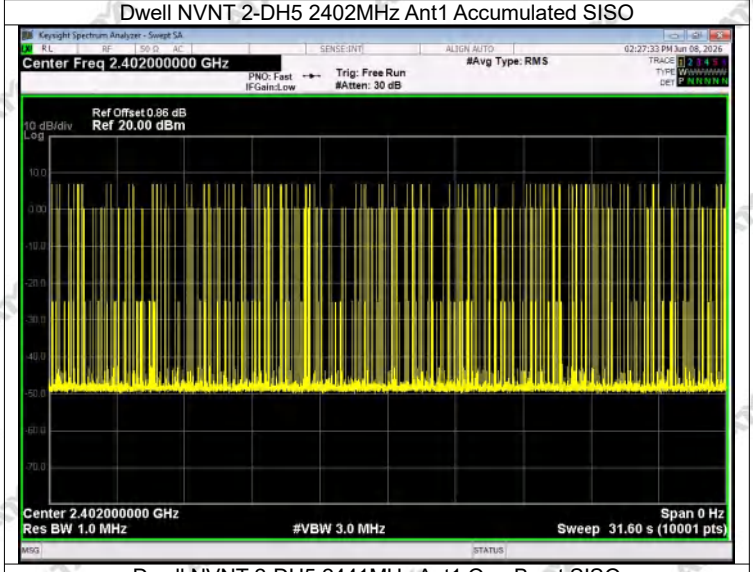
Dwell NVNT 1-DH5 2480MHz Ant1 Accumulated SISO



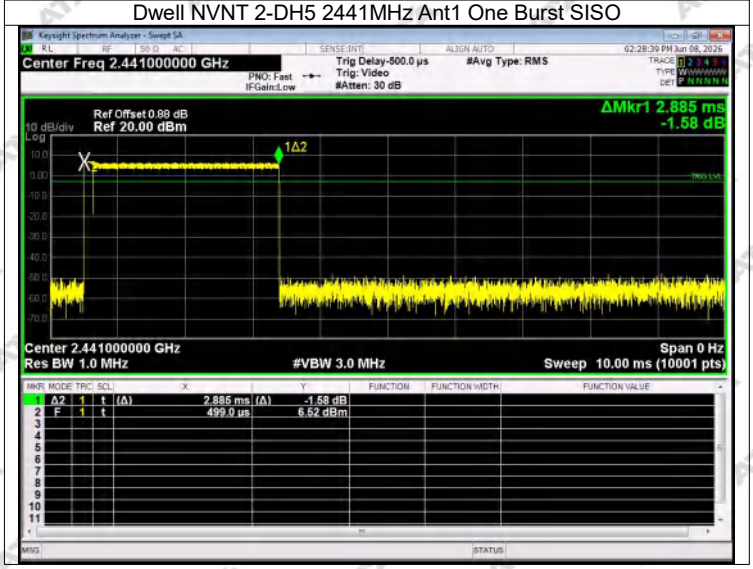
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst SISO



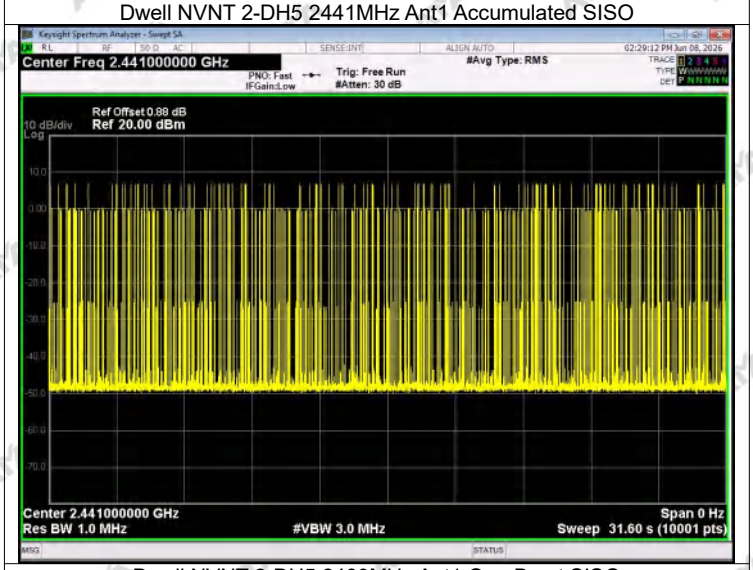
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated SISO



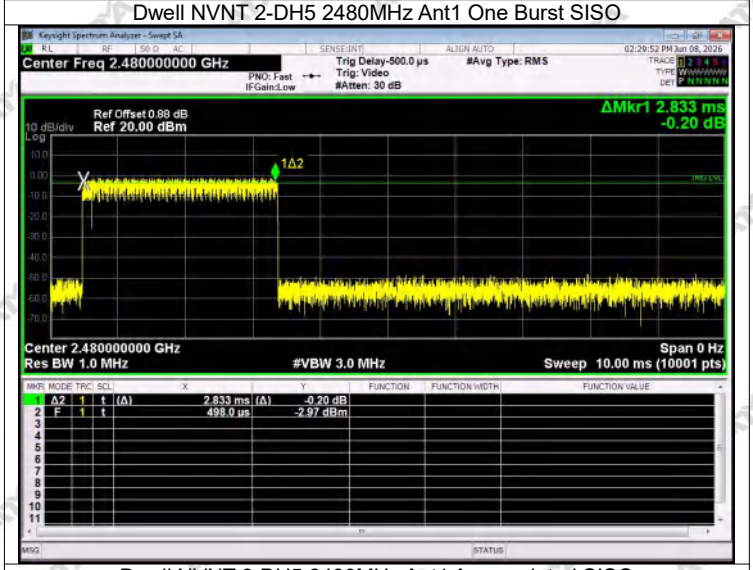
Dwell NVNT 2-DH5 2441MHz Ant1 One Burst SISO



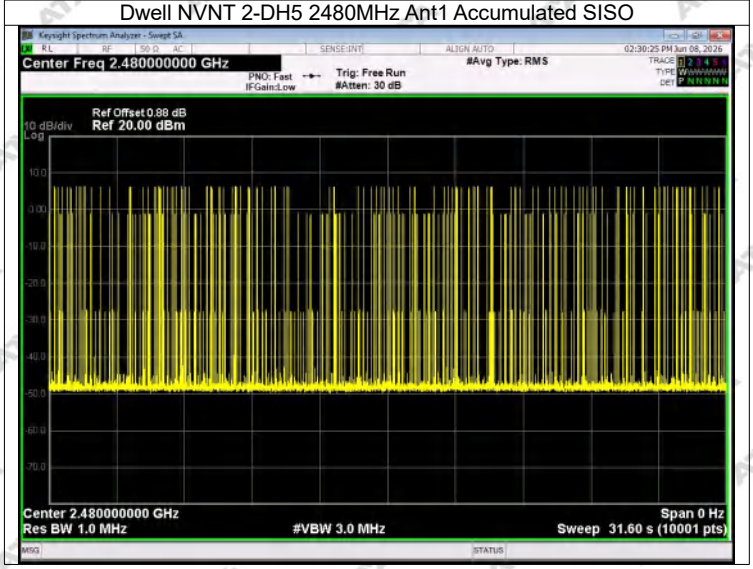
Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated SISO



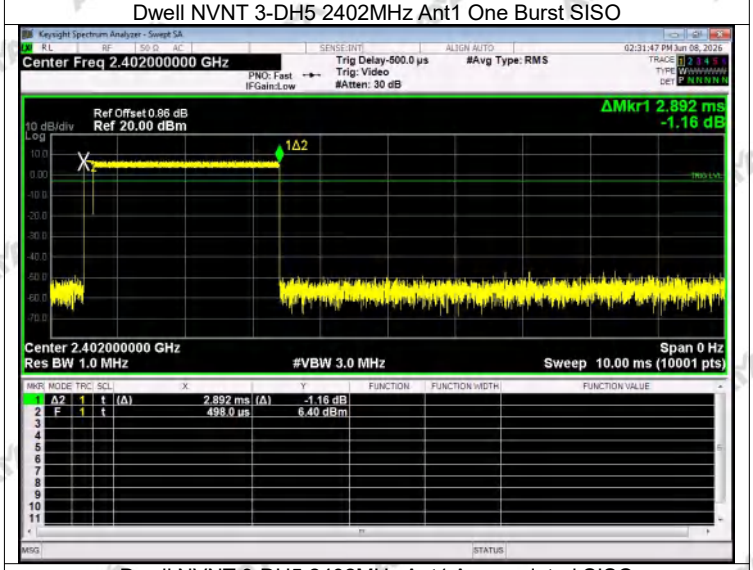
Dwell NVNT 2-DH5 2480MHz Ant1 One Burst SISO



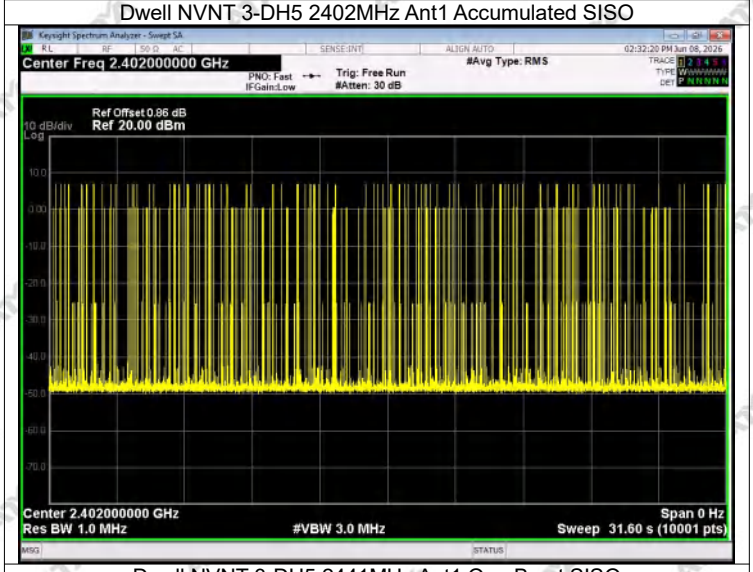
Dwell NVNT 2-DH5 2480MHz Ant1 Accumulated SISO



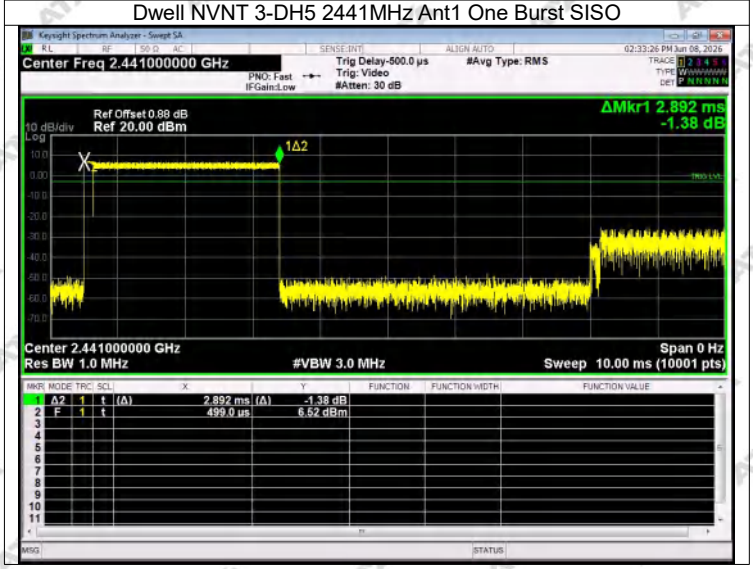
Dwell NVNT 3-DH5 2402MHz Ant1 One Burst SISO



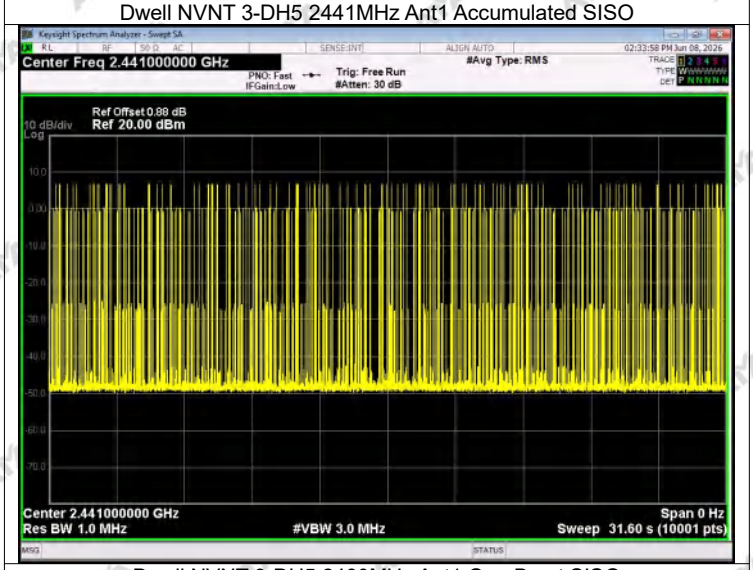
Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated SISO



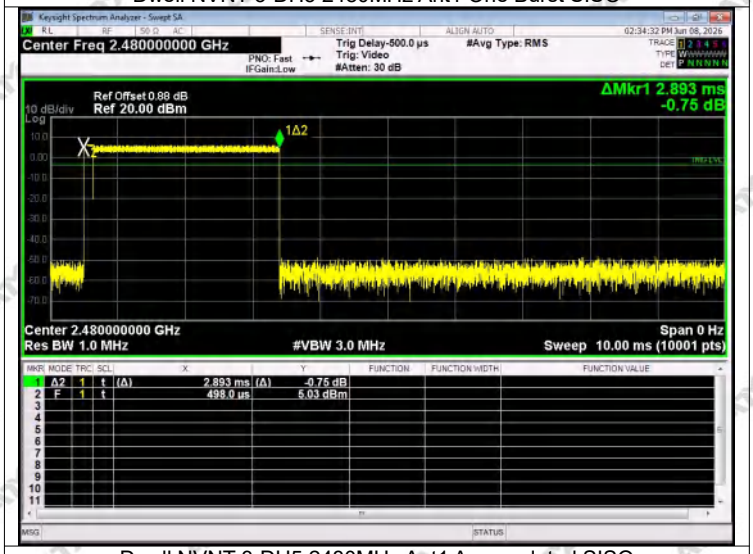
Dwell NVNT 3-DH5 2441MHz Ant1 One Burst SISO



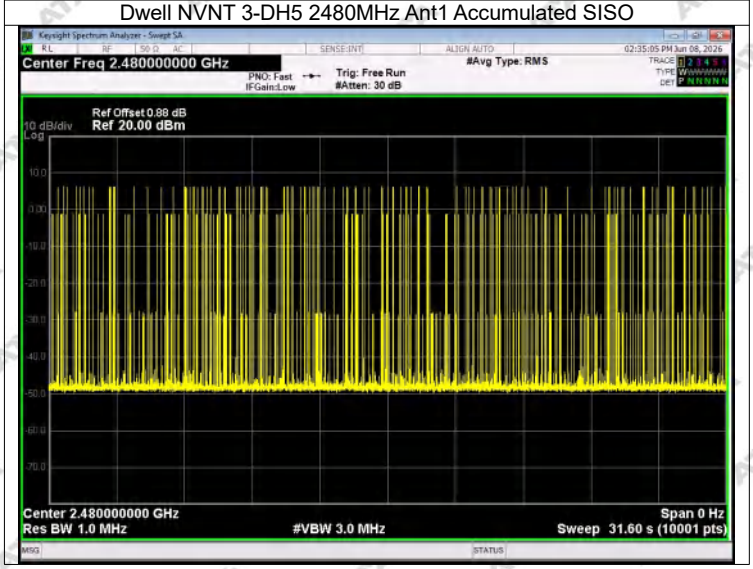
Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated SISO



Dwell NVNT 3-DH5 2480MHz Ant1 One Burst SISO



Dwell NVNT 3-DH5 2480MHz Ant1 Accumulated SISO

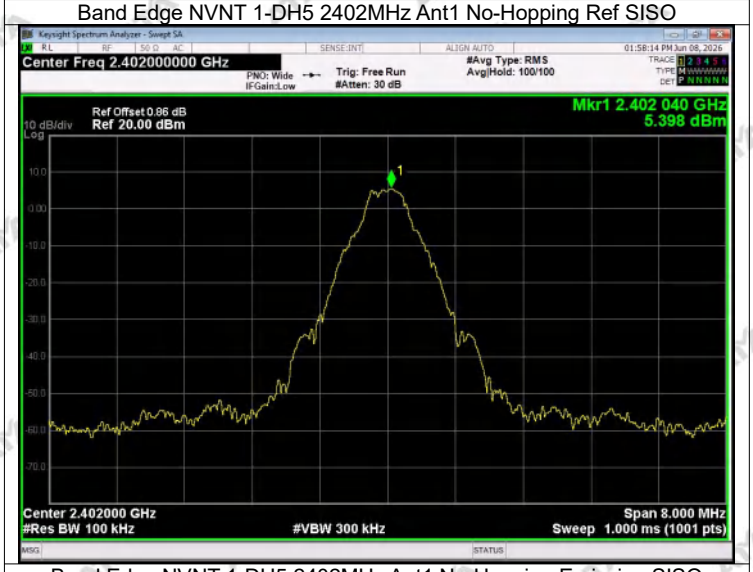


4.7 Band Edge

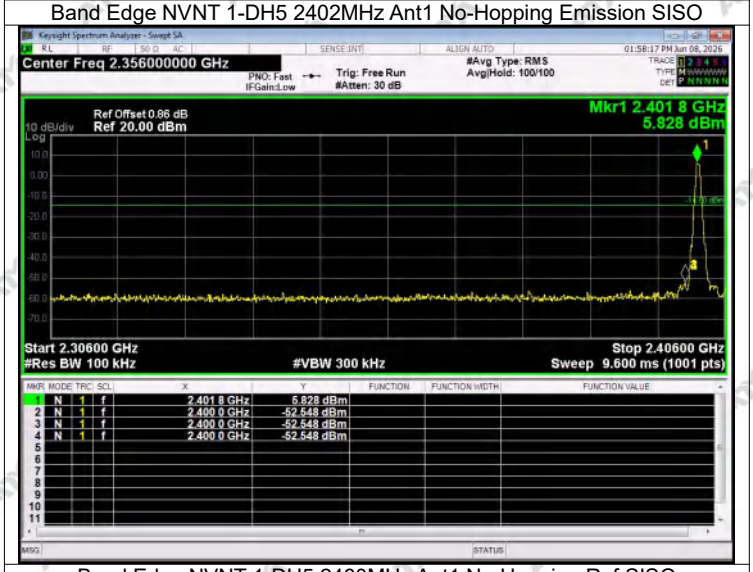
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5 SISO	2402	Ant1	No-Hopping	-57.94	-20	Pass
NVNT	1-DH5 SISO	2480	Ant1	No-Hopping	-61.56	-20	Pass
NVNT	2-DH5 SISO	2402	Ant1	No-Hopping	-55.01	-20	Pass
NVNT	2-DH5 SISO	2480	Ant1	No-Hopping	-61.88	-20	Pass
NVNT	3-DH5 SISO	2402	Ant1	No-Hopping	-54.88	-20	Pass
NVNT	3-DH5 SISO	2480	Ant1	No-Hopping	-60.55	-20	Pass

Test Graphs

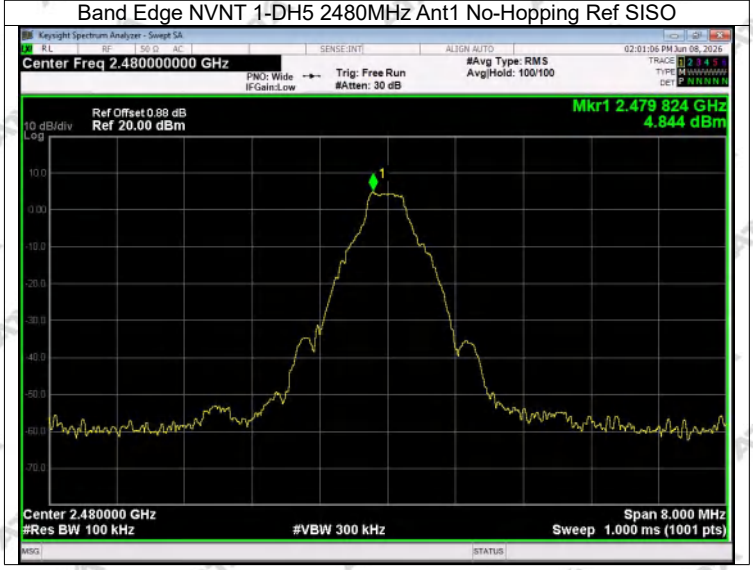
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref SISO



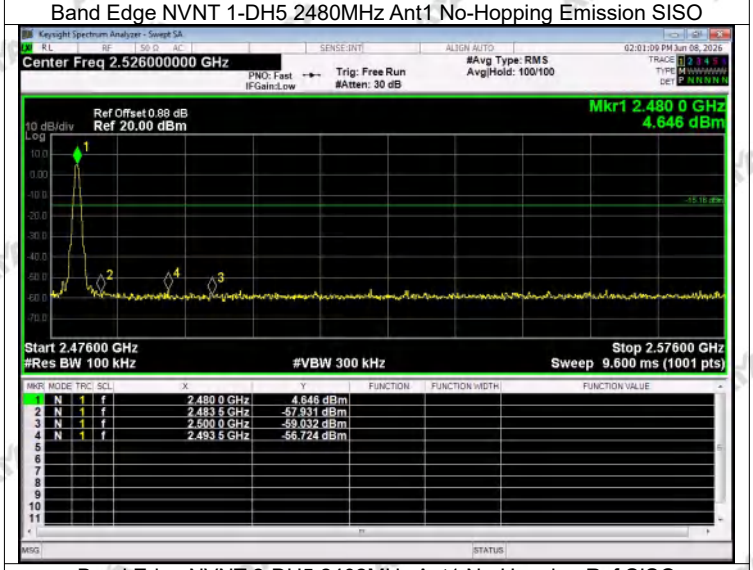
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission SISO



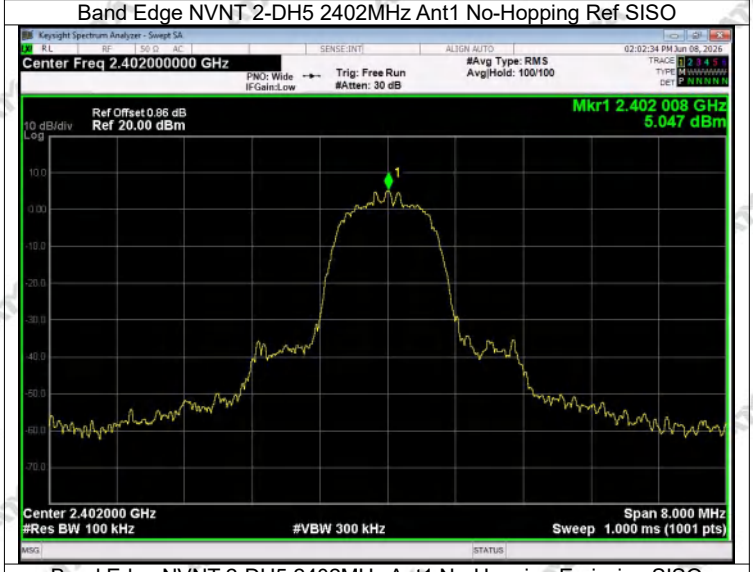
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref SISO



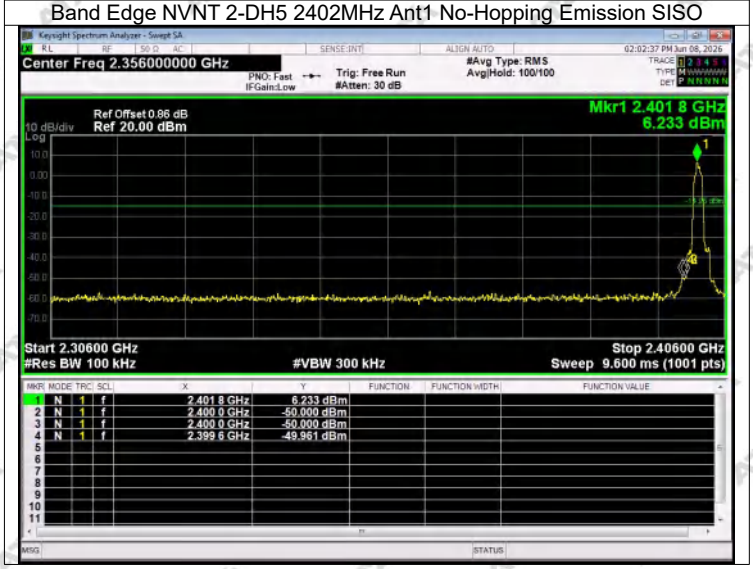
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission SISO



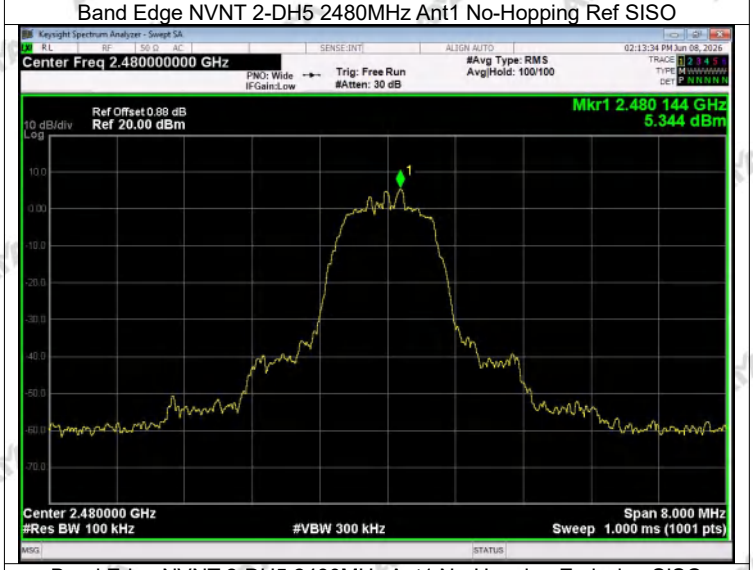
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref SISO



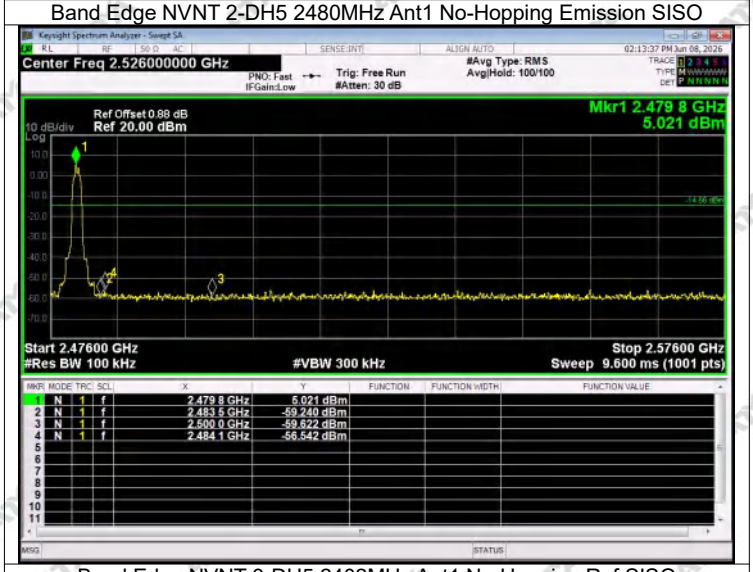
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission SISO



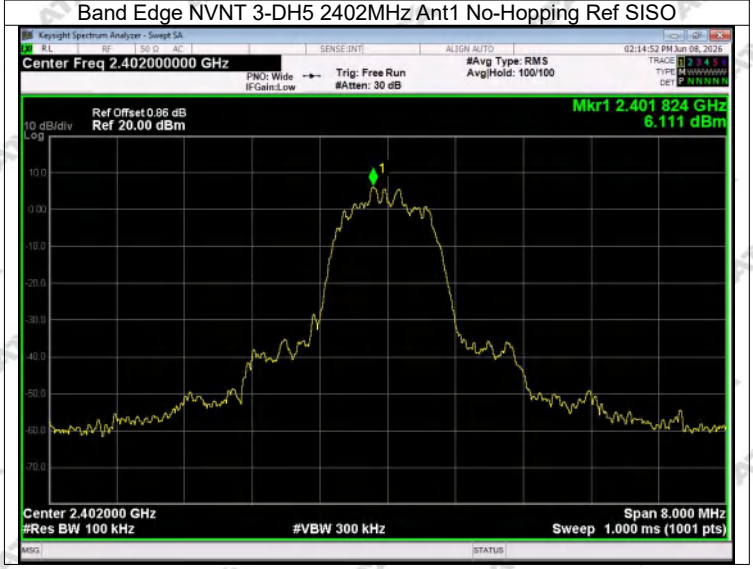
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref SISO



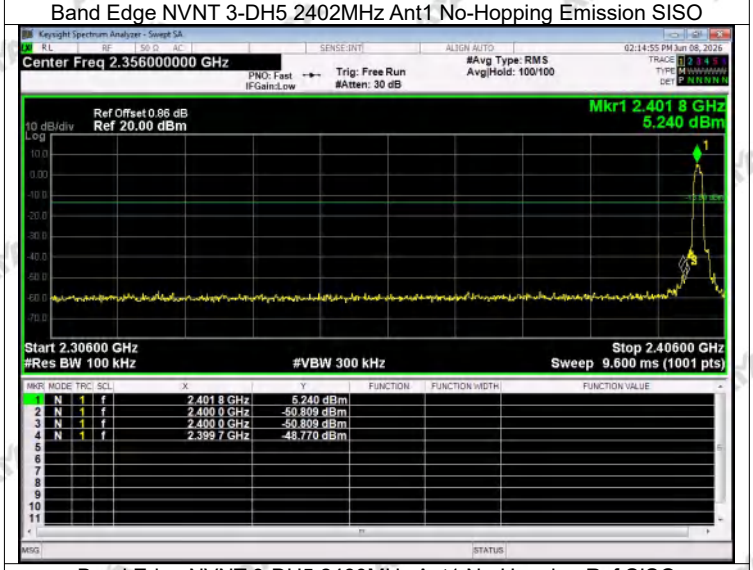
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission SISO



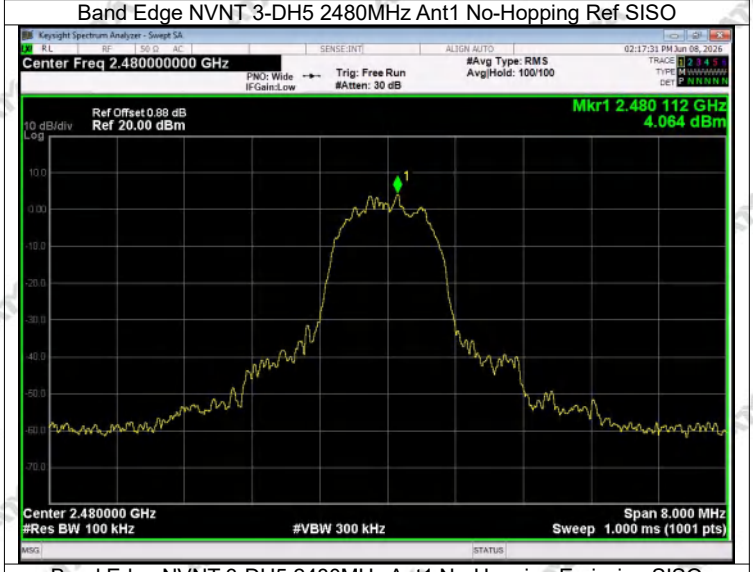
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref SISO



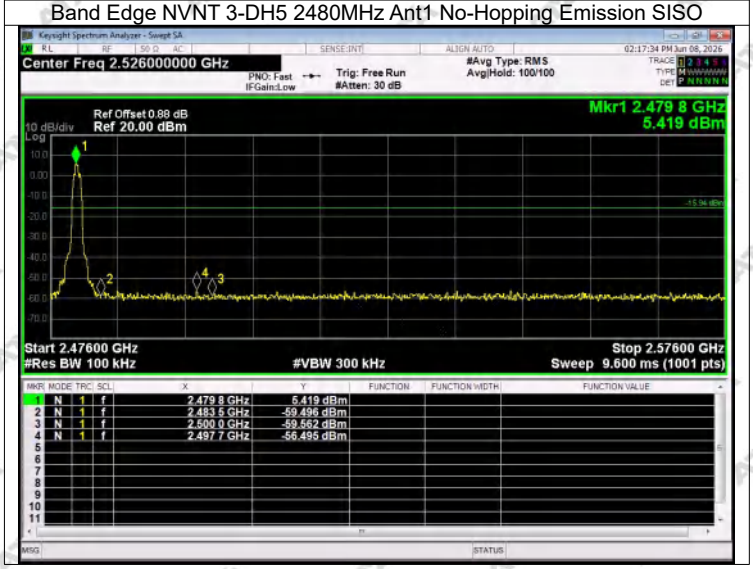
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission SISO



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref SISO



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission SISO

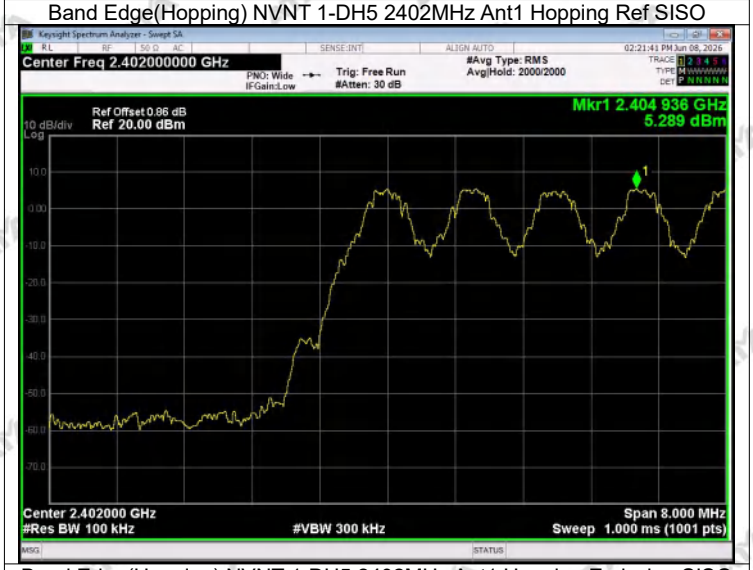


4.8 Band Edge(Hopping)

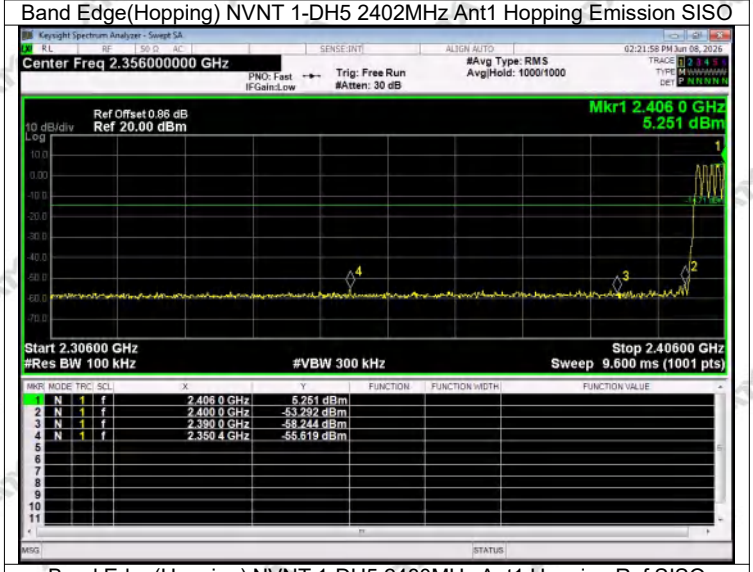
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5 SISO	2402	Ant1	Hopping	-60.9	-20	Pass
NVNT	1-DH5 SISO	2480	Ant1	Hopping	-61.04	-20	Pass
NVNT	2-DH5 SISO	2402	Ant1	Hopping	-60.87	-20	Pass
NVNT	2-DH5 SISO	2480	Ant1	Hopping	-60.07	-20	Pass
NVNT	3-DH5 SISO	2402	Ant1	Hopping	-59.85	-20	Pass
NVNT	3-DH5 SISO	2480	Ant1	Hopping	-60.85	-20	Pass

Test Graphs

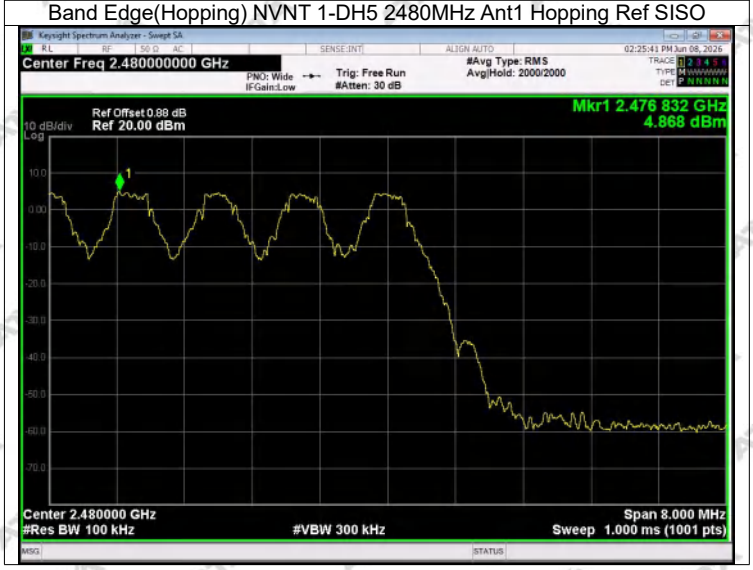
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref SISO



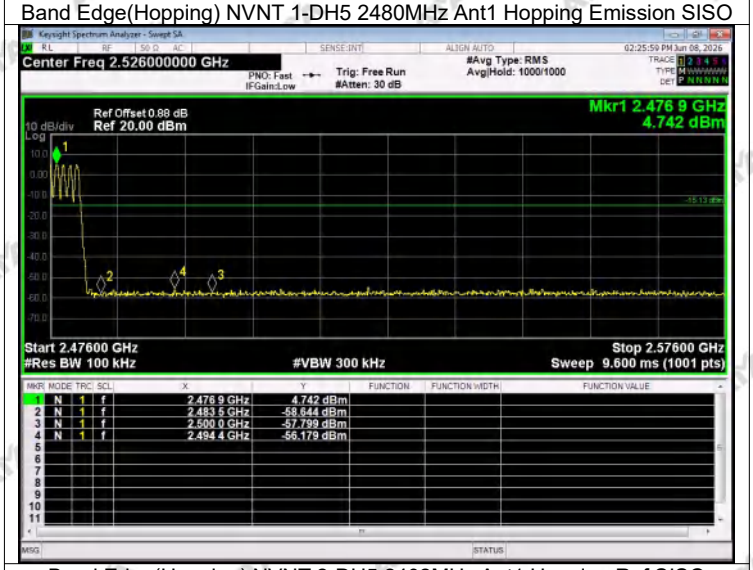
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission SISO



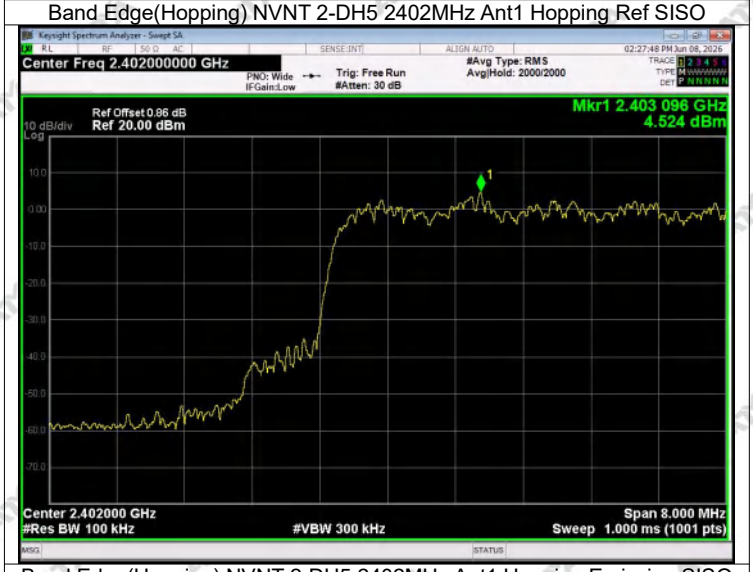
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref SISO



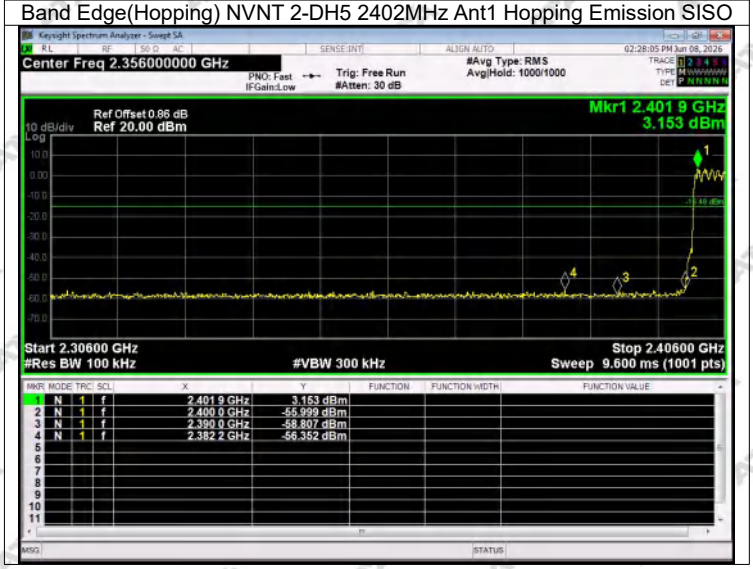
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission SISO



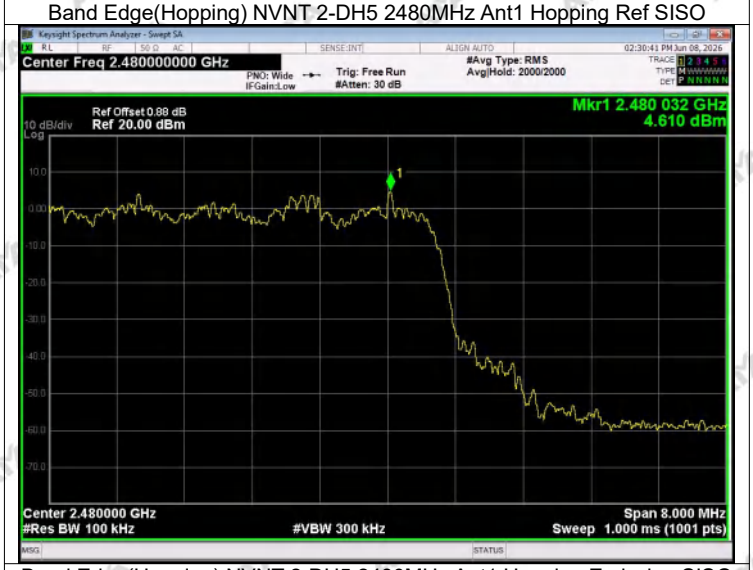
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref SISO



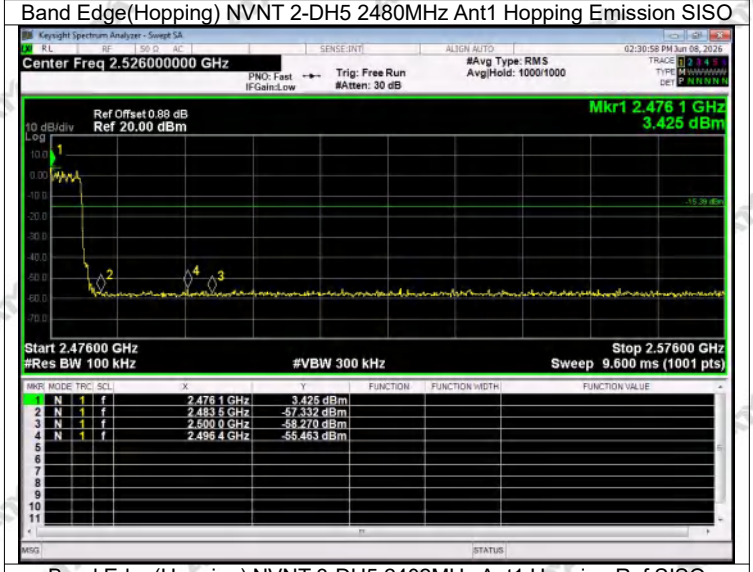
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission SISO



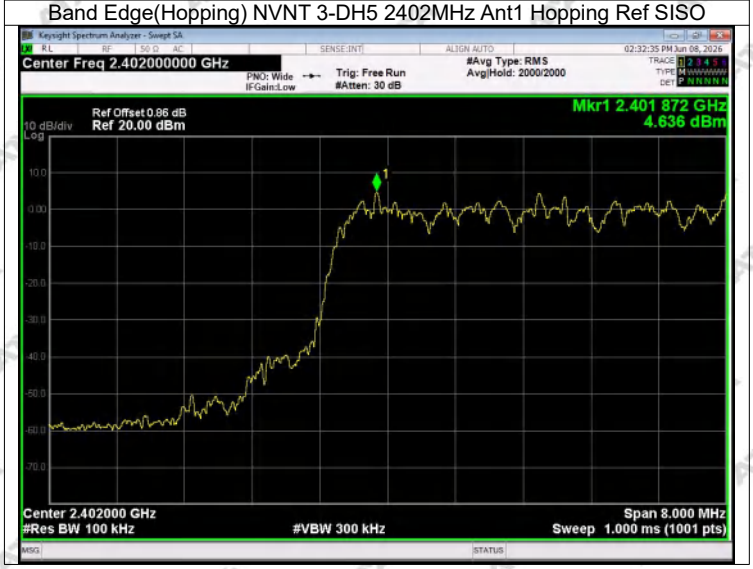
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref SISO



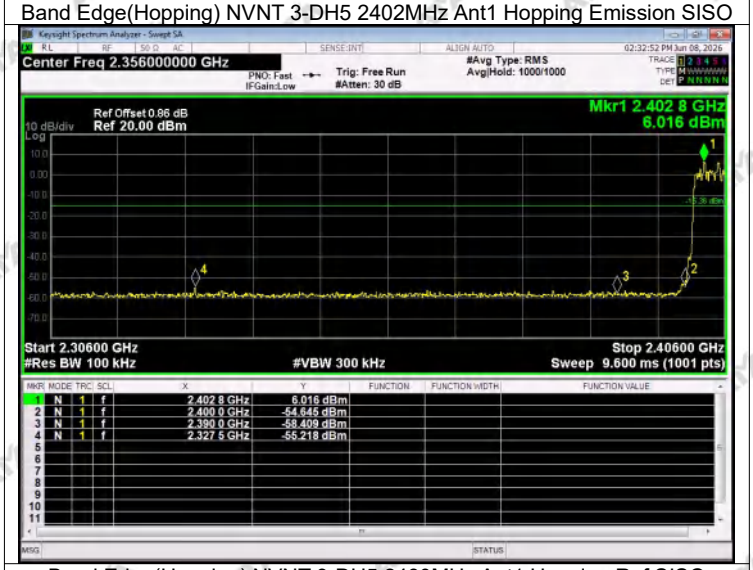
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission SISO



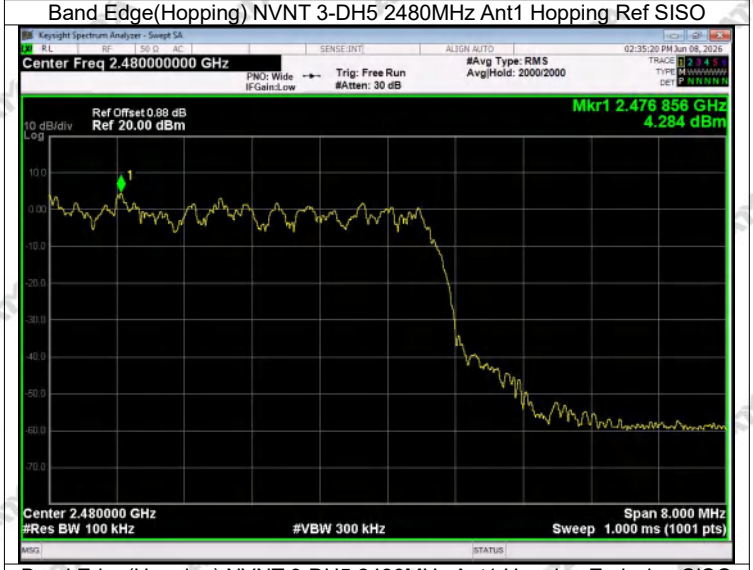
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref SISO



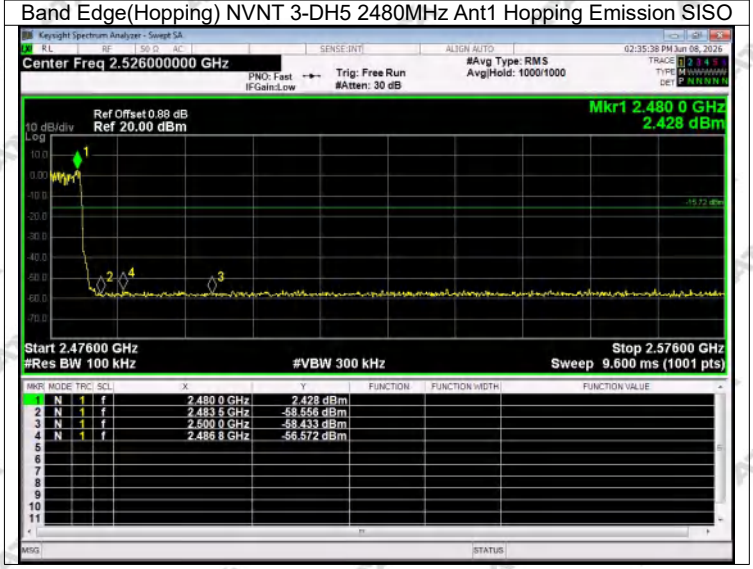
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission SISO



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref SISO



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission SISO

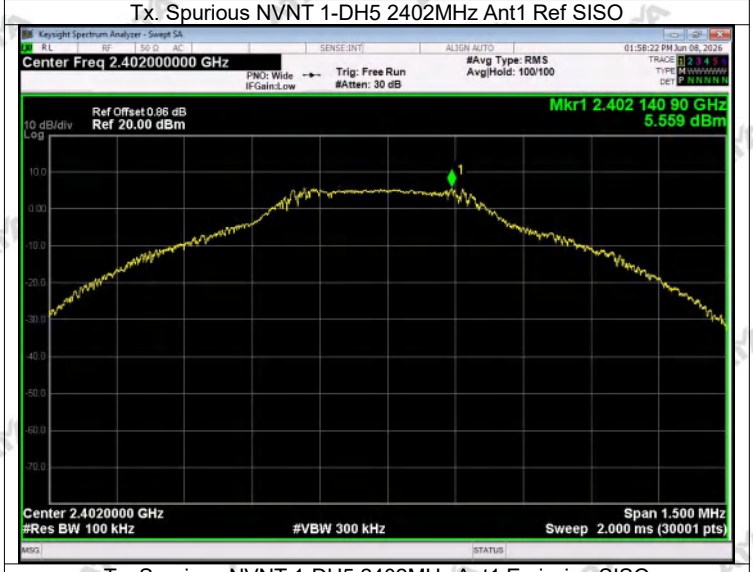


4.9 Conducted RF Spurious Emission

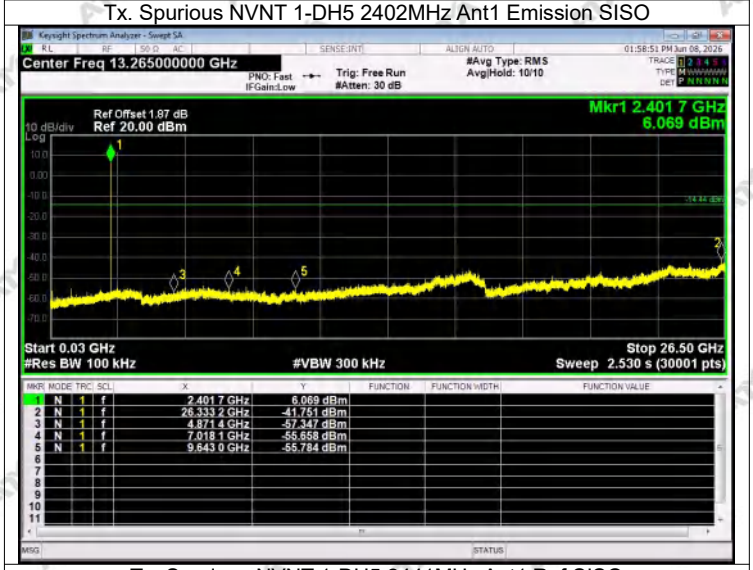
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5 SISO	2402	Ant1	-47.31	-20	Pass
NVNT	1-DH5 SISO	2441	Ant1	-47.93	-20	Pass
NVNT	1-DH5 SISO	2480	Ant1	-47.16	-20	Pass
NVNT	2-DH5 SISO	2402	Ant1	-48.77	-20	Pass
NVNT	2-DH5 SISO	2441	Ant1	-48.21	-20	Pass
NVNT	2-DH5 SISO	2480	Ant1	-47.5	-20	Pass
NVNT	3-DH5 SISO	2402	Ant1	-49.15	-20	Pass
NVNT	3-DH5 SISO	2441	Ant1	-48.14	-20	Pass
NVNT	3-DH5 SISO	2480	Ant1	-48.14	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref SISO

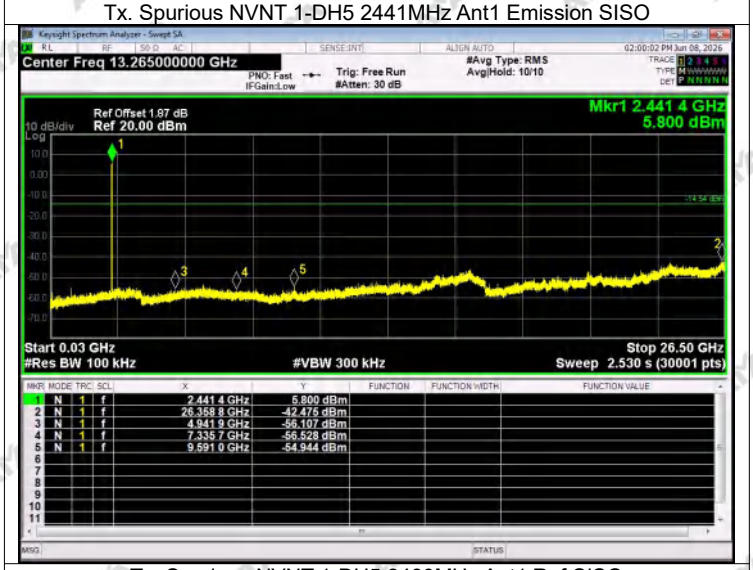


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission SISO

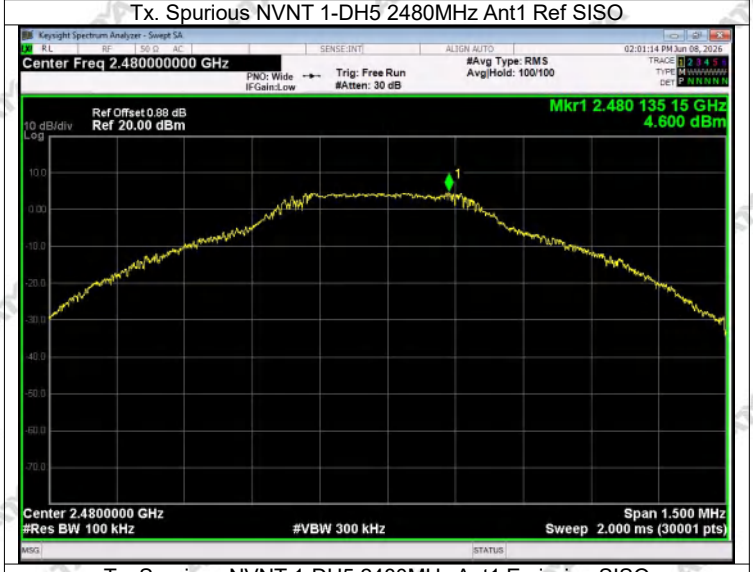


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref SISO

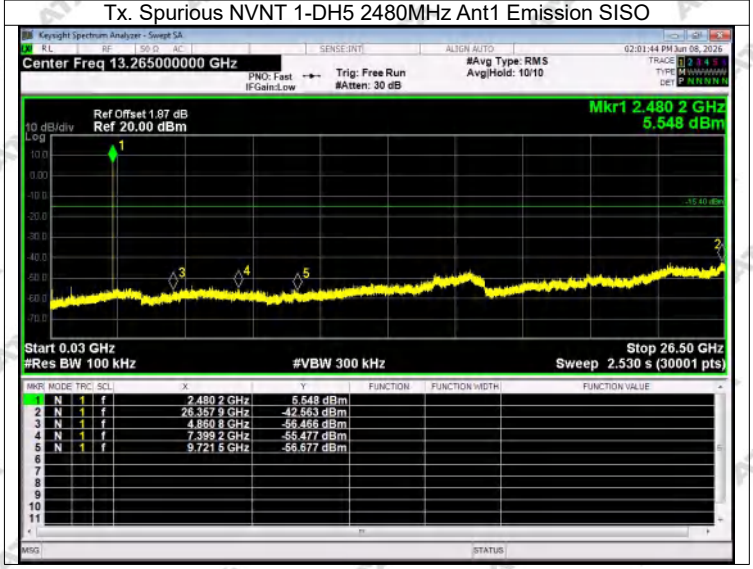
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission SISO



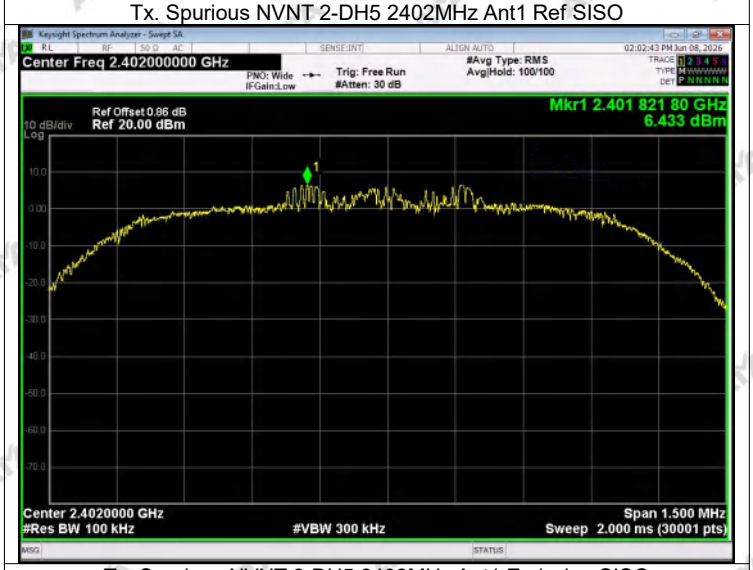
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref SISO



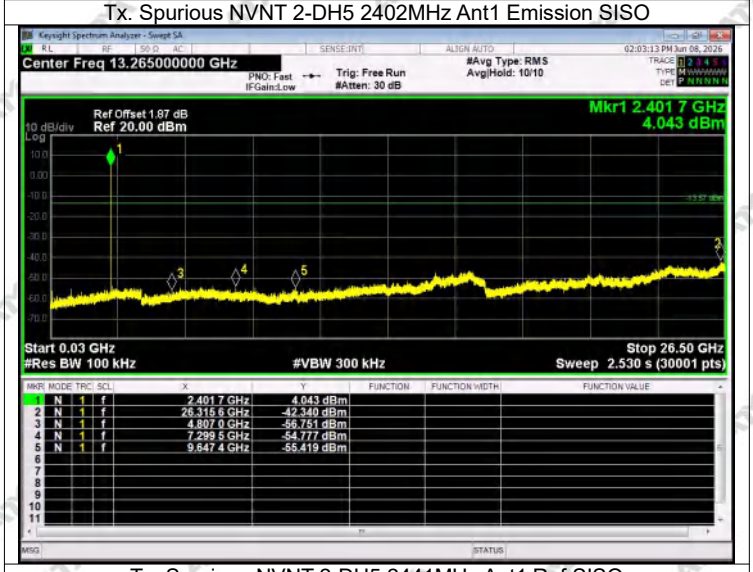
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission SISO



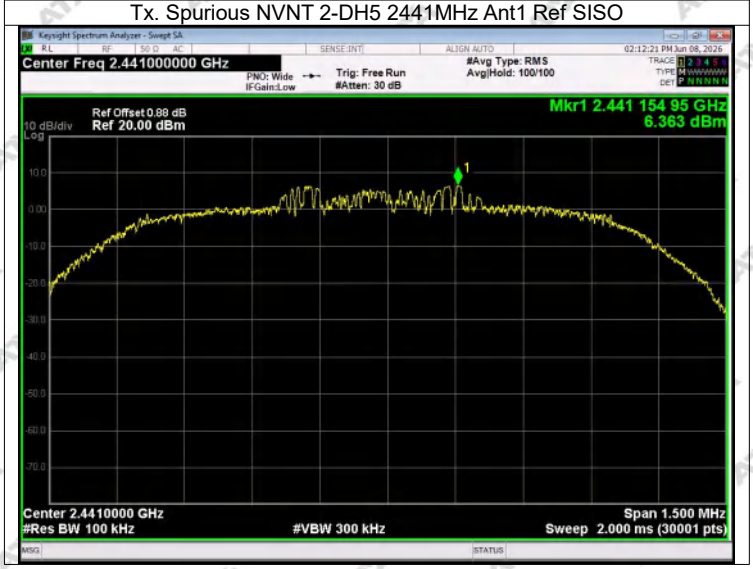
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref SISO



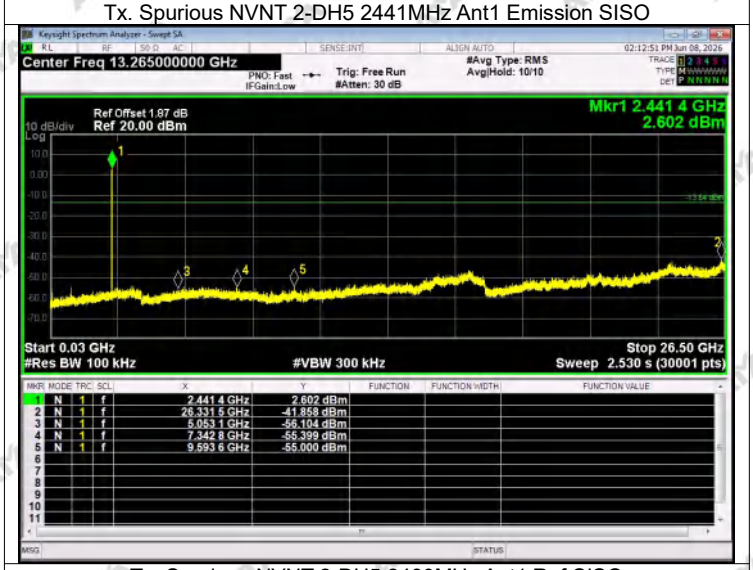
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission SISO



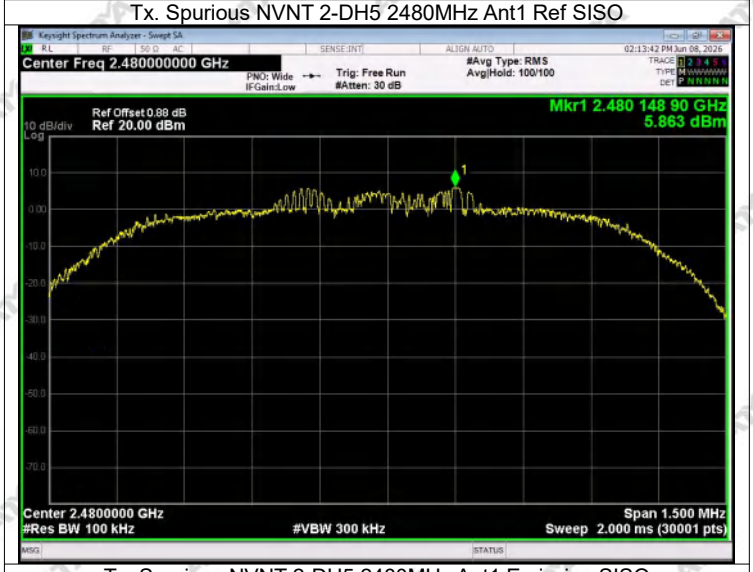
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref SISO



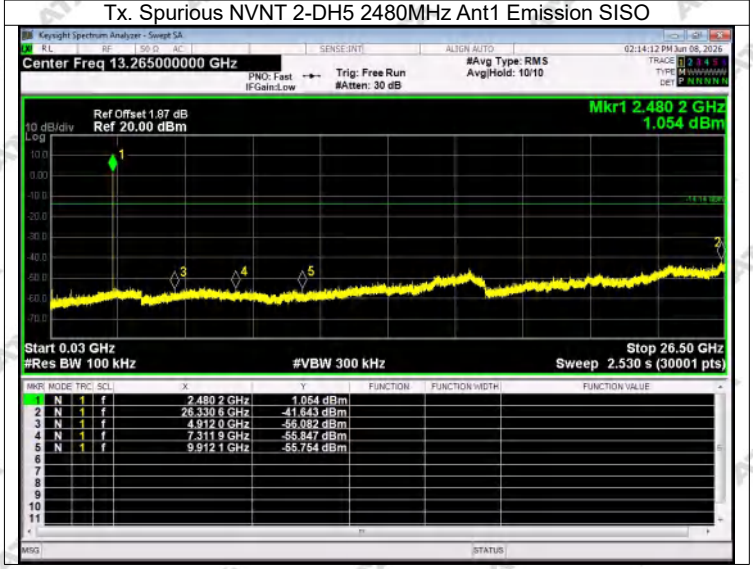
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission SISO



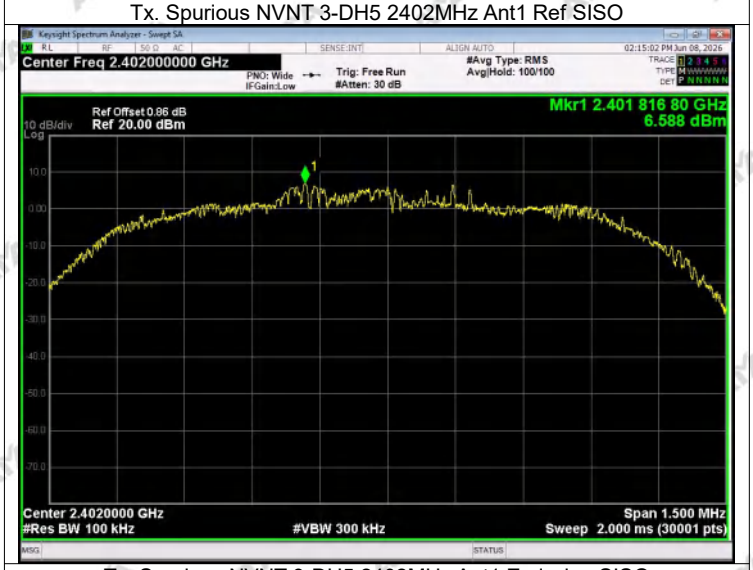
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref SISO



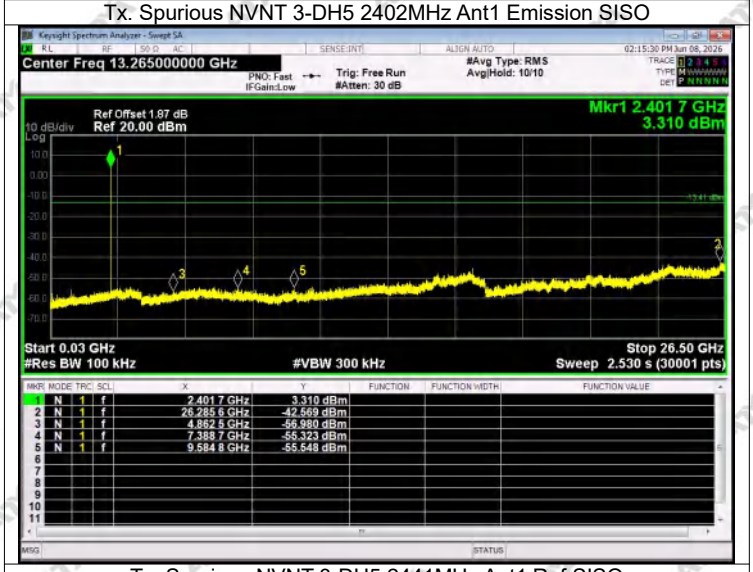
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission SISO



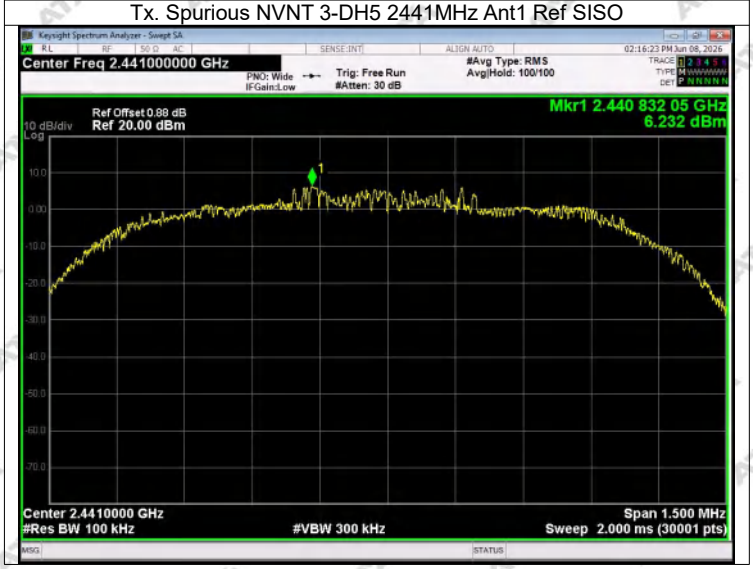
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref SISO



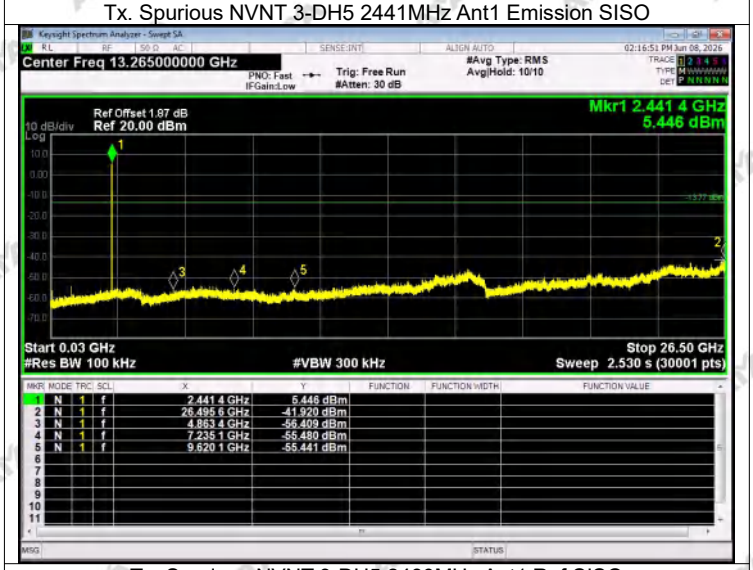
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission SISO



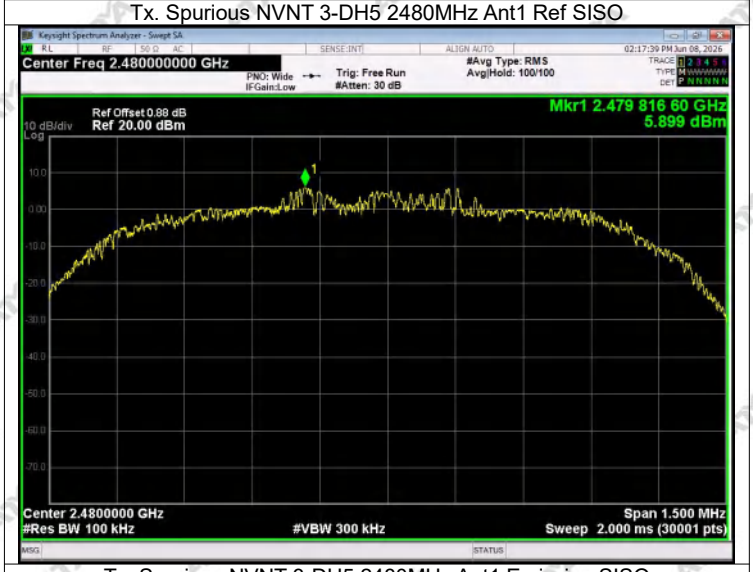
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref SISO



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission SISO



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref SISO



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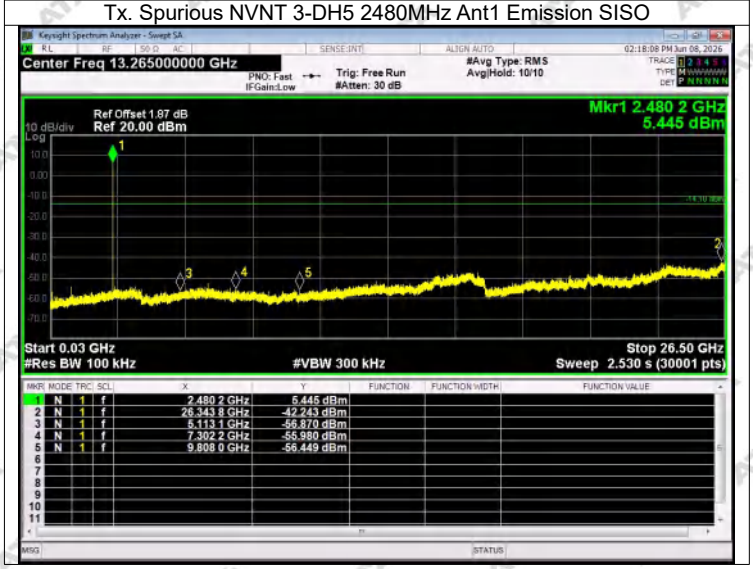

5. EUT TEST PHOTOS

Note: Refer to the attached test photos

6. PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Note: Refer to the attached exterior and interior photos

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