

TEST REPORT

Application No.: SHCR2512003466HS
FCC ID: 2AVJ8-FP3403
Applicant: DewertOkin Technology Group Co., Ltd.
Address of Applicant: No.1507, Taoyuan Road, Gaozhao Street, Xiuzhou District, Jiaxing City, Zhejiang Province, China.
Manufacturer: DewertOkin Technology Group Co., Ltd.
Address of Manufacturer: No.1507, Taoyuan Road, Gaozhao Street, Xiuzhou District, Jiaxing City, Zhejiang Province, China.
Factory: DewertOkin Technology Group Co., Ltd.
Address of Factory: No.1507, Taoyuan Road, Gaozhao Street, Xiuzhou District, Jiaxing City, Zhejiang Province, China.
Equipment Under Test (EUT):
EUT Name: Music Box
Model No.: FP3403
Trade Mark: 
Standard(s) : 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2025-12-30
Date of Test: 2025-12-31 to 2026-01-12
Date of Issue: 2026-01-23

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

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SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

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Revision Record			
Version	Description	Date	Remark
00	Original	2026-01-23	/

Authorized for issue by:				
Tested By		Bill Wu		
		Bill Wu/Project Engineer		
Approved By		Parlam Zhan		
		Parlam Zhan / Reviewer		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)	Pass
Other requirements Frequency Hopping Spread Spectrum System Hopping Sequence		N/A	47 CFR Part 15, Subpart C 15.247(a)(1),(g),(h)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2020) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Radiated Emissions which fall in the restricted bands		ANSI C63.10 (2020) Section 6.10.5 & 7.8.8	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Below 1GHz		ANSI C63.10 (2020) Section 6.4,6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Above 1GHz		ANSI C63.10 (2020) Section 6.6 & 7.8.8	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Maximum Conducted Output Power		ANSI C63.10 (2020) Section 7.8.5	47 CFR Part 15, Subpart C 15.247(b)(1)	Pass
20dB Bandwidth		ANSI C63.10 (2020) Section 6.9.2	47 CFR Part 15, Subpart C 15.247(a)(1)	Pass
Carrier Frequencies Separation		ANSI C63.10 (2020) Section 7.8.2	47 CFR Part 15, Subpart C 15.247a(1)	Pass
Hopping Channel Number		ANSI C63.10 (2020) Section 7.8.3	47 CFR Part 15, Subpart C 15.247a(1)(iii)	Pass
Dwell Time		ANSI C63.10 (2020) Section 7.8.4	47 CFR Part 15, Subpart C 15.247a(1)(iii)	Pass
Conducted Band Edges Measurement		ANSI C63.10 (2020) Section 7.8.7.2	47 CFR Part 15, Subpart C 15.247(d)	Pass
Conducted Spurious Emissions		ANSI C63.10 (2020) Section 7.8.7	47 CFR Part 15, Subpart C 15.247(d)	Pass

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 29V 3A By adapter
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK, pi/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Antenna Type:	FPC Antenna
Antenna Gain:	2.6 dBi (Provided by manufacturer)

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	LENOVO	L460	-
Serial port adapter plate	-	Test Plate 3	-
Adapter	DewertOkin	K87A290300E2	25114760200025

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4 x 10-8
2	Timeout	2s
3	Duty cycle	0.4%
4	Occupied Bandwidth	3%
5	RF conducted power	0.6dB
6	RF power density	2.9dB
7	Conducted Spurious emissions	0.75dB
8	RF Radiated power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious emission test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		4.8dB (1GHz-6GHz)
		5.0dB (6GHz-18GHz)
		5.4dB (18GHz-40GHz)
10	Temperature test	1°C
11	Humidity test	3%
12	Supply voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab
588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).
3. Sample source: sent by customer.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA (Certificate No. 6332.01)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

- **FCC (Designation Number: CN1301)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

- **ISED (CAB Identifier: CN0020)**

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Company Number: 8617A

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RF Conducted Test					
Spectrum Analyzer	Keysight	N9020B	SHEM241-1	2025/12/17	2026/12/16
Spectrum Analyzer	Agilent	N9020A	SHEM181-1	2025/04/30	2026/04/29
Signal Generator	R&S	SMR20	SHEM006-1	2025/07/30	2026/07/29
Signal Generator	Agilent	N5182A	SHEM182-1	2025/07/30	2026/07/29
Communication Tester	R&S	CMW270	SHEM183-1	2025/04/30	2026/04/29
Communication Tester	R&S	CMW500	SHEM268-1	2025/04/30	2026/04/29
Power Sensor	Keysight	U2021XA * 4	SHEM293-1	2025/07/30	2026/07/29
Splitter	Anritsu	MA1612A	SHEM185-1	/	/
Coupler	e-meca	803-S-1	SHEM186-1	/	/
High-low Temp Cabinet	Suzhou Zhihe	TL-40	SHEM087-1	2024/11/05	2026/11/04
AC Power Stabilizer	APC	KDF-31020T-V0-F0	SHEM216-1	2025/12/17	2026/12/16
DC Power Supply	HP	6010A	SHEM222-1	2025/12/17	2026/12/16
Conducted test Cable	/	RF01~RF04	/	2025/12/17	2026/12/16
Switcher	Tonscend	JS0806	SHEM293-1	2025/07/30	2026/07/29
Test software	Tonscend	JS Tonscend BT/WIFI System	Version: 2.6	/	/
Switcher+Power Sensor	TST	TSPS2023R	SHEM263-1	2025/07/30	2026/07/29
Test software	TST	TST PASS	Version: 2.0	/	/
RF Radiated Test					
Spectrum Analyzer	Keysight	N9010A	SHEM181-2	2025/04/30	2026/04/29
Communication Tester	R&S	CMW500	SHEM268-1	2025/04/30	2026/04/29
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2025/12/17	2026/12/16
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2025/08/31	2027/08/30
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM202-1	2025/04/12	2027/04/11
Horn Antenna (1-18GHz)	Schwarzbeck	HF906	SHEM009-1	2024/08/05	2026/08/04
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2025/08/31	2027/08/30
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2025/08/31	2027/08/30
Pre-Amplifier	HP	8447D	SHEM236-1	2025/12/17	2026/12/16
High-amplifier (14-40GHz)	Schwarzbeck	10001	SHEM049-2	2025/12/17	2026/12/16
Band Filter	LORCH	9BRX-875/X150	SHEM156-1	/	/
Band Filter	LORCH	13BRX-1950/X500	SHEM083-2	/	/
Band Filter	LORCH	5BRX-2400/X200	SHEM155-1	/	/
Band Filter	LORCH	5BRX-5500/X1000	SHEM157-2	/	/
High pass Filter	Wainwright	WHK3.0/18G	SHEM157-1	/	/
High pass Filter	Wainwright	WHKS1700	SHEM157-3	/	/
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2023/05/06	2026/05/05
RE test Cable	/	PT18-NMMN-10M	SHEM217-2	2025/07/30	2026/07/29
Test software	ESE	E3	Version: 6.111221a	/	/



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Conducted Emissions at Mains Terminals (150kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
EMI test receiver	Rohde & Schwarz	ESR7	SHEM162-1	2025/12/17	2026/12/16
Line impedance stabilization network	SCHWARZBECK	NSLK8127	SHEM061-1	2025/12/17	2026/12/16
Line impedance stabilization network	EMCO	3816_2	SHEM019-1	2025/12/17	2026/12/16
Pulse limiter	Rohde & Schwarz	ESH3-Z2	SHEM029-1	2025/12/17	2026/12/16
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2023/12/19	2026/12/18
CE test Cable	/	9kHz-30MHz	SHEM172-2	2025/12/17	2026/12/16
Test Software	ESE	e3	Version: 6.191211	N/A	N/A

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

6.1.2 Conclusion

Standard Requirement:

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.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is integrated on the main FPC and no consideration of replacement. The best case gain of the antenna is 2.6 dBi.

Antenna location: Refer to internal photo.

6.2 Other requirements Frequency Hopping Spread Spectrum System Hopping Sequence

6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.247(a)(1),(g),(h)

6.2.2 Conclusion

Standard Requirement:

The system shall hop to channel frequencies that are selected at the system hopping rate from a Pseudorandom ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. However, the system, consisting of both the transmitter and the receiver, must be designed to comply with all of the regulations in this section should the transmitter be presented with a continuous data (or information) stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its transmissions over the minimum number of hopping channels specified in this section.

The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

Compliance for section 15.247(a)(1):

According to Technical Specification, the pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first ONE of 9 consecutive ONES; i.e. the shift register is initialized with nine ones.

> Number of shift register stages: 9

> Length of pseudo-random sequence: $2^9 - 1 = 511$ bits

> Longest sequence of zeros: 8 (non-inverted signal)

Linear Feedback Shift Register for Generation of the PRBS sequence

An example of Pseudorandom Frequency Hopping Sequence as follow:

Each frequency used equally on the average by each transmitter.

According to Technical Specification, the receivers are designed to have input and IF bandwidths that match the hopping channel bandwidths of any transmitters and shift frequencies in synchronization with the transmitted signals.

Compliance for section 15.247(g):

According to Technical Specification, the system transmits the packet with the pseudorandom hopping frequency with a continuous data and the short burst transmission from the Bluetooth system is also transmitted under the frequency hopping system with the pseudorandom hopping frequency system.

Compliance for section 15.247(h):

According to Technical specification, the system incorporates with an adaptive system to detect other user within the spectrum band so that it individually and independently to avoid hopping on the occupied channels.

The system is designed not have the ability to coordinated with other FHSS System in an effort to avoid the simultaneous occupancy of individual hopping frequencies by multiple transmitter.

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207

Test Method: ANSI C63.10 (2020) Section 6.2

Limit:

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

*Decreases with the logarithm of the frequency.

Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

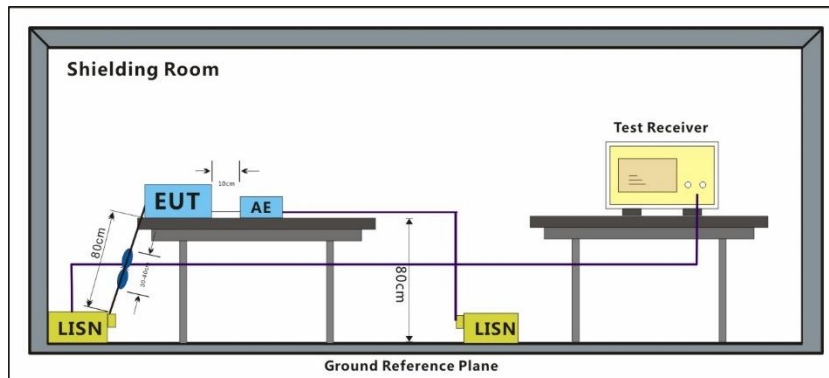
Humidity: 50.6 % RH

Atmospheric Pressure: 1029 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram

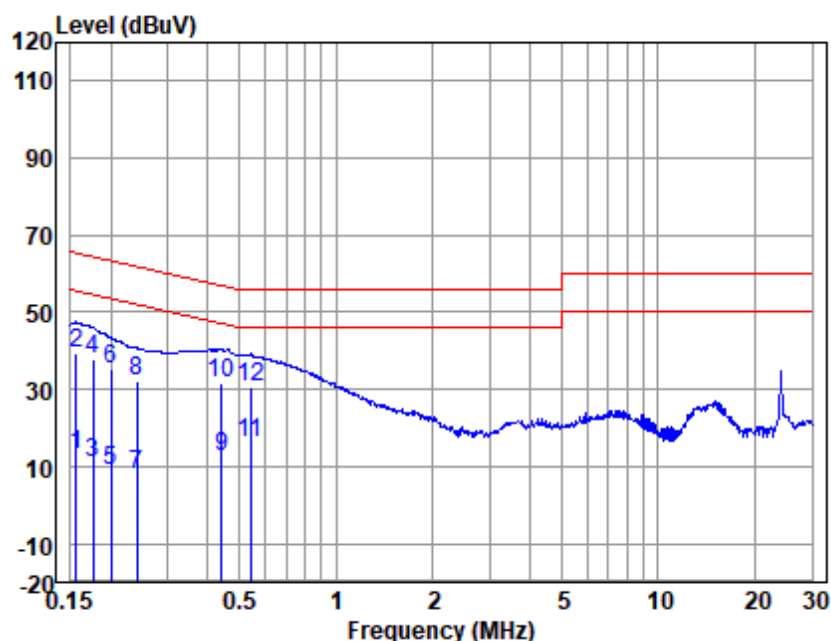


7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark : Level=Read Level+ Cable Loss+ LISN Factor

Test Mode: 00; Line: Live line



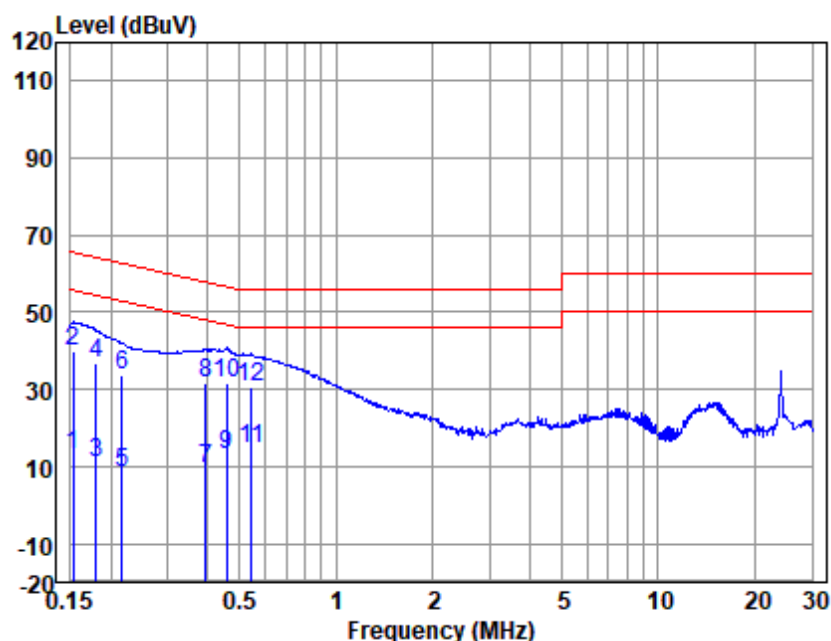
LISN : LINE
EUT/Project No : 3466HS
Test Mode : 00

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.16	2.74	0.50	9.90	13.14	55.65	-42.51	Average
2	0.16	29.06	0.50	9.90	39.46	65.65	-26.19	QP
3	0.18	0.73	0.50	9.90	11.13	54.68	-43.55	Average
4	0.18	27.35	0.50	9.90	37.75	64.68	-26.93	QP
5	0.20	-1.44	0.50	9.90	8.96	53.62	-44.66	Average
6	0.20	24.63	0.50	9.90	35.03	63.62	-28.59	QP
7	0.24	-2.47	0.46	9.90	7.89	52.08	-44.19	Average
8	0.24	21.85	0.46	9.90	32.21	62.08	-29.87	QP
9	0.44	2.12	0.33	9.90	12.35	47.02	-34.67	Average
10	0.44	21.22	0.33	9.90	31.45	57.02	-25.57	QP
11	0.54	6.08	0.30	9.90	16.28	46.00	-29.72	Average
12	0.54	20.29	0.30	9.90	30.49	56.00	-25.51	QP

Notes1: Emission Level = Read Level + LISN Factor + Cable loss

Notes2: Average in Remark means CISPR AV detector

Test Mode: 00; Line: Neutral Line



LISN : NEUTRAL
EUT/Project No : 3466HS
Test Mode : 00

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.15	2.97	0.44	9.90	13.31	55.87	-42.56	Average
2	0.15	29.36	0.44	9.90	39.70	65.87	-26.17	QP
3	0.18	0.61	0.41	9.90	10.92	54.46	-43.54	Average
4	0.18	26.71	0.41	9.90	37.02	64.46	-27.44	QP
5	0.22	-1.81	0.40	9.90	8.49	52.96	-44.47	Average
6	0.22	23.24	0.40	9.90	33.54	62.96	-29.42	QP
7	0.39	-0.69	0.40	9.90	9.61	47.99	-38.38	Average
8	0.39	21.28	0.40	9.90	31.58	57.99	-26.41	QP
9	0.46	2.84	0.40	9.90	13.14	46.76	-33.62	Average
10	0.46	21.25	0.40	9.90	31.55	56.76	-25.21	QP
11	0.55	4.59	0.37	9.90	14.86	46.00	-31.14	Average
12	0.55	20.33	0.37	9.90	30.60	56.00	-25.40	QP

Notes1: Emission Level = Read Level + LISN Factor + Cable loss

Notes2: Average in Remark means CISPR AV detector

7.2 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2020) Section 6.10.5 & 7.8.8

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

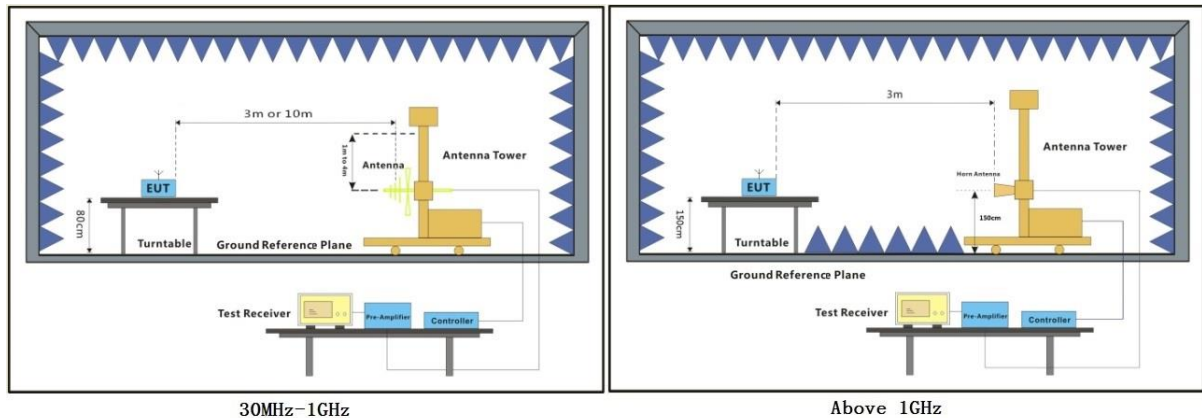
Humidity: 50.6 % RH

Atmospheric Pressure: 1029 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



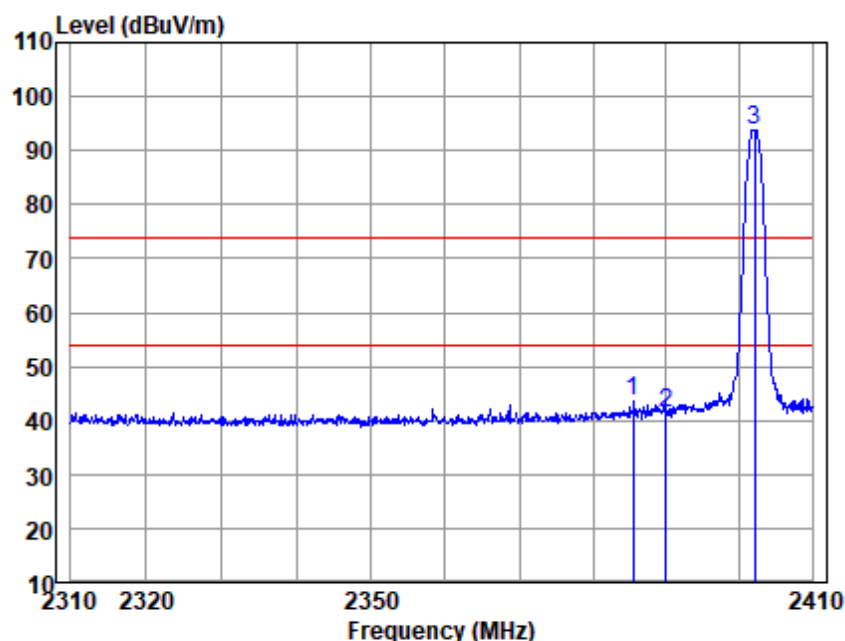
7.2.4 Measurement Procedure and Data

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; Channel:Low



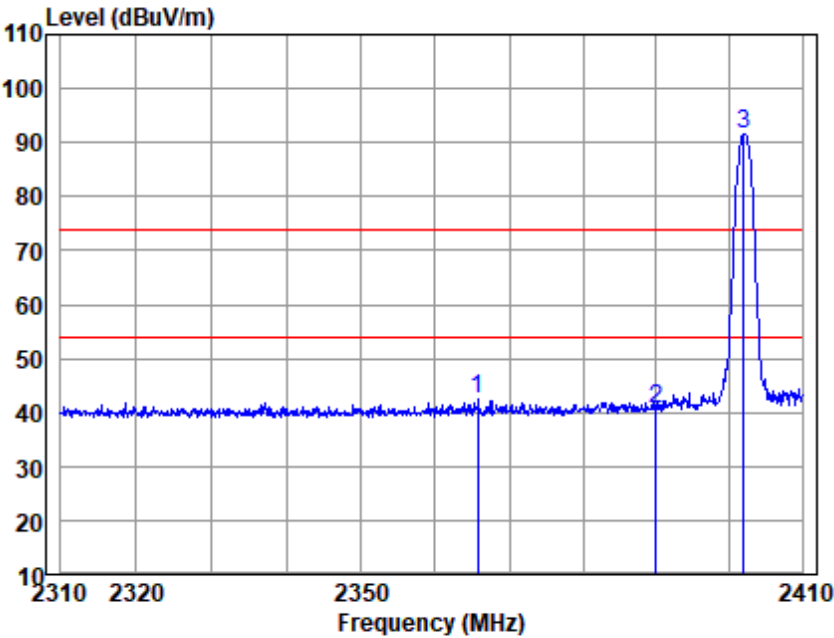
Antenna Polarity :HORIZONTAL

EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2385.511	46.63	28.80	3.33	35.18	43.58	74.00	-30.42	Peak
2390.000	44.55	28.80	3.33	35.18	41.50	74.00	-32.50	Peak
2402.148	96.92	28.85	3.34	35.19	93.92	74.00	19.92	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Vertical; Modulation:GFSK; Channel:Low

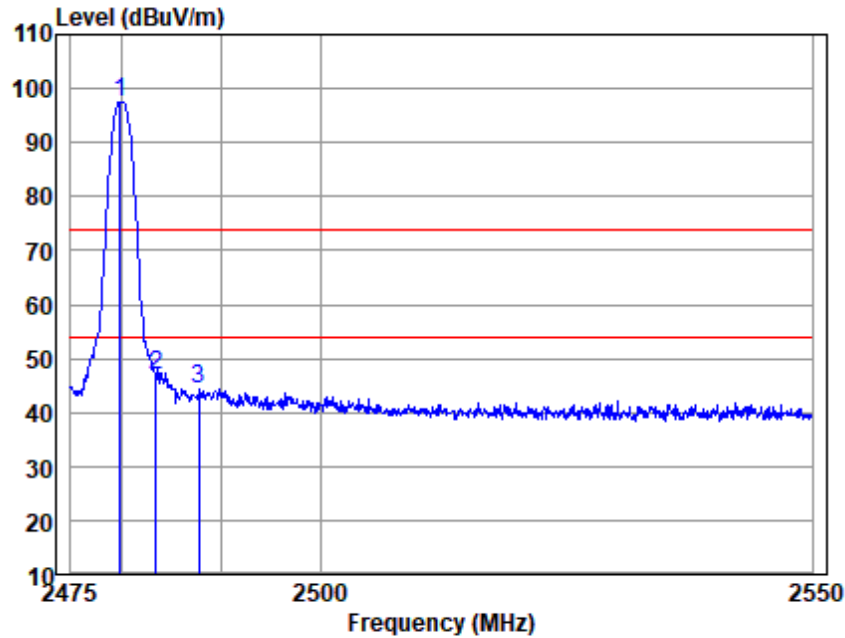


Antenna Polarity :VERTICAL
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
2365.778	45.59	28.68	3.31	35.16	42.42	74.00	-31.58	Peak
2390.000	43.85	28.80	3.33	35.18	40.80	74.00	-33.20	Peak
2401.945	94.50	28.85	3.34	35.19	91.50	74.00	17.50	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamplifier Factor

Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; Channel:High

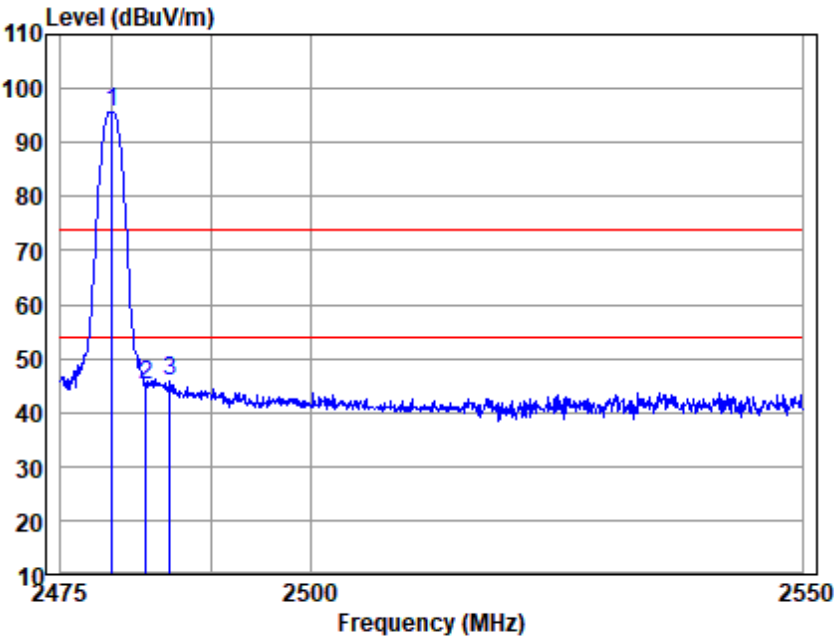


Antenna Polarity :HORIZONTAL
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2479.881	100.34	29.08	3.40	35.25	97.57	74.00	23.57	Peak
2483.500	49.76	29.09	3.41	35.26	47.00	74.00	-27.00	Peak
2487.815	47.08	29.09	3.41	35.26	44.32	74.00	-29.68	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Vertical; Modulation:GFSK; Channel:High

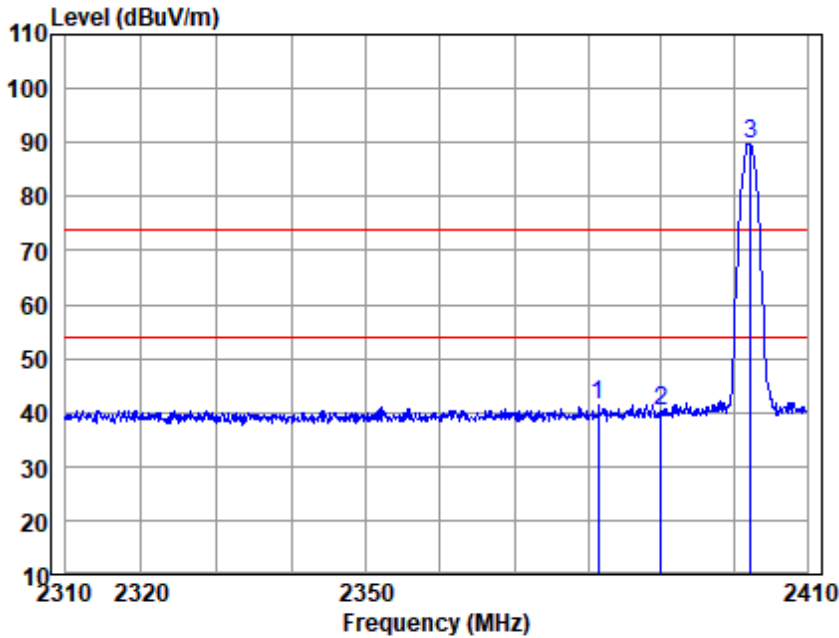


Antenna Polarity :VERTICAL
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2480.177	98.52	29.08	3.40	35.25	95.75	74.00	21.75	Peak
2483.500	47.92	29.09	3.41	35.26	45.16	74.00	-28.84	Peak
2485.885	48.68	29.09	3.41	35.26	45.92	74.00	-28.08	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Horizontal; Modulation: $\pi/4$ DQPSK; Channel: Low

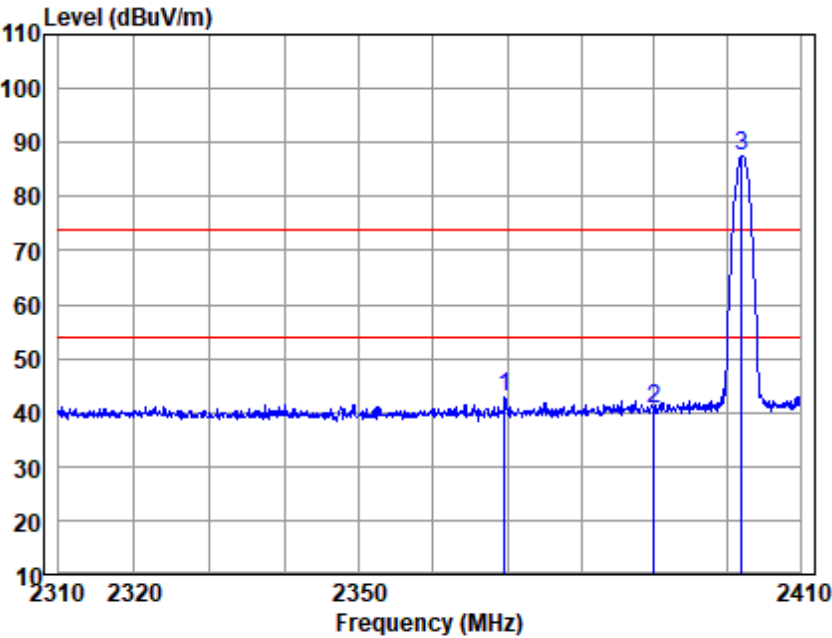


Antenna Polarity :HORIZONTAL
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
2381.470	44.50	28.76	3.32	35.17	41.41	74.00	-32.59	Peak
2390.000	43.25	28.80	3.33	35.18	40.20	74.00	-33.80	Peak
2402.250	92.72	28.85	3.34	35.19	89.72	74.00	15.72	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Vertical; Modulation: $\pi/4$ DQPSK; Channel: Low

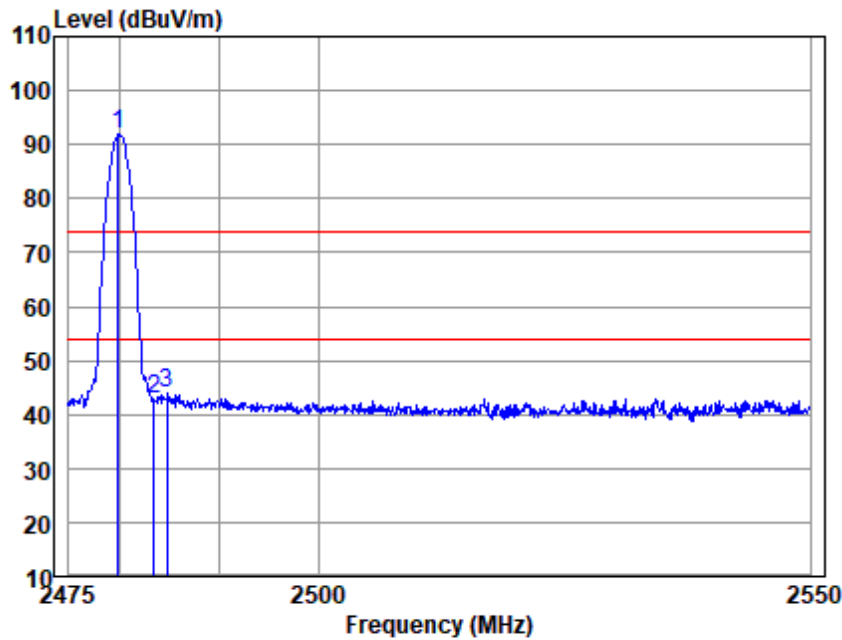


Antenna Polarity : VERTICAL
 EUT/Project : 3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
2369.692	46.17	28.68	3.31	35.16	43.00	74.00	-31.00	Peak
2390.000	43.61	28.80	3.33	35.18	40.56	74.00	-33.44	Peak
2401.945	90.58	28.85	3.34	35.19	87.58	74.00	13.58	Peak

Note: Emission Level = Read Level + Antenna Factor + Cable loss - Preamp Factor

Test Mode: 00; Polarity: Horizontal; Modulation: $\pi/4$ DQPSK; Channel: High

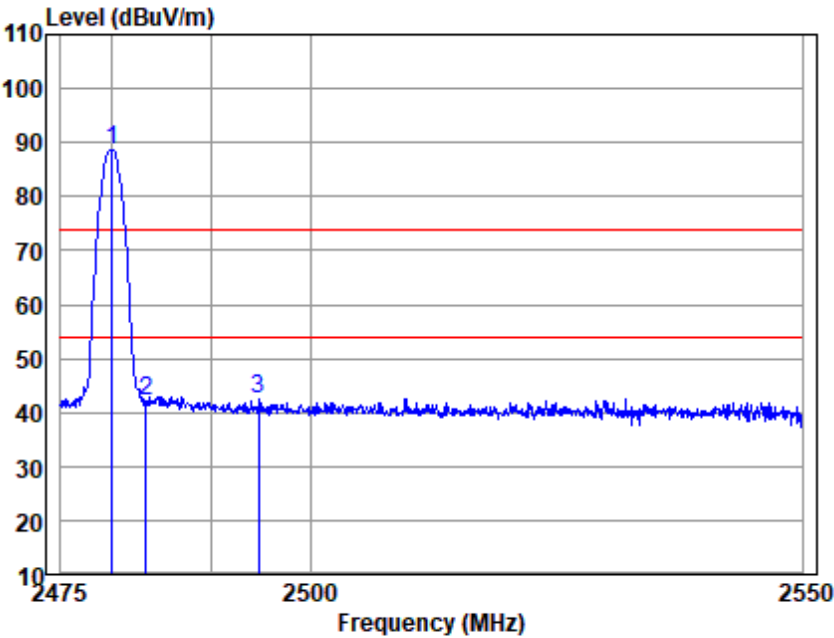


Antenna Polarity :HORIZONTAL
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
2479.955	94.54	29.08	3.40	35.25	91.77	74.00	17.77	Peak
2483.500	45.48	29.09	3.41	35.26	42.72	74.00	-31.28	Peak
2484.846	46.61	29.09	3.41	35.26	43.85	74.00	-30.15	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Vertical; Modulation: $\pi/4$ DQPSK; Channel: High

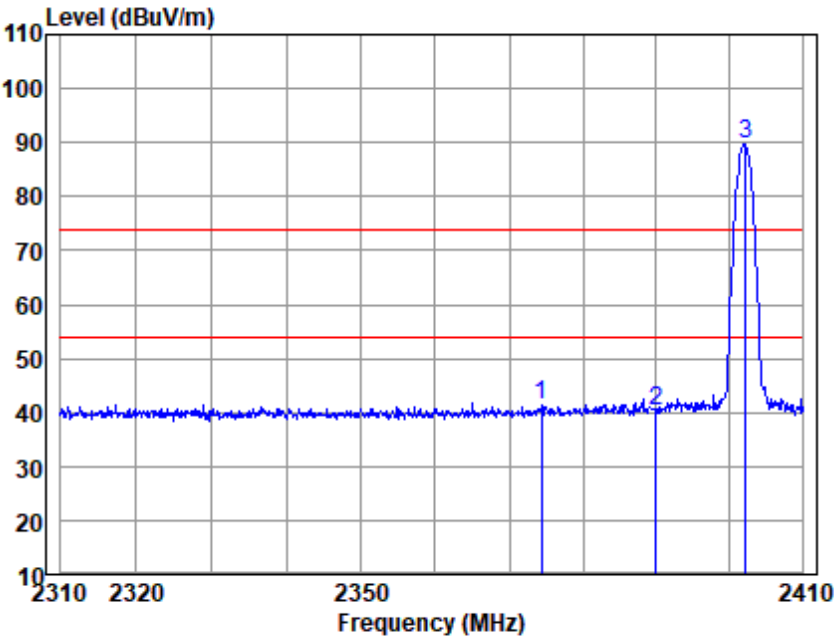


Antenna Polarity : VERTICAL
EUT/Project : 3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
2480.177	91.35	29.08	3.40	35.25	88.58	74.00	14.58	Peak
2483.500	44.78	29.09	3.41	35.26	42.02	74.00	-31.98	Peak
2494.806	45.34	29.10	3.41	35.26	42.59	74.00	-31.41	Peak

Note: Emission Level = Read Level + Antenna Factor + Cable loss - Preamp Factor

Test Mode: 00; Polarity: Horizontal; Modulation:8DPSK; Channel:Low

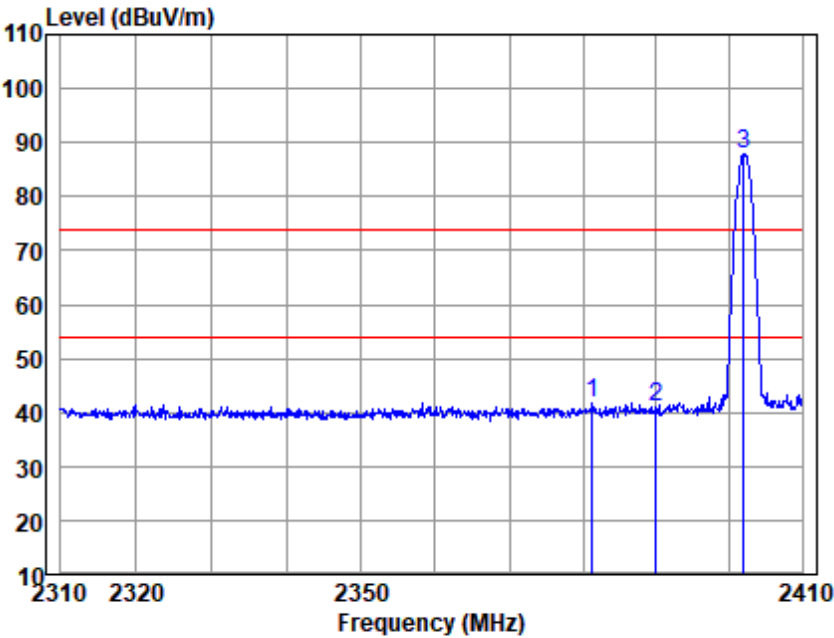


Antenna Polarity :HORIZONTAL
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2374.416	44.62	28.71	3.32	35.17	41.48	74.00	-32.52	Peak
2390.000	43.30	28.80	3.33	35.18	40.25	74.00	-33.75	Peak
2402.250	92.86	28.85	3.34	35.19	89.86	74.00	15.86	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Vertical; Modulation:8DPSK; Channel:Low

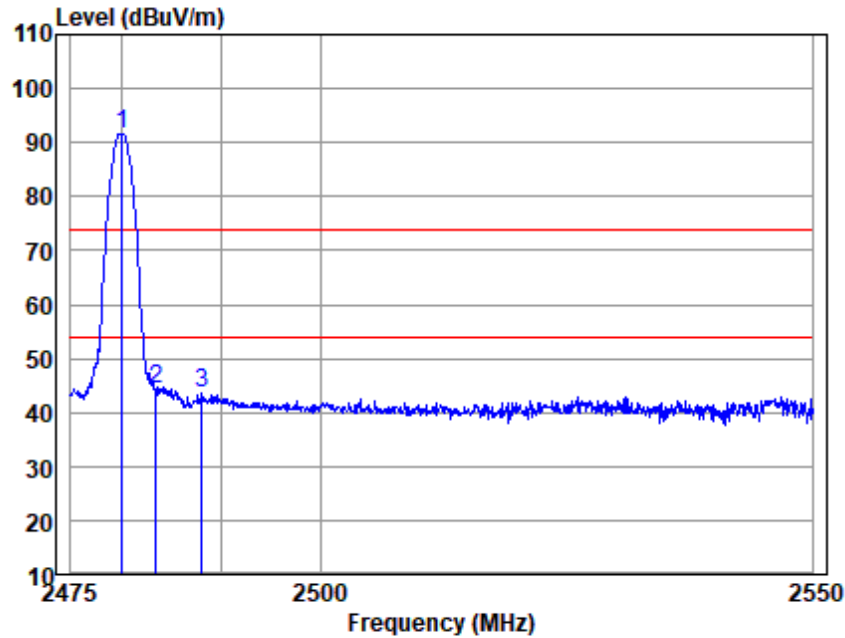


Antenna Polarity :VERTICAL
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2381.269	44.80	28.76	3.32	35.17	41.71	74.00	-32.29	Peak
2390.000	44.03	28.80	3.33	35.18	40.98	74.00	-33.02	Peak
2401.945	90.78	28.85	3.34	35.19	87.78	74.00	13.78	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Horizontal; Modulation:8DPSK; Channel:High

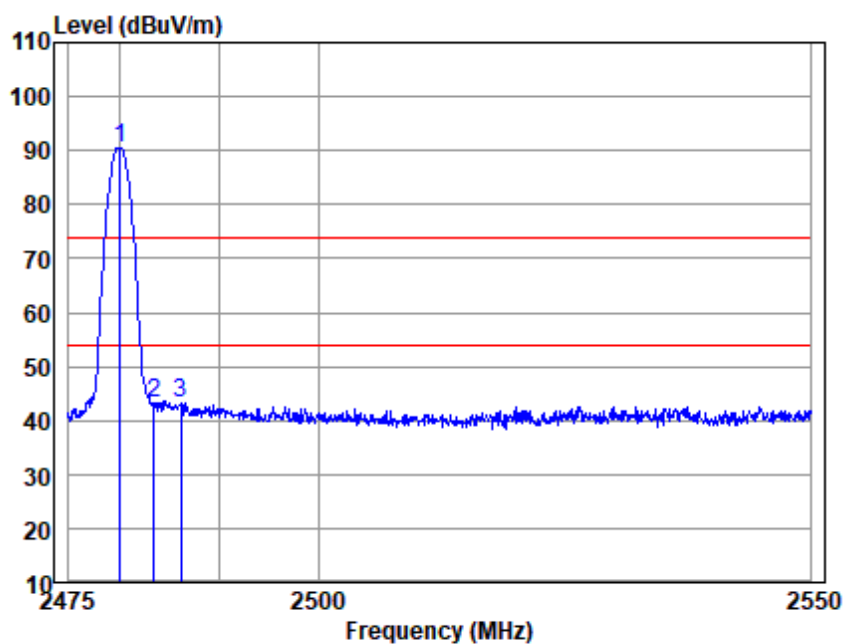


Antenna Polarity :HORIZONTAL
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2480.104	94.45	29.08	3.40	35.25	91.68	74.00	17.68	Peak
2483.500	47.23	29.09	3.41	35.26	44.47	74.00	-29.53	Peak
2488.113	46.29	29.09	3.41	35.26	43.53	74.00	-30.47	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Vertical; Modulation: 8DPSK; Channel: High



Antenna Polarity : VERTICAL

EUT/Project : 3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
2480.177	93.28	29.08	3.40	35.25	90.51	74.00	16.51	Peak
2483.500	45.88	29.09	3.41	35.26	43.12	74.00	-30.88	Peak
2486.182	46.06	29.09	3.41	35.26	43.30	74.00	-30.70	Peak

Note: Emission Level = Read Level + Antenna Factor + Cable loss - Preamp Factor

7.3 Radiated Spurious Emissions Below 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2020) Section 6.4,6.5

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/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
960-1000	500	3

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

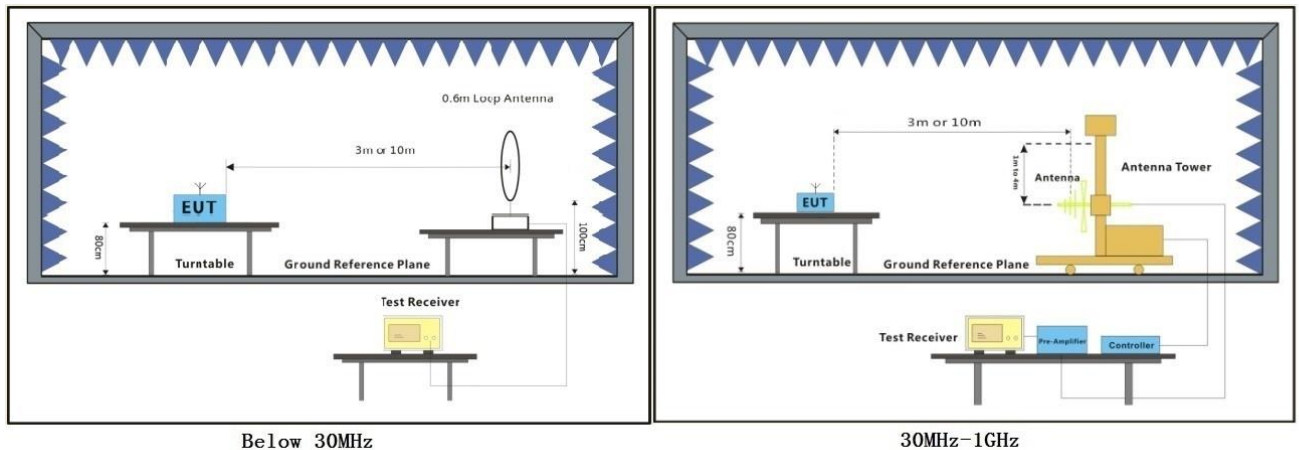
Humidity: 50.6 % RH

Atmospheric Pressure: 1029 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

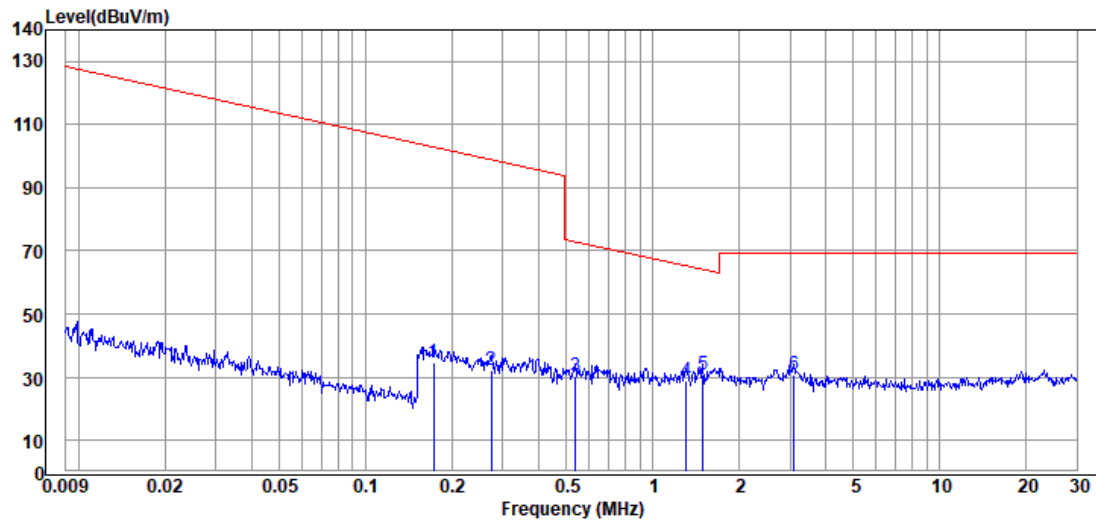
- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$
2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

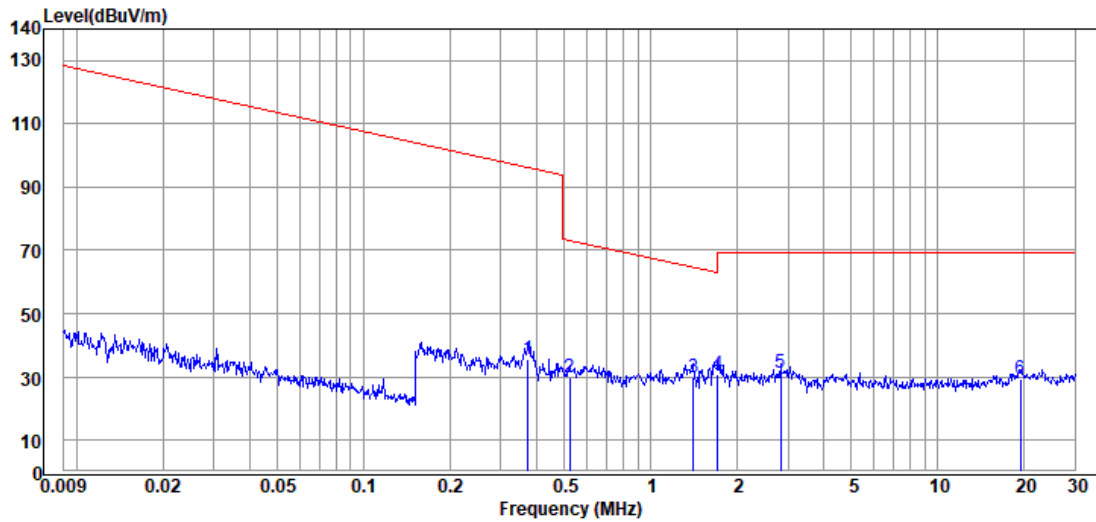
9KHz-30MHz

Coaxial:



Item	Freq.	Read Level	Antenna Factor	Cable Loss	Result Level@3m	Result Level@S PEC	Limit Line@SP EC	Over Limit	Detector
(Mark)	(MHz)	(dB μ V)	(dB/m)	(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.172	16.94	17.30	0.30	34.54	-45.46	22.87	-68.33	Average
2	0.274	14.47	17.30	0.30	32.07	-47.93	18.85	-66.78	Average
3	0.537	12.52	17.34	0.30	30.16	-9.84	33.01	-42.85	QP
4	1.310	10.87	17.64	0.30	28.81	-11.19	25.28	-36.47	QP
5	1.492	12.97	17.66	0.30	30.93	-9.07	24.16	-33.23	QP
6	3.095	12.92	17.81	0.30	31.03	-8.97	29.50	-38.47	QP

Coplanar:



Item	Freq.	Read Level	Antenna Factor	Cable Loss	Result Level@3m	Result Level@SPEC	Limit Line@SPEC	Over Limit	Detector
(Mark)	(MHz)	(dBμV)	(dB/m)	(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.373	17.78	17.30	0.30	35.38	-44.62	16.18	-60.80	Average
2	0.520	12.25	17.32	0.30	29.87	-50.13	-6.71	-43.42	QP
3	1.409	12.05	17.65	0.30	30.00	-10.00	24.65	-34.65	QP
4	1.712	12.99	17.68	0.30	30.97	-9.03	29.50	-38.53	QP
5	2.831	12.97	17.79	0.30	31.06	-8.94	29.50	-38.44	QP
6	19.359	10.53	18.50	0.35	29.38	-10.62	29.50	-40.12	QP

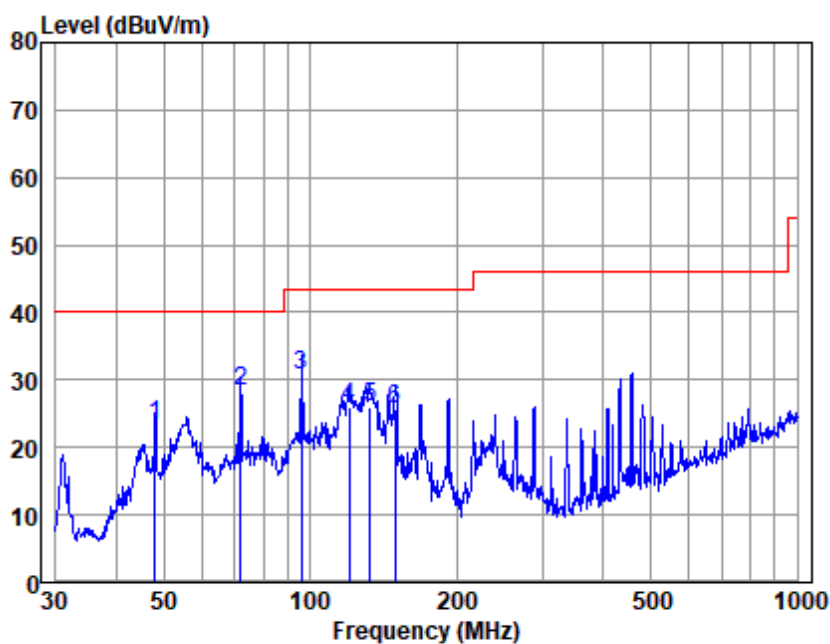
Remark 1: For test distance other than what is specified, but fulfilling the requirements of section 15.31(f) (2) the field strength is calculated by adding additionally an extrapolation factor of 40dB/decade (inverse linear distance for field strength measurements).

So the Distance Extrapolation Factor in dB is $40 \cdot \log(D_{TEST} / D_{SPEC})$ where D_{TEST} = Test Distance and D_{SPEC} = Specified Distance.

Field strength limit (dBμV/m)@test distance= Field strength limit (dBμV/m)@specified distance +Distance Extrapolation Factor

Remark 2: The field strength limit of 9K to 30MHz in 47 CFR Part 15, Subpart C are magnetic field limit (dBμA/m), the free-space impedance is 377Ω, the convert factor from magnetic field limit to electric field is adding $20 \cdot \log(377) = 51.5\text{dB}$. $\text{dBuA/m} = \text{dBuV/m} - 51.5$

Test Mode: 00; Polarity: Horizontal



Antenna Polarity :HORIZONTAL

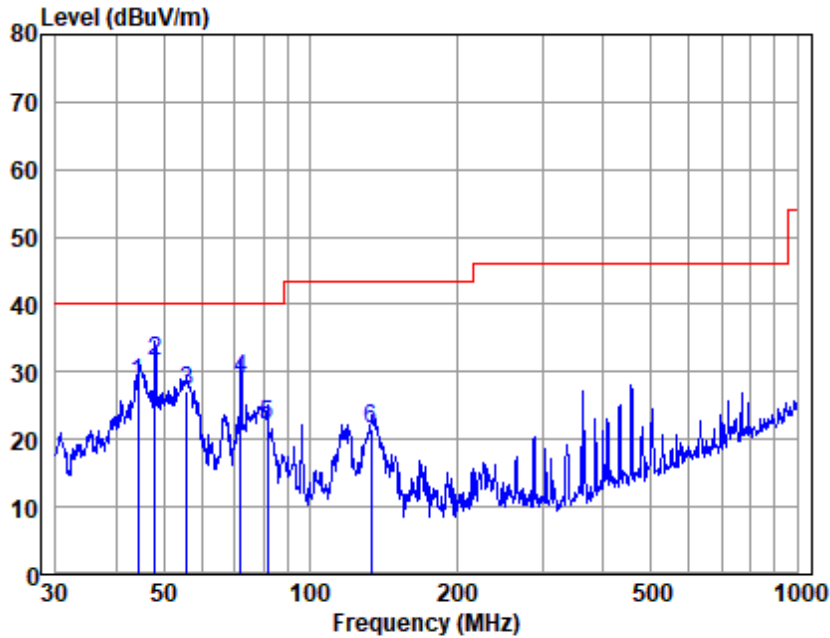
EUT/Project :3466HS

Test mode :00

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	47.994	41.91	13.10	1.38	33.20	23.19	40.00	-16.81	QP
2	72.084	49.68	10.10	1.71	33.10	28.39	40.00	-11.61	QP
3	96.099	52.80	8.90	1.96	33.10	30.56	43.50	-12.94	QP
4	120.277	45.66	11.10	2.24	33.05	25.95	43.50	-17.55	QP
5	132.685	45.06	11.70	2.37	33.03	26.10	43.50	-17.40	QP
6	149.486	43.77	12.50	2.52	33.00	25.79	43.50	-17.71	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Vertical



Antenna Polarity :VERTICAL
EUT/Project :3466HS
Test mode :00

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	44.275	46.72	13.50	1.33	33.20	28.35	40.00	-11.65	QP
2	47.994	50.19	13.10	1.38	33.20	31.47	40.00	-8.53	QP
3	55.805	46.35	12.50	1.50	33.14	27.21	40.00	-12.79	QP
4	72.084	50.19	10.10	1.71	33.10	28.90	40.00	-11.10	QP
5	81.783	44.67	8.70	1.82	33.10	22.09	40.00	-17.91	QP
6	133.619	40.21	12.10	2.38	33.03	21.66	43.50	-21.84	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

7.4 Radiated Spurious Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2020) Section 6.6 & 7.8.8

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1000	500	3

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

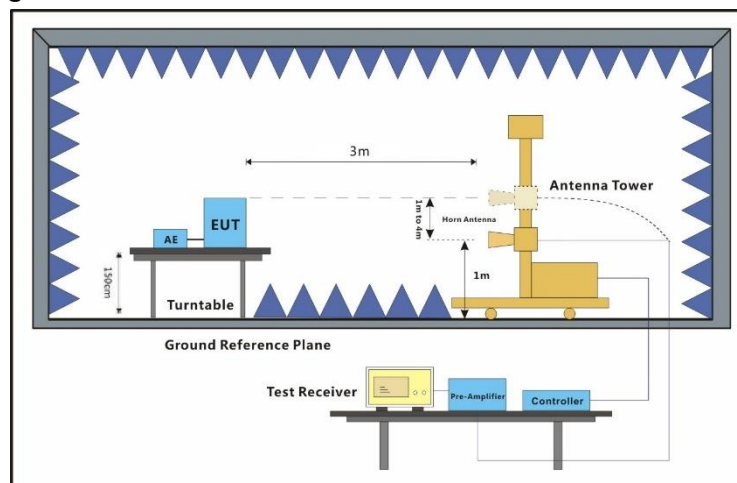
Humidity: 50.6 % RH

Atmospheric Pressure: 1029 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

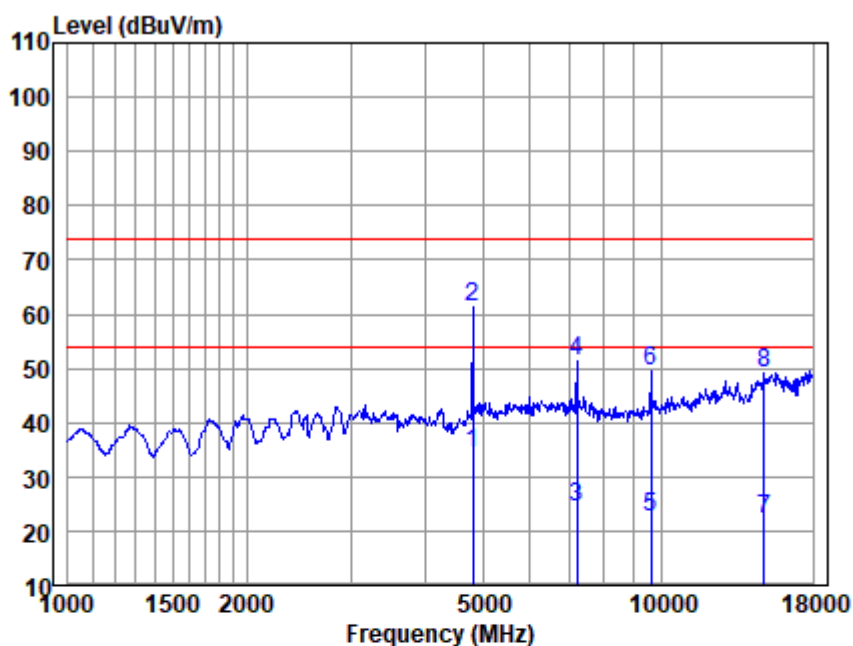
- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$
2. Scan from 1GHz to 25GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

1-18GHz

Test Mode: 01; Polarity: Horizontal; Modulation:GFSK; Channel:Low



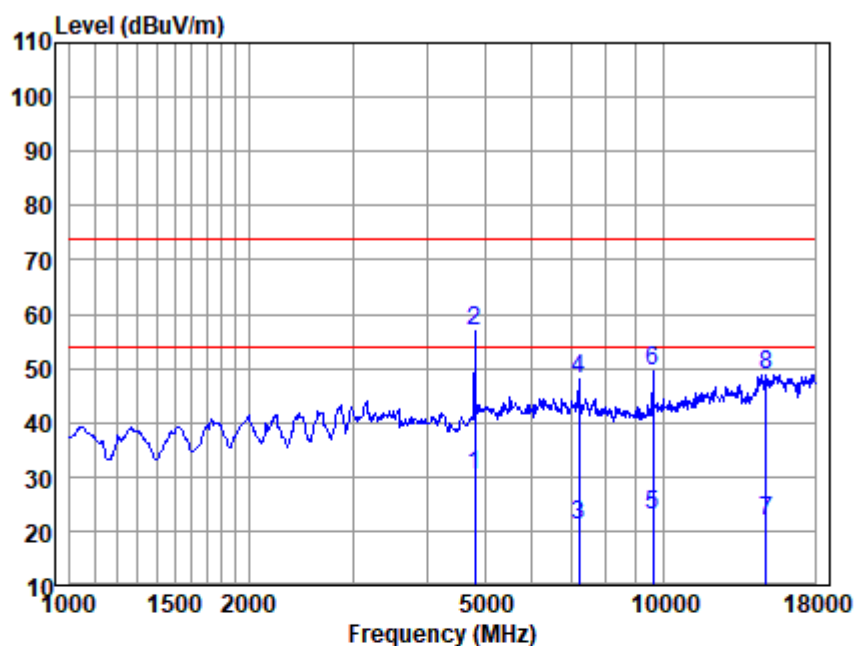
Antenna Polarity :HORIZONTAL

EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4804.110	32.50	33.57	5.23	36.79	34.51	54.00	-19.49	Average
4804.110	59.30	33.57	5.23	36.79	61.31	74.00	-12.69	Peak
7200.309	18.35	36.24	7.33	37.53	24.39	54.00	-29.61	Average
7200.309	45.15	36.24	7.33	37.53	51.19	74.00	-22.81	Peak
9613.430	14.80	37.75	8.74	38.58	22.71	54.00	-31.29	Average
9613.430	41.60	37.75	8.74	38.58	49.51	74.00	-24.49	Peak
14916.940	8.72	42.65	11.97	40.99	22.35	54.00	-31.65	Average
14916.940	35.52	42.65	11.97	40.99	49.15	74.00	-24.85	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 01; Polarity: Vertical; Modulation:GFSK; Channel:Low



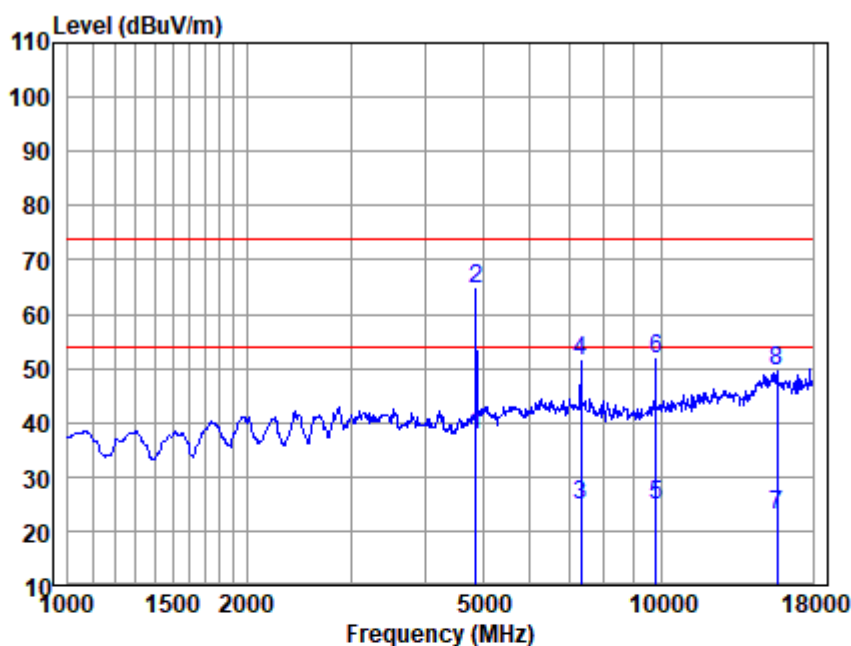
Antenna Polarity :VERTICAL

EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4804.110	28.23	33.57	5.23	36.79	30.24	54.00	-23.76	Average
4804.110	55.03	33.57	5.23	36.79	57.04	74.00	-16.96	Peak
7200.309	14.99	36.24	7.33	37.53	21.03	54.00	-32.97	Average
7200.309	41.79	36.24	7.33	37.53	47.83	74.00	-26.17	Peak
9613.430	14.95	37.75	8.74	38.58	22.86	54.00	-31.14	Average
9613.430	41.75	37.75	8.74	38.58	49.66	74.00	-24.34	Peak
14916.940	8.34	42.65	11.97	40.99	21.97	54.00	-32.03	Average
14916.940	35.14	42.65	11.97	40.99	48.77	74.00	-25.23	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 01; Polarity: Horizontal; Modulation:GFSK; Channel:middle



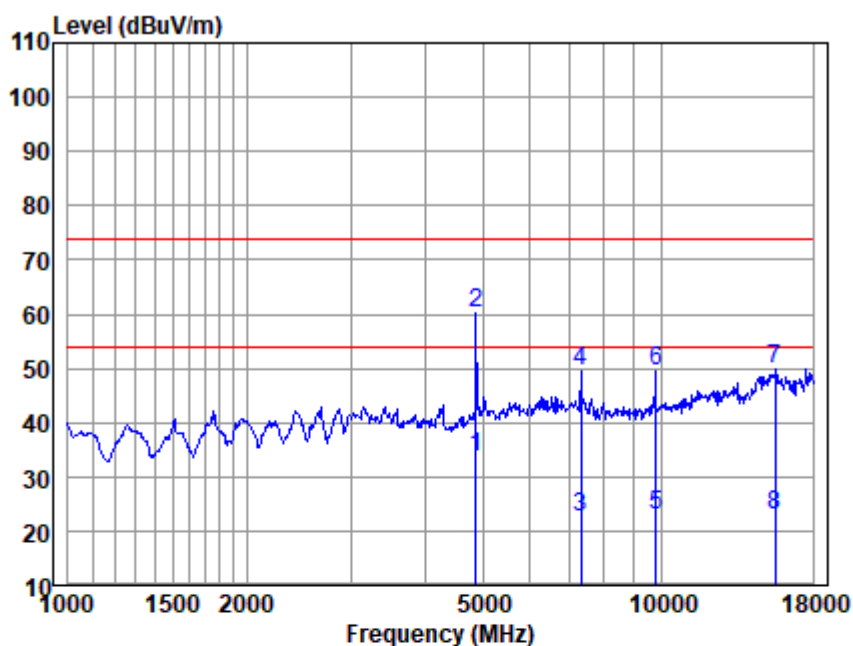
Antenna Polarity :HORIZONTAL

EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
4874.043	35.53	33.66	5.28	36.81	37.66	54.00	-16.34	Average
4874.043	62.33	33.66	5.28	36.81	64.46	74.00	-9.54	Peak
7326.267	18.36	36.33	7.44	37.42	24.71	54.00	-29.29	Average
7326.267	45.16	36.33	7.44	37.42	51.51	74.00	-22.49	Peak
9781.603	15.89	37.56	8.82	37.49	24.78	54.00	-29.22	Average
9781.603	42.69	37.56	8.82	37.49	51.58	74.00	-22.42	Peak
15668.210	8.13	43.09	12.42	40.81	22.83	54.00	-31.17	Average
15668.210	34.93	43.09	12.42	40.81	49.63	74.00	-24.37	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamplifier Factor

Test Mode: 01; Polarity: Vertical; Modulation:GFSK; Channel:middle



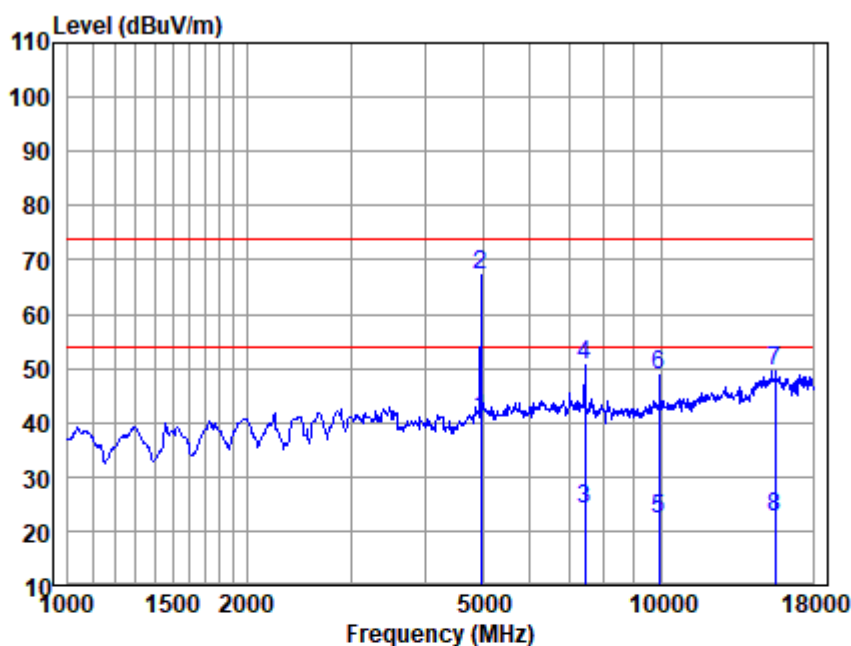
Antenna Polarity :VERTICAL

EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4874.043	31.37	33.66	5.28	36.81	33.50	54.00	-20.50	Average
4874.043	58.17	33.66	5.28	36.81	60.30	74.00	-13.70	Peak
7326.267	16.20	36.33	7.44	37.42	22.55	54.00	-31.45	Average
7326.267	43.00	36.33	7.44	37.42	49.35	74.00	-24.65	Peak
9781.603	13.85	37.56	8.82	37.49	22.74	54.00	-31.26	Average
9781.603	40.65	37.56	8.82	37.49	49.54	74.00	-24.46	Peak
15577.900	34.83	43.29	12.37	40.81	49.68	74.00	-24.32	Peak
15577.900	8.03	43.29	12.37	40.81	22.88	54.00	-31.12	Average

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 01; Polarity: Horizontal; Modulation:GFSK; Channel:High



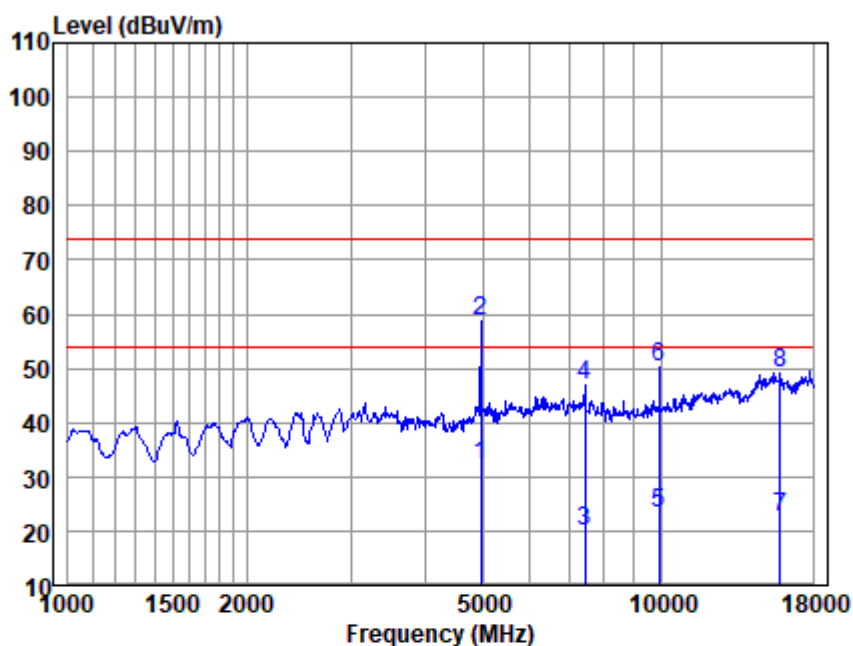
Antenna Polarity :HORIZONTAL

EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4959.307	38.38	33.65	5.34	36.83	40.54	54.00	-13.46	Average
4959.307	65.18	33.65	5.34	36.83	67.34	74.00	-6.66	Peak
7432.914	17.35	36.31	7.53	37.34	23.85	54.00	-30.15	Average
7432.914	44.15	36.31	7.53	37.34	50.65	74.00	-23.35	Peak
9923.991	12.91	37.62	8.88	37.41	22.00	54.00	-32.00	Average
9923.991	39.71	37.62	8.88	37.41	48.80	74.00	-25.20	Peak
15577.900	34.59	43.29	12.37	40.81	49.44	74.00	-24.56	Peak
15577.900	7.79	43.29	12.37	40.81	22.64	54.00	-31.36	Average

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 01; Polarity: Vertical; Modulation:GFSK; Channel:High



Antenna Polarity :VERTICAL

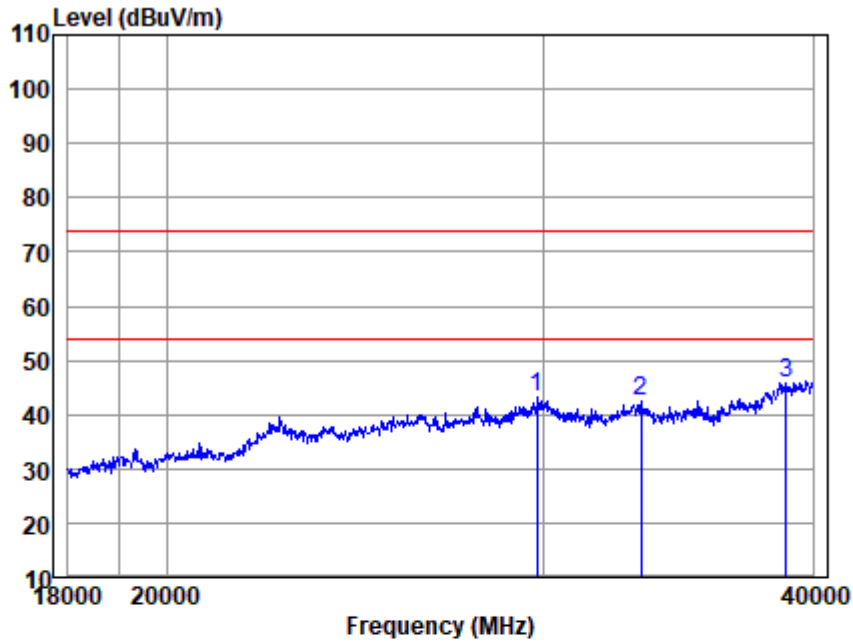
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
4959.307	29.86	33.65	5.34	36.83	32.02	54.00	-21.98	Average
4959.307	56.66	33.65	5.34	36.83	58.82	74.00	-15.18	Peak
7432.914	13.59	36.31	7.53	37.34	20.09	54.00	-33.91	Average
7432.914	40.39	36.31	7.53	37.34	46.89	74.00	-27.11	Peak
9923.991	14.21	37.62	8.88	37.41	23.30	54.00	-30.70	Average
9923.991	41.01	37.62	8.88	37.41	50.10	74.00	-23.90	Peak
15850.410	8.00	42.64	12.53	40.80	22.37	54.00	-31.63	Average
15850.410	34.80	42.64	12.53	40.80	49.17	74.00	-24.83	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamplifier Factor

18-40GHz

Test Mode: 00; Polarity: Horizontal



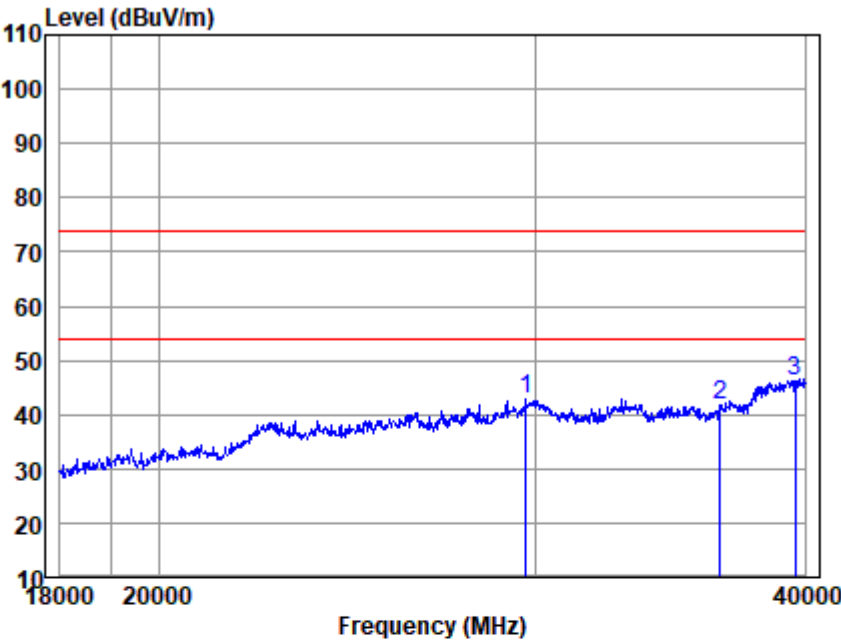
Antenna Polarity :HORIZONTAL

EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
29767.930	53.63	40.31	4.00	54.78	43.16	74.00	-30.84	Peak
33262.290	53.97	41.40	3.77	56.54	42.60	74.00	-31.40	Peak
38866.520	53.93	43.50	4.70	56.27	45.86	74.00	-28.14	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamplifier Factor

Test Mode: 00; Polarity: Vertical



Antenna Polarity :VERTICAL
EUT/Project :3466HS

Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
29649.320	53.80	40.22	3.99	55.19	42.82	74.00	-31.18	Peak
36519.620	52.85	40.92	4.26	56.20	41.83	74.00	-32.17	Peak
39586.920	54.00	43.66	4.84	56.17	46.33	74.00	-27.67	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamplifier Factor

Remark:The peak emission was below with AV limit,Only the worst case test plot was show in the report.

7.5 Maximum Conducted Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(1)

Test Method: ANSI C63.10 (2020) Section 7.8.5

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥ 50 hopping channels
	0.25 for $25 \leq$ hopping channels < 50
	1 for digital modulation
2400-2483.5	1 for ≥ 75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

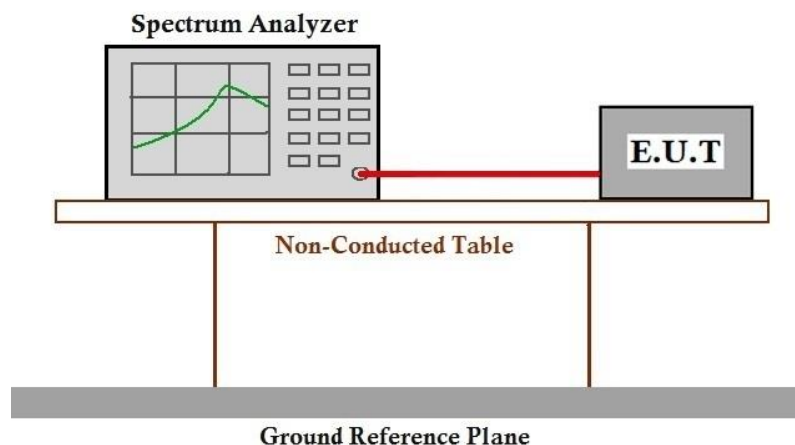
Humidity: 50.6 % RH

Atmospheric Pressure: 1029 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	01	TX_Hop mode Keep the EUT in frequency hopping mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram





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7.5.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix for Details

7.6 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247(a)(1)

Test Method: ANSI C63.10 (2020) Section 6.9.2

Measurement Distance: 3m

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

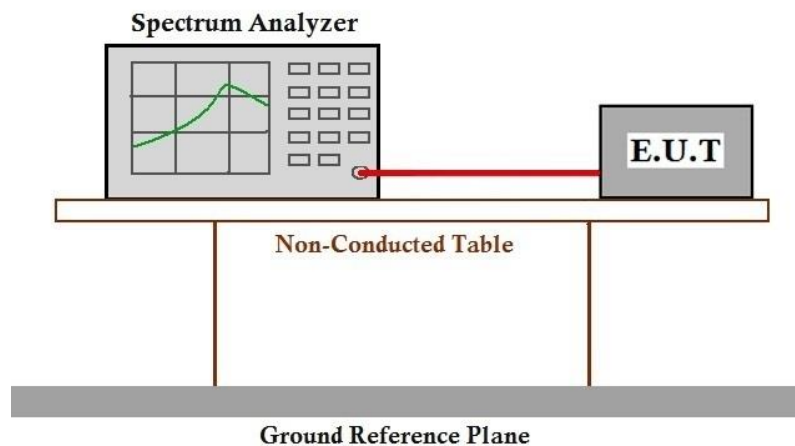
Humidity: 50.6 % RH

Atmospheric Pressure: 1029 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	01	TX_Hop mode_Keep the EUT in frequency hopping mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.7 Carrier Frequencies Separation

Test Requirement 47 CFR Part 15, Subpart C 15.247a(1)

Test Method: ANSI C63.10 (2020) Section 7.8.2

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

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

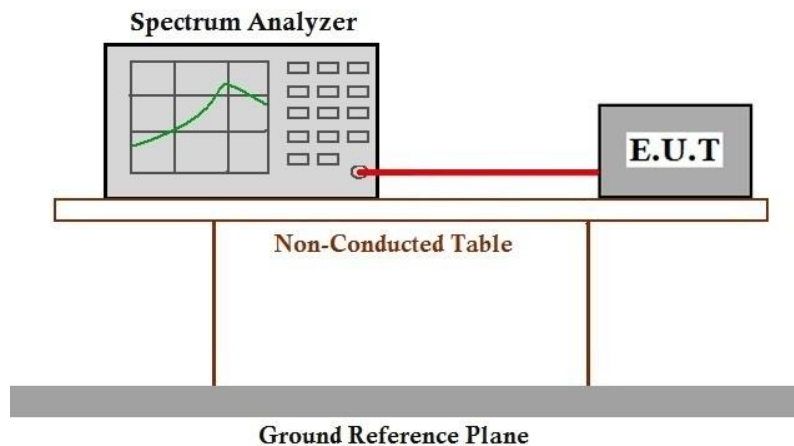
Humidity: 50.6 % RH

Atmospheric Pressure: 1029 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX_Hop mode_Keep the EUT in frequency hopping mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.8 Hopping Channel Number

Test Requirement 47 CFR Part 15, Subpart C 15.247a(1)(iii)

Test Method: ANSI C63.10 (2020) Section 7.8.3

Limit:

Frequency range(MHz)	Number of hopping channels (minimum)
902-928	50 for 20dB bandwidth <250kHz
	25 for 20dB bandwidth ≥250kHz
2400-2483.5	15
5725-5850	75

7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

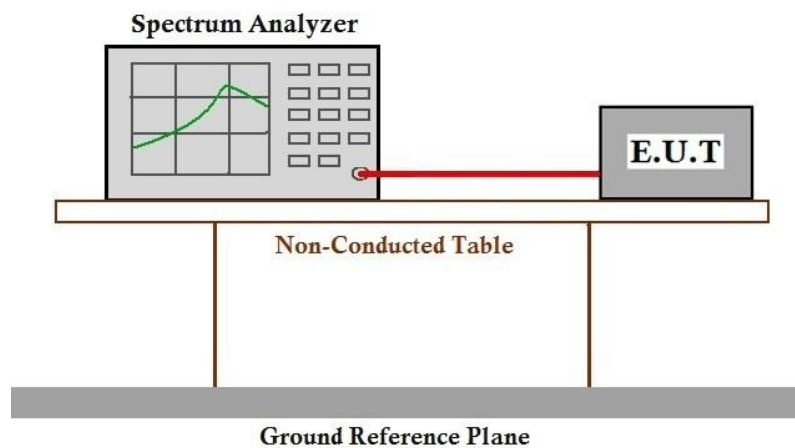
Humidity: 50.6 % RH

Atmospheric Pressure: 1029 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX_Hop mode_Keep the EUT in frequency hopping mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.8.3 Test Setup Diagram



7.8.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.9 Dwell Time

Test Requirement 47 CFR Part 15, Subpart C 15.247a(1)(iii)

Test Method: ANSI C63.10 (2020) Section 7.8.4

Limit:

Frequency(MHz)	Limit
902-928	0.4S within a 20S period(20dB bandwidth<250kHz)
	0.4S within a 10S period(20dB bandwidth≥250kHz)
2400-2483.5	0.4S within a period of 0.4S multiplied by the number of hopping channels
5725-5850	0.4S within a 30S period

7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 22.6 °C

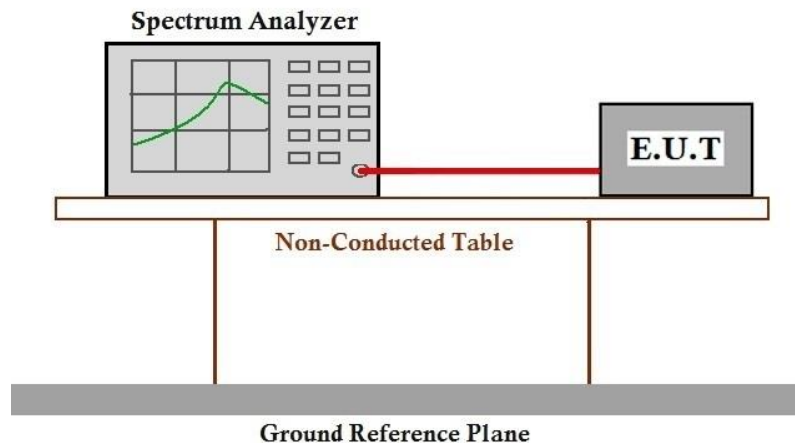
Humidity: 50.3 % RH

Atmospheric Pressure: 1029 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX_Hop mode_Keep the EUT in frequency hopping mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.10 Conducted Band Edges Measurement

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)

Test Method: ANSI C63.10 (2020) Section 7.8.7.2

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)).

7.10.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

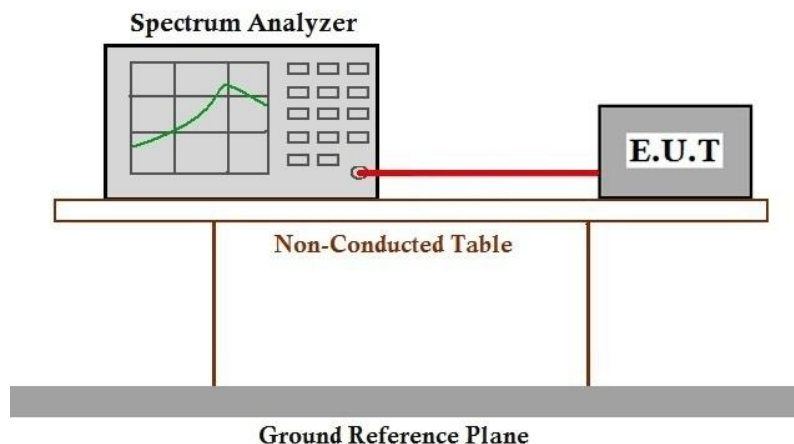
Humidity: 50.6 % RH

Atmospheric Pressure: 1029 mbar

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	01	TX_Hop mode_Keep the EUT in frequency hopping mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.10.3 Test Setup Diagram



7.10.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.11 Conducted Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
 Test Method: ANSI C63.10 (2020) Section 7.8.7

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)).

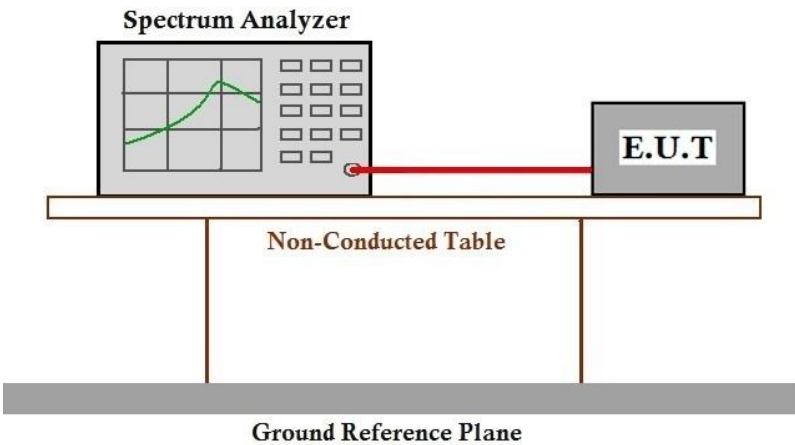
7.11.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.3 °C Humidity: 50.6 % RH Atmospheric Pressure: 1029 mbar

7.11.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.11.3 Test Setup Diagram



7.11.4 Measurement Procedure and Data

Please Refer to Appendix for Details



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8 Test Setup Photo

Refer to Appendix - Test Setup Photo for SHCR2512003466HS



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9 EUT Constructional Details (EUT Photos)

Refer to Appendix_Photographs of EUT Constructional Details for SHCR2512003466HS

10 Appendix

Power level setting using in test:

Channel	Power setting
2402	4
2440	4
2480	4

1. Bandwidth

1.1 Test Result

1.1.1 OBW

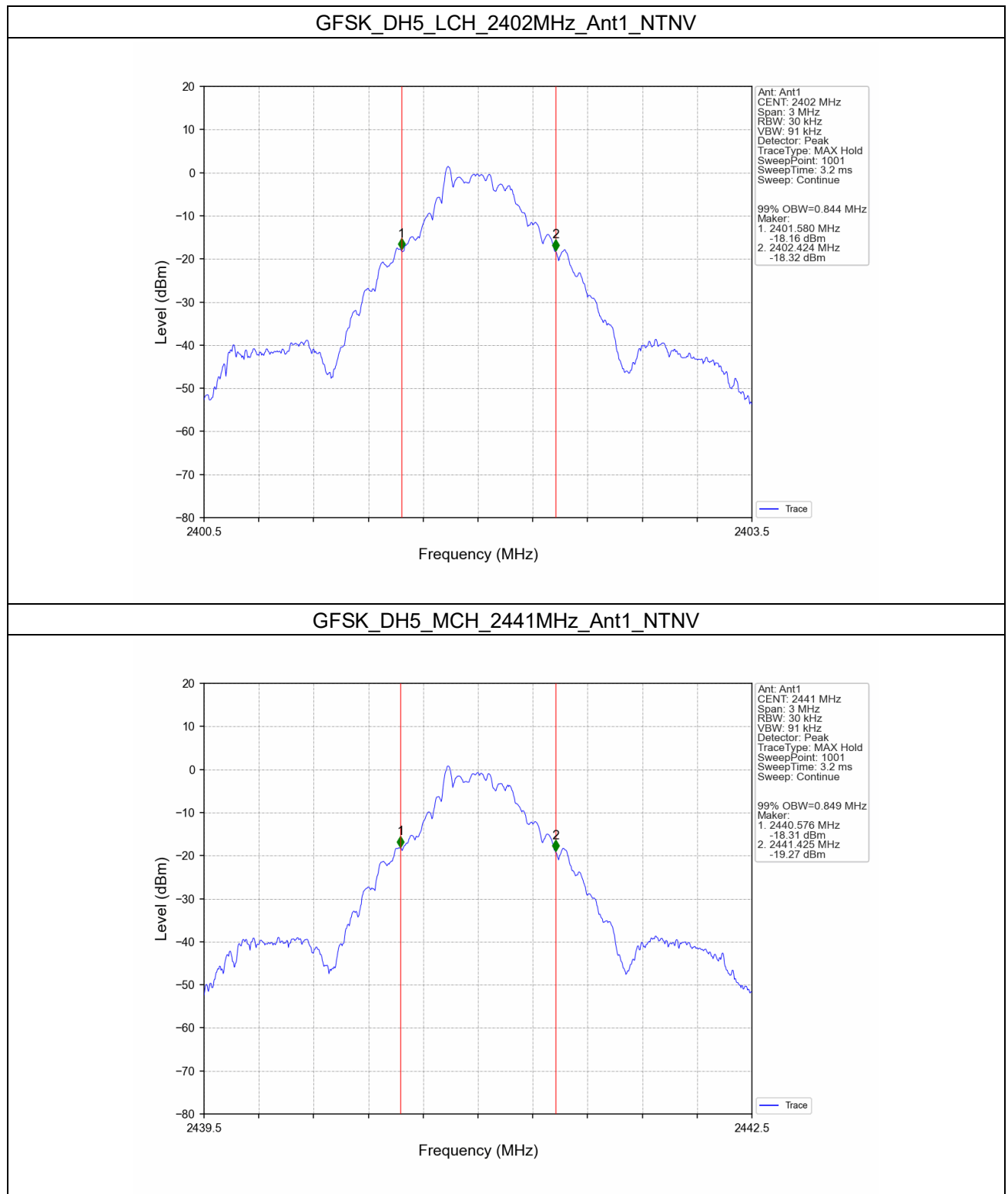
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	99% Occupied Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.844	/	Pass
		2441	DH5	1	0.849	/	Pass
		2480	DH5	1	0.850	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.151	/	Pass
		2441	2DH5	1	1.154	/	Pass
		2480	2DH5	1	1.154	/	Pass
8DPSK	SISO	2402	3DH5	1	1.146	/	Pass
		2441	3DH5	1	1.145	/	Pass
		2480	3DH5	1	1.146	/	Pass

1.1.2 20dB BW

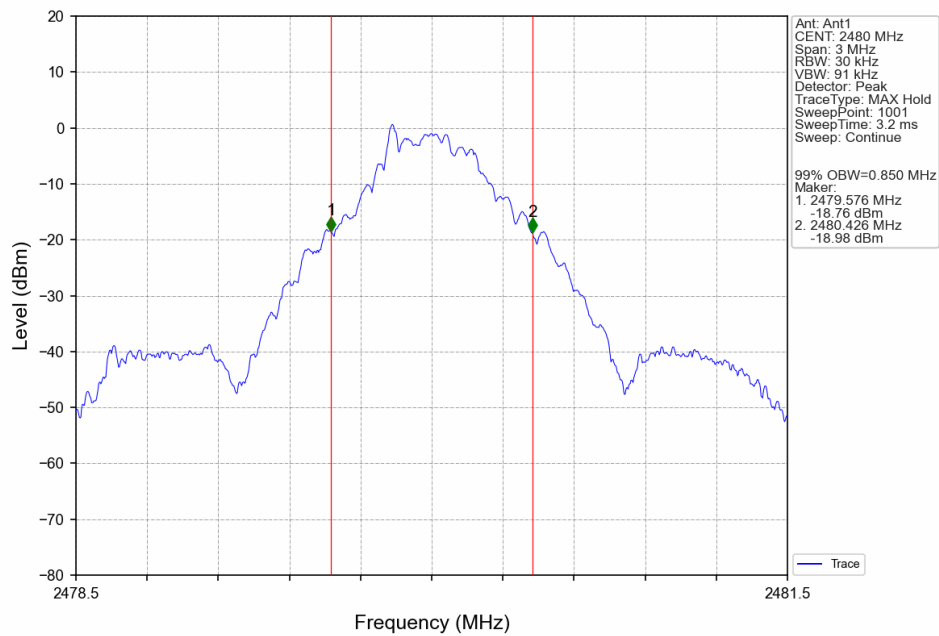
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.941	/	Pass
		2441	DH5	1	0.942	/	Pass
		2480	DH5	1	0.940	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.261	/	Pass
		2441	2DH5	1	1.258	/	Pass
		2480	2DH5	1	1.266	/	Pass
8DPSK	SISO	2402	3DH5	1	1.218	/	Pass
		2441	3DH5	1	1.218	/	Pass
		2480	3DH5	1	1.239	/	Pass

1.2 Test Graph

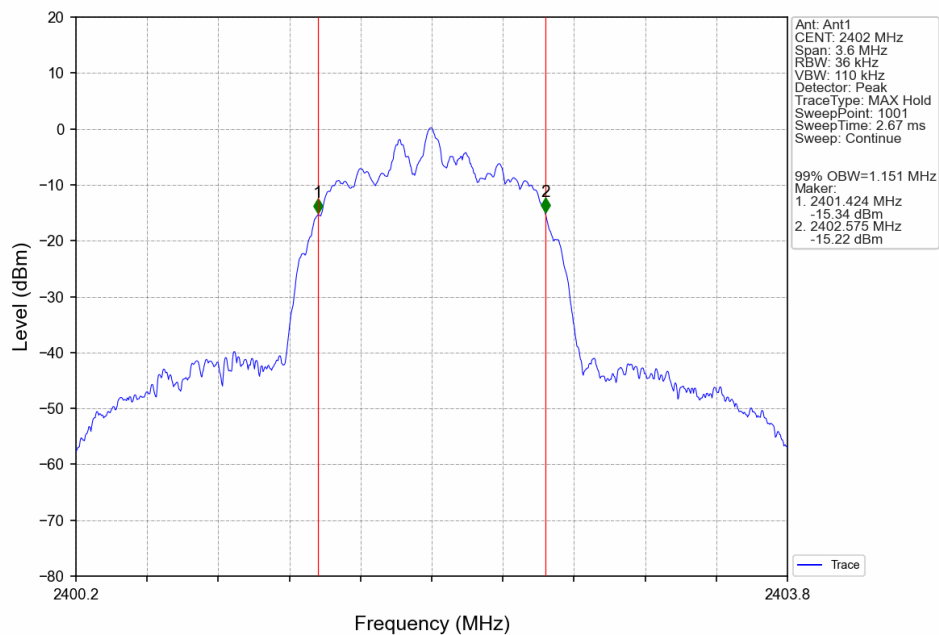
1.2.1 OBW



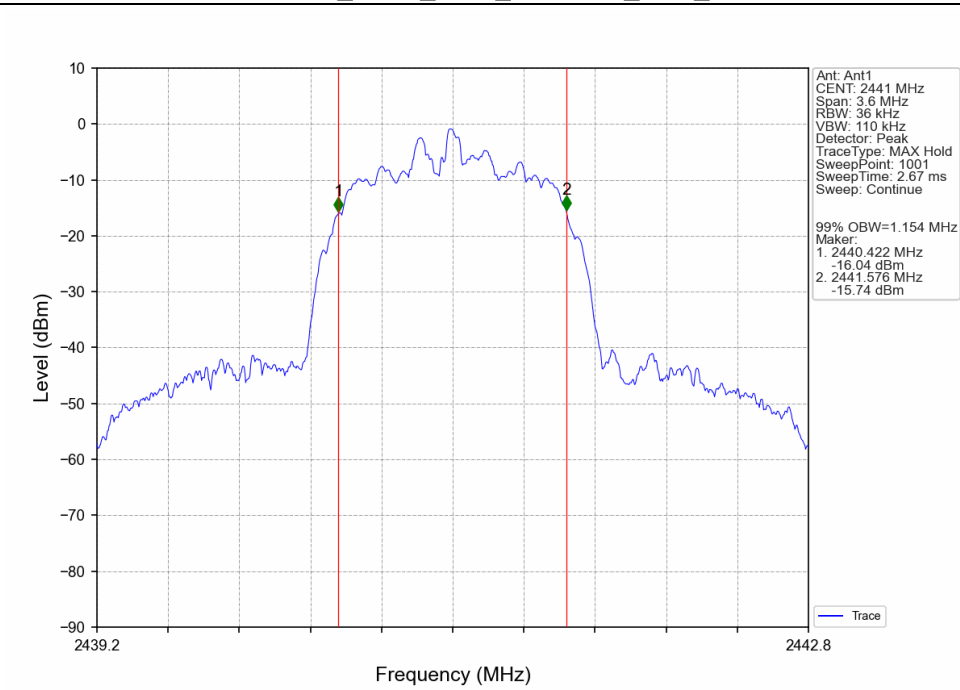
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



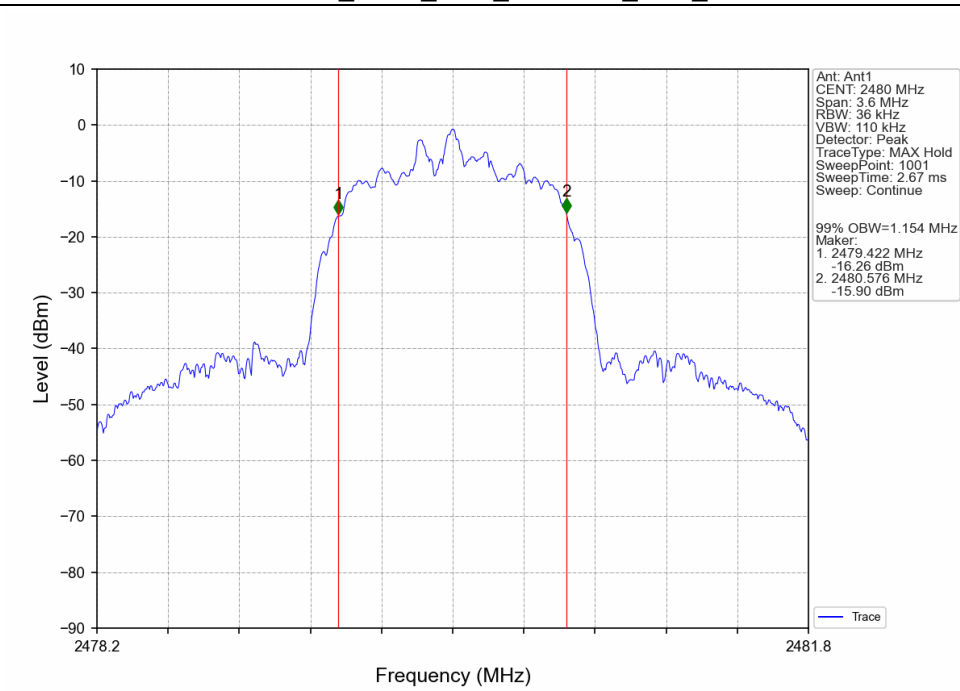
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



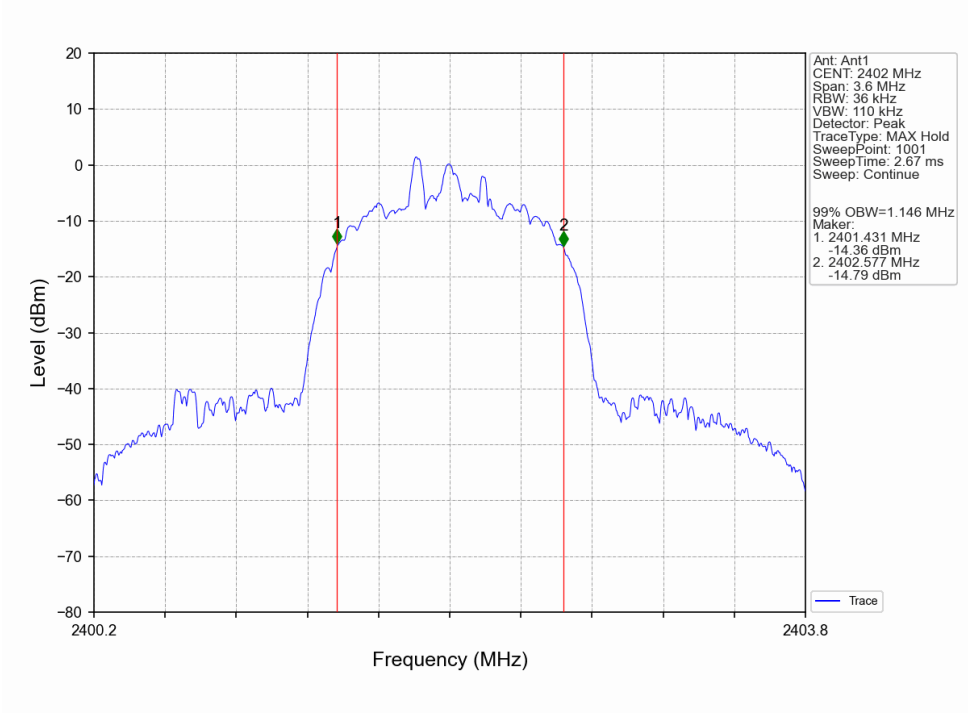
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



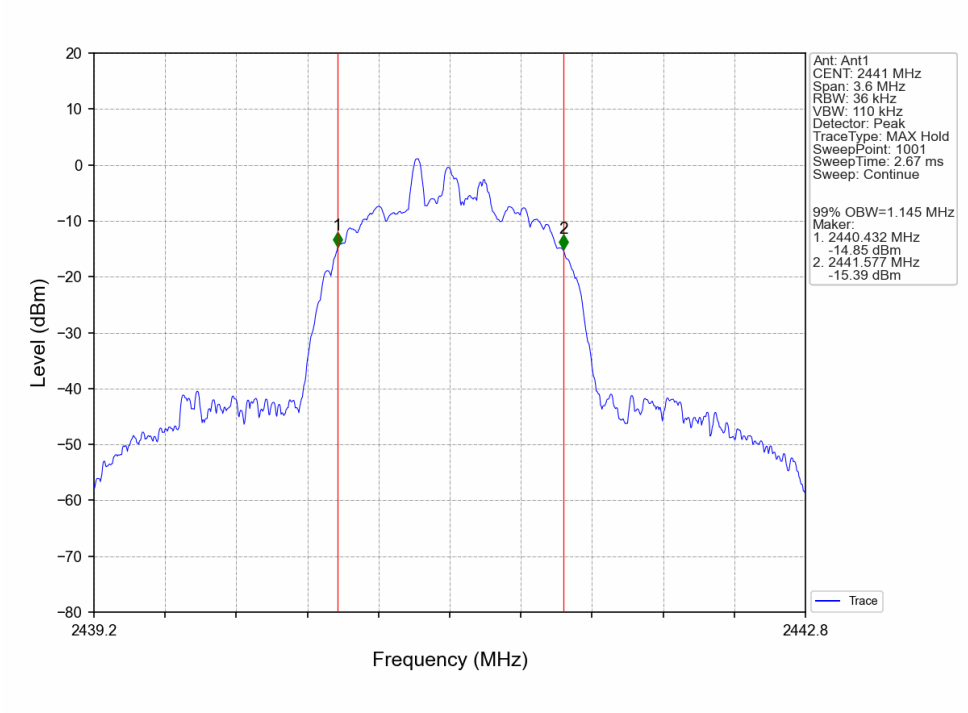
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

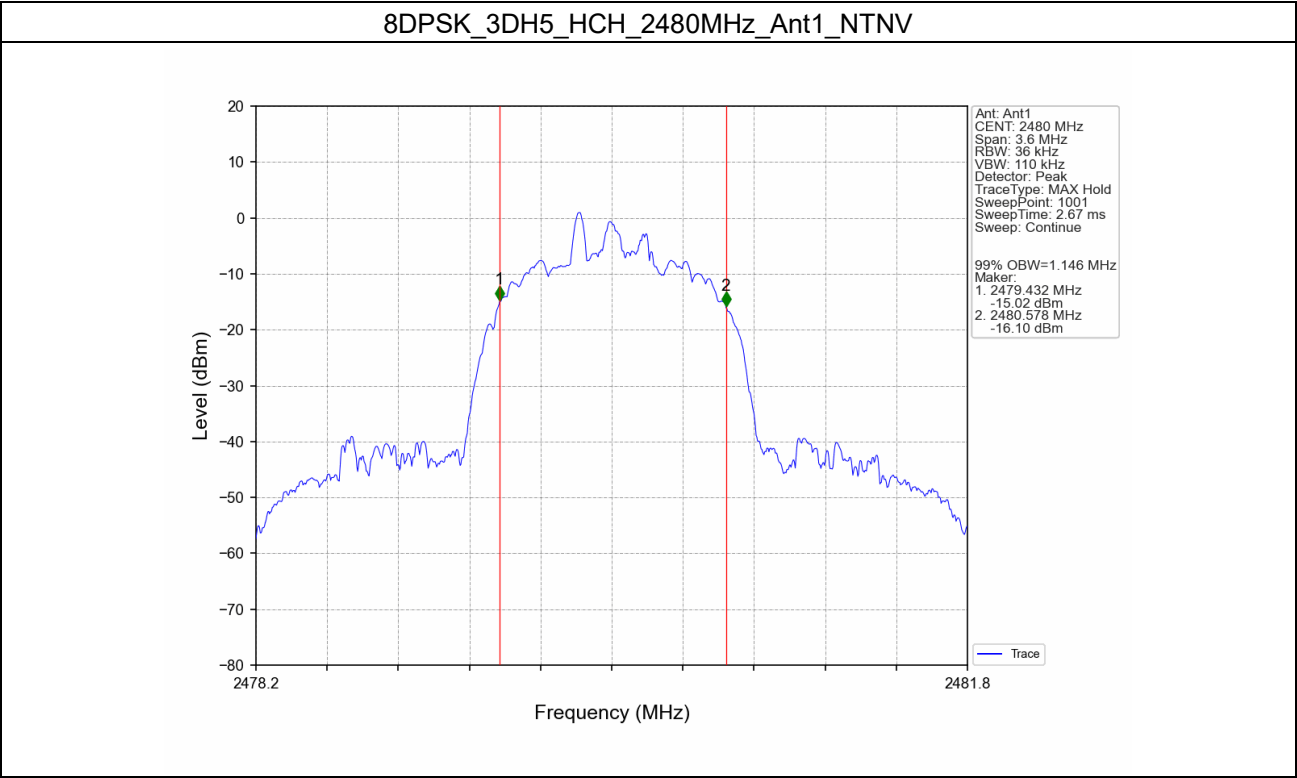


8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV

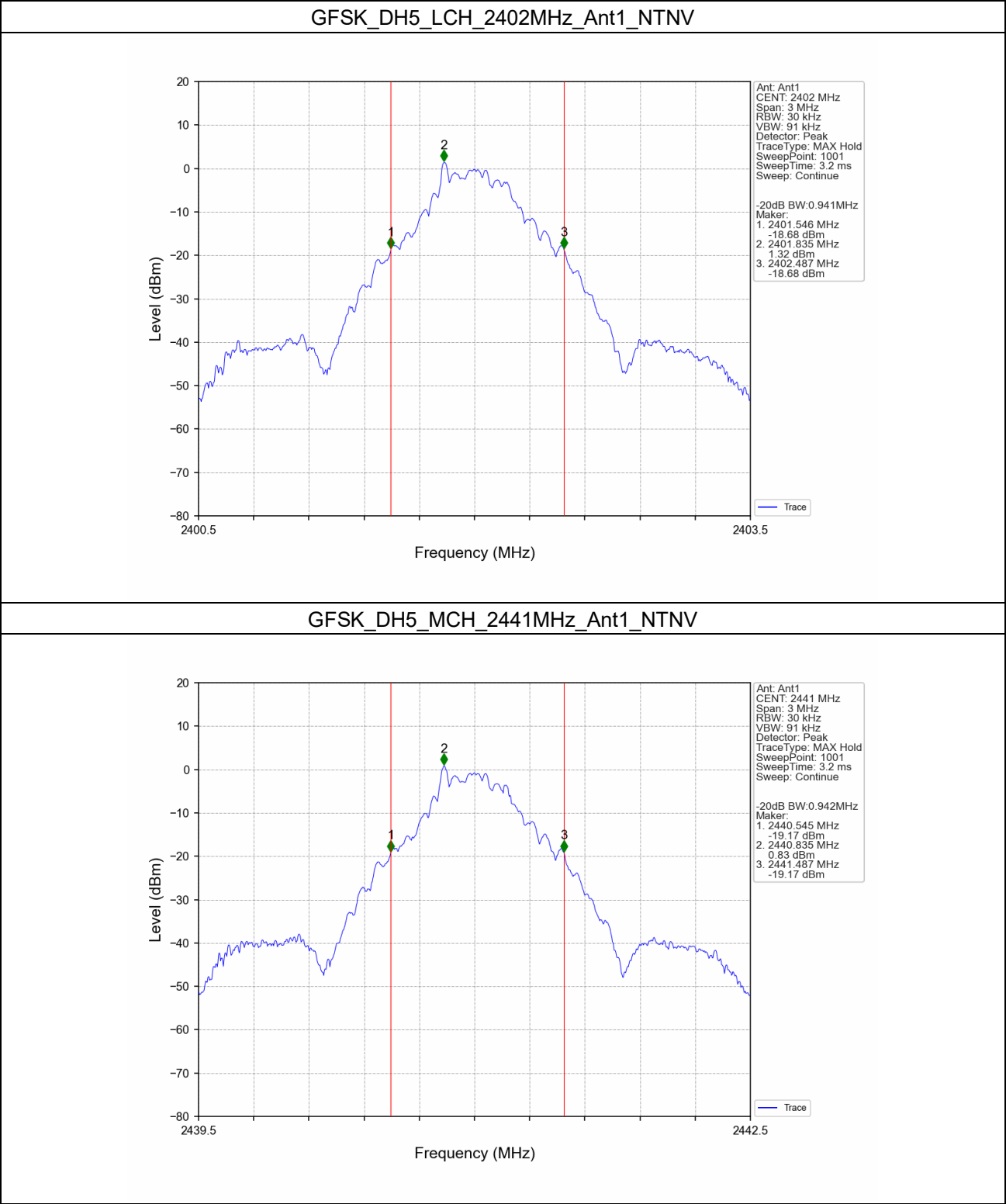


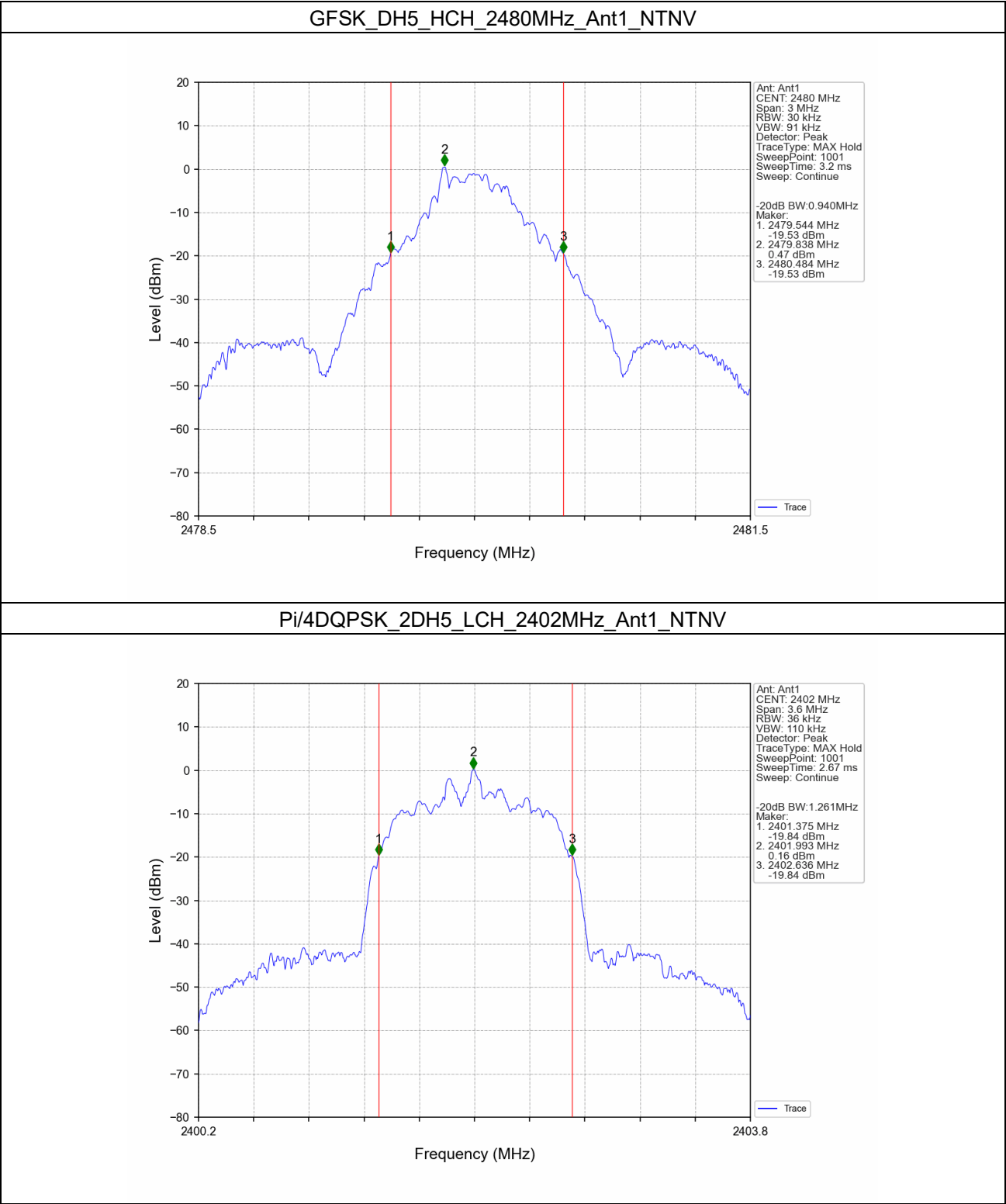
8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



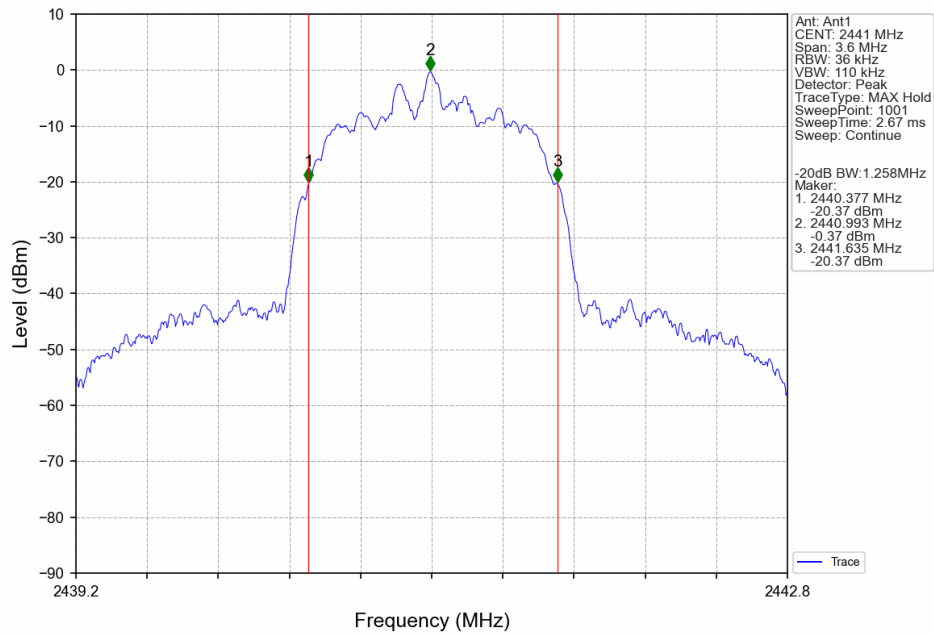


1.2.2 20dB BW

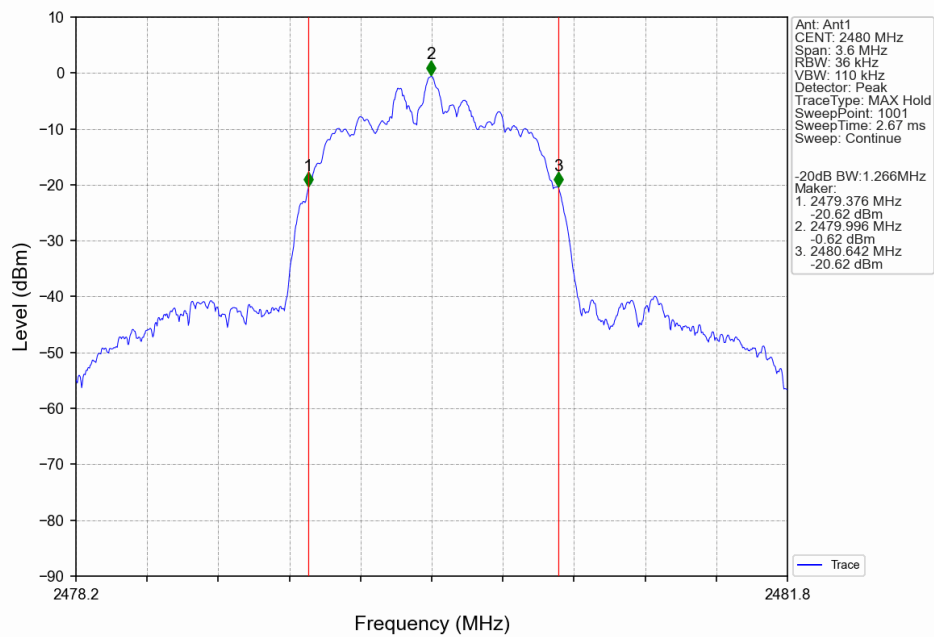


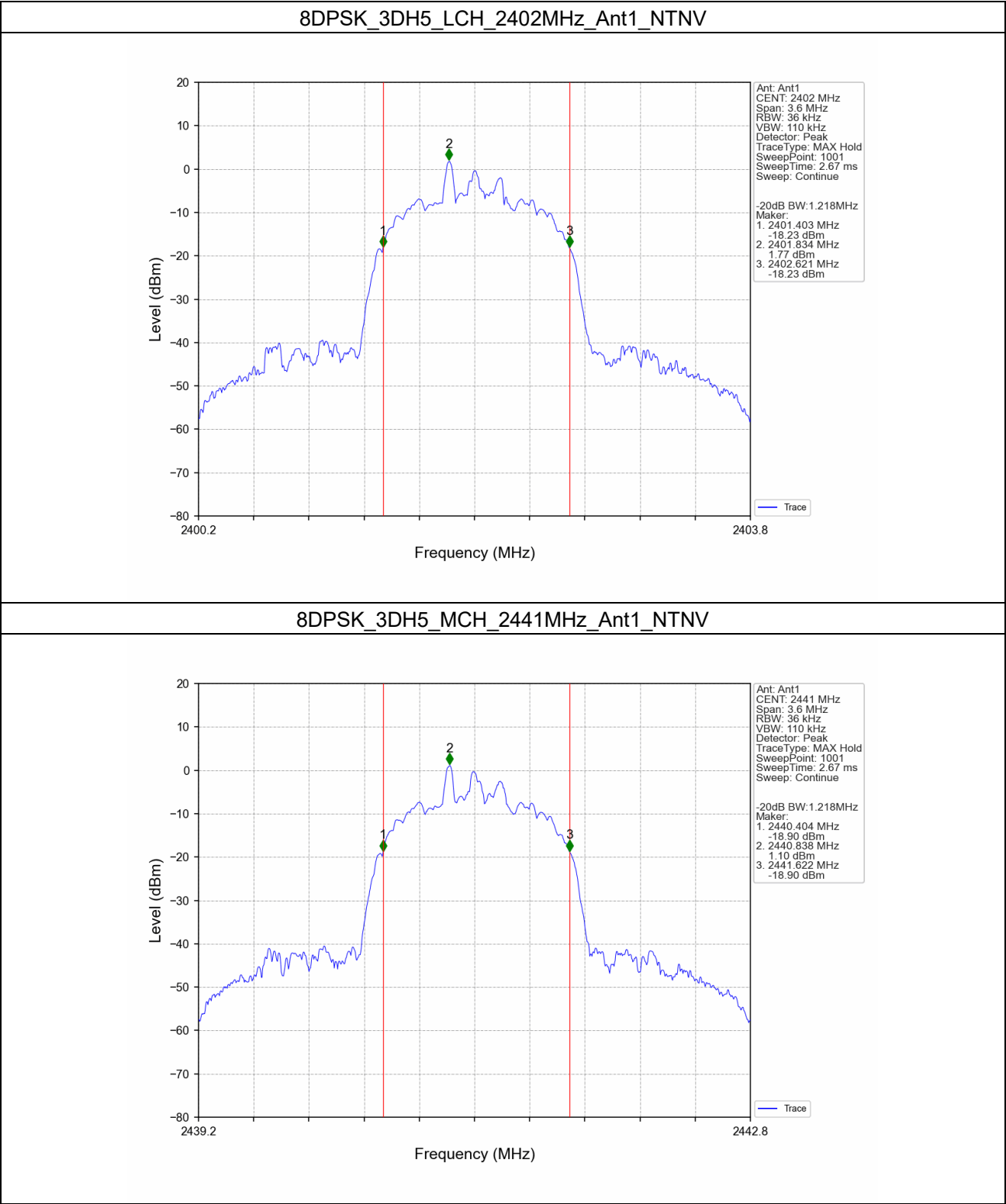


Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV

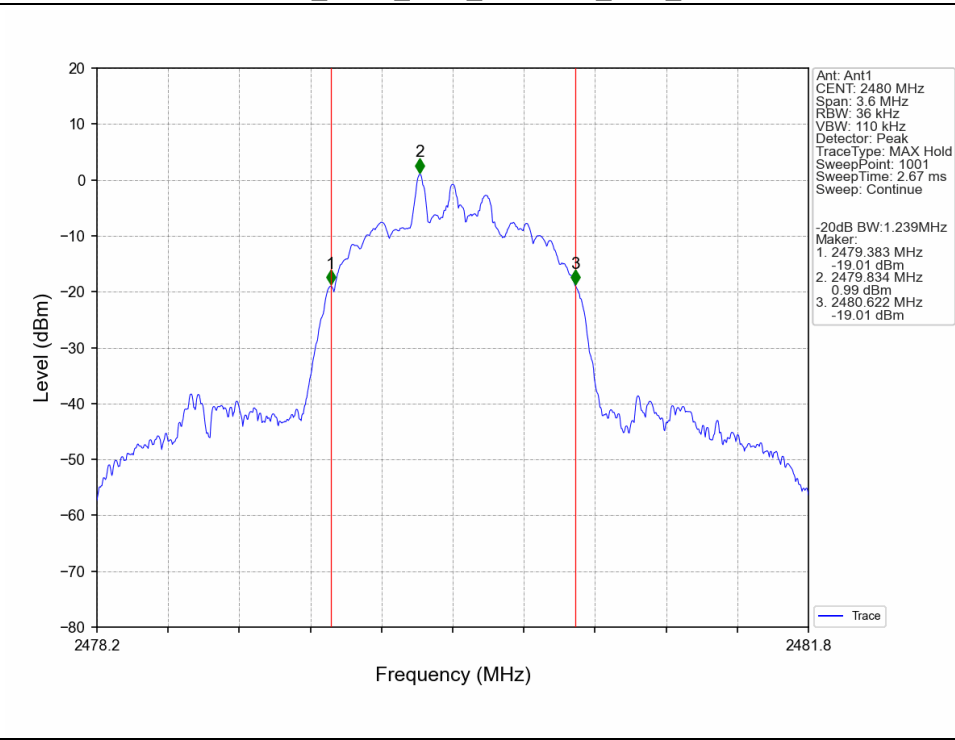


Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV





8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



2. Maximum Conducted Output Power

2.1 Test Result

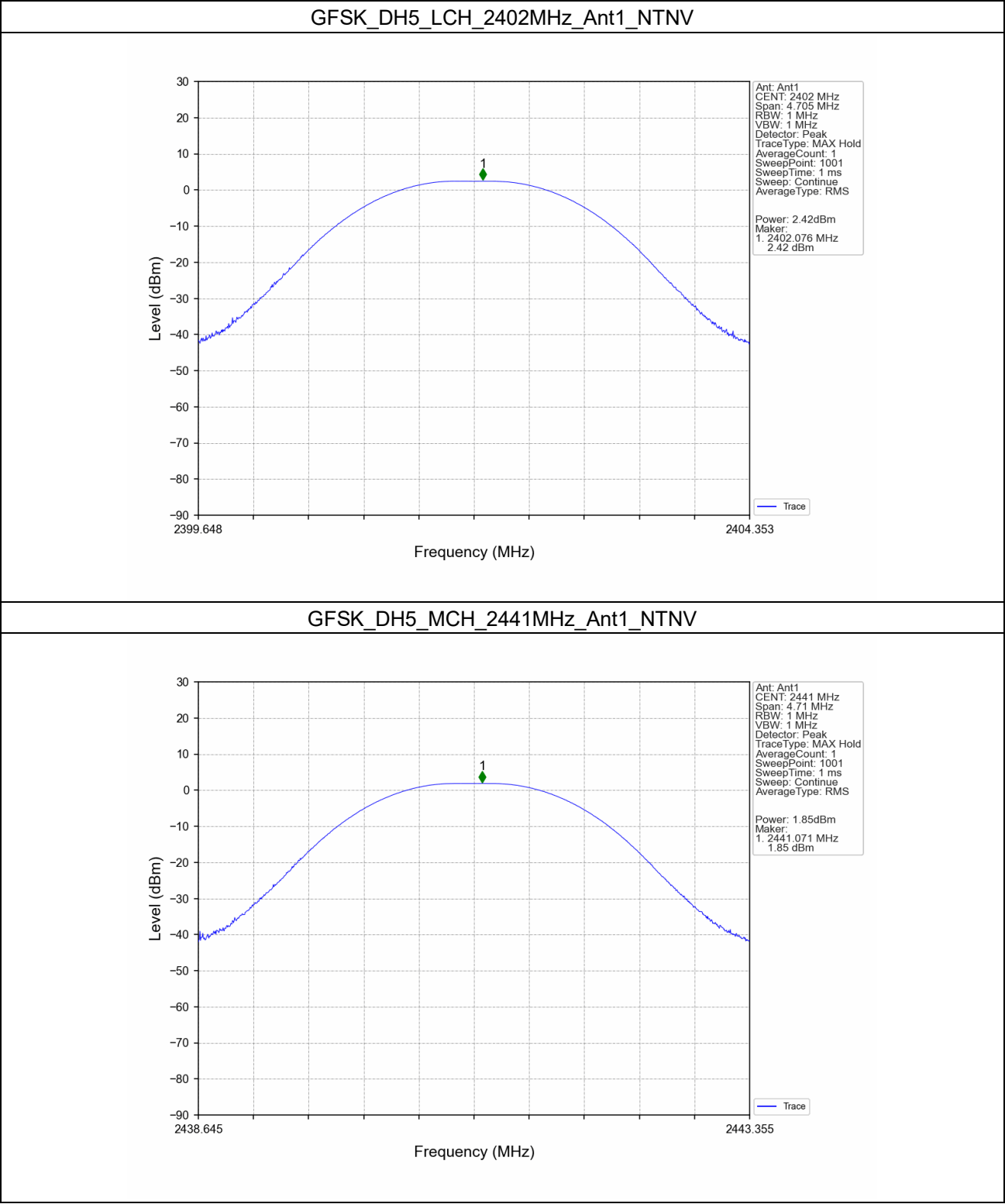
2.1.1 Power

Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	2.42	≤ 30	Pass
		2441	DH5	1.85	≤ 30	Pass
		2480	DH5	1.66	≤ 30	Pass
Pi/4DQPSK	SISO	2402	2DH5	2.44	≤ 20.97	Pass
		2441	2DH5	1.94	≤ 20.97	Pass
		2480	2DH5	1.74	≤ 20.97	Pass
8DPSK	SISO	2402	3DH5	2.50	≤ 20.97	Pass
		2441	3DH5	2.01	≤ 20.97	Pass
		2480	3DH5	1.82	≤ 20.97	Pass

Note1: Antenna Gain: Ant1: 2.60dBi;

2.2 Test Graph

2.2.1 Power



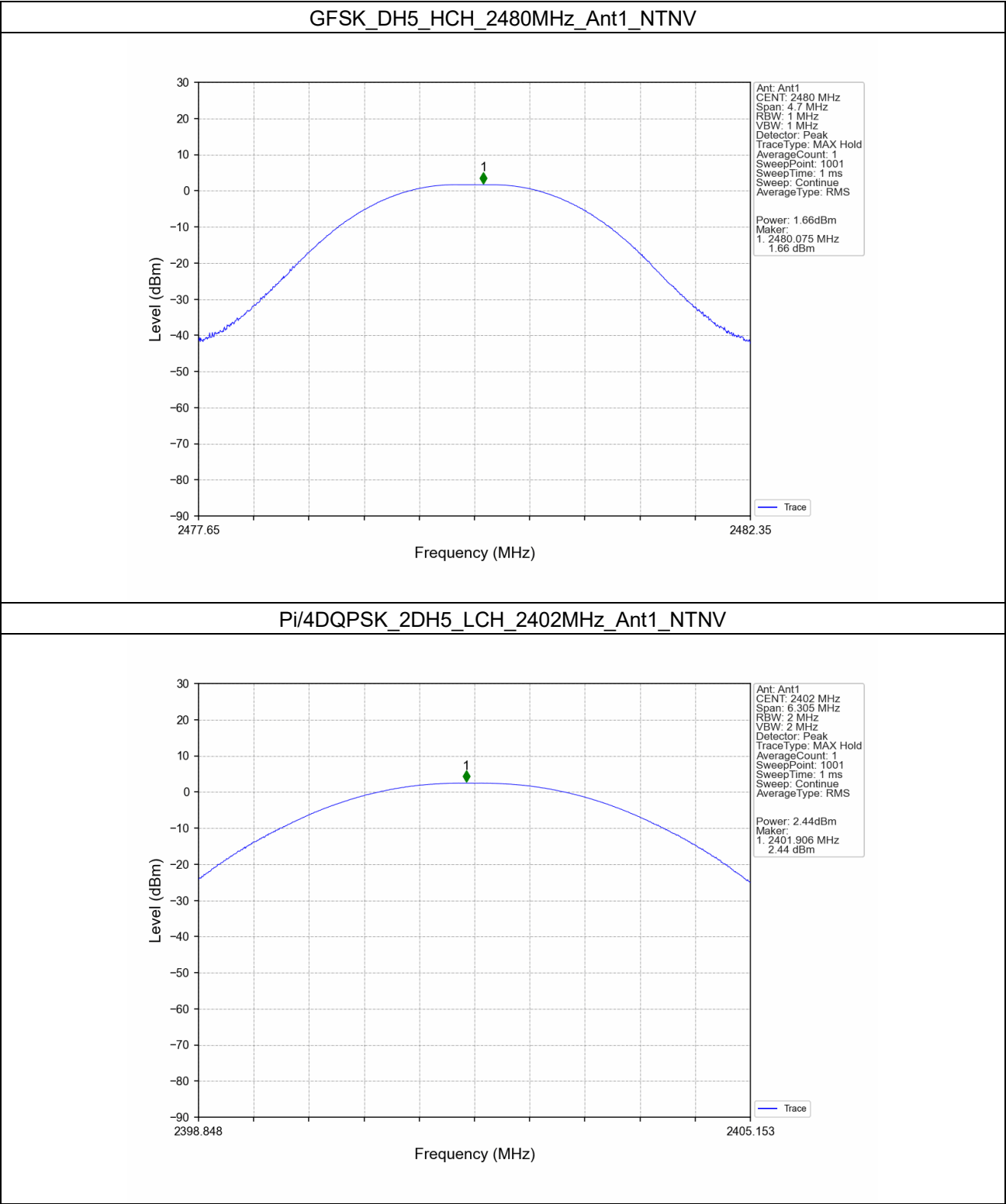


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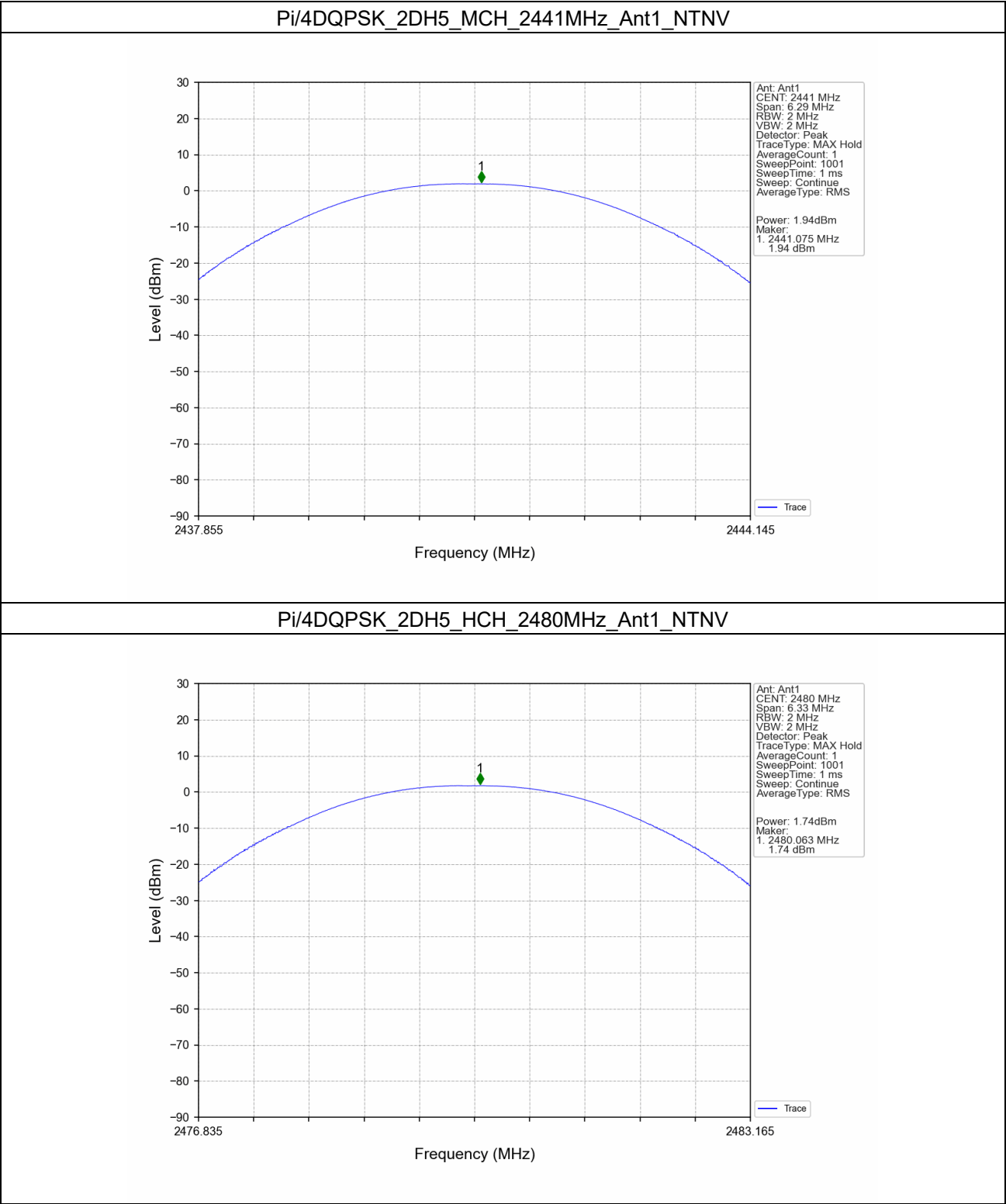


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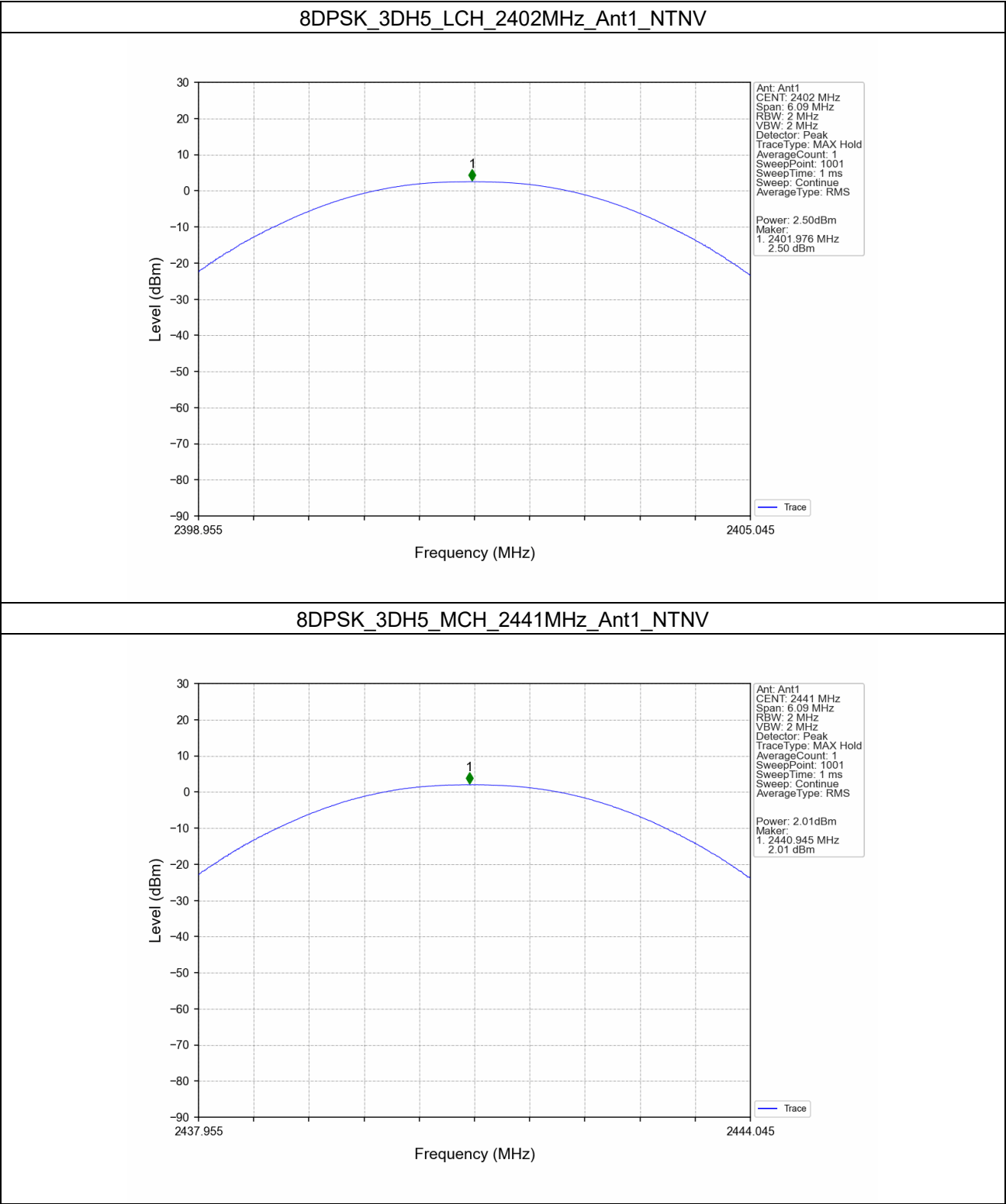


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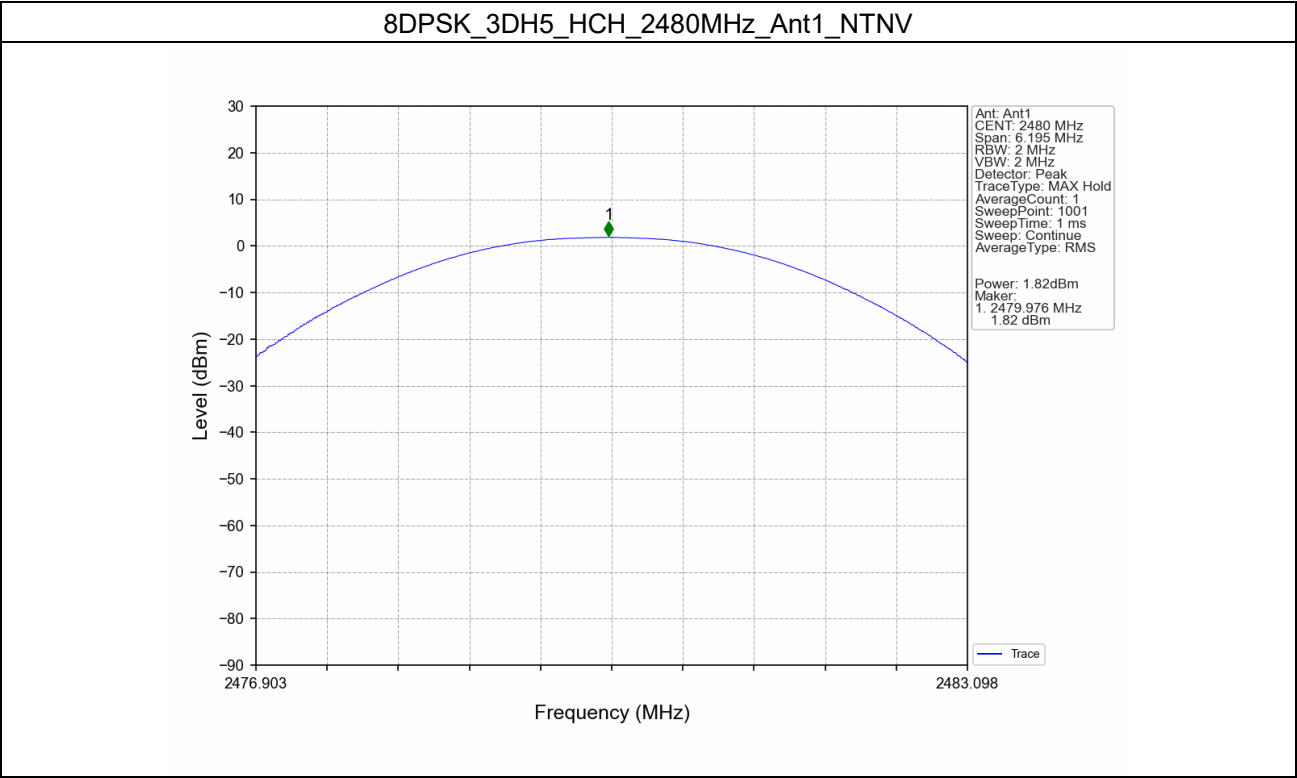


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3. Carrier Frequency Separation

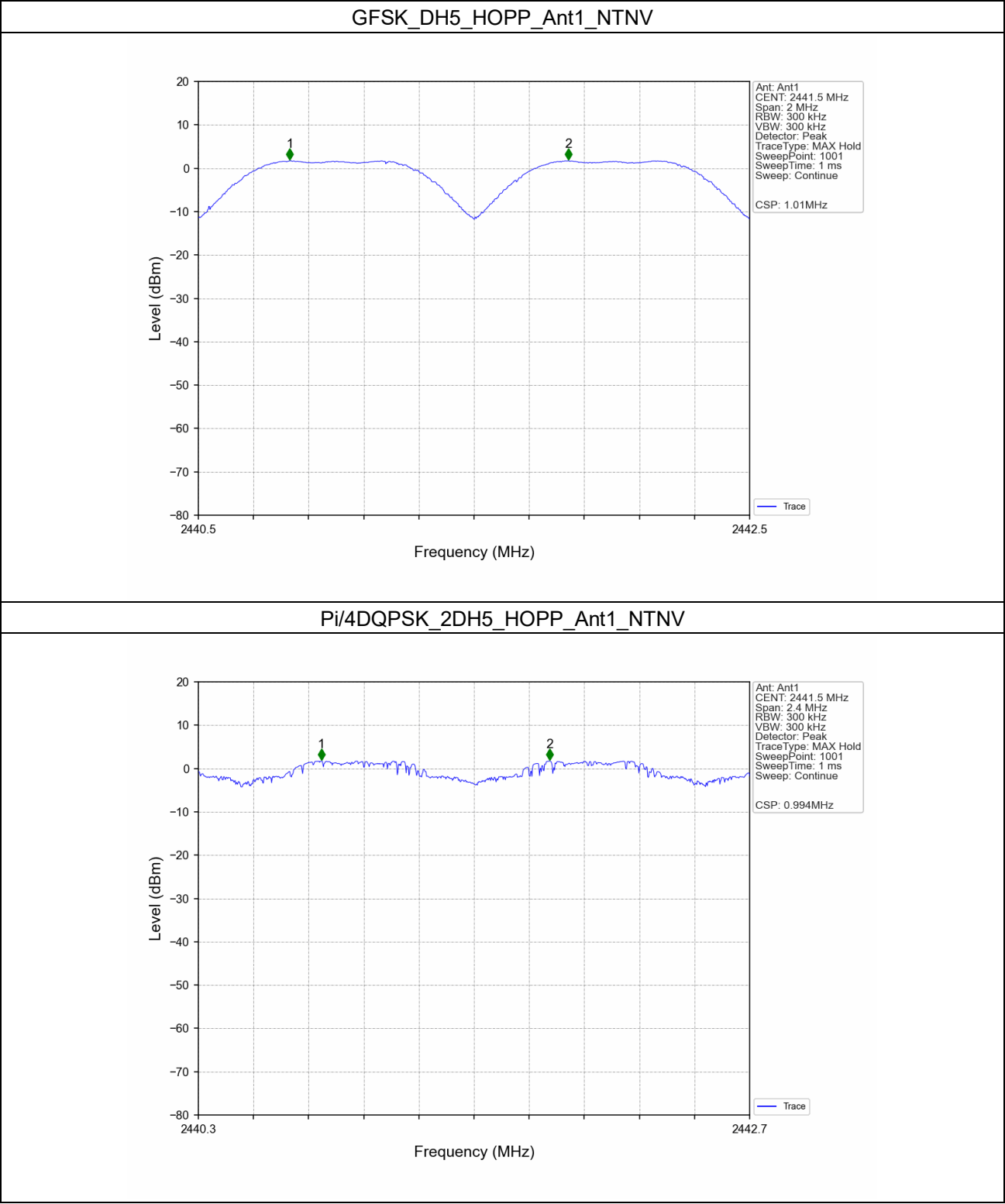
3.1 Test Result

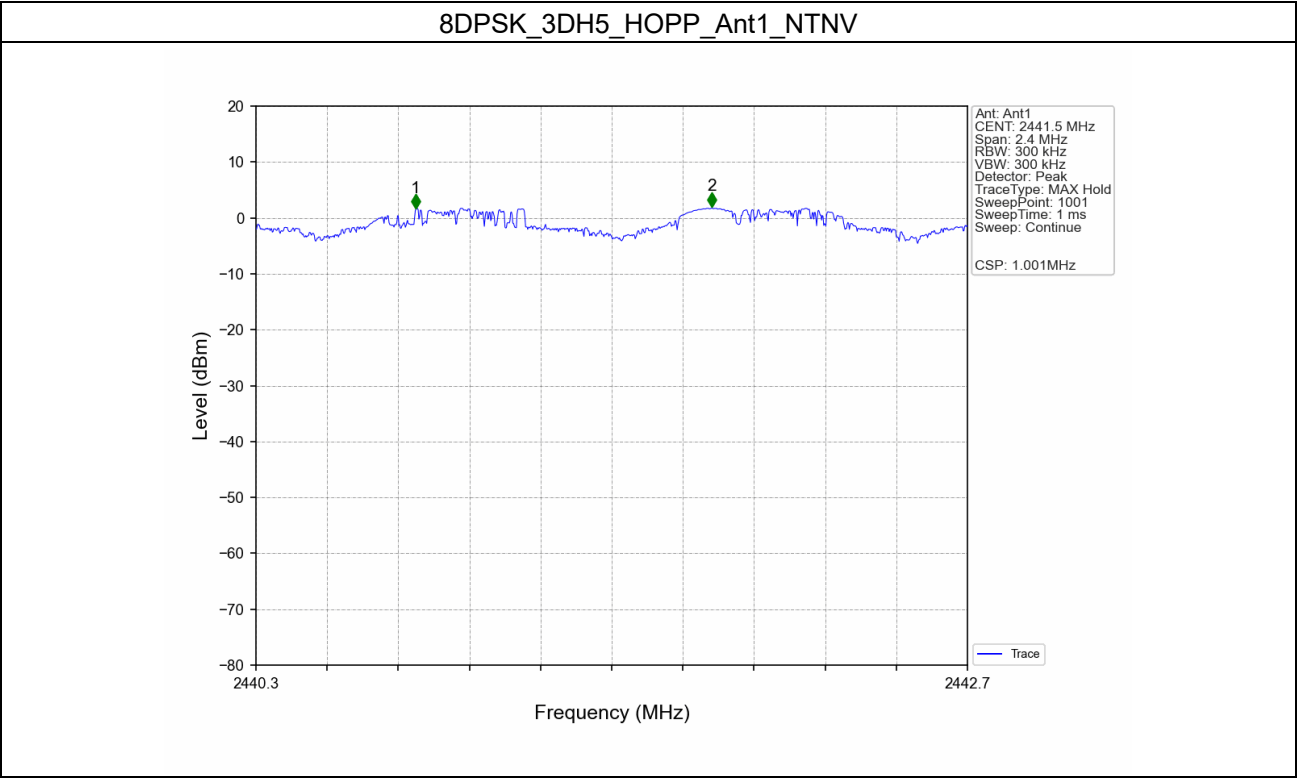
3.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	1.010	0.942	>=0.942	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	0.994	1.266	>=0.844	Pass
8DPSK	SISO	HOPP	3DH5	1.001	1.239	>=0.826	Pass

3.2 Test Graph

3.2.1 Ant1







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4. Number of Hopping Frequencies

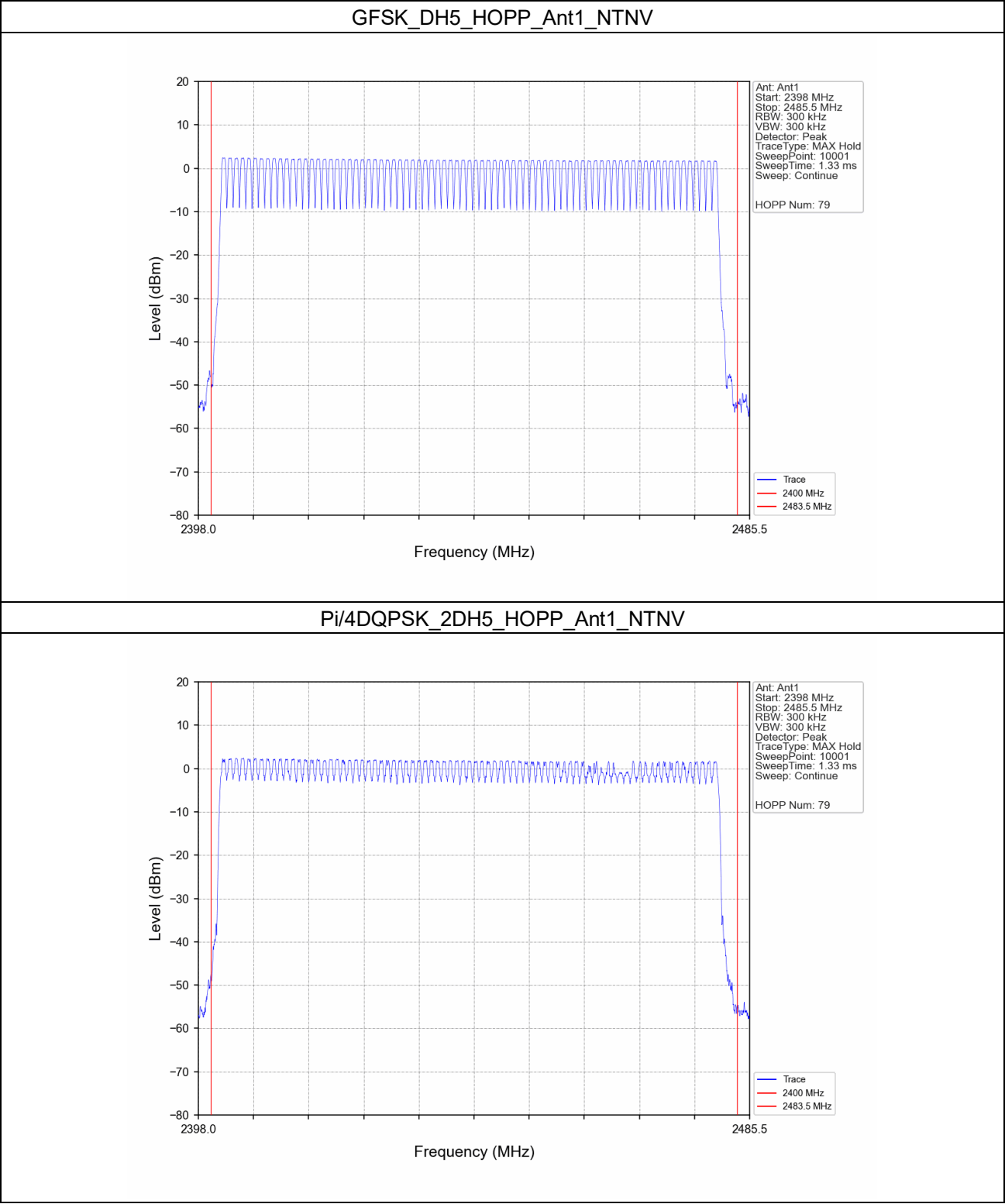
4.1 Test Result

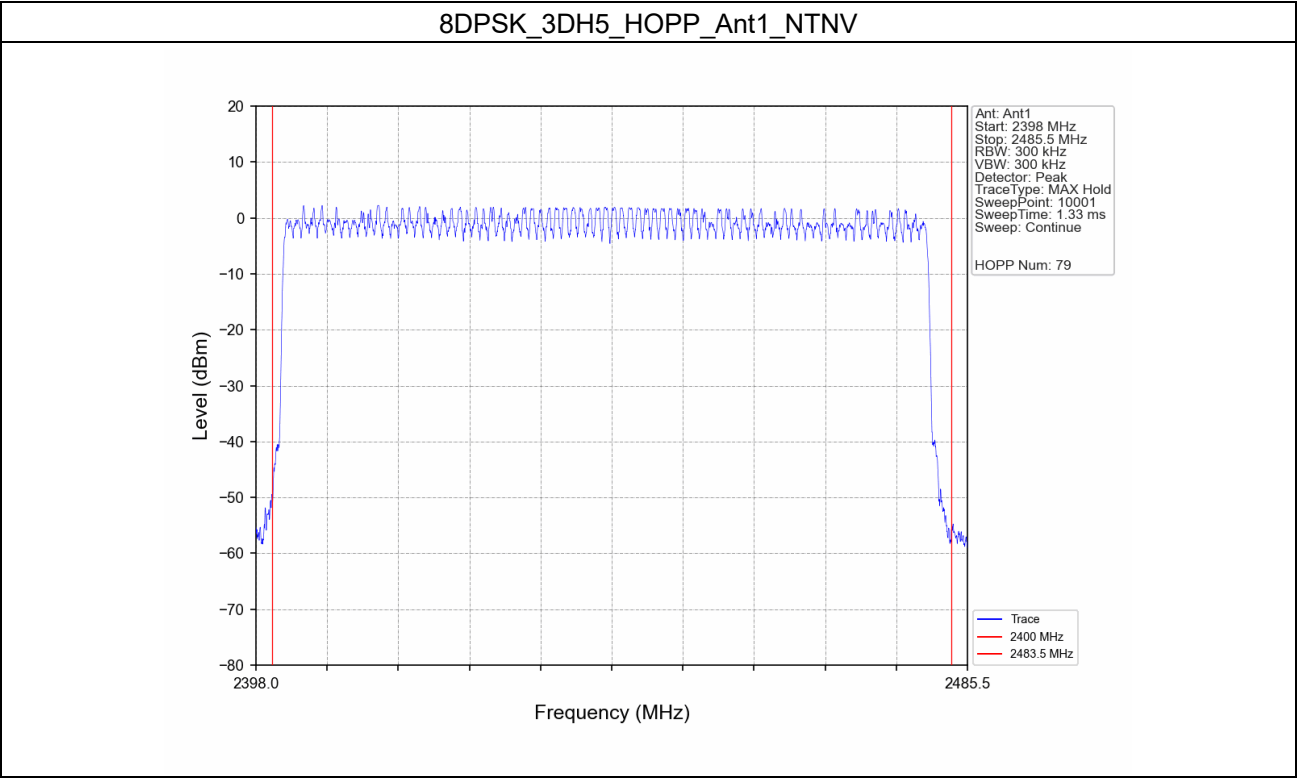
4.1.1 HoppNum

Mode	TX Type	Frequency (MHz)	Packet Type	Num of Hopping Frequencies		Verdict
				ANT1	Limit	
GFSK	SISO	HOPP	DH5	79	>=15	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	79	>=15	Pass
8DPSK	SISO	HOPP	3DH5	79	>=15	Pass

4.2 Test Graph

4.2.1 HoppNum





5. Time of Occupancy (Dwell Time)

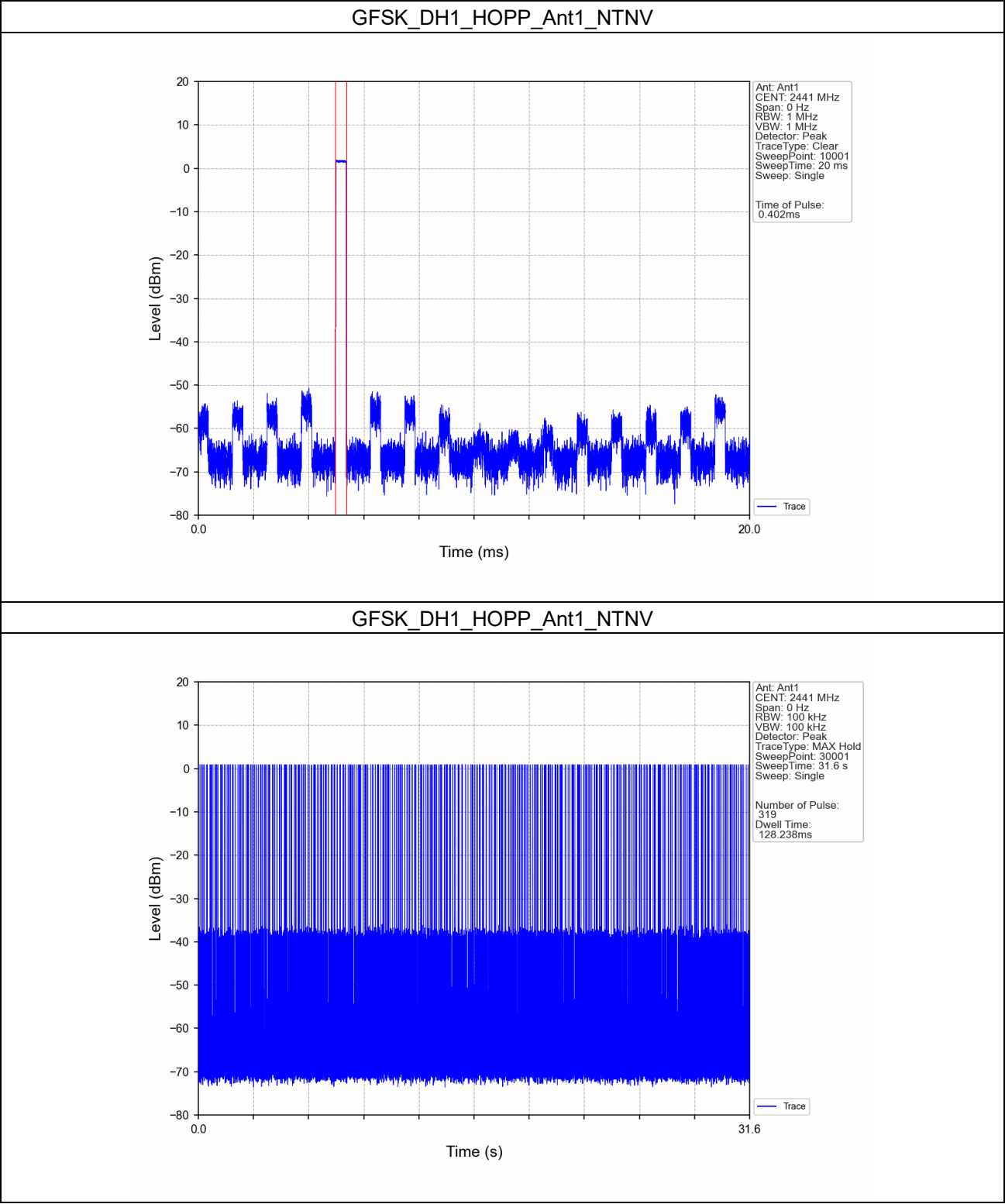
5.1 Test Result

5.1.1 Ant1

Ant1									
Mode	TX Type	Frequency (MHz)	Packet Type	Duration of Single Pulse (ms)	Observation Period (s)	Num of Pulse in Observation Period	Dwell Time (ms)	Limit (ms)	Verdict
GFSK	SISO	HOPP	DH1	0.402	31.600	319	128.238	<=400	Pass
			DH3	1.650	31.600	160	264.000	<=400	Pass
			DH5	2.898	31.600	107	310.086	<=400	Pass
Pi/4DQPSK	SISO	HOPP	2DH1	0.412	31.600	320	131.840	<=400	Pass
			2DH3	1.662	31.600	160	265.920	<=400	Pass
			2DH5	2.910	31.600	108	314.280	<=400	Pass
8DPSK	SISO	HOPP	3DH1	0.410	31.600	319	130.790	<=400	Pass
			3DH3	1.660	31.600	159	263.940	<=400	Pass
			3DH5	2.912	31.600	106	308.672	<=400	Pass

5.2 Test Graph

5.2.1 Ant1



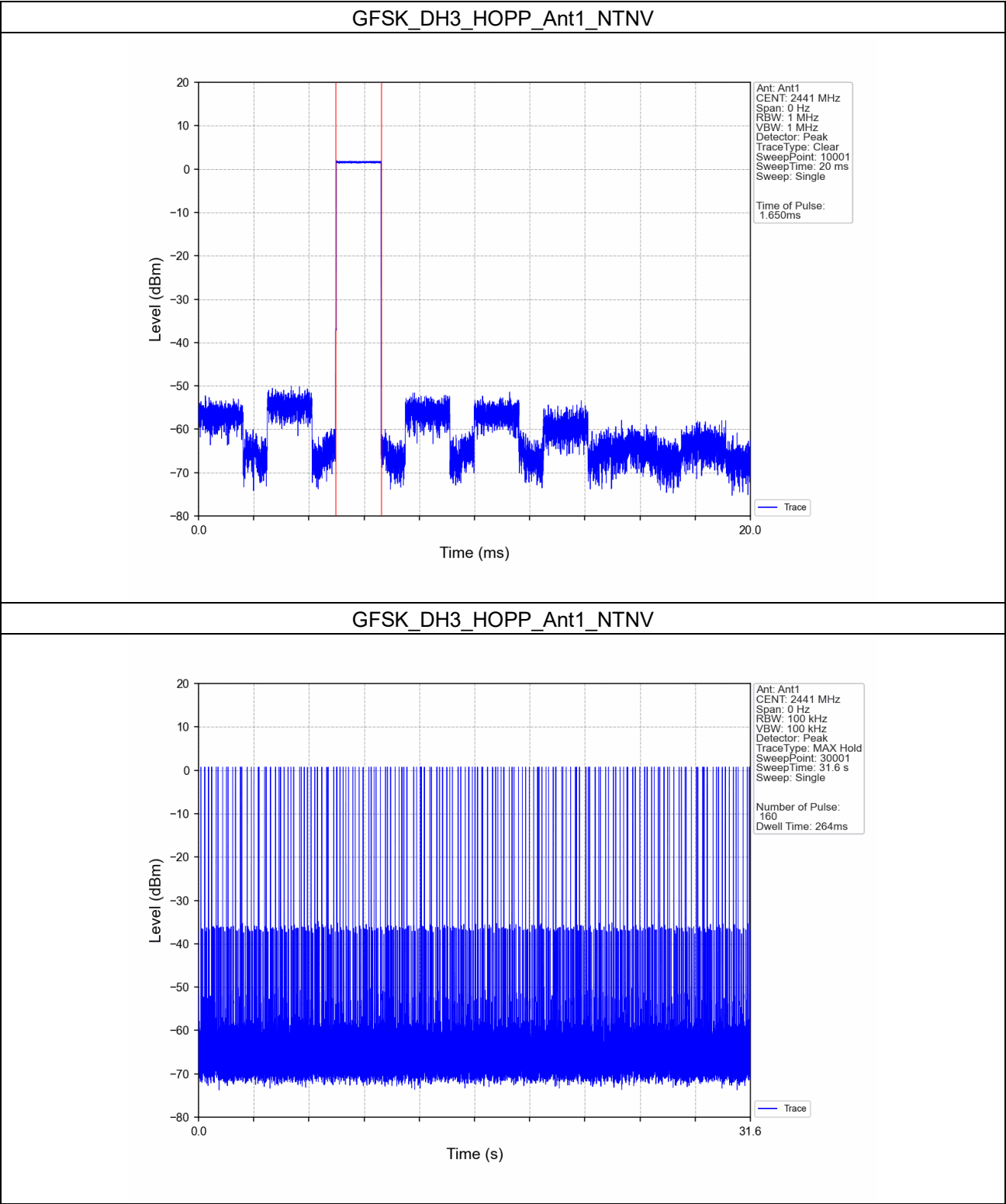


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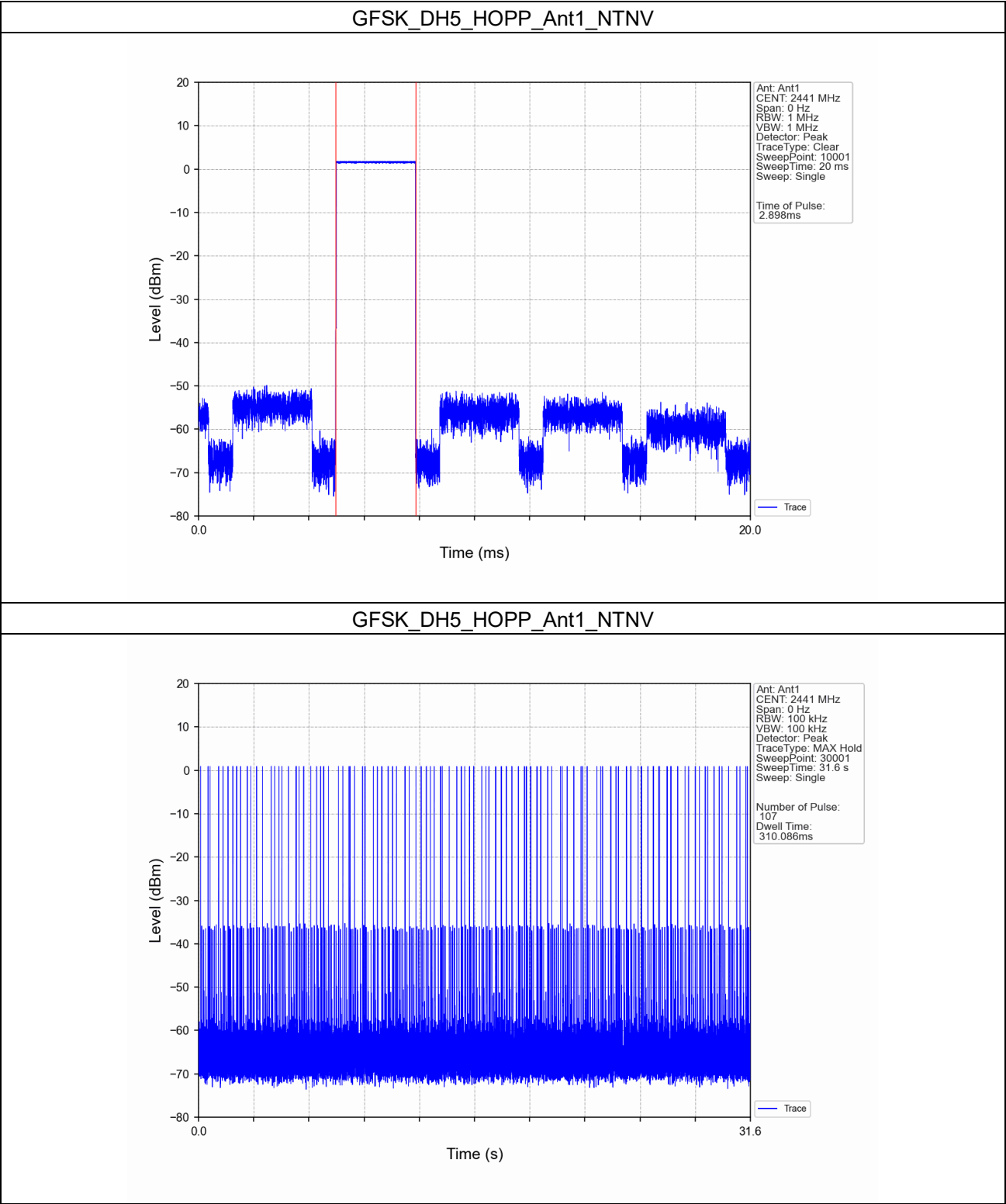


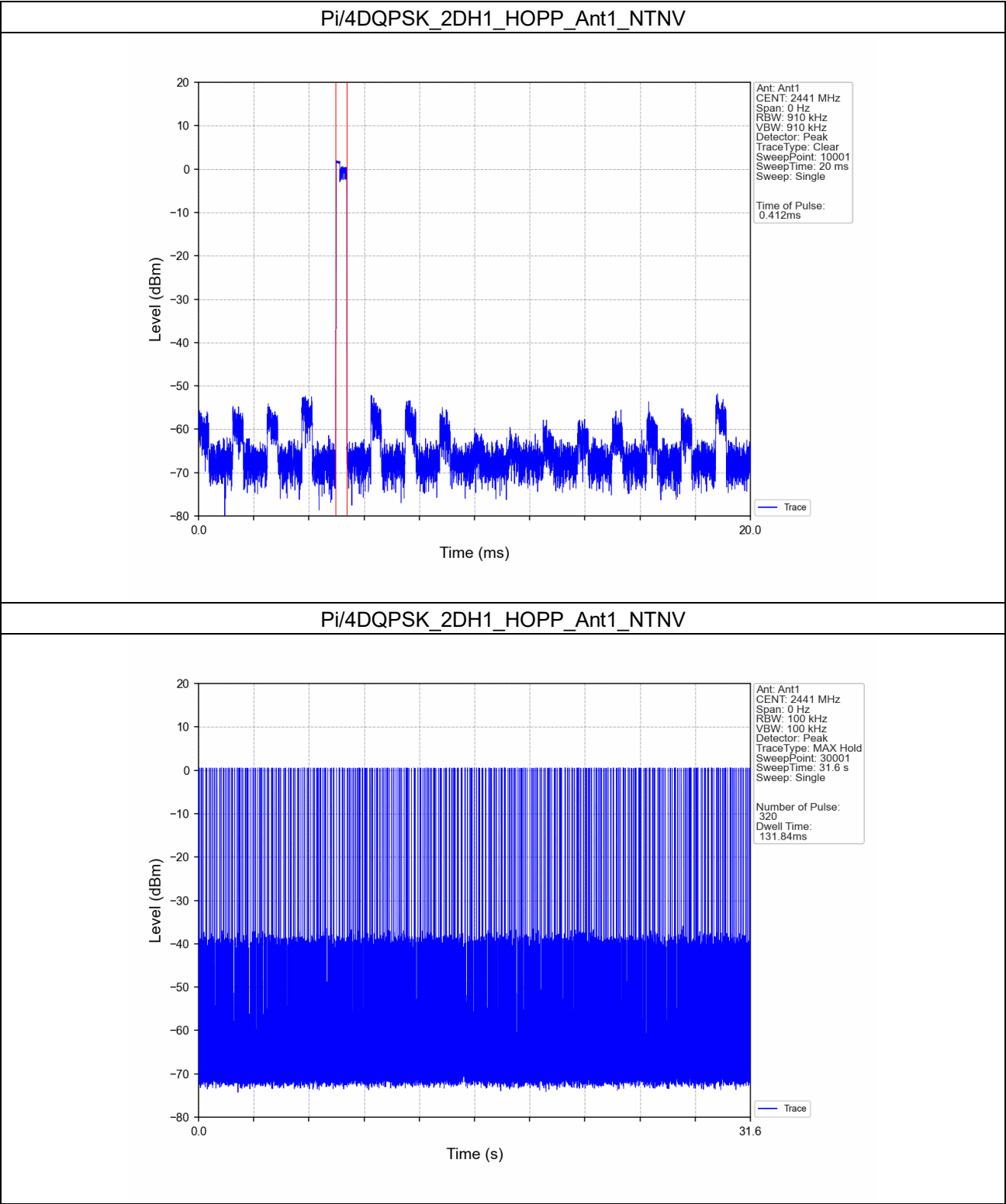
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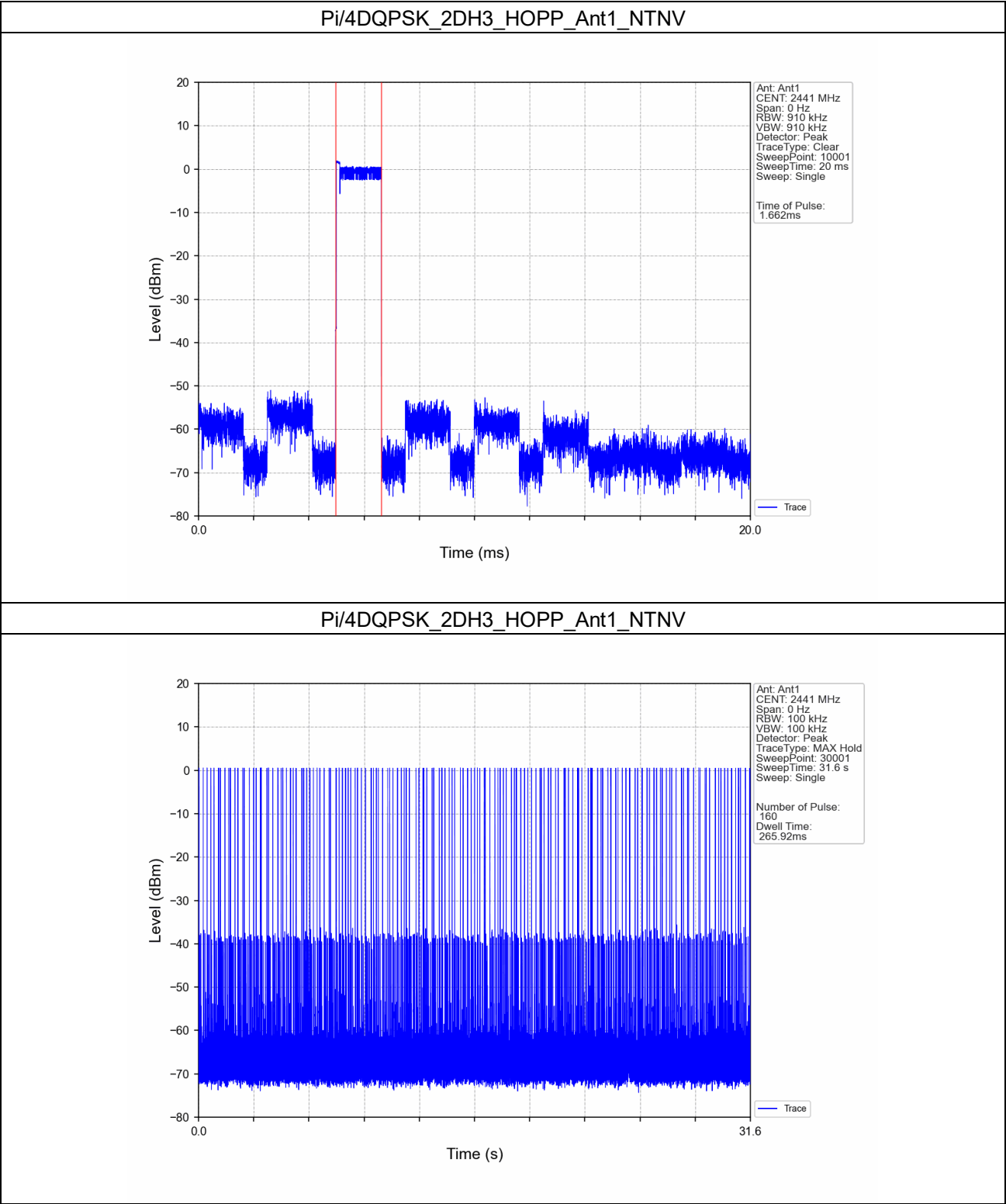


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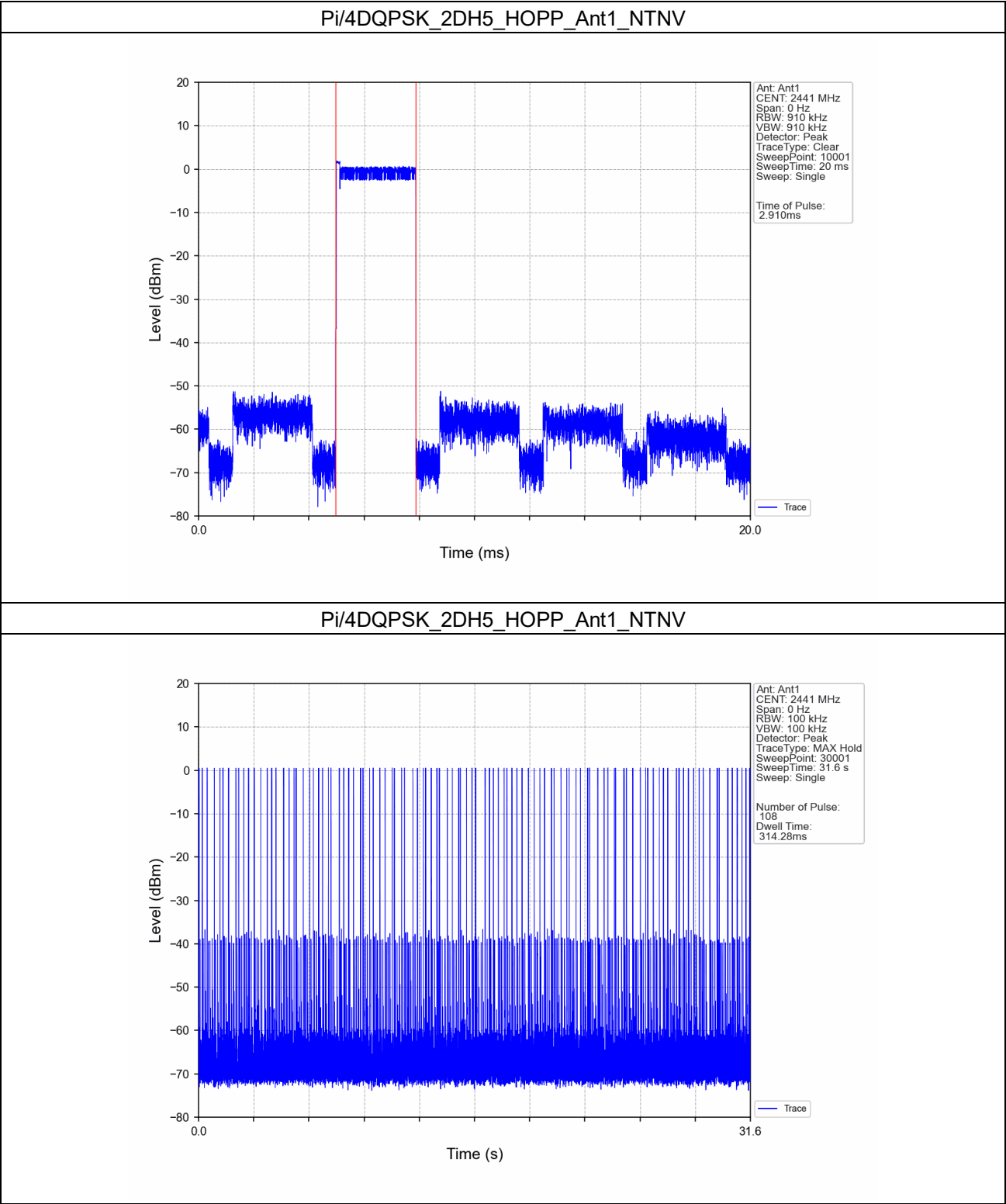


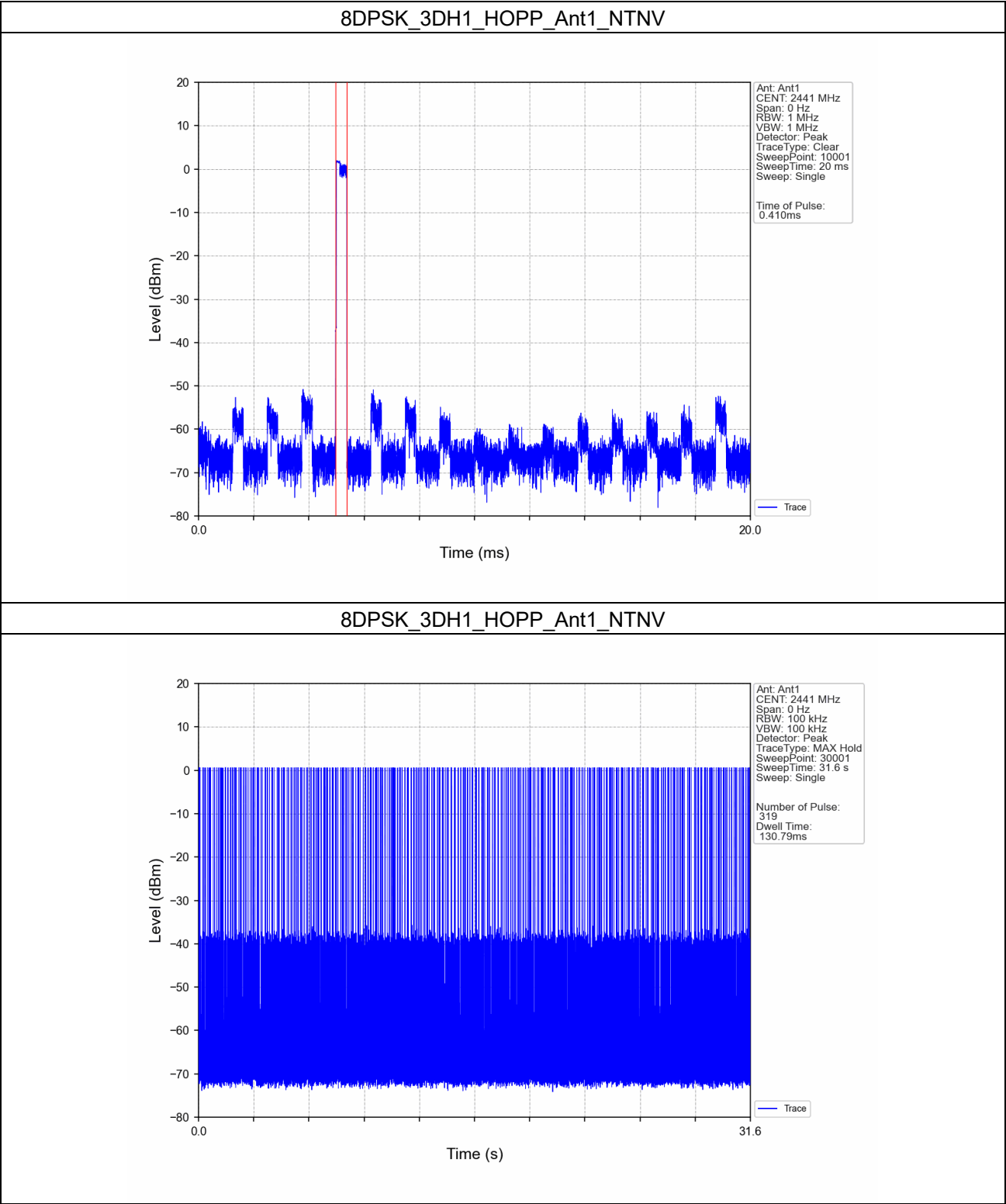
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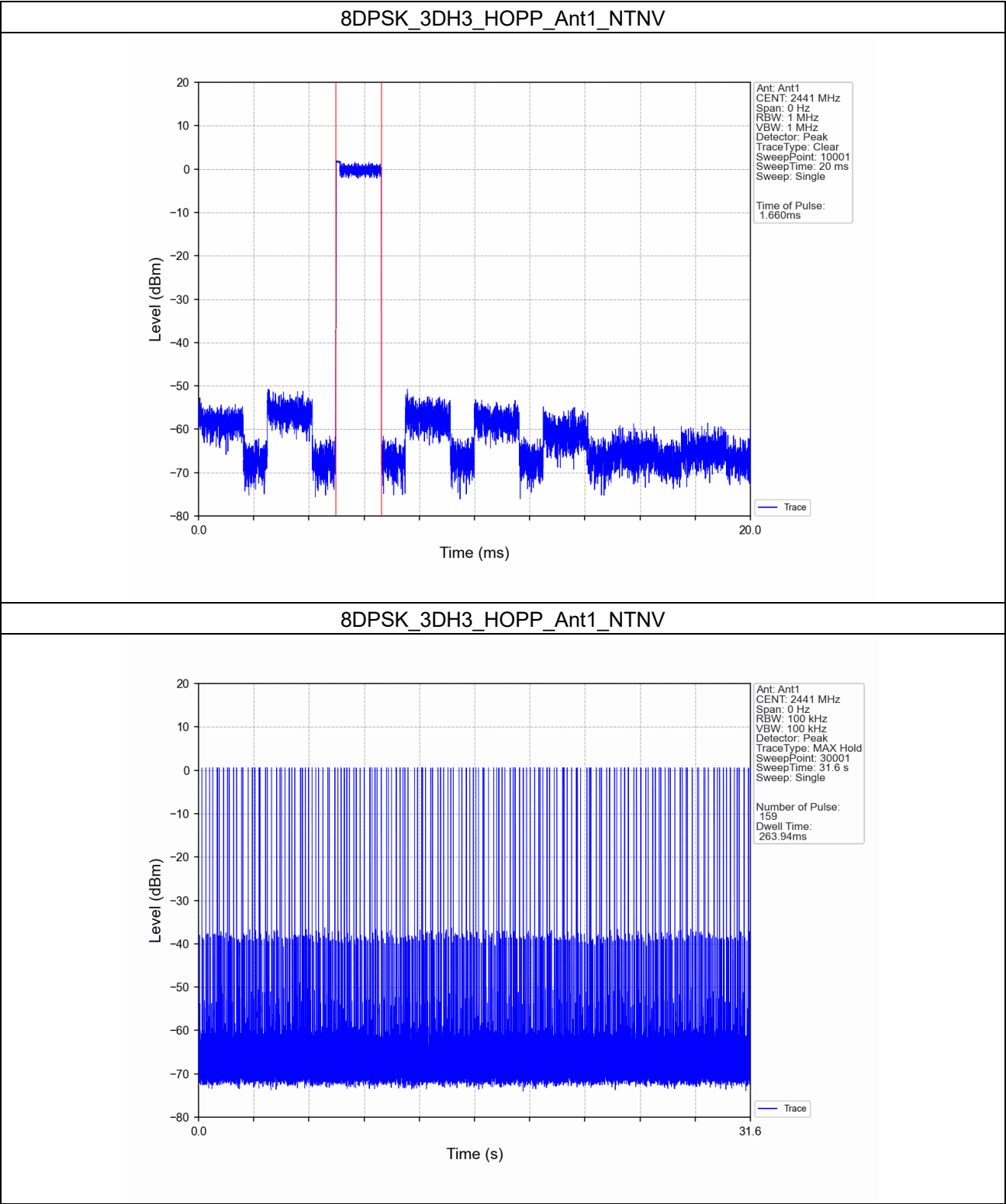


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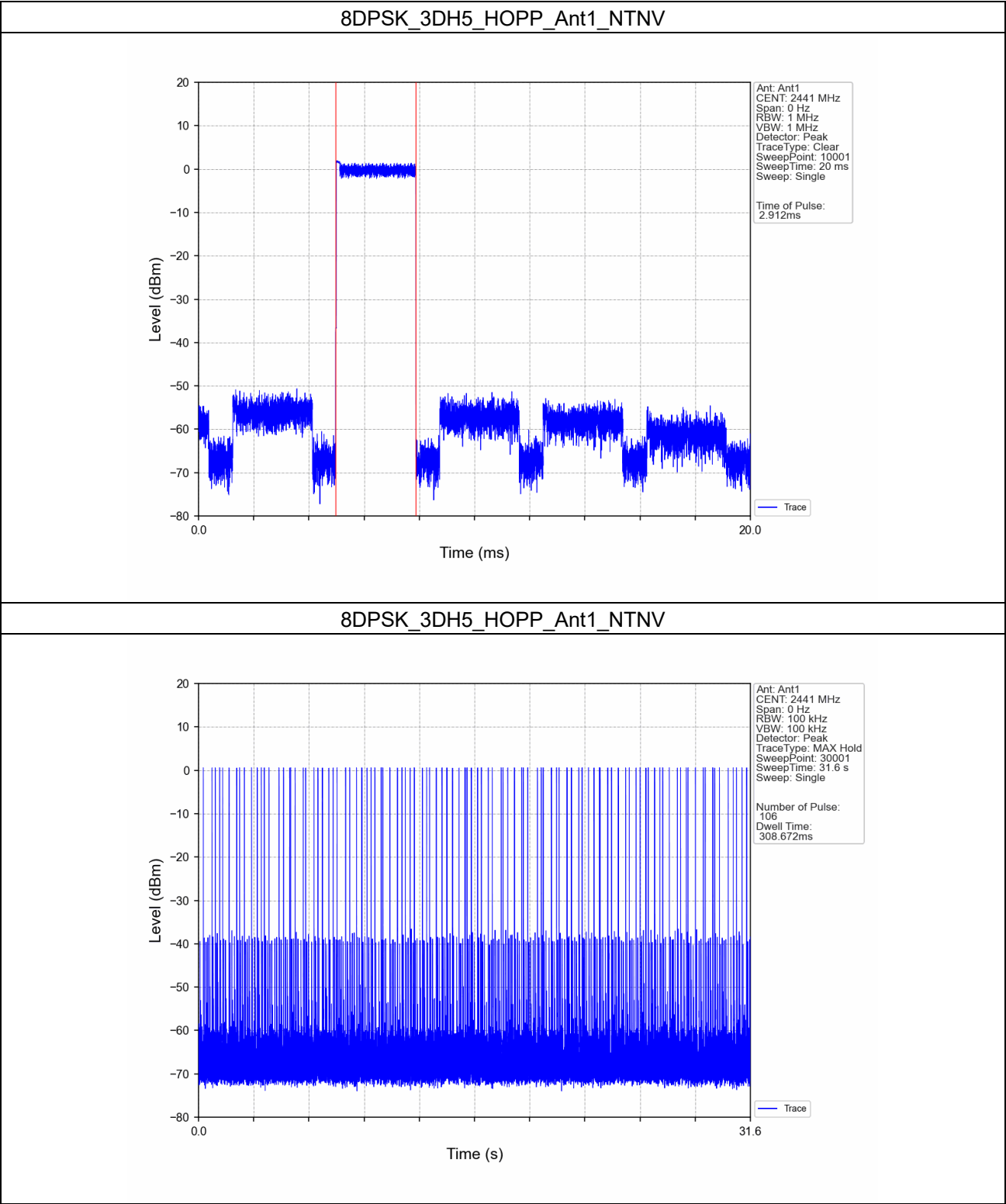


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6. Unwanted Emissions In Non-restricted Frequency Bands

6.1 Test Result

6.1.1 Ref

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	2.19
		2441	DH5	1	1.63
		2480	DH5	1	1.43
Pi/4DQPSK	SISO	2402	2DH5	1	1.90
		2441	2DH5	1	1.43
		2480	2DH5	1	1.24
8DPSK	SISO	2402	3DH5	1	2.16
		2441	3DH5	1	1.56
		2480	3DH5	1	1.42

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

6.1.2 CSE

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	2.19	-17.81	Pass
		2441	DH5	1	2.19	-17.81	Pass
		2480	DH5	1	2.19	-17.81	Pass
		HOPP	DH5	1	2.19	-17.81	Pass
					2.19	-17.81	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.90	-18.10	Pass
		2441	2DH5	1	1.90	-18.10	Pass
		2480	2DH5	1	1.90	-18.10	Pass
		HOPP	2DH5	1	1.90	-18.10	Pass
					1.90	-18.10	Pass
8DPSK	SISO	2402	3DH5	1	2.16	-17.84	Pass
		2441	3DH5	1	2.16	-17.84	Pass
		2480	3DH5	1	2.16	-17.84	Pass
		HOPP	3DH5	1	2.16	-17.84	Pass
					2.16	-17.84	Pass

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.



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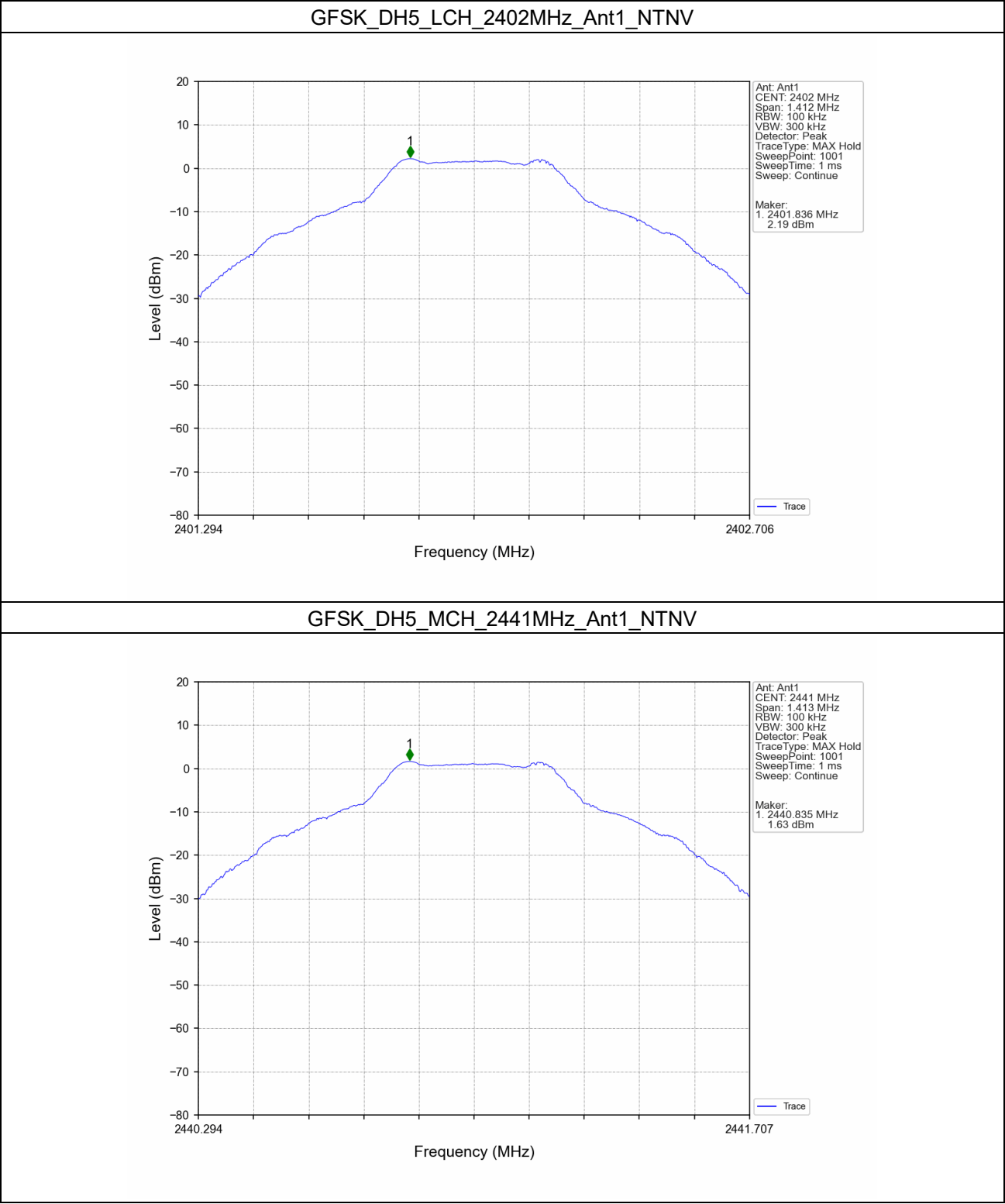
SHEM-TRF-001 Rev. 02 Sep01, 2023

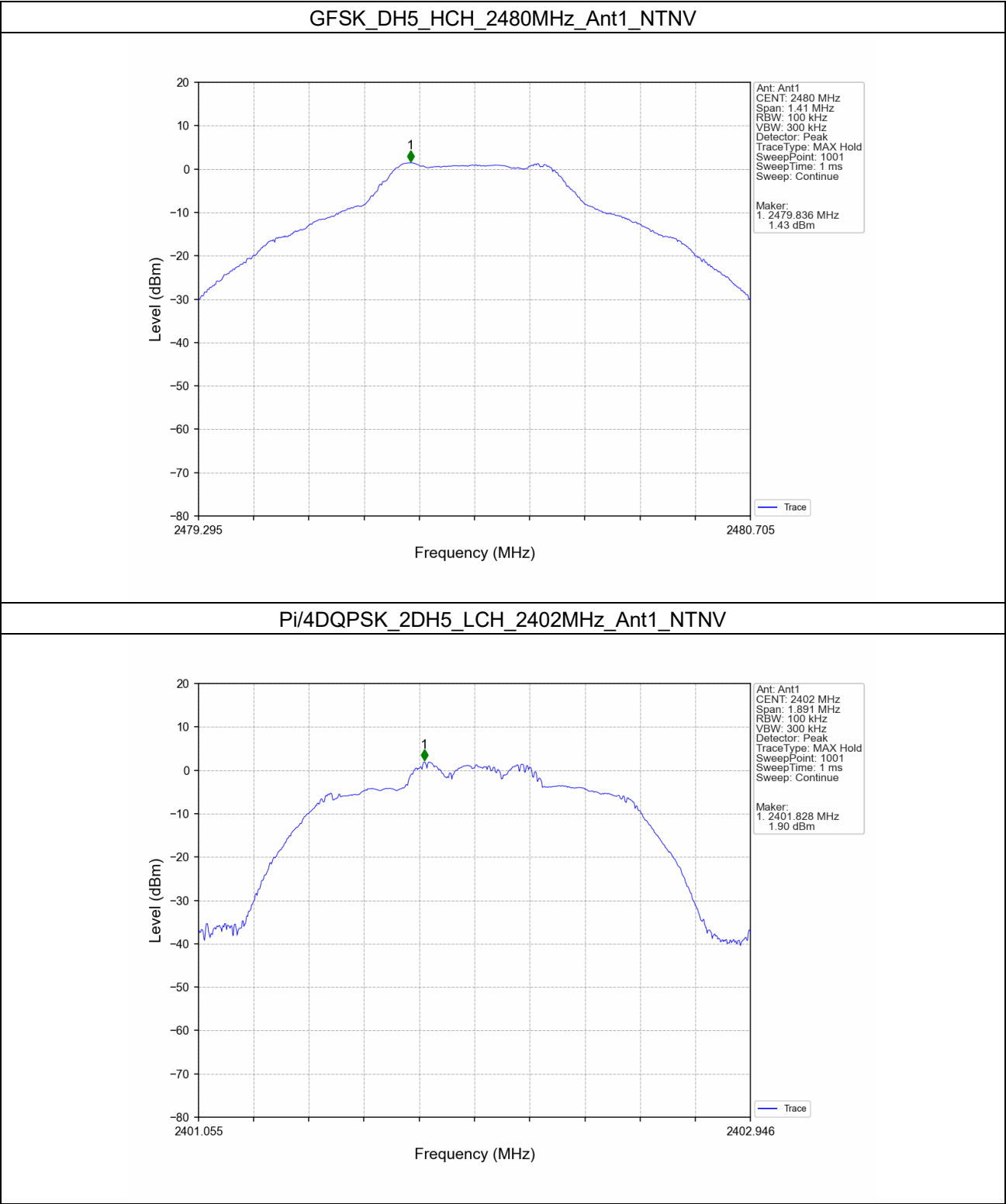
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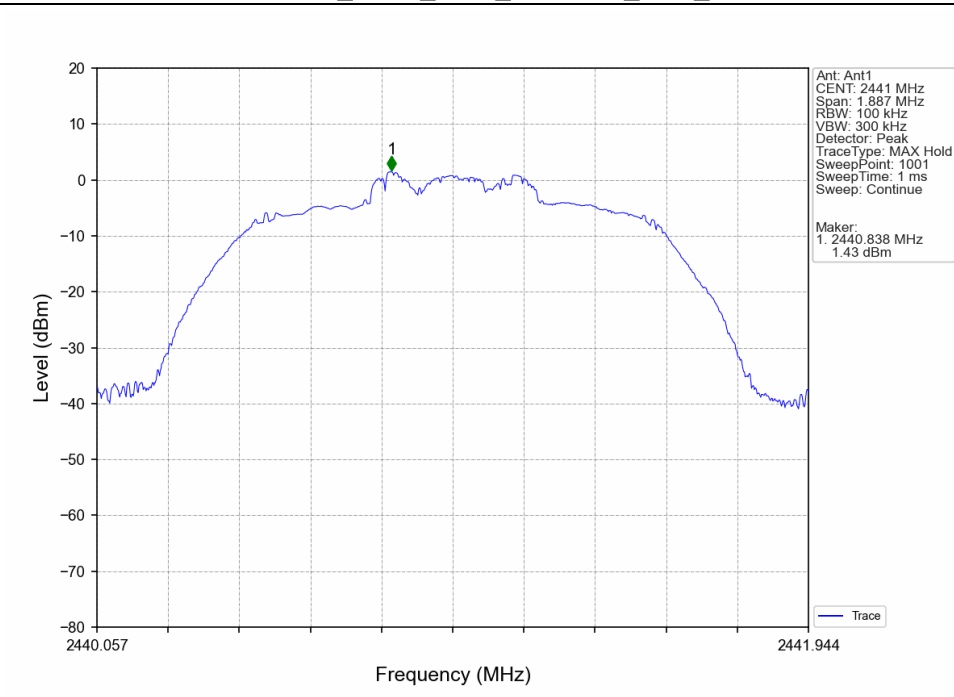
6.2 Test Graph

6.2.1 Ref

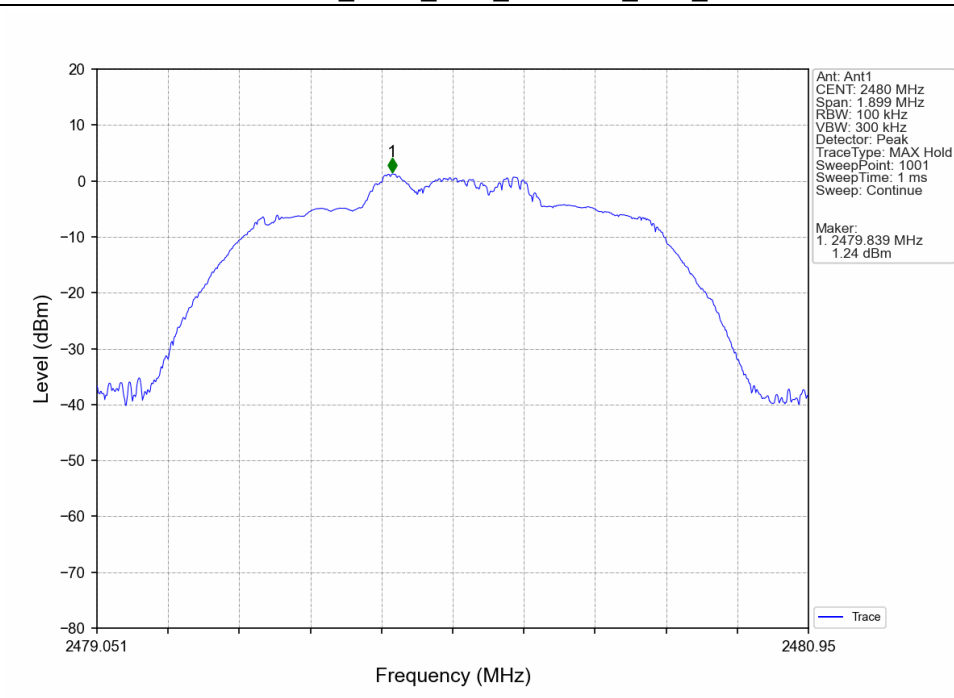


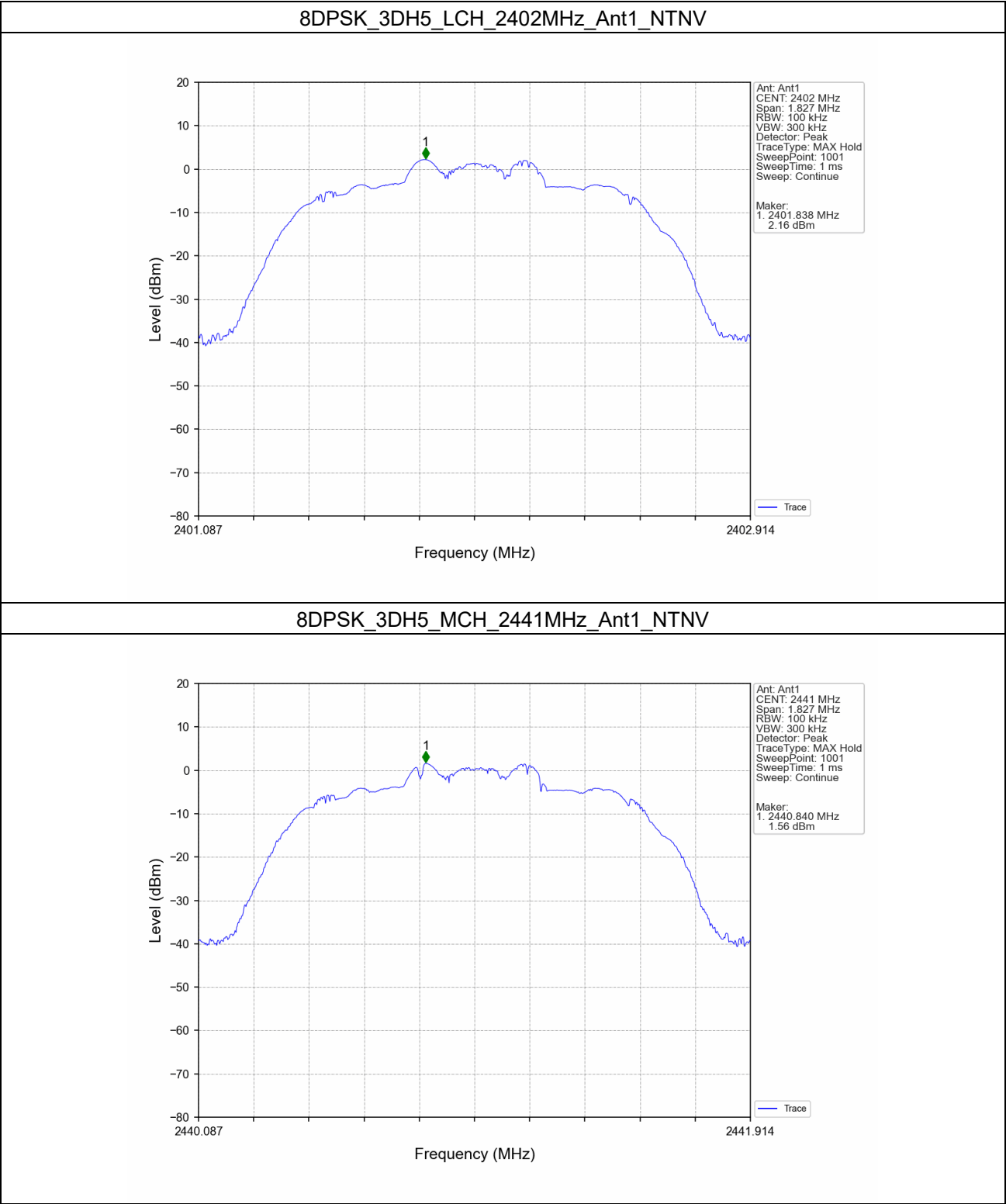


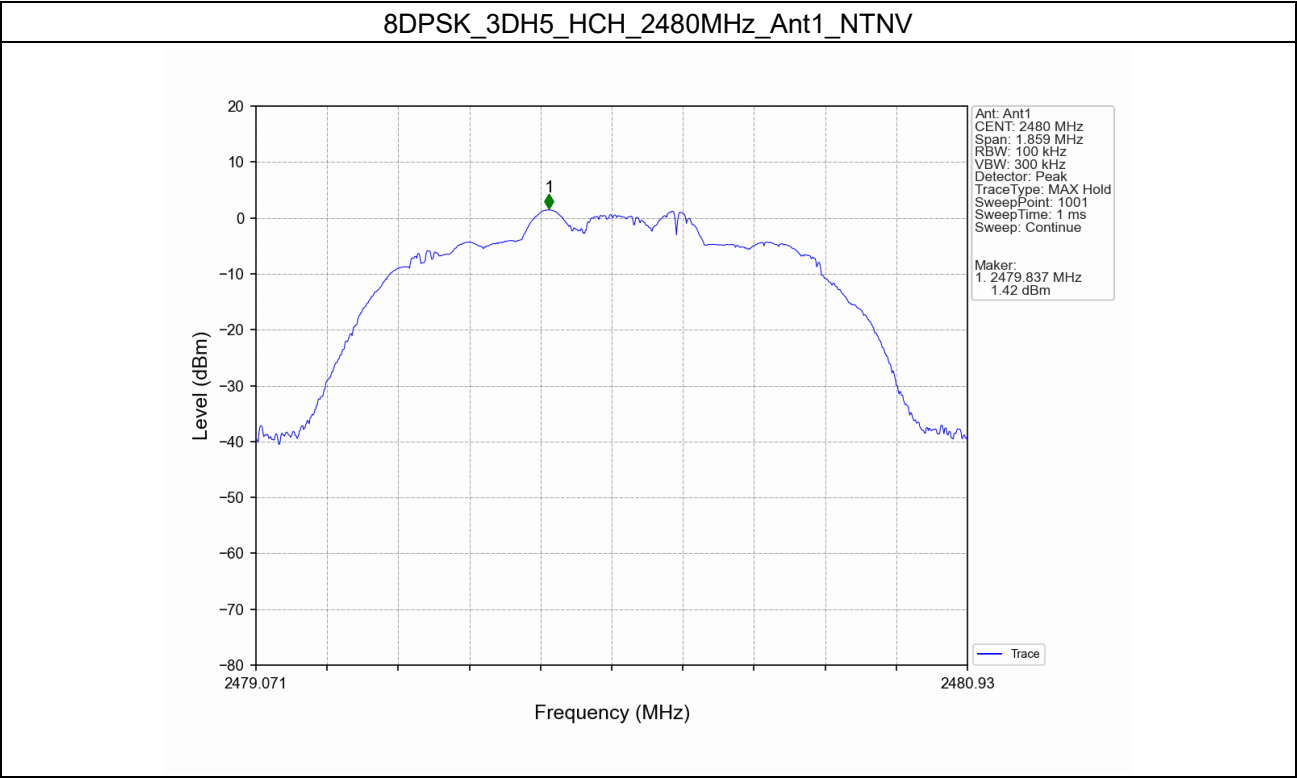
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



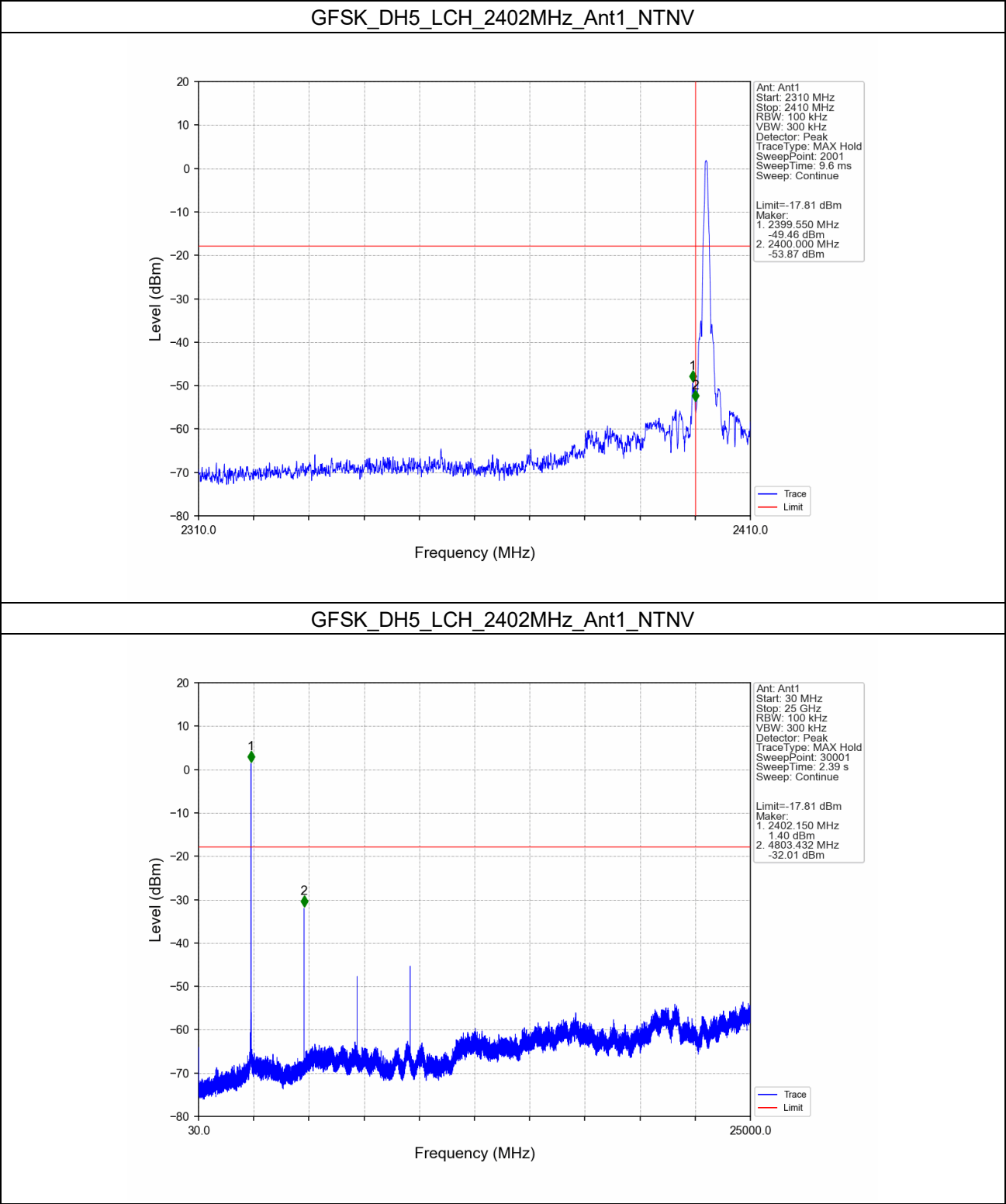
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

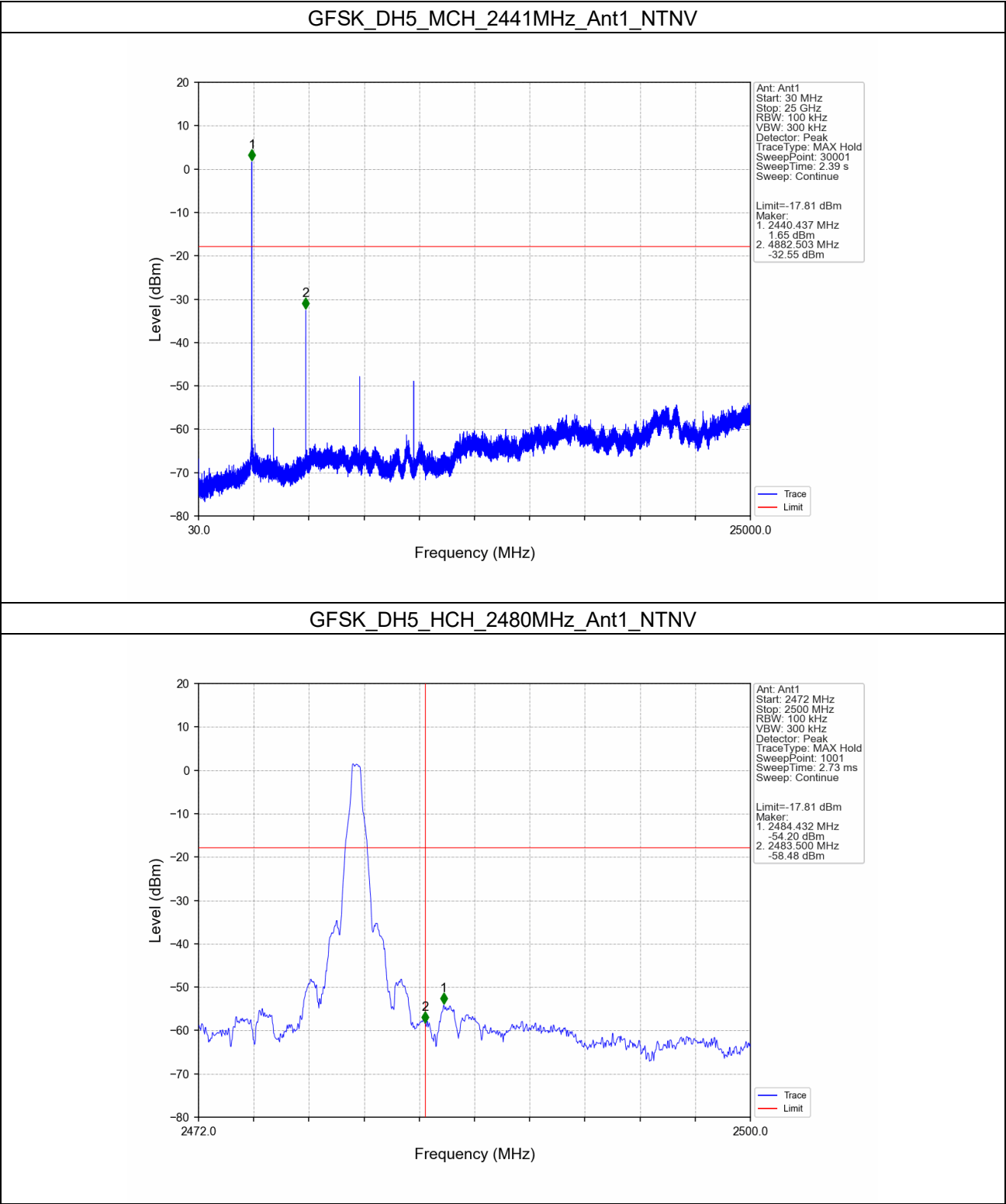


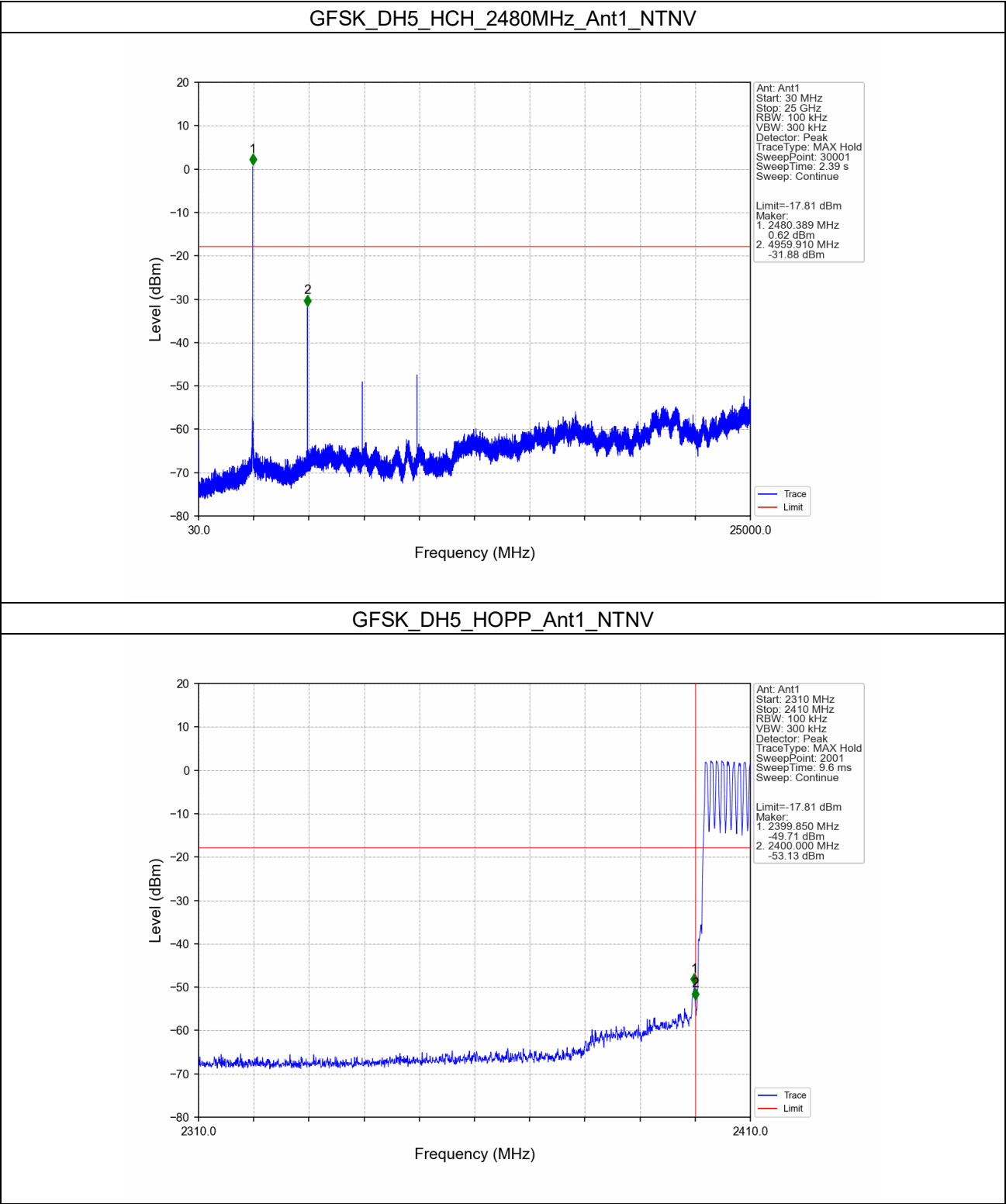


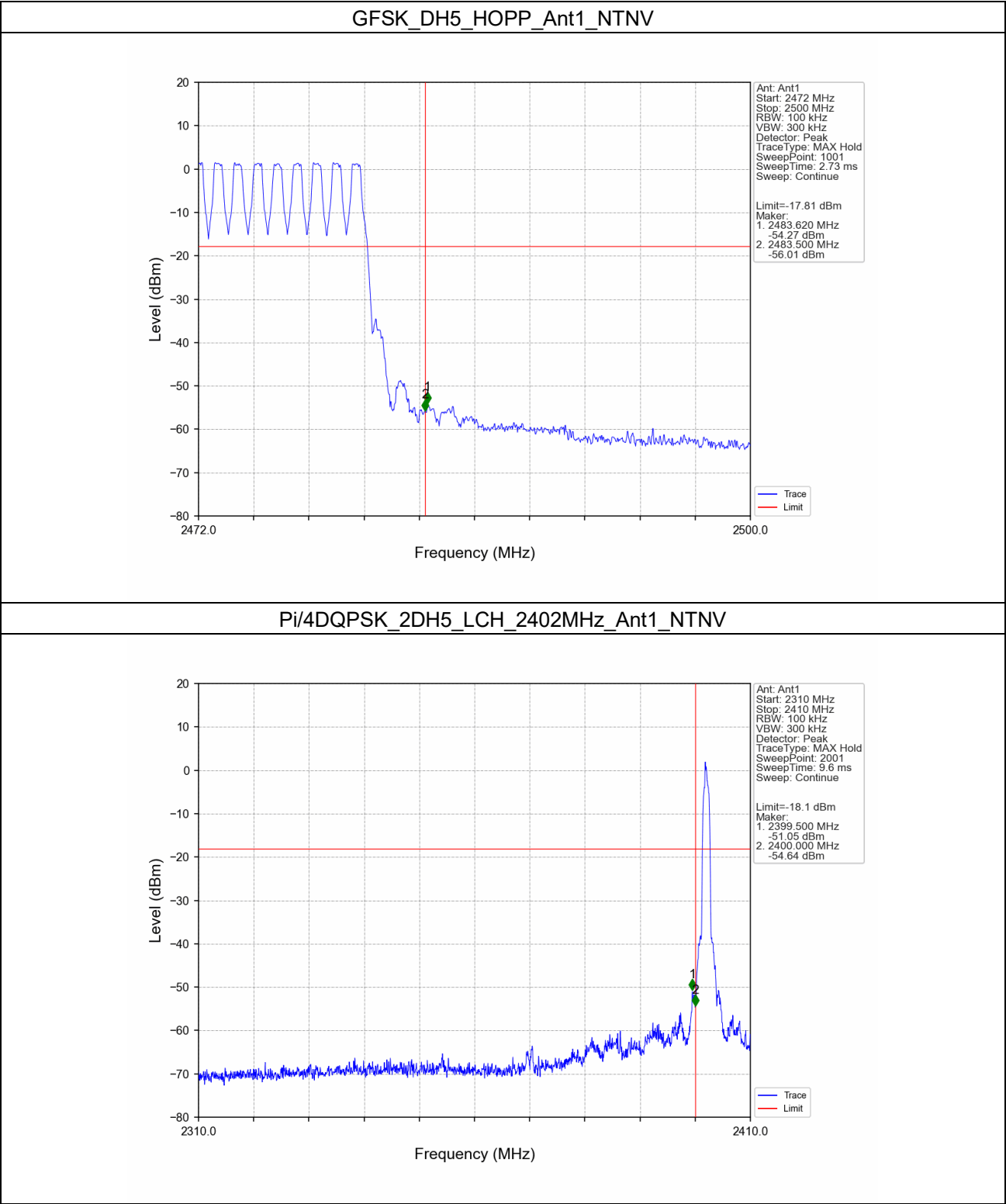


6.2.2 CSE

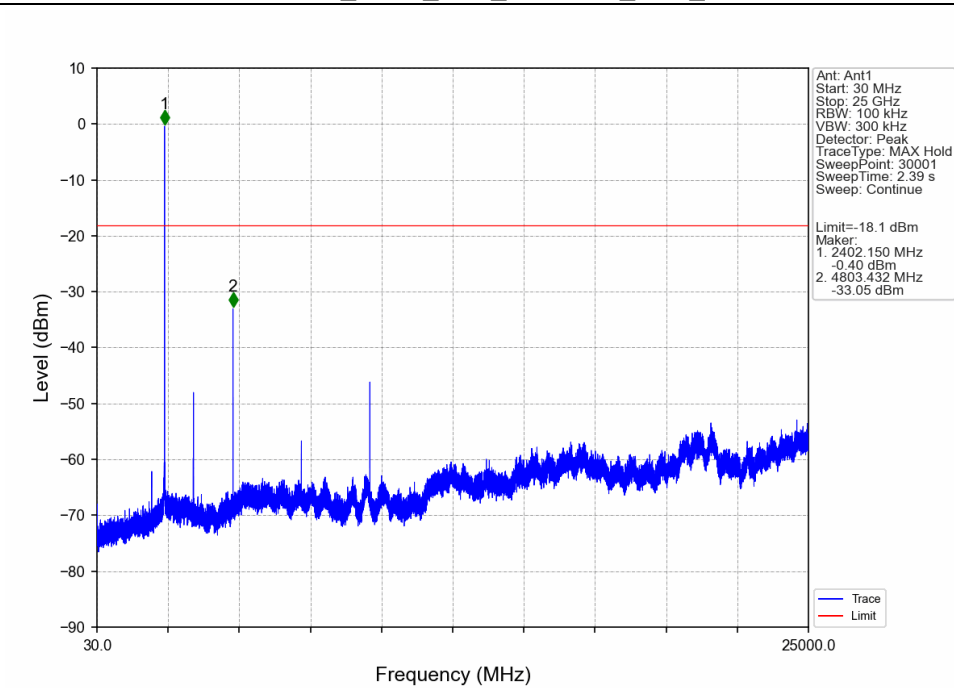




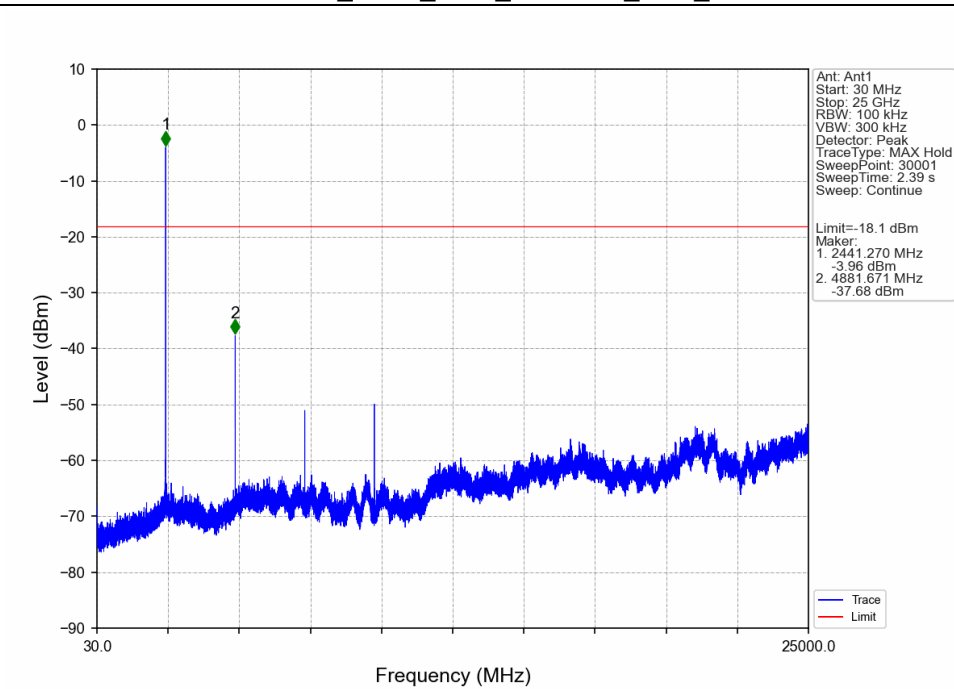




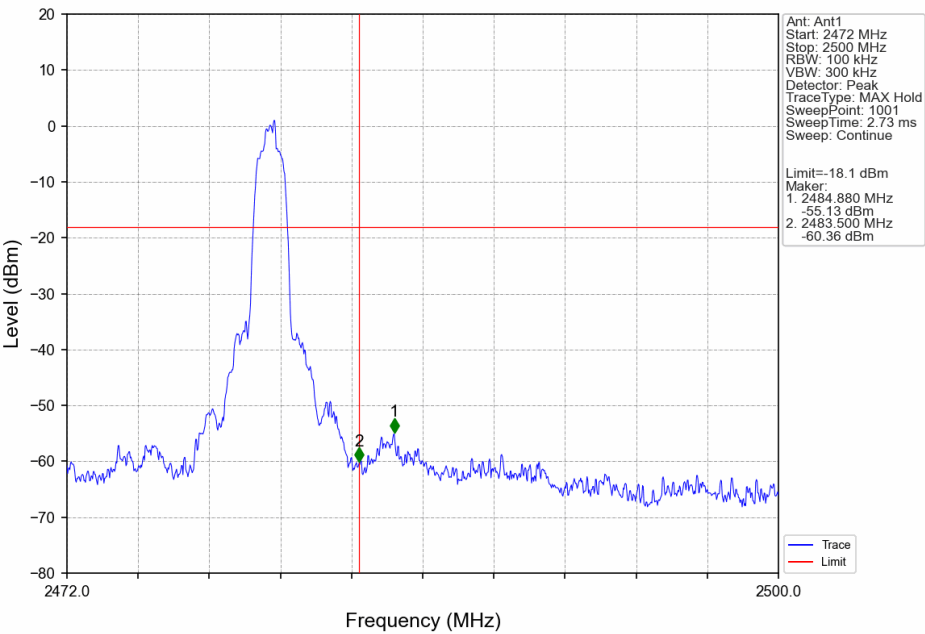
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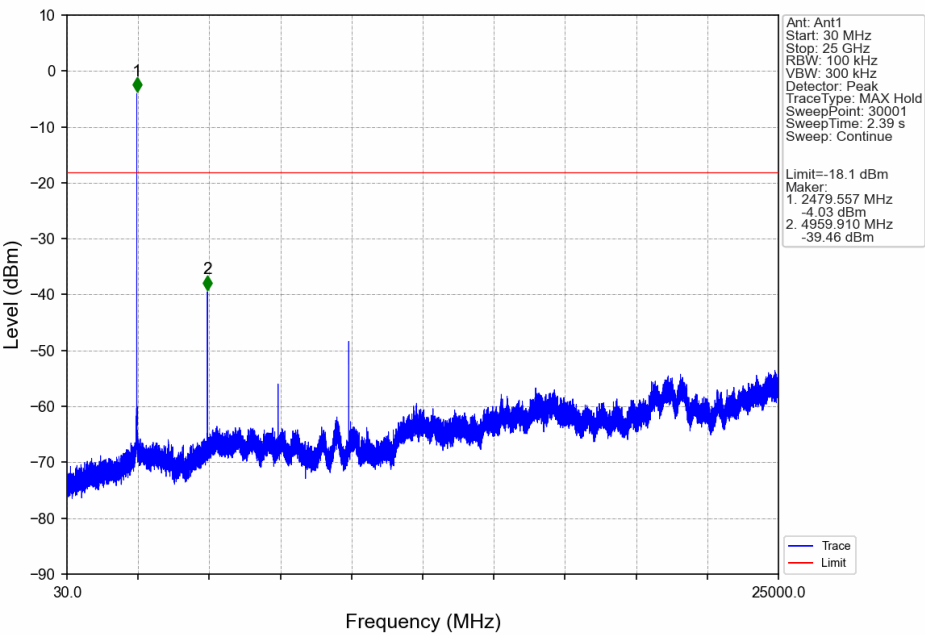
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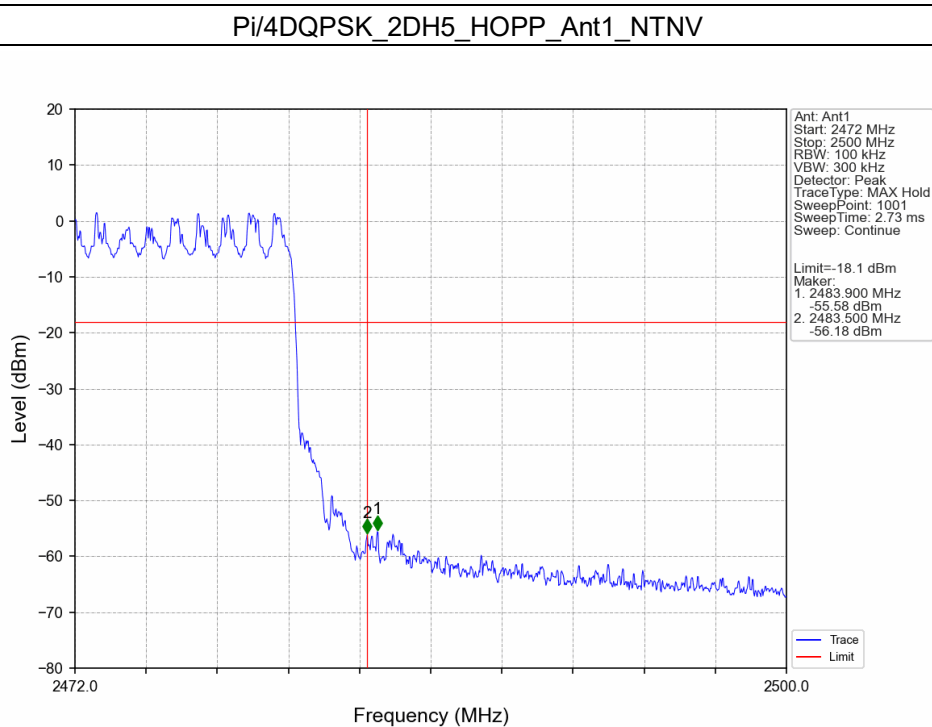


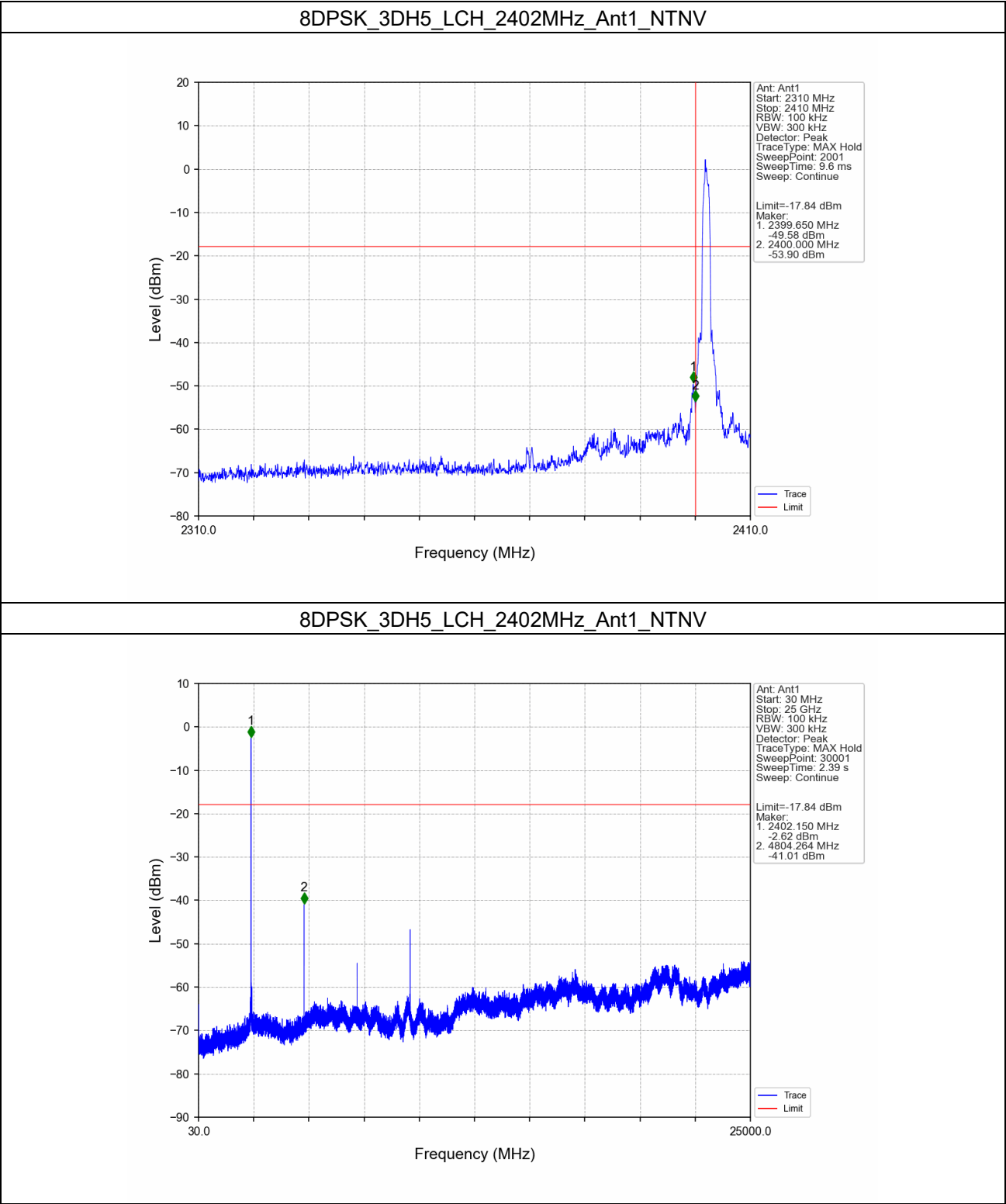
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



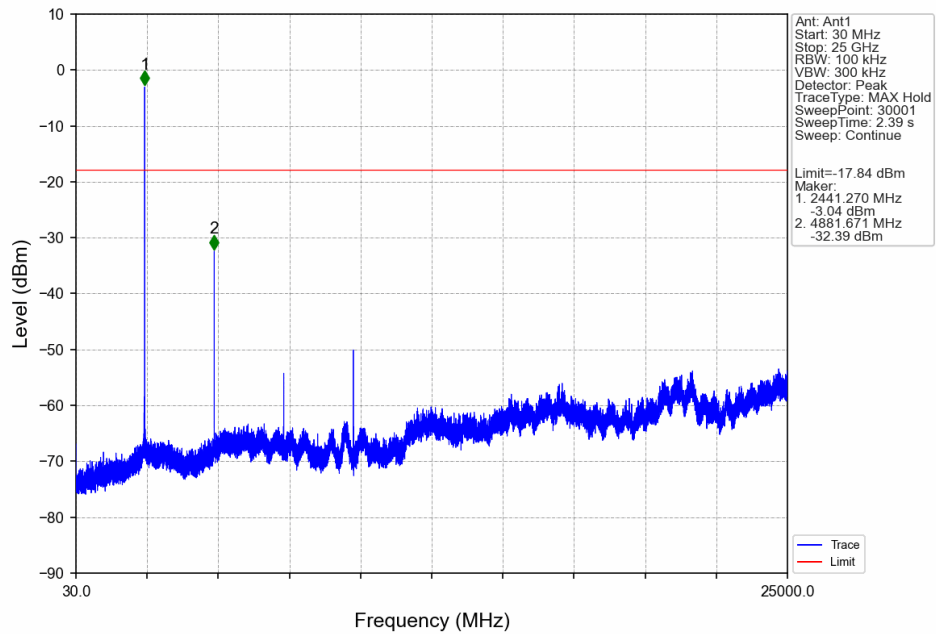
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



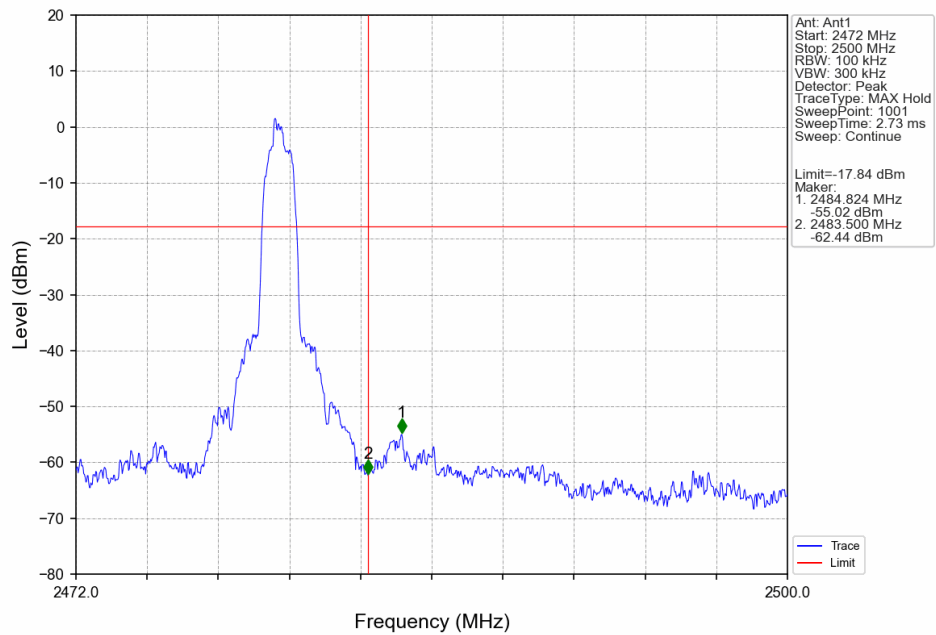


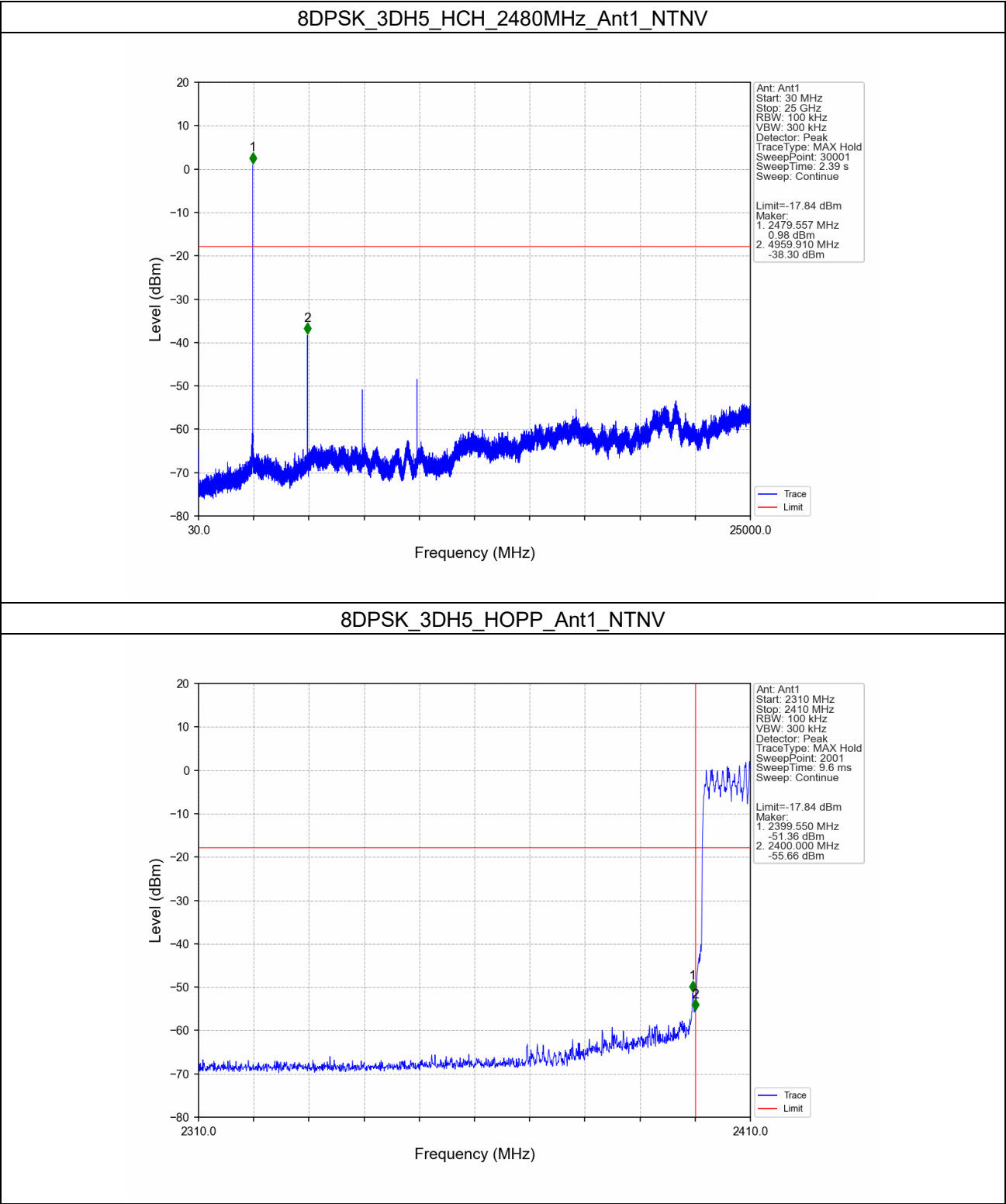


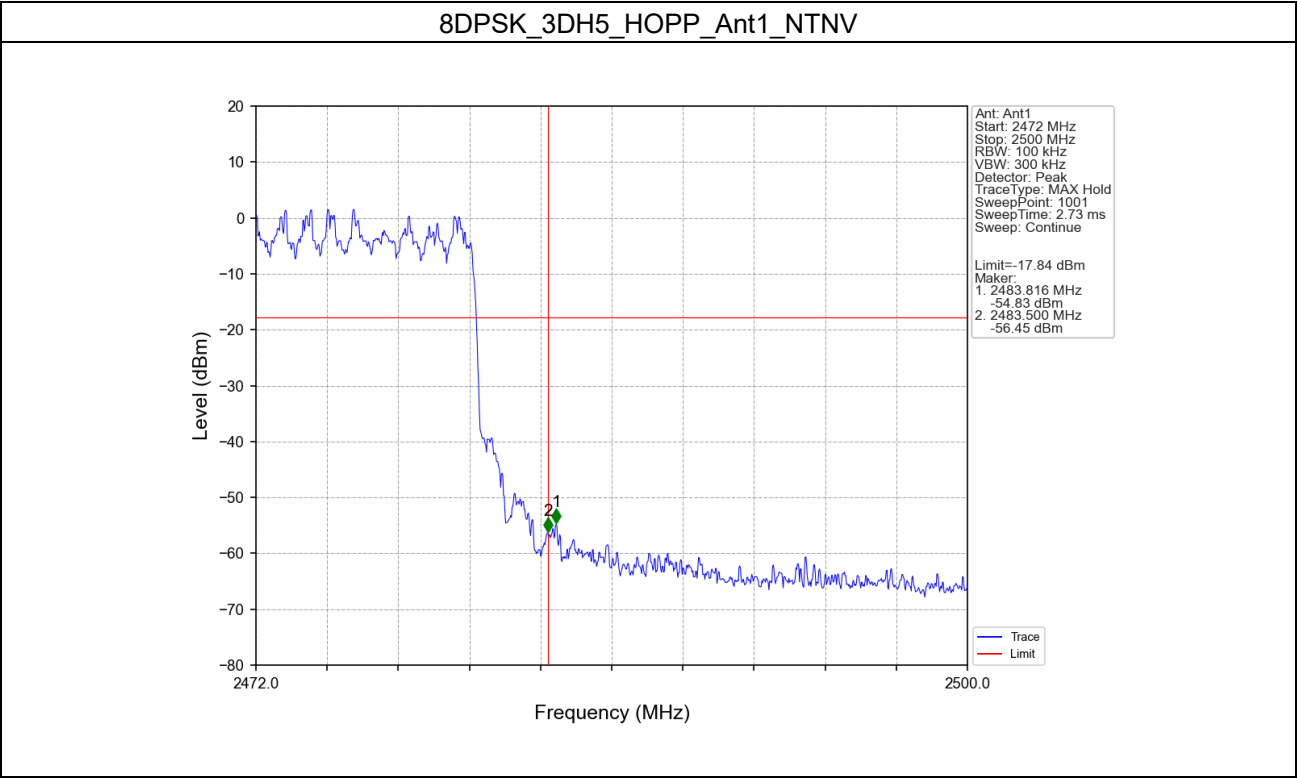
8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV

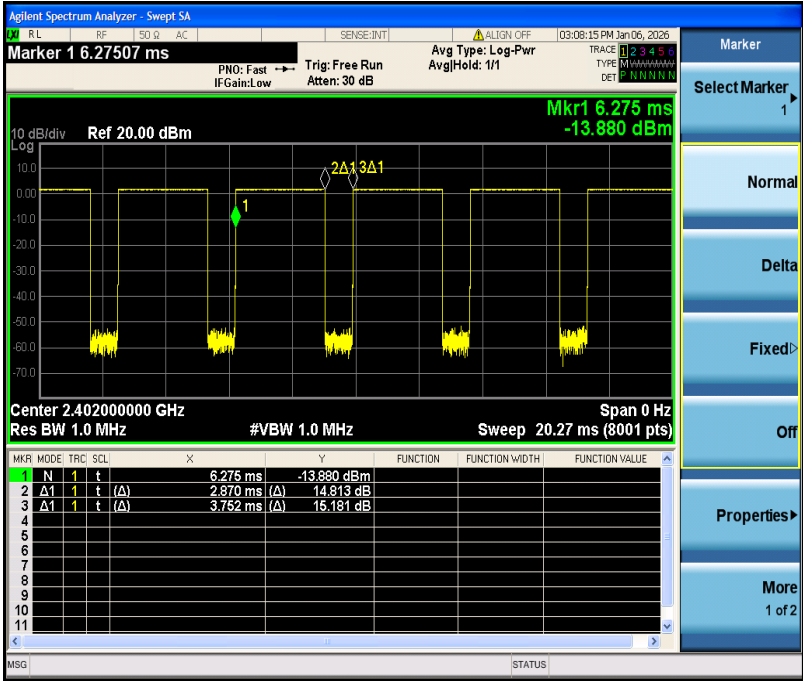




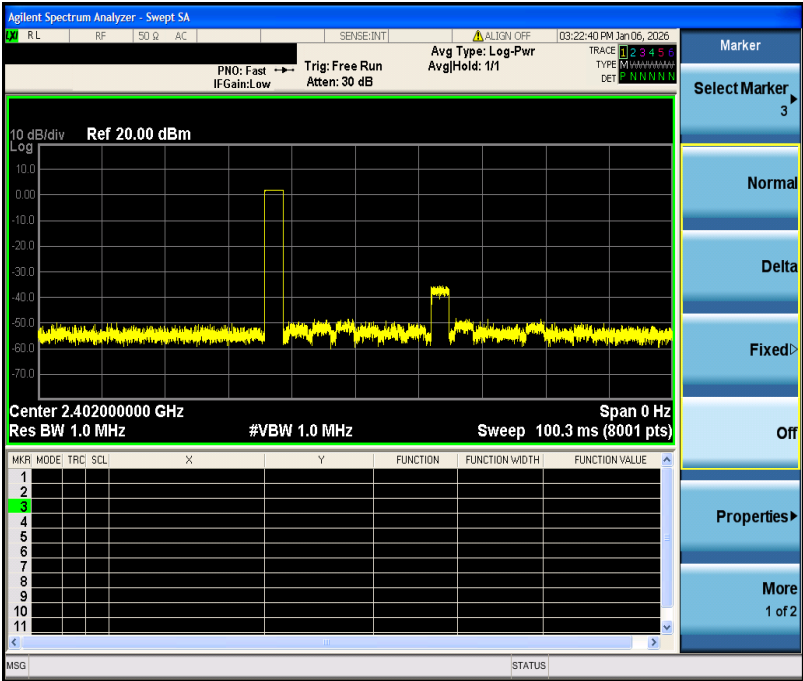


7. Duty Cycle Plots

DH5 on time(One Pules)Plot on channel 0



DH5 on time(Count Pulses)Plot



8. The process and drawings of RSE-AVG

Ant1							
Test Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	1.01	0.942	≥ 0.681	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	0.994	1.266	≥ 0.861	Pass
8DPSK	SISO	HOPP	3DH5	1.001	1.239	≥ 0.872	Pass

Note:

Channel separation correction

DH5: Channel Separation ≥ 1 MHz, Channel separation correction=1

2DH5: Channel Separation < 1 MHz, Channel separation correction=1/0.994=1.01

3DH5: Channel Separation ≥ 1 MHz, Channel separation correction=1

Overlapping channel correction

DH5: Overlapping channel correction = 0

2DH5: Overlapping channel correction = 1

3DH5: Overlapping channel correction = 1

Test mode	Dwell time per 100 ms	Channel separation correction	Overlapping channel correction	Maximum dwell time
DH5	$1 \times 2.87 = 2.87$	1	0	2.87
2DH5	$1 \times 2.87 = 2.87$	1.01	1	5.77
3DH5	$1 \times 2.87 = 2.87$	1	1	5.74

Note: Maximum dwell time per 1MHz= Dwell time per 100 ms per Channel*(Channel separation correction+ Overlapping channel correction)

Test Mode	Factor
DH5	-30.84
2DH5	-24.80
3DH5	-24.82

Factor=20*log(Maximum dwell time in 100 ms/100)

-- End of the Report -