

Appendix Test Data

Project No.:	18220WC10140601	Test Date:	2021.6.26
Test Engineer:	<i>Jomy He</i>	Auditor:	<i>Edward Pan</i>
Temperature:	24.3°C	Relative Humidity:	56 %
Pressure:	1012 hPa		

1. Bandwidth

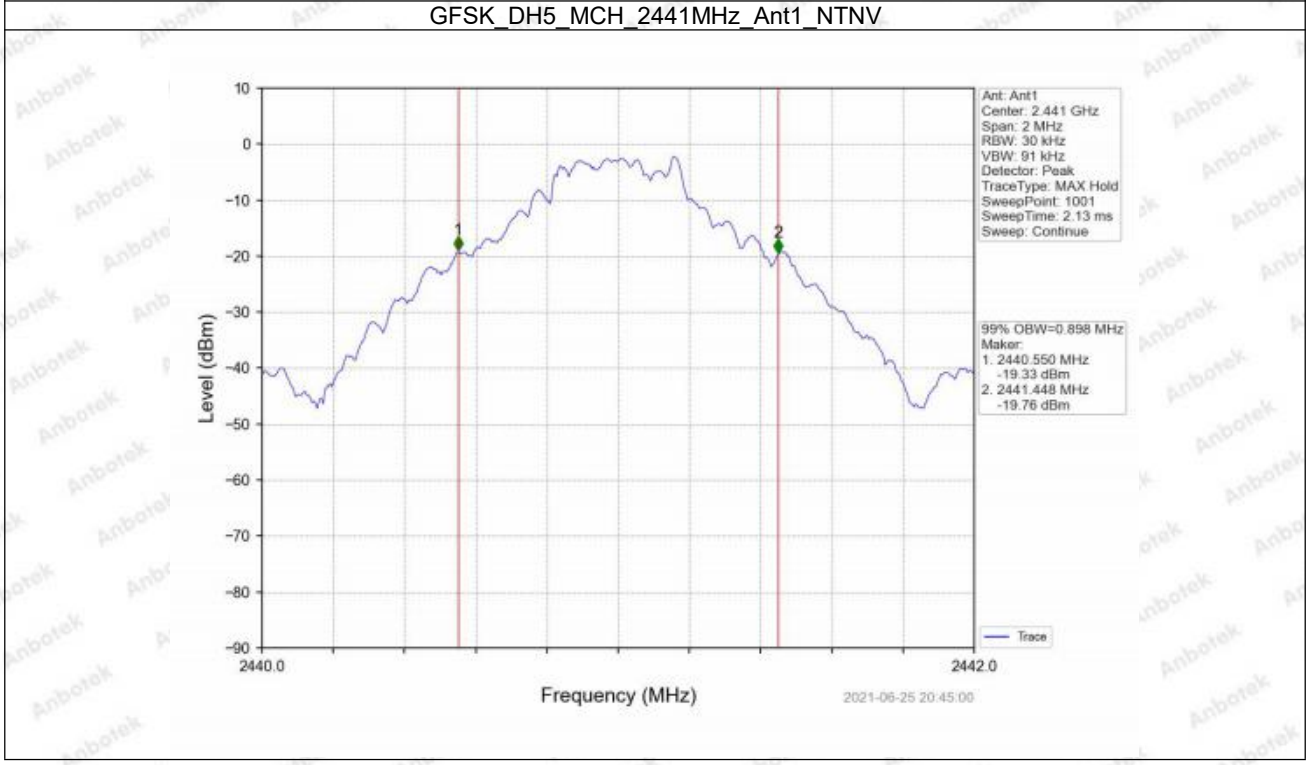
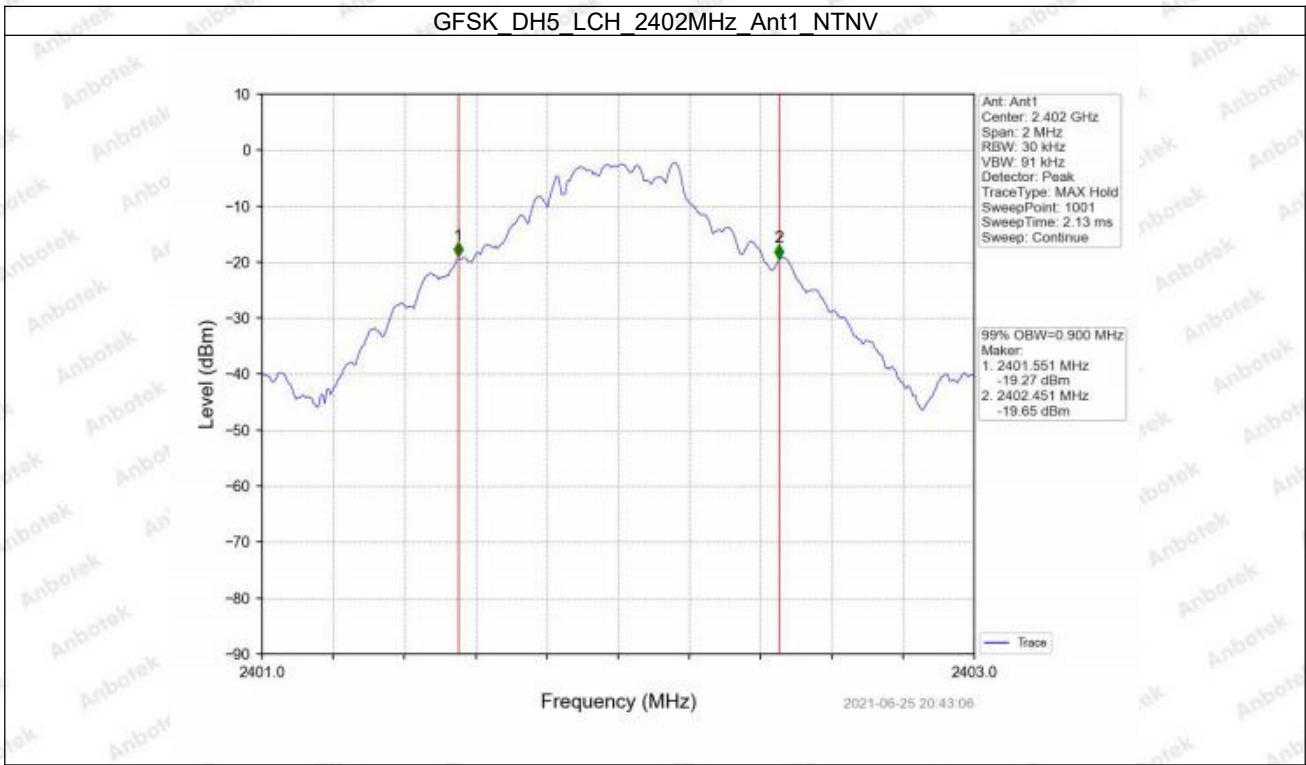
1.1 OBW

1.1.1 Test Result

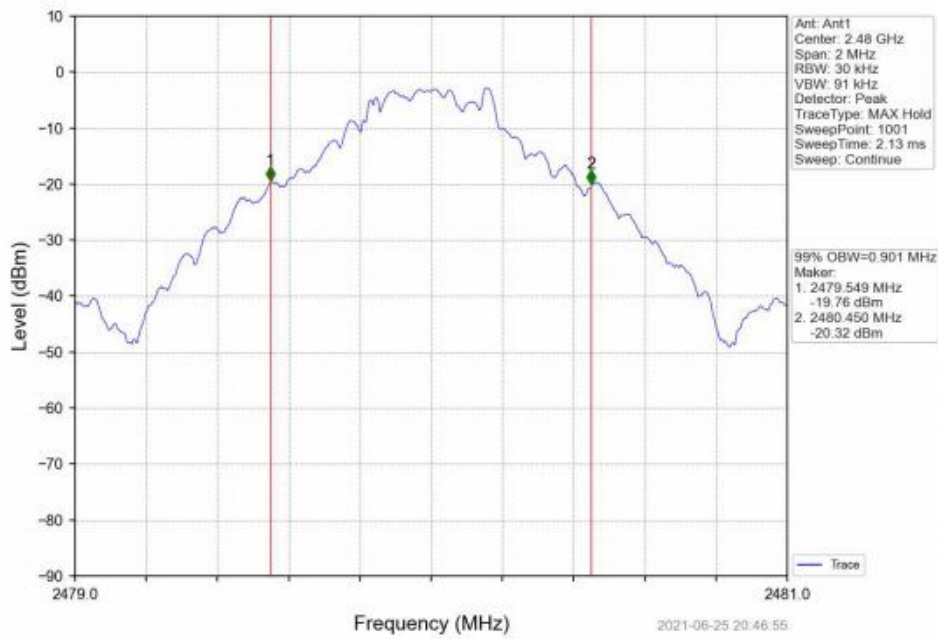
Mode	TX Type	Frequency (MHz)	Packet Type	Ant	99% Occupied Bandwidth (MHz)	Limit	Verdict
GFSK	SISO	2402	DH5	1	0.90	/	Note1
		2441	DH5	1	0.90	/	Note1
		2480	DH5	1	0.90	/	Note1
$\pi/4$ -DQPSK	SISO	2402	2DH5	1	1.18	/	Note1
		2441	2DH5	1	1.17	/	Note1
		2480	2DH5	1	1.17	/	Note1
8DPSK	SISO	2402	3DH5	1	1.19	/	Note1
		2441	3DH5	1	1.19	/	Note1
		2480	3DH5	1	1.18	/	Note1

Note1: Only for Report Use

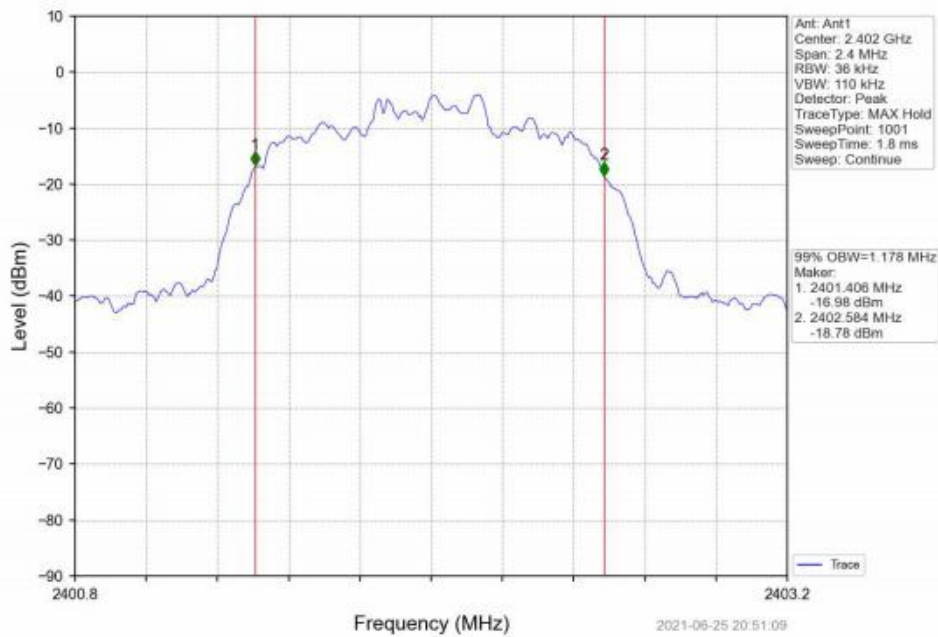
1.1.2 Test Graph



GFSK_DH5_HCH_2480MHz_Ant1_NTNV



π /4-QPSK_2DH5_LCH_2402MHz_Ant1_NTNV



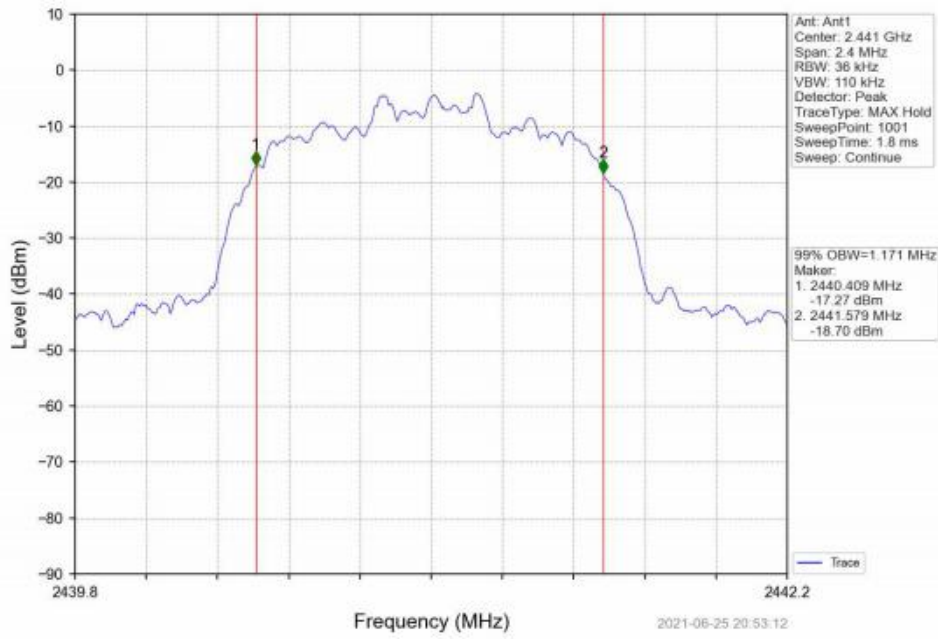
Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

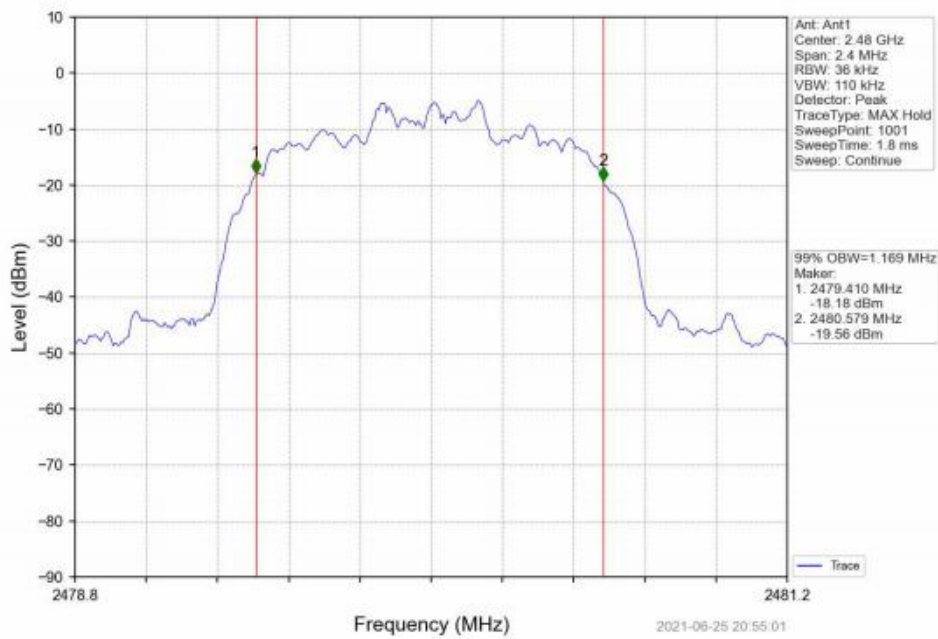
Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

π /4-DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



π /4-DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



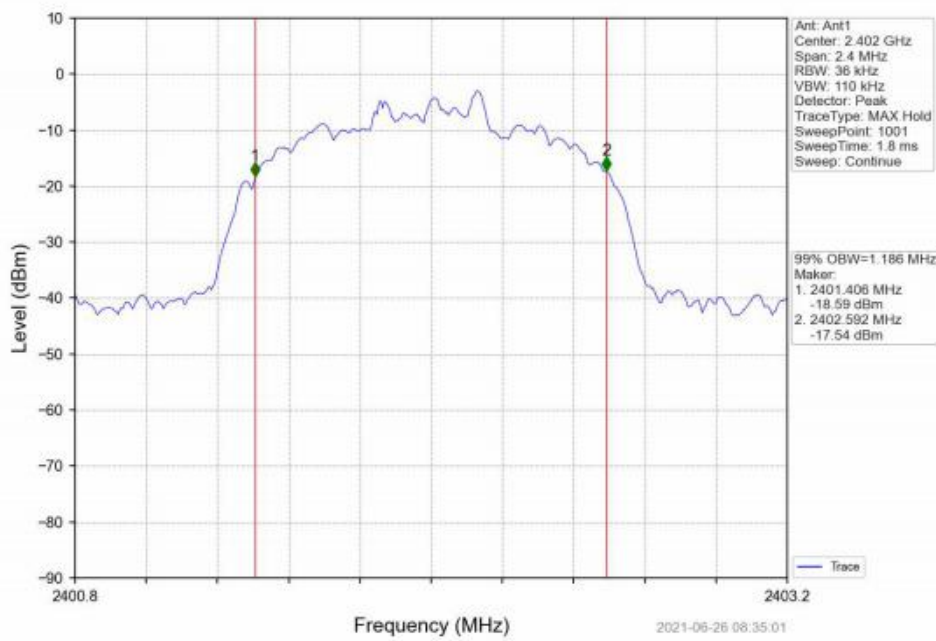
Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

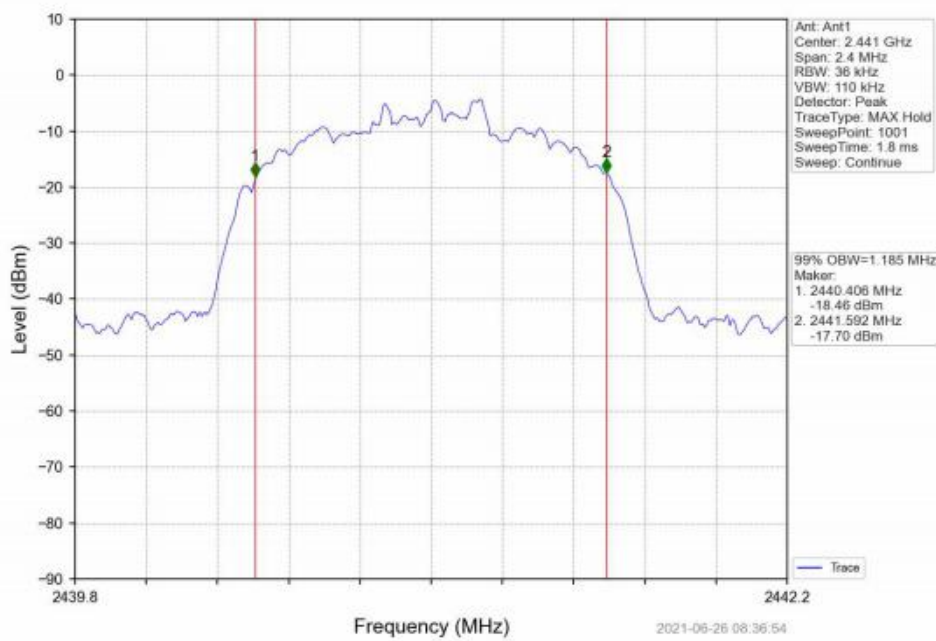
Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV

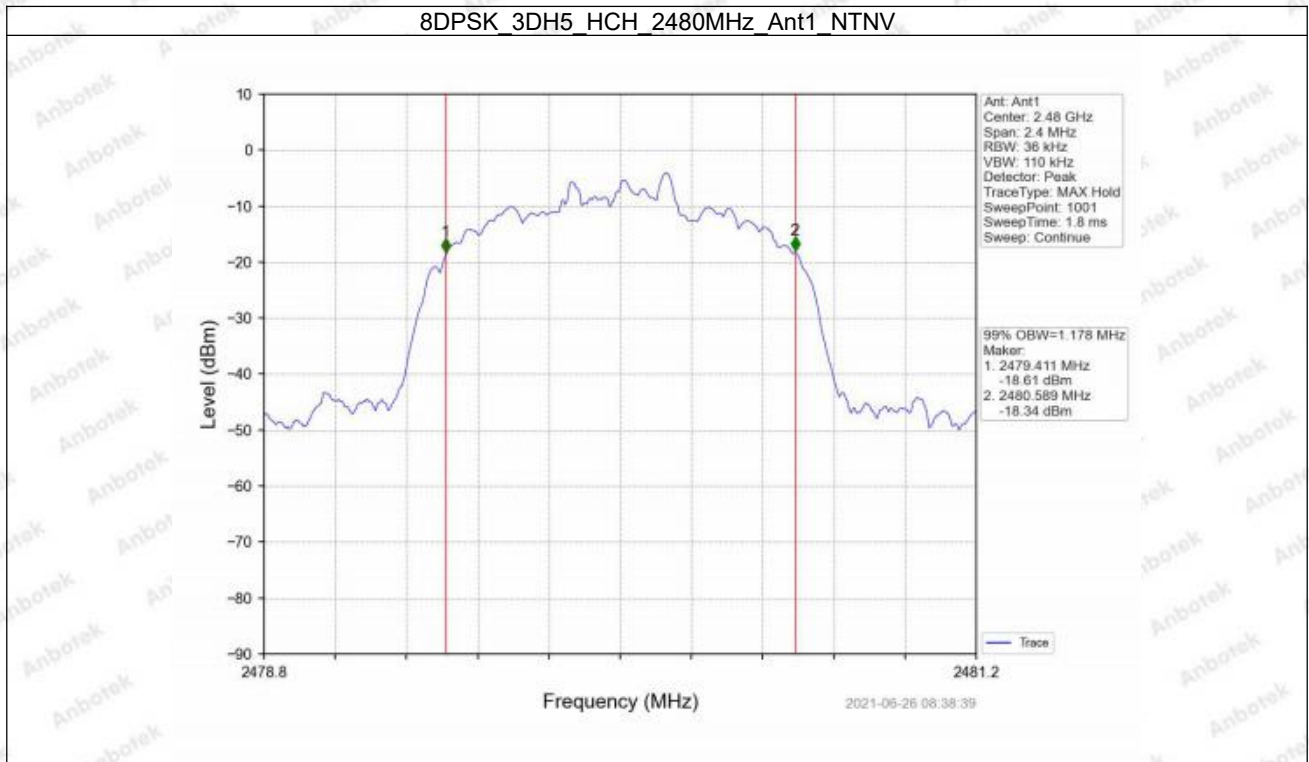


Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com



Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

 Hotline
400-003-0500
www.anbotek.com

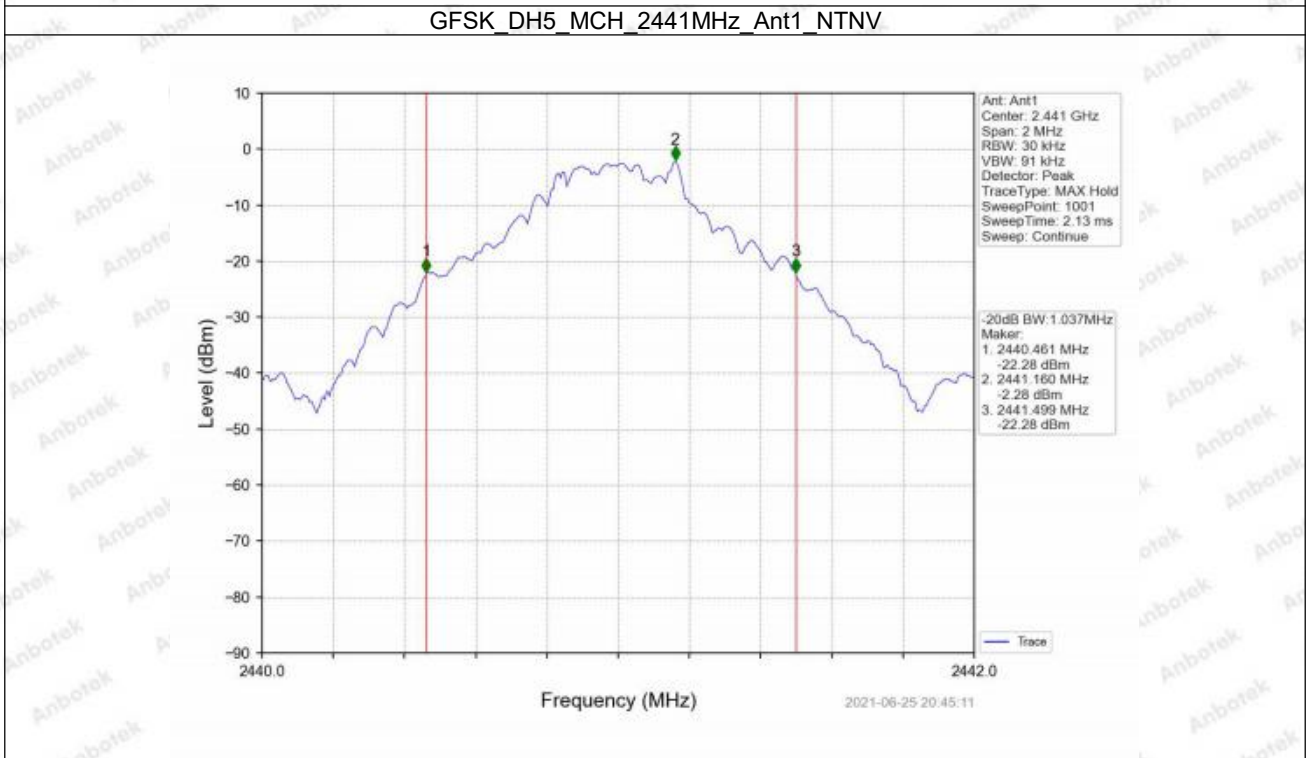
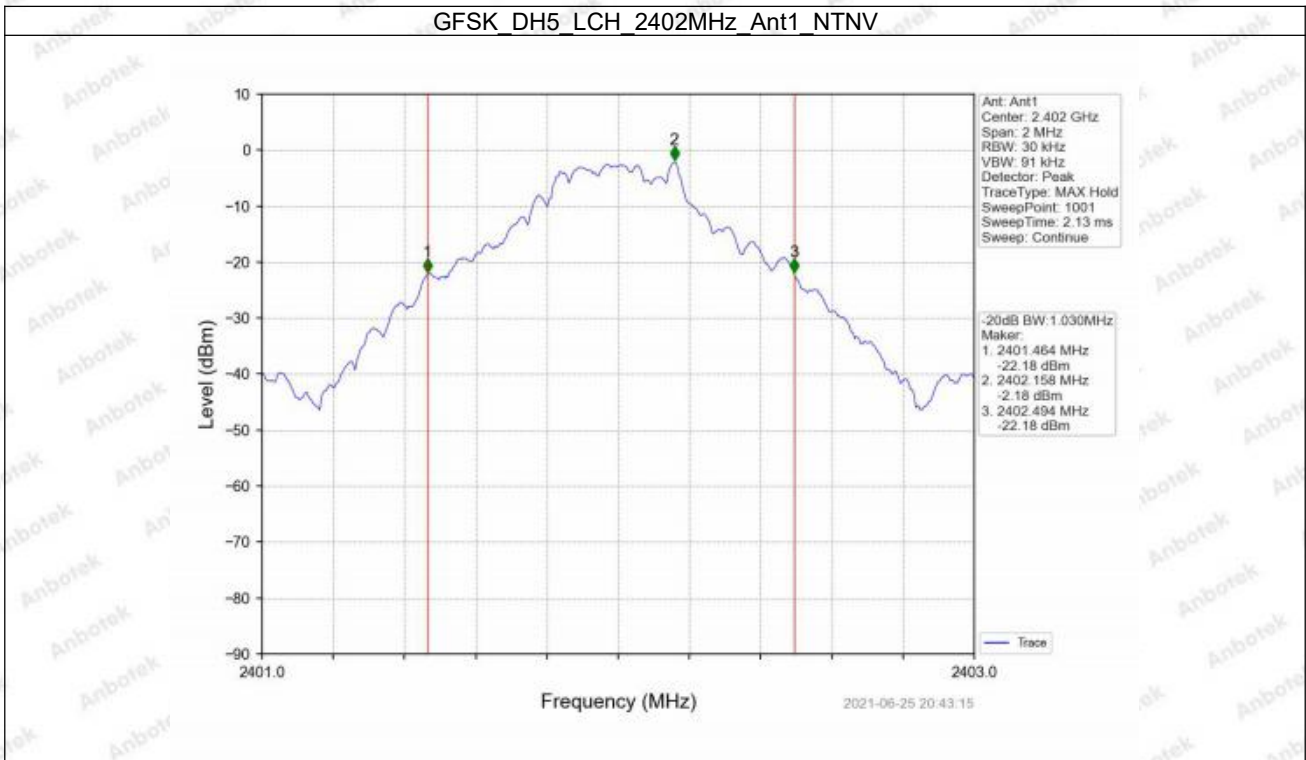
1.2 20dB BW

1.2.1 Test Result

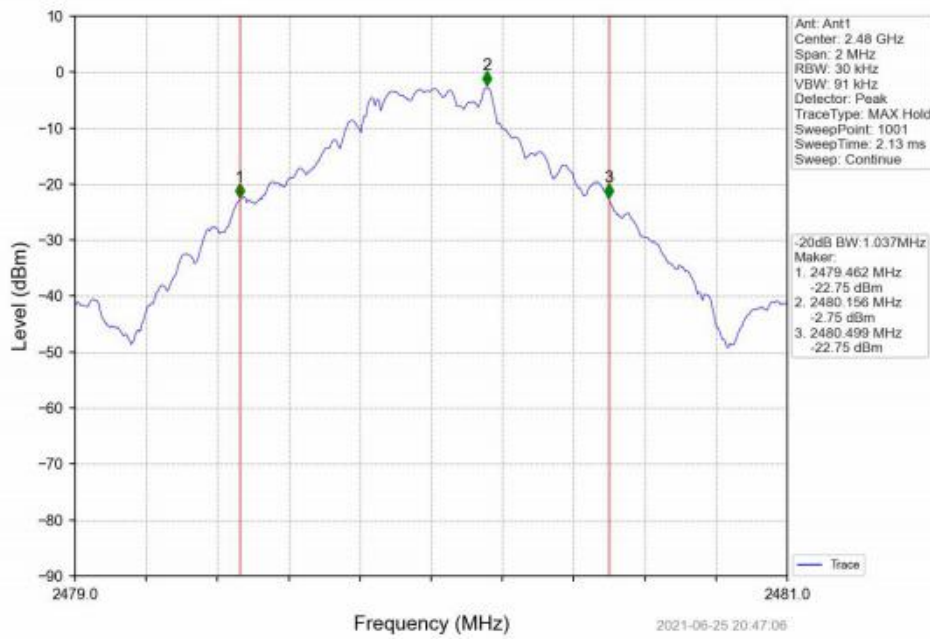
Mode	TX Type	Frequency (MHz)	Packet Type	Ant	20dB Bandwidth (MHz)	Limit	Verdict
GFSK	SISO	2402	DH5	1	1.03	/	Note1
		2441	DH5	1	1.04	/	Note1
		2480	DH5	1	1.04	/	Note1
π /4-DQPSK	SISO	2402	2DH5	1	1.32	/	Note1
		2441	2DH5	1	1.31	/	Note1
		2480	2DH5	1	1.32	/	Note1
8DPSK	SISO	2402	3DH5	1	1.31	/	Note1
		2441	3DH5	1	1.31	/	Note1
		2480	3DH5	1	1.30	/	Note1

Note1: Only for Report Use

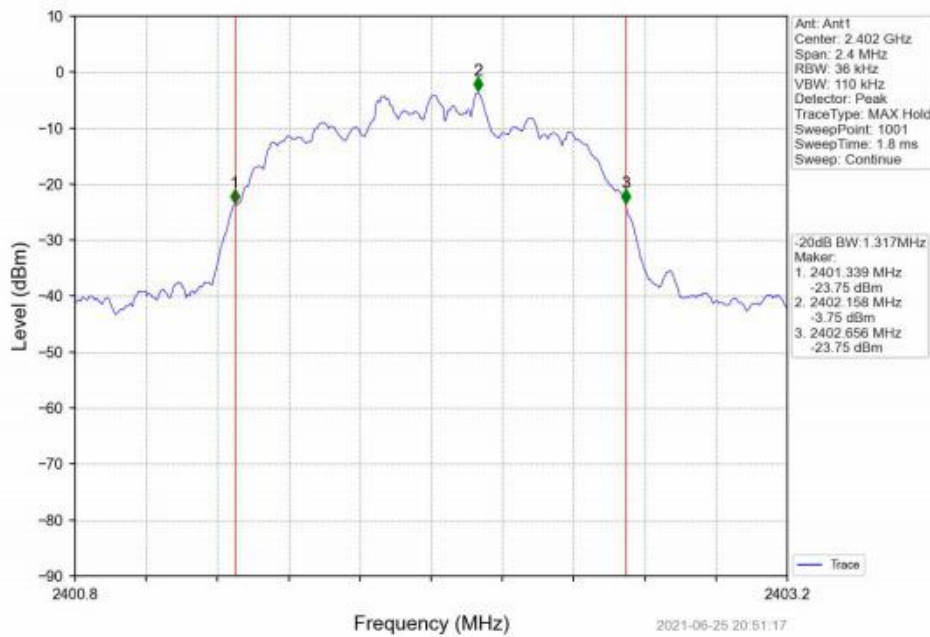
1.2.2 Test Graph



GFSK_DH5_HCH_2480MHz_Ant1_NTNV



π /4-QPSK_2DH5_LCH_2402MHz_Ant1_NTNV



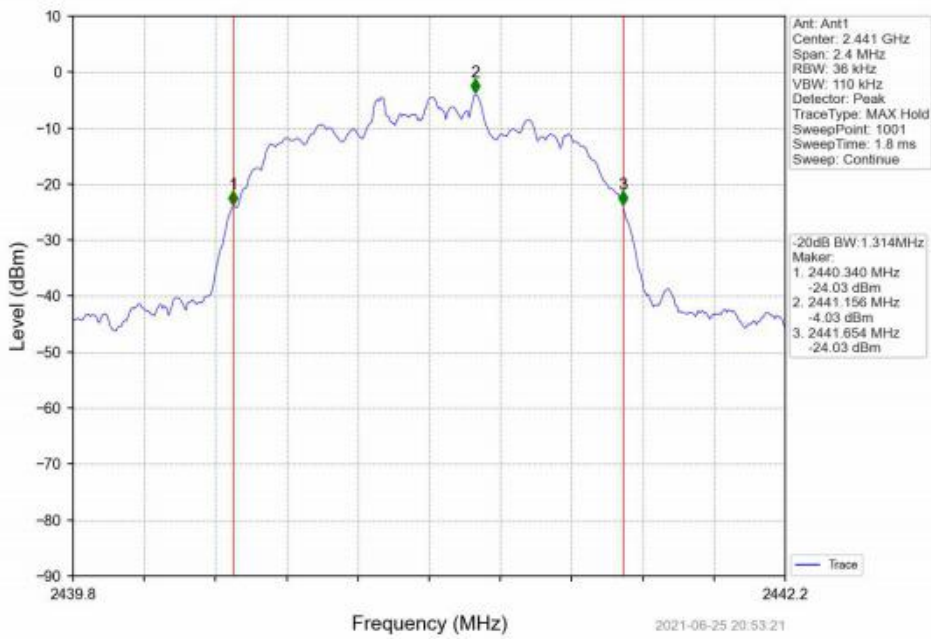
Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

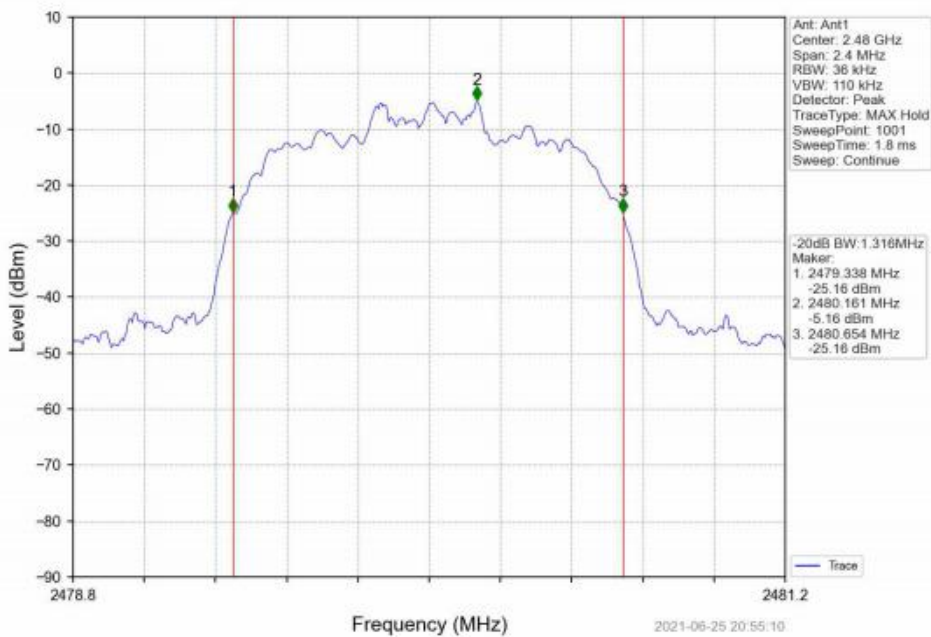
Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

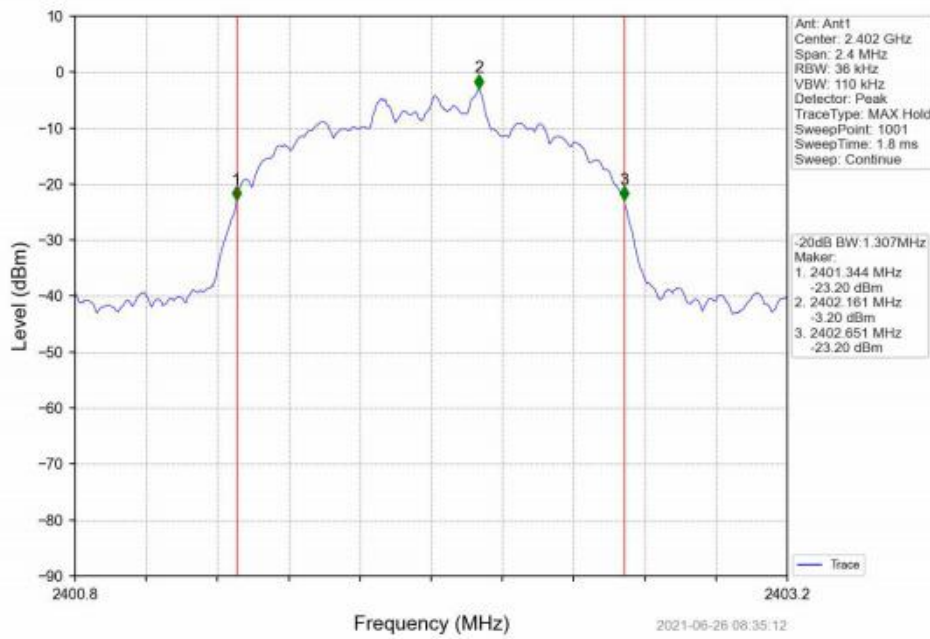
π /4-DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



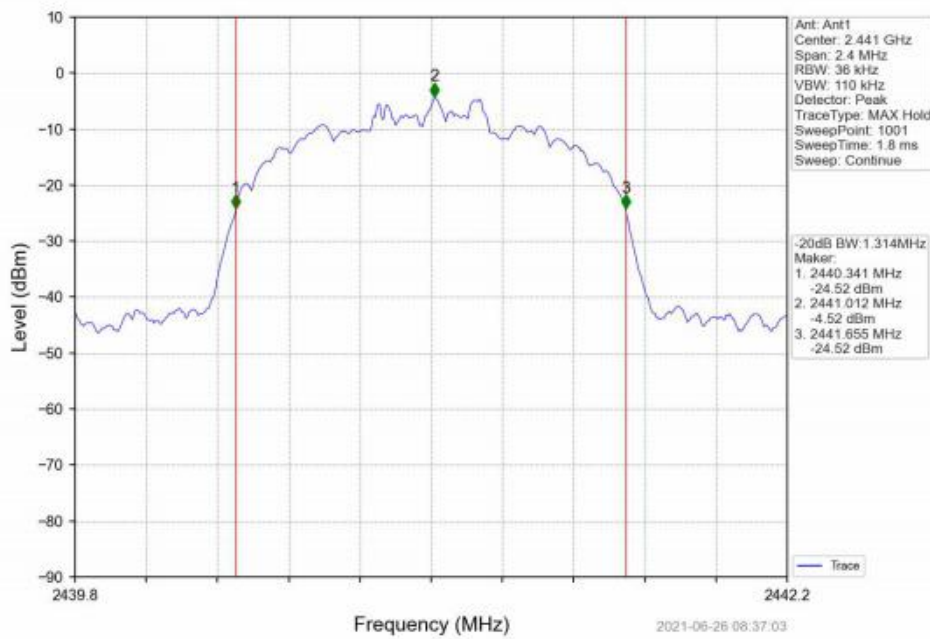
π /4-DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV

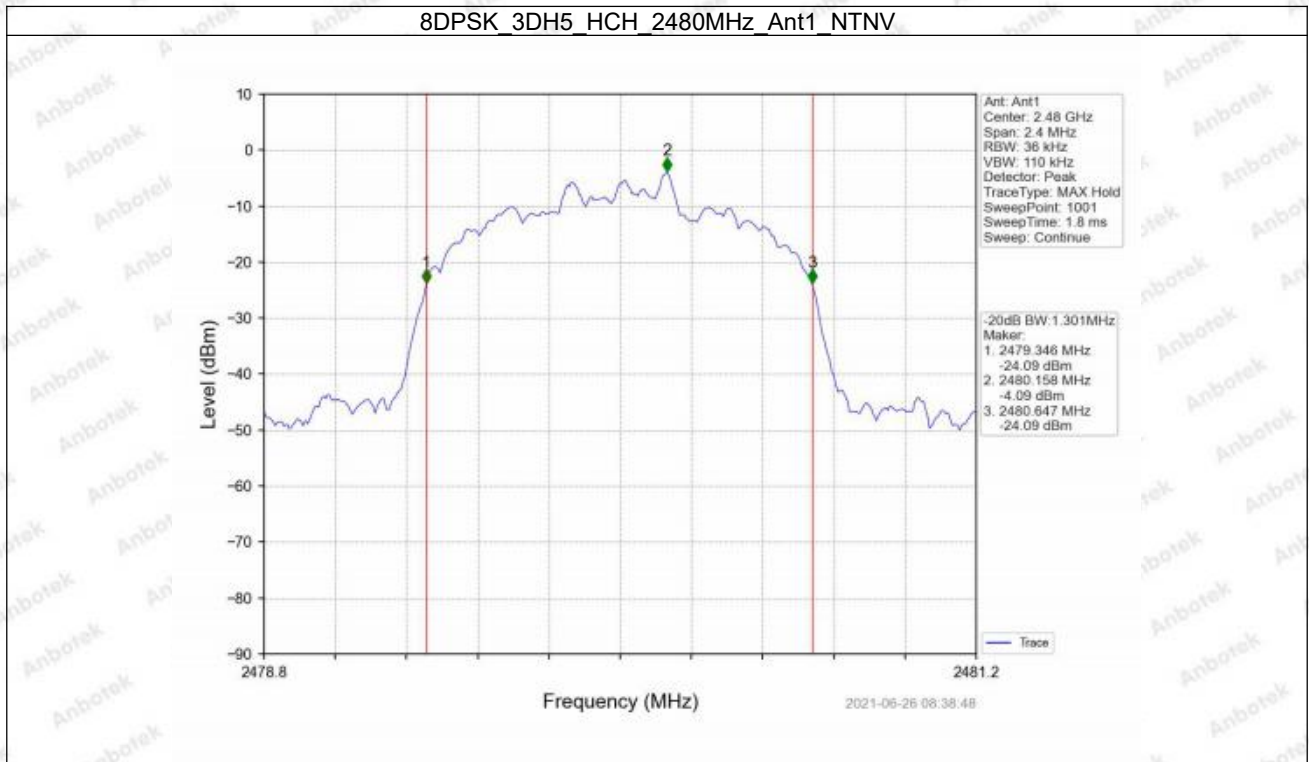


Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com



Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

2. Maximum Conducted Output Power

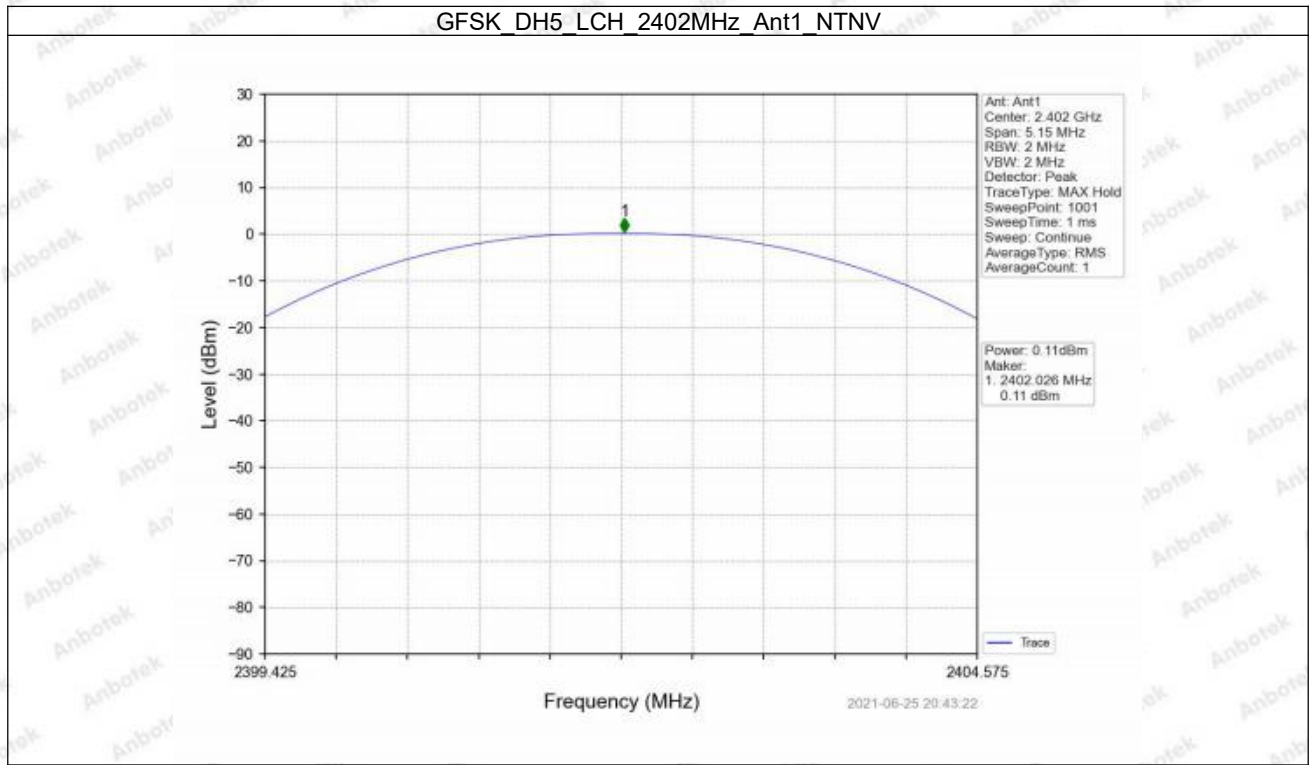
2.1 Power

2.1.1 Test Result

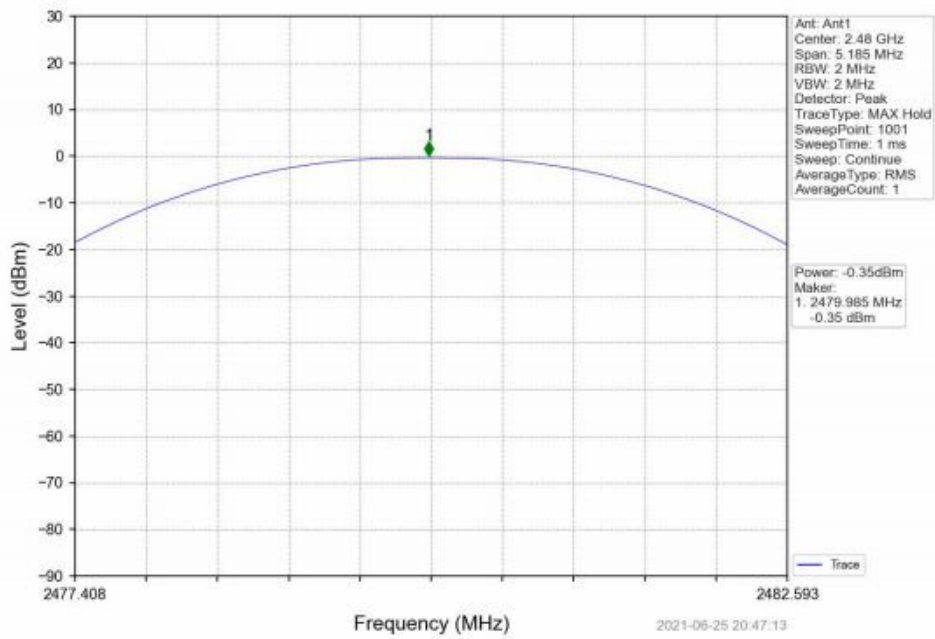
Mode	TX Type	Frequency (MHz)	Packet Type	Measured Peak Output Power (dBm)	Limit (dBm)	Verdict
				Ant1		
GFSK	SISO	2402	DH5	0.11	<=20.97	Pass
		2441	DH5	0.10	<=20.97	Pass
		2480	DH5	-0.35	<=20.97	Pass
$\pi/4$ -DQPSK	SISO	2402	2DH5	-0.49	<=20.97	Pass
		2441	2DH5	-0.64	<=20.97	Pass
		2480	2DH5	-1.24	<=20.97	Pass
8DPSK	SISO	2402	3DH5	-0.42	<=20.97	Pass
		2441	3DH5	-0.54	<=20.97	Pass
		2480	3DH5	-1.16	<=20.97	Pass

Note1: Antenna Gain: -0.58dBi;

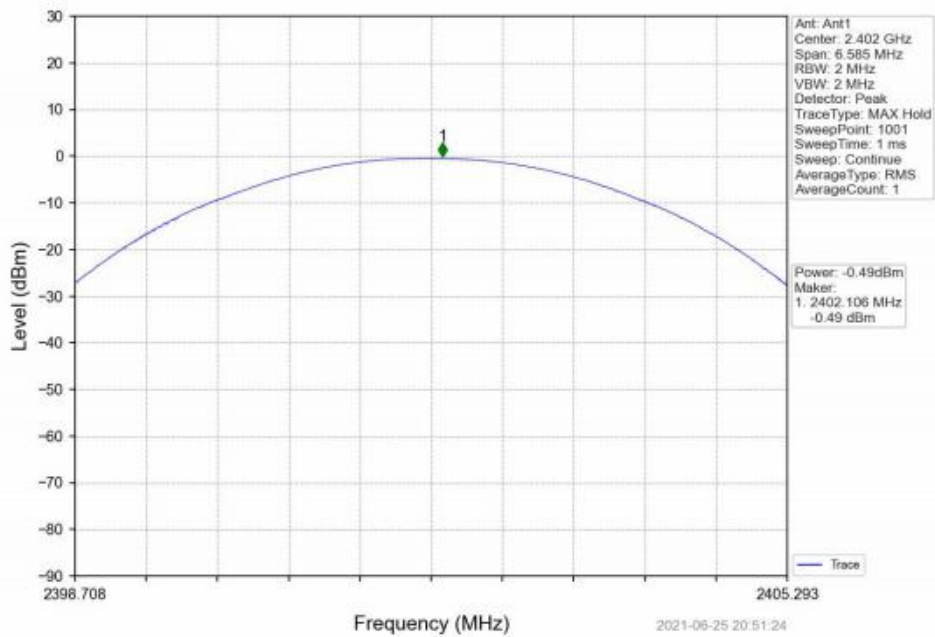
2.1.2 Test Graph



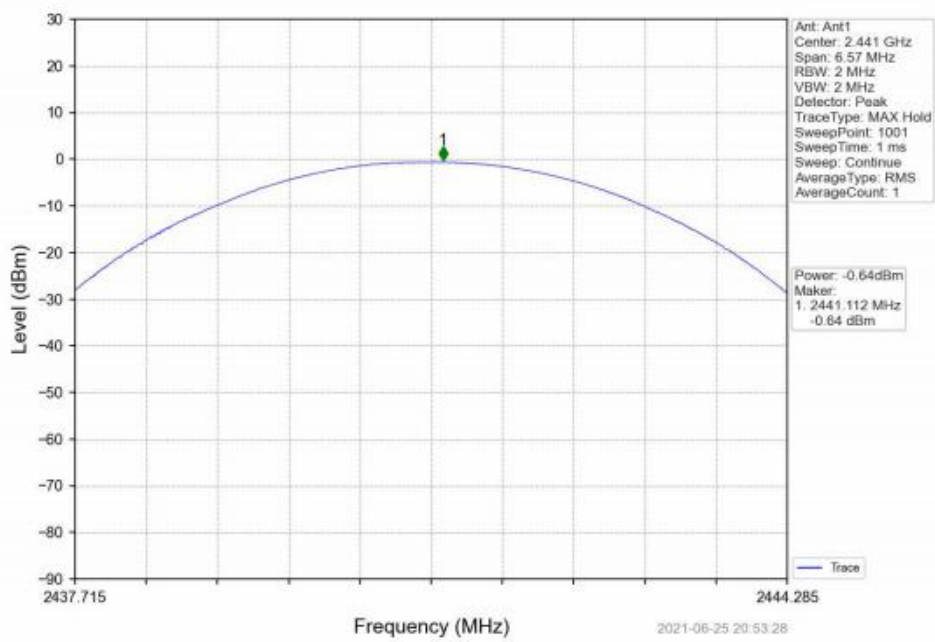
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



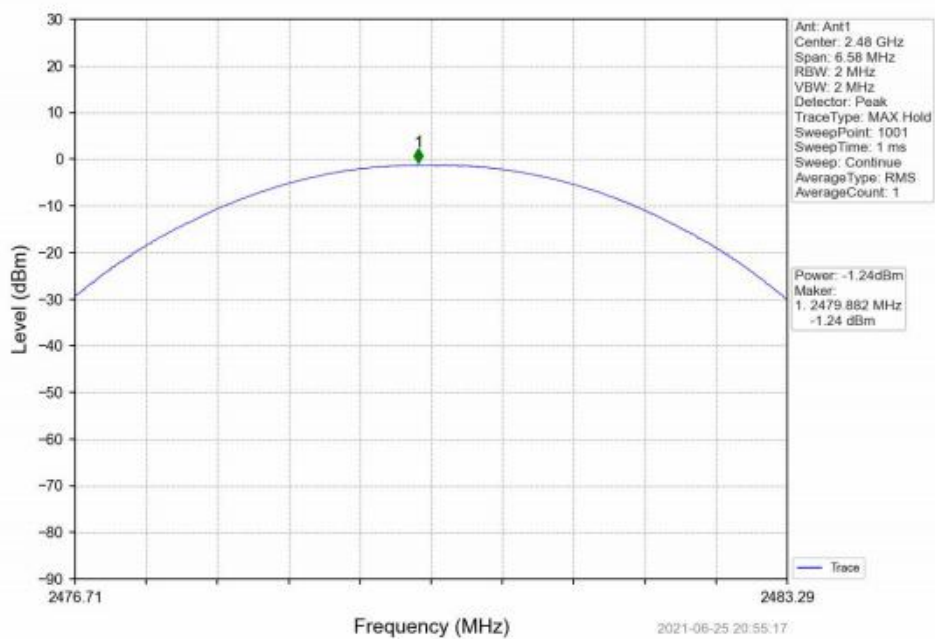
π /4-DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



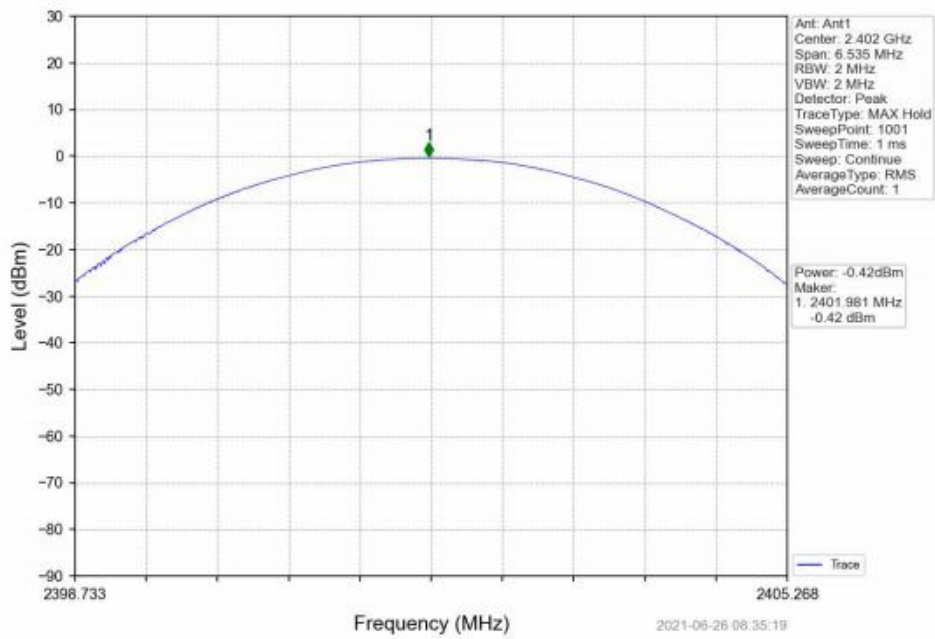
π /4-DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



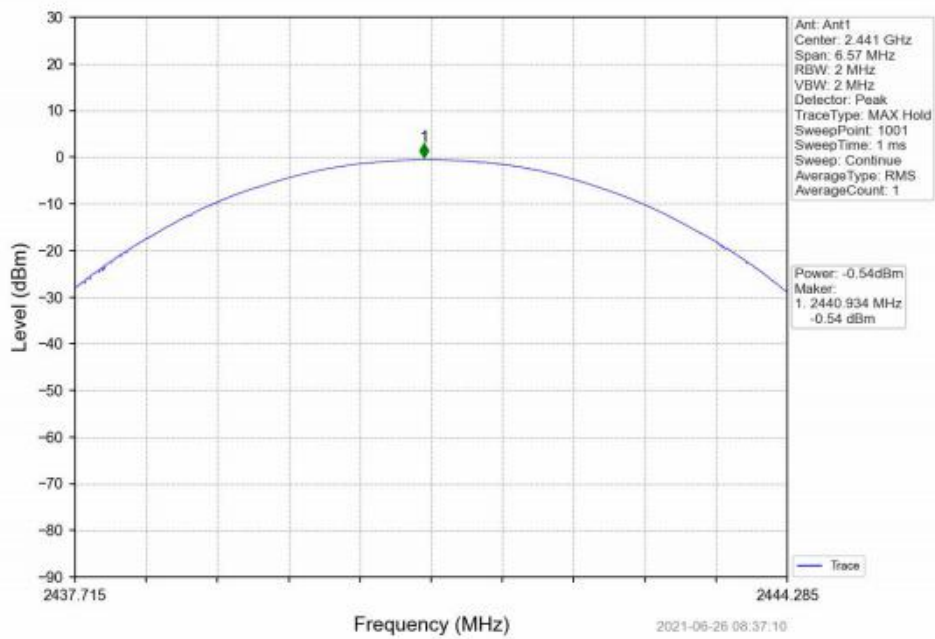
π /4-DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

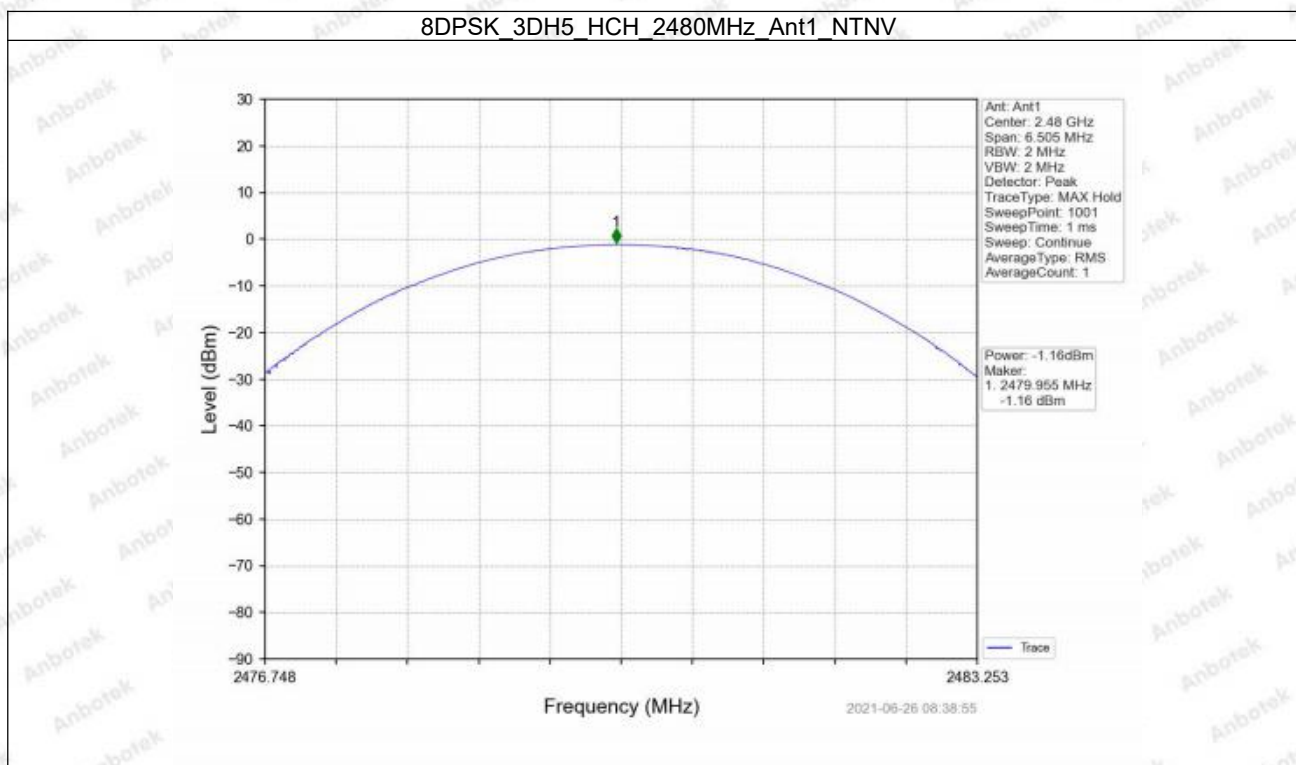


8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV





Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

3. Carrier Frequency Separation

3.1 Ant1

3.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	1.00	1.03	≥ 0.687	Pass
$\pi/4$ -DQPSK	SISO	HOPP	2DH5	1.00	1.32	≥ 0.878	Pass
8DPSK	SISO	HOPP	3DH5	1.00	1.31	≥ 0.871	Pass

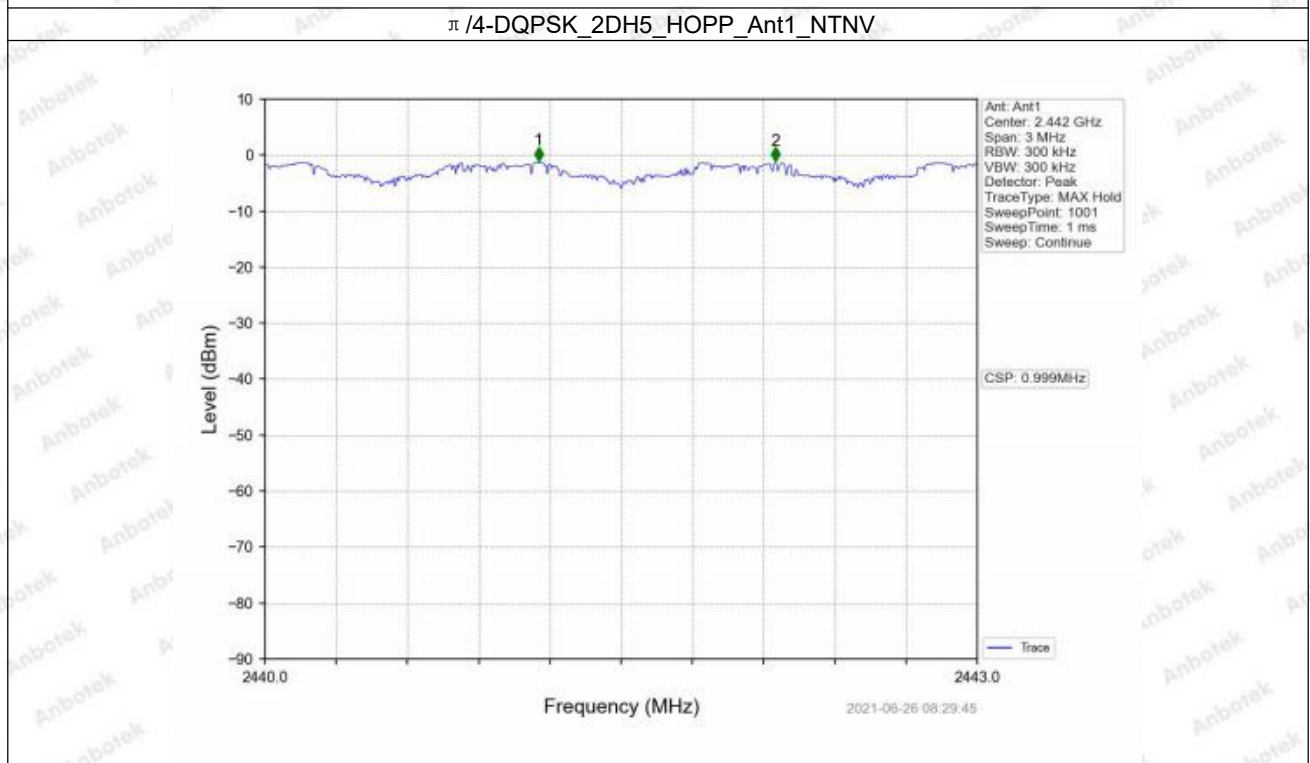
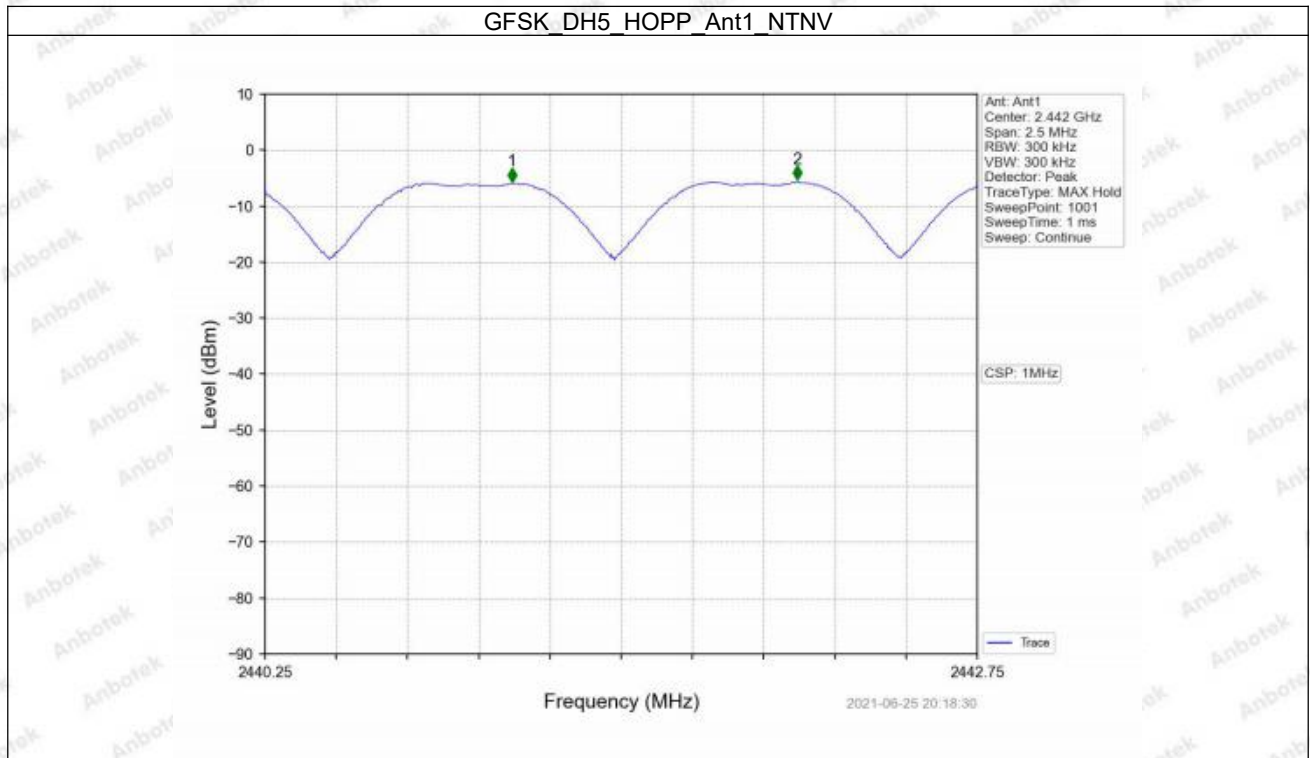
Shenzhen Anbotek Compliance Laboratory Limited

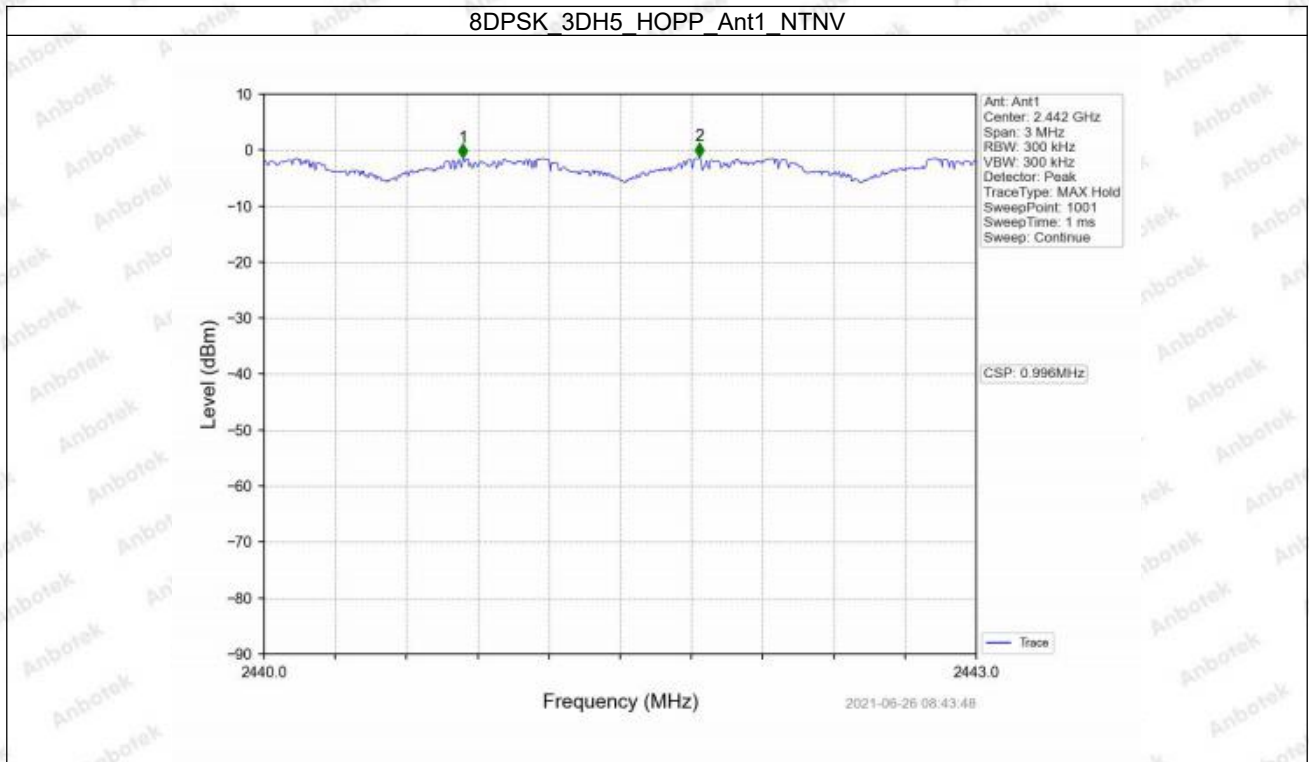
Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

 Hotline
 400-003-0500
www.anbotek.com

3.1.2 Test Graph





Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.
Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

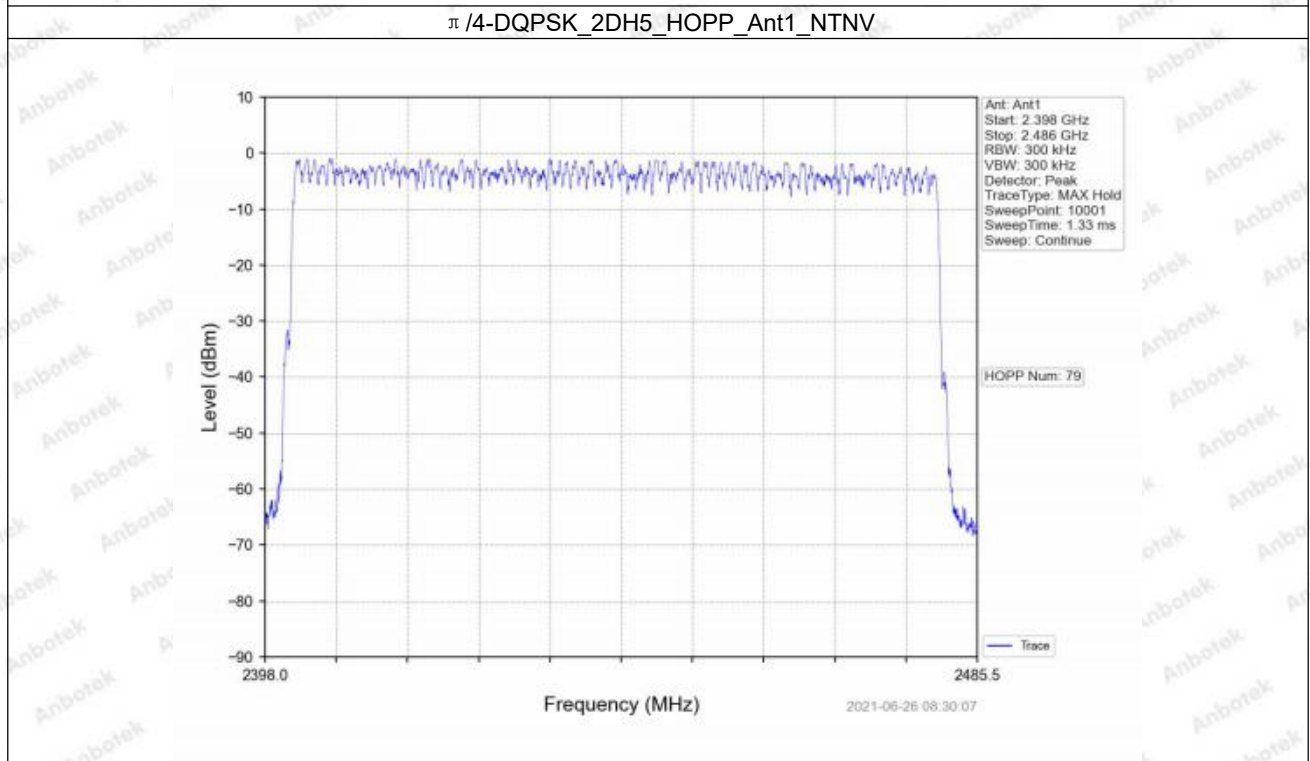
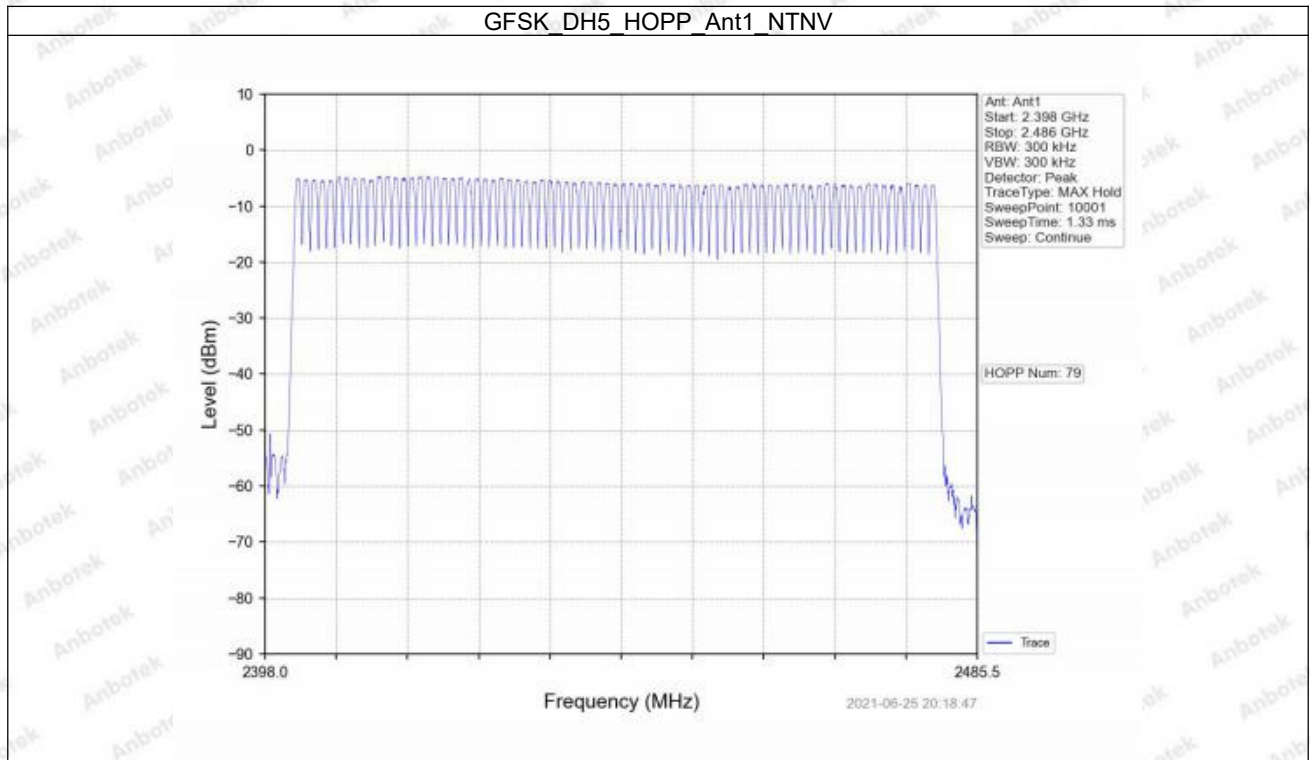
4. Number of Hopping Frequencies

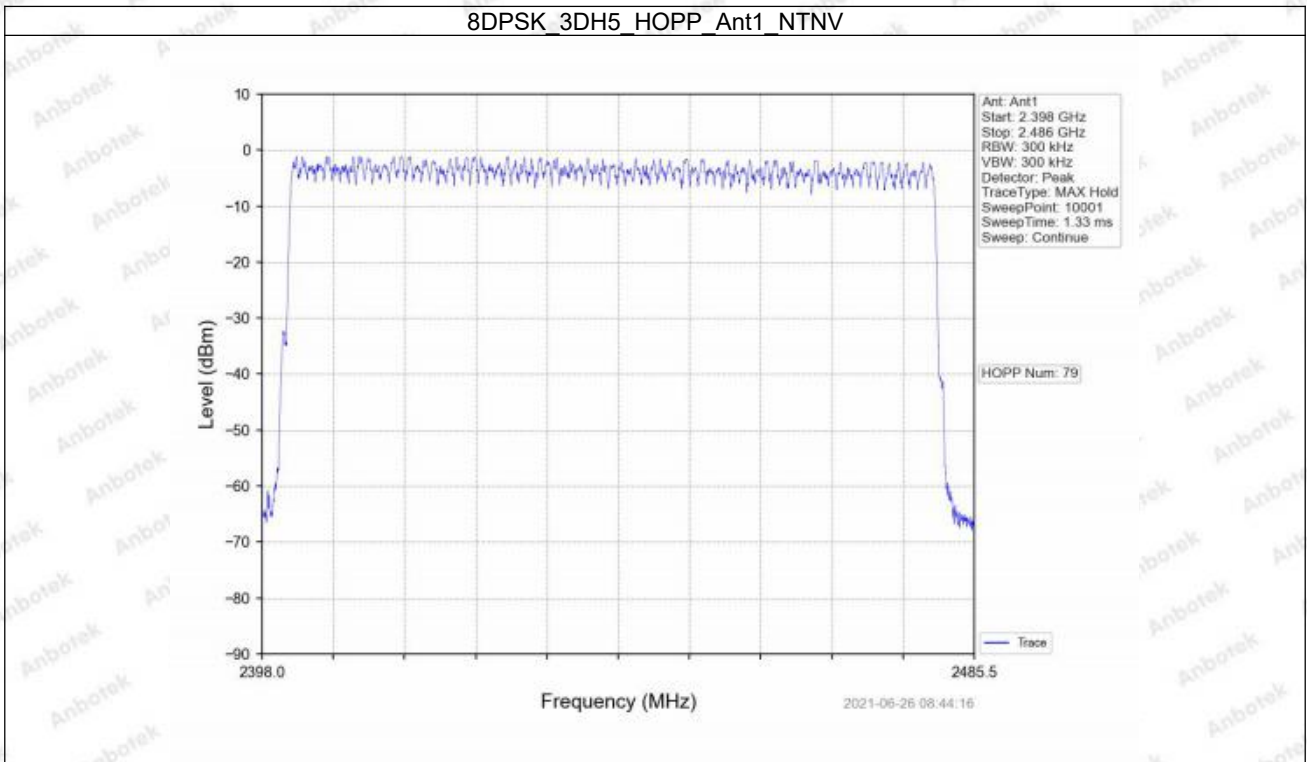
4.1 HopNum

4.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	Num of Hopping Frequencies		Limit	Verdict
				Ant1			
GFSK	SISO	HOPP	DH5	79		>=15	Pass
$\pi/4$ -DQPSK	SISO	HOPP	2DH5	79		>=15	Pass
8DPSK	SISO	HOPP	3DH5	79		>=15	Pass

4.1.2 Test Graph





Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

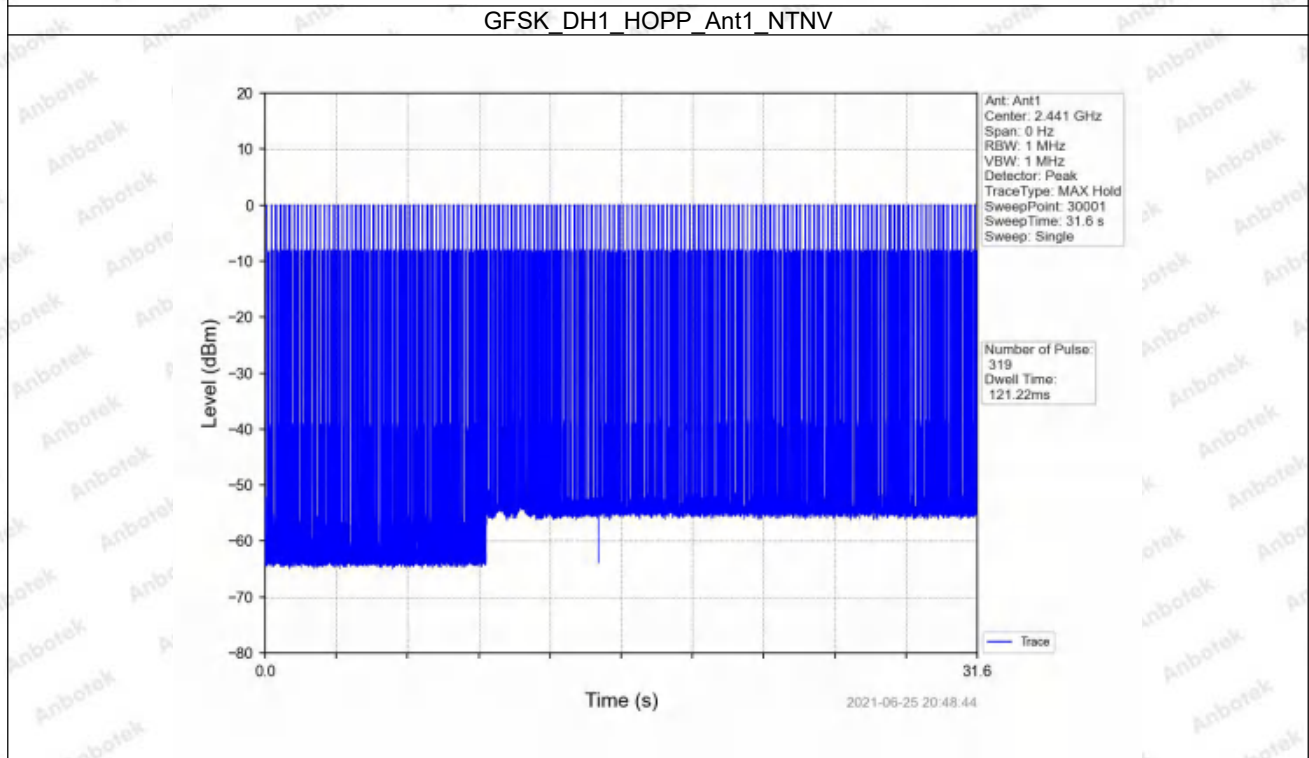
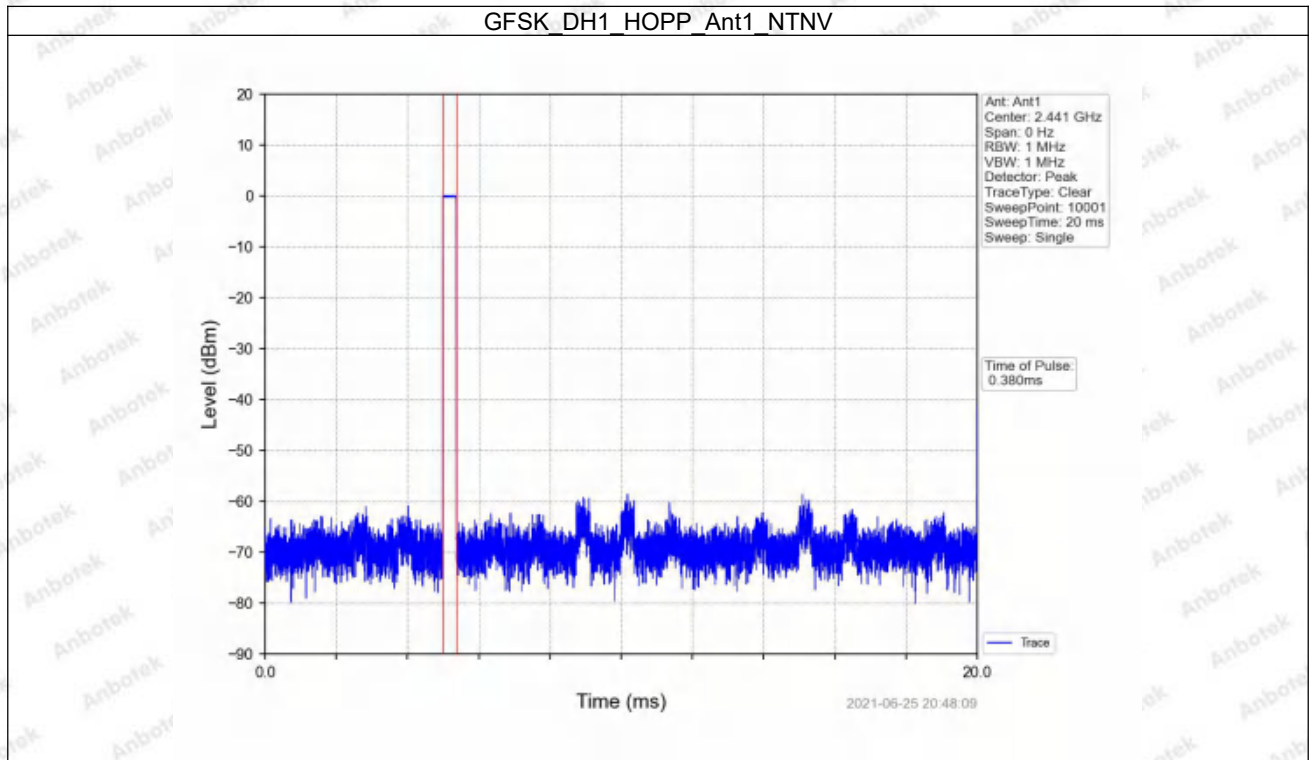
5. Time of Occupancy (Dwell Time)

5.1 Ant1

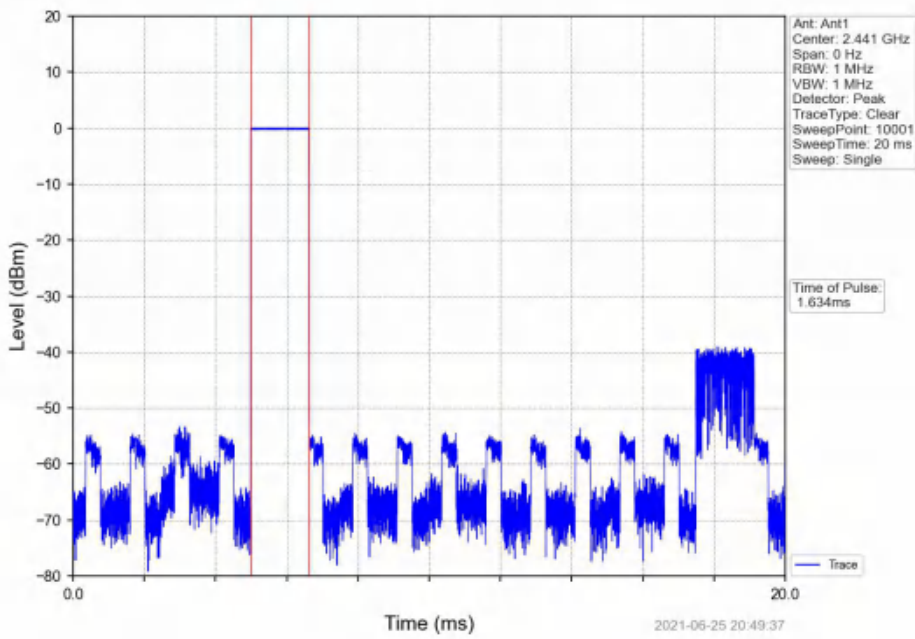
5.1.1 Test Result

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	0.38	31.60	319	121.22	<=400	Pass
			DH3	1.63	31.60	164	267.98	<=400	Pass
			DH5	2.88	31.60	106	305.07	<=400	Pass
$\pi/4$ -DQPSK	SISO	HOPP	2DH1	0.39	31.60	319	123.13	<=400	Pass
			2DH3	1.64	31.60	164	268.63	<=400	Pass
			2DH5	2.89	31.60	110	317.68	<=400	Pass
8DPSK	SISO	HOPP	3DH1	0.39	31.60	319	123.77	<=400	Pass
			3DH3	1.64	31.60	164	268.30	<=400	Pass
			3DH5	2.89	31.60	106	306.13	<=400	Pass

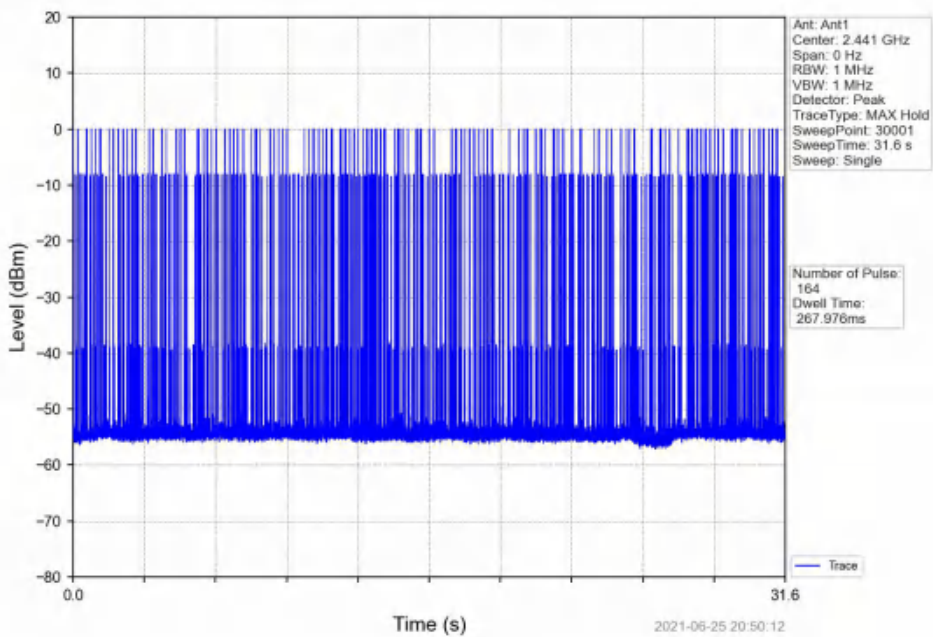
5.1.2 Test Graph



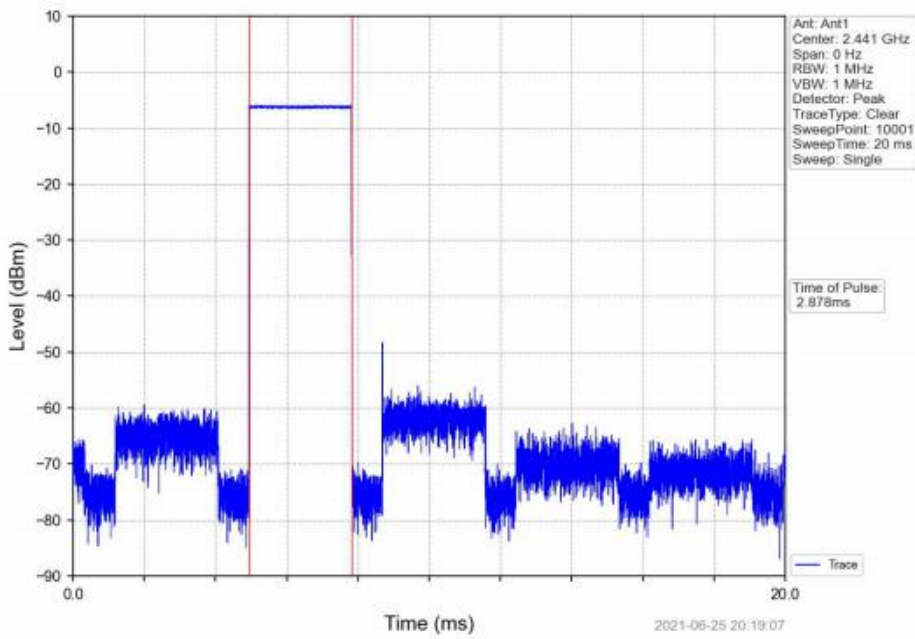
GFSK DH3_HOPP_Ant1_NTNV



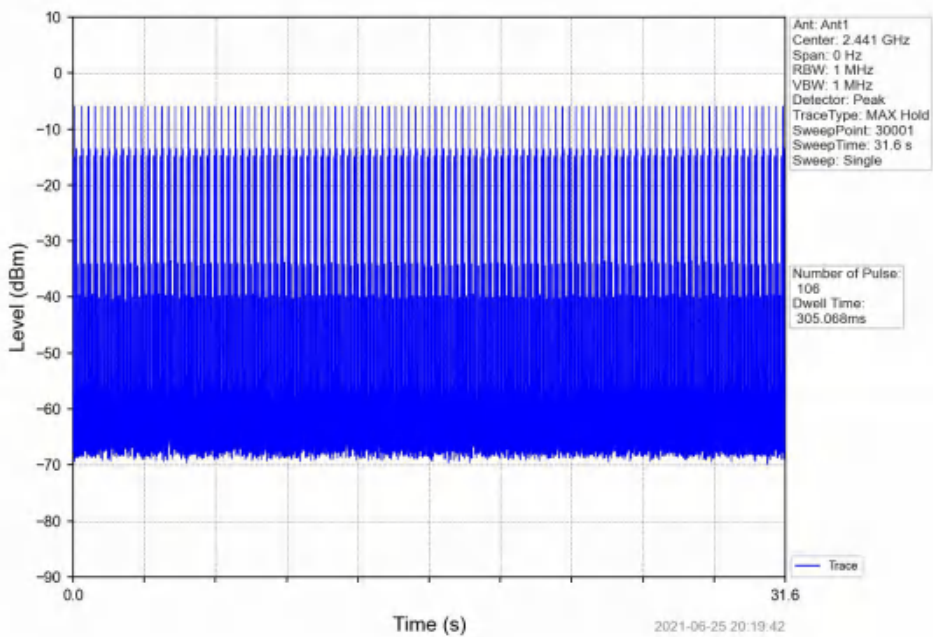
GFSK DH3_HOPP_Ant1_NTNV



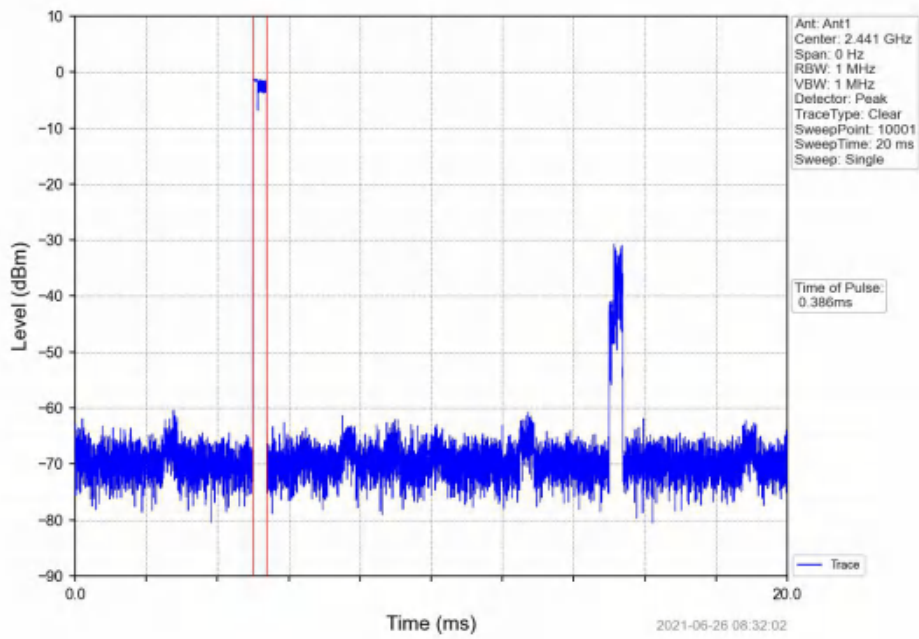
GFSK DH5_HOPP_Ant1_NTNV



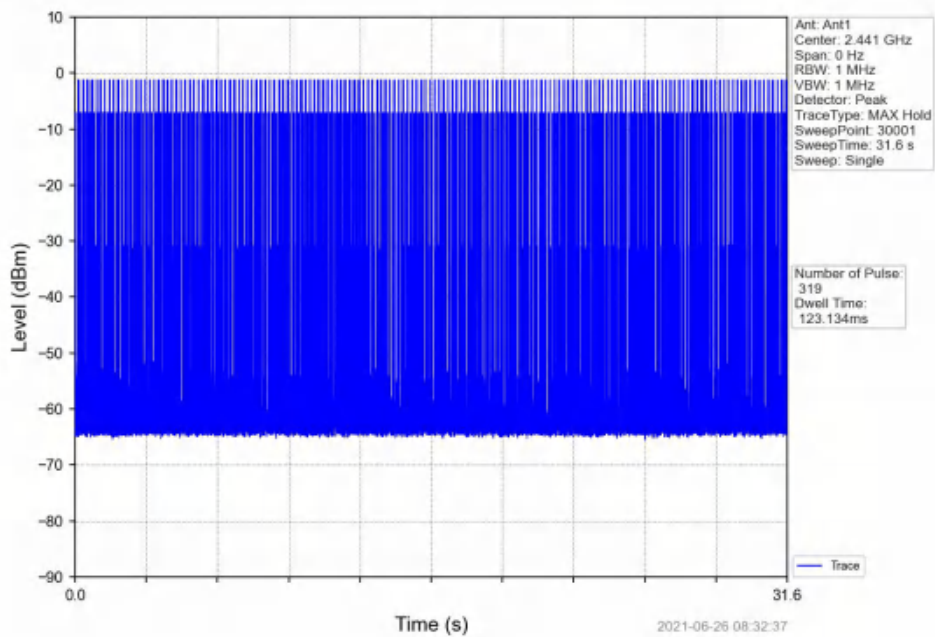
GFSK DH5_HOPP_Ant1_NTNV



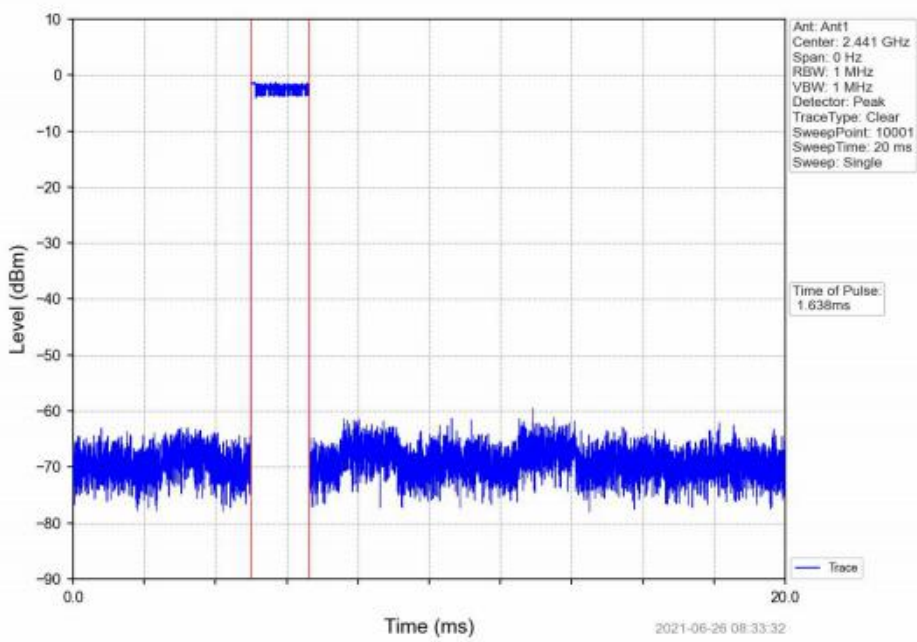
$\pi/4$ -DQPSK_2DH1_HOPP_Ant1_NTNV



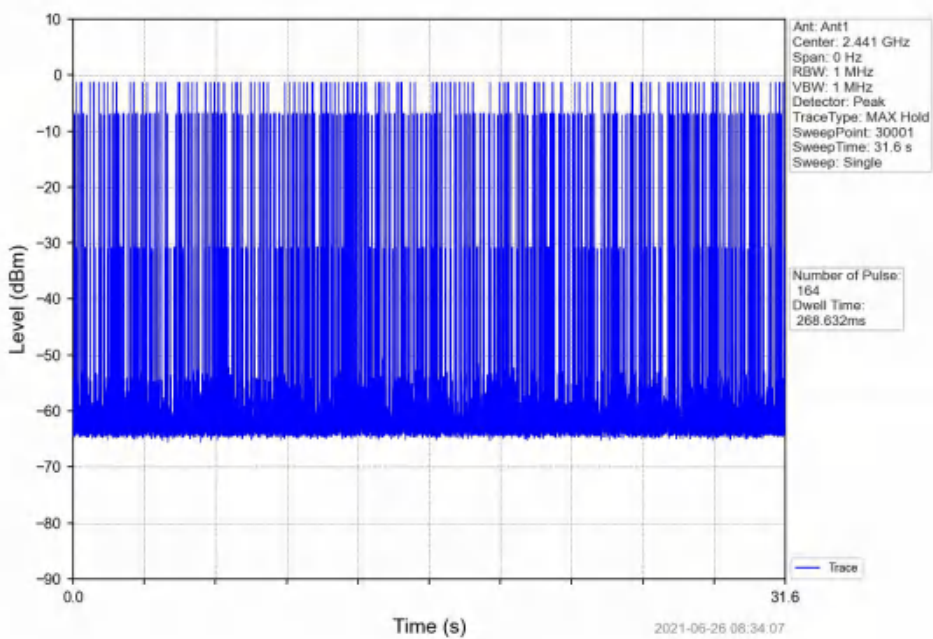
$\pi/4$ -DQPSK_2DH1_HOPP_Ant1_NTNV



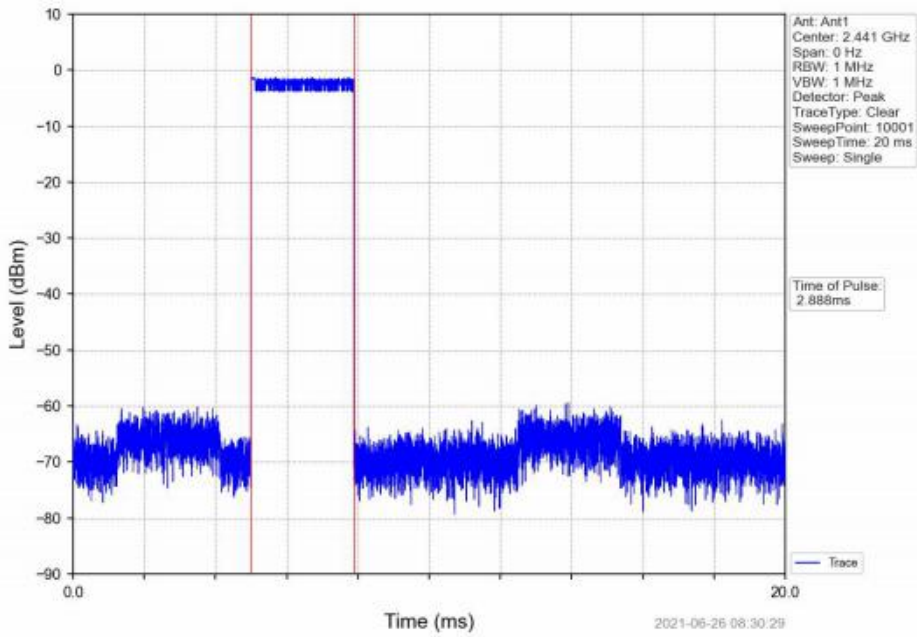
$\pi/4$ -DQPSK_2DH3_HOPP_Ant1_NTNV



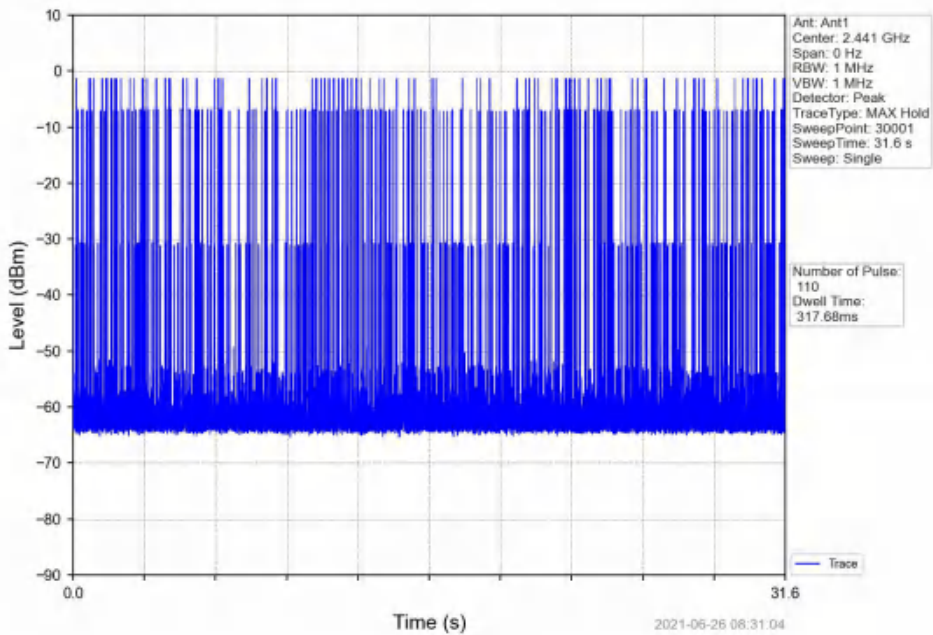
$\pi/4$ -DQPSK_2DH3_HOPP_Ant1_NTNV



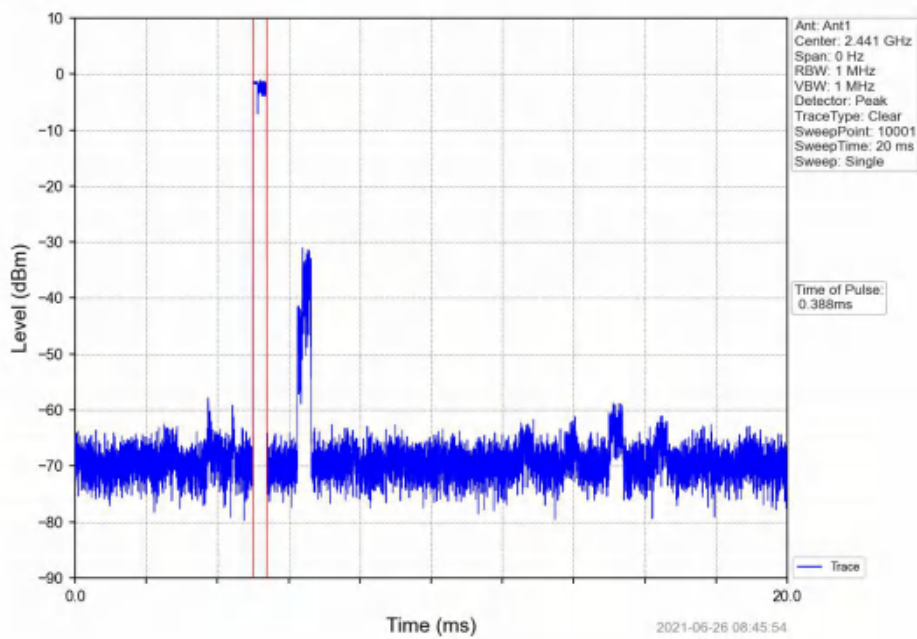
π /4-DQPSK_2DH5_HOPP_Ant1_NTNV



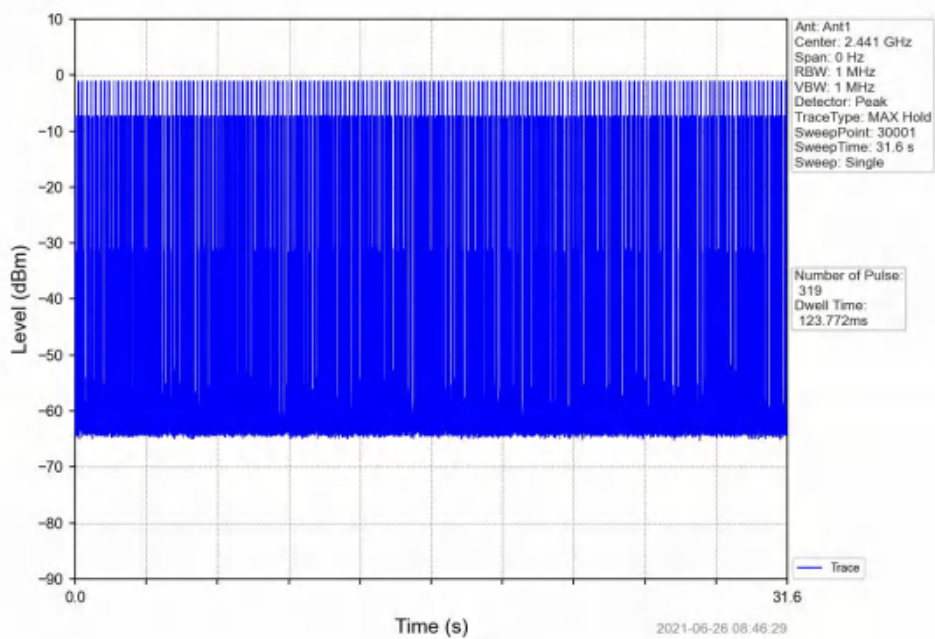
π /4-DQPSK_2DH5_HOPP_Ant1_NTNV



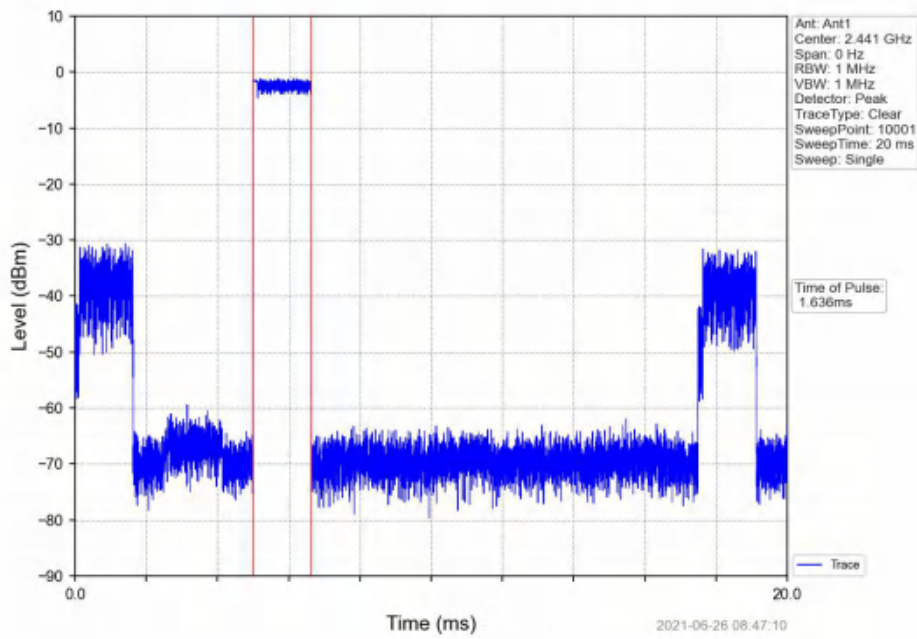
8DPSK_3DH1_HOPP_Ant1_NTNV



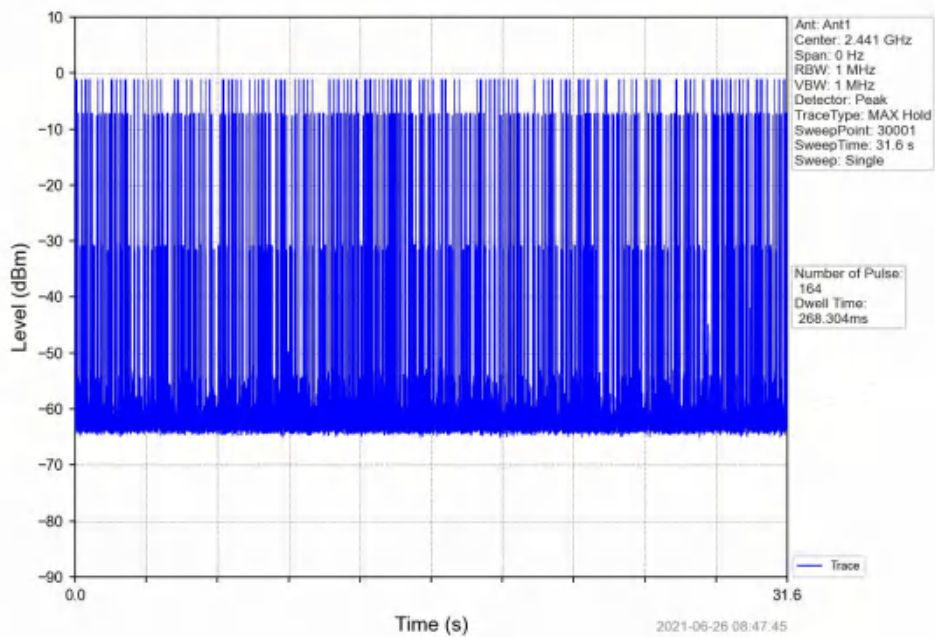
8DPSK_3DH1_HOPP_Ant1_NTNV



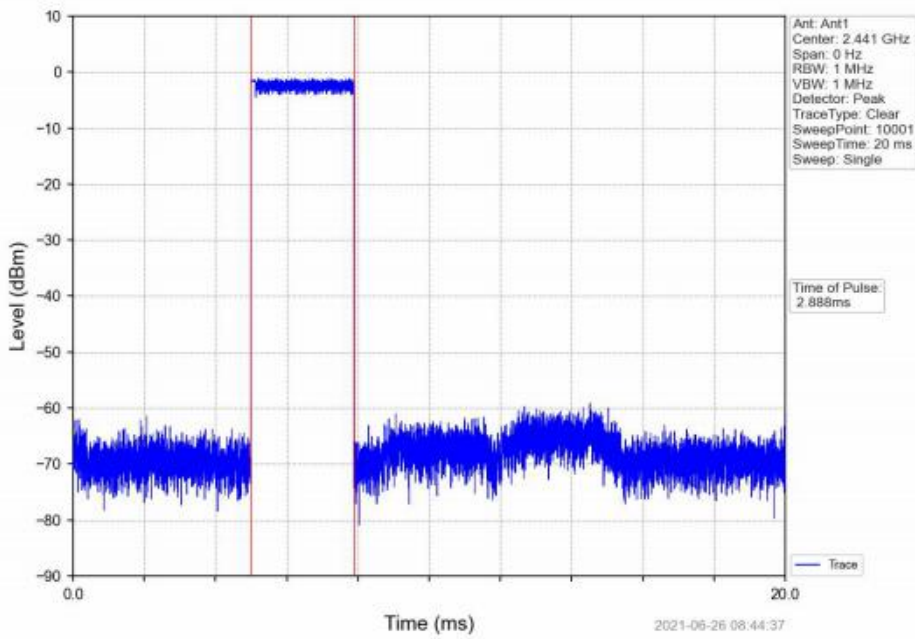
8DPSK 3DH3_HOPP_Ant1_NTNV



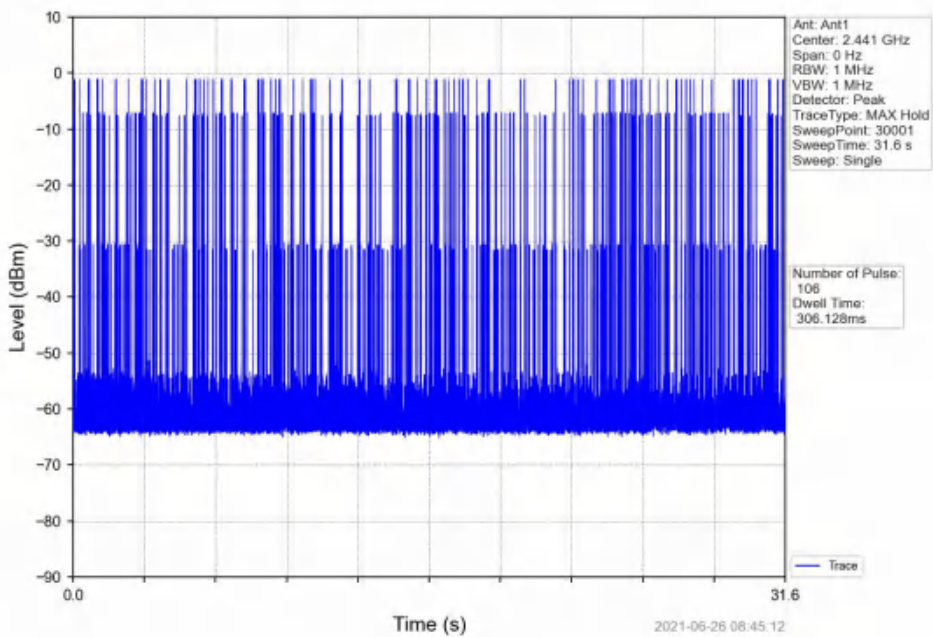
8DPSK 3DH3_HOPP_Ant1_NTNV



8DPSK 3DH5_HOPP_Ant1_NTNV



8DPSK 3DH5_HOPP_Ant1_NTNV



6. Unwanted Emissions In Non-restricted Frequency Bands

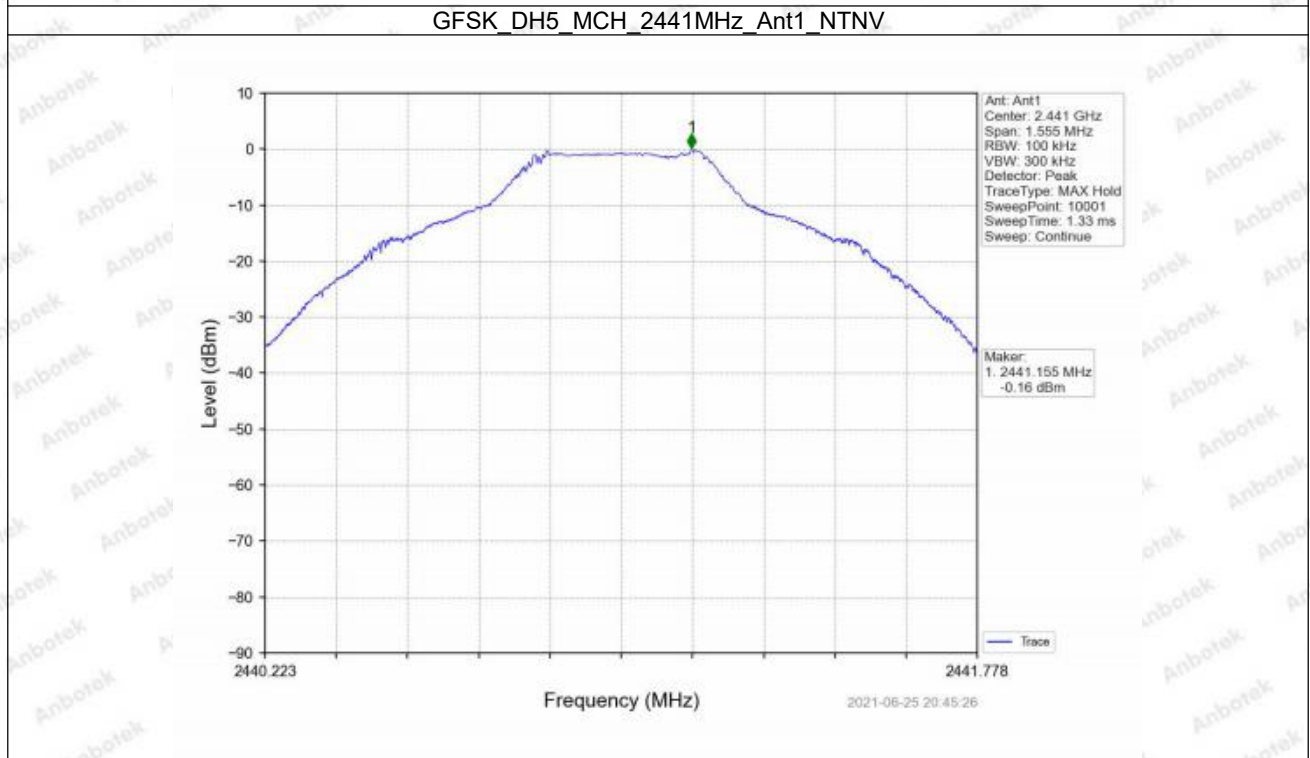
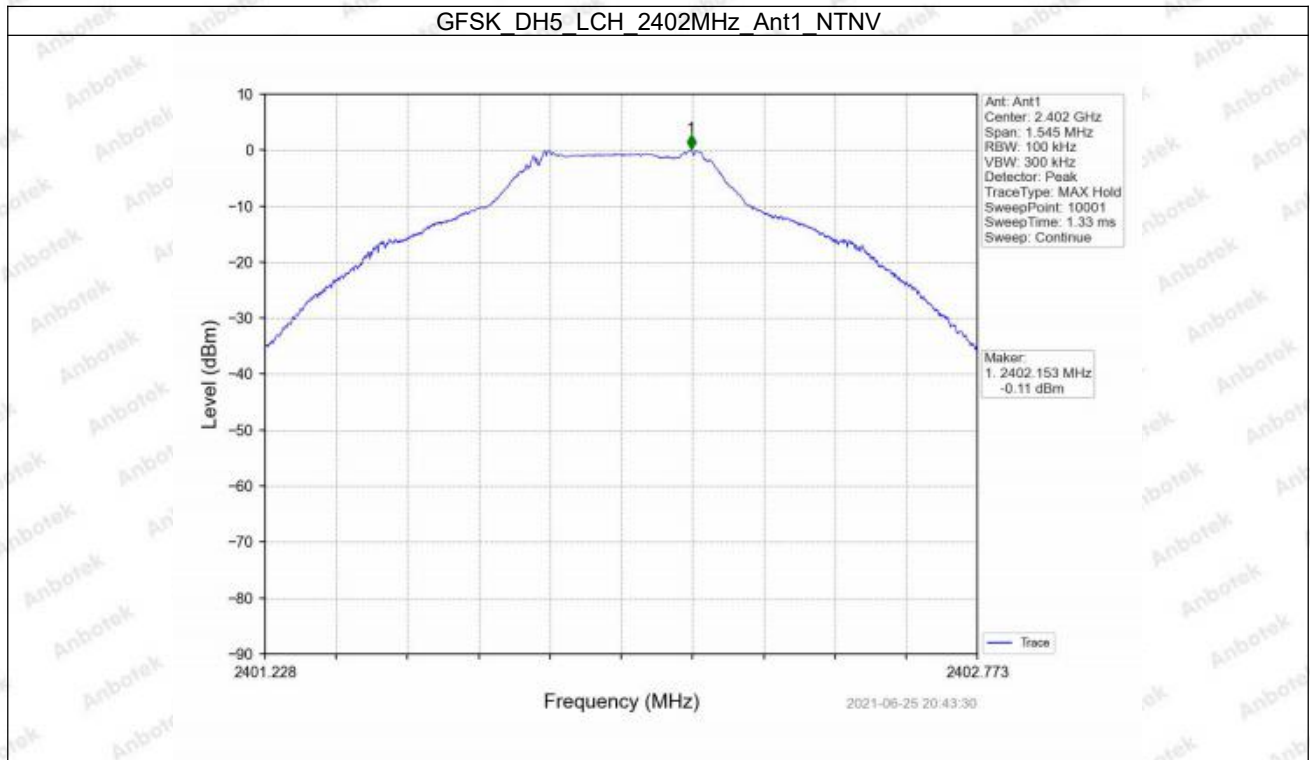
6.1 Ref

6.1.1 Test Result

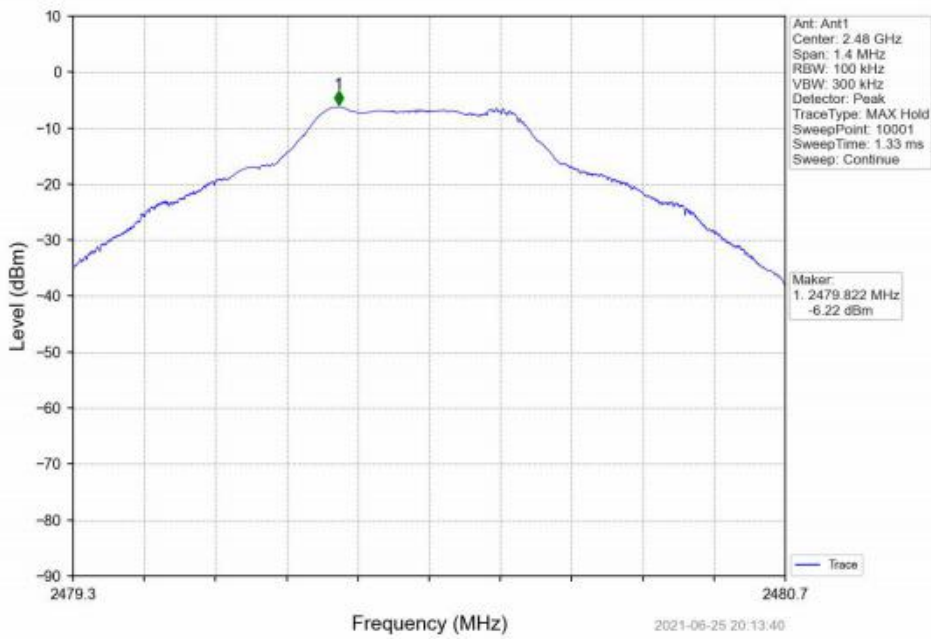
Mode	TX Type	Frequency (MHz)	Packet Type	Ant	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	-0.11	/	/
		2441	DH5	1	-0.16	/	/
		2480	DH5	1	-6.22	/	/
$\pi/4$ -DQPSK	SISO	2402	2DH5	1	-1.18	/	/
		2441	2DH5	1	-1.60	/	/
		2480	2DH5	1	-2.24	/	/
8DPSK	SISO	2402	3DH5	1	-1.37	/	/
		2441	3DH5	1	-1.53	/	/
		2480	3DH5	1	-2.31	/	/

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.
 Note2: Only for Report Use

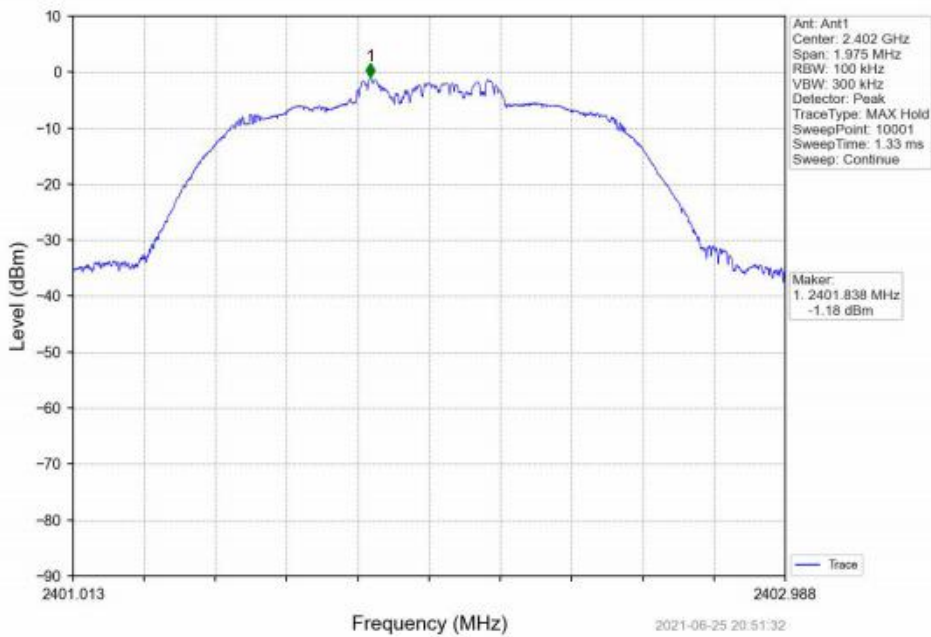
6.1.2 Test Graph



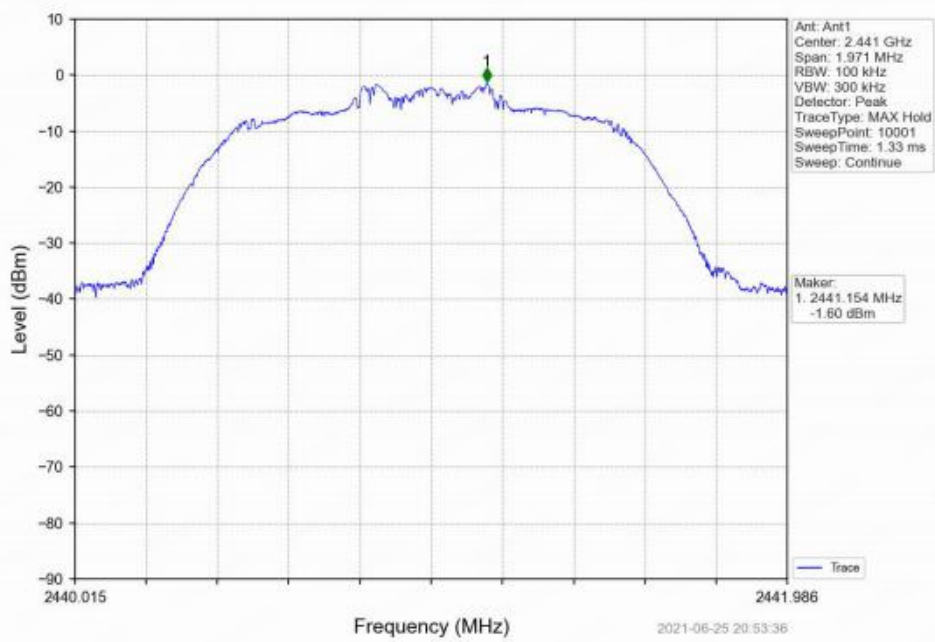
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



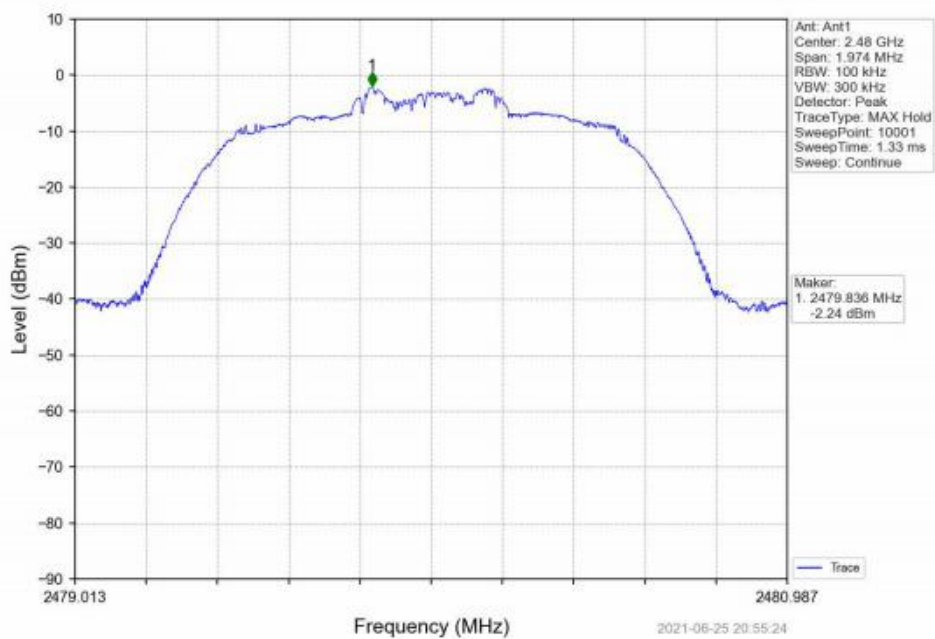
π /4-DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



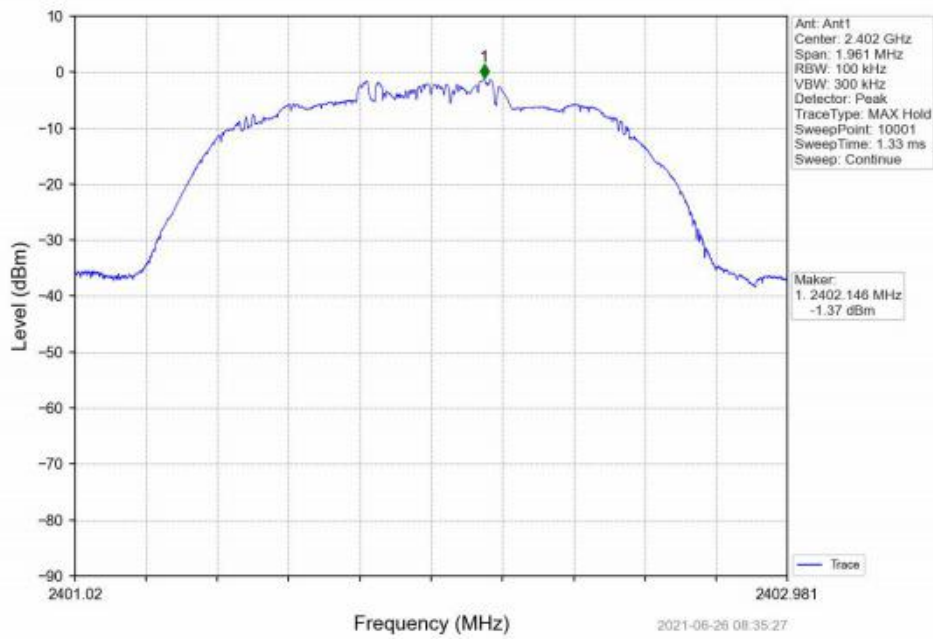
π /4-DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



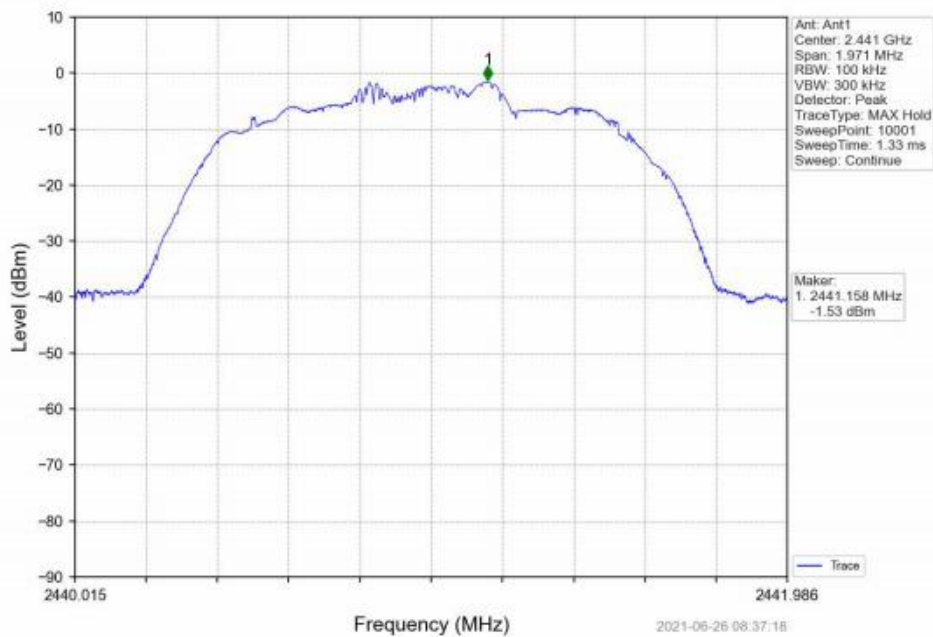
π /4-DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

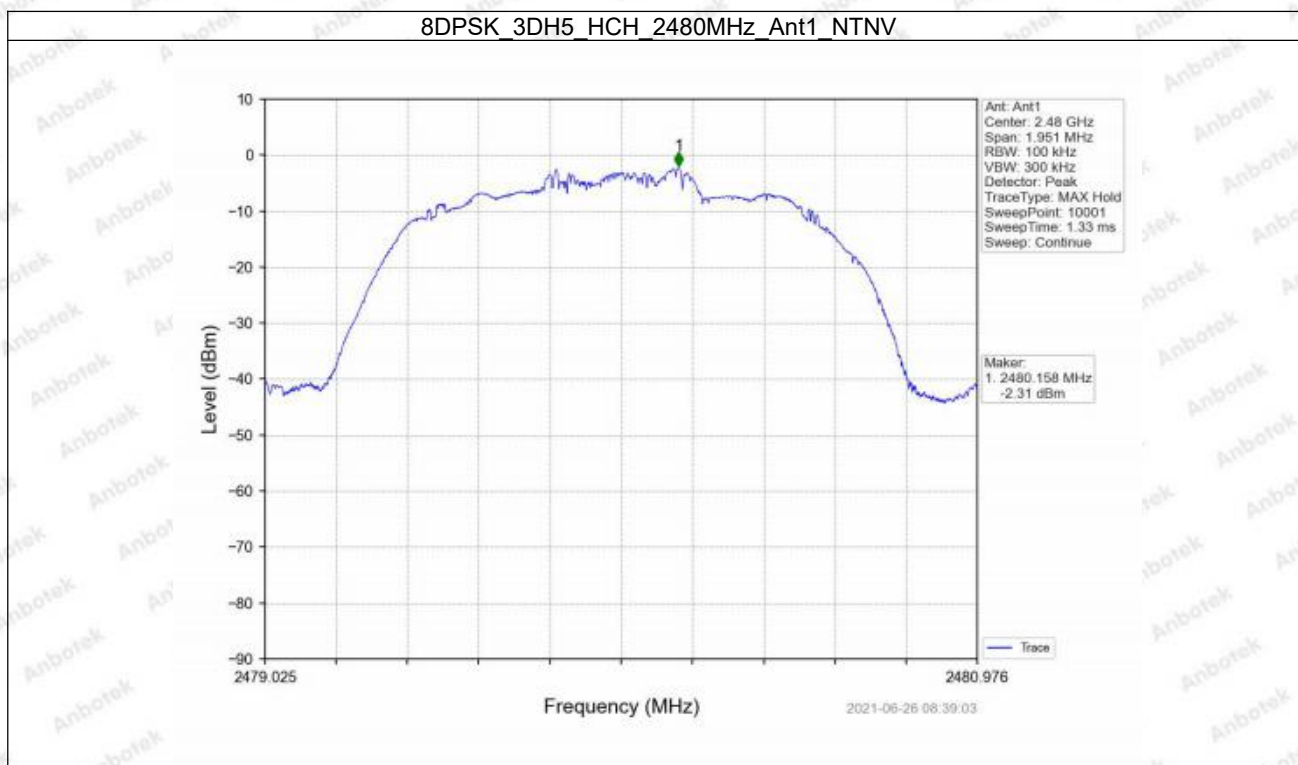


8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV





Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.
Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

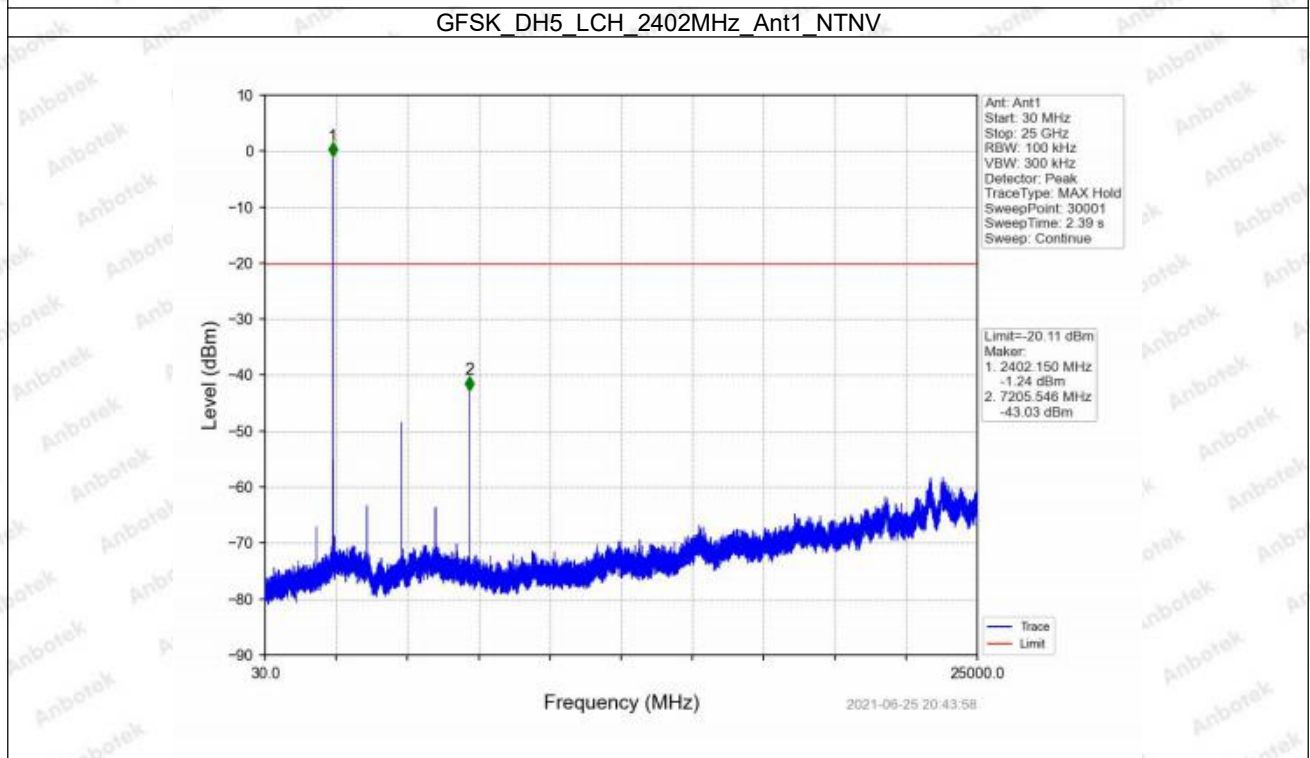
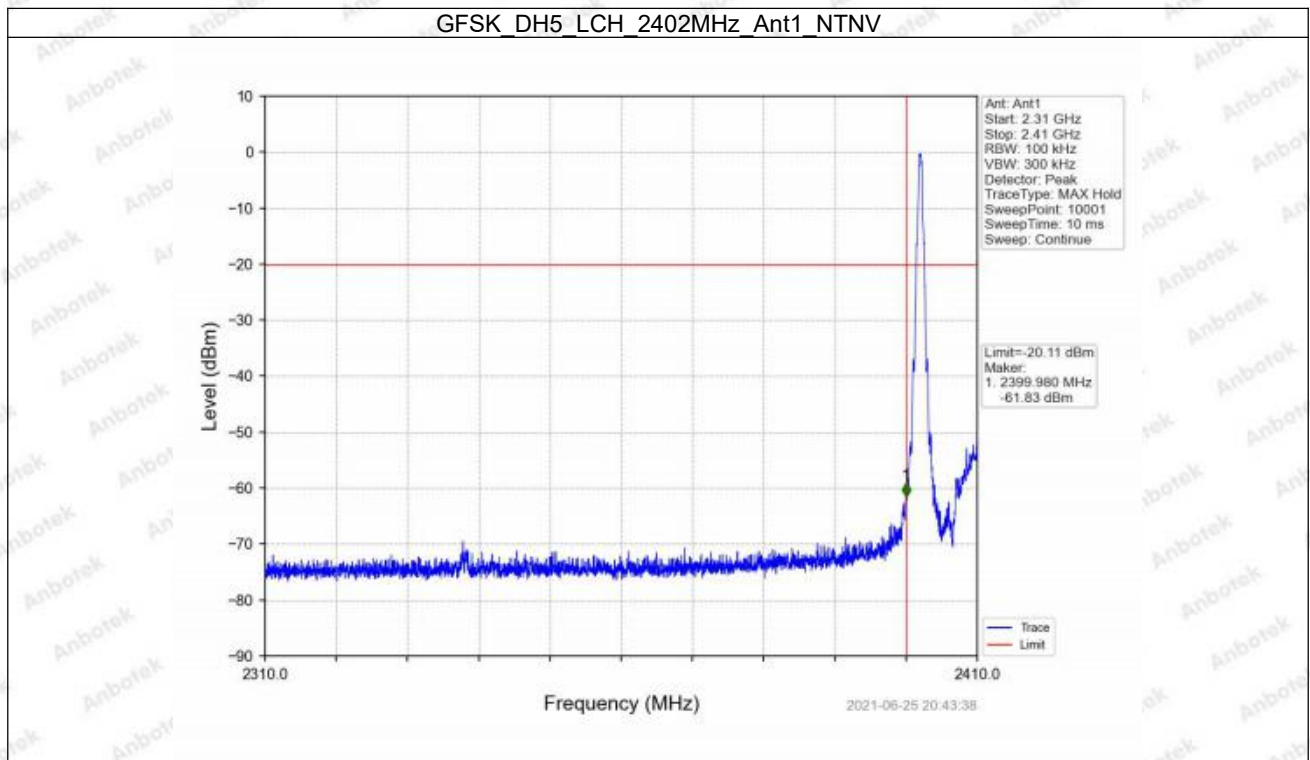
6.2 CSE

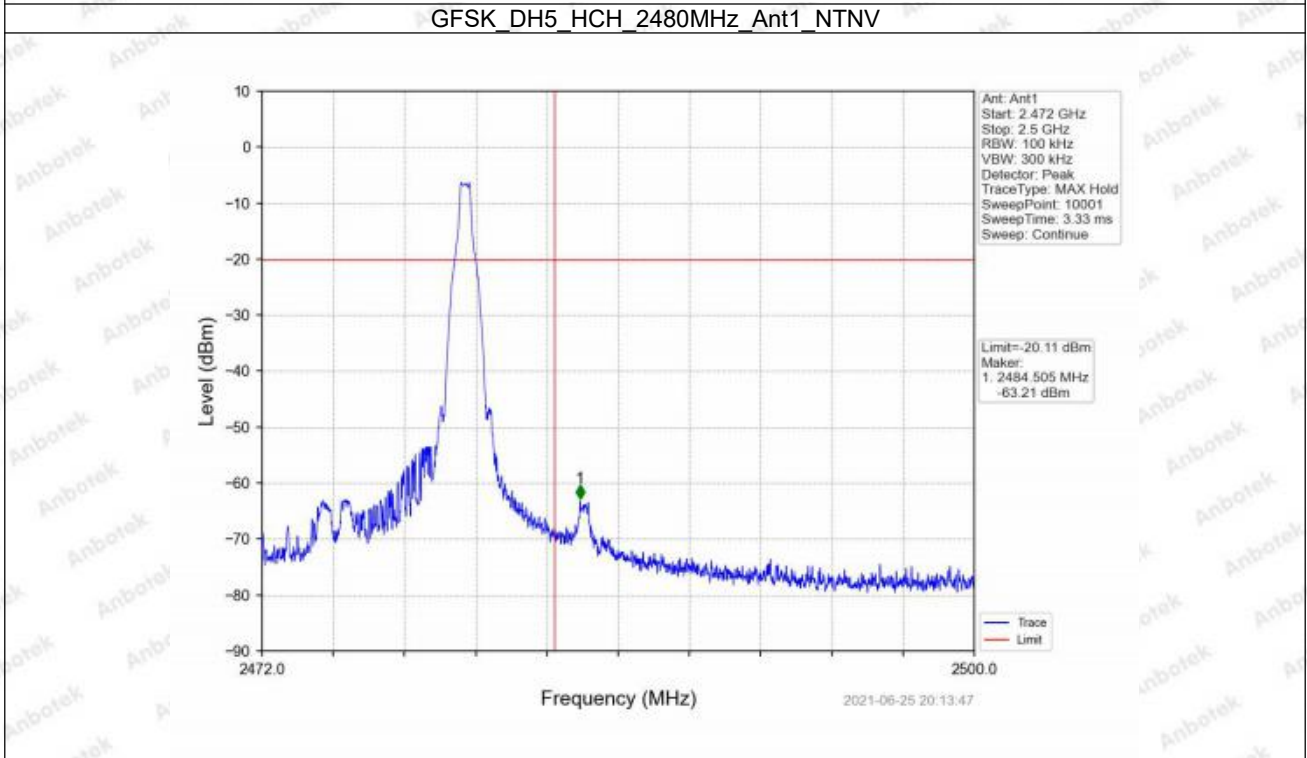
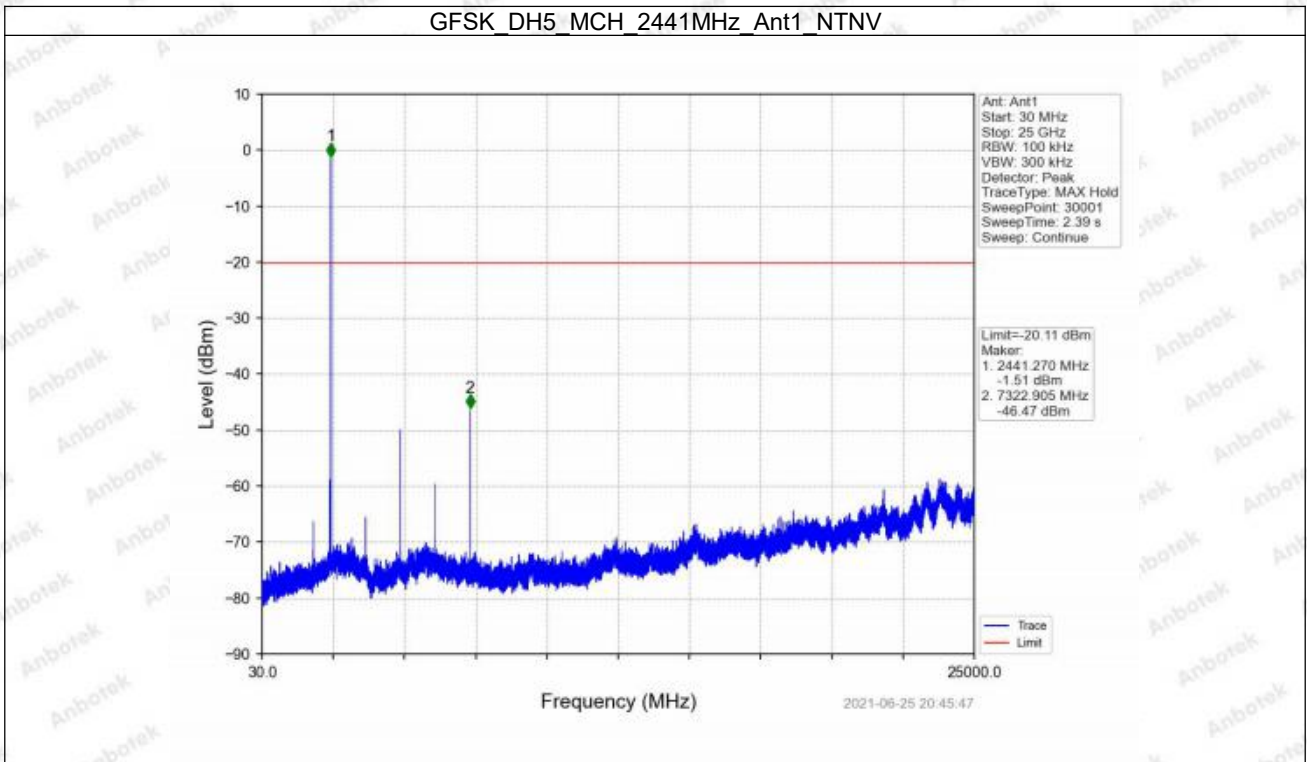
6.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	Ant	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
		2441	DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
		2480	DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
		HOPP	DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
$\pi/4$ -DQPSK	SISO	2402	2DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
		2441	2DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
		2480	2DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
		HOPP	2DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
8DPSK	SISO	2402	3DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
		2441	3DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
		2480	3DH5	1	Refer To Test Graph	Refer To Test Graph	Note2
		HOPP	3DH5	1	Refer To Test Graph	Refer To Test Graph	Note2

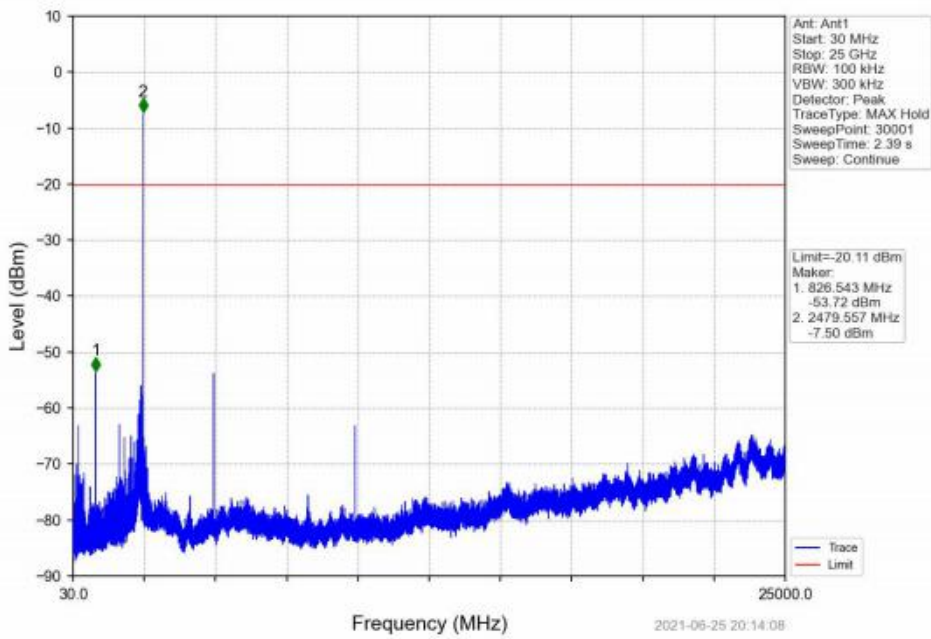
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.
 Note2: Only for Report Use

6.2.2 Test Graph

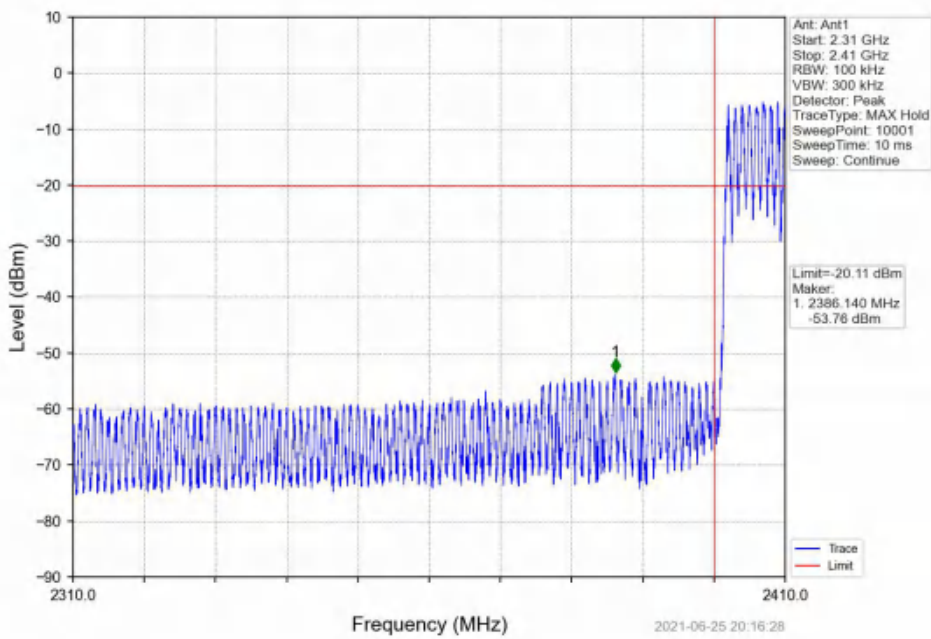




GFSK_DH5_HCH_2480MHz_Ant1_NTNV



GFSK_DH5_HOPP_Ant1_NTNV



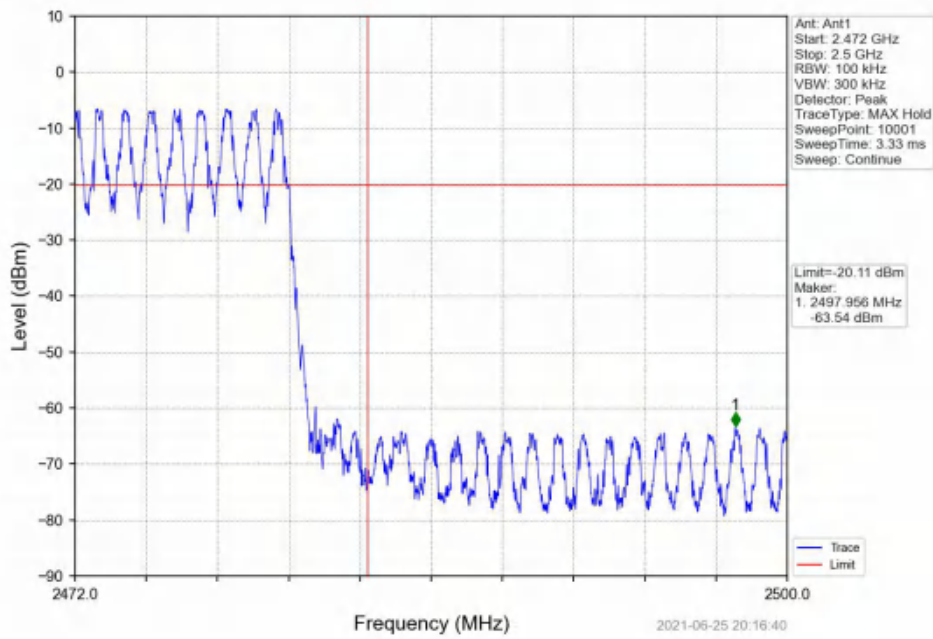
Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

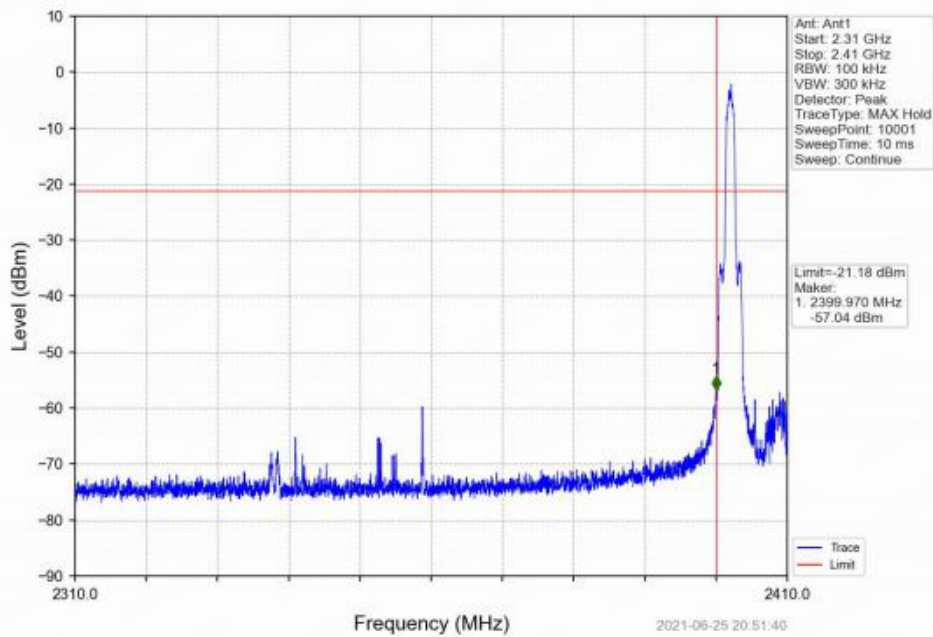
Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

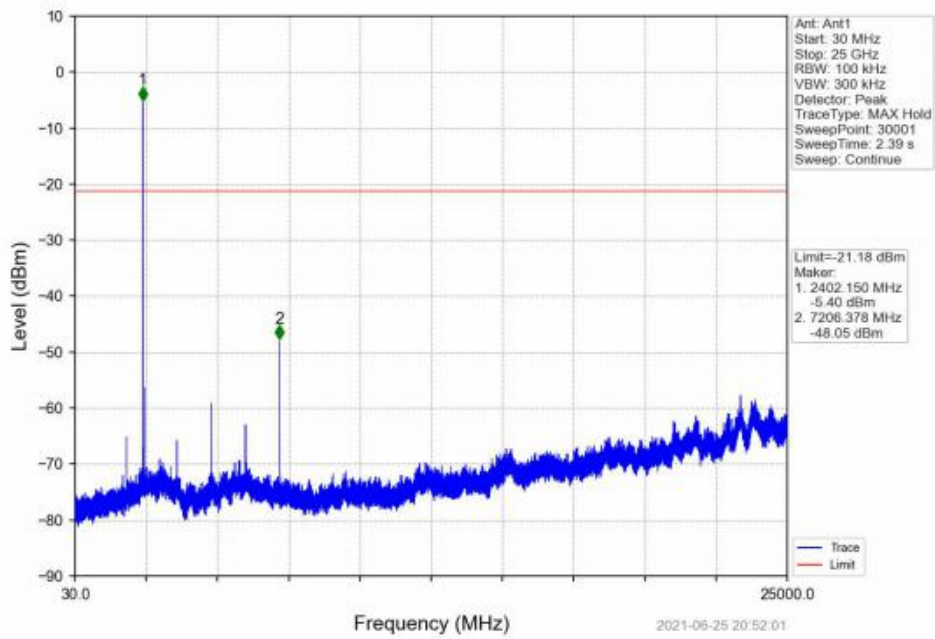
GFSK_DH5_HOPP_Ant1_NTNV



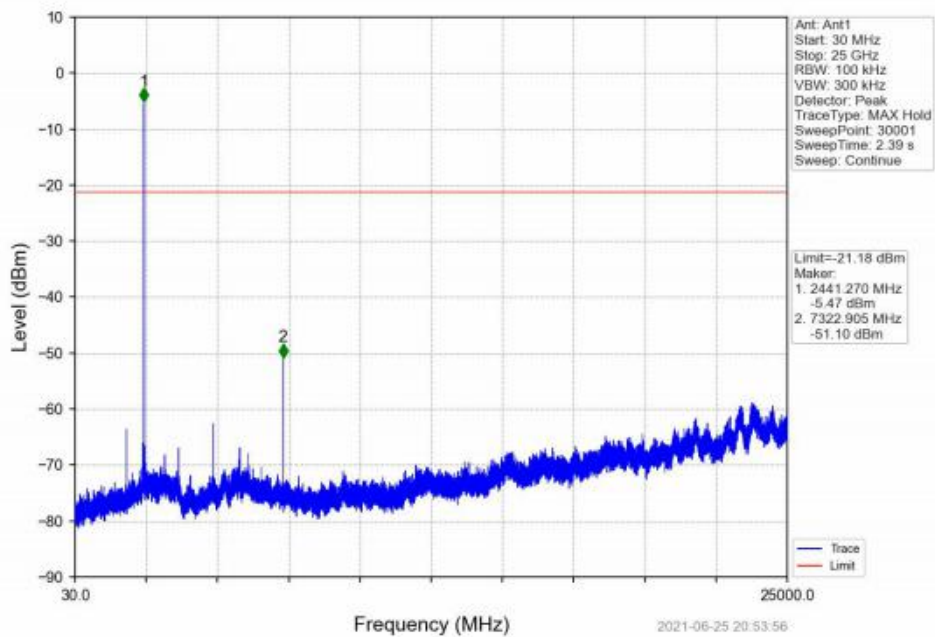
π /4-QPSK_2DH5_LCH_2402MHz_Ant1_NTNV



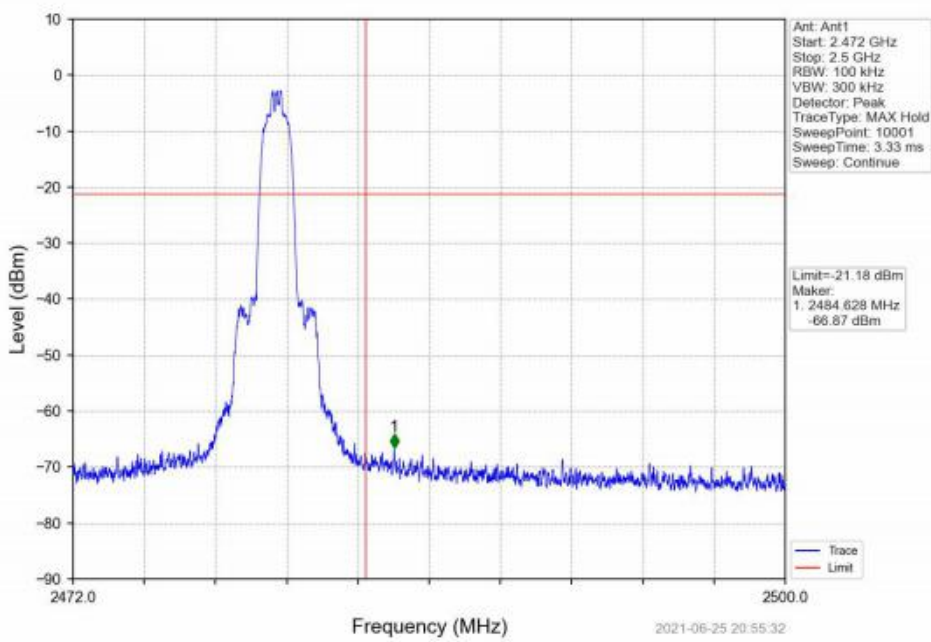
π /4-DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



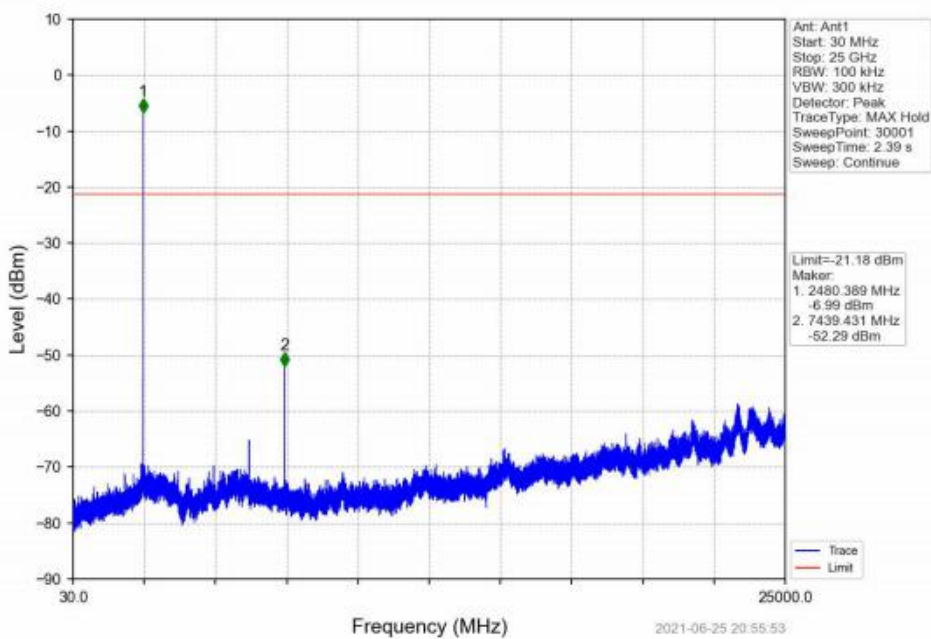
π /4-DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



π /4-DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



π /4-DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



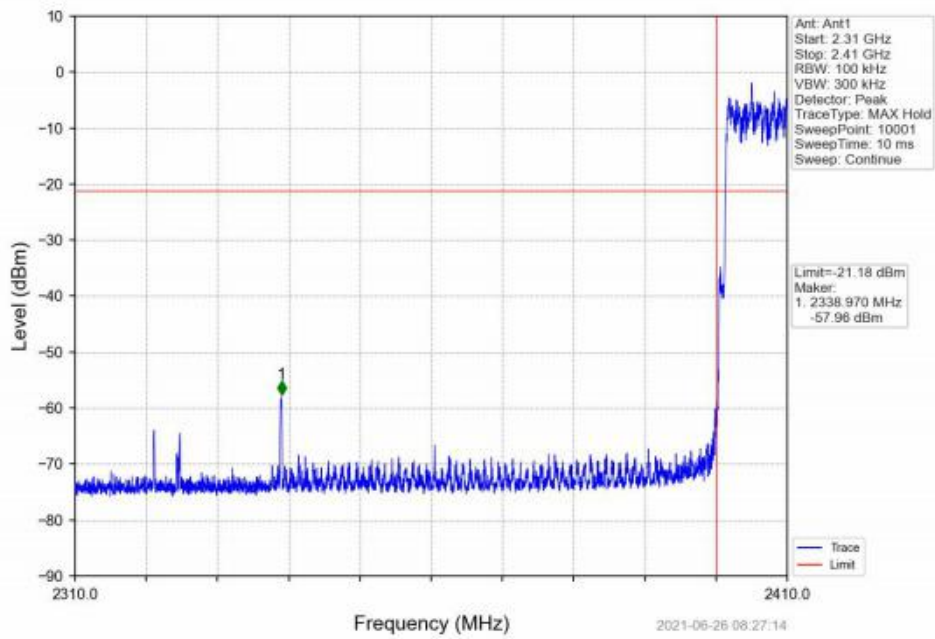
Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

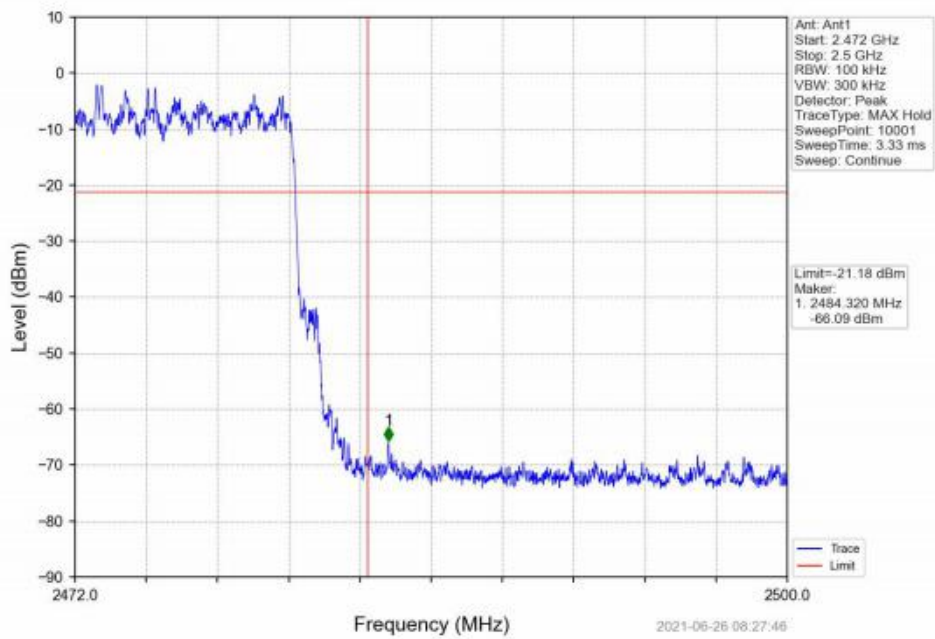
Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

π /4-DQPSK_2DH5_HOPP_Ant1_NTNV



π /4-DQPSK_2DH5_HOPP_Ant1_NTNV

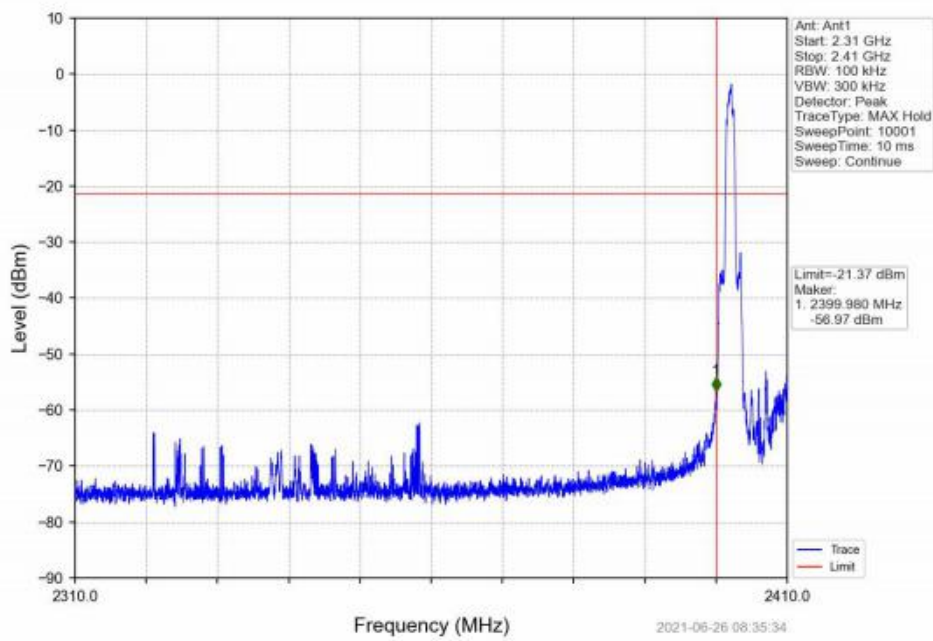


Shenzhen Anbotek Compliance Laboratory Limited

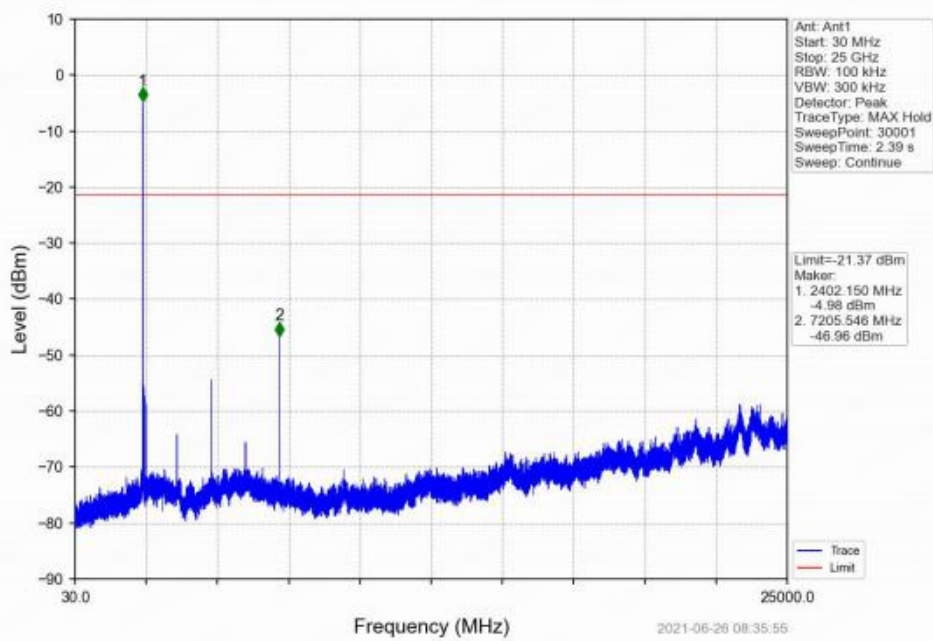
Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.
Tel: (86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

Hotline
400-003-0500
www.anbotek.com

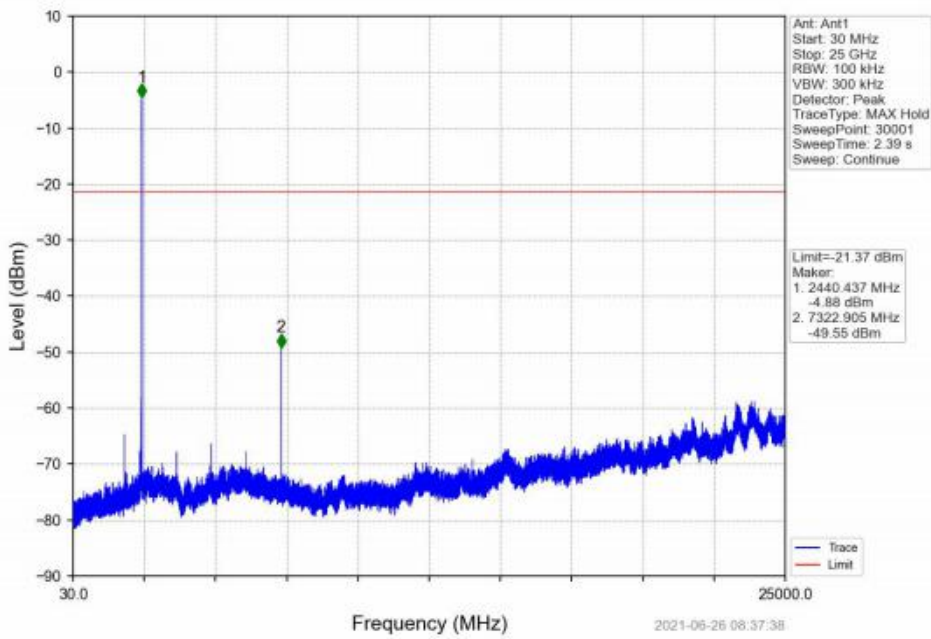
8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



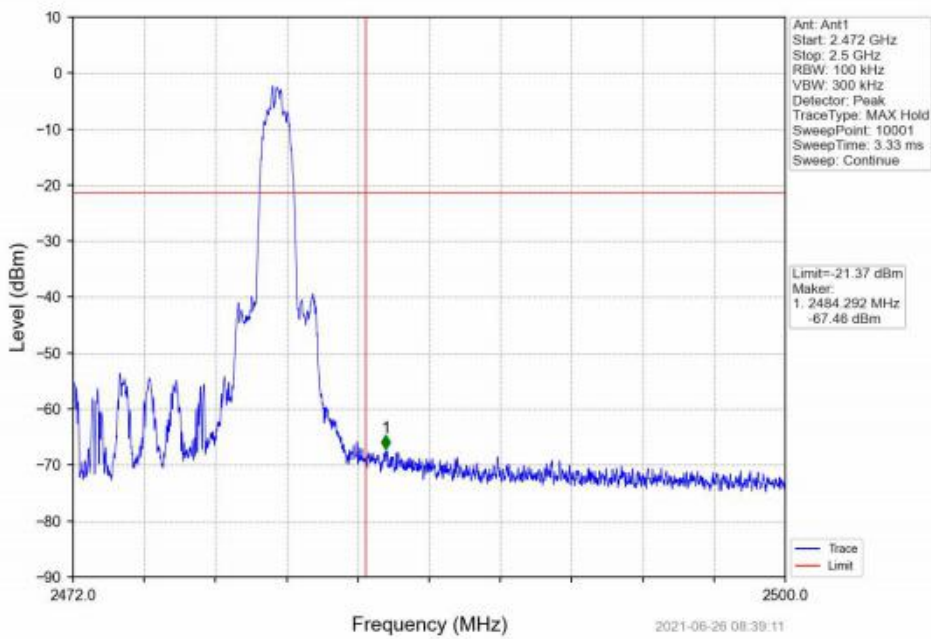
8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



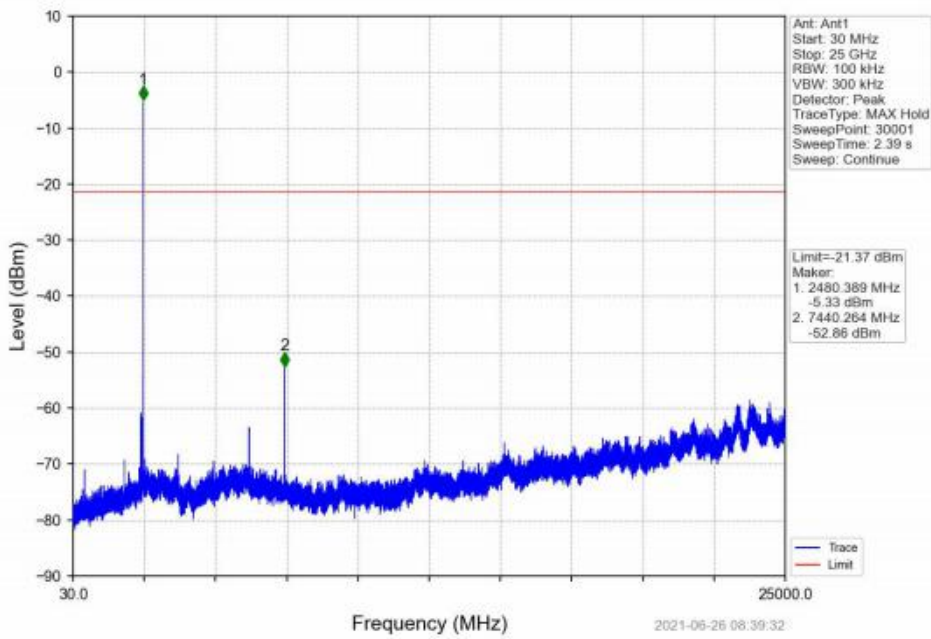
8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



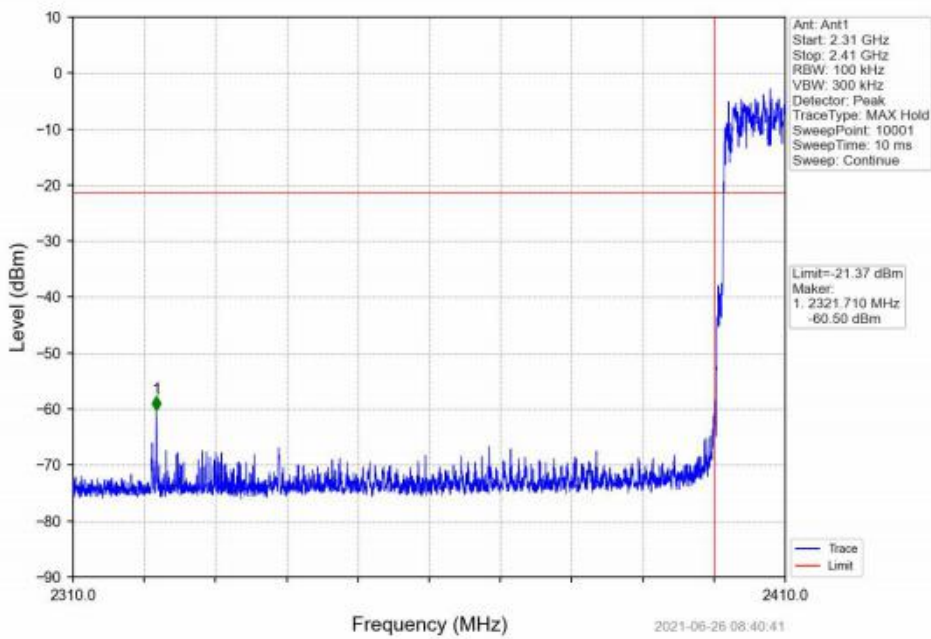
8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV

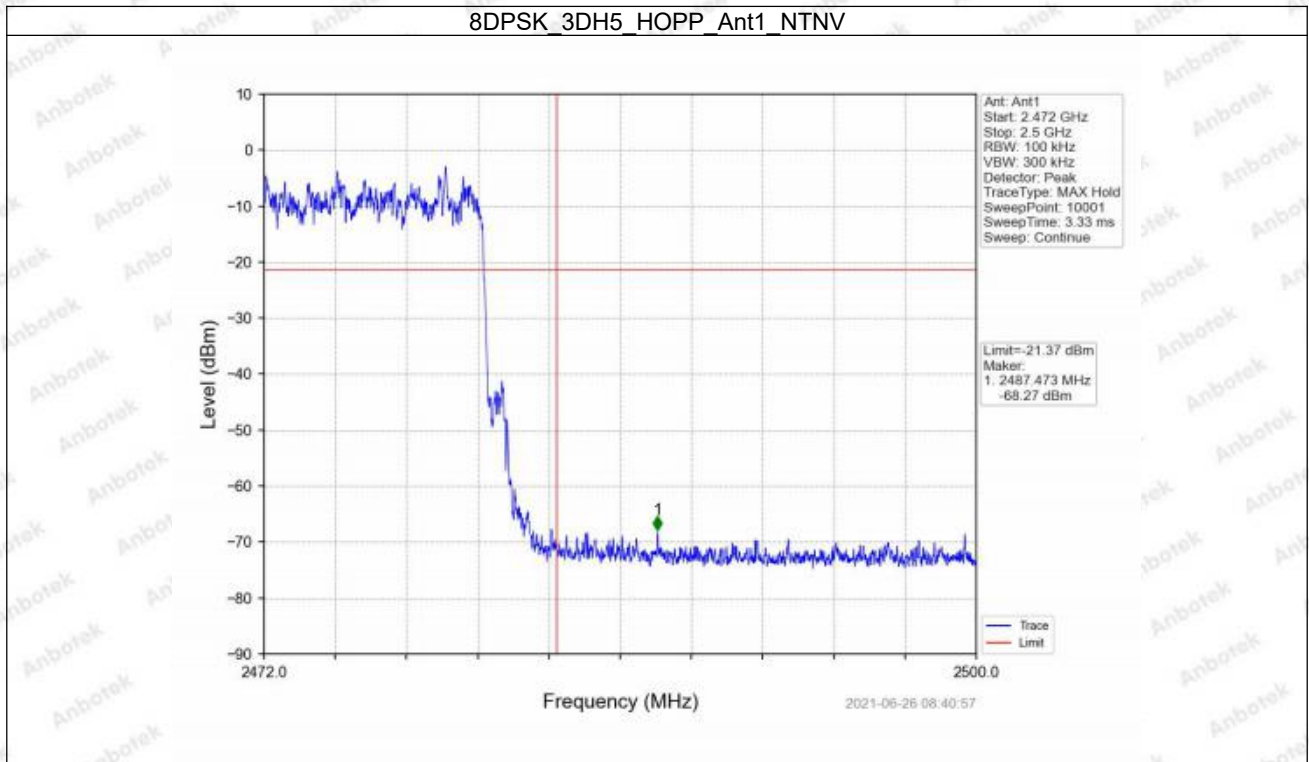


8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



8DPSK_3DH5_HOPP_Ant1_NTNV





---End---