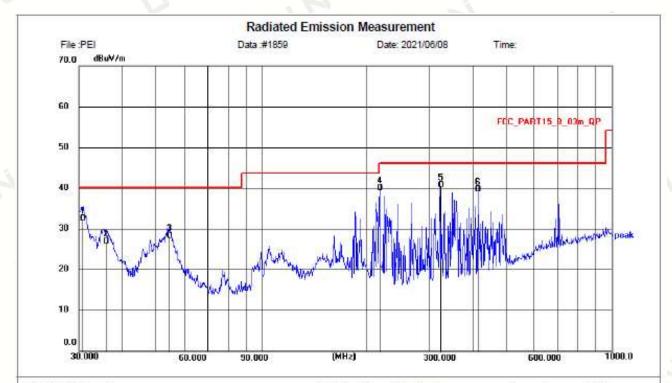
Temperature:

Humidity:

26(C)



E.U.T:	Water Dancing Bluetooth MINI Tower	Polarization:	Vertical
Model No.:	SP118-BLACK	Temperature:	26 ℃
Test Mode:	TX 2402MHz (8DPSK)	Humidity:	54 %
Frequency Range:	30MHz-1GHz	Test By:	PEI
Test Distance:	3m	Test Voltage	AC 120V/60Hz
Test Results:	PASS		4
Adapter	JY012058200BA-UL		



Polarization: Vertical

AC120/60Hz

Site 966 Chamber

Limit: FCC_PART15_B_03m_QP

EUT: Water Dancing Bluetooth MINI Tower

M/N: SP118-BLACK Mode: TX 2402MHz Note: Tester:PEI

JUNLAN

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	30.6647	18.08	14.42	32.50	40.00	7.50	QP	110	216	Р	
2	35.9061	12.21	14.74	26.95	40.00	13.05	QP	110	297	Р	
3	54.2609	13.72	14.59	28.31	40.00	11.69	QP	100	114	Р	
4	217.3536	27.49	12.43	39.92	46.00	6.08	QP	105	233	P	
5 *	323.3203	25.30	15.36	40.66	46.00	5.34	QP	105	285	Р	
6	413.6330	22.51	17.13	39.64	46.00	6.36	QP	110	171	Р	

Power.

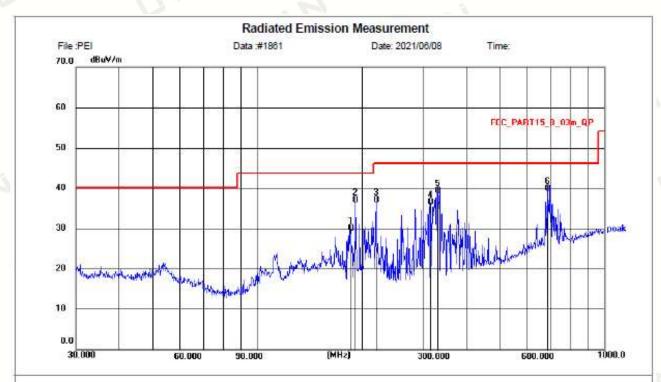








E.U.T:	Water Dancing Bluetooth MINI Tower	Polarization:	Horizontal
Model No.:	SP118-BLACK	Temperature:	26 ℃
Test Mode:	TX 2441MHz (8DPSK)	Humidity:	54 %
Frequency Range:	30MHz-1GHz	Test By:	PEI
Test Distance:	3m	Test Voltage	AC 120V/60Hz
Test Results:	PASS		1
Adapter	JY012058200BA-UL		



Site 966 Chamber

Limit: FCC_PART15_B_03m_QP

EUT: Water Dancing Bluetooth MINI Tower

M/N: SP118-BLACK Mode: TX 2441MHz Note: Tester:PEI JUNLAN

Polarization:	Hor	770	ntal

Temperature:

Humidity:

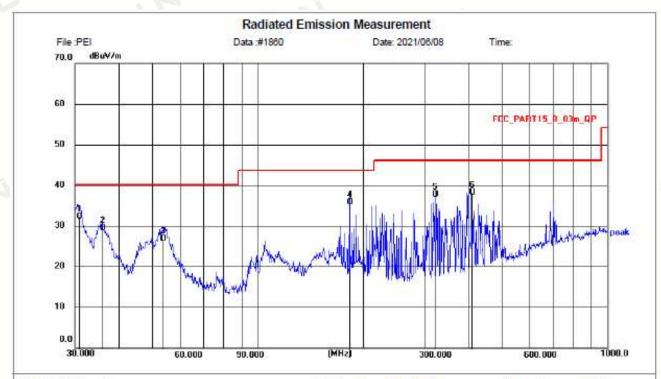
26(C)

AC120/60Hz Power:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	185.1378	17.10	12.93	30.03	43.50	13.47	QP	220	244	Р	
2	192.2500	24.80	12.21	37.01	43.50	6.49	QP	205	239	Р	
3	219.8448	24.49	12.52	37.01	46.00	8.99	QP	205	187	Р	
4	314.3764	21.31	15.13	36.44	46.00	9.56	QP	200	152	Р	
5	330.7742	23.72	15.50	39.22	46.00	6.78	QP	185	69	Р	
6 *	685.3458	17.90	21.83	39.73	46.00	6.27	QP	185	137	Р	



E.U.T:	Water Dancing Bluetooth MINI Tower	Polarization:	Vertical
Model No.:	SP118-BLACK	Temperature:	26 °C
Test Mode:	TX 2441MHz (8DPSK)	Humidity:	54 %
Frequency Range:	30MHz-1GHz	Test By:	PEI
Test Distance:	3m	Test Voltage	AC 120V/60Hz
Test Results:	PASS		- 1
Adapter	JY012058200BA-UL		



Site 966 Chamber

Limit: FCC_PART15_B_03m_QP

EUT: Water Dancing Bluetooth MINI Tower

M/N: SP118-BLACK Mode: TX 2441MHz Note: Tester:PEI JUNLAN rowel. Act

Polarization: Vertical

Power: AC120/60Hz

Temperature: 28(C)
Humidity: 54 %

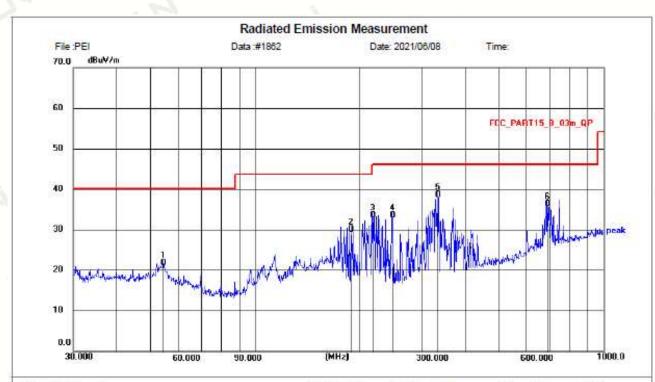
Report No.: UNIA21053114ER-01

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	30.7994	17.84	14.43	32.27	40.00	7.73	QP	100	253	Р	
2	36.0638	14.69	14.76	29.45	40.00	10.55	QP	100	165	Р	
3	53.7402	12.15	14.63	26.78	40.00	13.22	QP	105	89	Р	
4 *	183.2005	22.64	13.15	35.79	43.50	7.71	QP	105	184	Р	
5	321.9062	22.41	15.32	37.73	46.00	8.27	QP	110	217	Р	
6	408.9459	21.15	17.01	38.16	46.00	7.84	QP	110	238	Р	





E.U.T:	Water Dancing Bluetooth MINI Tower	Polarization:	Horizontal
Model No.:	SP118-BLACK	Temperature:	26 ℃
Test Mode:	TX 2480MHz (8DPSK)	Humidity:	54 %
Frequency Range:	30MHz-1GHz	Test By:	PEI
Test Distance:	3m	Test Voltage	AC 120V/60Hz
Test Results:	PASS		
Adapter	JY012058200BA-UL		



Site 966 Chamber

Limit: FCC_PART15_B_03m_QP

EUT: Water Dancing Bluetooth MINI Tower

M/N: SP118-BLACK Mode: TX 2480MHz Note: Tester:PEI JUNLAN

Polarization: Horizontal

AC120/60Hz Power:

Humidity: 54 %

26(C)

Temperature:

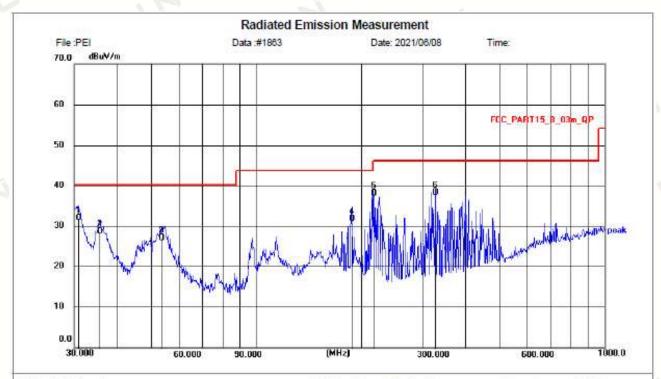
Report No.: UNIA21053114ER-01

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	54.5471	7.15	14.58	21.73	40.00	18.27	QP	185	265	Р	
2	187.7529	17.49	12.61	30.10	43.50	13.40	QP	185	277	Р	
3	216.0238	21.15	12.38	33.53	46.00	12.47	QP	200	306	Р	
4	246.8148	20.00	13.47	33.47	46.00	12.53	QP	205	315	Р	
5 *	333.9793	23.03	15.55	38.58	46.00	7.42	QP	205	103	Р	
6	687.7532	14.53	21.84	36.37	46.00	9.63	QP	200	115	Р	





		50.	
E.U.T:	Water Dancing Bluetooth MINI Tower	Polarization:	Vertical
Model No.:	SP118-BLACK	Temperature:	26 °C
Test Mode:	TX 2480MHz (8DPSK)	Humidity:	54 %
Frequency Range:	30MHz-1GHz	Test By:	PEI
Test Distance:	3m	Test Voltage	AC 120V/60Hz
Test Results:	PASS		- 1
Adapter	JY012058200BA-UL		



Site 966 Chamber

Limit: FCC_PART15_B_03m_QP

EUT: Water Dancing Bluetooth MINI Tower

M/N: SP118-BLACK Mode: TX 2480MHz Note: Tester:PEI JUNLAN

Polarizat	ion:	vertic
Power:	AC1	20/60Hz

Temperature: Humidity:

Distance: 3m

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	30.9075	17.52	14.44	31.96	40.00	8.04	QP	105	226	Р	
2	35.6238	13.93	14.70	28.63	40.00	11.37	QP	105	274	Р	
3	53.4583	12.42	14.66	27.08	40.00	12.92	QP	100	163	Р	
4	188.0824	19.18	12.57	31.75	43.50	11.75	QP	100	154	Р	
5	216.0238	25.67	12.38	38.05	46.00	7.95	QP	110	27	Р	
6 *	326.7395	22.75	15.44	38.19	46.00	7.81	QP	105	152	Р	

Note: (1) All Readings are Peak Value and AV.

- (2) Emission Level= Reading Level + Factor
- (3) Factor= Antenna Gain + Cable Loss Amplifier Gain 深圳市优耐检测技术有限公司



26(C)

Page 46 of 84



(4) Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits, therefore, than 20 dB below the limit do no reported.

Report No.: UNIA21053114ER-01

- (5) Measurement uncertainty: ±3.7dB.
- (6) Horn antenna used for the emission over 1000MHz.



Minimum Hopping Channel Carrier Frequency Separation, FCC Rule 15.247(a)(1):

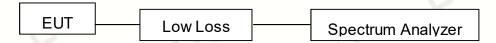
Report No.: UNIA21053114ER-01

Connect EUT antenna terminal to the spectrum analyzer with a low loss cable, and using the Marker and Max-Hold function to record the separation of two adjacent channels.

6.2 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.

6.3 Test SET-UP (Block Diagram of Configuration)



6.4 Measurement Results

Refer to attached data chart.





RBW: 30kHz **24** ℃ Temperature: 100kHz VBW: Humidity: 50 % PΚ Spectrum Detector: PEI Test By: DH1, 2DH1, 3DH1(Worst case) Test Date: May 28, 2021 Packet: Test Result: **PASS**

	N. 20		
Channel	Test Frequency (MHz)	Separation Read Value (kHz)	Separation Limit 2/3 20dB Bandwidth (kHz)
	G	FSK	
Lowest	2402	0.99	>587.5
Middle	2441	0.99	>565.3
Highest	2480	1.005	>551.3
	π/4-	DQPSK	
Lowest	2402	0.999	>831.3
Middle	2441	1.005	>846.7
Highest	2480	1.014	>840.7
	18	OPSK	
Lowest	2402	0.996	>808.0
Middle	2441	0.984	>825.3
Highest	2480	0.999	>808.7



GFSK Lowest Channel



GFSK Middle Channel



GFSK Highest Channel

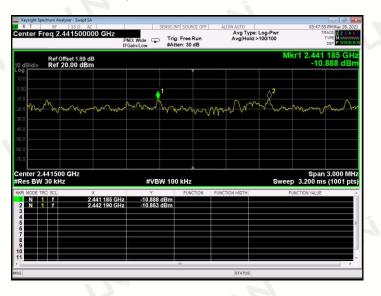




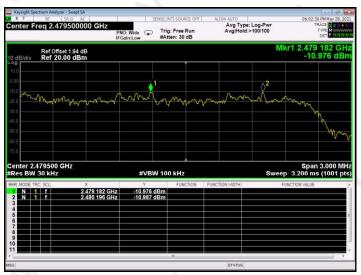
π/4-DQPSK Lowest Channel



π/4-DQPSK Middle Channel



$\pi/4$ -DQPSK Highest Channel



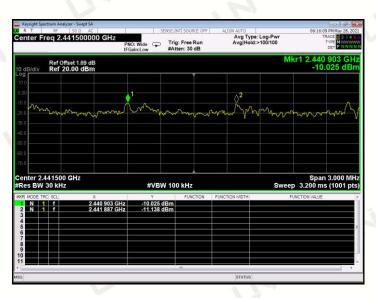
深圳市优耐检测技术有限公司 Shenzhen United Testing Technology Co.,Ltd. United Testing Technology(Hong Kong) Limited



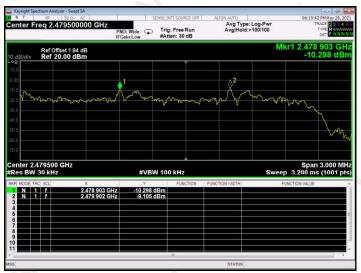
8DPSK Lowest Channel



8DPSK Middle Channel



8DPSK Highest Channel





Maximum 20dB RF Bandwidth, FCC Rule 15.247(a)(1):

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RBW was chosen so that the display was a result of the hopping channel modulation. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. Use the spectrum 20dB down delta function to measure the bandwidth.

7.2 Test SET-UP (Block Diagram of Configuration)



7.3 Measurement Results

Refer to attached data chart.

RBW:	30kHz	Temperature:	24 ℃
VBW:	100kHz	Humidity:	50 %
Spectrum Detector:	PK	Test By:	PEI
Packet:	DH1, 2DH1, 3DH1(Worst case)	Test Date:	May 28, 2021
Test Result:	PASS	1 12	_i

Channel	Test Frequency (MHz)	20dB Down BW (MHz)
	GFSK	
Lowest	2402	0.881
Middle	2441	0.848
Highest	2480	0.862
	π/4-DQPSK	
Lowest	2402	1.247
Middle	2441	1.270
Highest	2480	1.261
	8DPSK	
Lowest	2402	1.212
Middle	2441	1.238
Highest	2480	1.213







GFSK Lowest Channel



GFSK Middle Channel



GFSK Highest Channel

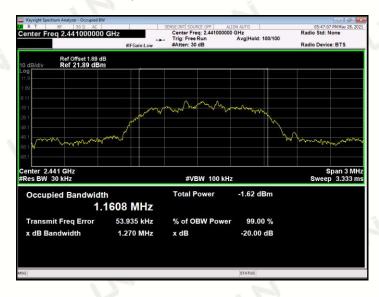




π/4-DQPSK Lowest Channel



π/4-DQPSK Middle Channel



$\pi/4$ -DQPSK Highest Channel







8DPSK Lowest Channel



8DPSK Middle Channel



DPSK Highest Channel



深圳市优耐检测技术有限公司 Shenzhen United Testing Technology Co.,Ltd. United Testing Technology(Hong Kong) Limited Page 56 of 84

Report No.: UNIA21053114ER-01



HOPPING CHANNEL NUMBER

8.1 Measurement Procedure

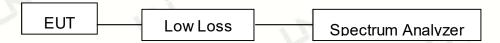
Minimum Number of Hopping Frequencies, FCC Rule 15.247(a)(1)(iii):

Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum, and the spectrum analyzer set to MAX HOLD readings were taken for 3-5 minutes. The channel peaks so recorded were added together, and the total number compared to the minimum number of channels required in the regulation.

8.2 Limit

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

8.3 Test SET-UP (Block Diagram of Configuration)



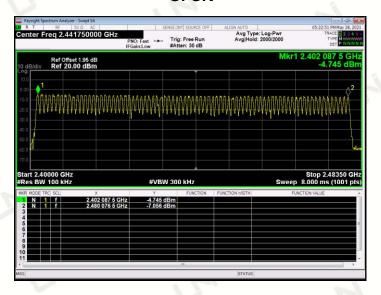
8.4 Measurement Results

RBW:	100kHz	Temperature:	24 ℃
VBW:	300kHz	Humidity:	50 %
Spectrum Detector:	PK	Test By:	PEI
Packet:	DH1, 2DH1, 3DH1(Worst case)	Test Date:	May 28, 2021
Test Result:	PASS		

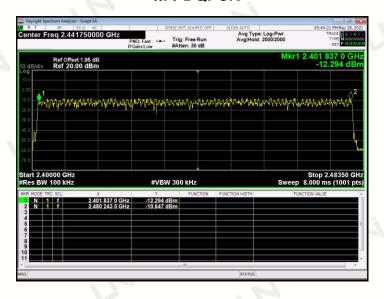
Hopping Channel Frequency Range	Number of Hopping Channels	Limit
2400-2483.5	79	≥15



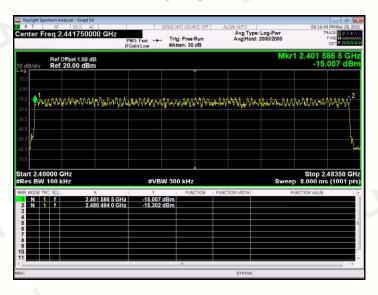
GFSK



π/4-DQPSK



8DPSK



Page 58 of 84

Report No.: UNIA21053114ER-01



TIME OF OCCUPANCY (DWELL TIME)

9.1 Measurement Procedure

Average Channel Occupancy Time, FCC Ref:15.247(a)(1)(iii):

Connect EUT antenna terminal to the spectrum analyzer with a low loss cable. The spectrum analyzer center frequency was set to one of the known hopping channels. The Sweep was set to 10 ms, the SPAN was set to Zero SPAN. The time duration of the transmissions so captured was measured with the Marker Delta function

9.2 Limit

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

9.3 Test SET-UP (Block Diagram of Configuration)



9.4 Measurement Results

Refer to attached data chart.





The maximum number of hopping channels in 31.6s (0.4s/Channel x 79 Channel)

RBW:	1MHz	Temperature:	24 ℃
VBW:	3MHz	Humidity:	50 %
Spectrum Detector:	PK	Test By:	PEI
Test Result:	PASS	Test Date:	May 28, 2021

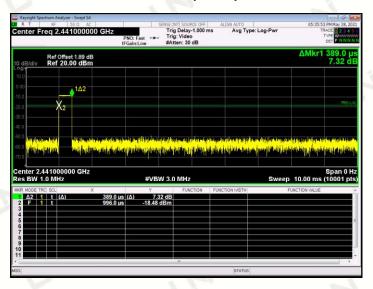
Packet	Frequency		Result		Limit
	(MHz)		(msec)		(msec)
			GFSK		
DH1	2441	0.389	(ms)*(1600/(2*79))*31.6=	124.48	400
DH3	2441	1.645	(ms)*(1600/(4*79))*31.6=	263.2	400
DH5	2441	2.893	(ms)*(1600/(6*79))*31.6=	308.587	400
			π/4-DQPSK		
2-DH1	2441	0.397	(ms)*(1600/(2*79))*31.6=	127.04	400
2-DH3	2441	1.649	(ms)*(1600/(4*79))*31.6=	263.84	400
2-DH5	2441	2.897	(ms)*(1600/(6*79))*31.6=	309.013	400
			8DPSK		
3-DH1	2441	0.398	(ms)*(1600/(2*79))*31.6=	127.36	400
3-DH3	2441	1.649	(ms)*(1600/(4*79))*31.6=	263.84	400
3-DH5	2441	2.900	(ms)*(1600/(6*79))*31.6=	309.333	400



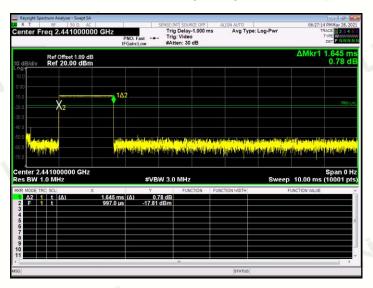




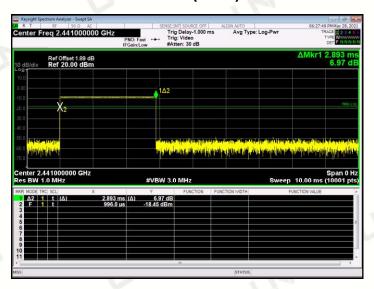
GFSK (DH1)



GFSK (DH3)

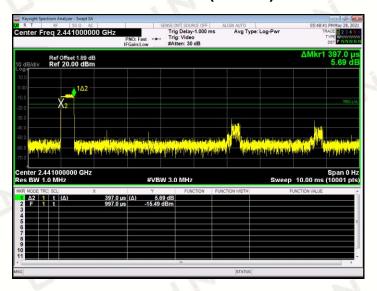


GFSK (DH5)

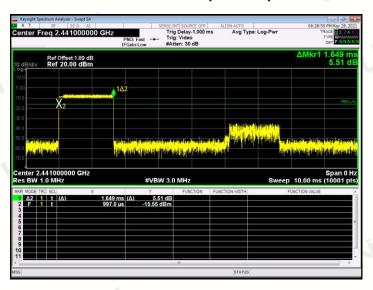




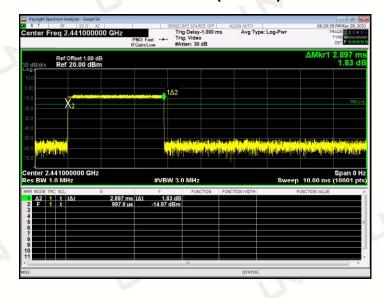
$\pi/4$ -DQPSK (2-DH1)



π/4-DQPSK (2-DH3)



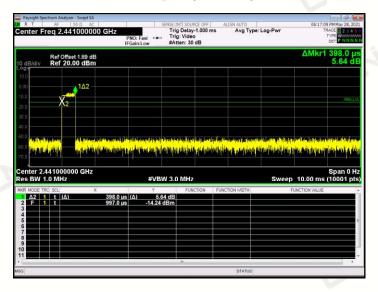
π/4-DQPSK (2-DH5)



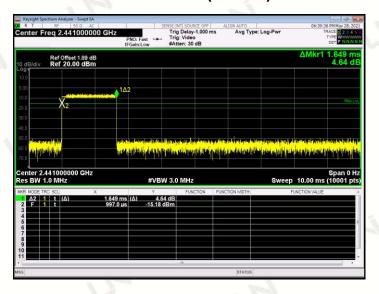




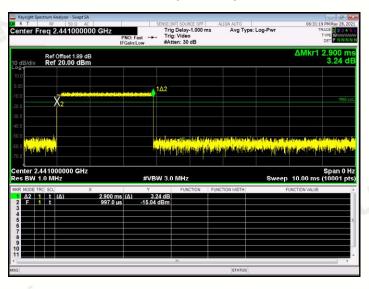
8DPSK (3-DH1)



8DPSK (3-DH3)



PSK (3-DH5)



United Testing Technology(Hong Kong) Limited

Page 63 of 84

10.MAXIMUM PEAK OUTPUT POWER

10.1 Measurement Procedure

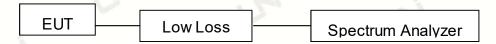
Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b)(1):

Report No.: UNIA21053114ER-01

Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum. The analyzer was set for RBW > 20dB bandwidth and power was read directly in dBm. Cable loss was considered during this measurement.

10.2 Limit

For all other frequency hopping systems in the 2400-2483.5MHz band: 0.125 watts . **10.3** Test SET-UP (Block Diagram of Configuration)



10.4 Measurement Results

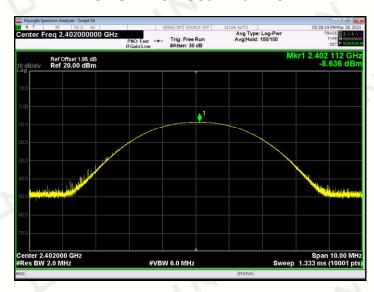
RBW:	2MHz	Temperature:	24 ℃
VBW:	6MHz	Humidity:	50 %
Spectrum Detector:	PK	Test By:	PEI
Packet:	DH1, 2DH1, 3DH1(Worst case)	Test Date:	May 28, 2021

Channel Frequency (MHz)	Peak Power output (dBm)	Peak Power output (W)	Peak Power Limit (dBm/W)	Results
		GFSK		
2402.00	-8.636	0.000137	21 / 0.125	PASS
2441.00	-8.473	0.000142	21 / 0.125	PASS
2480.00	-8.277	0.000149	21 / 0.125	PASS
		π/4-DQPSK		
2402.00	-5.629	0.000274	21 / 0.125	PASS
2441.00	-5.851	0.000260	21 / 0.125	PASS
2480.00	-5.875	0.000259	21 / 0.125	PASS
		8DPSK		
2402.00	-4.389	0.000364	21 / 0.125	PASS
2441.00	-4.977	0.000318	21 / 0.125	PASS
2480.00	-5.104	0.000309	21 / 0.125	PASS





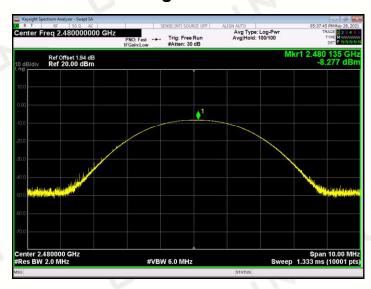
GFSK Lowest Channel



GFSK Middle Channel

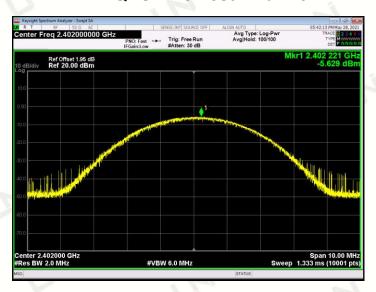


GFSK Highest Channel

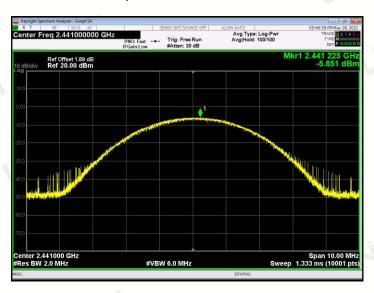




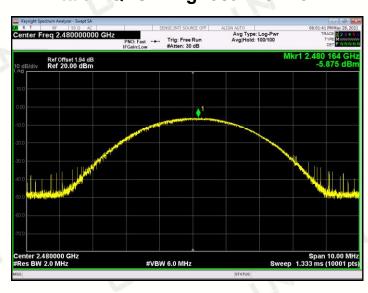
π/4-DQPSK Lowest Channel



$\pi/4$ -DQPSK Middle Channel



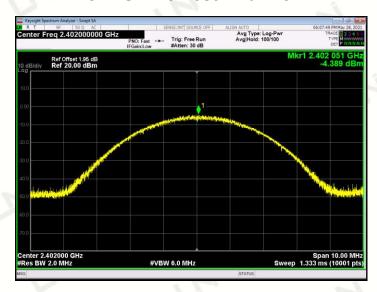
$\pi/4$ -DQPSK Highest Channel



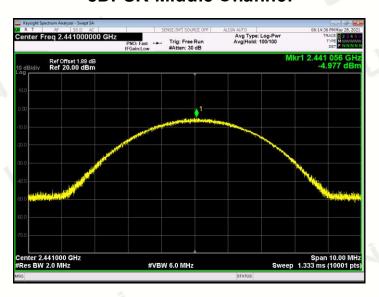




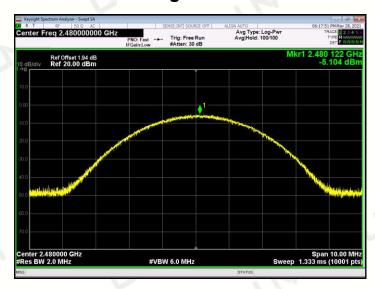
8DPSK Lowest Channel

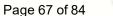


8DPSK Middle Channel



8DPSK Highest Channel





Out of Band Emissions, FCC Rule 15.247(d):

During the radiated emission test, the spectrum analyzer was set with the following configurations:

- 1.The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz.
- 2.The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.

During the conducted emission test, the spectrum analyzer was set with the following configurations:

The transmitter output is connected to spectrum analyzer. The resolution bandwidth is set to 100KHz, and the video bandwidth set to 300kHz.

11.2 Limit

15.247(d)In any 100KHz 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 20dB below that in the 100KHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

11.3 Measurement Results

Please see below test table and plots.

Note: All modes of operation were investigated and the worst case (8DPSK Mode) emissions are reported.





For Radiated restricted band:

E.U.T:	Water Dancing Bluetooth MINI Tower	Polarization:	Horizontal
Model No.:	SP118-BLACK	Temperature:	26 ℃
Test Mode:	TX 2402MHz (8DPSK)	Humidity:	54 %
Test Distance:	3m	Test By:	PEI
Test Results:	PASS	Test Voltage	AC 120V/60Hz









2390.000

29.26

3.90

33.16

54.00

20.84

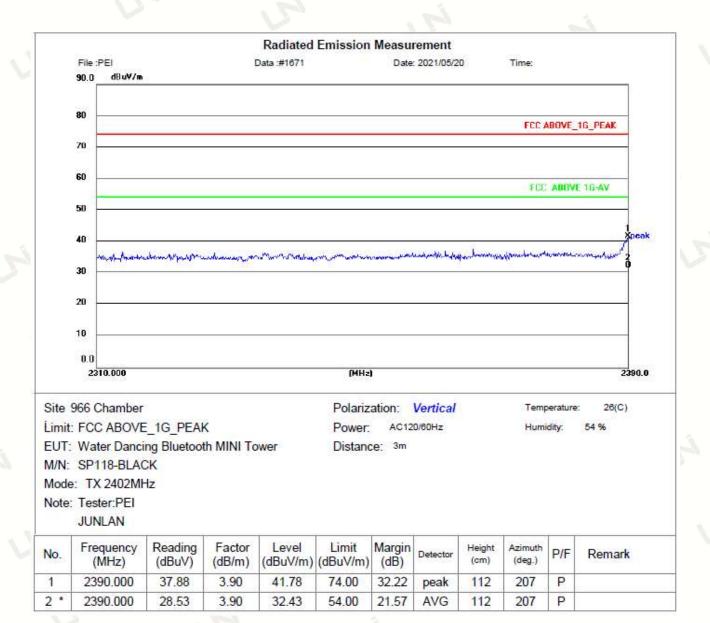
AVG

200

152

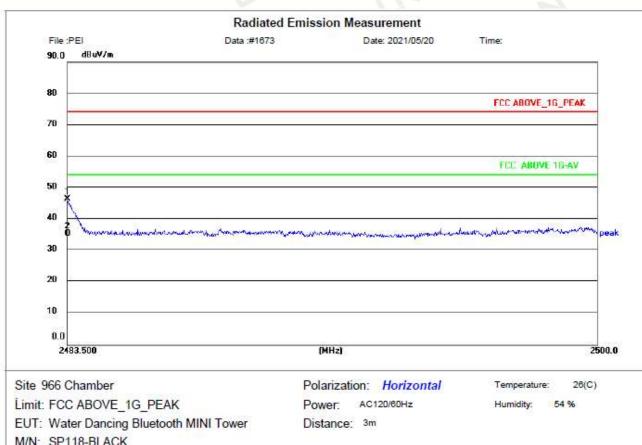


E.U.T:	Water Dancing Bluetooth MINI Tower	Polarization:	Vertical
Model No.:	SP118-BLACK	Temperature:	26 °C
Test Mode:	TX 2402MHz (8DPSK)	Humidity:	54 %
Test Distance:	3m	Test By:	PEI
Test Results:	PASS	Test Voltage	AC 120V/60Hz





E.U.T:	Water Dancing Bluetooth MINI Tower	Polarization:	Horizontal
Model No.:	SP118-BLACK	Temperature:	26 °C
Test Mode:	TX 2480MHz (8DPSK)	Humidity:	54 %
Test Distance:	3m	Test By:	PEI
Test Results:	PASS	Test Voltage	AC 120V/60Hz



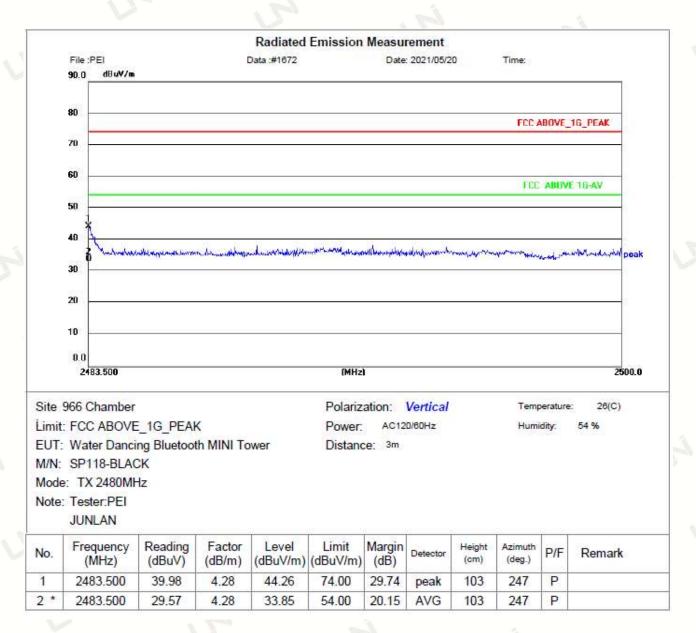
M/N: SP118-BLACK Mode: TX 2480MHz Note: Tester:PEI JUNLAN

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2483.500	42.28	4.28	46.56	74.00	27.44	peak	214	39	Р	
2 *	2483.500	31.25	4.28	35.53	54.00	18.47	AVG	214	39	Р	





E.U.T:	Water Dancing Bluetooth MINI Tower	Polarization:	Vertical
Model No.:	SP118-BLACK	Temperature:	26 °C
Test Mode:	TX 2480MHz (8DPSK)	Humidity:	54 %
Test Distance:	3m	Test By:	PEI
Test Results:	PASS	Test Voltage	AC 120V/60Hz



Note: (1) Result= Reading + Factor

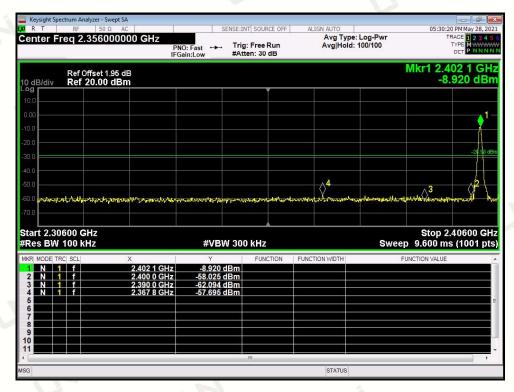
- (2) Factor= Antenna Gain + Cable Loss Amplifier Gain
- (3) Horn antenna used for the emission over 1000MHz.

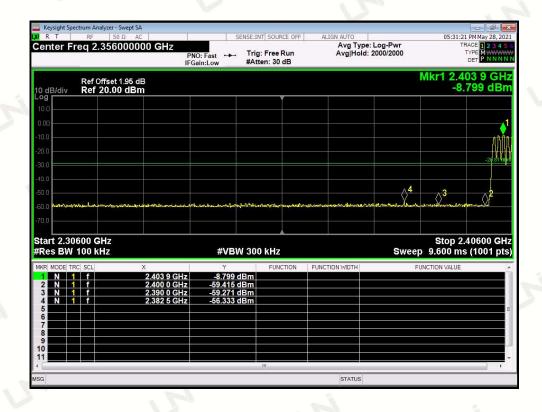




For RF Conducted restricted band:

GFSK Lowest Channel



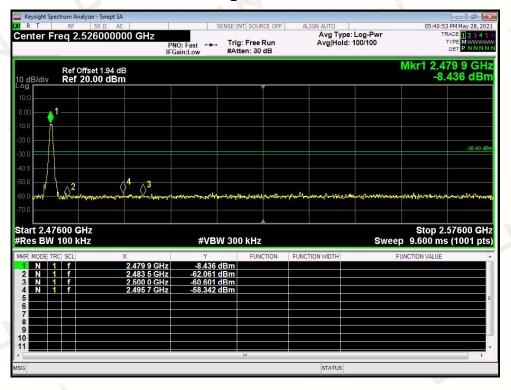


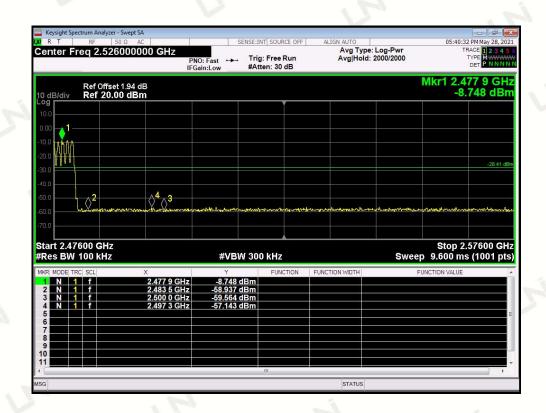






GFSK Highest Channel

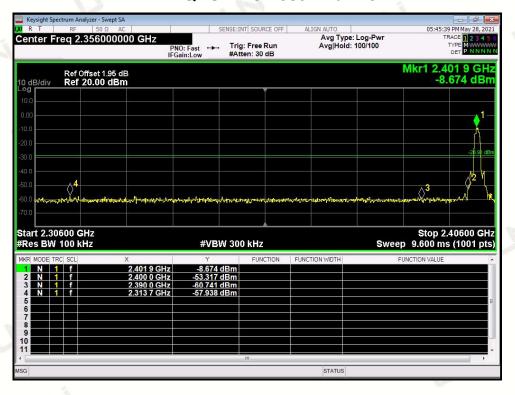


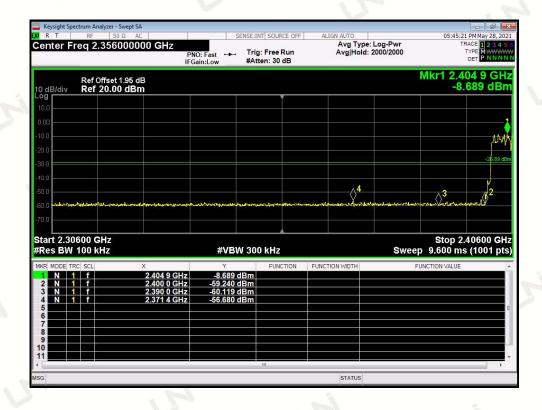






π/4-DQPSK Lowest Channel



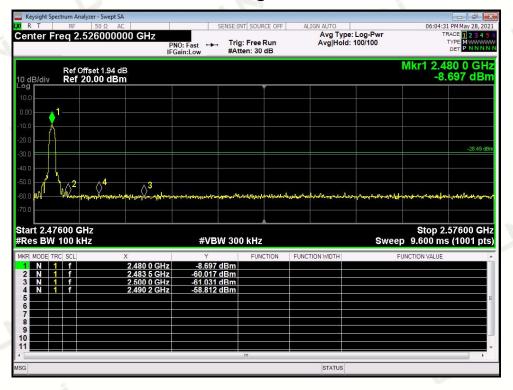


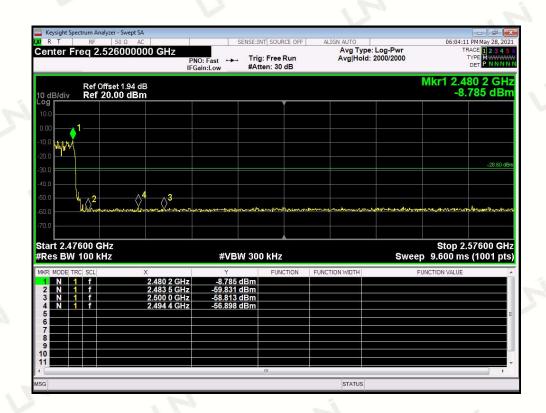






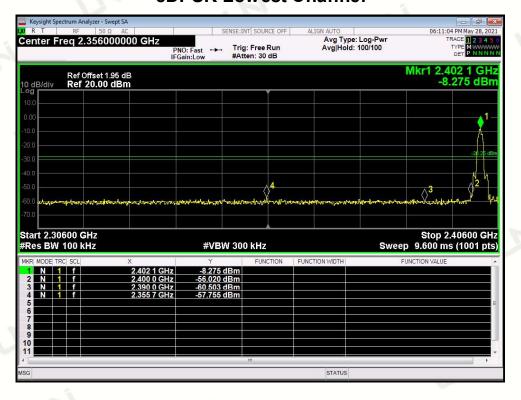
$\pi/4$ -DQPSK Highest Channel

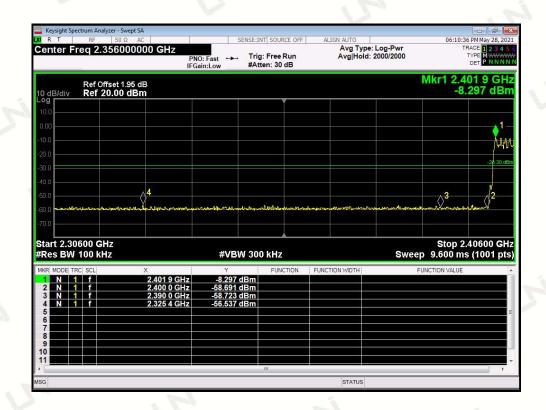






8DPSK Lowest Channel

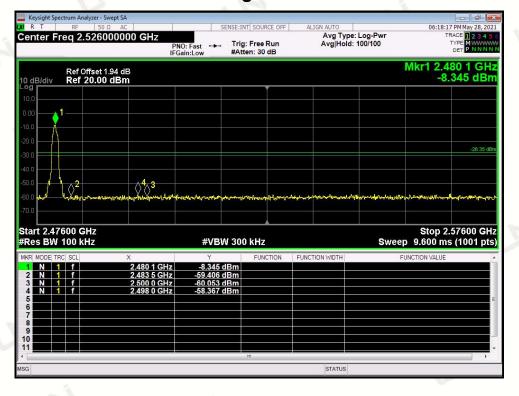


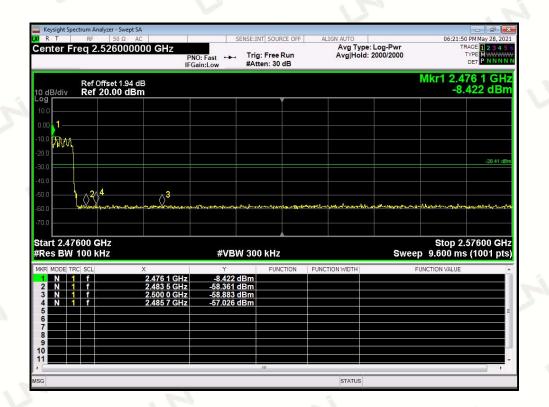






8DPSK Highest Channel







According to of FCC part 15C section 15.203 and 15.240:

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

12.2 Measurement Results

The EUT antenna is PCB antenna. It comply with the standard requirement.

Page 79 of 84

Report No.: UNIA21053114ER-01

13. CONDUCTED SPURIOUS EMISSIONS

13.1 Measurement Procedure

Out of Band Conducted Spurious Emissions, FCC Rule 15.247(d):

The transmitter output is connected to spectrum analyzer. All spurious emission and up to the tenth harmonic was measured and they were found to be at least 20dB below the highest level of the desired power in the passband.

13.2 Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

13.3 Test SET-UP (Block Diagram of Configuration)



13.4 Measurement Results

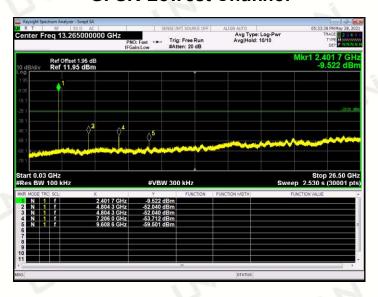
Pass

Please refer to following plots.

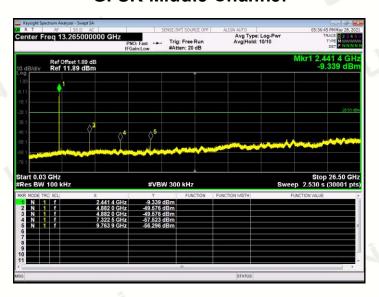




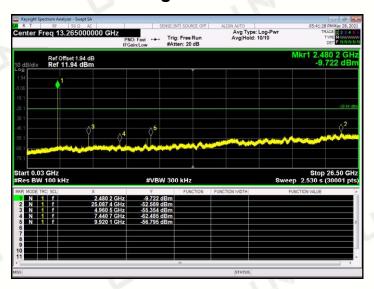
GFSK Lowest Channel



GFSK Middle Channel



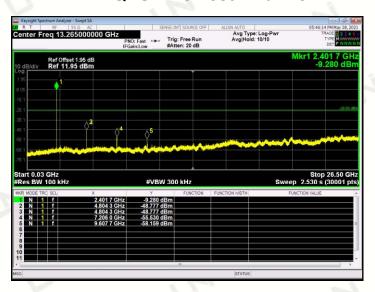
GFSK Highest Channel



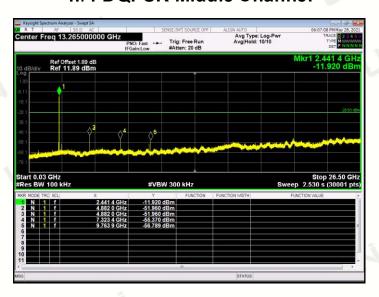




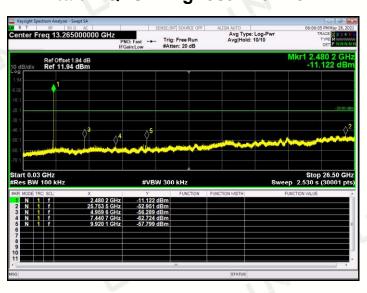
π/4-DQPSK Lowest Channel



$\pi/4$ -DQPSK Middle Channel



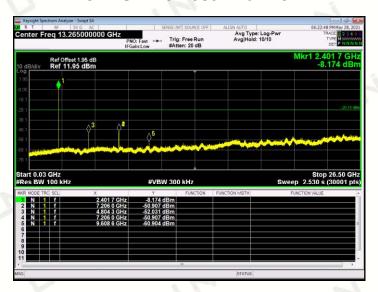
$\pi/4$ -DQPSK Highest Channel



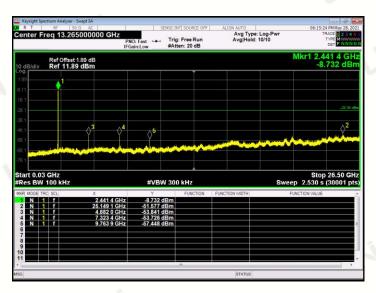




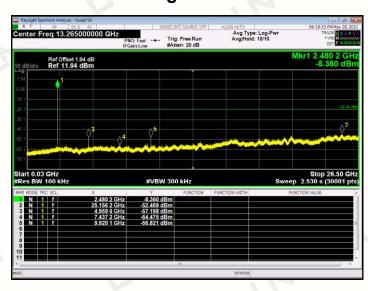
8DPSK Lowest Channel



8DPSK Middle Channel



8DPSK Highest Channel







Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until	Cal. Interval
1	Conducted Emission Test Software	EZ-EMC	Ver.CCS-3A1-CE	N/A	N/A	N/A
2	AMN	Schwarzbeck	NNLK8121	8121370	2020.10.13	1 Year
3	AMN	ETS	3810/2	00020199	2020.10.13	1 Year
4	AAN	TESEQ	T8-Cat6	38888	2020.10.13	1 Year
5	Pulse Limiter	CYBRTEK	EM5010	E115010056	2021.05.19	1 Year
6	EMI Test Receiver	Rohde&Schwarz	ESCI	101210	2020.10.13	1 Year
1	Radiated Emission Test Software	EZ-EMC	Ver.CCS-03A1	N/A	N/A	N/A
2	Morn Antenna	Sunol	DRH-118	A101415	2020.10.19	1 Year
3	Broadband Hybrid Antenna	Sunol	JB1	A090215	2021.03.02	1 Year
4	PREAMP	HP	8449B	3008A00160	2020.10.13	1 Year
5	PREAMP	HP	8447D	2944A07999	2021.05.19	1 Year
6	EMI TEST RECEIVER	Rohde&Schwarz	ESR3	101891	2020.10.13	1 Year
7	VECTOR Signal Generator	Rohde&Schwarz	SMU200A	101521	2020.10.13	1 Year
8	Signal Generator	Agilent	E4421B	MY4335105	2020.11.12	1 Year
9	MXA Signal Analyzer	Agilent	N9020A	MY50510140	2020.10.13	1 Year
10	MXA Signal Analyzer	Keysight	N9020A	MY51110104	2020.10.13	1 Year
11	RF Power sensor	DARE	RPR3006W	15100041SNO88	2021.05.19	1 Year
12	RF Power sensor	DARE	RPR3006W	15100041SNO89	2021.05.19	1 Year
13	RF power divider	Anritsu	K241B	992289	2020.10.13	1 Year
14	Wideband radio communication tester	Rohde&Schwarz	CMW500	154987	2020.10.13	1 Year
15	Active Loop Antenna	Com-Power	AL-130R	10160009	2021.05.19	1 Year
16	Broadband Hybrid Antennas	Schwarzbeck	VULB9163	VULB9163#958	2021.05.19	1 Year
17	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1680	2021.05.19	1 Year
18	Horn Antenna	A-INFOMW	LB-180400-KF	J211060660	2020.11.05	1 Year
19	Microwave Broadband Preamplifier	Schwarzbeck	BBV 9721	100472	2020.10.13	1 Year
20	Signal Generator	Agilent	N5183A	MY47420153	2020.10.13	1 Year
21	Spctrum Analyzer	Rohde&Schwarz	FSP 40	100501	2020.10.13	1 Year
22	Power Meter	KEYSIGHT	N1911A	MY50520168	2020.10.13	1 Year
23	Frequency Meter	VICTOR	VC2000	997406086	2020.10.13	1 Year
24	DC Power Source	HYELEC	HY5020E	055161818	2020.10.13	1 Year







APPENDIX-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

---END---

