

TF	EST REPORT			
For Bluetooth-EDR				
Report No	CHTEW22100048 Report Verification:			
Project No	SHT2209084903EW			
FCC ID:	OA8EB121			
Applicant's name:	Quanzhou Chierda Electronic Telecom Co.,Ltd.			
Address:	No.8,Zian Road,Jiangnan High-tech Industrial Zone,Quanzhou,Fujian,China			
Product Name:	Bluetooth headset			
Trade Mark	Chierda			
Model No	EB121			
Listed Model(s)	EB122, EB123			
Standard:	FCC CFR Title 47 Part 15 Subpart C Section 15.247			
Date of receipt of test sample	Sep.30, 2022			
Date of testing	Sep.30, 2022-Oct.17, 2022			
Date of issue	Oct.18, 2022			
Result:	PASS			
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Approved by	REManager Hans Hu			
(Position+Printed name+Signature):				
Testing Laboratory Name: :	Shenzhen Huatongwei International Inspection Co., Ltd.			
Address:	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China			
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The test report merely correspond to the test	st sample.			

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1. TEST STANDARDS AND REPORT VERSION

1.1. Test Standards

The tests were performed according to following standards:

- <u>FCC Rules Part 15.247</u>: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz
- ANSI C63.10:2013: American National Standard for Testing Unlicensed Wireless Devices
- KDB 558074 D01 15.247 Meas Guidance v05r02: Guidance for Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating under Section 15.247 of The FCC Rules

1.2. Report version

Revision No.	Date of issue	Description
N/A	2022-10-18	Original

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2022-10-18

2. TEST DESCRIPTION

Report clause	Test Items	Standard Requirement	Result	Test Engineer
5.1	Antenna Requirement	15.203/15.247 (c)	PASS	Xiaoxiao Li
5.2	AC Conducted Emission	15.207	N/A	N/A
5.3	Peak Output Power	15.247 (b)(1)	PASS	Xiaoxiao Li
5.4	20 dB Bandwidth	15.247 (a)(1)	PASS	Xiaoxiao Li
5.5	99% Occupied Bandwidth	-	PASS ^{*1}	Xiaoxiao Li
5.6	Carrier Frequency Separation	15.247 (a)(1)	PASS	Xiaoxiao Li
5.7	Hopping Channel Number	15.247 (a)(1)	PASS	Xiaoxiao Li
5.8	Dwell Time	15.247 (a)(1)	PASS	Xiaoxiao Li
5.9	Duty Cycle Correction Factor	-	PASS ^{*1}	Xiaoxiao Li
5.10	Pseudorandom Frequency Hopping Sequence	15.247(b)(4)	PASS	Xiaoxiao Li
5.11	Conducted Band Edge and Spurious Emission	15.247(d)/15.205	PASS	Xiaoxiao Li
5.12	Radiated Band Edge Emission	15.205/15.209	PASS	Quanhai Deng
5.13	Radiated Spurious Emission	15.247(d)/15.205/15.209	PASS	Quanhai Deng

Note:

- The measurement uncertainty is not included in the test result.

*1: No requirement on standard, only report these test data.

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3. SUMMARY

3.1. Client Information

Applicant:	Quanzhou Chierda Electronic Telecom Co.,Ltd.
Address:	No.8,Zian Road,Jiangnan High-tech Industrial Zone,Quanzhou,Fujian,China
Manufacturer:	Quanzhou Chierda Electronic Telecom Co.,Ltd.
Address:	No.8,Zian Road,Jiangnan High-tech Industrial Zone,Quanzhou,Fujian,China

3.2. Product Description

Main unit information:		
Product Name:	Bluetooth headset	
Trade Mark:	Chierda	
Model No.:	EB121	
Listed Model(s):	EB122, EB123	
Power supply:	DC 3.7V from Battery	
Hardware version:	ver1.1	
Software version:	ver1.1	
Accessory unit information:		
Battery information:	3.7V d.c., 180mAh	

3.3. Radio Specification Description

Bluetooth version:	V5.3
Support function ^{*2} :	EDR
Modulation:	GFSK, π/4DQPSK, 8DPSK
Operation frequency:	2402MHz~2480MHz
Channel number:	79
Channel separation:	1MHz
Antenna type:	PCB Antenna
Antenna gain:	2.71 dBi

Note:

*2: only show the RF function associated with this report.

3.4. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.	
Laboratory Location	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China	
Connect information:	Phone: 86-755-26715499 E-mail: <u>cs@szhtw.com.cn</u> <u>http://www.szhtw.com.cn</u>	
Qualificationa	Туре	Accreditation Number
Qualifications	FCC	762235

4. TEST CONFIGURATION

4.1. Test frequency list

According to section 15.31(m), regards to the operating frequency range over 10 MHz, must select three channels which were tested. The Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, please see the below blue front.

Channel	Frequency (MHz)
00	2402
01	2403
:	÷
39	2441
:	÷
77	2479
78	2480

4.2. Descriptions of Test mode

Preliminary tests were performed in different data rates and recorded the RF output power in the clause 5.3

Note:

- 1) The manufacturer declare that the maximum power value of the product is set as a default value in the enter test mode software.
- 2) All the test data for each data rate were verified, found GFSK Modulation which is worse case mode

4.3. Test mode

The engineering test program was provided and enabled to make EUT continuous transmitting.			
Modulation / Data Rate			
Test Item	GFSK 1Mbps	π/4DQPSK 2Mbps	8DPSK 3Mbps
Conducted test item	✓	✓	✓
Radiated test item	\checkmark	-	-

the highest RF output power at preliminary tests.

The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

4.4. Test sample information

Test item	HTW sample no.	
RF Conducted test items	Please refer to the description in the appendix report	
RF Radiated test items	YPHT22090849004	
EMI test items	YPHT22090849004	

Note:

RF Conducted test items: Peak Output Power, 20 dB Bandwidth, 99% Occupied Bandwidth, Carrier Frequency Separation, Hopping Channel Number, Dwell Time, Duty Cycle Correction Factor, Pseudorandom Frequency Hopping Sequence ,Conducted Band Edge and Spurious Emission

RF Radiated test items: Radiated Band Edge Emission, Radiated Spurious Emission EMI test items: AC Conducted Emission

4.5. Support unit used in test configuration and system

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The following peripheral devices and interface cables were connected during the measurement:

Whether support unit is used?				
✓ YES	3			
Item	Equipment	Trade Name	Model No.	
1	Adapter	HUAWEI	HW-050200C01	

4.6. Testing environmental condition

Туре	Requirement	Actual
Temperature:	15~35°C	25°C
Relative Humidity:	25~75%	50%
Air Pressure:	860~1060mbar	1000mbar

4.7. Statement of the measurement uncertainty

Test Item	Measurement Uncertainty
AC Conducted Emission (150kHz~30MHz)	3.21 dB
Radiated Emission (30MHz~1000MHz	4.54 dB
Radiated Emissions (1GHz~25GHz)	5.10 dB
Peak Output Power	1.07dB
Power Spectral Density	1.07dB
Conducted Spurious Emission	1.07dB
20dB Bandwidth	0.002%

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

4.8. Equipment Used during the Test

•	Radiated emi	ssion-6th test sit	te				
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
•	Semi-Anechoic Chamber	Albatross projects	HTWE0127	SAC-3m-02	C11121	2018/09/30	2023/09/29
•	EMI Test Receiver	R&S	HTWE0099	ESCI	100900	2022/08/30	2023/08/29
•	Loop Antenna	R&S	HTWE0170	HFH2-Z2	100020	2021/04/06	2024/04/05
•	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0123	VULB9163	538	2021/04/06	2024/04/05
•	Pre-Amplifer	SCHWARZBECK	HTWE0295	BBV 9742	N/A	2021/11/05	2022/11/04
•	RF Connection Cable	HUBER+SUHNER	HTWE0062-01	N/A	N/A	2022/02/25	2023/02/24
•	RF Connection Cable	HUBER+SUHNER	HTWE0062-02	SUCOFLEX104	501184/4	2022/02/25	2023/02/24
•	Test Software	R&S	N/A	ES-K1	N/A	N/A	N/A

•	Radiated em	ission-7th test s	ite				
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
•	Semi-Anechoic Chamber	Albatross projects	HTWE0122	SAC-3m-01	C11121	2018/09/27	2023/09/26
•	Spectrum Analyzer	R&S	HTWE0098	FSP40	100597	2022/08/25	2023/08/24
•	Horn Antenna	SCHWARZBECK	HTWE0126	9120D	1011	2020/04/01	2023/03/31
•	Broadband Horn Antenna	SCHWARZBECK	HTWE0103	BBHA9170	BBHA9170472	2020/04/27	2023/04/26
•	Pre-amplifier	CD	HTWE0071	PAP-0102	12004	2021/11/05	2022/11/04
•	Broadband Pre- amplifier	SCHWARZBECK	HTWE0201	BBV 9718	9718-248	2022/02/28	2023/02/27
•	RF Connection Cable	HUBER+SUHNER	HTWE0120-01	6m 18GHz S Serisa	N/A	2022/02/25	2023/02/24
•	RF Connection Cable	HUBER+SUHNER	HTWE0120-02	6m 3GHz RG Serisa	N/A	2022/02/25	2023/02/24
•	RF Connection Cable	HUBER+SUHNER	HTWE0119-05	6m 3GHz RG Serisa	N/A	2022/02/25	2023/02/24
•	RF Connection Cable	HUBER+SUHNER	HTWE0120-04	6m 3GHz RG Serisa	N/A	2022/02/25	2023/02/24
•	Test Software	Audix	N/A	E3	N/A	N/A	N/A

Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
•	Signal and spectrum Analyzer	R&S	HTWE0242	FSV40	100048	2022/08/25	2023/08/24
•	Signal & Spectrum Analyzer	R&S	HTWE0262	FSW26	103440	2022/08/25	2023/08/24
•	Spectrum Analyzer	Agilent	HTWE0286	N9020A	MY50510187	2022/08/25	2023/08/24
•	Radio communication tester	R&S	HTWE0287	CMW500	137688-Lv	2022/08/25	2023/08/24
•	Test software	Tonscend	N/A	JS1120	N/A	N/A	N/A

5. TEST CONDITIONS AND RESULTS

5.1. Antenna Requirement

REQUIREMENT

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responseble party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

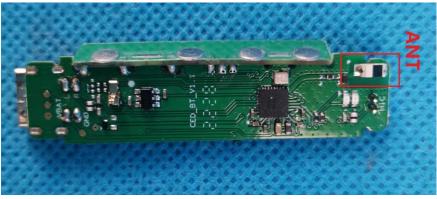
FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i):

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

TEST RESULT

☑ Passed □ Not Applicable

The antenna type is a ceramic antenna, the directional gain of the antenna less than 6 dBi, please refer to the below antenna photo.



5.2. AC Conducted Emission

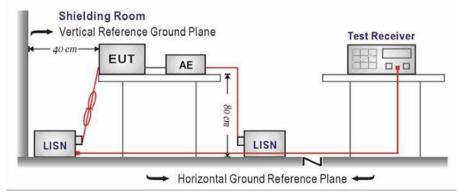
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207

	Limit (dBuV)				
Frequency range (MHz)	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.

TEST CONFIGURATION



TEST PROCEDURE

- 1. The EUT was setup according to ANSI C63.10 requirements.
- The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
- The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment.
- 4. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
- 5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
- 6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
- 7. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
- 8. During the above scans, the emissions were maximized by cable manipulation.

TEST MODE

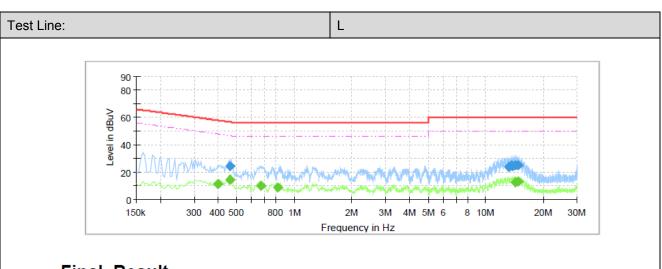
Please refer to the clause 4.3

TEST RESULT

☑ Passed □ Not Applicable

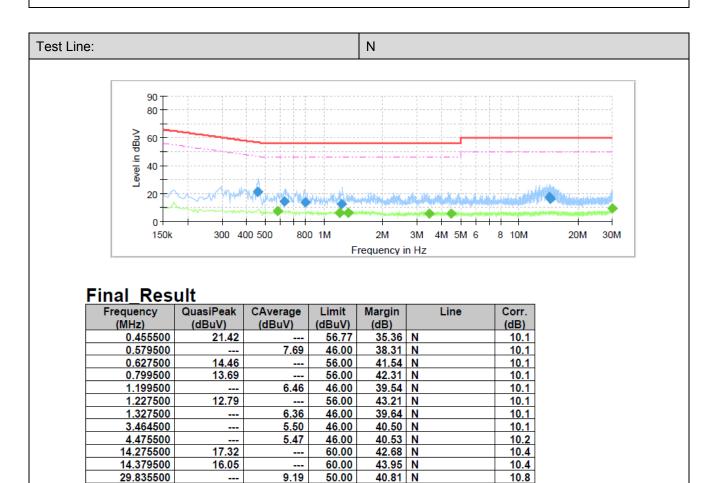
Shenzhen Huatongwei International Inspection Co., Ltd.

Page:



Final_Result

	Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Corr.
	(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)		(dB)
	0.399500		11.04	47.86	36.82	L1	10.1
	0.459500		14.15	46.70	32.55	L1	10.1
	0.459500	24.23		56.70	32.47	L1	10.1
	0.667500		10.11	46.00	35.89	L1	10.1
	0.819500		8.68	46.00	37.32	L1	10.1
	13.175500	23.94		60.00	36.06	L1	10.5
	13.635500	25.05		60.00	34.95	L1	10.5
	13.855500	24.09		60.00	35.91	L1	10.5
	14.223500	25.16		60.00	34.84	L1	10.5
	14.231500		12.58	50.00	37.42	L1	10.5
Γ	14.735500		13.20	50.00	36.80	L1	10.5
	14.799500	24.95		60.00	35.05	L1	10.5

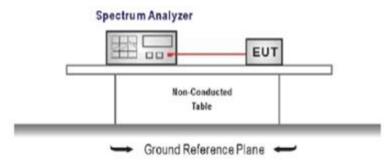


<u>LIMIT</u>

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

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 nonoverlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

TEST CONFIGURATION



TEST PROCEDURE

- 1. The transmitter output was connected to the spectrum analyzer through an attenuator, the pathloss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously
- Use the following spectrum analyzer settings: Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel RBW≥ the 20 dB bandwidth of the emission being measured, VBW≥RBW Sweep = auto, Detector function = peak, Trace = max hold
- 4. Measure and record the results in the test report.

TEST MODE

Please refer to the clause 4.3

TEST RESULT

☑ Passed □ Not Applicable

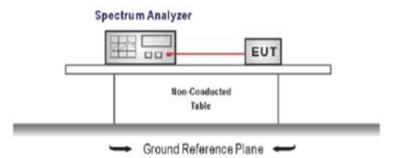
TEST DATA

Please refer to appendix A on the appendix report

<u>LIMIT</u>

N/A

TEST CONFIGURATION



TEST PROCEDURE

- 1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously
- 3. Use the following spectrum analyzer settings:

Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel RBW \ge 1% of the 20 dB bandwidth, VBW \ge RBW

- Sweep = auto, Detector function = peak, Trace = max hold
- 4. Measure and record the results in the test report.

TEST MODE

Please refer to the clause 4.3

TEST RESULT

☑ Passed □ Not Applicable

TEST DATA

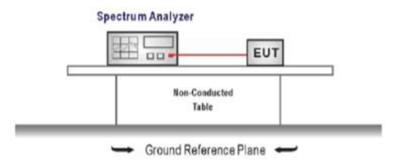
Please refer to appendix B on the appendix report

5.5. 99% Occupied Bandwidth

<u>LIMIT</u>

N/A

TEST CONFIGURATION



TEST PROCEDURE

- 1. Connect the antenna port(s) to the spectrum analyzer input.
- 2. Configure the spectrum analyzer as shown below (enter all losses between the transmitter output and the spectrum analyzer).

Center Frequency =channel center frequency Span≥1.5 x OBW RBW = 1%~5%OBW VBW ≥ 3 × RBW Sweep time= auto couple Detector = Peak Trace mode = max hold

3. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter waveform on the spectrum analyzer.

TEST MODE

Please refer to the clause 4.3

TEST RESULT

☑ Passed □ Not Applicable

TEST DATA

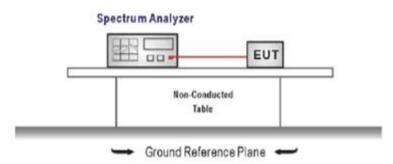
Please refer to appendix C on the appendix report

LIMIT

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

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25kHz 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.

TEST CONFIGURATION



TEST PROCEDURE

- 1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously
- 3. Use the following spectrum analyzer settings:

Span = wide enough to capture the peaks of two adjacent channels

RBW \geq 1% of the span, VBW \geq RBW

Sweep = auto, Detector function = peak, Trace = max hold

4. Measure and record the results in the test report.

TEST MODE

Please refer to the clause 4.3

TEST RESULTS

☑ Passed □ Not Applicable

TEST DATA

Please refer to appendix D on the appendix report

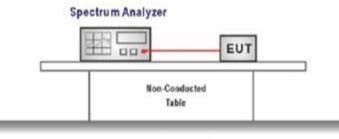
5.7. Hopping Channel Number

<u>LIMIT</u>

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

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

TEST CONFIGURATION



- Ground Reference Plane

TEST PROCEDURE

- 1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously
- Use the following spectrum analyzer settings: Span = the frequency band of operation RBW ≥ 1% of the span, VBW ≥ RBW Sweep = auto, Detector function = peak, Trace = max hold
- 4. Measure and record the results in the test report.

TEST MODE

Please refer to the clause 4.3

TEST RESULTS

☑ Passed □ Not Applicable

TEST DATA

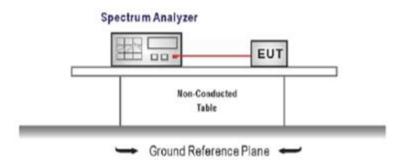
Please refer to appendix E on the appendix report

5.8. Dwell Time

LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(1):The average time of occupancy on any channel shall not be greater than 0.4 seconds within a pe-riod of 0.4 seconds multiplied by the number of hopping channels employed.

TEST CONFIGURATION



TEST PROCEDURE

- 1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously
- 3. Use the following spectrum analyzer settings:

Span = zero span, centered on a hopping channel, RBW= 1 MHz, VBW ≥ RBW Sweep = as necessary to capture the entire dwell time per hopping channel, Detector function = peak, Trace = max hold

4. Measure and record the results in the test report.

TEST MODE

Please refer to the clause 4.3

TEST RESULTS

☑ Passed □ Not Applicable

TEST DATA

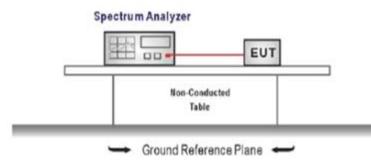
Please refer to appendix F on the appendix report

5.9. Duty Cycle Correction Factor (DCCF)

<u>LIMIT</u>

N/A

TEST CONFIGURATION



TEST PROCEDURE

- 1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously
- Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel, RBW= 1 MHz, VBW ≥ RBW Sweep = as necessary to capture the entire dwell time per hopping channel, Detector function = peak, Trigger mode
- 4. Measure and record the duty cycle data

TEST MODE

Please refer to the clause 4.3

TEST DATA

Please refer to appendix G on the appendix report

5.10. Pseudorandom Frequency Hopping Sequence

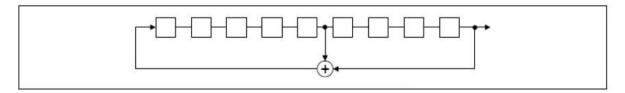
<u>LIMIT</u>

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(1):Frequency hopping systems shall have hopping channel carrier fre-quencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hop-ping channel, whichever is greater. Al-ternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier fre-quencies 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. The system shall hop to chan-nel frequencies that are selected at the system hopping rate from a pseudo ran-domly ordered list of hopping fre-quencies. Each frequency must be used equally on the average by each trans-mitter. The system receivers shall have input bandwidths that match the hop-ping channel bandwidths of their cor-responding transmitters and shall shift frequencies in synchronization with the transmitted signals.

TEST RESULTS

The pseudorandom frequency hopping sequence may be generated in a nice-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 friststage.The sequence begins with the frist one of 9 consecutive ones,forexample:the shift register is initialized with nine ones.

- Number of shift register stages: 9
- Length of pseudo-random sequence:29-1=511 bits
- Longest sequence of zeros: 8 (non-inverted signal)



Linear Feedback Shift Register for Generation of the PRBS sequence

An explame of pseudorandom frequency hopping sequence as follows:

75 7	73		1	78	64	62		6	4	2	0
		 		1		1	 	T-	Т		Т
				1	18						
	1				18						

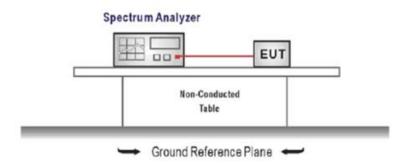
Each frequency used equally one the average by each transmitter.

The system receiver have input bandwidths that match the hopping channel bandwidths of their corresponding transmitter and shift frequencies in synchronization with the transmitted signals.

<u>LIMIT</u>

FCC CFR Title 47 Part 15 Subpart C Section15.247 (d):In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

TEST CONFIGURATION



TEST PROCEDURE

- 1. Connect the antenna port(s) to the spectrum analyzer input.
- 2. Emission level measurement

Set the center frequency and span to encompass frequency range to be measured

RBW = 100 kHz, VBW \ge 3 x RBW

Detector = peak, Sweep time = auto couple, Trace mode = max hold

Allow trace to fully stabilize

Use the peak marker function to determine the maximum amplitude level.

- 3. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter waveform on the spectrum analyzer.
- 4. Ensure that the amplitude of all unwanted emission outside of the authorized frequency band excluding restricted frequency bands) are attenuated by at least the minimum requirements specified (at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz). Report the three highest emission relative to the limit.

TEST MODE

Please refer to the clause 4.3

TEST RESULT

☑ Passed □ Not Applicable

TEST DATA

Please refer to appendix H on the appendix report

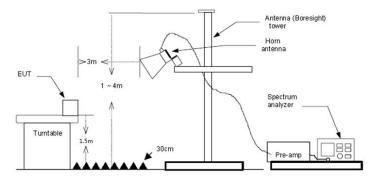
5.12. Radiated Band edge Emission

LIMIT

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

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, Radiated Emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the Radiated Emissions limits specified in §15.209(a) (see §15.205(c)).

TEST CONFIGURATION



TEST PROCEDURE

- 1. The EUT was setup and tested according to ANSI C63.10 .
- 2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
- 3. The EUT waspositioned such that the distance from antenna to the EUT was 3 meters.
- 4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find themaximum emission, all of the interface cables were manipulated according to ANSI C63.10 on radiated measurement.
- 5. Use the following spectrum analyzer settings:
 - a) Span shall wide enough to fully capture the emission being measured
 - b) Set RBW=100kHz for <1GHz, VBW=3*RBW, Sweep time=auto, Detector=peak, Trace=max hold
 - c) Set RBW=1MHz, VBW=3MHz for >1GHz, Sweep time=auto, Detector=peak, Trace=max hold for Peak measurement

For average measurement: use duty cycle correction factor method (DCCF)

Averager level = Peak level + DCCF

TEST MODE

Please refer to the clause 4.3

TEST RESULT

☑ Passed □ Not Applicable

Note:

- 1) Level= Reading + Factor; Factor = Antenna Factor+ Cable Loss- Preamp Factor
- 2) Over Limit = Level– Limit
- 3) Average measurement was not performed if peak level is lower than average limit(54 dBuV/m).

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Page:

est channel:		CH00			Polarit	Polarity			Horizontal	
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	2310.00	42.13	27.96	3.89	37.56	36.42	74.00	-37.58	Peak	
2	2381.59	50.45	27.74	3.98	37.47	44.70	74.00	-29.30	Peak	
3	2390.03	47.09	27.72	3.99	37.45	41.35	74.00	-32.65	Peak	

Fest channel:		CH00			Polar	Polarity			Vertical	
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	2310.00	42.87	27.96	3.89	37.56	37.16	74.00	-36.84	Peak	
2	2329.66	47.72	27.88	3.92	37.54	41.98	74.00	-32.02	Peak	
3	2390.03	42.71	27.72	3.99	37.45	36.97	74.00	-37.03	Peak	

Test ch	nannel:	CH78		Polarity		Horizontal	
Mark	Frequency MHz	0	tenna Cable dB dB	Preamp Lev dB dBuV		Over Reman limit	rk
1 2	2483.50 2500.00		.43 4.03 .40 4.04	37.26 53.27 37.26 46.14		-20.73 Peak -27.86 Peak	
			Spurious E	mission of Avera	age		
No.	Freq. [MHz]	PK level [dBµV/m]	DCCF [dB]	Level [dBµV/m]	Limit [dBµV/m]	Over Limit [dB]	Polarity
1	2483.50	53.27	-24.82	28.45	54.00	-25.55	Horizontal
2	2500.00	46.14	-24.82	21.32	54.00	-32.68	Horizontal

Test channel:		CH78	CH78			Polarity			Vertical	
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	2483.50	53.58	27.43	4.03	37.26	47.78	74.00	-26.22	Peak	
2	2500.00	46.85	27.40	4.04	37.26	41.03	74.00	-32.97	Peak	

<u>LIMIT</u>

FCC CFR Title 47 Part 15 Subpart C Section 15.209

Frequency	Limit (dBuV/m)	Value
0.009 MHz ~0.49 MHz	2400/F(kHz) @300m	Quasi-peak
0.49 MHz ~ 1.705 MHz	24000/F(kHz) @30m	Quasi-peak
1.705 MHz ~30 MHz	30 @30m	Quasi-peak

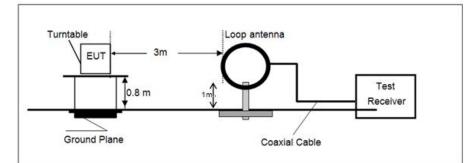
Note: Limit dBuV/m @3m = Limit dBuV/m @300m + 40*log(300/3)= Limit dBuV/m @300m +80,

Limit dBuV/m @3m = Limit dBuV/m @30m +40*log(30/3)= Limit dBuV/m @30m + 40.

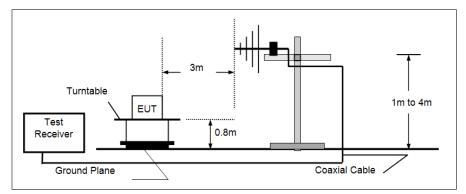
Frequency	Limit (dBuV/m @3m)	Value
30MHz~88MHz	40.00	Quasi-peak
88MHz~216MHz	43.50	Quasi-peak
216MHz~960MHz	46.00	Quasi-peak
960MHz~1GHz	54.00	Quasi-peak
	54.00	Average
Above 1GHz	74.00	Peak

TEST CONFIGURATION

➢ 9 kHz ~ 30 MHz



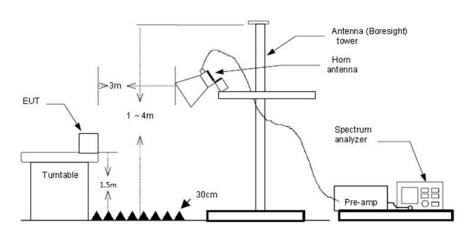
> 30 MHz ~ 1 GHz



> Above 1 GHz

Page: 25 of 32

Date of issue:



TEST PROCEDURE

- 1. The EUT was setup and tested according to ANSI C63.10 .
- 2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
- 3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
- 4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
- 5. Set to the maximum power setting and enable the EUT transmit continuously.
- 6. Use the following spectrum analyzer settings
 - a) Span shall wide enough to fully capture the emission being measured;
 - b) Below 1 GHz:

RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;

If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

c) Set RBW=1MHz, VBW=3MHz for >1GHz, Sweep time=auto, Detector=peak, Trace=max hold for Peak measurement

For average measurement: use duty cycle correction factor method (DCCF)

Averager level = Peak level + DCCF

TEST MODE

Please refer to the clause 4.3

TEST RESULT

☑ Passed □ Not Applicable

Note:

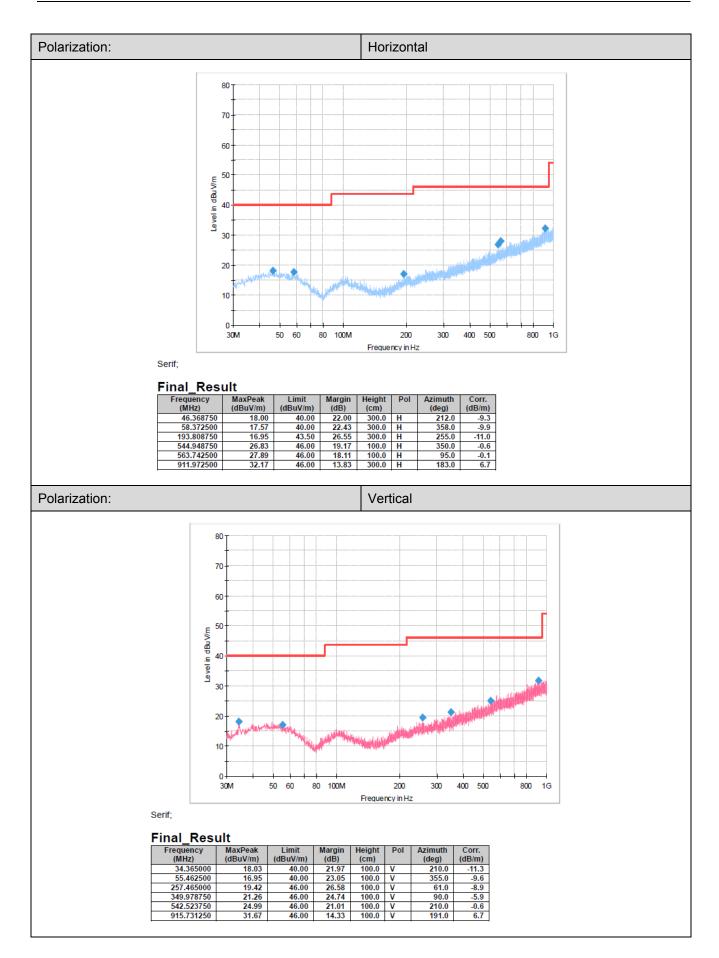
- 1) Level= Reading + Factor/Transd; Factor/Transd =Antenna Factor+ Cable Loss- Preamp Factor
- 2) Over Limit = Level- Limit
- Average measurement was not performed if peak level is lower than average limit(54 dBuV/m) for above 1GHz.

For 9 kHz ~ 30 MHz

The EUT was pre-scanned this frequency band, found the radiated level 20dB lower than the limit, so don't show data on this report.

For 30 MHz ~ 1000 MHz

Have pre-scan all test channel, found CH39 which it was worst case, so only show the worst case's data on this report.



Date of issue:

For 1 GHz ~ 25 GHz

Test c	hannel		CH00			Polarit	ty		Horizor	ntal
	Mark 1 2 3 4	Frequen MHz 2127.07 2505.38 7209.02 9611.66	dBuV/m 49.16 48.52 42.00	Antenna dB 27.43 27.40 36.48 39.25	Cable dB 3.71 4.06 7.23 8.60	Preamp dB 37.31 37.25 34.01 37.01	Level dBuV/m 42.99 42.73 51.70 54.72	Limit dBuV/n 74.00 74.00 74.00 74.00	Over limit -31.01 -31.27 -22.30 -19.28	Remark Peak Peak Peak Peak
				Spurious	Emissio	n of Aver	rage			
No.	Frec [MH:		PK level [dBµV/m]	DCCF [dB]		₋evel 3μV/m]	Lir [dBµ		Over Limit [dB]	Polarity
1	2127.	.07	42.99	-24.82	1	18.17	54.	00	-35.83	Horizontal
2	2505.	.38	42.73	-24.82	1	17.91	54.	00	-36.09	Horizontal
3	7209.	.02	51.70	-24.82	2	26.88	54.	00	-27.12	Horizontal
4	9611.	.66	54.72	-24.82	2	29.90	54.	00	-24.10	Horizontal
	hannel		CH00			Polarit	<u> </u>		Vertical	
	Mark 1 2 3 4	Frequenc MHz 1995.76 2664.36 5762.24 9611.66		Antenna dB 26.08 27.79 31.92 39.25	4.23	Preamp dB 37.06 4 37.02 4 34.86 4	Level dBuV/m 41.57 42.56 49.27 51.04	Limit dBuV/m 74.00 74.00 74.00 74.00	Vertical Over limit -32.43 -31.44 -24.73 -22.96	Remark Peak Peak Peak Peak
	Mark 1 2 3	MHz 1995.76 2664.36 5762.24	y Reading dBuV/m 48.94 47.56 45.58	dB 26.08 27.79 31.92	dB 3.61 4.23 6.63 8.60	Preamp dB 37.06 4 37.02 4 34.86 4 37.01 5	Level dBuV/m 41.57 42.56 49.27 51.04	dBuV/m 74.00 74.00 74.00	Over limit -32.43 -31.44 -24.73	Remark Peak Peak Peak
	Mark 1 2 3	MHz 1995.76 2664.36 5762.24 9611.66	y Reading dBuV/m 48.94 47.56 45.58	dB 26.08 27.79 31.92 39.25	dB 3.61 4.23 6.63 8.60 Emissio	Preamp dB 37.06 4 37.02 4 34.86 4 37.01 5	Level dBuV/m H1.57 H2.56 H9.27 S1.04	dBuV/m 74.00 74.00 74.00	Over limit -32.43 -31.44 -24.73	Remark Peak Peak Peak Peak
	Mark 1 2 3 4 Free	MHz 1995.76 2664.36 5762.24 9611.66 q. z]	y Reading dBuV/m 48.94 47.56 45.58 40.20 PK level	dB 26.08 27.79 31.92 39.25 Spurious	dB 3.61 4.23 6.63 8.60 Emissio	Preamp dB 37.06 4 37.02 4 34.86 4 37.01 5 n of Aver Level	Level dBuV/m 1.57 2.56 19.27 51.04 rage	dBuV/m 74.00 74.00 74.00 74.00 74.00	0ver limit -32.43 -31.44 -24.73 -22.96 Over Limit	Remark Peak Peak Peak
No.	Mark 1 2 3 4 Frec [MH	MHz 1995.76 2664.36 5762.24 9611.66 q. [z] .76	PK level [dBµV/m]	dB 26.08 27.79 31.92 39.25 Spurious DCCF [dB]	dB 3.61 4.23 6.63 8.60 Emissio	Preamp dB 37.06 4 37.02 4 34.86 4 37.01 5 n of Aver Level dBµV/m]	Level dBuV/m 41.57 42.56 49.27 51.04 rage [dl	dBuV/m 74.00 74.00 74.00 74.00 Limit	0ver limit -32.43 -31.44 -24.73 -22.96 Over Limit [dB]	Remark Peak Peak Peak t Polarity 5 Vertical
No.	Mark 1 2 3 4 Free [MH 1995.	MHz 1995.76 2664.36 5762.24 9611.66 q. [z] .76 .36	PK level [dBµV/m] 48.94 47.56 45.58 40.20	dB 26.08 27.79 31.92 39.25 Spurious DCCF [dB] -24.82	dB 3.61 4.23 6.63 8.60 Emissio	Preamp dB 37.06 4 37.02 4 34.86 4 37.01 5 n of Aver Level dBµV/m] 16.75	Level dBuV/m 41.57 42.56 49.27 51.04 rage [dl	dBuV/m 74.00 74.00 74.00 74.00 74.00	0ver limit -32.43 -31.44 -24.73 -22.96 Over Limit [dB] -37.2	Remark Peak Peak Peak Peak 5 Vertical 6 Vertical

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Page:

est cl	hannel			CH39			Polar	ity			Horizo	ntal	
	Mark	Frequ	ency	Reading	Antenna	Cable	Preamp		Level	Limit	0ver	Ren	lark
		MHz		dBuV/m	dB	dB	dB	dE	BuV/m	dBuV/m	limit		
	1	2127.	07	49.16	27.43	3.71	37.31	42.9	99	74.00	-31.01	Pea	k
	2	2505.		48.52	27.40	4.06	37.25	42.7		74.00	-31.27	Pea	
	3	7319.		41.35	36.44	7.30	34.10	50.9		74.00	-23.01	Pea	
	4	9784.	47	43.92	39.60	8.44	36.17	55.7	79	74.00	-18.21	Pea	k
					Spurious	Emissio	on of Ave	erage	Э				
								Ť			Over		
No.	Free			level	DCCF		Level		Lin	-	Limit		Polarity
NU.	[MH	z]	[dB	µV/m]	[dB]	[d	BµV/m]		[dBµ\	//m]	[dB]		Tolanty
1	2127.	.07	42	2.99	-24.82		18.17		54.	00	-35.83	ł	Iorizonta
2	2505.			2.73	-24.82		17.91		54.0		-36.09	ŀ	Iorizontal
3	7319.			0.99	-24.82		26.17		54.		-27.83	ŀ	Iorizontal
4	9784.	.47	55	5.79	-24.82		30.97		54.	00	-23.03	ŀ	Iorizontal
est cl	hannel			CH39			Polar	ity			Vertica		
	Mark	Frequ MHz	-	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB		Level BuV/m	Limit dBuV/m	Over limit	Re	mark
	1	1995.		48.94	26.08	3.61	37.06	41.	and any second	74.00	-32.43	Pe	ak
	2	2664.		47.56	27.79	4.23	37.02	42.		74.00	-31.44		ak
	3	5762.		46.34	31.92	6.63	34.86	50.		74.00	-23.97		ak
	4	9784.	47	41.13	39.60	8.44	36.17	53.	00	74.00	-21.00	Pe	ak
	_			_	0	F				_	_		_
	1				Spurious	Emissio	on of Ave	erage	e T				
	Free	a	Pk	< level	DCCF		Level			imit	Ove	r	
No.	[MH			SµV/m]	[dB]		[dBµV/m	.1	-	-μV/m]	Limi	t	Polarity
		<u>∠]</u>	lan	phound	[UD]		[ubμ v/m	IJ	lac	pμv/mj	[dB	1	
1	1995	.76	4	1.57	-24.82	2	16.75		5	4.00	-37.2	•	Vertica
2	2664	.36	4	2.56	-24.82	2	17.74		5	4.00	-36.2	26	Vertica
3	5762	.24	5	50.03	-24.82	2	25.21		5	4.00	-28.7	'9	Vertica
4	9784	.47	5	53.00	-24.82	2	28.18		5	4.00	-25.8	2	Vertica

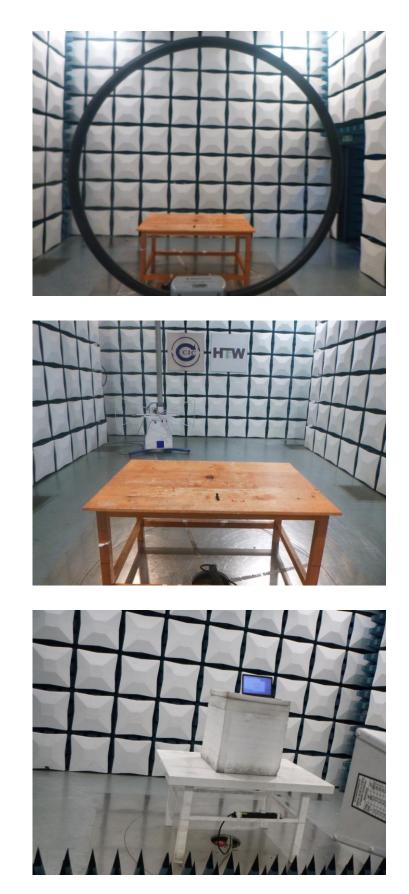
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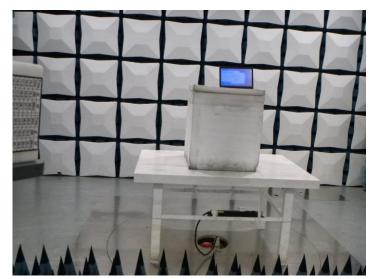
Page:

est c	hannel			CH78			Polar	rity			Horizo	ntal	
	Mark 1 2 3 4	Freq MH 2127 2505 7451 9935	.07 .38 .57	Reading dBuV/m 49.16 48.52 40.95 45.02	Antenna dB 27.43 27.40 36.60 39.57	Cable dB 3.71 4.06 7.34 8.72	Preamp dB 37.31 37.25 33.97 37.33		73 92	Limit dBuV/m 74.00 74.00 74.00 74.00	Over limit -31.01 -31.27 -23.08 -18.02	Rem Pea Pea Pea	k k
					Spurious I	Emissic	on of Ave	erag	е				
No.	Frec [MH			level µV/m]	DCCF [dB]		Level BµV/m]		Lin [dBµ`		Over Limit [dB]		Polarity
1	2127.	07	42	2.99	-24.82		18.17		54.	00	-35.83	F	lorizontal
2	2505.	38	42	2.73	-24.82		17.91		54.	00	-36.09	H	lorizontal
3	7451.	57	50	0.92	-24.82	:	26.10		54.	00	-27.90	F	lorizonta
4	9935.	05	55	5.98	-24.82		31.16		54.	00	-22.84	F	lorizonta
	1 2 3 4	MH 1995 2664 5762 9935	.76 .36 .24	dBuV/m 48.94 47.56 45.89 41.02	dB 26.08 27.79 31.92 39.57	dB 3.61 4.23 6.63 8.72	dB 37.06 37.02 34.86 37.33	dE 41.5 42.5 49.5 51.9	6 8	74.00 74.00	limit -32.43 -31.44 -24.42 -22.02	Peak Peak Peak Peak	
	-				Spurious I	Emissic	on of Ave	erag	e				
No.	Free [MH			K level βμV/m]	DCCF [dB]		Level [dBµV/m	ן]		Limit 3µV/m]	Ove Lim [dB	it	Polarity
1	1995	.76	4	1.57	-24.82		16.75		5	54.00	-37.2	25	Vertica
2	2664	.36	4	2.56	-24.82		17.74		5	54.00	-36.2	26	Vertica
3	5762	.24	4	9.58	-24.82		24.76		5	54.00	-29.2	24	Vertica
4	9935	.05	5	51.98	-24.82		27.16		5	54.00	-26.8	34	Vertica
4	9935	.05	5	01.98	-24.82		27.16		5	94.00	-26.8	54	Vertic

6. TEST SETUP PHOTOS

Radiated Emission





AC Conducted Emission



7. EXTERNAL AND INTERNAL PHOTOS

Refer to the test report No.: CHTEW22100047

8. APPENDIX REPORT

APPENDIX REPORT

Project No.	SHT2209084902EW	Radio Specification	Bluetooth EDR
Test sample No.	YPHT22090849003	Model No.	EB121
Start test date	2022-10-11	Finish date	2022-10-12
Temperature	24.9℃	Humidity	28%
Test Engineer	Xiaoxiao Li	Auditor	Xiaodong Zheo

Appendix clause	Test item	Result
А	Peak Output Power	PASS
В	20 dB Bandwidth	PASS
С	99% Occupied Bandwidth	PASS
D	Carrier Frequencies Separation	PASS
E	Hopping Channel Number	PASS
F	Dwell Time	PASS
G	Duty Cycle Correction Factor (DCCF)	PASS
Н	Band edge and Spurious Emissions(coducted)	PASS

Modulation type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
	00	2.01	1.93		
GFSK	39	2.53	2.48	≤ 30.00	Pass
	78	2.56	2.54		
	00	2.62	1.79		
π/4DQPSK	39	3.15	2.54	≤ 21.00	Pass
	78	3.35	2.84		
	00	3.07	2.23		
8DPSK	39	2.96	2.03	≤ 21.00	Pass
	78	2.70	1.94		

Appendix A: Peak Output Power

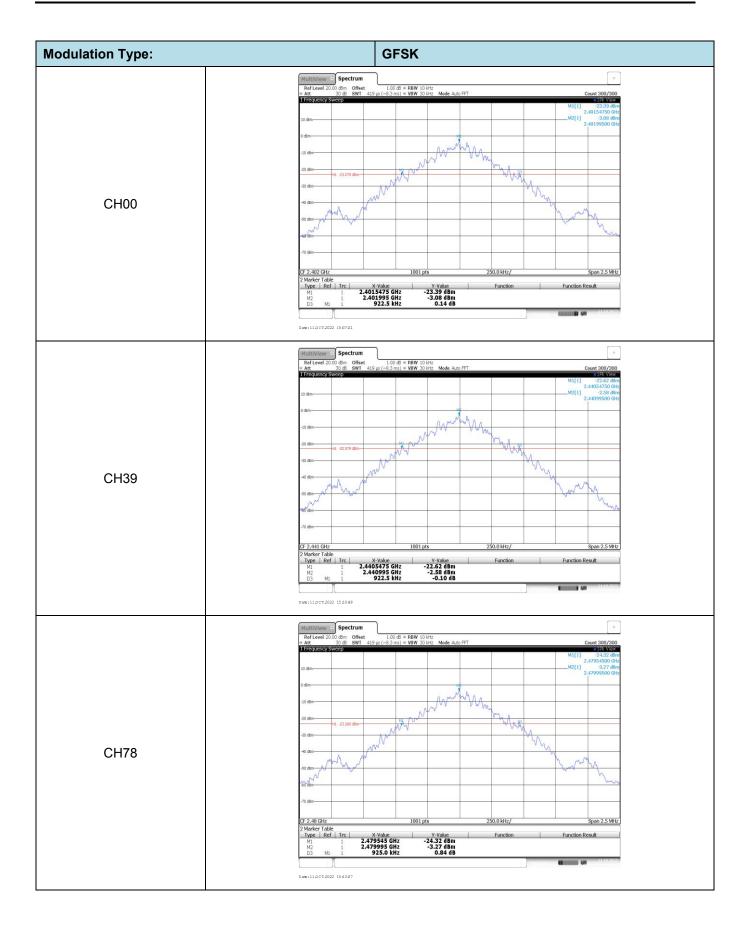
Modulation Type:	GFSK
	MultiView :: Spectrum
	RefLevel 20.00 dBm Offset 1.00 dB = RBW 1 MHz = Att 30 dB SWT 4.21 µs (~31 ms) = VBW 3 MHz Mode Auto FFT Count 300/300
	1 Frequency Sweep
	20 dkn
	0 din
	-10 660
	40 dan
CH00	-30 dan
	-40 dan
	80 (\$60
	40 dan
	-71 dan
	CF 2.402 GHz 500.0 kHz/ Span 5.0 MHz
	Dam:11.0CT.2022 15:07:38
	MultiView 🕀 Spectrum
	Ref Level 20.00.d8m Offset 1.00.d8 RBW 1.MH: # Att 30.d6 SWT 4.21 µs (~31 ms) = VBW 3.MH; Mode Auto FFT Count 300/300 T Frequency Sweap #16K View #16K View #16K View
	MI[1] 2.53 dbm 2.44116980 GHz
	10 dan
	0.din
	10 dm
	-20 din
CH39	-30 dbn
	40.60
	51 @m
	40 dbn
	-70 dán
	CF 2.441 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz
	Dam:11.DCT2022 15:11:06
	MultiView Spectrum v Ref Level 2000 dbm Offset 1.00 db # RBW 1 MHz count 300/300 # Att 30 db SWT 4.21 us (~31 m) # VBW 3 MHz Count 300/300 Tricrustory Sweap #150 View #150 View
	10 dan
	P dm
	-10 @n
	-20 din
CH78	-10 da
	40.60
	40 din-
	40.80
	-71 &m
	GF 2.48 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz
	Date:11.0CT.2022 15:13:44

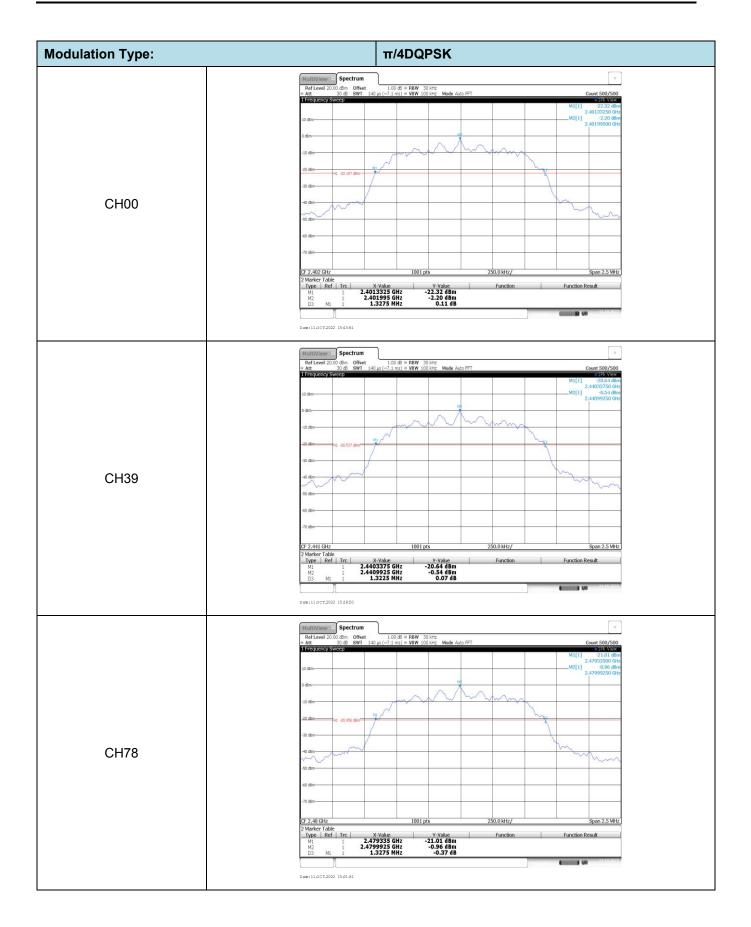
odulation Type:	π/4DQPSK					
	MultiView 😳 Spectrum					
	Ref Level 20.00 dBm Offset att 30 dB SWT T Frequency Sweep	: 1.00 dB ⊕ RBW 2 MHz 1.01 ms ⊕ VBW 5 MHz Mod	e Auto Sweep		Count 500/50 • 1Pk View	
	10 d9m				M1[1] 2.62 dB 2.40210490 G	
	0 dām		MI			
	-10 dbm					
	-20 d8m					
CH00	-30 d8m					
	-40 dBm					
	-50 dBm					
	-60 d8m					
	-70 dBm					
	CF 2.402 GHz	1001 pt:	;	500.0 kHz/	Span 5.0 MI	
	Date:11.0CT.2022 15:16:08				Anna (1111111) (40 11110/03	
	MultiView :: Spectrum Ref Level 20.00 dBm Offset Att 30 dB SWT	: 1.00 dB = RBW 2 MHz 1.01 ms = VBW 5 MHz Mod	e âuto Sween		Count 500/50	
	1 Frequency Sweep				M1[1] 3.15 dE 2.44082020 G	
	10 d8m-		M			
	0 dām-		NI V			
	-10.487					
	-20 dBm					
СН39	-30 dBm					
	-40 dBm					
	-50 dBm					
	-60 dBm					
	-70 d8m					
	CF 2.441 GHz	1001 pt	1	500.0 kHz/	Span 5.0 Mi	
	Date:11.0CT.2022 15:19:07					
	MultiView 🗄 Spectrum				4	
	MultiView B Spectrum Ref Level 20.00 dBm Offset e Att 30 dB SWT I Frequency Swgep	1.00 dB ⊕ RBW 2 MHz 1.01 ms ⊕ VBW 5 MHz Mod	e Auto Sweep		Count 500/50 • 1Pk View	
	10 d9m				M1[1] 3.35 de 2.47990010 G	
			MI			
	0 dBm					
	-10.4805					
	-20 d8m					
CH78	-30 dBm					
	-40 dBm					
	-50 d8m					
	-60 d8m					
	-70 d8m					
	CF 2.48 GHz	1001 pt	;	500.0 kHz/	Span 5.0 MH	

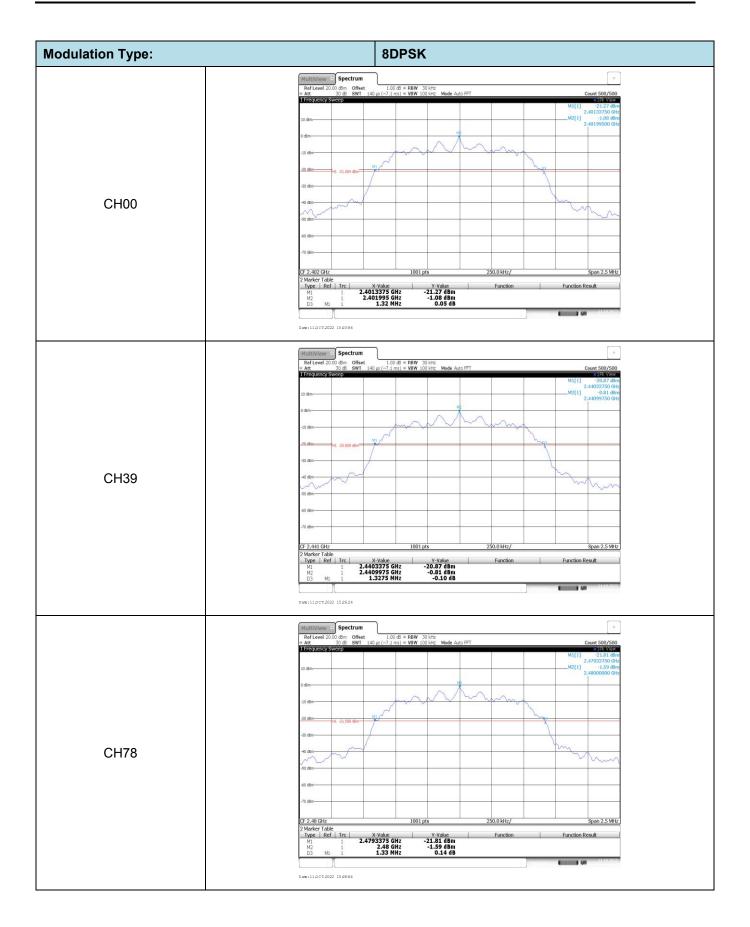
Iodulation Type:	8DP	SK	
	MultiView 🗄 Spectrum		v
	RefLevel 20.00 dBm Offset 1.00 dB = RBW 2 ■ Att 30 dB SWT 1.01 ms = VBW 5	MHz MHz Mode Auto Sweep	Count 500/500
	1 Frequency Sweep		• 1Fk View M1[1] 3.07 dBm 2.40212490 GHz
	10 dBm		
	0 dām	M3	
	-10, dent		
	-20 dBm		
CH00	-30 dBm		
	-40 dBm		
	-50 d8m		
	-60 d8m		
	-70 dBm		
	CF 2.402 GHz	1001 pts 500.0 kHz/	Span 5.0 MHz
	Dat:110CT2022 152443		
	MultiView 🗄 Spectrum		w .
	Ref Level 20.00 dBm Offset 1.00 dB = RBW 2 = Att 30 dB SWT 1.01 ms = VBW 5	MHz MHz Mode Auto Sweep	Count 500/500
	1 Frequency Sweep		19k View M1[1] 2.96 dBm 2.44105490 GHz
	10 dam		
	0 dām		
	-10.08m		
	-20 @m		
	16.0 MBR		
CH39	-30 dBm		
	-40 dBm		
	-50 d8m		
	-60 d8m		
	-70 dBm		
	CF 2.441 GHz	1001 pts 500.0 kHz/	Span 5.0 MHz
	Dats:11.0CT.2022 15.26.32		
	MultiView = Spectrum		V
	MultiView Spectrum Roftevel 2000 dbm Offset 100 db = FBW 2 att 30 db SWT 101 ms = VBW 5 Trecquercy sweet Frequency Sweet	MHz MHz Mode Auto Sweep	Count 500/500 • 1Pk View
			M1[1] 2.70 dBm 2.48006990 GHz
	10 d9m	MI	
	0 dām		
	-10 (Stee		
	-20 dBm		
CH78	-30 dBm		
011/0			
	-40 dBm		
	-50 dBm		
	40 d8m		
	-70 d8m		
	-/// ddm-	1001 pts 500.0 kHz/	Span 5.0 MHz

Appendix B : 20 dB Bandwidth

Modulation type	Channel	20 dB Bandwidth (kHz)	Limit (kHz)	Result
	00	922.50		
GFSK	39	922.50	-	Pass
	78	925.00		
	00	1327.50		
π/4DQPSK	39	1322.50	-	Pass
	78	1327.50		
	00	1320.00		
8DPSK	39	1327.50	-	Pass
	78	1330.00		







Appendix C: 99% Occupied Bandwidth

Modulation type	Channel	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
	00	0.89		
GFSK	39	0.90	-	Pass
	78	0.90		
	00	1.19		
π/4DQPSK	39	1.19	-	Pass
	78	1.19		
	00	1.18		
8DPSK	39	1.19	-	Pass
	78	1.19		

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odulation Type:	GFSK
	MultiView Spectrum v Ref Level 2000 dbm Offset 1.00 db = RBW 30 kHz
	Ref Level 20:00.dbm Offset 1:00.db # RBW 30 bits: Count 300/300 # Att: 30.db SWT 140 (a (~7.1 m)) = VBW 100 bits: Mode Auto FFT Count 300/300 T Occupied Bandwidth 100 (db) FFK Verified 100 (db) 100 (db)
	10 dm
	-10.00-
	40 da
01100	-30 dbp
CH00	
	40.00
	-10 dbm
	CF 2.402 GHz 1001 pts 250.0 kHz/ Span 2.5 MHz 2 Marker Table
	Type Ref Trc X-Value Y-Value Function Function Result M1 1 2.4020574 GHz -0.90 dBm
	TI 1 2.40155295 GHz -17.21 dBm Occ Biv 891.608391608 KHz T2 1 2.4024456 GHz -19.50 dBm Occ Biv 891.608391608 KHz
	Date:11.0CT.2022 15.67.29
	MultiView 🗄 Spectrum
	Ref Level 20:00 dbm Offset 1:00 db = RBW 30 bHz Count 300/300 # Att 30:db SWT 140 µc (~7.1 ms) = VBW 100 Hz Mode Auto FFT Count 300/300 I Occupied Bend/Willing ● I F2 Very ● I F2 Very ● I F2 Very
	1 Occupied Band with #19: View M1[1] - 0.61 dBm 2,41105490 GHz
	20 dan
	0.88-
	40 dbm
	-10 dkn
CH39	+1 da
	35.00p
	40 dai
	-71 dan
	0F 2.441 GHz 1001 pts 250.0 kHz/ Span 2.5 MHz
	2 Marker Table Y-Value Y-Value Function Function Result M1 1 2.4410549 GHz -0.61 dBm -0.61 dBm
	Vision Ref Trc X-Value Y-Value Function Function Result M1 1 2.440549 GHz -0.651 dBm 1 1 2.440549 GHz -16.95 dBm T1 1 2.440549 GHz -16.95 dBm Occ Bw 896.603396604 kHz T2 1 2.44144705 GHz -16.72 dBm Occ Bw 896.603396604 kHz
	Date:11.0ct.2022.15.00.57
	Ref Level 20.00 dBm Offset 1.00 dB + RBW 30 kHz a At 30.04 SWT 1.00 dB + RBW 30 kHz
	A GLO 2010 3HT 1-2016 (**.1 m) * VeV 100 H2 *800 F00 FT C 0000 F00 0TT C 0000 F00 0TT C 0000 F00 0TT C 0000 F00 0TT C 0.0 S dim 10 C 0.0 S dim 10 C 0.0 S dim 2.400 S 400 OFT 2.400 S 400 OFT
	10 dbm
	-10 0507
	10 GM
	-10 dia
CH78	
	ABO TO
	46 dbn
	-10 dbm
	OF 2.48 GHz 1001 pts 250.0 MHz/ Span 2.5 MHz 2 Marker Table
	Type Ref Trc X-Value Y-value Function Function Function M1 2.4800549 GHz -0.35 dBm 904.0955904096 kHz 16.54 dBm 0cc Bw 904.0955904096 kHz T1 1 2.4905050 Hz -16.54 dBm Occ Bw 904.0955904096 kHz T2 1 2.49052050 Hz -17.26 dBm Ht 1000 Hz
	T2 1 2.46045205 GHz -17.26 dBm
	Date:11.0CT.2022 15:33:85

dulation Type:	π/4DQPSK
	MultiView B Spectrum
	Ref Level 20:00 d8m Offset 1:00 d8 = RBW 30 kHz # # Att 3:06 SWT 1:40 µs (~7.1 ms) = V8W 100 kHz Mode Auto FFT Count 500/500 I Occupied Explored Segmentation #Isk View Isk View Isk View
	10 dam
	18 m m m m m m m m m m m m m m m m m m m
	12 Ve
	40.660
	-00.000
CH00	*** When the second sec
	-50 db
	-60 dbm
	-70 dbm
	CF 2.402 GHz 1001 pts 250.0 kHz/ Span 2.5 MHz
	2 Marker Table Type Ref Trc X-Value Y-Value Function Function Result M 1 2.401995 GHz -1.05 dBm
	T1 1 2.4014031 GHz -15.55 dBm Occ Bw 1.188811189 MHz T2 1 2.40259191 GHz -17.52 dBm
	Dab:11.DCT2002 15:15:59
	MultiView Spectrum RefLevel 20:00 dem Offset 100:d8 = RBW 30.H7c
	1 Occupied Bandwidth I Occupied Bandwidth
	10 dam
	0.0km H
	-10 des
	The second se
	40.66m
	-30 dbn
CH39	
	-50 dm
	40 dbm
	-10 den
	DF 2.441 GHz 1001 pts 250.0 kHz/ Span 2.5 MHz
	2 Marker Table Type Ref Trc X-Value Y-Value Function Function Result Mi 1 2.4409925 GHz -0.70 dBm
	M1 1 2.4409925 GHz -0.70 dBm T1 1 2.4494031 GHz -15.54 dBm Occ Bw 1.191308691 MHz T2 1 2.4415941 GHz -17.23 dBm
	Dab:11.DCT2022 15:858
	MultiNiew Spectrum v RefLevel 2.00.0 dbm Offset 100.db = RBW 30.1Hz v • Att 30.db SWT 140.pt (~7.1ms) = WBW 100.Hz Mode Auto FFT Count 500/500
	1 Occupied Bandwidth #1Pk View
	10 dtm 10 dtm 247999500 GHz
	0.dtn
	-10 m
	48 dkm
	-10 ddn
CH78	
	-0 da
	40.061
	-70 dbm
	CF 2.48 GHz 1001 ore 250 0.6457 Comp 2.54865
	CF 2.48 GHz 1001 pts 250.0 kHz/ Span 2.5 MHz 2 Marker Table Type I Ref Trc X-Value Y-Value Function Function Result

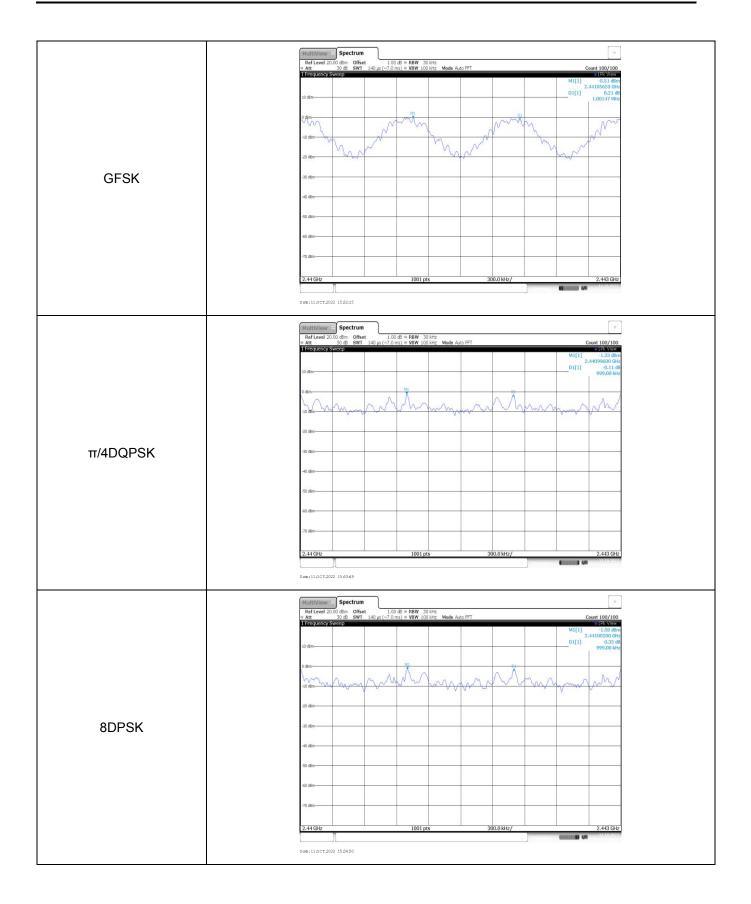
Iodulation Type:	8DPSK
	MultiView Spectrum
	RefLevel 20:00 dbm Offset 1:00 db RBW 30 kHz Count S00/S00 # Att 30 db SWT 1#0 jac (~7.1 ms) VBW 100 kHz Mode Auto FFT Count S00/S00 I OCXDERID BandWork VBW 100 kHz Mode Auto FFT Count S00/S00
	M1[1] -1.27 dim 2,40199750 GHz
	10 dan-
	30 days
	-30 day
CH00	40.6m
01100	19 da
	40.050
	70.65
	10.000
	CF 2.402 GHz 1001 pts 250.0 kHz/ Span 2.5 MHz 2 Marker Table
	Type Ref Trc X-Value Y-Value Function Function Result Mt 1 2.4019975 GHz -1.27 dBm
	Ti 1 2.40140559 GHz -15.42 dBm Doc Bw 1.181318681 HHz T2 1 2.40258691 GHz -18.05 dBm -18.05 dBm -18.05 dBm
	Date:11.0CT.2022 15.24.94
	MultiView Spectrum v Reflewil 200 ddm Offset 1.00 d8 = RBW 30 HHz e Act 30.08 SWT 140 µc (~7.1 ms) = VBW 100 HHz Mode Auto FFT Count S00/S00 Occupied BenotWidth 115 W Rem
	10 dm
	D dân
	10.00
	48 day
	-30 dan
CH39	no n
	40 days
	47 dbn
	-70 68m
	CF 2.441 GHz 1001 pts 250.0 kHz/ Span 2.5 MHz
	2 Marker Table
	Type Ref Trc X-Yabue Y-Yabue Function Function Function M1 2.4409955 GHz -1.10 dBm 1.186313666 MHz 1.186313666 MHz T1 1 2.4409059 GHz -1.10 dBm 1.186313666 MHz T2 1 2.4419019 GHz -17.82 dBm 0xc Bw 1.186313666 MHz
	Data:11.0CT2022 152623
	MultiView # Spectrum
	Ref Level 20.00_dBm Offset 100.dB BBW 30.1Hz Mode Autor FT Count S00/S00 # Att
	M1[1] -0.78 dBm 2,47999750 GHz
	10 dam
	20 den
	-30 dbm
CH78	Han have an
01110	
	40 dan
	-71 den-
	CF 2.48 GHz 1001 pts 250.0 kHz/ Span 2.5 MHz 2 Marker Table
	Type Ref Trc X-Value Y-Value Function Function Result Mt 1 2.4799975 CHz -0.78 dBm
	T1 1 2.47940809 GHz -15.57 dBm Occ Bw 1.191308691 MHz T2 1 2.4805994 GHz -17.14 dBm

Modulation type	Channel	Carrier Frequencies Separation (MHz)	Limit (kHz) *	Result
GFSK	39	1.00	≥925.00	Pass
π/4DQPSK	39	1.00	≥885.00	Pass
8DPSK	39	1.00	≥886.67	Pass

Appendix D:	Carrier	Frequencies	Separation

Note:

*: GFSK limit = The maximum 20 dB Bandwidth for GFSK modulation on the appendix B. $\pi/4DQPSK$ limit = 2/3 * The maximum 20 dB Bandwidth for $\pi/4DQPSK$ modulation on the appendix B. 8DPSK limit = 2/3 * The maximum 20 dB Bandwidth for 8DPSK modulation on the appendix B



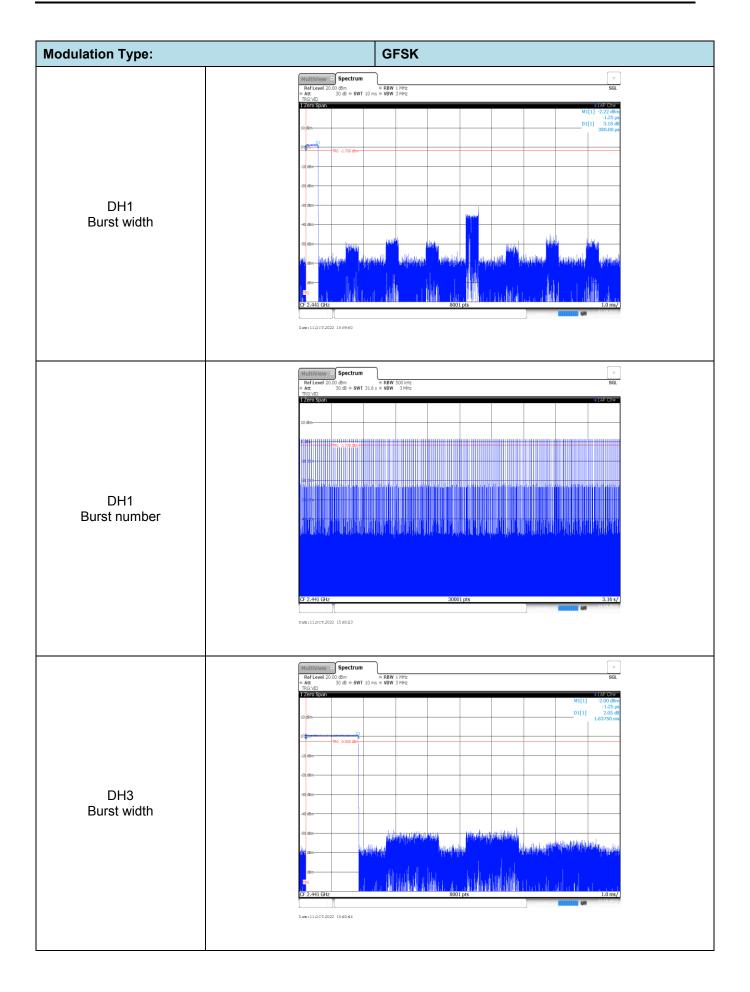
Appendix E: Hopping Channel Number

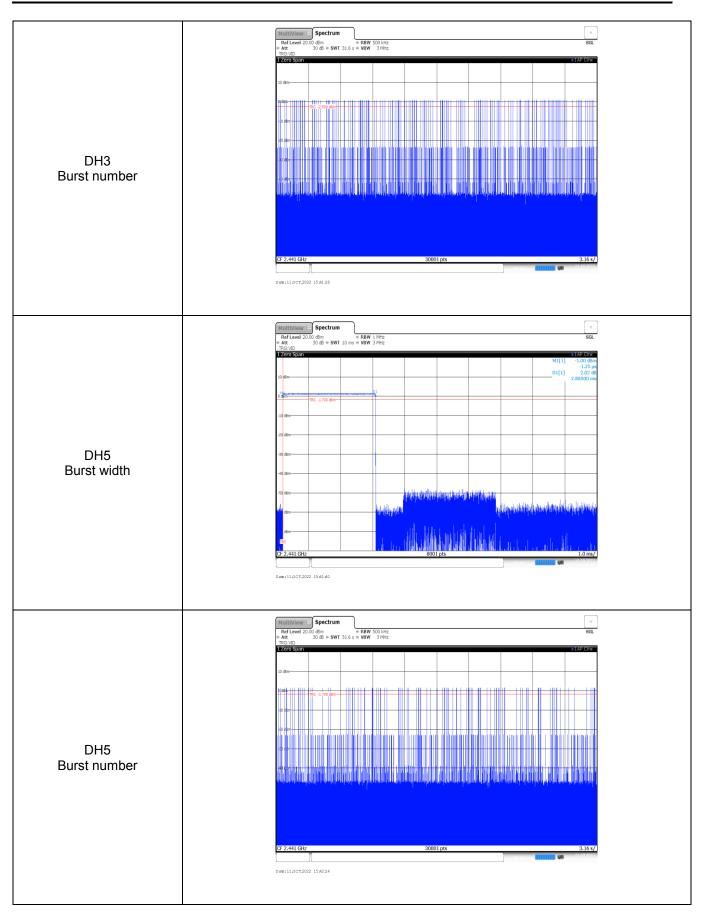
Modulation type	Channel number	Limit	Result
GFSK	79		
π/4DQPSK	79	≥15.00	Pass
8DPSK	79		

	MultiView Spectrum v ReLevel 200 dbm Offset 1 00 db = RBW 100 kHz w att 30 db SWF 1.02 ms = VBW 300 kHz Mode Auto Sweep
	** Att 30.66 SVT 1.02 ms * VBW 30.141 Mode Auto Sweep * 1.02 MS 10.65
GFSK	
	40 des
	MultiView Spectrum v Reflexed 2000 dbm Offset 1.00 db = BBW 100 Htt v
	Refleved 200 dbm OffSect 1.00 db RBW 100 Hrz w Att 30.46 SWT 1.02 ms W Mode Auto Sweep If requery Sweep If requery Sweep If requery Sweep If requery Sweep
π/4DQPSK	
	40 don
	2.4 GHz 1001 pts 8.35 MHz/ 2.4835 GHz
	MultiView Spectrum v Reflexed 200 dbm Offset 1.00 db = RBW 100 Hz v a Att 30.db SW1 1.02 ms = VBW 300 Hz I Frequency/SWED a 124 View a 124 View
	20 mm
8DPSK	12 do-
	2.4 GHz 1001 pts 8.35 MHz/ 2.4835 GHz
	Dam:11.0CT2022 15:39:00

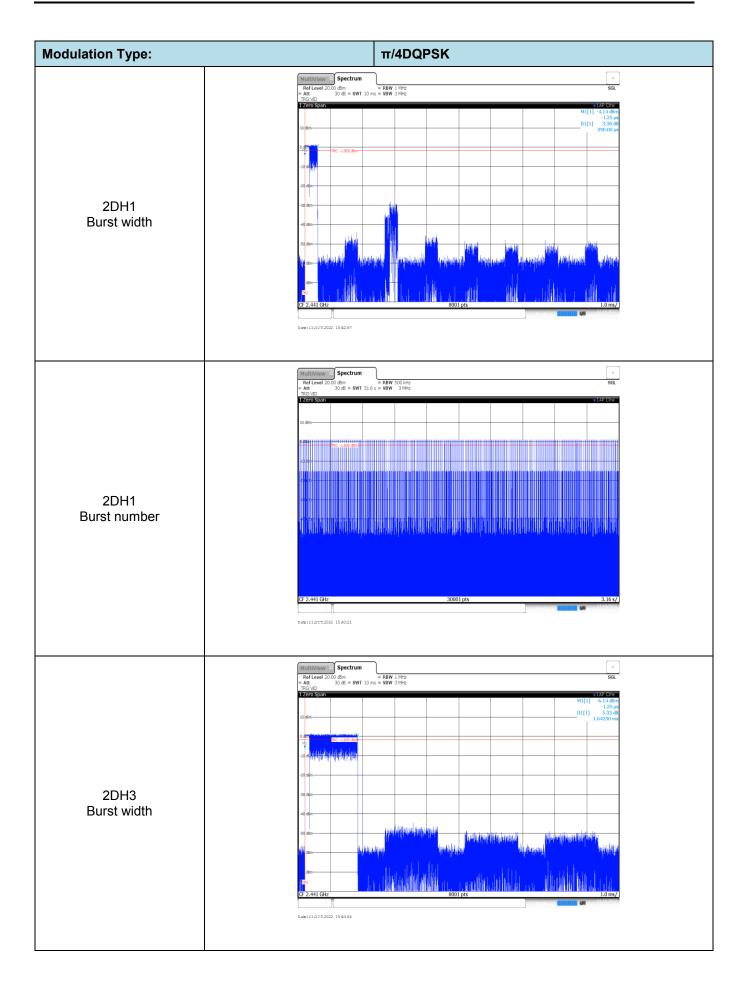
Appendix F: Dwell Time

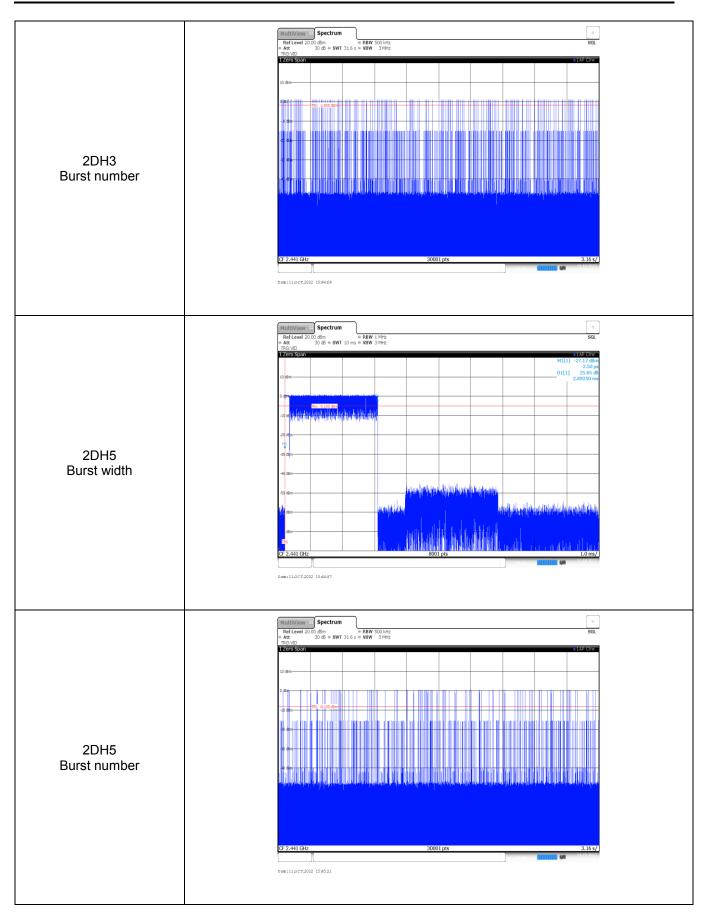
Modulation type	Packet	Burst Width [ms]	Total Hops[hop*ch]	Dwell time (Second)	Limit (Second)	Result
	DH1	0.38	317	0.12		
GFSK	DH3	1.64	157	0.26	≤ 0.40	Pass
	DH5	2.89	99	0.29		
	2DH1	0.39	316	0.12		
π/4DQPSK	2DH3	1.64	162	0.27	≤ 0.40	Pass
	2DH5	2.89	102	0.30		
	3DH1	0.39	320	0.13		
8DPSK	3DH3	1.64	166	0.27	≤ 0.40	Pass
	3DH5	2.89	106	0.31		

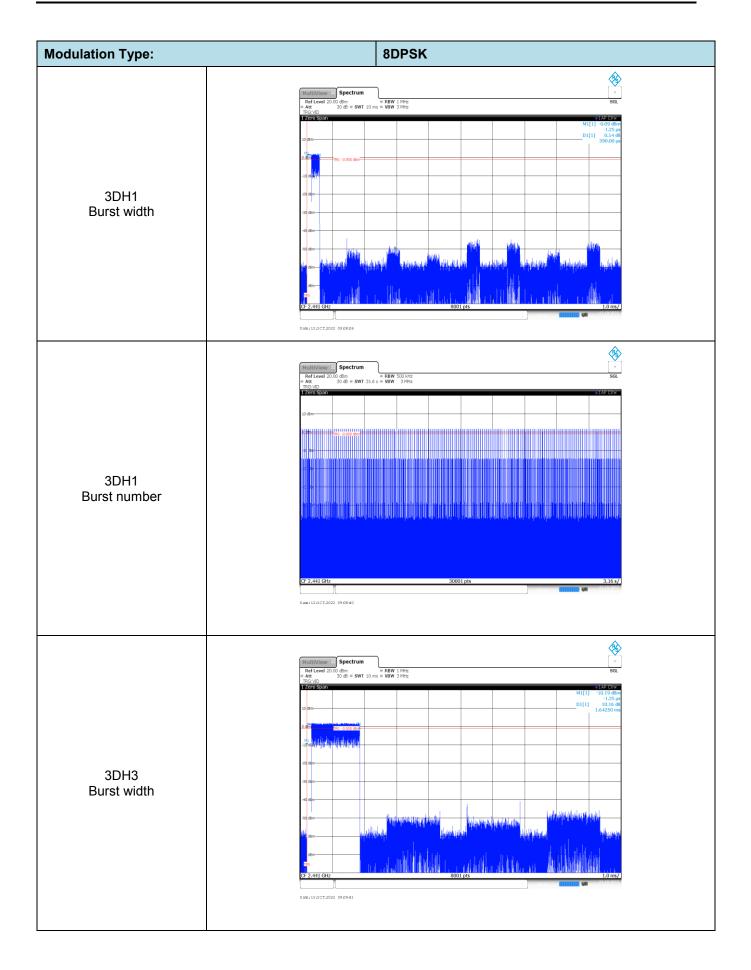


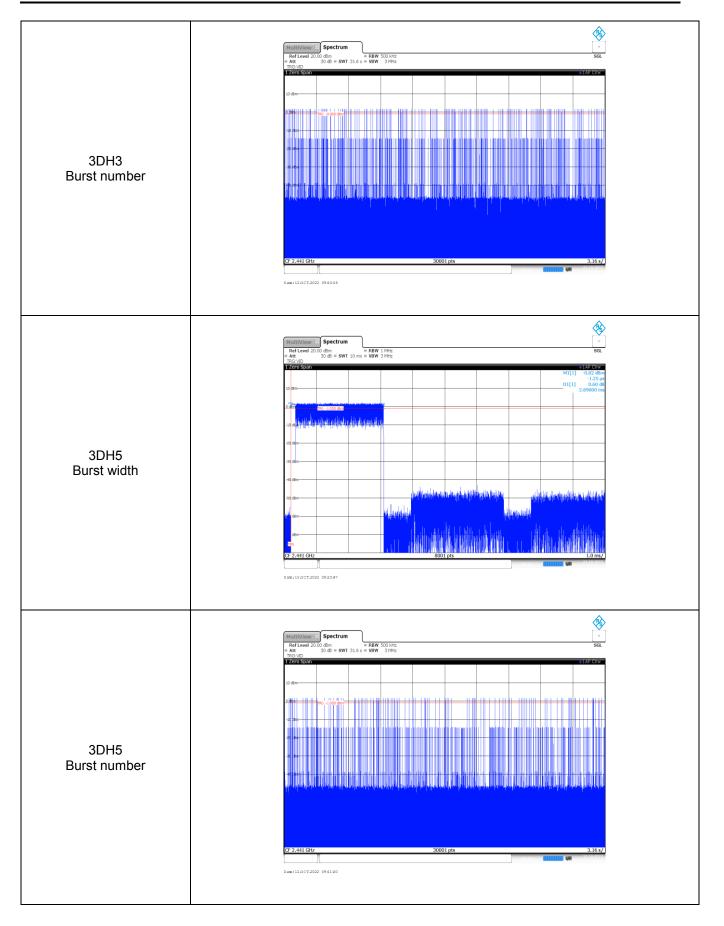


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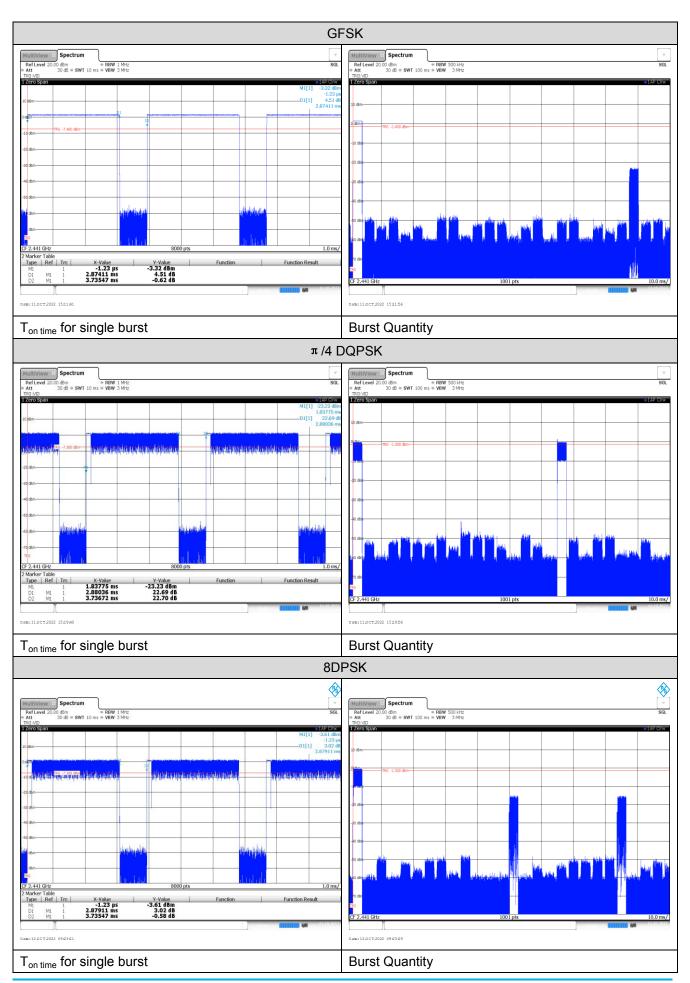






Appendix G: Duty Cycle Correction Factor (DCCF)

DCCF Calculate Formula					
DCCF=20 * Lo	g(duty cycle) =	20 * Log(T _{on time} / T _{period})		
Modulation type	Test Frequency (MHz)	T _{on time} for single burst [ms]	T _{period} [ms]	Burst Quantity	DCCF [dB]
GFSK	2441	2.87	100	2	-24.82
π /4 DQPSK	2441	2.88	100	2	-24.79
8DPSK	2441	2.88	100	3	-21.27



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Appendix report page: 26 of 41

Band edge		Modulatio	on type:		GFSK	
	MultiView Spectrum Ref Level 20.00 dBm Offset 1.	00 dB = RBW 100 kHz			Ψ.	
	Att 30 dB SWT 1/ Frequency Sweep	05 ms ⊕ VBW 300 kHz Mode Aut	o Sweep		Count 300/300 219k Max M1[1] 1.98 dBm 2.4020100 GHz M2[1] -48.18 dBm 2.4000000 GHz	
	0 d8m					
	-20 dBm					
	-50 cBm	mannamharanan	eel marked and a second second	and what he was a set of the	mentionen h	
	-70 d8m 2.31 GHz 2 Marker Table Type Ref Trc	1001 pts X-Value Y-Va			2.405 GHz Function Result	
	M1 1 2.4 M2 1 M3 1 M4 1 M5 1 2.39	0201 GHz 1.98 2.4 GHz -48.18 2.39 GHz -54.80 2.31 GHz -64.79 99965 GHz -48.42	dBm dBm dBm dBm dBm			
	Date:11.0CT.2022 15:08:34	7				
		00 dB ⊜ RBW 100 kHz 15 ms ⊕ VBW 300 kHz Mode Aut	o Sweep	1	Count 500/500	
	10 d9m				2.4048580 GHz M2[1] -54.51 dBm 2.4000000 GHz	
CH00 ing mode	-10 dBm					
	-40 dkm				ME ME	
	-70 dBm-			hilling		
	2.31 GHz 2 Marker Table Type Ref Trc M1 1 M2 1 M3 1 M4 1	1001 pts X-Value Y-Va 14858 GHz 1.48 2.4 GHz -54.51 2.39 GHz -55.20 2.31 GHz -62.35			2.405 GHz Function Result	
	M5 1 2	3974 GHz -52.24	dBm		WINNER (X	
	RefLevel 20.00 dBm Offset 1. a Att 30 dB SWT 1. HerefLevel SWEP	00 dB = RBW 100 kHz 12 ms = VBW 300 kHz Mode Aut	o Sweep		Count 300/300	
	10 d8m				M1[1] 2.48 dBm 2.4799890 GHz M2[1] -57.30 dBm 2.4835000 GHz	
	-10 dBm					
	-30 dBm				14	
	-50 dBm	- Company - Marine	mannahurun	mannanana	a marine the marine	
	2.478 GHz 2 Marker Table Type Ref Trc M1 1 2.43 M2 1 2.43	1001 pts X-Value V-Va 9989 GHz 2.48 4835 GHz -57 30			2.5 GHz Function Result	
	M2 1 2 M3 1 M4 1 2.4	2.5 GHz -57.30 9791 GHz -51.94	dBm dBm			
	Band edge	Full View Spectrum Rel Level 20.00 d/m 0 filest 1.0 I d/m - I d/m -		Image: Spectram Image: Spectram	Image: Spectram Image: Spectram	

Appendix H: Band edge and Spurious Emissions (conducted)

	HullsView Spectrum Ref Level 2000 dbm Offset 1000 db = * Att 30 db SWT 102 ms + 10 dbm 10 dbm -0 dbm 11 -30 dbm 14	NBW 100 Htz Mode Auto Sweep		v Count 500/550 ■ 1×2 351 1/3 dBn 2.435500 GHz 2.435500 GHz
CH78 Hopping mode	30 dan 40 dan 40 dan 40 dan 40 dan	and at star of a part of the star of the s	, matural and a second second	and her water and
	2.478 Grtz 2 Morker Table 	GHz 1.93 dBm GHz -55.11 dBm GHz -55.03 dBm	2.2 MHz/ Function	2.5 GHz Function Result

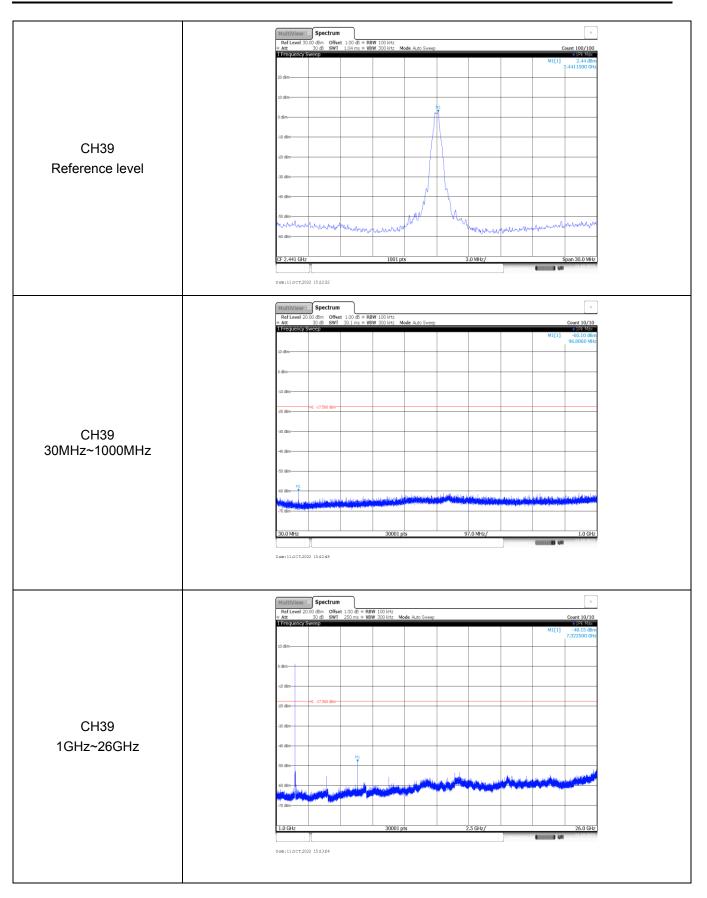
Test Item:	Band edge		Modula	tion typ	e:	π/4DC	PSK			
		MultiView Spectrum	1							
		Ref Level 20 0.dbm Offset DBW D01Hz Count S00/S00 # Att 30.05 SWT LOS ms # VBW 300 Hz Mode Auto Sweep Count S00/S00 Frequency Sweep 912k Ms 102 ms 102 ms MIII 1.70 mbm								
		10 dBm				-M2[1]	-48.40 dBm -48.40 dBm			
		0 d8m					Ā			
		-10 dBm -20 dBm H1 -18.300 dBm								
		-30 d8m								
CH00		-40 d8m					84¢ 4			
No hopping mode		-50 dBm			ىدىرىيى	nodulungrentinght	- The second			
			nonemphatics	maphinetern	wellemanne		0			
		2.31 GHz	1001 pts		9.5 MHz/		2.405 GHz			
		2 Marker Table Type Ref Trc X M1 1 2.40 M2 1	Value 201 GHz 2.4 GHz -4 2.39 GHz -5 2.31 GHz -6	Y-Value 1.70 dBm 8.40 dBm	Function	Function Re	sult			
		M3 1 M4 1 M5 1 2.399	2.39 GHz -5 2.31 GHz -6	6.56 dBm 4.18 dBm 8.68 dBm						
		Date:11.0CT.2022 15:16:41				C	11.10.2022			
		MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 • Att 30 dB SWT 1.05	dB = RBW 100 kHz ms = VBW 300 kHz Mo	de áuto Sween		0				
		1 Frequency Sweep				M1[1]	114 dBm 1.14 dBm 4040030 GHz			
		10 d8m				-M2[1] 2	-55.39 dBm :4000000 GHz			
		-10 dBm					m			
		-20 dBmH1 -18.860 dBm								
CH00		-30 dBm								
Hopping mode		-50 d8m					145 Y 142			
hopping mode		60 dem	noncuberid	بالمعالمة المعالمة ال		a and the second destroy and	Minut			
		-70 d8m								
		2.31 GHz 2 Marker Table Type Ref Trc X	1001 pts		9.5 MHz/ Function	Function Re	2.405 GHz sult			
		M1 1 2.404 M2 1 M3 1 M4 1	Value 003 GHz 2.4 GHz -5 2.39 GHz -5 2.31 GHz -6 685 GHz -5	Y-Value 1.14 dBm 5.39 dBm 6.75 dBm 4.07 dBm 2.97 dBm						
		M4 1 M5 1 2.397	685 GHz -5	2.97 dBm		6	11.10.2022			
		Date:11.0CT.2022 15:37:46								
		MultiView Spectrum					7			
		Ref Level 20.00 dBm Offset 1.00 Att 30 dB SWT 1.02 I Frequency Sweep	dB = RBW 100 kHz ms = VBW 300 kHz Mo	de Auto Sweep		MILLI	■ 19k Max 2.53 dBm			
		10 dBm				2 M2[1]	.4799890 GHz -58.28 dBm .4835000 GHz			
		o dam								
		-10 dBm -20 dBm H1 -17.470 dBm								
		-30 dBm			_					
CH78		again h			_					
No hopping mode		yo dem W	Envinanties	mound	mana	m. M. Marine	- Know			
		-60 dBm								
		2.478 GHz	1001 pts		2.2 MHz/		2.5 GHz			
		2 Marker Table			Function	Function Re				
		M2 1 2.4 M3 1 M4 1 2.498	Value 989 GHz 835 GHz -5 2.5 GHz -5 504 GHz -5	Y-Value 2.53 dBm 8.28 dBm 2.46 dBm 1.25 dBm			11.10-000			
		Date:11.0CT.2022 15:22.22				CITER 10	118 UK02			

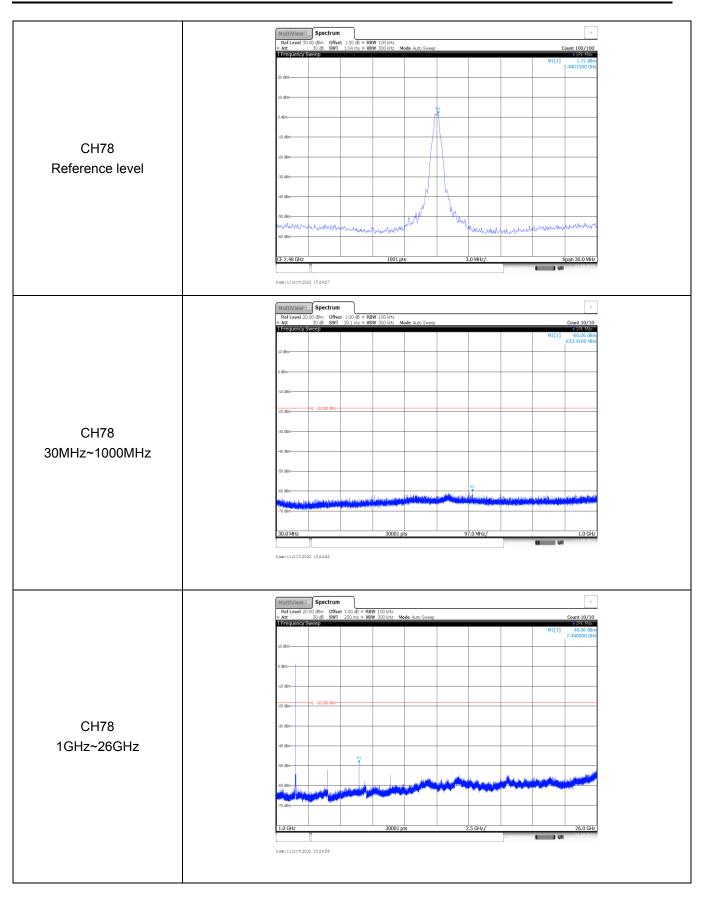
	MultiView Spectrum Ref Level 20.00 dBm Offset # Att 30 dB SWT I Frequency Sweep	1.00 dB = RBW 100 kHz 1.02 ms = VBW 300 kHz Mode Auto Sweep		Count 500/500
	10 dBm			M1[1] 2.41 dBm 2.4789780 GHz
	0 dam 4 v 4 m -10 dam 41 17 590 dim			
CH78	-30 dbm			
lopping mode	-50 dbm	Mennelman Markala	and her many	adama and a second
	-70 dbm	1001 pts	2.2 MHz/	2.5 GHz
	M2 1 M3 1	X-Value Y-Value 478978 GHz 2.41 dBm 2.4835 GHz -55.23 dBm 2.5 GHz -54.26 dBm 192124 GHz -51.11 dBm	Function	Function Result
				URINEL D 4/0

Test Item:	Band edge	Modulation type: 8DPSK
		Multiview := Spectrum
CH00 No hopping mode		Ref Level 200 dbm Offset: 1.03 B FREW 100Hz Count 500/500 If country Sweep If country Sweep If country Sweep If country Sweep If dim 2.4020100 GHz 2.4020100 GHz 2.4020100 GHz If dim 2.4020100 GHz 2.4020100 GHz 2.4020100 GHz If dim 2.4020100 GHz 2.4020100 GHz 2.4020100 GHz If dim 2.402010 GHz If dim If dim If dim If dim 2.402000 GHz If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If dim If d
CH00 Hopping mode		MULTIVIEWE Spectrum Count SOUGO Ref. weize 2000 With 100 mm Million 118 mm Count SOUGO Index weize Count SOUGO Count SOUGO Count SOUGO Index weize Million 1.18 mm Count SOUGO Count SOUGO Index weize Million 1.18 mm Count SOUGO Count SOUGO Count SOUGO Index weize Million 1.18 mm Million 2.000000, Graphic Count SOUGO Coun
CH78 No hopping mode		Spectrum v Ref Level 2000 dbm Offert 1.00 db + RBW 100.Htz Count 500.000 Technology 100 dbm 100 dbm Will 100 dbm 24.99990 Gb 10 dbm

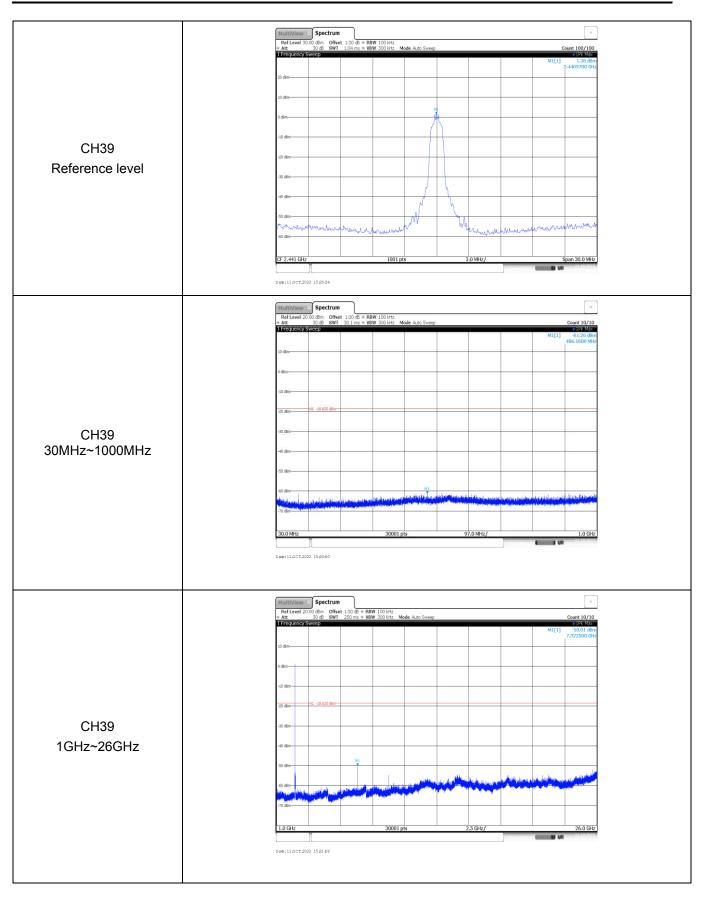
	HulthView Spectrum Ref Level 2000 dbm Offwet 100 db = RBW 100 kHz e Att 30 db SWT 1.02 ms = VBW 300 kHz Mode Troquency Sweep 0 SWT 1.02 ms = VBW 300 kHz Mode 10 dbm 40 dbm 41,350 dbm 41,350 dbm 42 dbm 43 dbm 44 dbm 43 dbm 44 dbm 43 dbm 44 dbm 45 dbm<	Vitus Sweep Count 500/500 International State International State Vitus Sweep X-12 and X-12 and X-12 and X-
CH78 Hoppig mode	40 dan	would have a second and the second a
	M2 1 2.4835 GHz -54. M3 1 2.5 GHz -56.	2.2 MHz/ 2.5 GHz Value Function Function Result 12 dBm 19 dBm 22 dBm 15 dBm

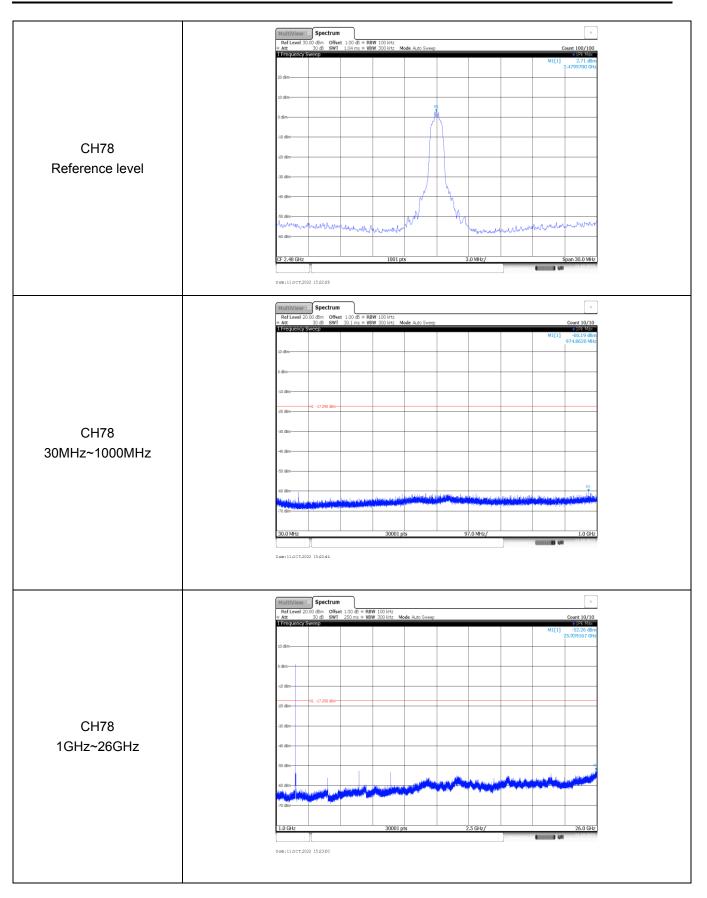
est Item:	Spurious Emission Modulation type:						GFSK				
	MultiView Spectrum v Reflevel 3000 dbm Offset 1.00 db * RBW 100 H/z v * Att 30 db SWT 1.04 ms * VBW 300 H/z										
		Ref Level 3 Att 1 Frequency	0.00 dBm Offse 30 dB SWT Sweep	et 1.00 dB ⊕ RE 1.04 ms ⊕ VE	8W 100 kHz 8W 300 kHz M	ode Auto Sweep					Count 100/100 1Pk Max
		20 d8m-								M1[1]	2.10 dBn 2.4020000 GH
		10 d8m									
		0 d8m-					m M				
		-10 d8m									
CH00		-20 d8m									
Reference level		-30 d8m									
Reference level		-40 d8m				N	h				
		-50 d8m					h				
		-50 dBm	hammenter	muller	mhennes	W.	-W	Muran	equendor	mound	mmm
		CF 2.402 GH][1001 pl	ts	3	3.0 MHz/	. Ne souring	6	Span 30.0 MHz
		Date:11.0CT.2	022 15:09:43								
			Spectrum 0.00 dBm Offse 30 dB SWT		3W 100 kHz						7
		 Att 1 Frequency 	30 dB SWT Sweep	30.1 ms ⇒ VE	WW 300 kHz M	ode Auto Sweep				M1[1]	Count 10/10 1Pk Max -60.23 dBn
		10 dBm	-				-				743.4270 MH
		0 dām									
		-10 dBm		-				-			
		-20 dBm	H1 -17.900 dBm-		-						
CH00		-30 d8m									
30MHz~1000MHz		-40 dBm					-				
		-50 d8m	-	-							
		-60 d8m				Healtheander	e a data a sul.		Ma		r Satural Calin
		-70 dBm	a humble have			and the state of the		Manager and the state			
		30.0 MHz			30001 p	ts	9	7.0 MHz/			1.0 GH
		Date:11.0CT.2	022 15:09:59							(11.10.2022
		(and a second	(e=+								Ţ
		Ref Level 2 Att	Spectrum 0.00 dBm Offse 30 dB SWT		WI 100 kHz WI 300 kHz MI	ode Auto Sweep					Count 10/10
		1 Frequency	sweep							M1[1]	 1Pk Max -48.19 dBr 7.205833 GH
		10 dBm									
		0 dām									
		-10 dBm									
		-20 d8m	-H1 -17.900 dBm-								
CH00		-30 dBm									
1GHz~26GHz		-40 d8m		Ma							
		-50 d8m				لمبين		adula	. وفار الم	ulije dita.	and the state
		-60 dBm	الما المتعليه							and providents.	A STATE OF THE OWNER.
		-70 d8m									
		1.0 GHz	Y	1	30001 p	ts	3	2.5 GHz/		6	26.0 GH

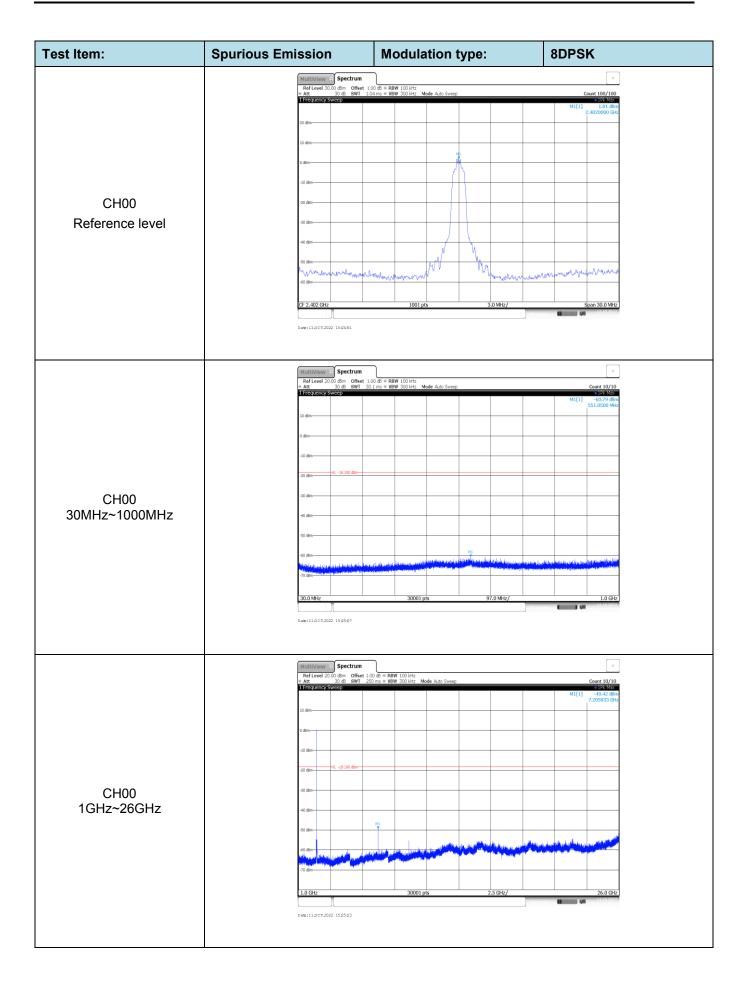


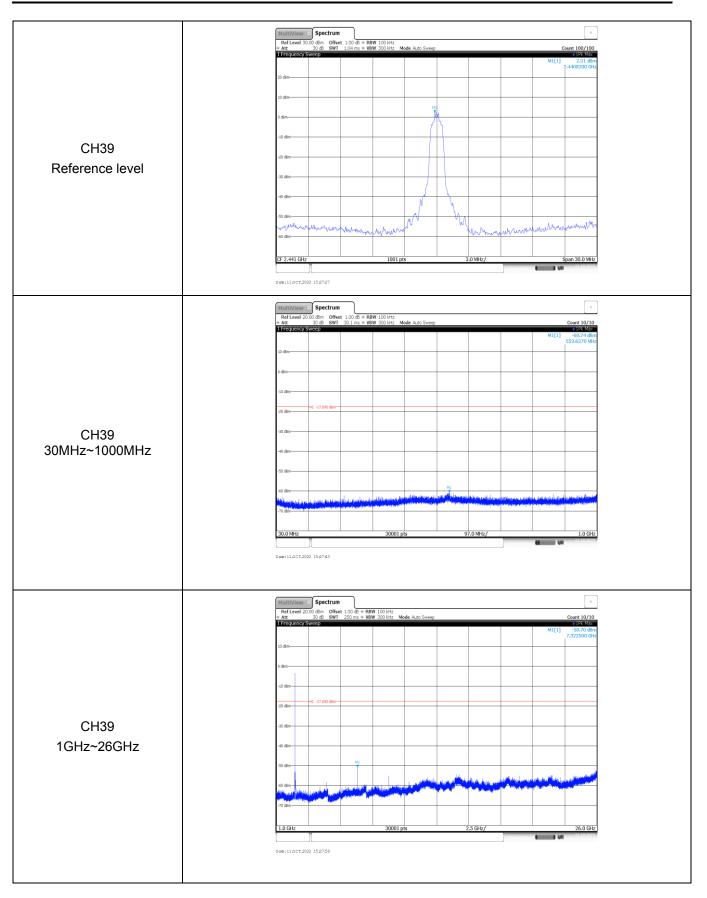


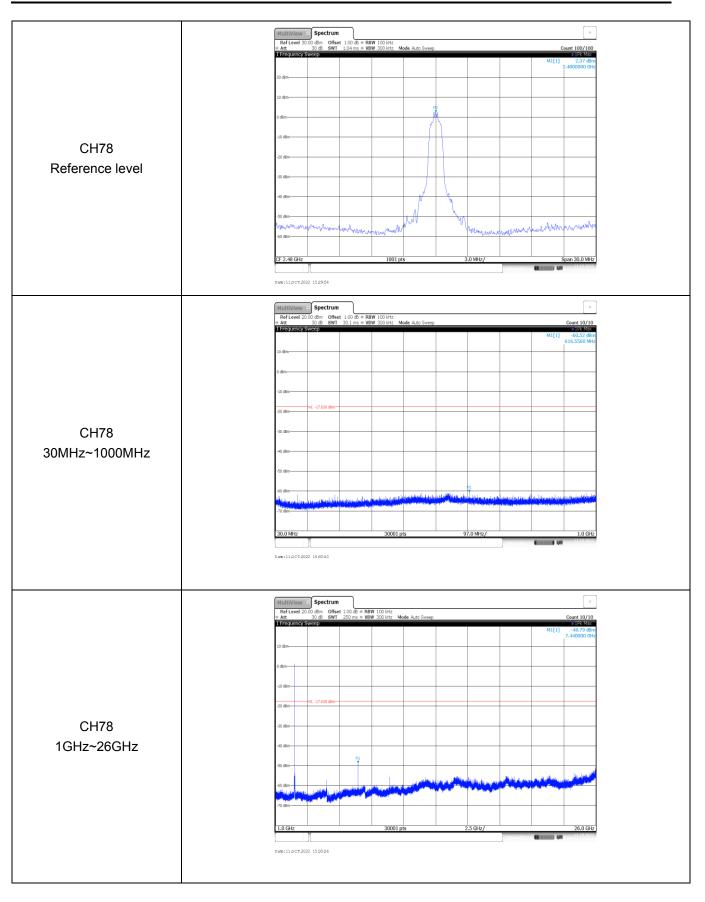
Test Item:	Spurious I	purious Emission Modulation type:								π/4DQPSK			
		MultiView Spectrum v Rel Level 30.00 dbm Offset 1.00 db = REW 100 kHz v att 30.db SWT 1.04 ms = VEW 300 kHz Count 100/100											
		Ref Level 30.00 dBm Off Att 30 dB SW 1 Frequency Sweep	set 1.00 dB ⊜ RB T 1.04 ms ⊜ VB	WI 100 kHz WI 300 kHz MI	ode Auto Sweep				M1[1]	Count 100/100			
		20 dBm							(iii[i]	1.84 dBr 2.4019700 GH			
		10 dBm											
CH00		0 dām				4 4							
		-10 d8m			- (
		-20 d8m											
Reference level		-30 d8m											
		-40 d8m											
		-50 dam-	. h		M	- M				Mulin			
		-60 dBm	the property of	hurmal			mondull	LANNA	www	wellow war			
		CF 2.402 GHz		1001 pt	s		3.0 MHz/			Span 30.0 MHz			
		Date:11.0CT.2022 15:16:48							()	-			
		MultiView 🗉 Spectru	m							V			
		Ref Level 20.00 dBm Off Att 30 dB SW I Frequency Sweep	set 1.00 dB ⇔ RB T 30.1 ms ⇔ VB	WI 100 kHz WI 300 kHz M	ode Auto Sweep)				Count 10/10 18k Max			
		10 dBm							M1[1]	-60.13 dBr 550.7270 MH			
		D dBm											
		-10 d8m											
		-20 dBm	-										
CH00		-30 d8m											
30MHz~1000MHz		-40 dBm											
		-50 d8m											
		-60 d8m			the letter of	141 A STATEMENT		مربع المعام		a consta			
		-70 dBm			a si anta di sa anta da Anta di sa anta da	and a second		Upholytele					
		30.0 MHz		30001 p	ts	g	7.0 MHz/			1.0 GH			
		Date:11.0CT.2022 15:17:04						a Mean refera	() 4	11.10.202			
		MultiView = Spectru	m							Ţ			
		Ref Level 20.00 dBm Off Att 30 dB SW 1 Frequency Sweep	set 1.00 dB = RB T 250 ms = VB	W 100 kHz W 300 kHz Mo	ode Auto Sweep					Count 10/10			
								M	l[1]	-50.13 dB 7.205833 GF			
		10 dBm		_									
		-10 d8m											
		-10 dem -20 dBm H1 -18.160 dBm											
CH00		-30 d8m											
1GHz~26GHz		-40 dBm-											
		-50 d8m	M1										
		-60 d8m	د معتبر رو معتبر از	Marine Marine		ALL MAN		Aligner		a starting			
		-70 d8m-		Albert Constant of the second									
		1.0 GHz		30001 p	ts		2.5 GHz/			26.0 GH			
		Date:11.0CT.2022 15:17:20					1	. Verseeling	G				











-----End of Report------