



TEST REPORT

Applicant: Shenzhen Guan Ersheng Electronics Co., LTD.
Address of Applicant: Building A, No. 332, Guiyue Road, Longhua District, Shenzhen City, Guangdong Province China
Manufacturer: Shenzhen Guan Ersheng Electronics Co., LTD.
Address of Manufacturer: Building A, No. 332, Guiyue Road, Longhua District, Shenzhen City, Guangdong Province China
Product Name: wireless bluetooth earphones
Model No.: YX86
Trade Mark: N/A
FCC ID: 2BTYV-YX86
Applicable standards: 47CFR Part 15.247
Date of Test: Mar.11, 2026-Mar.25, 2026
Date of report issued: Mar.26, 2026

Remark:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full without prior written permission of the company.

The report would be invalid without specific stamp of test institute and the signatures of compiler and approver

Prepared By

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Report Revision History		
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1 Test Summary

Test Item	Section	Result	Test by
Antenna Requirement	47CRF Part15.203/15.247 (b) (4)	Pass	/
AC Power Line Conducted Emission	47CRF Part 15.207	Pass	Jason Huang
Conducted Peak Output Power&EIRP	47CRF Part 15.247 (b)(1)	Pass	Kara Wu
20dB Occupied Bandwidth	47CRF Part 15.247 (a)(1)	Pass	Kara Wu
Carrier Frequencies Separation	47CRF Part 15.247 (a)(1)	Pass	Kara Wu
Hopping Channel Number	47CRF Part 15.247 (a)(1)(iii)	Pass	Kara Wu
Dwell Time	47CRF Part 15.247 (a)(1)(iii)	Pass	Kara Wu
Radiated Emission	47CRF Part 15.205/15.209	Pass	Jason Huang
Band Edge	47CRF Part 15.247(d) 47CRF part 15.205/15.209	Pass	Kara Wu

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.
2. Test according to ANSI C63.10:2020 and KDB558074 D01 15.247 Meas Guidance v05r02.
3. Note: Compliance determination rules
 - 1).The Compliance determination of test results does not take into account measurement uncertainty. Measurement results are determined based on regulatory limitations or requirements specified by the applicant/manufacture. If measurement uncertainty is taken into account, the applicant/manufacture will bear all possible risks of non-compliance.
 - 2).The measurement uncertainty please refer to each test result in the "Measurement Uncertainty"

Measurement Uncertainty

Test Item	Measurement Uncertainty	Notes
Occupied Channel Bandwidth	0.72%	(1)
RF output power, conducted	±0.67 dB	(1)
Power Spectral Density, conducted	±0.51 dB	(1)
Unwanted Emissions, conducted	±0.64 dB	(1)
AC Power Line Conducted Emission	± 3.38 dB	(1)
Radiated emissions 9K-30MHz	±4.26 dB	(1)
Radiated emissions 30M- 1GHz	±4.88 dB	(1)
Radiated emissions 1GHz-18GHz	± 4.16 dB	(1)
Radiated emissions 18GHz-40GHz	±4.14 dB	(1)
Frequency error	Uc=6X10 ⁻⁷	(1)
Dewll Time	±0.03	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

2 General Information

2.1 General Description of EUT

Product Name:	wireless bluetooth earphones
Model No.:	YX86
Test Model:	N/A
Difference of model(s)	N/A
Hardware Version:	N/A
Software Version:	N/A
Sample(s) Status	Engineer sample
Operation Frequency:	2402MHz~2480MHz
Channel numbers:	79
Channel separation:	1MHz
Modulation type:	GFSK, $\pi/4$ -DQPSK
Antenna Type:	Chip antenna
Antenna gain:	2.78dBi (Declare by applicant) (Note: Antenna information is provided by applicant, Testing lab is not responsible for the accuracy of the information.)
Power supply:	5VDC from adapter with 100-240Vac or DC 3.7V from Battery
Adapter:	N/A
Battery:	DC 3.7V 28mAh

Remark: For more details, refer to the user's manual of the EUT.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2402MHz	21	2422MHz	41	2442MHz	61	2462MHz
2	2403MHz	22	2423MHz	42	2443MHz	62	2463MHz
3	2404MHz	23	2424MHz	43	2444MHz	63	2464MHz
4	2405MHz	24	2425MHz	44	2445MHz	64	2465MHz
5	2406MHz	25	2426MHz	45	2446MHz	65	2466MHz
6	2407MHz	26	2427MHz	46	2447MHz	66	2467MHz
7	2408MHz	27	2428MHz	47	2448MHz	67	2468MHz
8	2409MHz	28	2429MHz	48	2449MHz	68	2469MHz
9	2410MHz	29	2430MHz	49	2450MHz	69	2470MHz
10	2411MHz	30	2431MHz	50	2451MHz	70	2471MHz
11	2412MHz	31	2432MHz	51	2452MHz	71	2472MHz
12	2413MHz	32	2433MHz	52	2453MHz	72	2473MHz
13	2414MHz	33	2434MHz	53	2454MHz	73	2474MHz
14	2415MHz	34	2435MHz	54	2455MHz	74	2475MHz
15	2416MHz	35	2436MHz	55	2456MHz	75	2476MHz
16	2417MHz	36	2437MHz	56	2457MHz	76	2477MHz
17	2418MHz	37	2438MHz	57	2458MHz	77	2478MHz
18	2419MHz	38	2439MHz	58	2459MHz	78	2479MHz
19	2420MHz	39	2440MHz	59	2460MHz	79	2480MHz
20	2421MHz	40	2441MHz	60	2461MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The lowest channel	2402MHz
The middle channel	2441MHz
The Highest channel	2480MHz

2.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode.
Remark: For battery operated equipment, the EUT was performed using a new DC 3.7V battery.	

2.3 Description of Support Units

No.	Description	Manufacturer	Model	Serial Number
1	Adapter	Xiaomi	MDY-11-EM	/

2.4 Test Facility

Test laboratory:	Shenzhen ETR Standard Technology Co., Ltd.
CNAS Registration Number:	L11864
A2LA Certificate Number:	6640.01
FCC Designation Number:	CN1326
FCC Test Firm Registration:	183064
IC Company Number:	28440
Laboratory location:	No.103, No.10, Phase I, Zone 3, Xinxing Industrial Park, Xinhe, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

2.5 Additional Instructions

Test Software	FCC_assist.exe
Power level setup	Default

3 Test Instruments list

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101214	2026.3.05	2027.3.04
2	EMI Test Receiver	Rohde&schwarz	ESCI3	102696	2026.3.05	2027.3.04
3	Loop Antenna	schwarabeck	FMZB 1519 B	128	2026.3.08	2028.3.07
4	Broadband antenna	schwarabeck	VULB9168	1064	2026.3.11	2028.3.10
5	Horn antenna	schwarabeck	BBHA9120D	2288	2026.3.08	2028.3.07
6	amplifier	EMtrace	RP01A	50117	2026.3.05	2027.3.04
7	AMN	schwarabeck	NSLK8127	8127483	2026.3.05	2027.3.04
8	AMN	ETS	3186/2NM	1132	2026.3.05	2027.3.04
9	10dB attenuator	HUBER+SUHN R	10dB	/	2026.3.05	2027.3.04
10	amplifier	Space-Dtronics	EWLAN0118G- P40	19113001	2026.3.05	2027.3.04
11	Filter	Xingbo	XBLBQ-GTA19	210410-3-1	2026.3.05	2027.3.04
12	Spectrum analyzer	KEYSIGHT	N9020A	MY55370280	2026.3.05	2027.3.04
13	Power control box	MWRFTtest	MW100-PSB	MW201020JYT	2026.3.05	2027.3.04
14	Power Sensor	Keysight	U2021XA	MY54111006	2026.3.05	2027.3.04
15	amplifier	SKET	LNPA_1840-50 (18-40GHz)	19113001	2026.3.05	2027.3.04
16	Horn antenna	schwarabeck	BBHA 9170	946	2026.3.08	2028.3.07
17	Temp. & Humidity Chamber	Jiecheng Instrument	QA-LP-80	20160705001	2026/3/06	2027/3/05

Note: the calibration interval of the above test instruments is 12 or 24 months and the calibrations are traceable to international system unit (SI).

Software Name	Manufacturer	Model	Version
RF test software	MWRFTtest	MTS 8310	V2.0.0.0
Conducted test software	EZ-EMC	Farad	Ver.EMC-CON 3A1.1
Radiated test software	EZ-EMC	Farad	Ver.FA-03A2 RE

4 Test results and Measurement Data

4.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203 /247(b) (4)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
15.247(b) (4) requirement: If transmitting antennas of directional gain greater than 6dBi are used, the conducted output power limit shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.	
E.U.T Antenna:	
The antenna is Chip antenna, the best case gain of the is 2.78dBi, reference to the Internal photos for details.	

4.2 Conducted Emissions

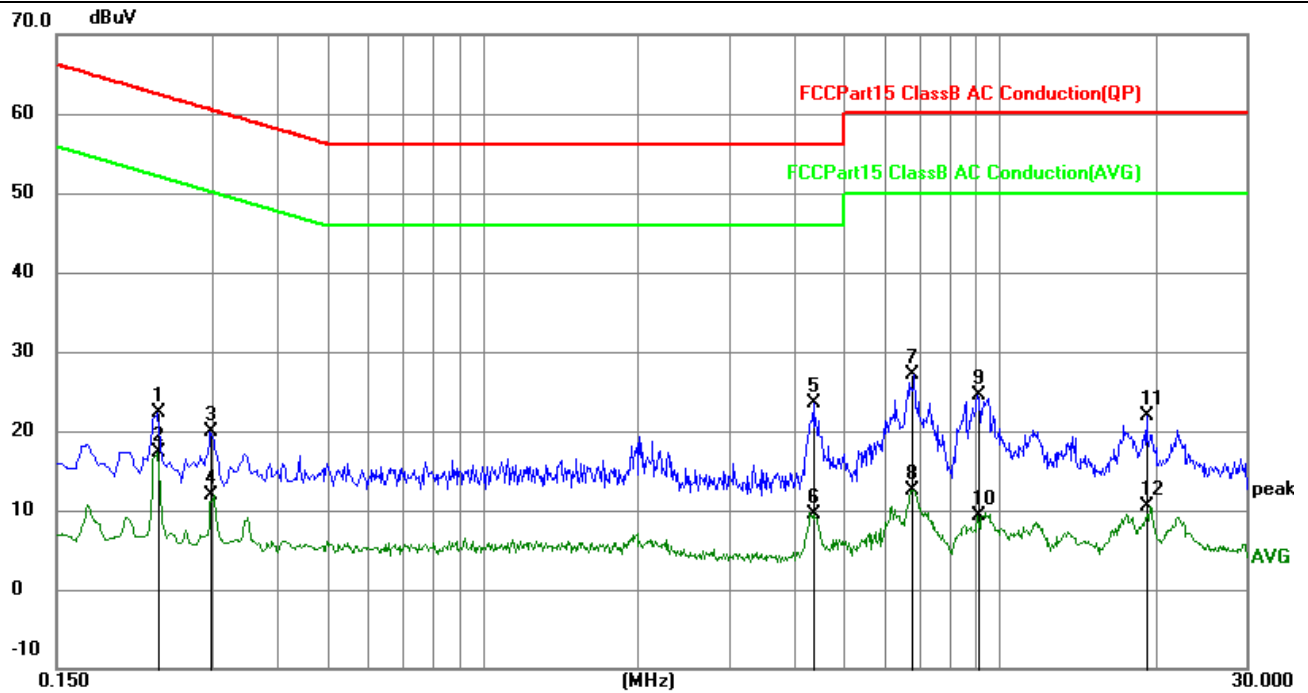
Test Requirement:	47CRF Part 15.207					
Test Method:	ANSI C63.10:2020 §6.2					
Test Frequency Range:	150KHz to 30MHz					
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto					
Limit:	Frequency range (MHz)	Limit (dBuV)				<i>* Decreases with the logarithm of the frequency.</i>
		Quasi-peak		Average		
	0.15-0.5	66 to 56*		56 to 46*		
	0.5-5	56		46		
	5-30	60		50		
Test setup:	Reference Plane 40cm LISN AUX Equipment E.U.T 80cm LISN Filter AC power EMI Receiver Test table/Insulation plane Remark E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m					
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2020 on conducted measurement.					
Test Instruments:	Refer to section 3.0 for details					
Test mode:	Refer to section 2.2 for details					
Test environment:	Temp.:	21.0°C	Humid.:	33%	Press.:	1002 mbar
Test voltage:	AC 120V, 60Hz					
Test results:	Pass					

Remark:

1. Both high voltage and low voltage have been tested, and the report only shows the worst case data with AC 120V/60Hz.
2. The wireless function will stop using when charging EUT

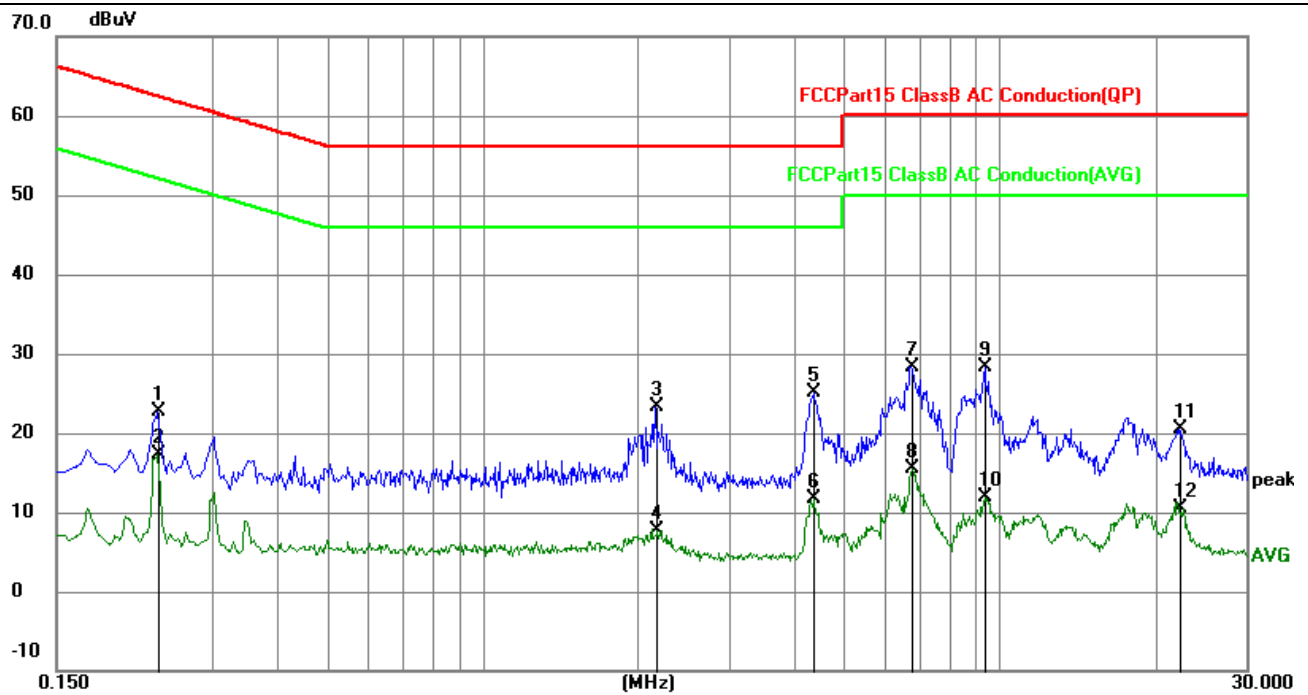
Measurement data:

Line:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2355	12.43	9.82	22.25	62.25	-40.00	QP
2	0.2355	7.39	9.82	17.21	52.25	-35.04	AVG
3	0.2985	10.12	9.84	19.96	60.28	-40.32	QP
4	0.2985	2.03	9.84	11.87	50.28	-38.41	AVG
5	4.3710	13.65	9.83	23.48	56.00	-32.52	QP
6	4.3710	-0.40	9.83	9.43	46.00	-36.57	AVG
7	6.7470	17.18	9.84	27.02	60.00	-32.98	QP
8	6.7470	2.74	9.84	12.58	50.00	-37.42	AVG
9	9.0915	14.69	9.84	24.53	60.00	-35.47	QP
10	9.0915	-0.55	9.84	9.29	50.00	-40.71	AVG
11	19.2255	12.18	9.69	21.87	60.00	-38.13	QP
12	19.2255	0.82	9.69	10.51	50.00	-39.49	AVG

Neutral:

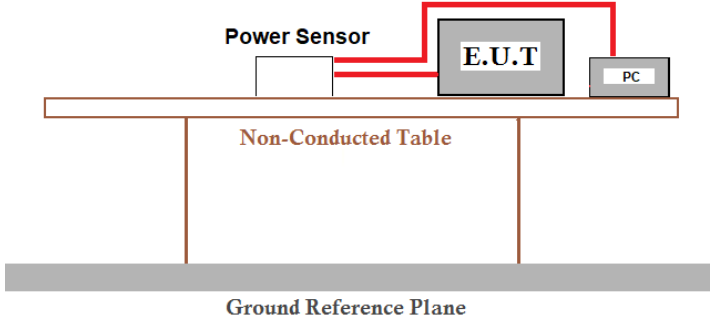


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2355	12.81	9.82	22.63	62.25	-39.62	QP
2	0.2355	7.40	9.82	17.22	52.25	-35.03	AVG
3	2.1569	13.43	9.85	23.28	56.00	-32.72	QP
4	2.1569	-2.10	9.85	7.75	46.00	-38.25	AVG
5	4.3665	15.20	9.83	25.03	56.00	-30.97	QP
6	4.3665	1.92	9.83	11.75	46.00	-34.25	AVG
7	6.7605	18.41	9.84	28.25	60.00	-31.75	QP
8	6.7605	5.57	9.84	15.41	50.00	-34.59	AVG
9	9.3975	18.41	9.83	28.24	60.00	-31.76	QP
10	9.3975	2.11	9.83	11.94	50.00	-38.06	AVG
11	22.2000	10.93	9.63	20.56	60.00	-39.44	QP
12	22.2000	0.89	9.63	10.52	50.00	-39.48	AVG

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss

4.3 Conducted Peak Output Power & EIRP

Test Requirement:	47CRF Part 15.247 (b)(1)	
Test Method:	KDB558074 D01 15.247 Meas Guidance v05r02 ANSI C63.10-2020 §7.8.5	
Limit:	Output Power :20.97dBm	
Test setup:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.3°C	Humid.: 38%RH
Test voltage:	DC 3.7V	
Test results:	Pass	

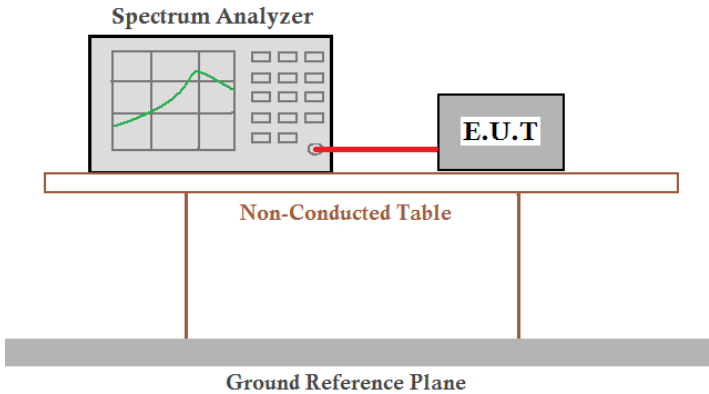
Measurement Result**left ear**

Mode	Test channel	Peak Output Power (dBm)	Limit (dBm)	Result
GFSK	Lowest	-0.95	20.97	Pass
	Middle	-2.00		
	Highest	-2.88		
$\pi/4$ -DQPSK	Lowest	-0.33	20.97	Pass
	Middle	-2.31		
	Highest	-2.20		

Right ear

Mode	Test channel	Peak Output Power (dBm)	Limit (dBm)	Result
GFSK	Lowest	-0.67	20.97	Pass
	Middle	-2.03		
	Highest	-2.43		
$\pi/4$ -DQPSK	Lowest	0.01	20.97	Pass
	Middle	-1.26		
	Highest	-1.67		

4.4 20dB Emission Bandwidth

Test Requirement:	47CRF Part 15.247 (a)(1)	
Test Method:	ANSI C63.10-2020 §6.9.2	
Limit:	N/A	
Test setup:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.3°C	Humid.: 38%RH
Test voltage:	DC 3.7V	
Test results:	Pass	

Measurement Data

left ear

Mode	Test channel	20dB Emission Bandwidth (MHz)	99% Bandwidth (MHz)	Result
GFSK	Lowest	0.938	0.84063	Pass
	Middle	0.956	0.85884	
	Highest	0.935	0.83551	
$\pi/4$ -DQPSK	Lowest	1.273	1.1704	Pass
	Middle	1.349	1.1937	
	Highest	1.262	1.1705	

Right ear

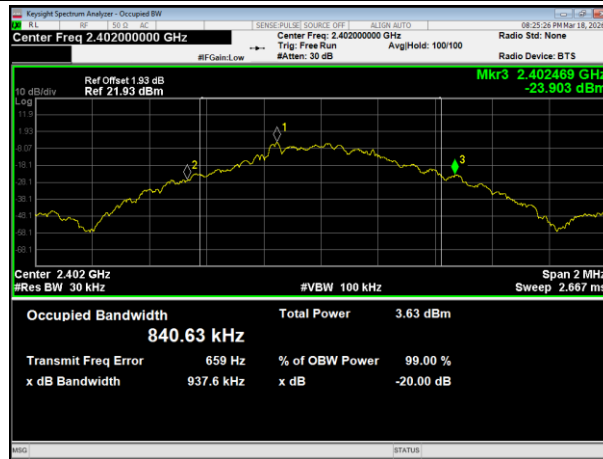
Mode	Test channel	20dB Emission Bandwidth (MHz)	99% Bandwidth (MHz)	Result
GFSK	Lowest	0.924	0.85713	Pass
	Middle	0.918	0.84208	
	Highest	0.939	0.85531	
$\pi/4$ -DQPSK	Lowest	1.259	1.1675	Pass
	Middle	1.258	1.1636	
	Highest	1.261	1.1615	

Test plot as follows:

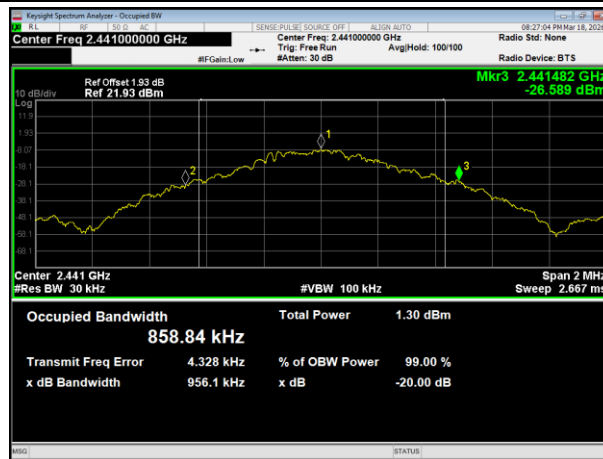
left ear

Test mode:

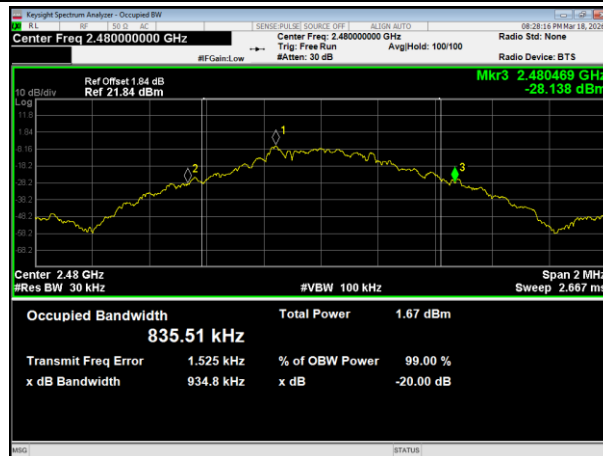
GFSK mode



Lowest channel



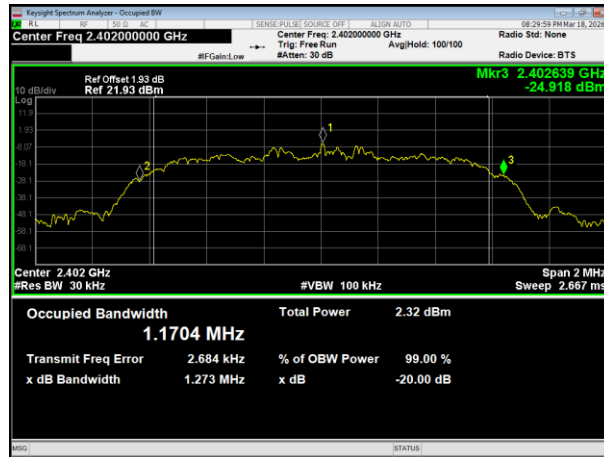
Middle channel



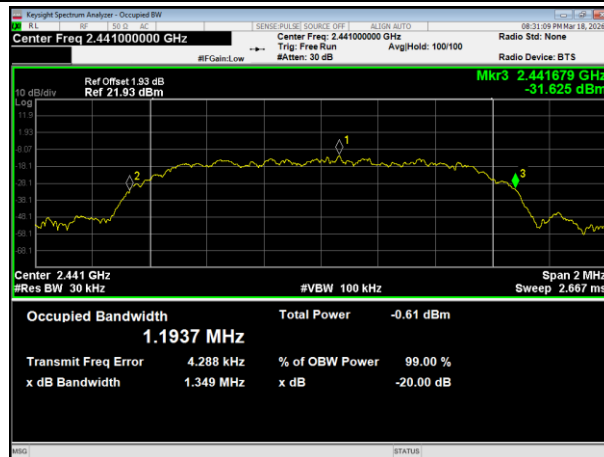
Highest channel

Test mode:

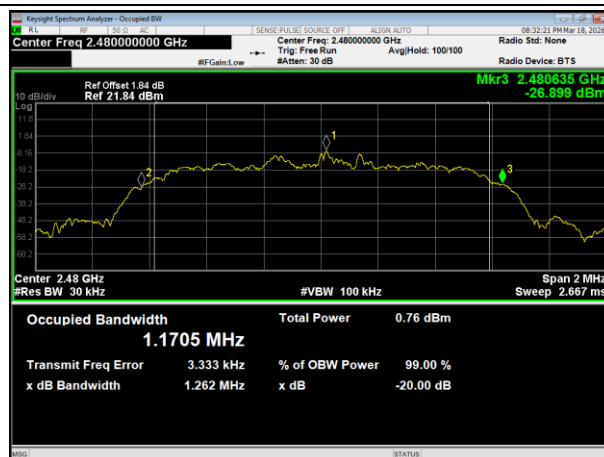
$\pi/4$ -DQPSK mode



Lowest channel



Middle channel



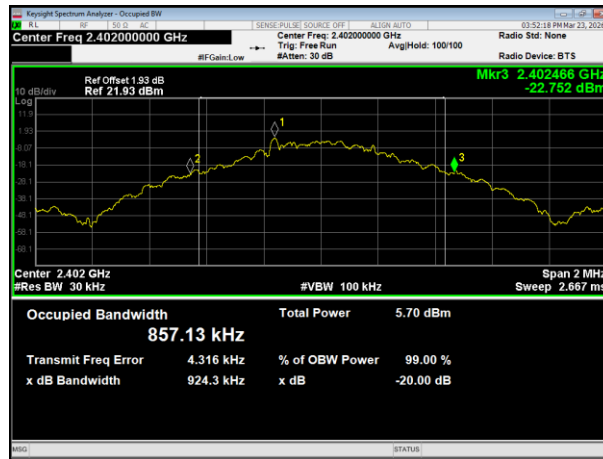
Highest channel



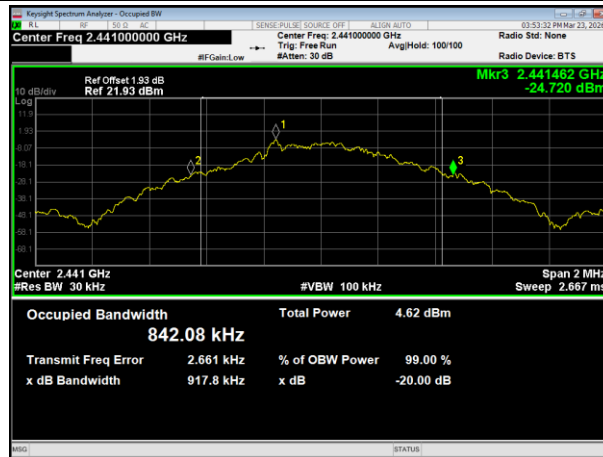
Right ear

Test mode:

GFSK mode



Lowest channel



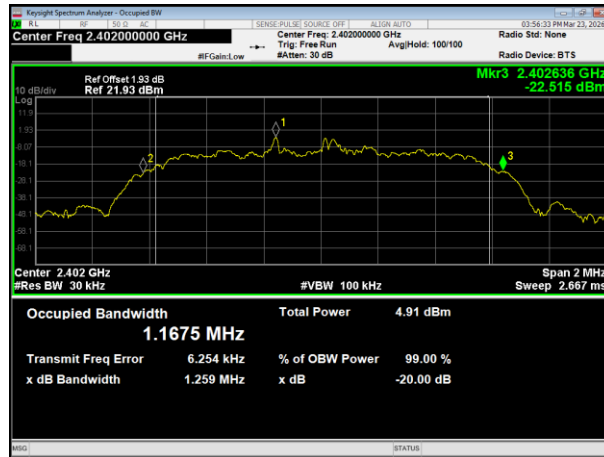
Middle channel



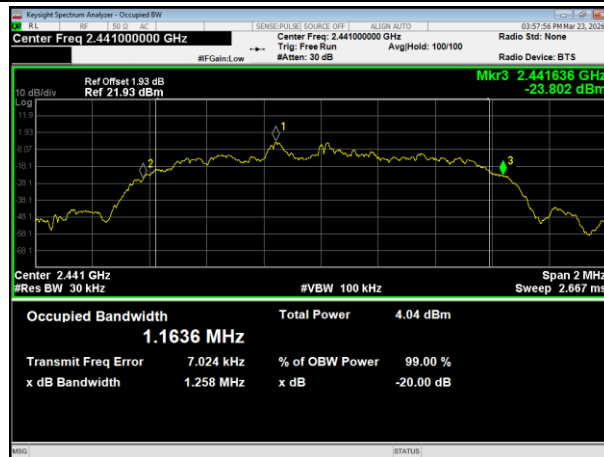
Highest channel

Test mode:

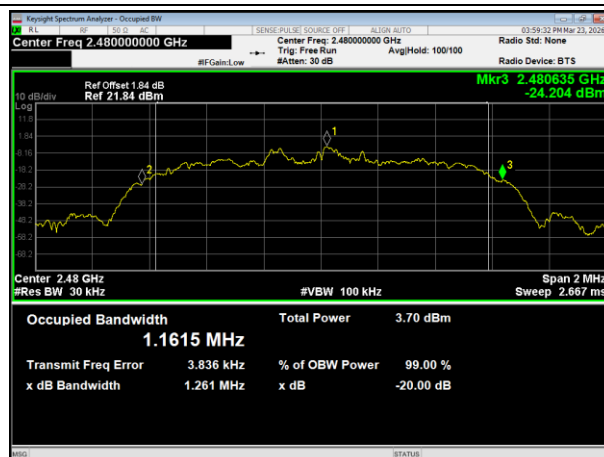
$\pi/4$ -DQPSK mode



Lowest channel

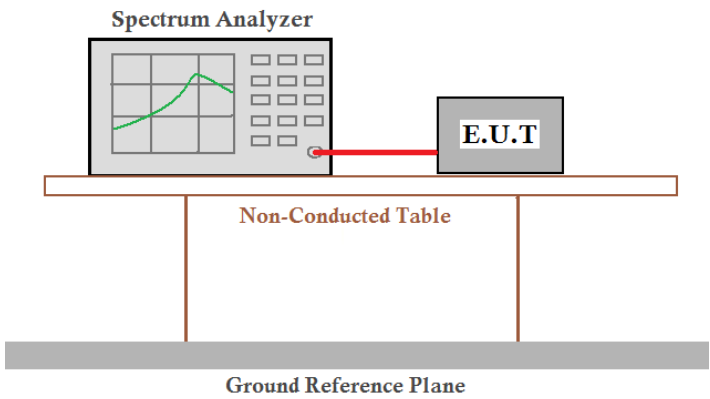


Middle channel



Highest channel

4.5 Carrier Frequencies Separation

Test Requirement:	47CRF Part 15.247 (a)(1)	
Test Method:	ANSI C63.10-2020 §7.8.2	
Receiver setup:	RBW=300KHz, VBW=1000KHz, detector=Peak	
Limit:	>0.025MHz or 2/3 of the 20dB bandwidth (whichever is greater)	
Test setup:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.3°C	Humid.: 38%RH
Test voltage:	DC 3.7V	
Test results:	Pass	

Measurement Data

left ear

Mode	Test channel	Carrier Frequencies Separation (MHz)	Limit (MHz)	Result
GFSK	Middle	1.0005	0.6373	Pass
π /4-DQPSK	Middle	1.0230	0.8993	Pass

Right ear

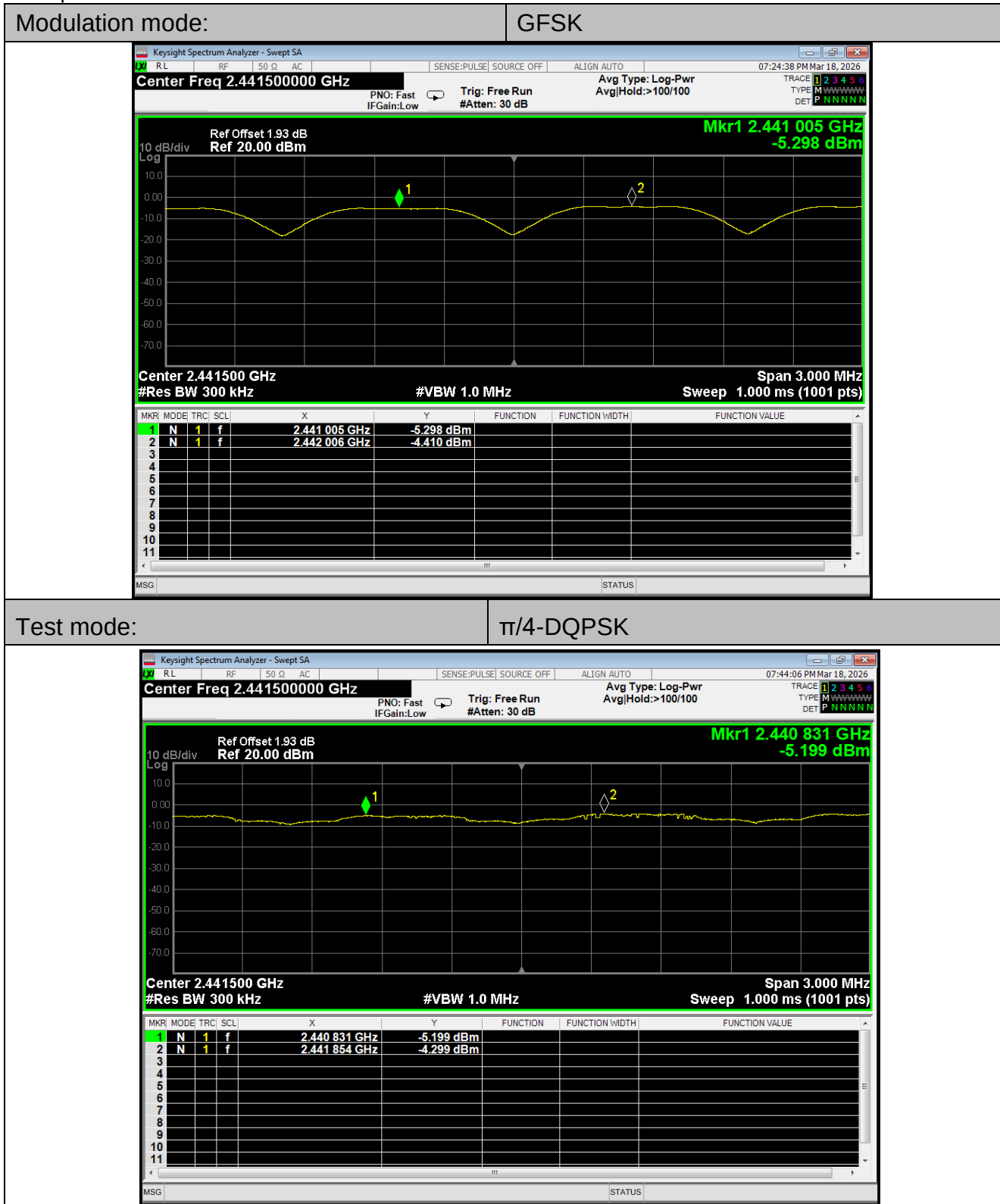
Mode	Test channel	Carrier Frequencies Separation (MHz)	Limit (MHz)	Result
GFSK	Middle	1.0005	0.6120	Pass
π /4-DQPSK	Middle	1.0230	0.8387	Pass

Note:

1.Limit According to section 4.4.

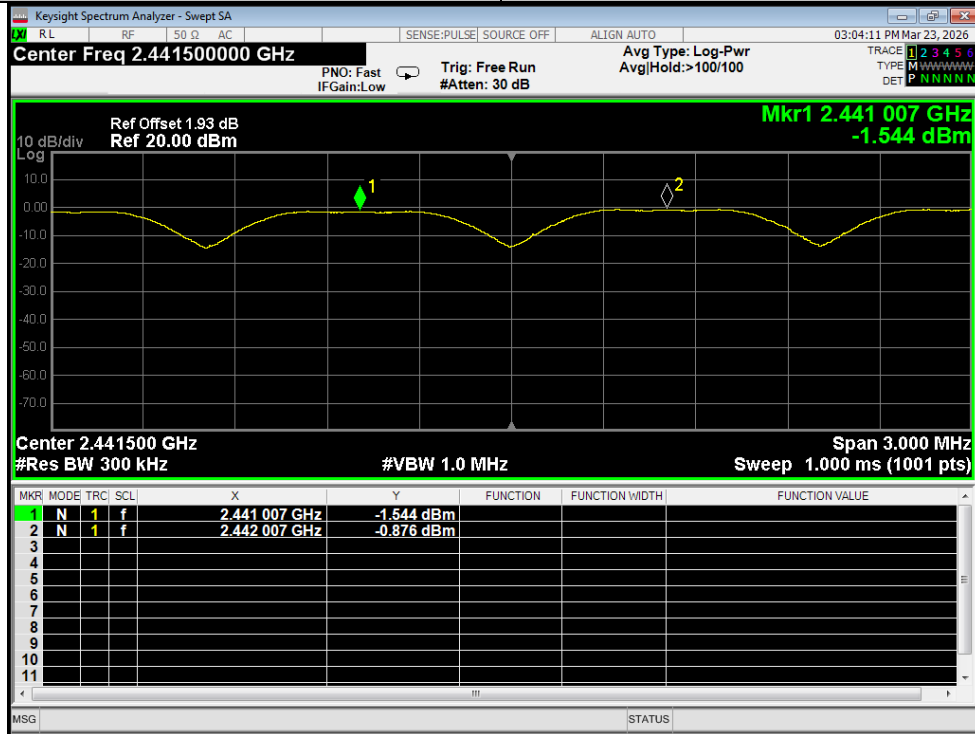
left ear

Test plot as follows:



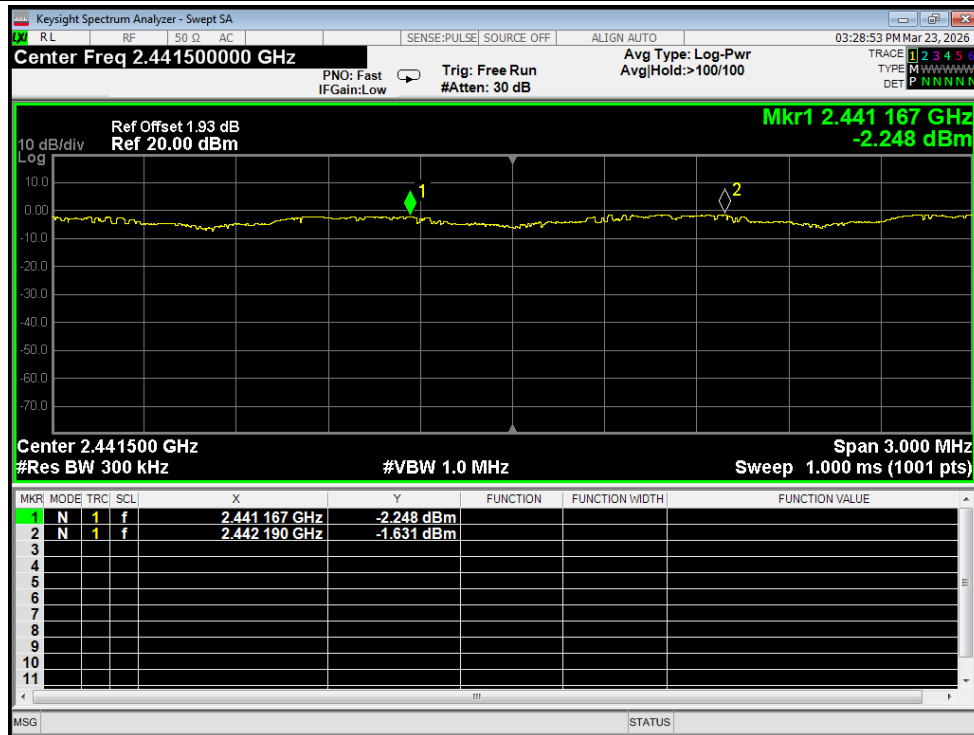
Right ear

Modulation mode: GFSK

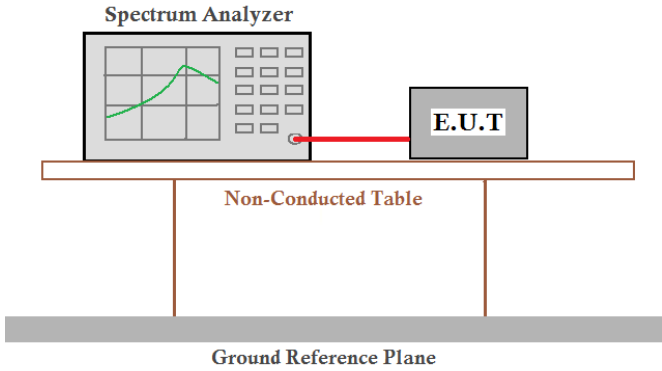


Test mode:

$\pi/4$ -DQPSK



4.6 Hopping Channel Number

Test Requirement:	47CRF Part 15.247 (a)(1)(iii)	
Test Method:	ANSI C63.10-2020 §7.8.3	
Receiver setup:	RBW=100kHz, VBW=300kHz, Frequency range=2400MHz-2483.5MHz, Detector=Peak	
Limit:	15 channels	
Test setup:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.3°C	Humid.: 38%RH
Test voltage:	DC 3.7V	
Test results:	Pass	

Measurement Data:

left ear

Mode	Hopping channel numbers	Limit	Result
GFSK	79	15	Pass
$\pi/4$ -DQPSK	79	15	Pass

Right ear

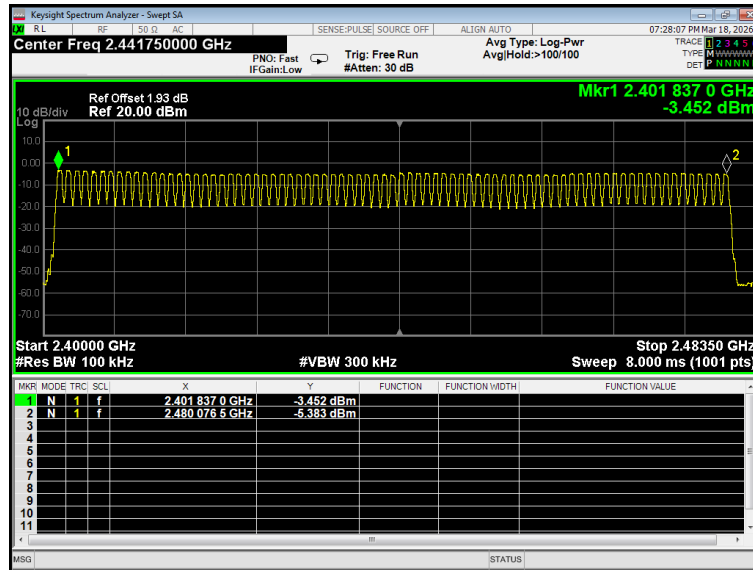
Mode	Hopping channel numbers	Limit	Result
GFSK	79	15	Pass
$\pi/4$ -DQPSK	79	15	Pass



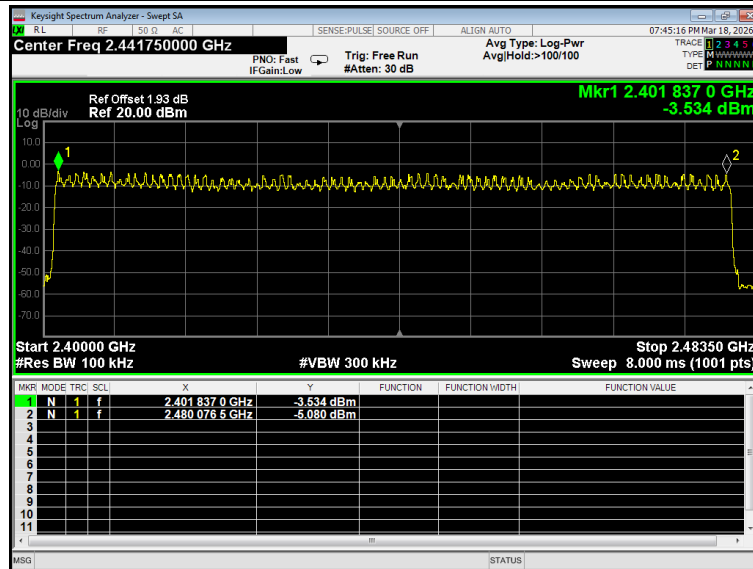
Test plot as follows:

left ear

Test mode: GFSK

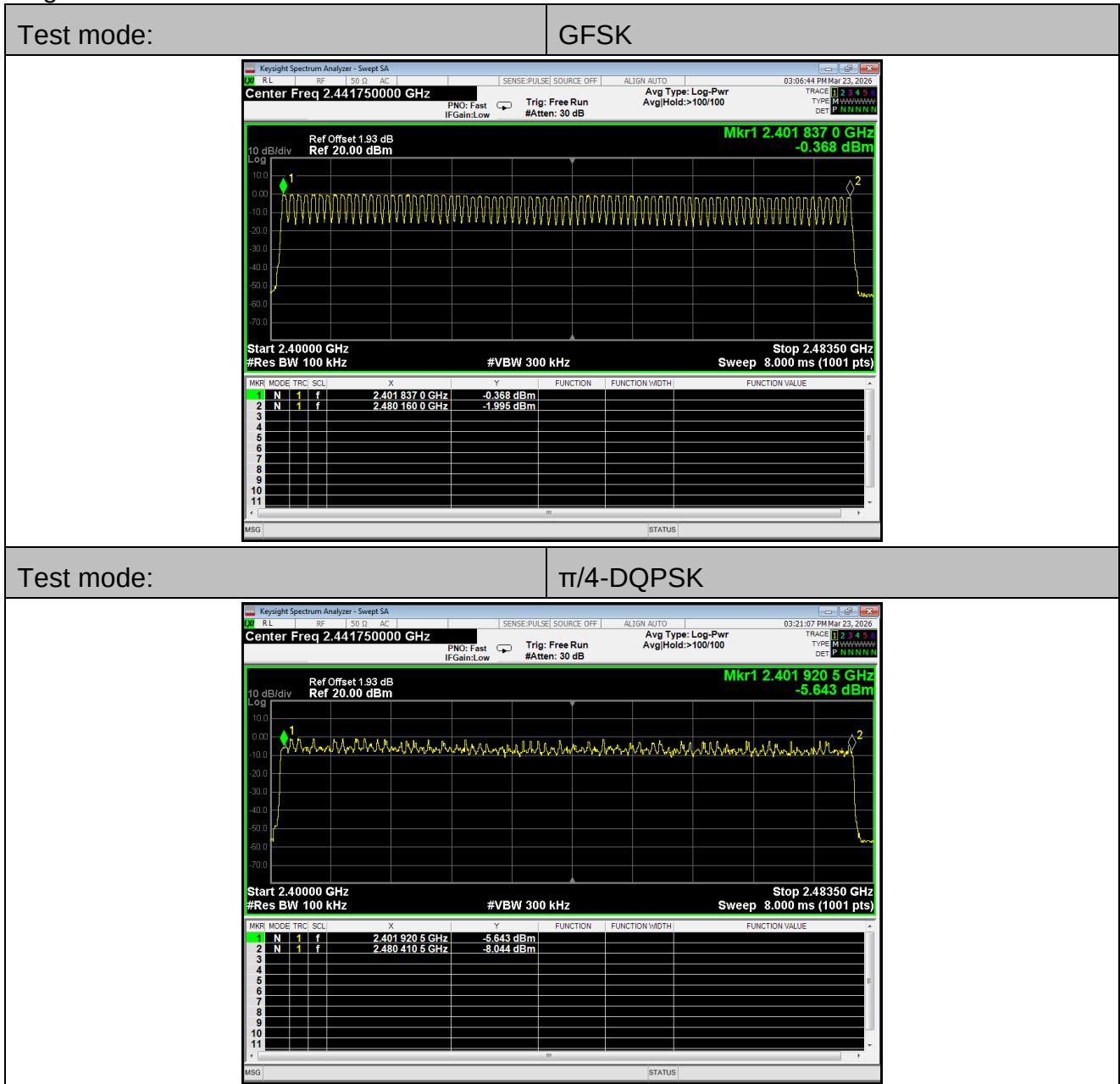


Test mode: $\pi/4$ -DQPSK

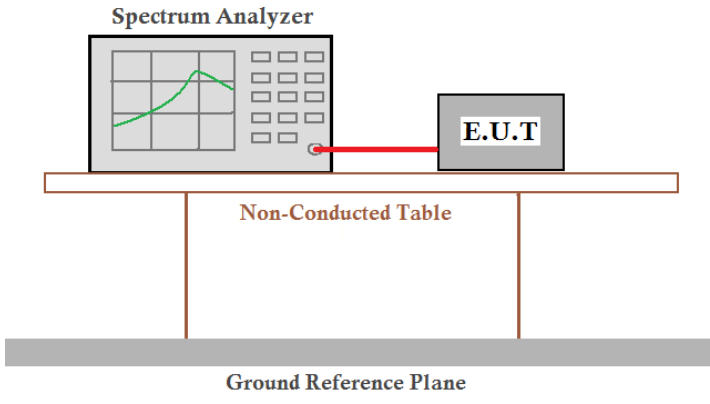




Right ear



4.7 Dwell Time

Test Requirement:	47CRF Part 15.247 (a)(1)(iii)	
Test Method:	ANSI C63.10-2020 §7.8.4	
Receiver setup:	RBW=1MHz, VBW=3MHz, Span=0Hz, Detector=Peak	
Limit:	0.4 Second	
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.	
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.3°C	Humid.: 38%RH
Test voltage:	DC 3.7V	
Test results:	Pass	



Measurement Result

left ear

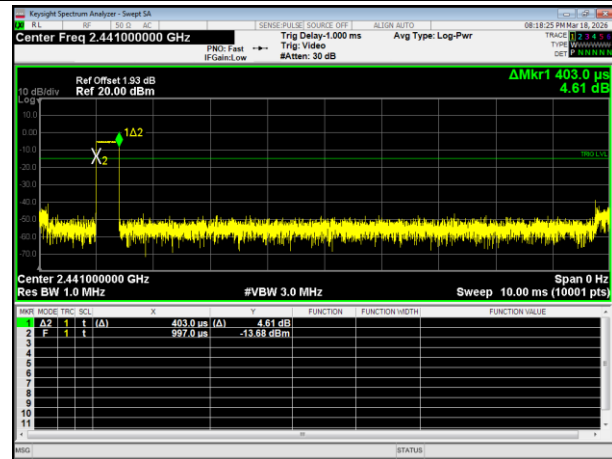
Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Result
1-DH1	2441	0.403	128.557	319	31600	400	Pass
1-DH3	2441	1.658	270.254	157	31600	400	Pass
1-DH5	2441	2.906	334.190	115	31600	400	Pass
2-DH1	2441	0.41	130.790	319	31600	400	Pass
2-DH3	2441	1.662	269.244	161	31600	400	Pass
2-DH5	2441	2.91	276.450	95	31600	400	Pass

Right ear

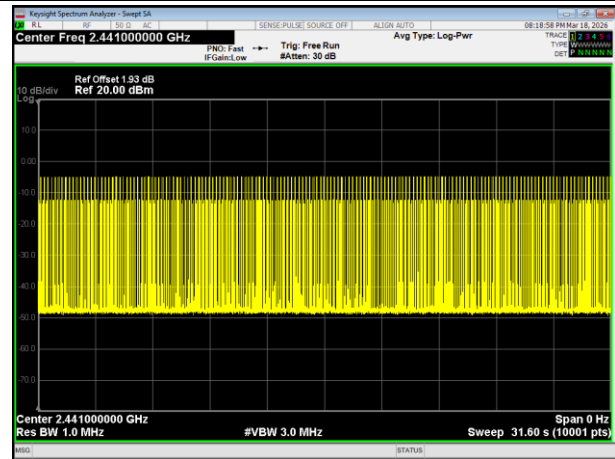
Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Result
1-DH1	2441	0.403	128.96	320	31600	400	Pass
1-DH3	2441	1.657	271.748	164	31600	400	Pass
1-DH5	2441	2.907	302.328	104	31600	400	Pass
2-DH1	2441	0.413	131.747	319	31600	400	Pass
2-DH3	2441	1.662	255.948	154	31600	400	Pass
2-DH5	2441	2.910	323.010	111	31600	400	Pass

Test plot as follows:
left ear

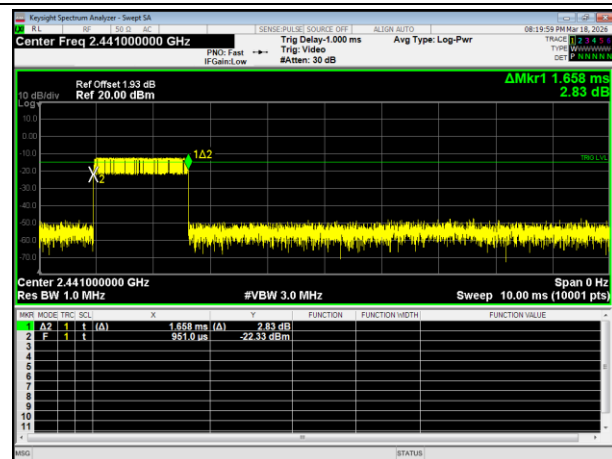
1DH1-2441MHz-One burst



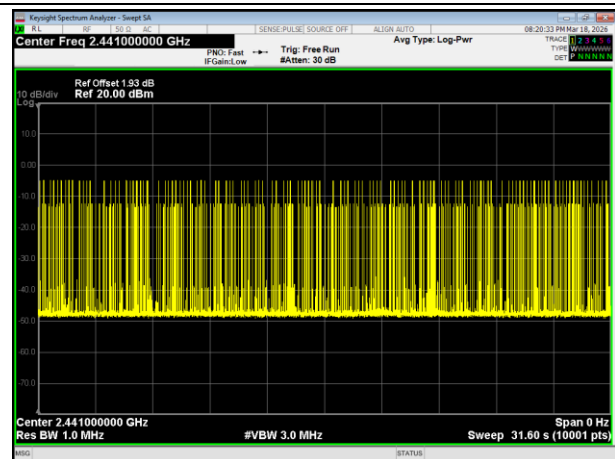
1DH1-2441MHz-Accumulated



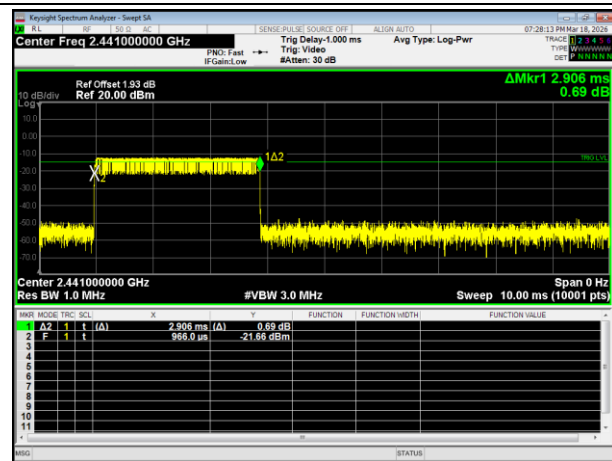
1DH3-2441MHz-One burst



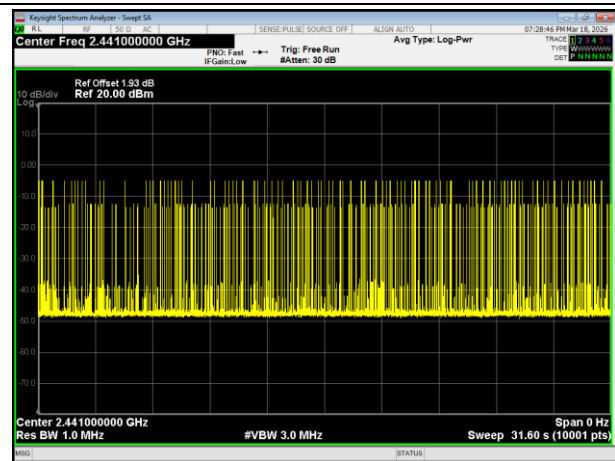
1DH3-2441MHz-Accumulated



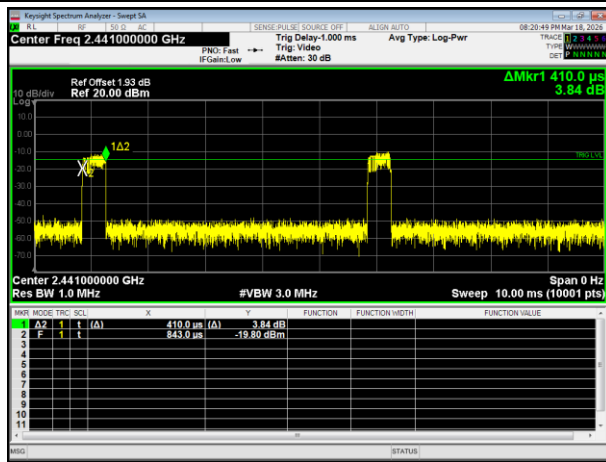
1DH5-2441MHz-One burst



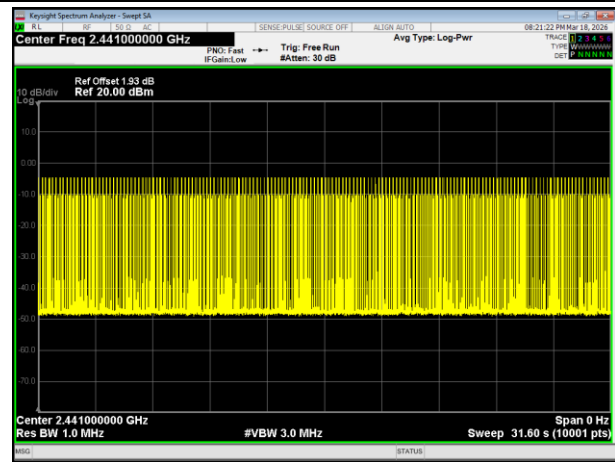
1DH5-2441MHz-Accumulated



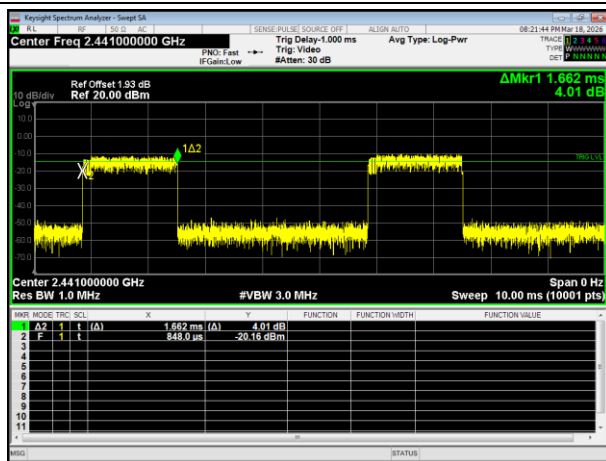
2DH1-2441MHz-One burst



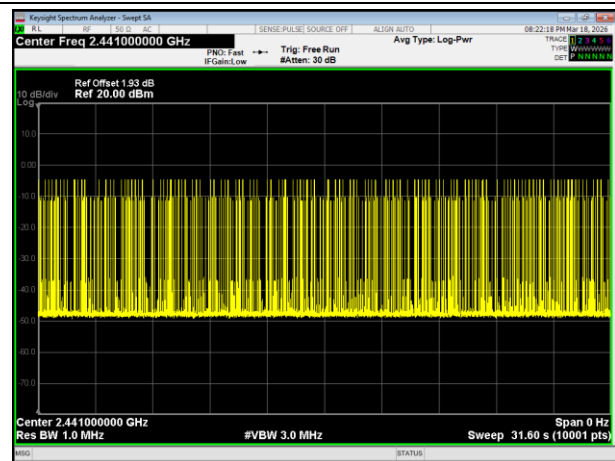
2DH1-2441MHz-Accumulated



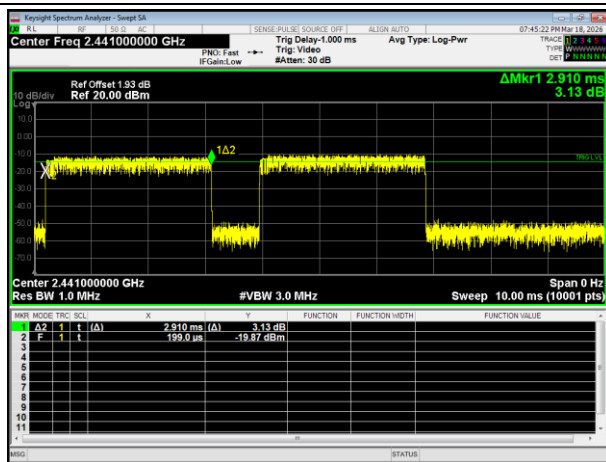
2DH3-2441MHz-One burst



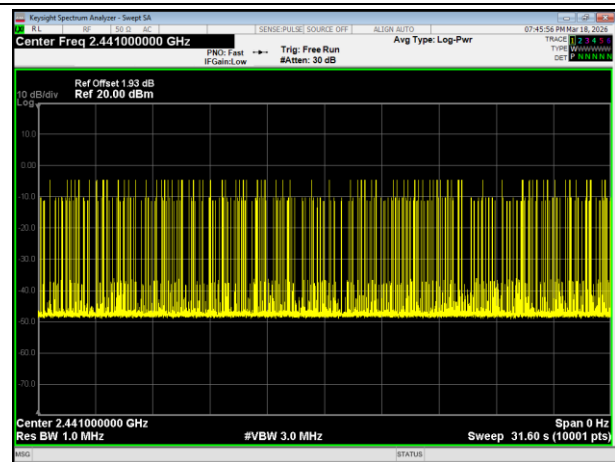
2DH3-2441MHz-Accumulated



2DH5-2441MHz-One burst

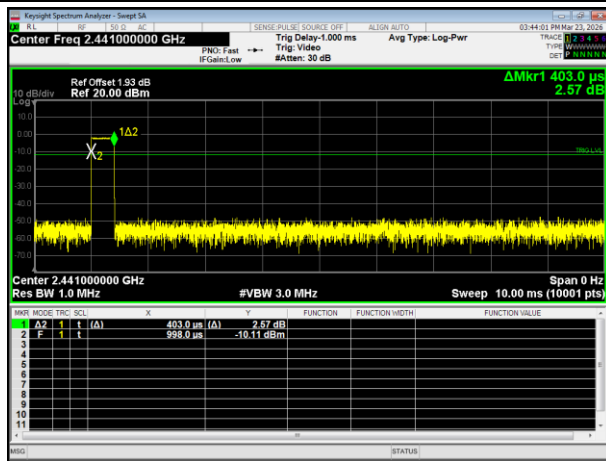


2DH5-2441MHz-Accumulated

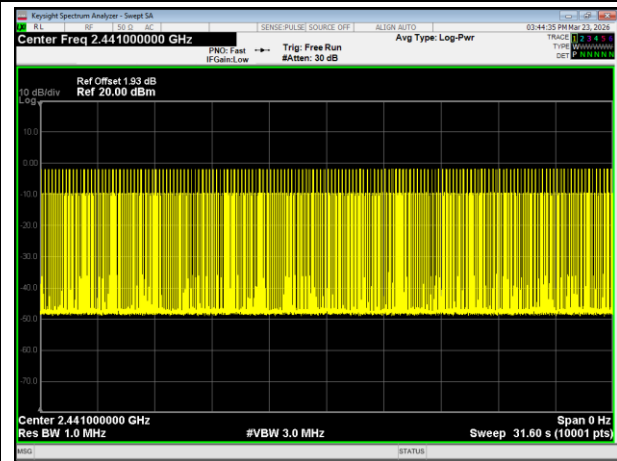


Right ear

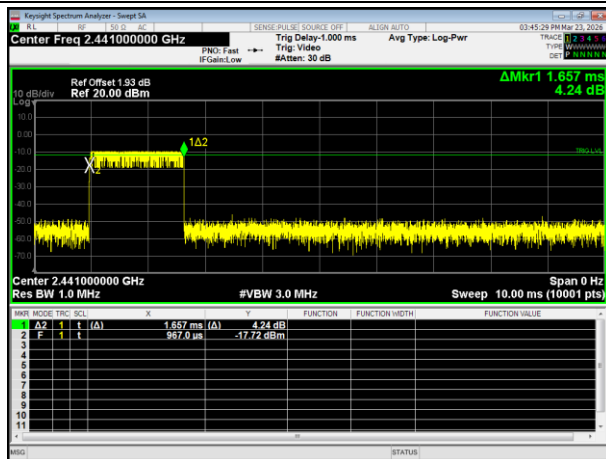
1DH1-2441MHz-One burst



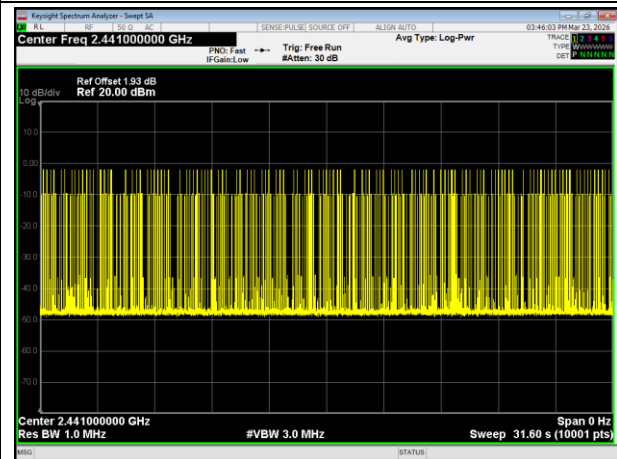
1DH1-2441MHz-Accumulated



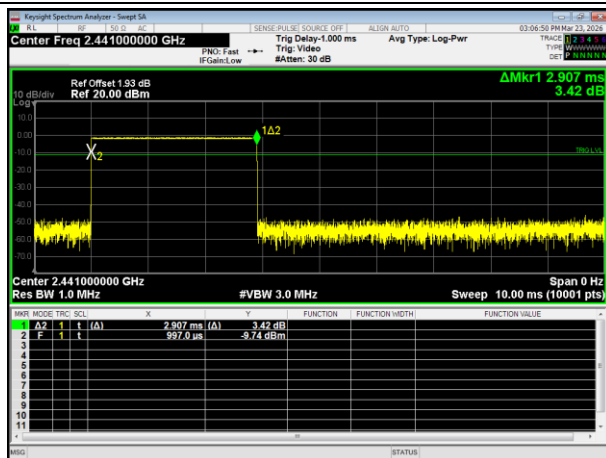
1DH3-2441MHz-One burst



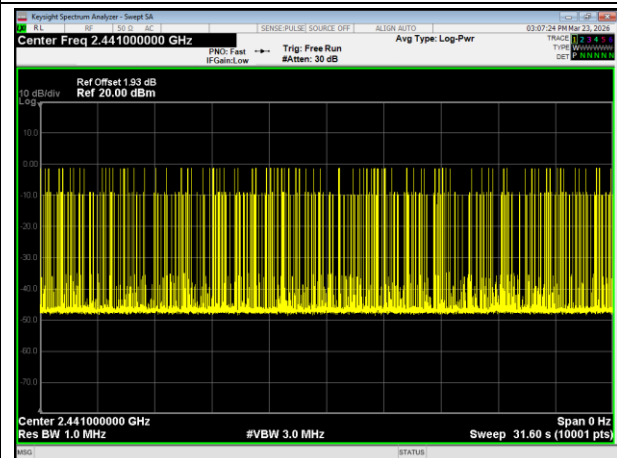
1DH3-2441MHz-Accumulated



1DH5-2441MHz-One burst

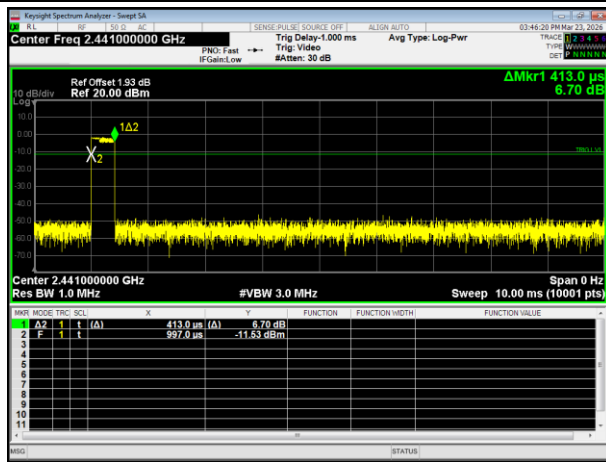


1DH5-2441MHz-Accumulated

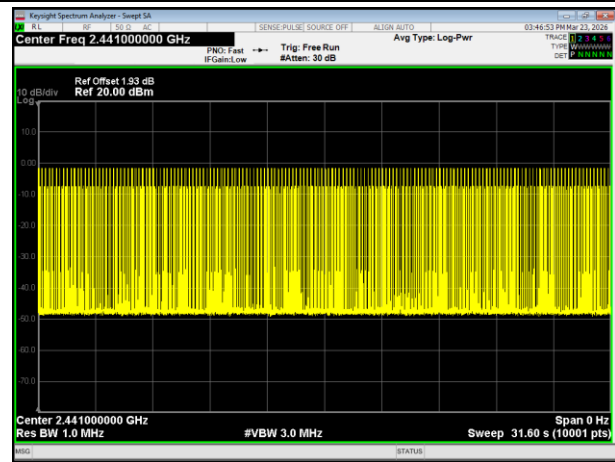




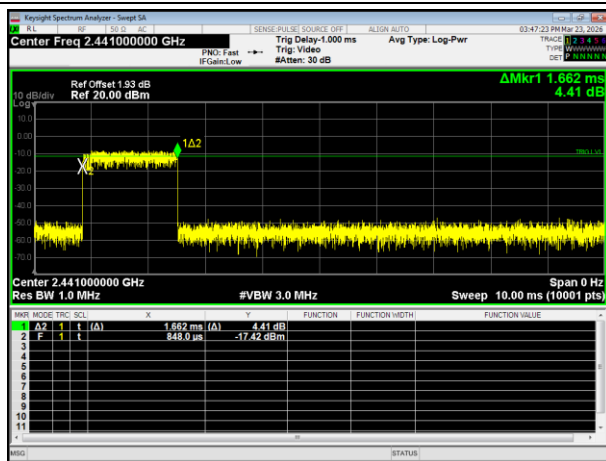
2DH1-2441MHz-One burst



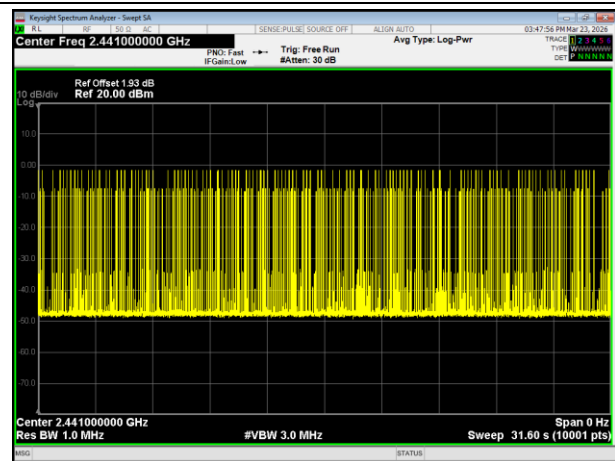
2DH1-2441MHz-Accumulated



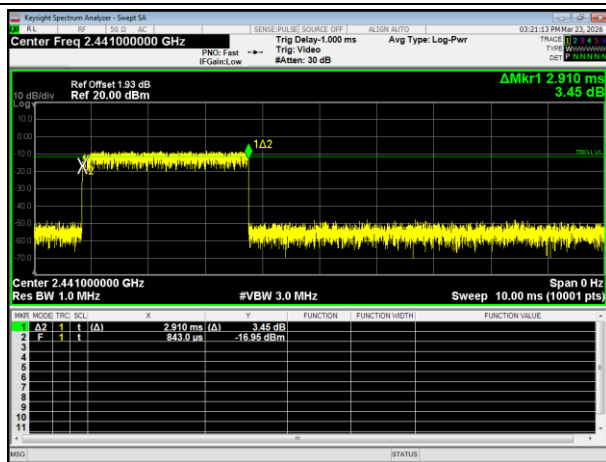
2DH3-2441MHz-One burst



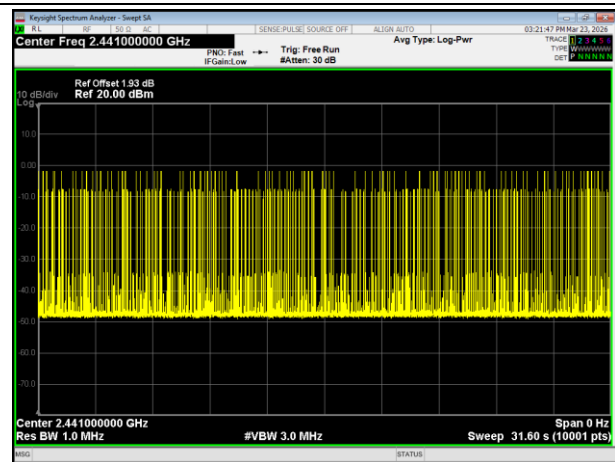
2DH3-2441MHz-Accumulated



2DH5-2441MHz-One burst

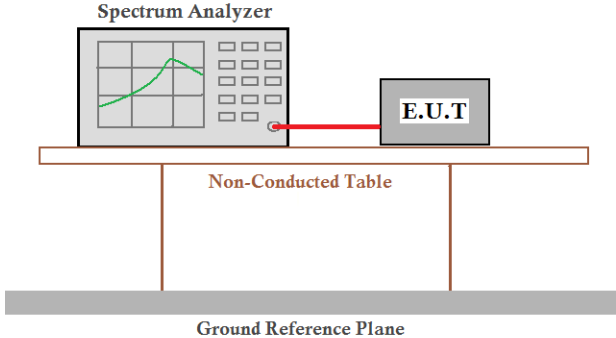


2DH5-2441MHz-Accumulated

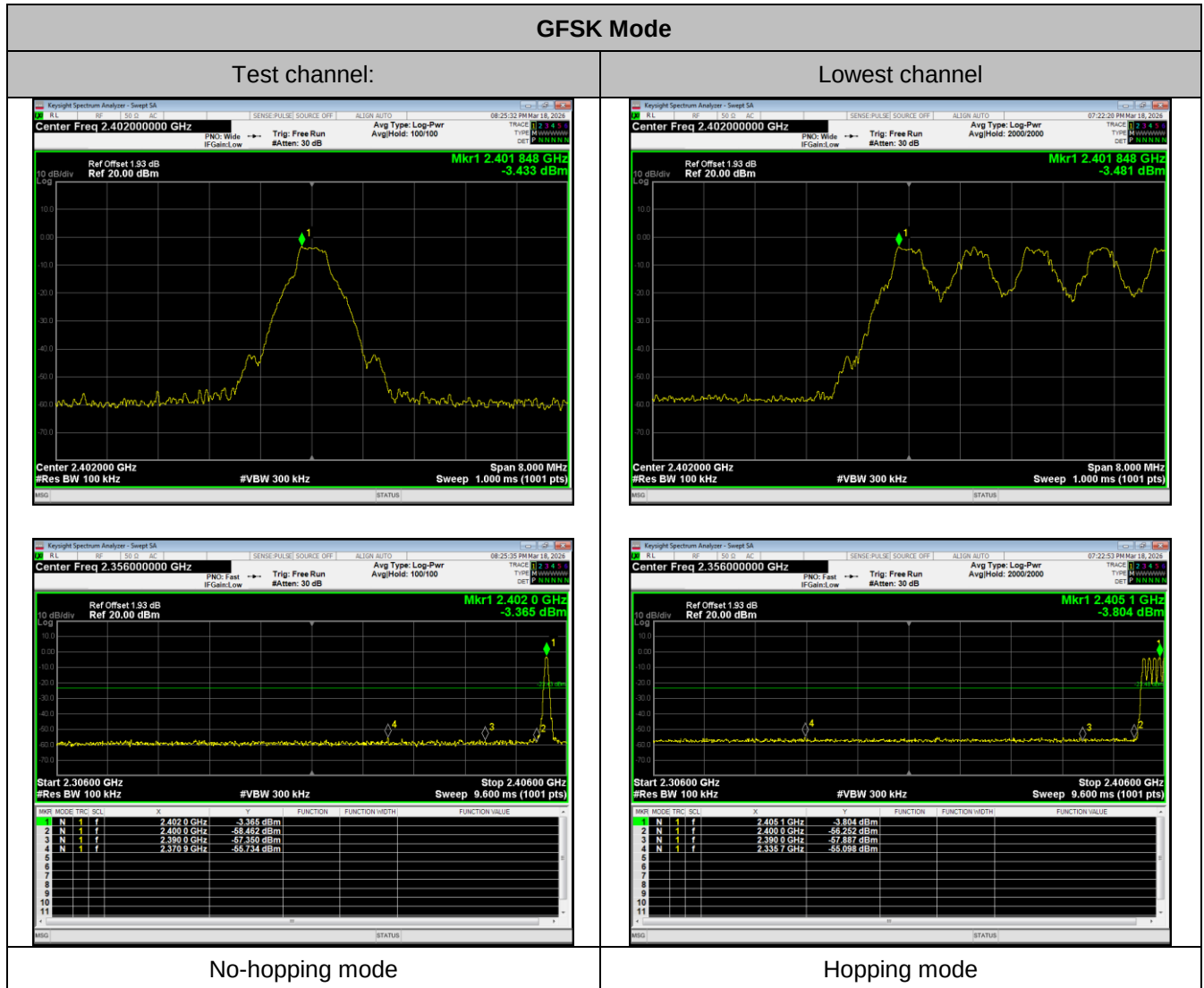


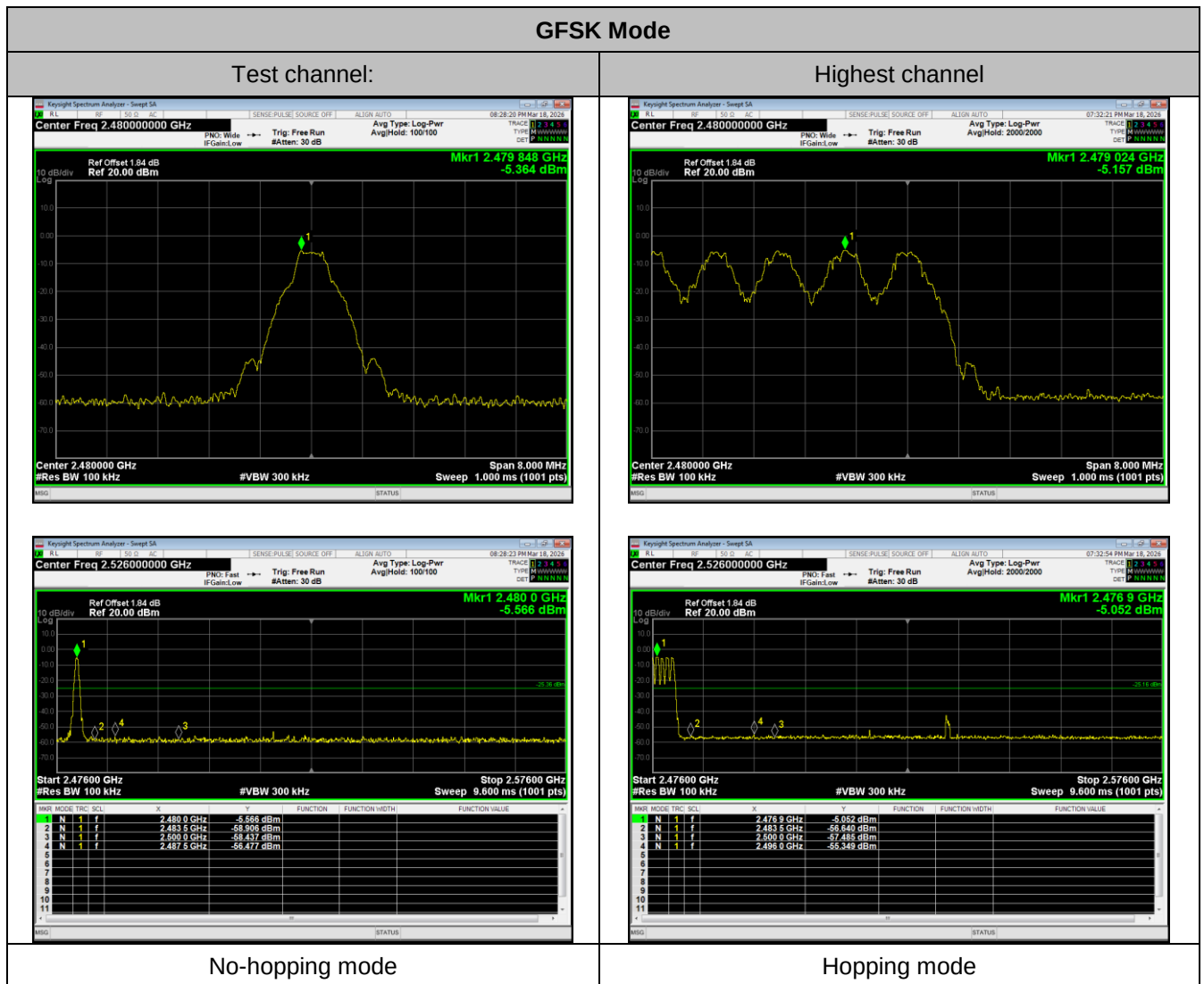
4.8 Band Edge

4.8.1 Conducted Emission Method

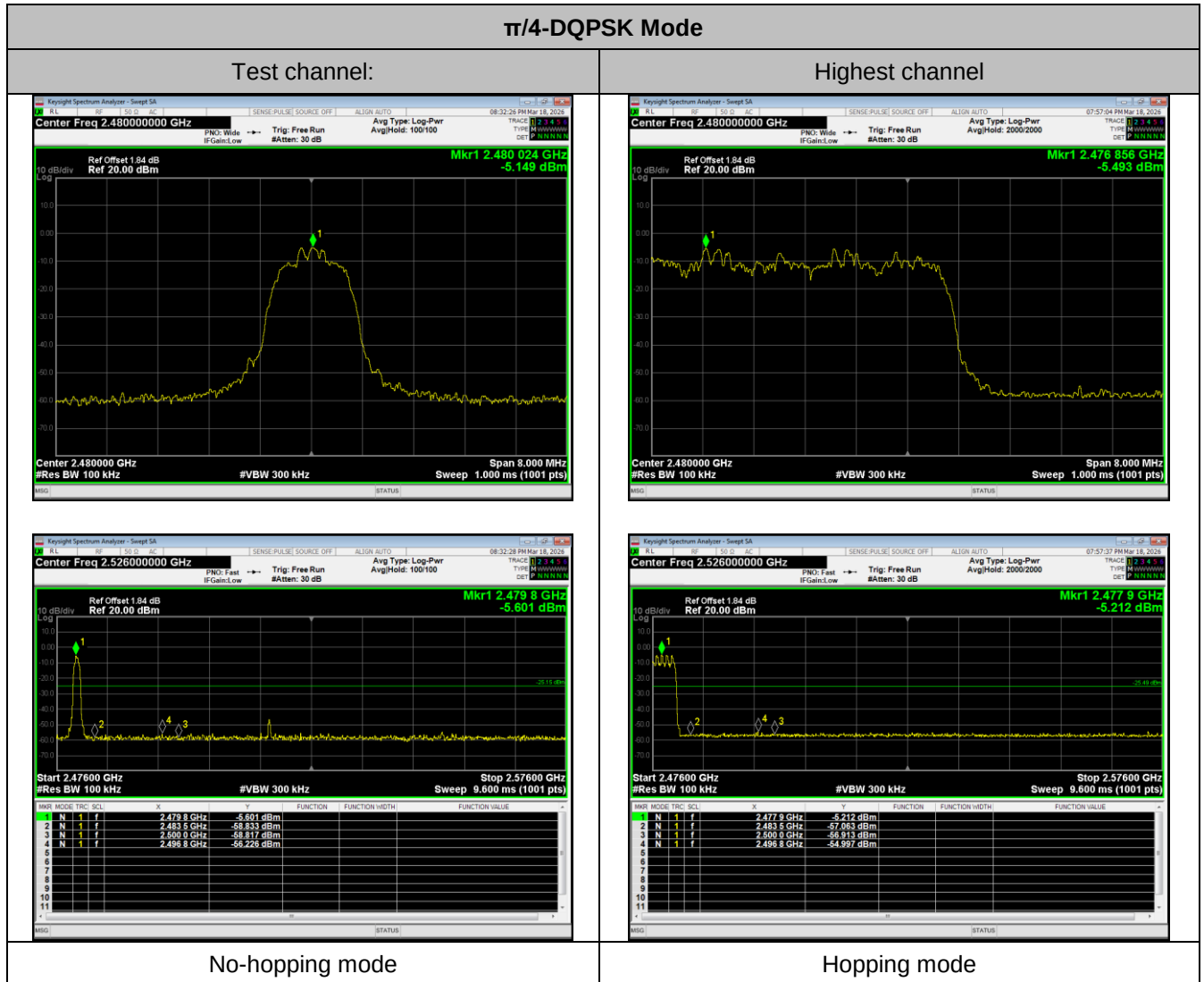
Test Requirement:	47CRF Part 15.247 (d)	
Test Method:	ANSI C63.10-2020 §7.8.6	
Receiver setup:	RBW=100kHz, VBW=300kHz, Detector=Peak	
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by 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 setup:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.3°C	Humid.: 38%RH
Test voltage:	DC 3.7V	
Test results:	Pass	

Test plot as follows:
left ear

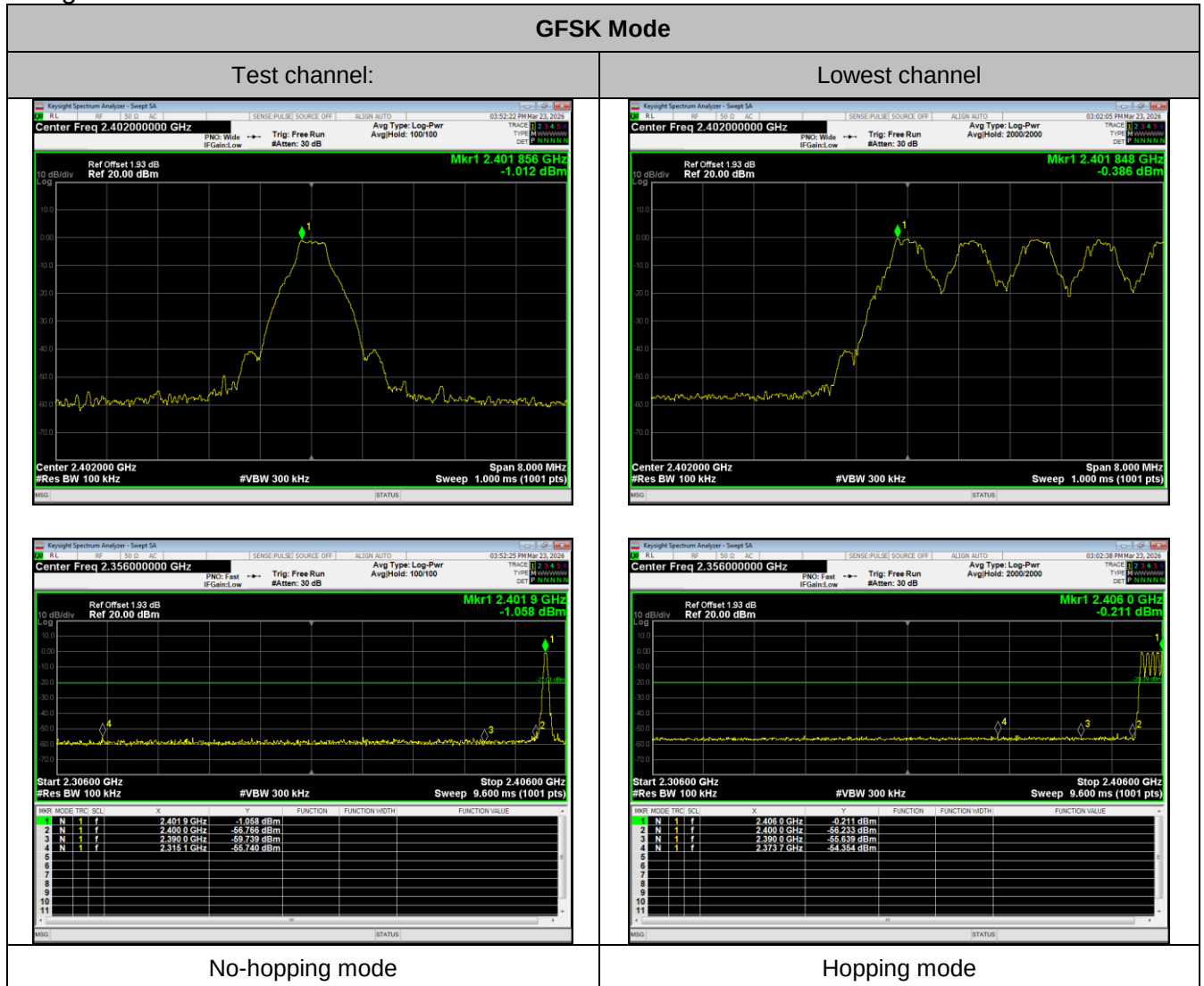


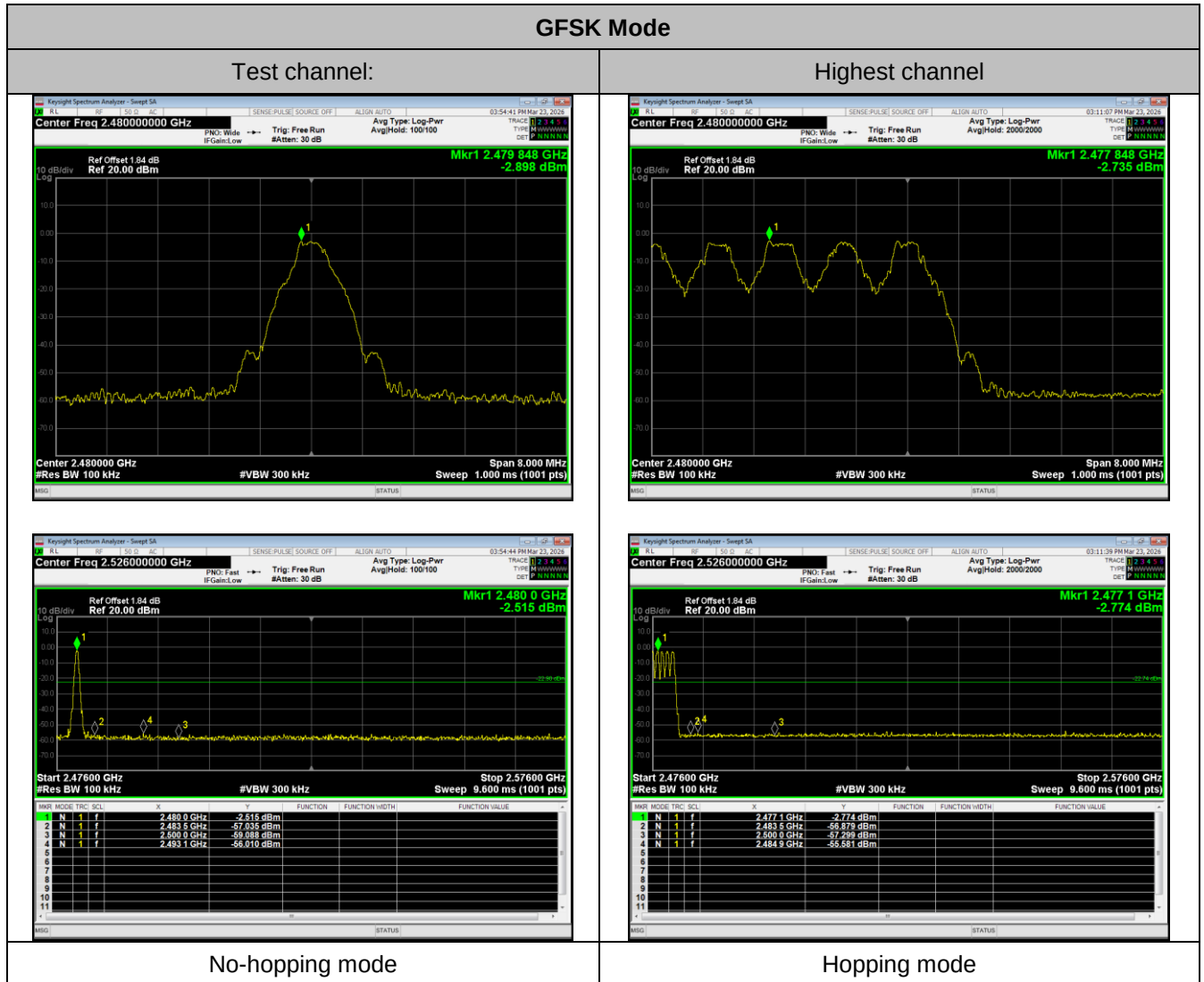






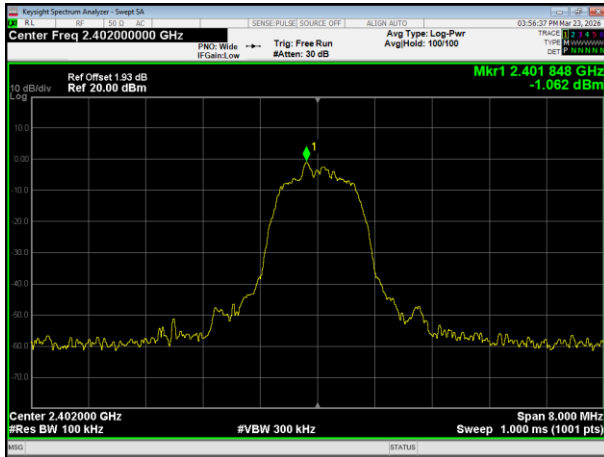
Right ear



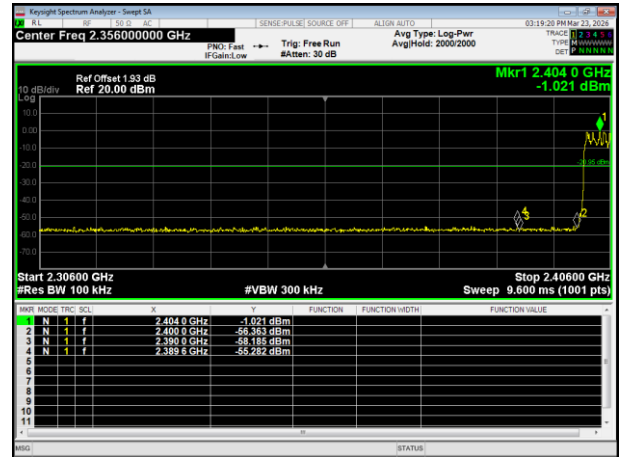
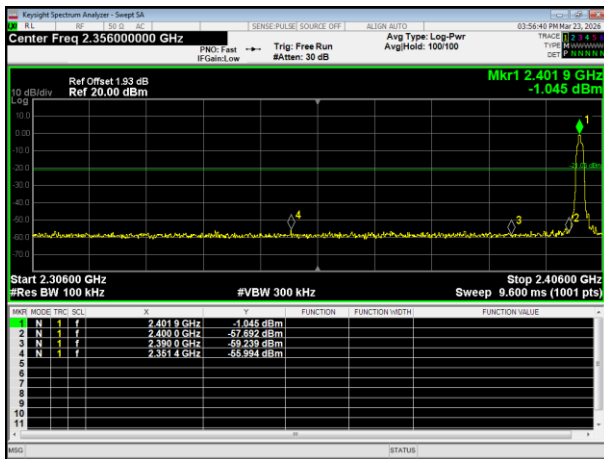
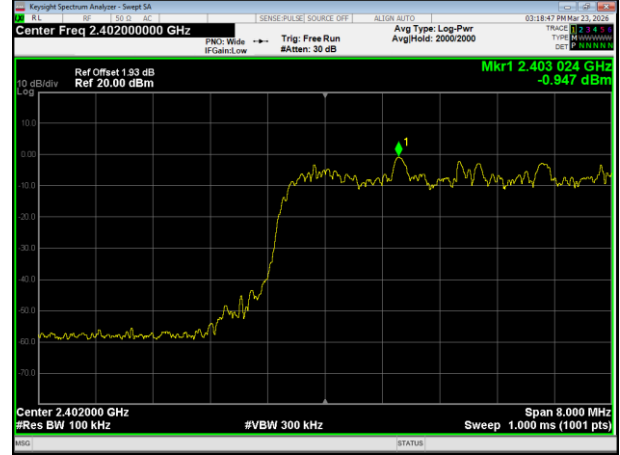


π/4-DQPSK Mode

Test channel:

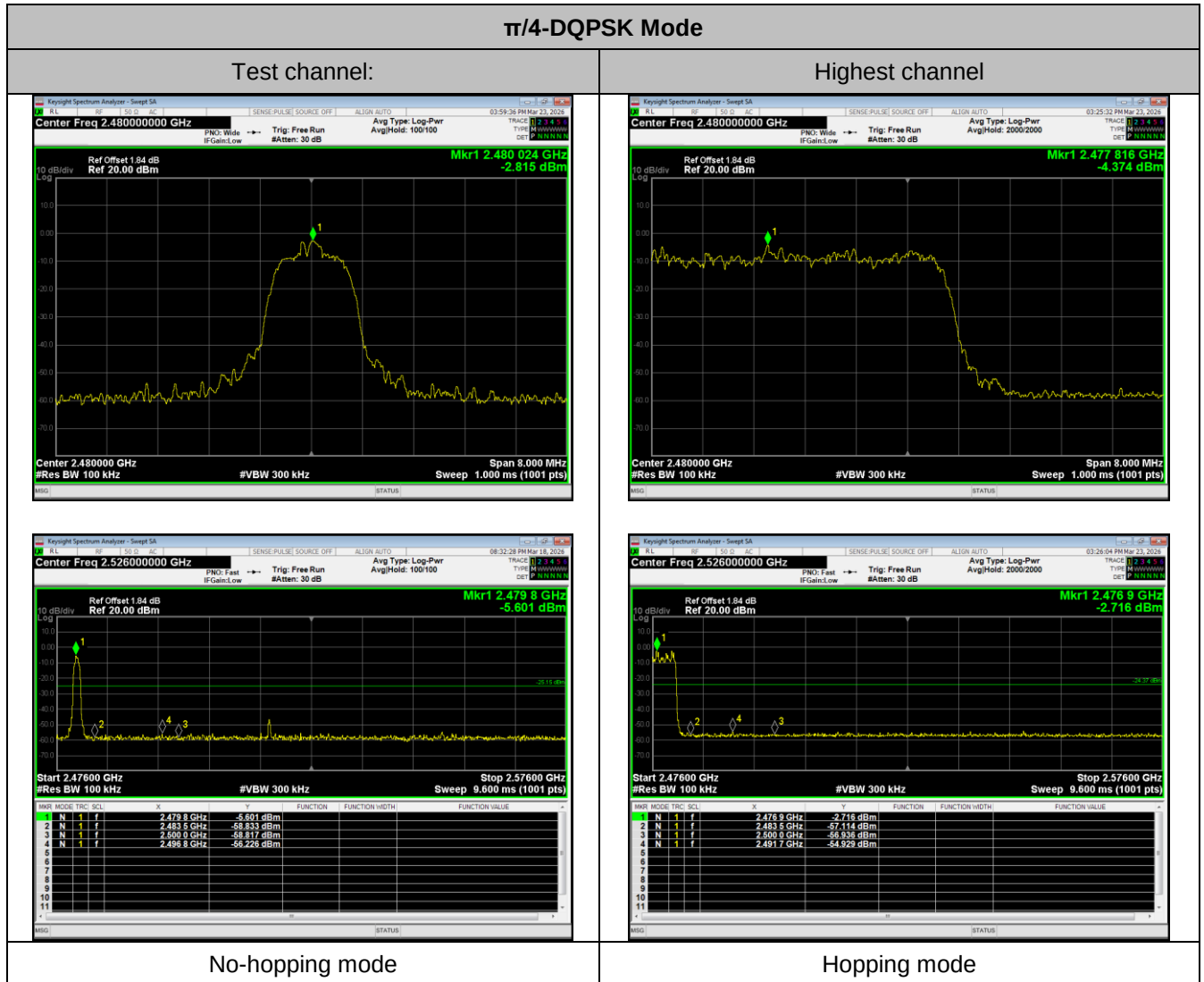


Lowest channel

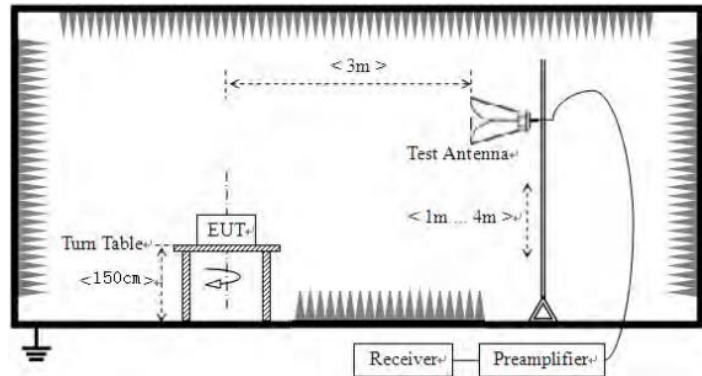


No-hopping mode

Hopping mode



4.8.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.10:2020				
Test Frequency Range:	All of the restrict bands were tested, only the worst band's (2310MHz to 2500MHz) data was showed.				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit:	Frequency		Limit (dBuV/m @3m)		Remark
	Above 1GHz		54.00		Average Value
			74.00		Peak Value
Test setup:					
Test Procedure:	1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.				
Test Instruments:	Refer to section 3.0 for details				
Test mode:	Refer to section 2.2 for details				
Test environment:	Temp.: 24.3°C			Humid.: 38%RH	
Test voltage:	DC 3.7V				
Test results:	Pass				

Remark:

Pre scan all test modes for the left and right ears, and find that the worst-case scenario occurs in the right ear $\pi/4$ -DQPSK



Measurement Data

Test channel:	Lowest
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Polarization
2310.00	58.07	-13.36	44.71	74.00	-29.29	Horizontal
2390.00	63.49	-13.03	50.46	74.00	-23.54	Horizontal
2310.00	58.77	-13.36	45.41	74.00	-28.59	Vertical
2390.00	63.41	-13.03	50.38	74.00	-23.62	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	46.61	-13.36	33.25	54.00	-20.75	Horizontal
2390.00	51.80	-13.03	38.77	54.00	-15.23	Horizontal
2310.00	46.15	-13.36	32.79	54.00	-21.21	Vertical
2390.00	51.46	-13.03	38.43	54.00	-15.57	Vertical

Test channel:	Highest
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	63.48	-12.64	50.84	74.00	-23.16	Horizontal
2500.00	59.68	-12.57	47.11	74.00	-26.89	Horizontal
2483.50	63.80	-12.64	51.16	74.00	-22.84	Vertical
2500.00	59.63	-12.57	47.06	74.00	-26.94	Vertical

Average value:

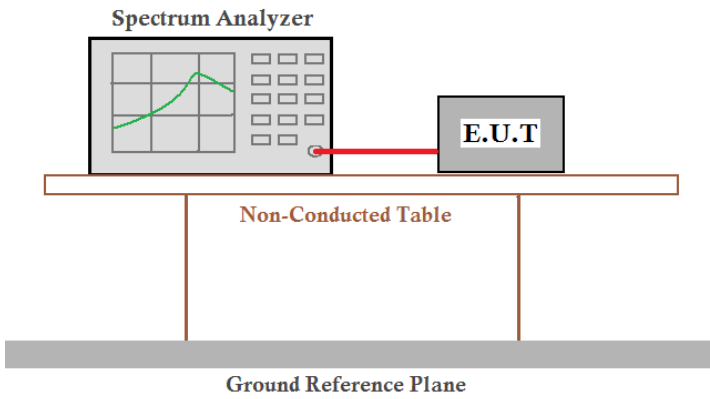
Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	52.16	-12.64	39.52	54.00	-14.48	Horizontal
2500.00	48.70	-12.57	36.13	54.00	-17.87	Horizontal
2483.50	52.78	-12.64	40.14	54.00	-13.86	Vertical
2500.00	47.64	-12.57	35.07	54.00	-18.93	Vertical

Remarks:

1. Level = Read level + Factor
2. Factor=Antenna Factor + Cable Loss – Preamplifier Factor
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.

4.9 Spurious Emission

4.9.1 Conducted Emission Method

Test Requirement:	47CRF Part 15.247 (d), 47CRF Part 15.209 and 15.205	
Test Method:	ANSI C63.10:2020 §7.8.7	
Limit:	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 setup:		
Test Instruments:	Refer to section 3.0 for details	
Test mode:	Refer to section 2.2 for details	
Test environment:	Temp.: 24.3°C	Humid.: 38%RH
Test voltage:	DC 3.7V	
Test results:	Pass	

Remark:

1. Cable loss data included in Offset.



left ear

