

FCC PART 15C TEST REPORT FOR CERTIFICATION

On Behalf of

ILLUMINEX TECHNOLOGY CO., LTD.

FCC ID: 2BW6K-EMEBAIMXPWPS

Report Type: Original report	Product Type: LED Control
Test Engineer: <u>Kelvin Liang</u> <i>Kelvin Liang</i>	
Report Number: <u>STDNB-260524F-001</u>	
Report Date: <u>2026.09.01</u>	
Reviewed By: <u>Garman Mo</u> <i>Garman Mo</i>	
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The device described above is tested by Bestway Compliance Co.,Ltd. to confirm comply with all the FCC Part 15 Subpart C requirements. The test results are contained in this test report and Bestway Compliance Co.,Ltd. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements. This Report is made under FCC Part 2.1074. No modifications were required during testing to bring this product into compliance. This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Bestway Compliance Co.,Ltd.

This report does not imply product certification, approval, or endorsement by A2LA or any agency of the Federal Government.

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1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT has been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	Standard	Results
Power Line Conducted Emission	FCC Part 15: 15.207	N/A
Radiated Emission	FCC Part 15: 15.209 FCC Part 15: 15.205	PASS
Band Edge Compliance	FCC Part 15: 15.247(d)	PASS
Conducted spurious emissions	FCC Part 15: 15.247(d)	PASS
6dB Bandwidth Test	FCC Part 15: 15.247(a)	PASS
Peak Output Power	FCC Part 15: 15.247(b)	PASS
Power Spectral Density	FCC Part 15: 15.247(e)	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

Note: Decision rule is the rule that describes how measurement uncertainty is accounted for when stating conformity with a specified requirement. When decision rule is applicable, please refer to the most updated version announced in our website:

<https://en.bestway-compliance.com/pages/decision-rule-of-compliance-with-specification>

2. GENERAL INFORMATION

2.1. Description of Equipment Under Test

Applicant:	ILLUMINEX TECHNOLOGY CO., LTD.
Address:	725S-Metro Building,Level 20,Suite145,Sukhumvit Road,Klongtan Nuea,Wattana.Bangkok10110Thailand
Manufacturer:	ILLUMINEX TECHNOLOGY CO., LTD.
Address:	725S-Metro Building,Level 20,Suite145,Sukhumvit Road,Klongtan Nuea,Wattana.Bangkok10110Thailand
Product Name:	LED Control
Trade Mark:	N/A
Test Model:	EMEBA-IMX-PW
Additional Model No.:	EMEBA-IMX-PS
Model Declaration:	All models have the same RF circuit, PCB LAOUT, schematics,, just different Case color
Sample Type:	Prototype production
SN:	STD260524NB-001
Date of Receipt:	2026.07.08
Date of Test:	2026.07.13-2026.09.01
Test Power Supply:	Input: DC 5V, 10mA(Max), 0.05W

2.2.Feature of Equipment Under Test

Product Feature & Specification	
BLE	
Hardware version	N/A
Software version	EMI_Test_Tool
Modulation Type	GFSK
Operating Frequency Range	The frequency range used is 2402MHz-2480MHz(40)channels
Data Transmission Rate	1Mbps, 2Mbps
Bluetooth Version	Bluetooth LE V5.2

Antenna System

BLE	
Type of Antenna	FPC Antenna
Antenna Peak Gain	Peak Gain: 1.62dBi

2.3.Tested Supporting System Details

RF Test Tool: EMI_Test_Tool

1. Use the UART serial board to connect the Bluetooth correctly; SWM—>SWS;
3.3V —>3.3V; GND —>GND;
2. Connect the UART serial board to the computer
3. Click Serial port test tool to enter the fixed frequency test
4. Perform all tests at the default power level

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Lenovo	Notebook	X220i	428632C
Lenovo	Adapter	42T4420	N322
Telink	Programmer	TLSRGSOCBK56B	N/A

External I/O Cable

Cable Description	Length (m)	From Port	To
Data Cable	0.1	EUT	Debug Board

2.4. Test Information

Frequency band(MHz)				2402-2480			
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

2.5. Equipments Used during the Test

Conducted Emissions

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Until	Cal. Interval
1.	Shielding Room	AUDIX	N/A	N/A	2026/12/20	3 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESR7	101487	2028/04/27	2 Year
3.	V-LISN	Rohde & Schwarz	NNLK 8122	8122-00128	2027/02/17	2 Year
4.	Coaxial cable CE	YuanDao	RG223	N/A	2027/04/27	1 Year
5.	Test Software	AUDIX	e3	V15922	N/A	N/A

Note: N/A means Not applicable.

For frequency range 30MHz~1000MHz (In 3m Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Until	Cal. Interval
1.	Semi-anechoic chamber	AUDIX	N/A	N/A	2026/12/20	3 Year
2.	EMI Test Receiver	R&S	ESR7	101487	2028/04/27	2 Year
3.	Biconical Logarithmic Antenna	SCHWARDZBECK	VULB 9162	9162-104	2028/05/23	2 Year
4.	Coaxial cable RE	PEWC	CFD400NL	N/A	2027/04/27	1 Year
5.	Loop Antenna	Beijing Daze	ZN30900C	1062	2026/10/21	2 Year
6.	Test Software	AUDIX	e3	V15922	N/A	N/A

Note: N/A means Not applicable.

For frequency range above 1GHz (In 3m Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Until	Cal. Interval
1.	Semi-anechoic chamber	AUDIX	N/A	N/A	2026/12/20	3 Year
2.	Spectrum Analyzer	R&S	FSP	100615	2027/04/27	1 Year
3.	Horn Antenna	SCHWARDZBEC K	BBHA 9170	895	2026/10/20	2 Year
4.	Horn Antenna	SCHWARDZBEC K	BBHA 9120 D	9120D-1515	2026/10/20	2 Year
5.	Broadband Preamplifier	SCHWARDZBEC K	BBV9718	9718-269	2028/04/27	2 Year
6.	Broadband Preamplifier	SKET	LNPA-1840	SK20191212 01	2028/04/27	2 Year
7.	RF Cable	SKET	RC-40G-K-M /K-M-0.6M	N/A	2027/04/27	1 Year
8.	RF Cable	SKET	RC-40G-K-M /K-M-8M	N/A	2027/04/27	1 Year
9.	Test Software	AUDIX	e3	V15922	N/A	N/A

Note: N/A means Not applicable.

RF Conducted Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Until	Cal. Interval
1.	Spectrum Analyzer	R&S	FSP	100615	2027/04/27	2 Year
2.	RF Cable	STD	/	/	/	/

2.6. Test Facility

Site Description

Name of Firm : Bestway Compliance Co.,Ltd.
Unit 301,Building 3, No. 178, Fenggang
Section,Dongshen Road,Fenggang Town,
Dongguan, Guangdong,China

EMC Lab. : Certificated by Industry Canada
Registration Number: 34294
Valid Date: 2027/03/31

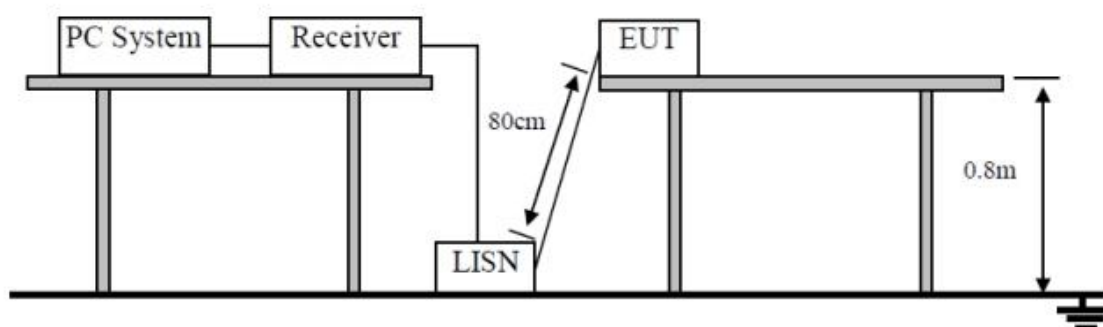
: Certificated by FCC USA.
Designation No.: CN1415
Valid Date: 2027/03/31

2.7.Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	2.90dB(150KHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	5.34dB(30M~1GHz, Distance: 3m)
Uncertainty for Radiation Emission test in 3m chamber(1GHz-40GHz)	4.14dB(1~6GHz, Distance: 3m)
	4.60dB(6~18GHz, Distance: 3m)
	4.94dB(18~40GHz, Distance: 3m)
Uncertainty for Output power test	1.34dB
Uncertainty for Bandwidth test	92.3kHz

3. POWER LINE CONDUCTED EMISSION TEST

3.1. Block Diagram of Test Setup



3.2. Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μ V)	Average Level dB(μ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.3. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via PC connected to the power mains through a line impedance stabilization network (V-LISN). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2020 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESR7) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

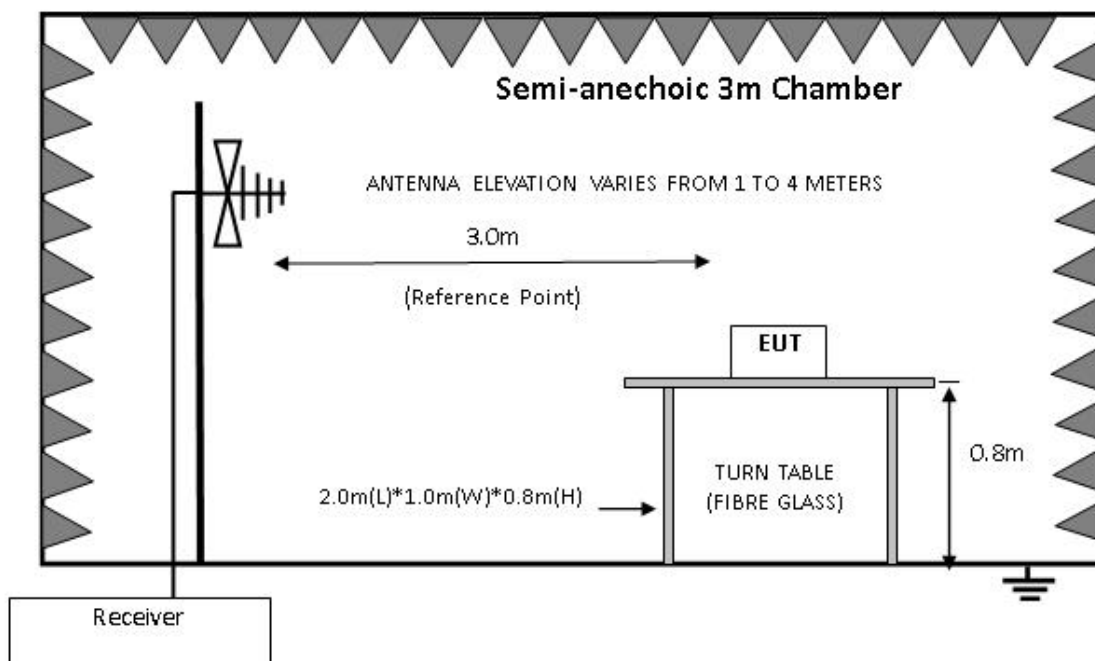
3.4. Power Line Conducted Emission Test Result

Not Applicable. The device is only powered by DC 5V.

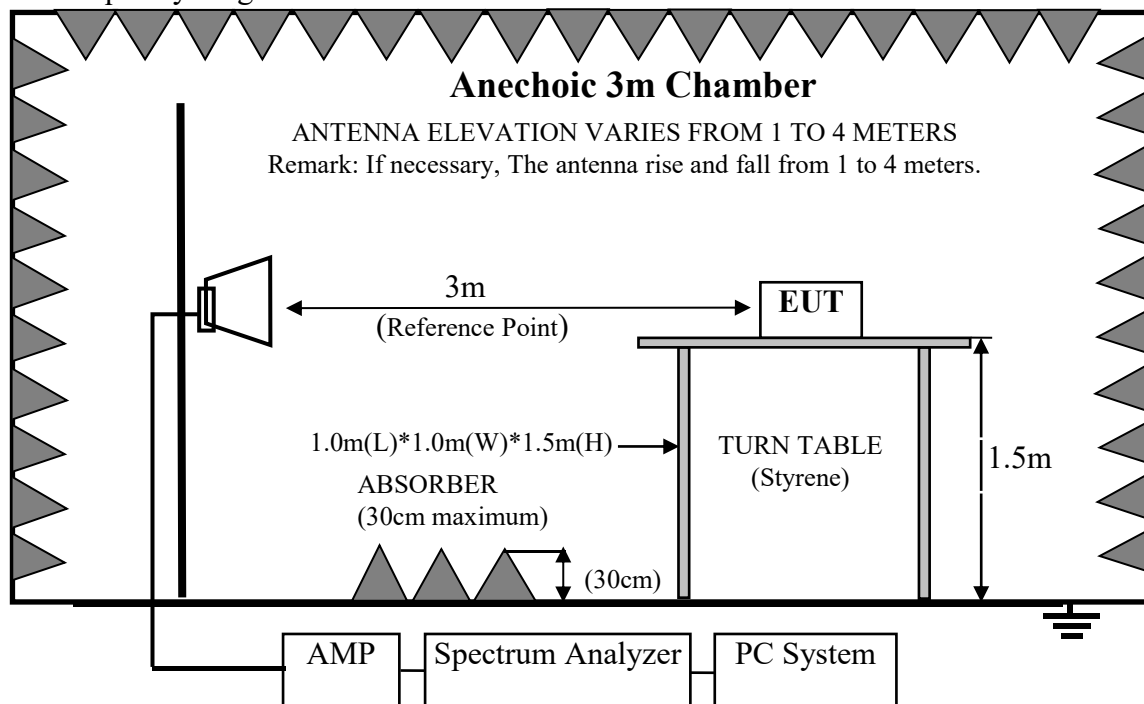
4. RADIATED EMISSION TEST

4.1. Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range above 1GHz



4.2. Radiated Emission Limit

15.247&209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

- Remark: (1) Emission level $\text{dB}\mu\text{V} = 20 \log$ Emission level $\mu\text{V/m}$
 (2) The smaller limit shall apply at the cross point between two frequency bands.
 (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.3. Test Procedure

Frequency below 30MHz:

The EUT setup on the turn table which has 0.8m height to the ground. The turn table rotated 360 degrees and antenna fixed to 1 m to find the maximum emission level. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2020 regulation.

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground for frequency 30MHz~1000MHz, 1.5 meter high above ground for frequency above 1GHz and put the absorbing with 2.4m(L)*2.4m(W)*0.3m(H) on the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna for frequency 30MHz~1000MHz, and

the Horn antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.10-2020 on radiated emission Test.

The bandwidth of the EMI test receiver (R&S ESR7) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

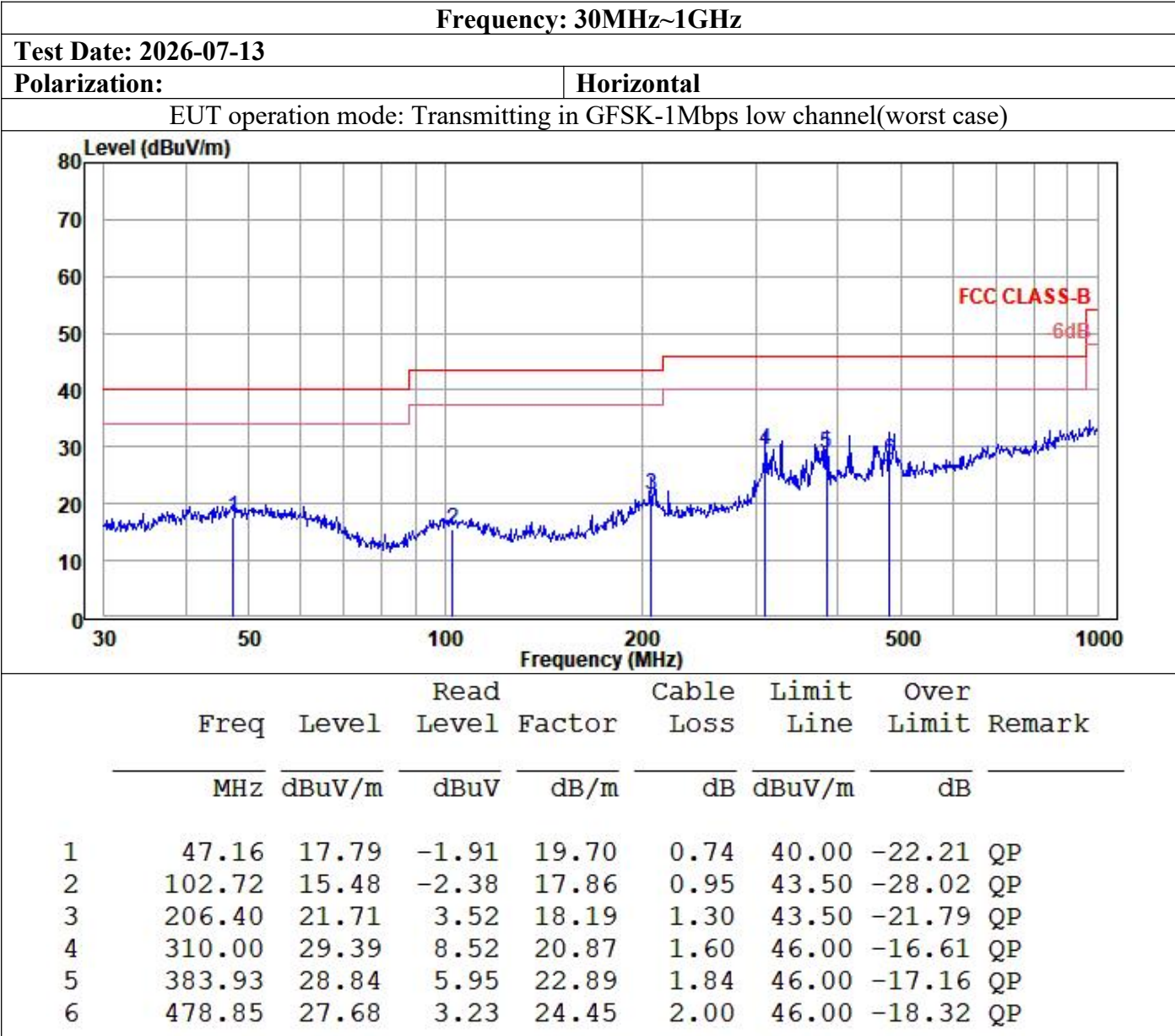
4.4. Radiated Emission Test Results

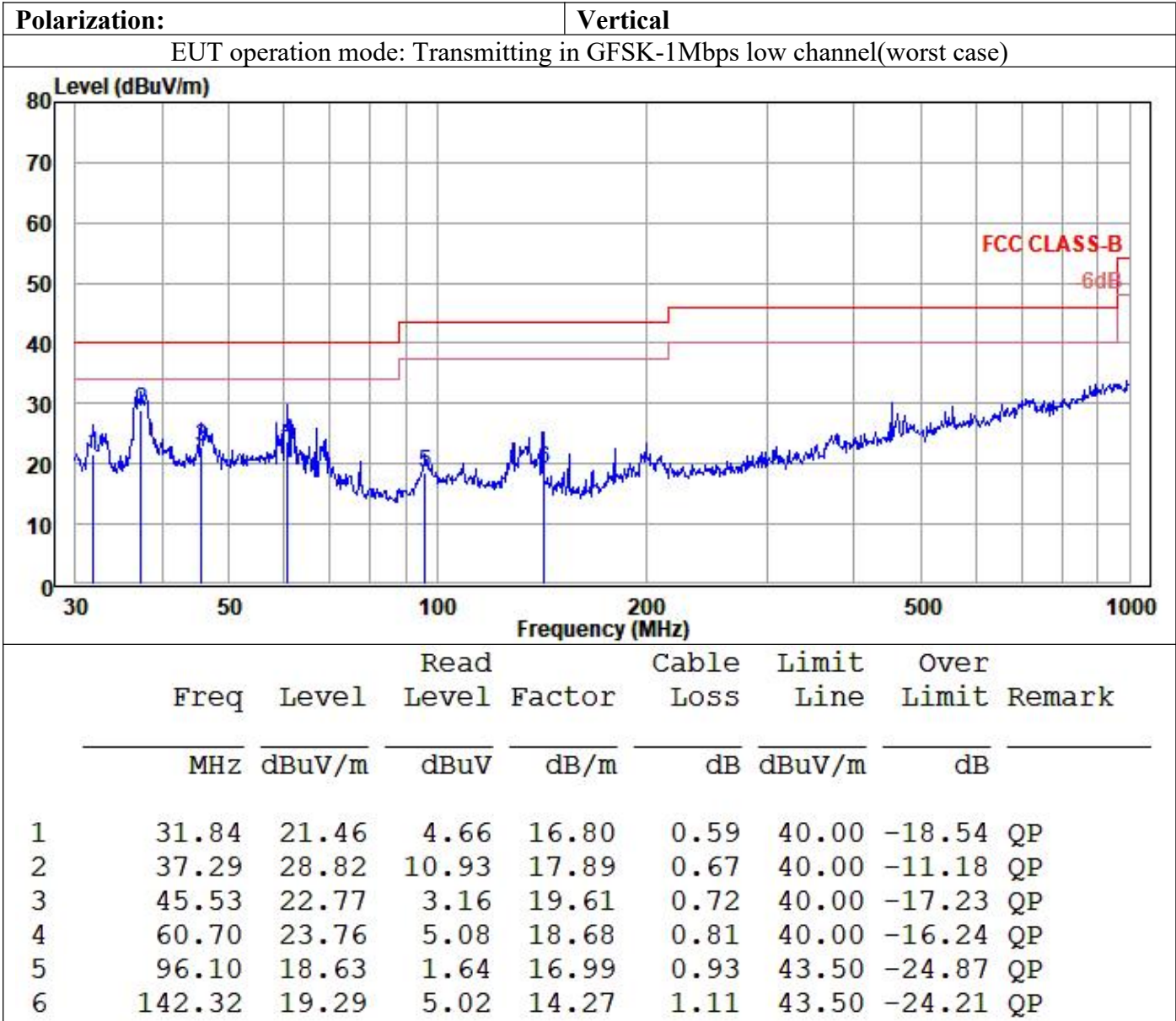
PASS.

Note 1: Final Level= Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor

Note 2: The emissions (9kHz~30MHz) not reported for there is no emission be found.

Note 3: The emission levels of other frequencies(test frequency bang is above 1GHz) are very lower than the limit and not show in test report.





Frequency: 1GHz~18GHz											
Test Date: 2026-07-14											
GFSK-1Mbps		CH00									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	7188.000	60.16	50.78	36.05	7.11	33.78	9.38	74.00	-13.84 Peak
		2	9602.000	49.14	36.67	38.40	8.15	34.08	12.47	74.00	-24.86 Peak
		3	12016.000	54.00	39.44	39.22	9.24	33.90	14.56	74.00	-20.00 Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	7188.000	33.10	23.72	36.05	7.11	33.78	9.38	54.00	-20.90 Average
		2	9602.000	35.42	22.95	38.40	8.15	34.08	12.47	54.00	-18.58 Average
		3	12016.000	37.01	22.45	39.22	9.24	33.90	14.56	54.00	-16.99 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	7188.000	56.51	47.13	36.05	7.11	33.78	9.38	74.00	-17.49 Peak
		2	9602.000	50.74	38.27	38.40	8.15	34.08	12.47	74.00	-23.26 Peak
		3	12016.000	52.66	38.10	39.22	9.24	33.90	14.56	74.00	-21.34 Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	7188.000	32.91	23.53	36.05	7.11	33.78	9.38	54.00	-21.09 Average
		2	9602.000	35.14	22.67	38.40	8.15	34.08	12.47	54.00	-18.86 Average
		3	12016.000	36.99	22.43	39.22	9.24	33.90	14.56	54.00	-17.01 Average

GFSK-1Mbps		CH19									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	4876.000	47.69	45.89	31.55	5.91	35.66	1.80	74.00	-26.31 Peak
		2	7324.000	58.29	48.70	36.25	7.17	33.83	9.59	74.00	-15.71 Peak
		3	9772.000	52.61	39.84	38.60	8.22	34.05	12.77	74.00	-21.39 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	4876.000	27.64	25.84	31.55	5.91	35.66	1.80	54.00	-26.36 Average
		2	7324.000	31.89	22.30	36.25	7.17	33.83	9.59	54.00	-22.11 Average
		3	9772.000	35.15	22.38	38.60	8.22	34.05	12.77	54.00	-18.85 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	4876.000	42.96	41.16	31.55	5.91	35.66	1.80	74.00	-31.04 Peak
		2	7324.000	50.86	41.27	36.25	7.17	33.83	9.59	74.00	-23.14 Peak
		3	9772.000	53.01	40.24	38.60	8.22	34.05	12.77	74.00	-20.99 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	4876.000	25.53	23.73	31.55	5.91	35.66	1.80	54.00	-28.47 Average
		2	7324.000	30.72	21.13	36.25	7.17	33.83	9.59	54.00	-23.28 Average
		3	9772.000	35.11	22.34	38.60	8.22	34.05	12.77	54.00	-18.89 Average

GFSK-1Mbps		CH39									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	45.60	49.97	26.37	3.76	34.50	-4.37	74.00	-28.40 Peak
		2	3006.000	36.58	39.91	28.69	4.58	36.60	-3.33	74.00	-37.42 Peak
		3	4944.000	50.74	48.66	31.76	5.95	35.63	2.08	74.00	-23.26 Peak
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	19.08	23.45	26.37	3.76	34.50	-4.37	54.00	-34.92 Average
		2	3006.000	23.31	26.64	28.69	4.58	36.60	-3.33	54.00	-30.69 Average
		3	4944.000	29.93	27.85	31.76	5.95	35.63	2.08	54.00	-24.07 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	48.03	52.40	26.37	3.76	34.50	-4.37	74.00	-25.97 Peak
		2	3006.000	42.16	45.49	28.69	4.58	36.60	-3.33	74.00	-31.84 Peak
		3	4944.000	50.35	48.27	31.76	5.95	35.63	2.08	74.00	-23.65 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	20.09	24.46	26.37	3.76	34.50	-4.37	54.00	-33.91 Average
		2	3006.000	23.41	26.74	28.69	4.58	36.60	-3.33	54.00	-30.59 Average
		3	4944.000	27.09	25.01	31.76	5.95	35.63	2.08	54.00	-26.91 Average

GFSK-2Mbps		CH00									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	43.67	48.04	26.37	3.76	34.50	-4.37	74.00	-30.33 Peak
		2	4808.000	42.36	40.67	31.52	5.87	35.70	1.69	74.00	-31.64 Peak
		3	7188.000	60.81	51.43	36.05	7.11	33.78	9.38	74.00	-13.19 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	18.99	23.36	26.37	3.76	34.50	-4.37	54.00	-35.01 Average
		2	4808.000	24.42	22.73	31.52	5.87	35.70	1.69	54.00	-29.58 Average
		3	7188.000	32.29	22.91	36.05	7.11	33.78	9.38	54.00	-21.71 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	46.14	50.51	26.37	3.76	34.50	-4.37	74.00	-27.86 Peak
		2	4808.000	38.63	36.94	31.52	5.87	35.70	1.69	74.00	-35.37 Peak
		3	7188.000	55.36	45.98	36.05	7.11	33.78	9.38	74.00	-18.64 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	20.92	25.29	26.37	3.76	34.50	-4.37	54.00	-33.08 Average
		2	4808.000	24.37	22.68	31.52	5.87	35.70	1.69	54.00	-29.63 Average
		3	7188.000	33.57	24.19	36.05	7.11	33.78	9.38	54.00	-20.43 Average

GFSK-2Mbps		CH19									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1850.000	38.01	42.93	26.00	3.61	34.53	-4.92	74.00	-35.99 Peak
		2	4876.000	47.50	45.70	31.55	5.91	35.66	1.80	74.00	-26.50 Peak
		3	7324.000	55.60	46.01	36.25	7.17	33.83	9.59	74.00	-18.40 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1850.000	19.89	24.81	26.00	3.61	34.53	-4.92	54.00	-34.11 Average
		2	4876.000	27.62	25.82	31.55	5.91	35.66	1.80	54.00	-26.38 Average
		3	7324.000	31.06	21.47	36.25	7.17	33.83	9.59	54.00	-22.94 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1850.000	46.94	51.86	26.00	3.61	34.53	-4.92	74.00	-27.06 Peak
		2	4876.000	42.50	40.70	31.55	5.91	35.66	1.80	74.00	-31.50 Peak
		3	7324.000	49.18	39.59	36.25	7.17	33.83	9.59	74.00	-24.82 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1850.000	20.99	25.91	26.00	3.61	34.53	-4.92	54.00	-33.01 Average
		2	4876.000	26.75	24.95	31.55	5.91	35.66	1.80	54.00	-27.25 Average
		3	7324.000	30.78	21.19	36.25	7.17	33.83	9.59	54.00	-23.22 Average

GFSK-2Mbps		CH39									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	42.84	47.21	26.37	3.76	34.50	-4.37	74.00	-31.16 Peak
		2	4944.000	55.71	53.63	31.76	5.95	35.63	2.08	74.00	-18.29 Peak
		3	7426.000	51.00	41.25	36.40	7.22	33.87	9.75	74.00	-23.00 Peak
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	19.24	23.61	26.37	3.76	34.50	-4.37	54.00	-34.76 Average
		2	4944.000	30.60	28.52	31.76	5.95	35.63	2.08	54.00	-23.40 Average
		3	7426.000	31.04	21.29	36.40	7.22	33.87	9.75	54.00	-22.96 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	45.14	49.51	26.37	3.76	34.50	-4.37	74.00	-28.86 Peak
		2	4944.000	47.91	45.83	31.76	5.95	35.63	2.08	74.00	-26.09 Peak
		3	7426.000	44.68	34.93	36.40	7.22	33.87	9.75	74.00	-29.32 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	1986.000	21.64	26.01	26.37	3.76	34.50	-4.37	54.00	-32.36 Average
		2	4944.000	29.24	27.16	31.76	5.95	35.63	2.08	54.00	-24.76 Average
		3	7426.000	30.46	20.71	36.40	7.22	33.87	9.75	54.00	-23.54 Average

Frequency: 18GHz~40GHz											
Test Date: 2026-07-14											
GFSK-1Mbps		CH00									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20450.000	43.62	48.23	37.82	12.77	55.20	-4.61	74.00	-30.38 Peak
		2	21500.000	44.59	49.17	37.50	13.12	55.20	-4.58	74.00	-29.41 Peak
		3	23586.000	45.68	48.93	38.50	13.69	55.44	-3.25	74.00	-28.32 Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20450.000	32.97	37.58	37.82	12.77	55.20	-4.61	54.00	-21.03 Average
		2	21500.000	32.92	37.50	37.50	13.12	55.20	-4.58	54.00	-21.08 Average
		3	23586.000	34.57	37.82	38.50	13.69	55.44	-3.25	54.00	-19.43 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20450.000	46.28	50.89	37.82	12.77	55.20	-4.61	74.00	-27.72 Peak
		2	21500.000	45.60	50.18	37.50	13.12	55.20	-4.58	74.00	-28.40 Peak
		3	23586.000	46.66	49.91	38.50	13.69	55.44	-3.25	74.00	-27.34 Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20450.000	32.82	37.43	37.82	12.77	55.20	-4.61	54.00	-21.18 Average
		2	21500.000	32.94	37.52	37.50	13.12	55.20	-4.58	54.00	-21.06 Average
		3	23586.000	34.55	37.80	38.50	13.69	55.44	-3.25	54.00	-19.45 Average

GFSK-1Mbps		CH19									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20380.000	44.85	49.45	37.85	12.75	55.20	-4.60	74.00	-29.15 Peak
		2	22480.000	44.99	49.16	37.69	13.41	55.27	-4.17	74.00	-29.01 Peak
		3	23684.000	45.86	48.98	38.62	13.71	55.45	-3.12	74.00	-28.14 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20380.000	33.12	37.72	37.85	12.75	55.20	-4.60	54.00	-20.88 Average
		2	22480.000	33.41	37.58	37.69	13.41	55.27	-4.17	54.00	-20.59 Average
		3	23684.000	35.45	38.57	38.62	13.71	55.45	-3.12	54.00	-18.55 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20380.000	45.88	50.48	37.85	12.75	55.20	-4.60	74.00	-28.12 Peak
		2	22480.000	46.62	50.79	37.69	13.41	55.27	-4.17	74.00	-27.38 Peak
		3	23684.000	46.91	50.03	38.62	13.71	55.45	-3.12	74.00	-27.09 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20380.000	33.90	38.50	37.85	12.75	55.20	-4.60	54.00	-20.10 Average
		2	22480.000	32.88	37.05	37.69	13.41	55.27	-4.17	54.00	-21.12 Average
		3	23684.000	34.54	37.66	38.62	13.71	55.45	-3.12	54.00	-19.46 Average

GFSK-1Mbps		CH39									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	19526.000	44.51	49.60	38.00	12.39	55.48	-5.09	74.00	-29.49 Peak
		2	20814.000	44.73	49.37	37.67	12.89	55.20	-4.64	74.00	-29.27 Peak
		3	23334.000	44.19	47.70	38.27	13.62	55.40	-3.51	74.00	-29.81 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	19526.000	33.23	38.32	38.00	12.39	55.48	-5.09	54.00	-20.77 Average
		2	21290.000	33.74	38.39	37.50	13.05	55.20	-4.65	54.00	-20.26 Average
		3	23334.000	33.78	37.29	38.27	13.62	55.40	-3.51	54.00	-20.22 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	19526.000	45.72	50.81	38.00	12.39	55.48	-5.09	74.00	-28.28 Peak
		2	20814.000	45.70	50.34	37.67	12.89	55.20	-4.64	74.00	-28.30 Peak
		3	23334.000	46.72	50.23	38.27	13.62	55.40	-3.51	74.00	-27.28 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	19526.000	33.76	38.85	38.00	12.39	55.48	-5.09	54.00	-20.24 Average
		2	20814.000	33.42	38.06	37.67	12.89	55.20	-4.64	54.00	-20.58 Average
		3	23334.000	33.31	36.82	38.27	13.62	55.40	-3.51	54.00	-20.69 Average

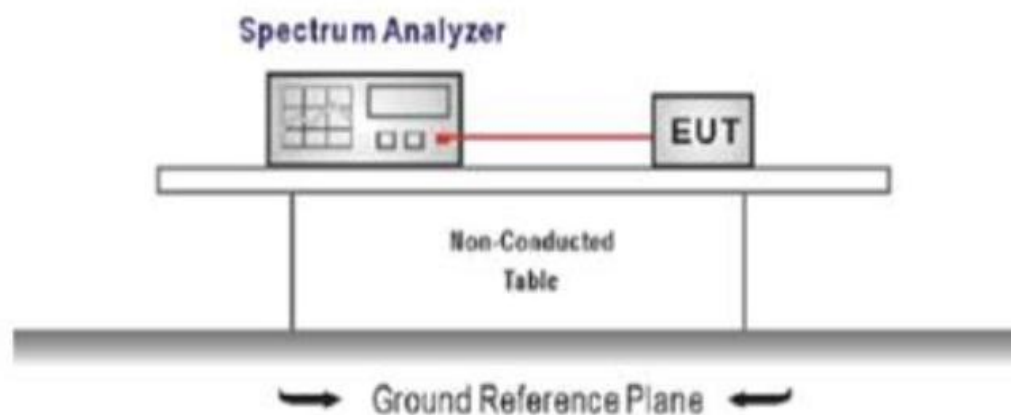
GFSK-2Mbps		CH00									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20492.000	45.48	50.10	37.80	12.78	55.20	-4.62	74.00	-28.52 Peak
		2	21374.000	44.91	49.53	37.50	13.08	55.20	-4.62	74.00	-29.09 Peak
		3	22466.000	46.16	50.33	37.69	13.41	55.27	-4.17	74.00	-27.84 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20492.000	34.01	38.63	37.80	12.78	55.20	-4.62	54.00	-19.99 Average
		2	21374.000	34.15	38.77	37.50	13.08	55.20	-4.62	54.00	-19.85 Average
		3	22466.000	34.89	39.06	37.69	13.41	55.27	-4.17	54.00	-19.11 Average

GFSK-2Mbps		CH19									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20072.000	43.96	48.55	37.97	12.64	55.20	-4.59	74.00	-30.04 Peak
		2	21122.000	44.82	49.47	37.55	13.00	55.20	-4.65	74.00	-29.18 Peak
		3	22858.000	44.71	48.60	37.94	13.50	55.33	-3.89	74.00	-29.29 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20072.000	33.73	38.32	37.97	12.64	55.20	-4.59	54.00	-20.27 Average
		2	21122.000	33.70	38.35	37.55	13.00	55.20	-4.65	54.00	-20.30 Average
		3	22858.000	33.95	37.84	37.94	13.50	55.33	-3.89	54.00	-20.05 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20072.000	45.85	50.44	37.97	12.64	55.20	-4.59	74.00	-28.15 Peak
		2	21122.000	47.10	51.75	37.55	13.00	55.20	-4.65	74.00	-26.90 Peak
		3	22858.000	46.92	50.81	37.94	13.50	55.33	-3.89	74.00	-27.08 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	20072.000	34.30	38.89	37.97	12.64	55.20	-4.59	54.00	-19.70 Average
		2	21122.000	33.80	38.45	37.55	13.00	55.20	-4.65	54.00	-20.20 Average
		3	22858.000	34.10	37.99	37.94	13.50	55.33	-3.89	54.00	-19.90 Average

GFSK-2Mbps		CH39									
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	19232.000	42.73	48.08	37.90	12.25	55.50	-5.35	74.00	-31.27 Peak
		2	21290.000	44.78	49.43	37.50	13.05	55.20	-4.65	74.00	-29.22 Peak
		3	23684.000	46.68	49.80	38.62	13.71	55.45	-3.12	74.00	-27.32 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	19232.000	32.50	37.85	37.90	12.25	55.50	-5.35	54.00	-21.50 Average
		2	21290.000	33.23	37.88	37.50	13.05	55.20	-4.65	54.00	-20.77 Average
		3	23684.000	35.03	38.15	38.62	13.71	55.45	-3.12	54.00	-18.97 Average
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	19232.000	45.97	51.32	37.90	12.25	55.50	-5.35	74.00	-28.03 Peak
		2	21290.000	46.74	51.39	37.50	13.05	55.20	-4.65	74.00	-27.26 Peak
		3	23684.000	46.98	50.10	38.62	13.71	55.45	-3.12	74.00	-27.02 Peak
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
		1	19232.000	32.21	37.56	37.90	12.25	55.50	-5.35	54.00	-21.79 Average
		2	21290.000	33.30	37.95	37.50	13.05	55.20	-4.65	54.00	-20.70 Average
		3	23684.000	34.75	37.87	38.62	13.71	55.45	-3.12	54.00	-19.25 Average

5. CONDUCTED SPURIOUS EMISSIONS

5.1. Block Diagram of Test Setup



5.2. Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

5.3. Test Procedure

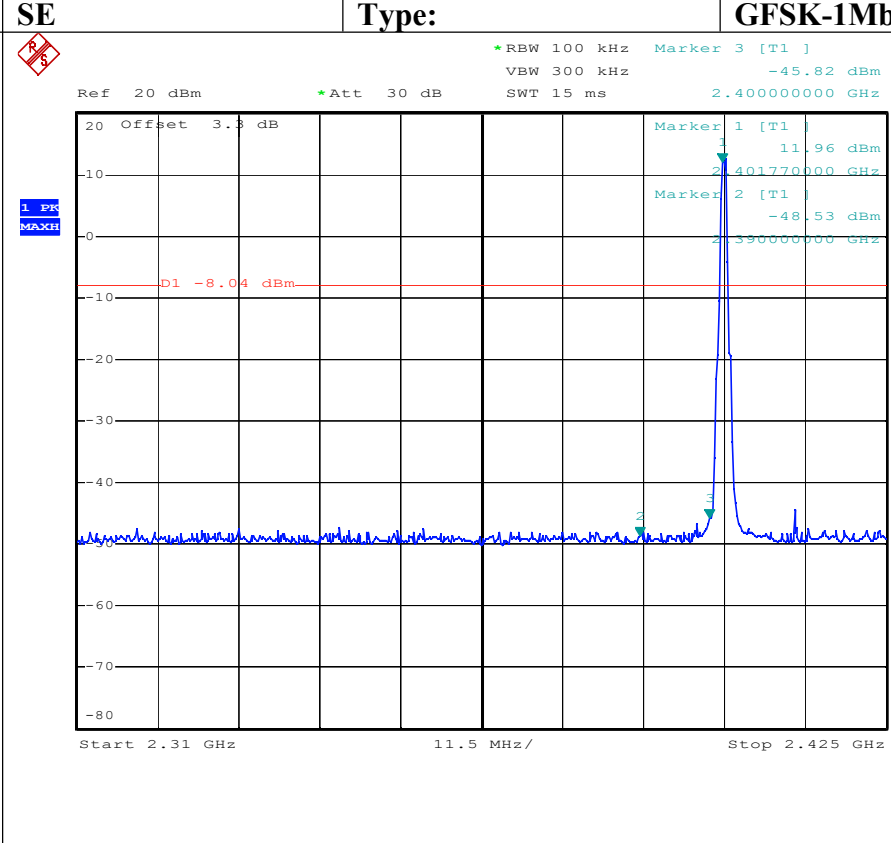
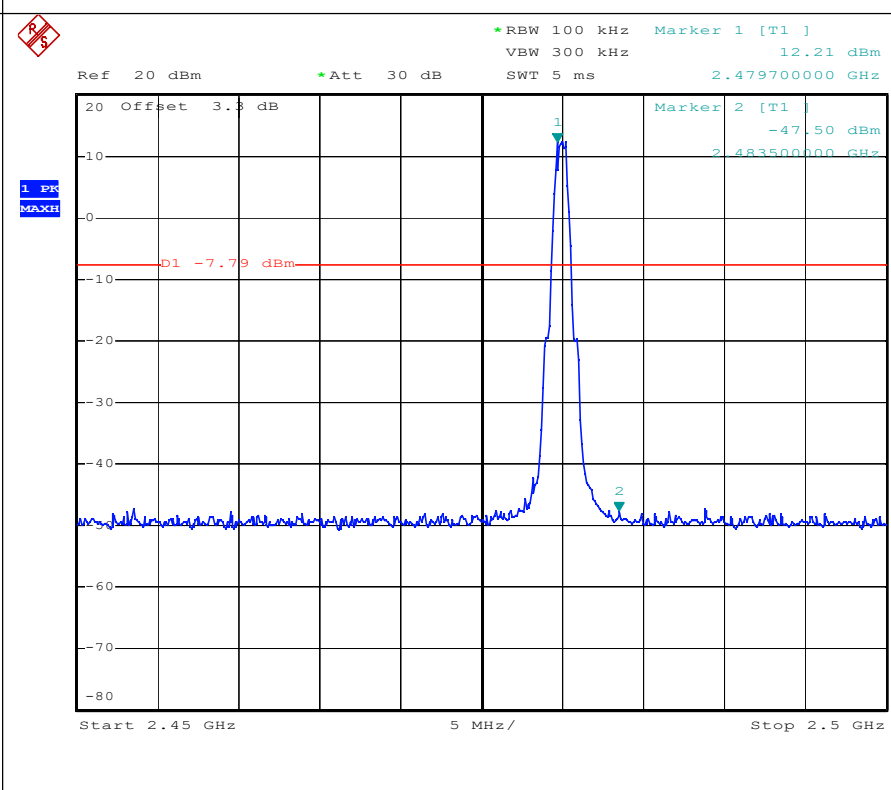
Use the test method described in ANSI C63.10:

The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions with peak detector.

Note: The cable loss and attenuator loss were offset into spectrum analyzer as an amplitude offset.

5.4. Test result

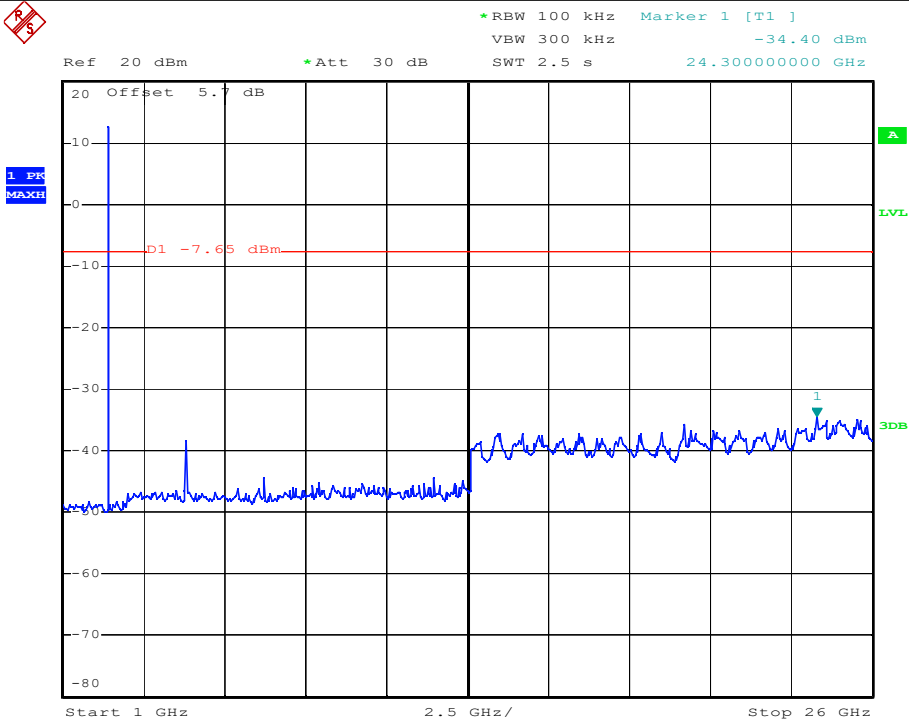
PASS (The testing data was attached in the next pages.)

Test Item:	SE	Type:	GFSK-1Mbps
CH00	 Ref 20 dBm *Att 30 dB SWT 15 ms 2.400000000 GHz Offset 3.3 dB Marker 1 [T1] 11.96 dBm 2.401770000 GHz Marker 2 [T1] -48.53 dBm 2.390000000 GHz D1 -8.04 dBm Start 2.31 GHz 11.5 MHz/ Stop 2.425 GHz 1 PK MAXH 3DB LVL		
	Date: 28.AUG.2026 16:12:22		
CH39	 Ref 20 dBm *Att 30 dB SWT 5 ms 2.479700000 GHz Offset 3.3 dB Marker 1 [T1] 12.21 dBm 2.479700000 GHz Marker 2 [T1] -47.50 dBm 2.483500000 GHz D1 -7.79 dBm Start 2.45 GHz 5 MHz/ Stop 2.5 GHz 1 PK MAXH 3DB LVL		
	Date: 28.AUG.2026 16:18:35		

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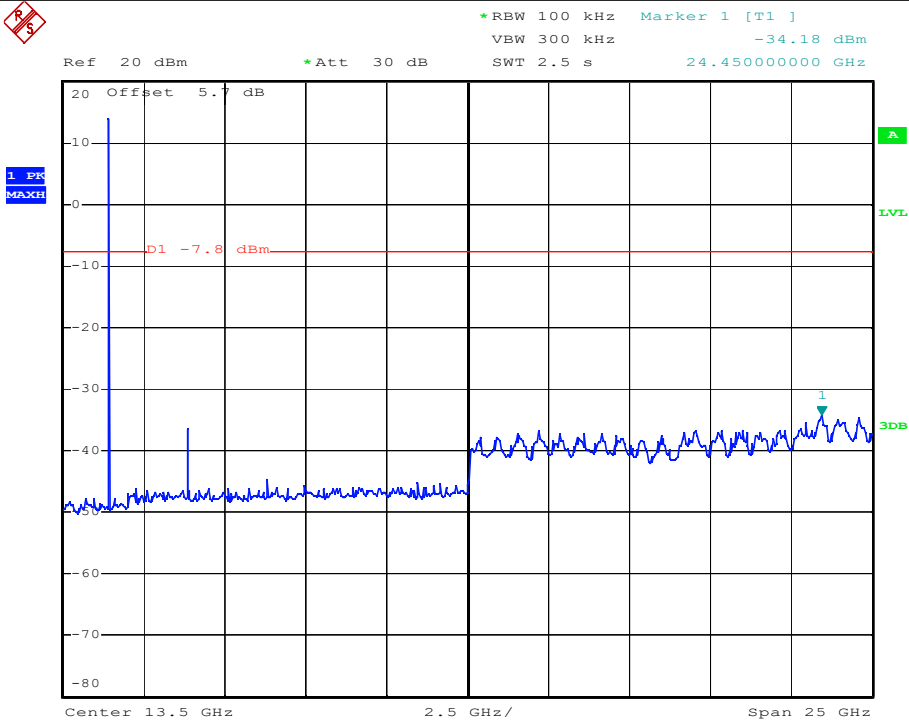
CH00
Above 1GHz



Date: 1.SEP.2026 17:22:59

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CH19
Above 1GHz



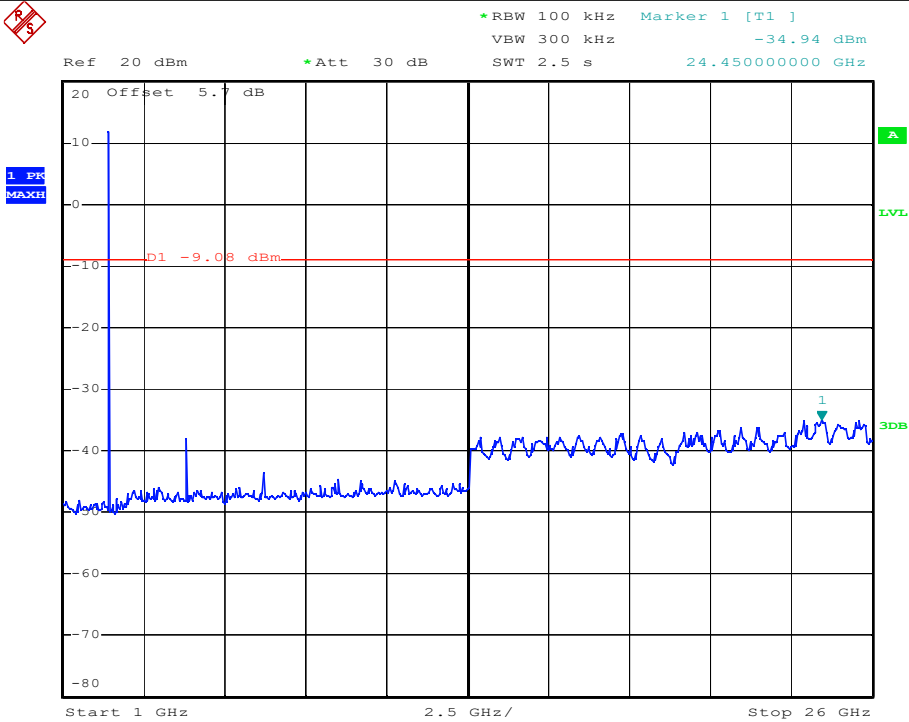
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Date: 1.SEP.2026 17:33:28

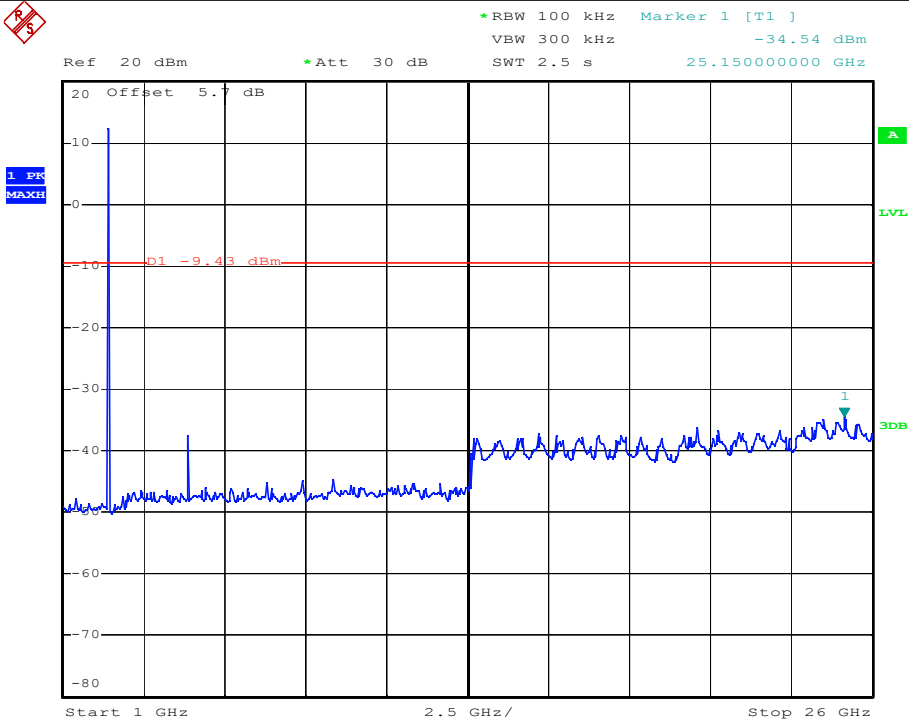
Date: 28.AUG.2026 16:20:04

CH00
Above 1GHz

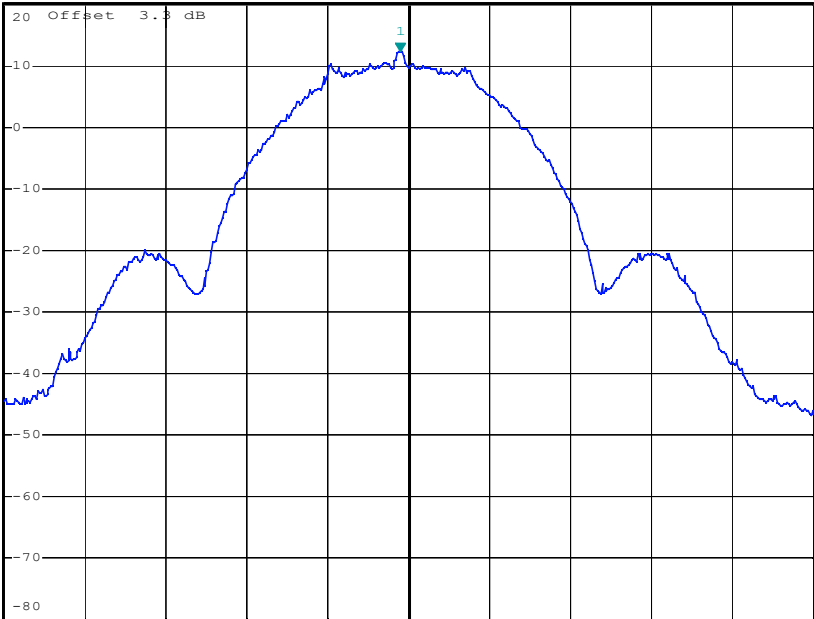
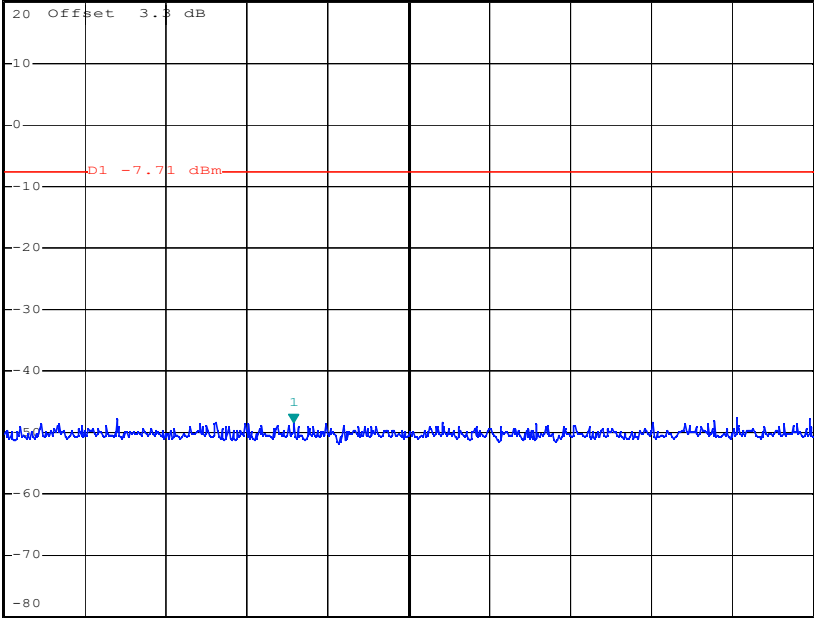


Date: 1.SEP.2026 17:34:51

CH19
Above 1GHz



Date: 1.SEP.2026 17:35:37

Test Item:	SE	Type:	GFSK-2Mbps
CH39 Reference level	SE 1 PK MAXH RBW 100 kHz VBW 300 kHz SWT 2.5 ms Marker 1 [T1] 12.29 dBm 2.479940000 GHz Ref 20 dBm *Att 30 dB Offset 3.3 dB  Center 2.48 GHz600 kHz/Span 6 MHz	RBW 100 kHz VBW 300 kHz SWT 2.5 ms Marker 1 [T1] 12.29 dBm 2.479940000 GHz	
	Date: 28.AUG.2026 16:25:57		
	CH39 30MHz-1GMHz	SE 1 PK MAXH RBW 100 kHz VBW 300 kHz SWT 100 ms Marker 1 [T1] -48.45 dBm 377.260000000 MHz Ref 20 dBm *Att 30 dB Offset 3.3 dB  Start 30 MHz97 MHz/Stop 1 GHz	RBW 100 kHz VBW 300 kHz SWT 100 ms Marker 1 [T1] -48.45 dBm 377.260000000 MHz
Date: 28.AUG.2026 16:26:27			

Date: 1.SEP.2026 17:36:28

6. BAND EDGE COMPLIANCE TEST

6.1.Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.2.Test Procedure

Use the test method described in ANSI C63.10 clause 6.10:

1. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.3.Test Results

Pass (The testing data was attached in the next pages.)

Test Date: 2026-07-14											
GFSK-1Mbps						CH00					
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2310.000	31.67	35.13	27.66	4.03	35.15	-3.46	74.00	-42.33	Peak
	2	2390.000	29.42	32.99	27.66	4.09	35.32	-3.57	74.00	-44.58	Peak
	3	2400.000	51.92	55.46	27.70	4.10	35.34	-3.54	74.00	-22.08	Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2310.000	22.14	25.60	27.66	4.03	35.15	-3.46	54.00	-31.86	Average
	2	2390.000	20.05	23.62	27.66	4.09	35.32	-3.57	54.00	-33.95	Average
	3	2400.000	39.00	42.54	27.70	4.10	35.34	-3.54	54.00	-15.00	Average

GFSK-1Mbps					CH00						
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2310.000	38.48	41.94	27.66	4.03	35.15	-3.46	74.00	-35.52	Peak
	2	2390.000	33.62	37.19	27.66	4.09	35.32	-3.57	74.00	-40.38	Peak
	3	2400.000	51.00	54.54	27.70	4.10	35.34	-3.54	74.00	-23.00	Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2310.000	21.83	25.29	27.66	4.03	35.15	-3.46	54.00	-32.17	Average
	2	2390.000	19.52	23.09	27.66	4.09	35.32	-3.57	54.00	-34.48	Average
	3	2400.000	38.16	41.70	27.70	4.10	35.34	-3.54	54.00	-15.84	Average

GFSK-1Mbps				CH39							
Horizontal	Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark	
	MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB		
	1	2483.500	34.14	37.92	27.57	4.17	35.52	-3.78	74.00	-39.86	Peak
	2	2500.000	21.56	25.33	27.60	4.18	35.55	-3.77	74.00	-52.44	Peak
	Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark	
	MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB		
	1	2483.500	32.88	36.66	27.57	4.17	35.52	-3.78	54.00	-21.12	Average
	2	2500.000	22.90	26.67	27.60	4.18	35.55	-3.77	54.00	-31.10	Average

GFSK-1Mbps				CH39							
Vertical	Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark	
	MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB		
	1	2483.500	35.07	38.85	27.57	4.17	35.52	-3.78	74.00	-38.93	Peak
	2	2500.000	26.49	30.26	27.60	4.18	35.55	-3.77	74.00	-47.51	Peak
	Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark	
	MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB		
	1	2483.500	29.03	32.81	27.57	4.17	35.52	-3.78	54.00	-24.97	Average
	2	2500.000	19.54	23.31	27.60	4.18	35.55	-3.77	54.00	-34.46	Average

GFSK-2Mbps					CH00						
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2310.000	34.73	38.19	27.66	4.03	35.15	-3.46	74.00	-39.27	Peak
	2	2390.000	30.57	34.14	27.66	4.09	35.32	-3.57	74.00	-43.43	Peak
	3	2400.000	59.19	62.73	27.70	4.10	35.34	-3.54	74.00	-14.81	Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2310.000	21.27	24.73	27.66	4.03	35.15	-3.46	54.00	-32.73	Average
	2	2390.000	18.10	21.67	27.66	4.09	35.32	-3.57	54.00	-35.90	Average
	3	2400.000	47.64	51.18	27.70	4.10	35.34	-3.54	54.00	-6.36	Average

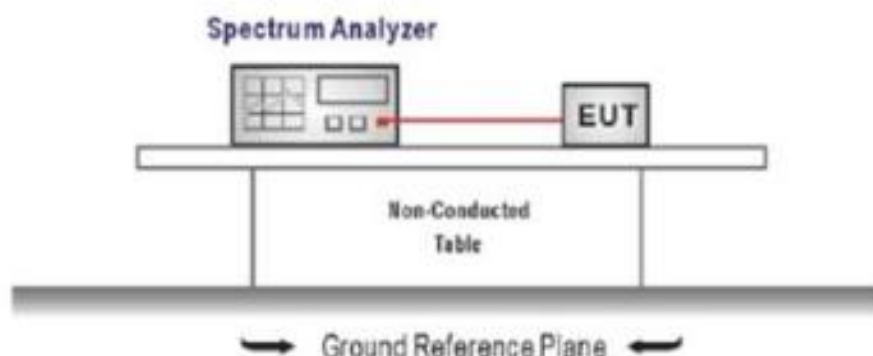
GFSK-2Mbps					CH00						
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2310.000	37.76	41.22	27.66	4.03	35.15	-3.46	74.00	-36.24	Peak
	2	2390.000	32.31	35.88	27.66	4.09	35.32	-3.57	74.00	-41.69	Peak
	3	2400.000	59.62	63.16	27.70	4.10	35.34	-3.54	74.00	-14.38	Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor		Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2310.000	21.09	24.55	27.66	4.03	35.15	-3.46	54.00	-32.91	Average
	2	2390.000	20.10	23.67	27.66	4.09	35.32	-3.57	54.00	-33.90	Average
	3	2400.000	46.42	49.96	27.70	4.10	35.34	-3.54	54.00	-7.58	Average

GFSK-2Mbps					CH39						
Horizontal		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2483.500	39.98	43.76	27.57	4.17	35.52	-3.78	74.00	-34.02	Peak
	2	2500.000	29.26	33.03	27.60	4.18	35.55	-3.77	74.00	-44.74	Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2483.500	29.69	33.47	27.57	4.17	35.52	-3.78	54.00	-24.31	Average
	2	2500.000	15.83	19.60	27.60	4.18	35.55	-3.77	54.00	-38.17	Average

GFSK-2Mbps					CH39						
Vertical		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2483.500	39.83	43.61	27.57	4.17	35.52	-3.78	74.00	-34.17	Peak
	2	2500.000	29.51	33.28	27.60	4.18	35.55	-3.77	74.00	-44.49	Peak
		Freq	Level	Read Level	Ant Factor	Cable Loss	Preamp Factor	Factor	Limit Line	Over Limit	Remark
		MHz	dBuV/m	dBuV	dB/m	dB	dB	dB/m	dBuV/m	dB	
	1	2483.500	30.16	33.94	27.57	4.17	35.52	-3.78	54.00	-23.84	Average
	2	2500.000	18.07	21.84	27.60	4.18	35.55	-3.77	54.00	-35.93	Average

7. 6dB Bandwidth Test

7.1. Block Diagram of Test Setup



7.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3. Test Procedure

Use the test method described in ANSI C63.10 Section 11.8.2:

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

7.4. Test Results

Test Mode	CH	-6dB bandwidth (KHz)	Limit (KHz)
GFSK-1Mbps	CH00	678	≧ 500
	CH19	720	
	CH39	684	
GFSK-2Mbps	CH00	1404	≧ 500
	CH19	1392	
	CH39	1440	
Conclusion: PASS			

GFSK-1Mbps

Ref 20 dBm *Att 30 dB SWT 2.5 ms 678.00000000 kHz

*RBW 100 kHz Delta 3 [T1] VBW 300 kHz -0.24 dB

20 Offset 3.3 dB

Marker 1 [T1] 6.68 dBm 2.401604000 GHz

Marker 2 [T1] 12.40 dBm 2.402186000 GHz

1 PR
MAXH

A
LVL
3dB

Center 2.402 GHz 300 kHz/ Span 3 MHz

Date: 28.AUG.2026 15:43:19

*RBW 100 kHz Delta 3 [T1]
 VBW 300 kHz -0.25 dB
 Ref 20 dBm *Att 30 dB SWT 2.5 ms 720.00000000 kHz

20 Offset 3.5 dB
 10
 0
 -10
 -20
 -30
 -40
 -50
 -60
 -70
 -80

1.9K
 MAXH

D1 6.08 dBm
 Marker 1 [T1] 5.93 dBm
 2 439586000 GHz
 Marker 2 [T1] 12.08 dBm
 2 439676000 GHz

Center 2.44 GHz 300 kHz/ Span 3 MHz

Date: 28.AUG.2026 15:44:38

Ref 20 dBm *Att 30 dB *RBW 100 kHz Delta 3 [T1]
 VBW 300 kHz -0.24 dB
 SWT 2.5 ms 684.000000000 kHz

20 Offset 3.3 dB

1 PP
 MAXH

Marker 1 [T1] 6.27 dBm
 2.479604000 GHz

Marker 2 [T1] 12.25 dBm
 2.480198000 GHz

D1 6.25 dBm

Center 2.48 GHz Span 3 MHz

Report Format Number: STP-QP019-131-A/0

GFSK-2Mbps

1 RBW 100 kHz Delta 3 [T1]
 VBW 300 kHz -0.71 dB
 Ref 20 dBm *Att 30 dB SWT 2.5 ms 1.404000000 MHz

20 Offset 3.3 dB

Marker 1 [T1] 5.54 dBm
 2 401268000 GHz

Marker 2 [T1] 11.26 dBm
 2 402432000 GHz

1 PR
 MAXH

3dB

Center 2.402 GHz 600 kHz/ Span 6 MHz

Date: 28.AUG.2026 15:49:37

RBW 100 kHz Delta 3 [T1]
 VBW 300 kHz -0.74 dB
 Ref 20 dBm *Att 30 dB SWT 2.5 ms 1.392000000 MHz

20 Offset 3.5 dB

Marker 1 [T1] 5.02 dBm
 2 439268000 GHz

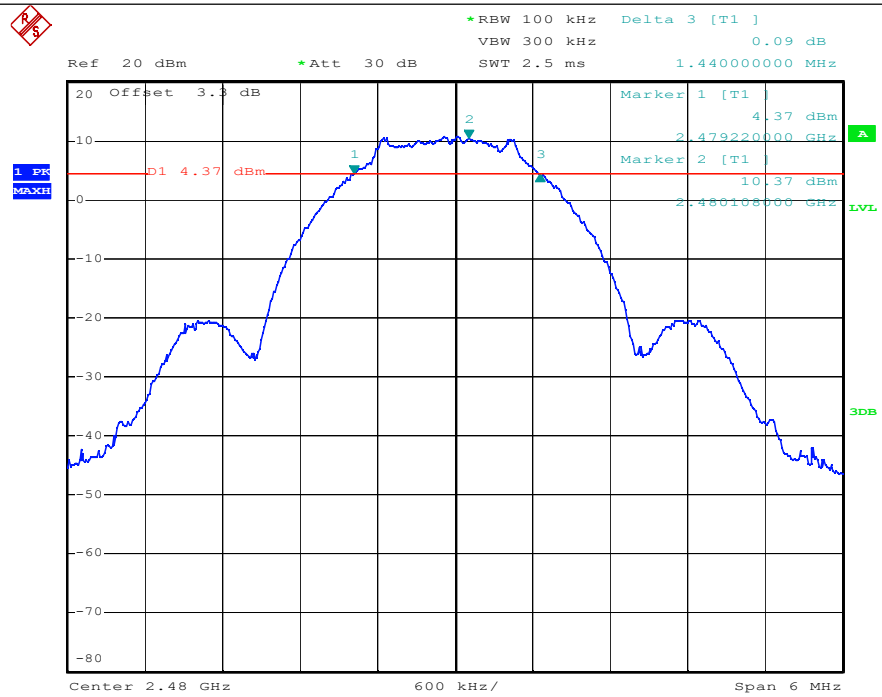
Marker 2 [T1] 10.78 dBm
 2.439424000 GHz

1 PR
 MAXH

Center 2.44 GHz 600 kHz/ Span 6 MHz

Date: 28.AUG.2026 15:50:44

CH39



Date: 28.AUG.2026 15:52:15

8. OUTPUT POWER TEST

8.1.Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak output Power shall not exceed 1W(30dBm), As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level.

8.2.Test Procedure

- 1, Connected the EUT's antenna port to Spectrum Analyzer.
- 2, Use the test method described in ANSI C63.10:
 - 1) Set span to at least 1.5 times the OBW.
 - 2) Set RBW $\geq$ DTS Bandwidth.
 - 3) Set VBW $\geq [3 \times \text{RBW}]$.
 - 4) Sweep time = auto.
 - 5) Detector = peak
 - 6) Trace mode = max hold
 - 7) Allow trace to fully stabilize; Use peak marker function to determine the peak amplitude level.

Note: The cable loss needs to be compensated into the data.

8.3.Test Results

Test Mode	CH	Output power		Limit	
		(dBm)	(W)	(dBm)	(W)
GFSK-1Mbps	CH00	12.55	0.018	30	1
	CH19	12.43	0.0175		
	CH39	12.43	0.0175		
GFSK-1Mbps	CH00	12.55	0.018	30	1
	CH19	12.40	0.0174		
	CH39	12.43	0.0175		
Conclusion: PASS					

Report Format Number: STP-QP019-131-A/0

Ref 20 dBm *Att 30 dB *RBW 3 MHz Marker 1 [T1] 12.43 dBm
 VBW 10 MHz SWT 2.5 ms 2.480080000 GHz

20 Offset 3.3 dB

1 PP
MAXH

1

LVL

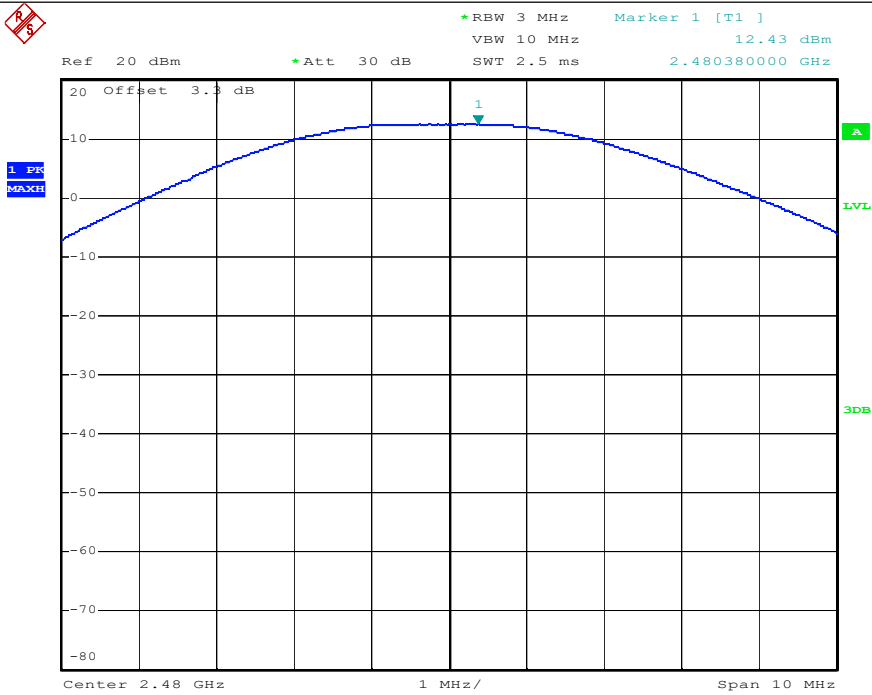
3dB

Center 2.48 GHz 1 MHz/ Span 10 MHz

Report Format Number: STP-QP019-131-A/0

Report Format Number: STP-QP019-131-A/0

CH39



Date: 28.AUG.2026 15:58:14

9. POWER SPECTRAL DENSITY TEST

9.1.Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.2.Test Procedure

Use the test method described in ANSI C63.10 clause 11.10.2:

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

9.3.Test Results

Pass

Test Mode	Channel	Power density (dBm/3KHz)	Limit (dBm/3KHz)
GFSK-1Mbps	CH00	2.45	8
	CH19	2.48	
	CH39	1.40	
GFSK-2Mbps	CH00	-0.07	8
	CH19	-0.20	
	CH39	0.16	
Conclusion: PASS			

Type:

CH00

GFSK-1Mbps

Ref 20 dBm

Att 30 dB

RBW 3 kHz

VBW 10 kHz

SWT 225 ms

Marker 1 [T1]

2.45 dBm

2.402024000 GHz

Offset 3.3 dB

1 PK

MAXH

20

-10

0

-10

-20

-30

-40

-50

-60

-70

-80

Center 2.402 GHz

200 kHz/

Span 2 MHz

A

1VL

3DB

Date: 28.AUG.2026 16:03:07

CH19

GFSK-1Mbps

Ref 20 dBm

Att 30 dB

RBW 3 kHz

VBW 10 kHz

SWT 225 ms

Marker 1 [T1]

2.48 dBm

2.439884000 GHz

Offset 3.3 dB

1 PK

MAXH

20

-10

0

-10

-20

-30

-40

-50

-60

-70

-80

Center 2.44 GHz

200 kHz/

Span 2 MHz

A

1VL

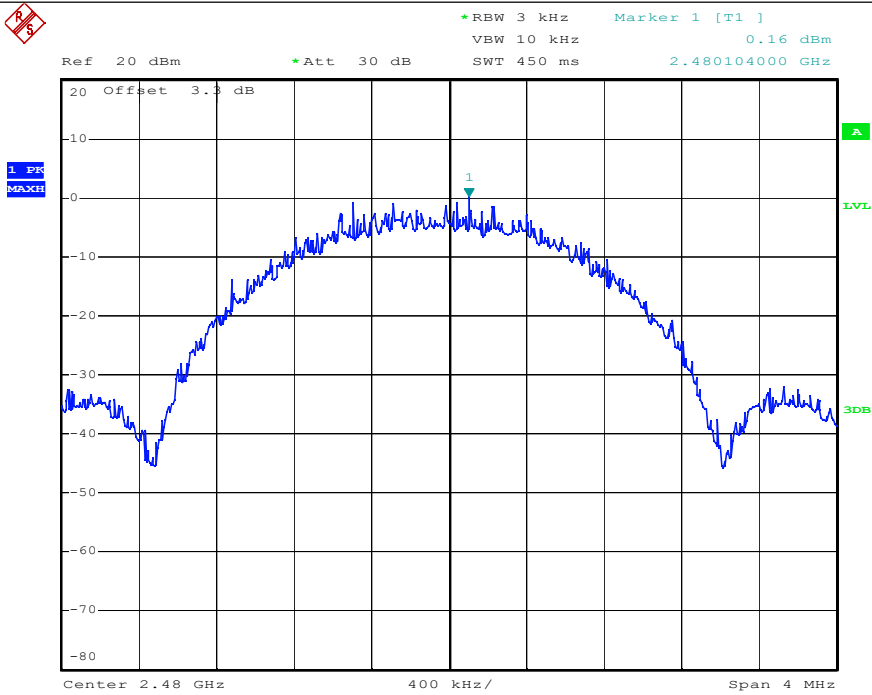
3DB

Date: 28.AUG.2026 16:03:39

Date: 28.AUG.2026 16:04:36

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CH39



Date: 28.AUG.2026 16:06:22

10.ANTENNA REQUIREMENT

10.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.2. Antenna Connected Construction

The antennas used for this product are FPC Antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 1.62dBi.

.....**End of Report**.....