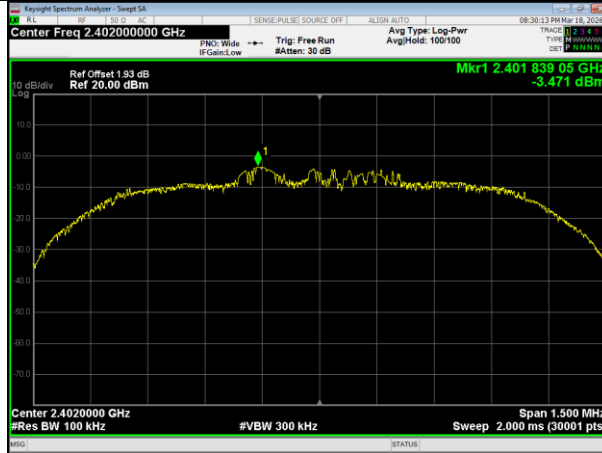
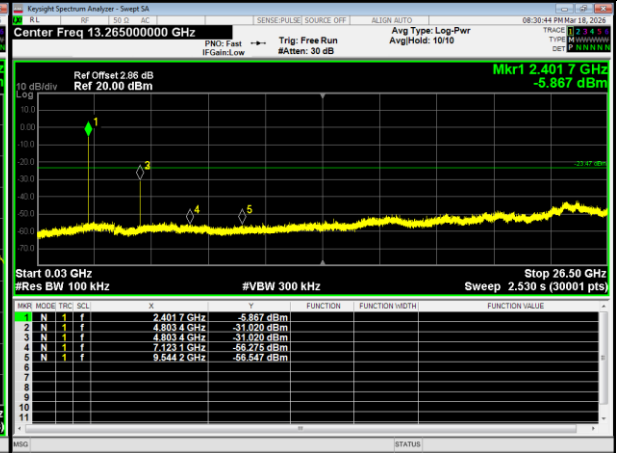


$\pi/4$ -DQPSK mode

Test channel:

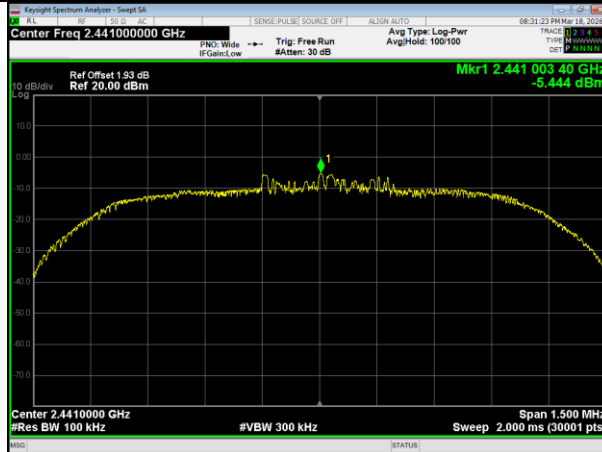


Lowest channel

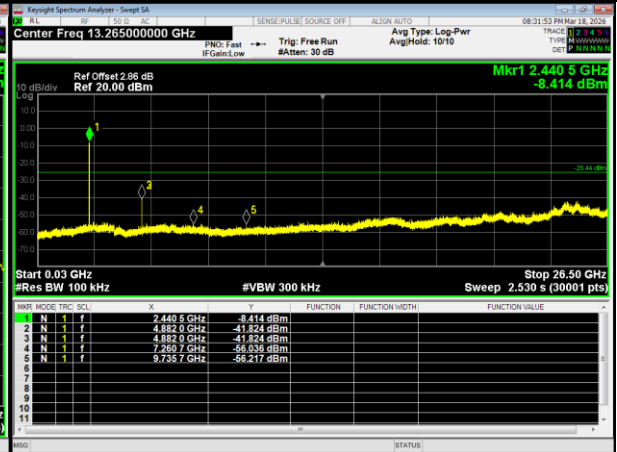


30MHz~25GHz

Test channel:

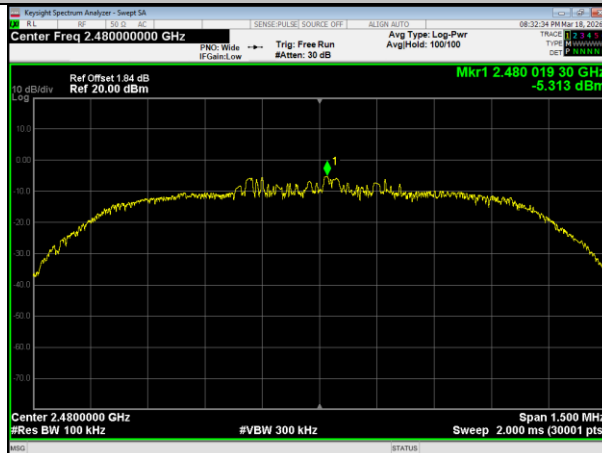


Middle channel

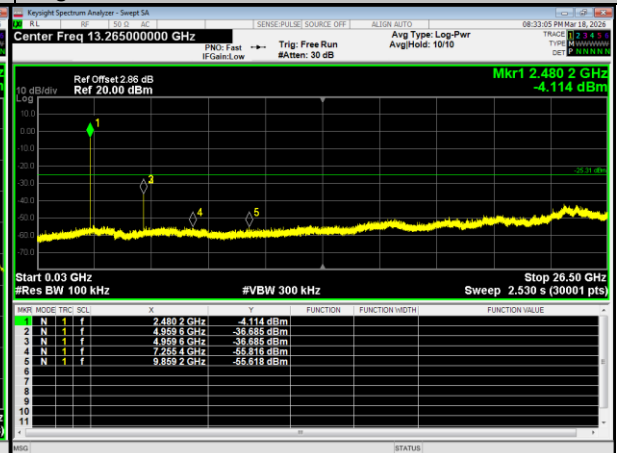


30MHz~25GHz

Test channel:



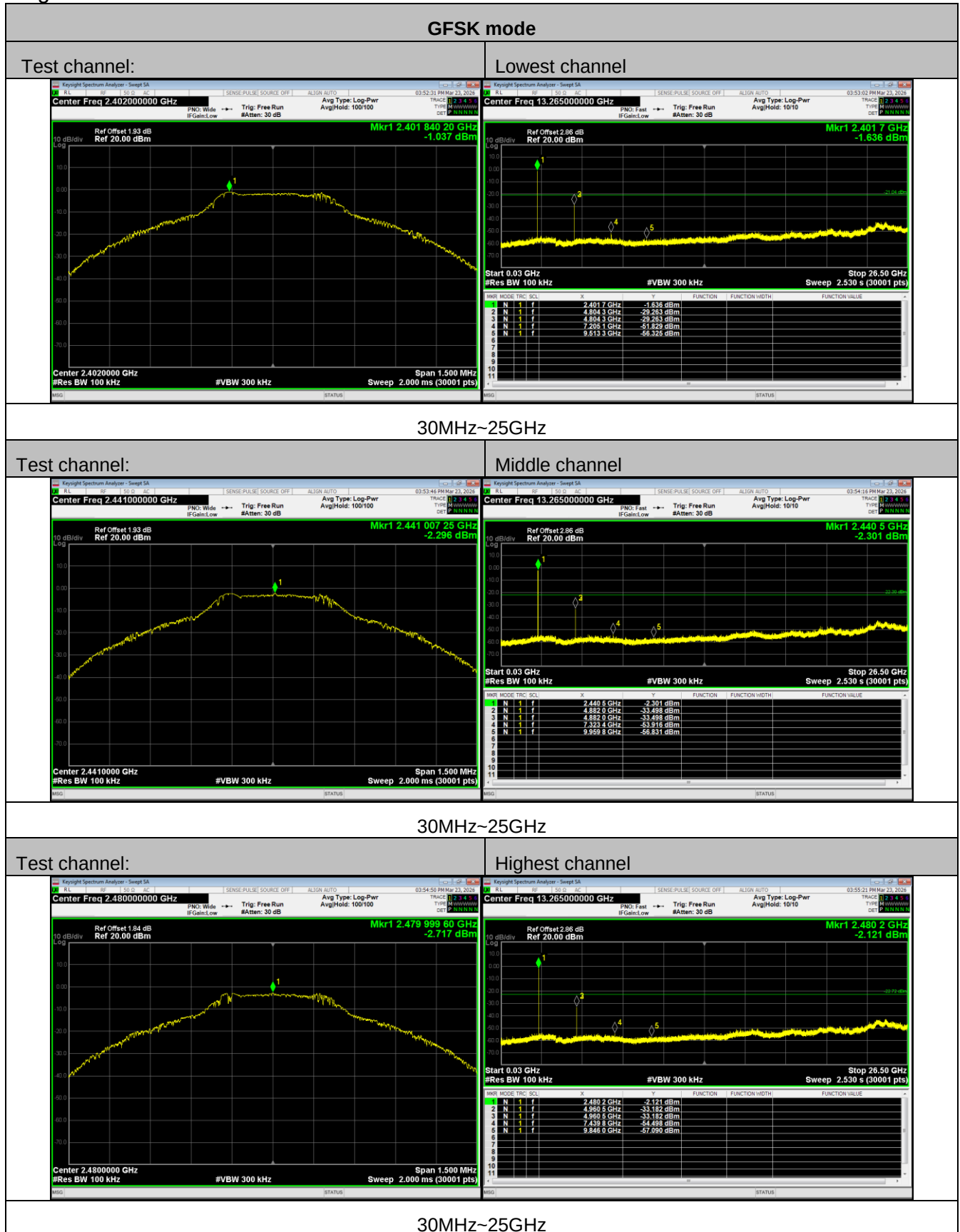
Highest channel

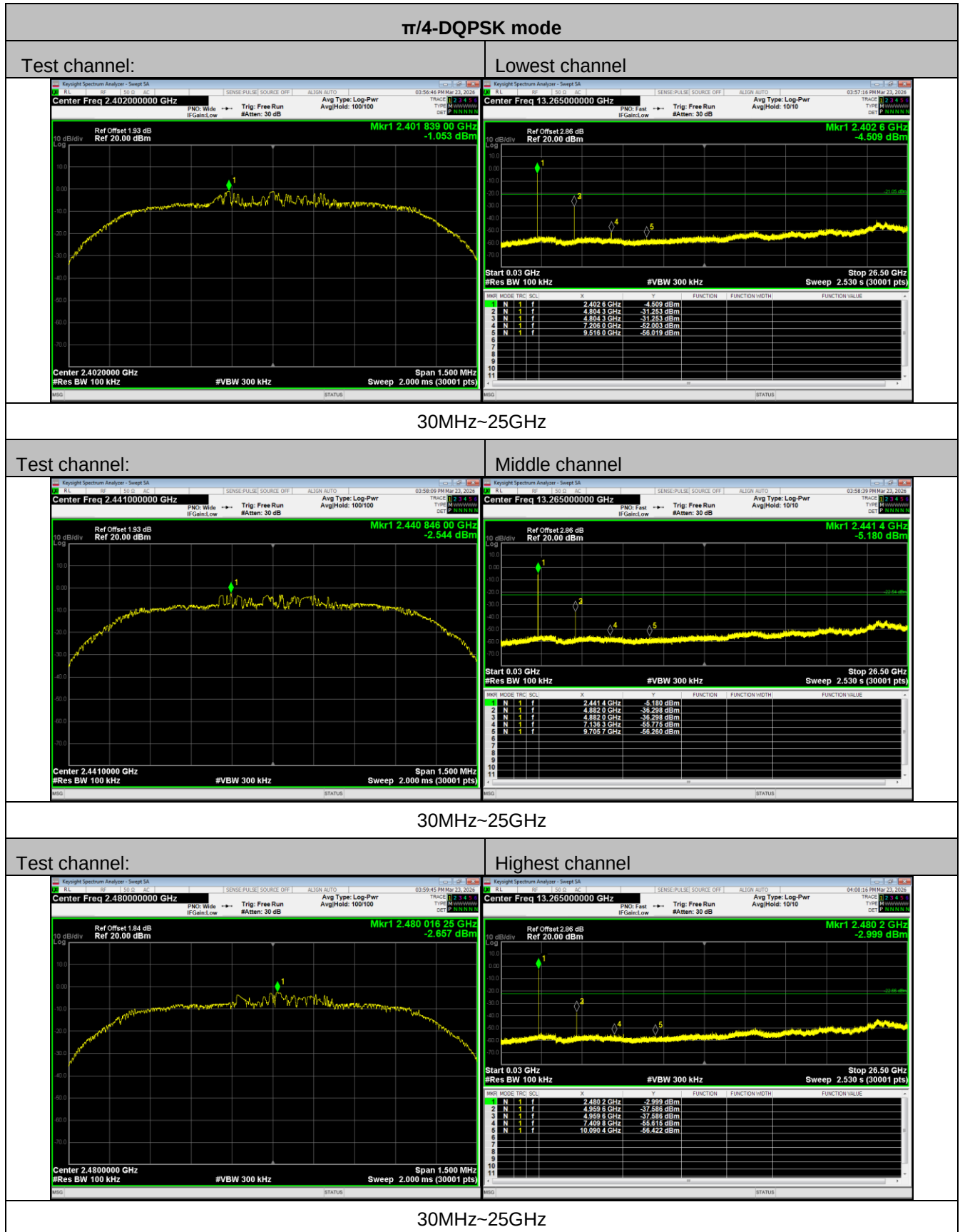


30MHz~25GHz

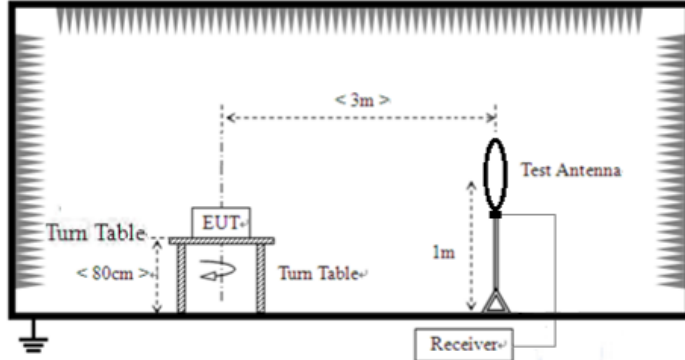


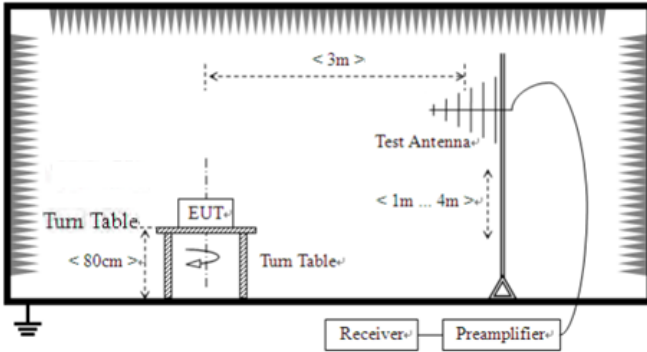
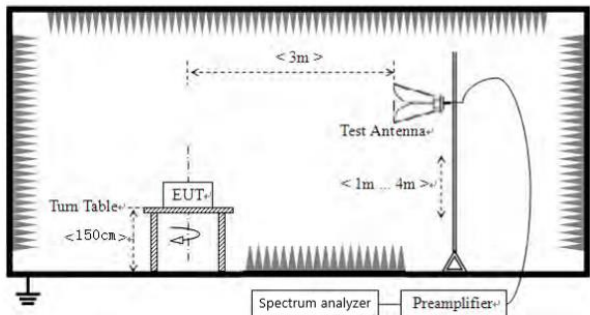
Right ear





4.9.2 Radiated Emission Method

Test Requirement:	47CRF Part 15.247 (d), 47CRF Part 15.209 and 15.205				
Test Method:	ANSI C63.10:2020 § 6.4&6.5&6.6				
Test Frequency Range:	9kHz to 25GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average
Limit:	Frequency	Limit (uV/m)	Value	Measurement Distance	
	0.009MHz-0.490MHz	6.37/F(KHz)	QP	300m	
	0.490MHz-1.705MHz	63.7/F(KHz)	QP	30m	
	1.705MHz-30MHz	0.08	QP	30m	
	30MHz-88MHz	100	QP	3m	
	88MHz-216MHz	150	QP		
	216MHz-960MHz	200	QP		
	960MHz-1GHz	500	QP		
	Above 1GHz	500	Average		
		5000	Peak		
Test setup:	For radiated emissions from 9kHz to 30MHz				
					

	For radiated emissions from 30MHz to1GHz  For radiated emissions above 1GHz 					
Test Procedure:	1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) 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.:	21.6 °C	Humid.:	58%	Press.:	1012mbar
Test voltage:	DC 3.7V					
Test results:	Pass					



Measurement data:

Remarks:

1. *The report only shows the worst mode.*
2. *Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.*

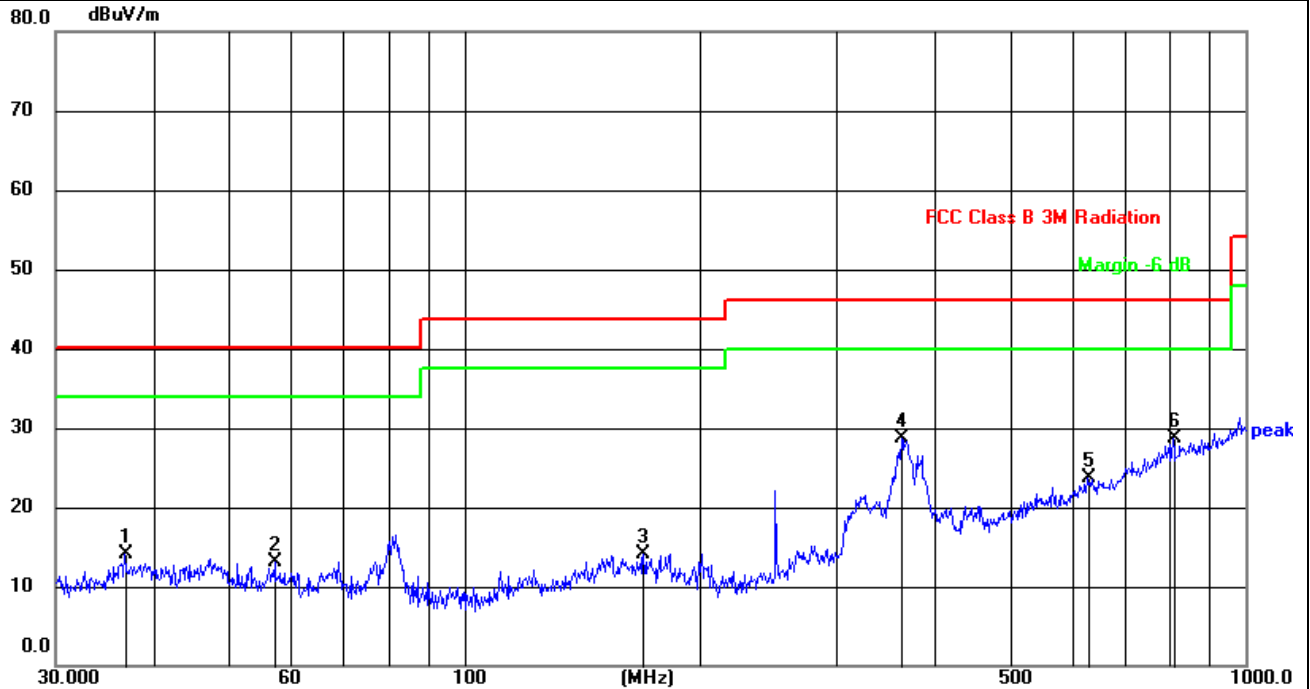
■ **9kHz~30MHz**

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per RSS-Gen 6.13.2 was not reported.

■ Below 1GHz

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 (2402MHz). Therefore, only the Gaussian frequency shift keying (2402 MHz) test result is displayed

Horizontal:

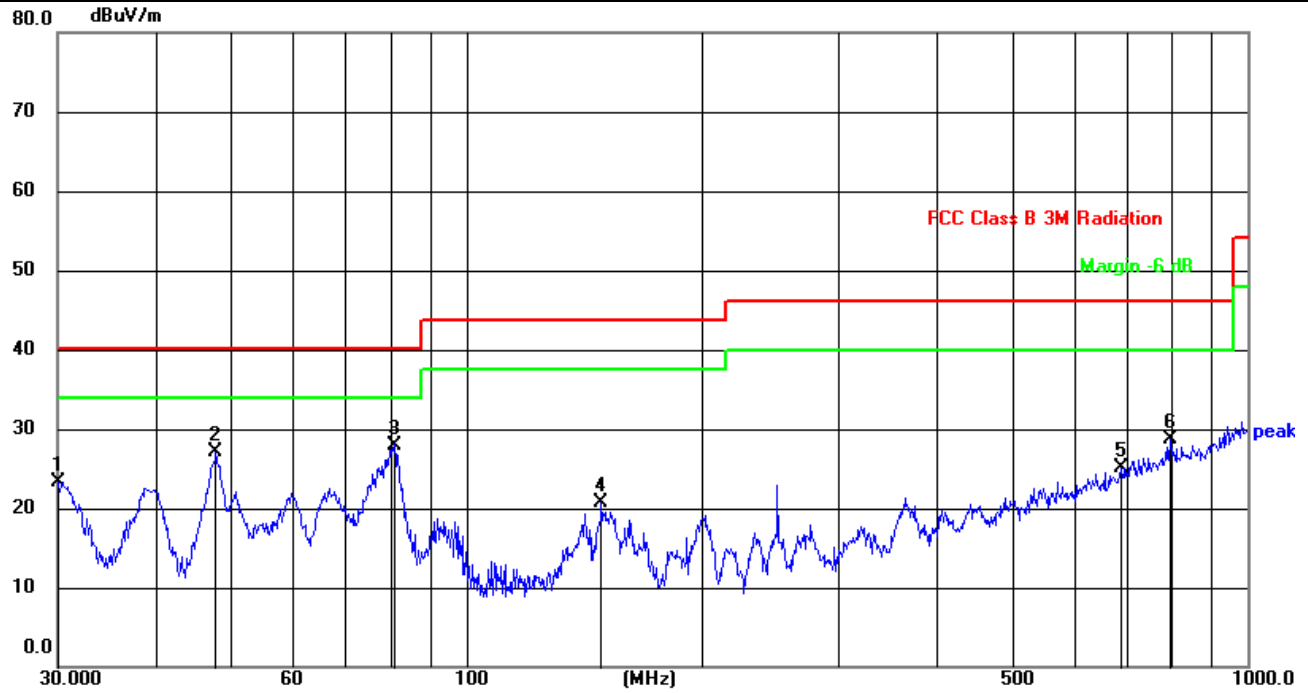


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.7662	35.62	-21.44	14.18	40.00	-25.82	QP
2	57.1914	35.43	-22.34	13.09	40.00	-26.91	QP
3	169.5990	34.97	-20.93	14.04	43.50	-29.46	QP
4	362.9844	47.55	-18.76	28.79	46.00	-17.21	QP
5	627.2738	34.36	-10.64	23.72	46.00	-22.28	QP
6	807.4291	35.21	-6.47	28.74	46.00	-17.26	QP

Factor= Antenna Factor + Cable Loss – Preamplifier Factor

Level = Reading + Factor, Margin=level-Limit

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.1053	46.12	-22.75	23.37	40.00	-16.63	QP
2	47.8260	48.57	-21.54	27.03	40.00	-12.97	QP
3	80.9274	54.02	-26.02	28.00	40.00	-12.00	QP
4	148.9624	41.34	-20.61	20.73	43.50	-22.77	QP
5	689.5644	34.55	-9.49	25.06	46.00	-20.94	QP
6	796.1829	35.30	-6.63	28.67	46.00	-17.33	QP

Level = Reading + Factor, Margin=level-Limit

Factor= Antenna Factor + Cable Loss – Preamplifier Factor



■ Above 1GHz

Test channel:	Lowest
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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
4804.00	56.25	-7.69	48.56	74.00	-25.44	Vertical
7206.00	52.51	-1.70	50.81	74.00	-23.19	Vertical
9608.00	53.90	1.31	55.21	74.00	-18.79	Vertical
12010.00	*	--	--	74.00	--	Vertical
14412.00	*	--	--	74.00	--	Vertical
4804.00	55.42	-7.69	47.73	74.00	-26.27	Horizontal
7206.00	52.79	-1.70	51.09	74.00	-22.91	Horizontal
9608.00	52.80	1.31	54.11	74.00	-19.89	Horizontal
12010.00	*	--	--	74.00	--	Horizontal
14412.00	*	--	--	74.00	--	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4804.00	44.93	-7.69	37.24	54.00	-16.76	Vertical
7206.00	40.29	-1.70	38.59	54.00	-15.41	Vertical
9608.00	39.50	1.31	40.81	54.00	-13.19	Vertical
12010.00	*	--	--	54.00	--	Vertical
14412.00	*	--	--	54.00	--	Vertical
4804.00	44.98	-7.69	37.29	54.00	-16.71	Horizontal
7206.00	39.98	-1.70	38.28	54.00	-15.72	Horizontal
9608.00	38.62	1.31	39.93	54.00	-14.07	Horizontal
12010.00	*	--	--	54.00	--	Horizontal
14412.00	*	--	--	54.00	--	Horizontal



Test channel:	Middle
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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
4882.00	57.63	-7.56	50.07	74.00	-23.93	Vertical
7323.00	50.95	-1.38	49.57	74.00	-24.43	Vertical
9764.00	52.25	1.19	53.44	74.00	-20.56	Vertical
12205.00	*	--	--	74.00	--	Vertical
14646.00	*	--	--	74.00	--	Vertical
4882.00	56.98	-7.56	49.42	74.00	-24.58	Horizontal
7323.00	51.75	-1.38	50.37	74.00	-23.63	Horizontal
9764.00	53.24	1.19	54.43	74.00	-19.57	Horizontal
12205.00	*	--	--	74.00	--	Horizontal
14646.00	*	--	--	74.00	--	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4882.00	47.69	-7.56	40.13	54.00	-13.88	Vertical
7323.00	41.69	-1.38	40.31	54.00	-13.69	Vertical
9764.00	41.32	1.19	42.51	54.00	-11.49	Vertical
12205.00	*	--	--	54.00	--	Vertical
14646.00	*	--	--	54.00	--	Vertical
4882.00	47.59	-7.56	40.03	54.00	-13.97	Horizontal
7323.00	42.64	-1.38	41.26	54.00	-12.74	Horizontal
9764.00	42.01	1.19	43.20	54.00	-10.80	Horizontal
12205.00	*	--	--	54.00	--	Horizontal
14646.00	*	--	--	54.00	--	Horizontal

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
4960.00	53.07	-7.43	45.64	74.00	-28.36	Vertical
7440.00	49.74	-1.02	48.72	74.00	-25.28	Vertical
9920.00	51.97	1.08	53.05	74.00	-20.95	Vertical
12400.00	*	--	--	74.00	--	Vertical
14880.00	*	--	--	74.00	--	Vertical
4960.00	54.40	-7.43	46.97	74.00	-27.03	Horizontal
7440.00	51.53	-1.02	50.51	74.00	-23.49	Horizontal
9920.00	50.39	1.08	51.47	74.00	-22.53	Horizontal
12400.00	*	--	--	74.00	--	Horizontal
14880.00	*	--	--	74.00	--	Horizontal

Average value:

Frequency (MHz)	Read Level (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit Line (dBUV/m)	Over Limit (dB)	Polarization
4960.00	44.37	-7.43	36.94	54.00	-17.06	Vertical
7440.00	40.90	-1.02	39.88	54.00	-14.12	Vertical
9920.00	40.03	1.08	41.11	54.00	-12.89	Vertical
12400.00	*	--	--	54.00	--	Vertical
14880.00	*	--	--	54.00	--	Vertical
4960.00	43.28	-7.43	35.85	54.00	-18.15	Horizontal
7440.00	40.30	-1.02	39.28	54.00	-14.72	Horizontal
9920.00	40.21	1.08	41.29	54.00	-12.71	Horizontal
12400.00	*	--	--	54.00	--	Horizontal
14880.00	*	--	--	54.00	--	Horizontal

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. The test data shows only the worst case GFSK mode

5 Test Setup Photo

Reference to the file No.: ET-26030752SP for details.

6 EUT Constructional Details

Reference to the file No.: ET-26030752EP and ET-26030752IP for details.

-----End-----