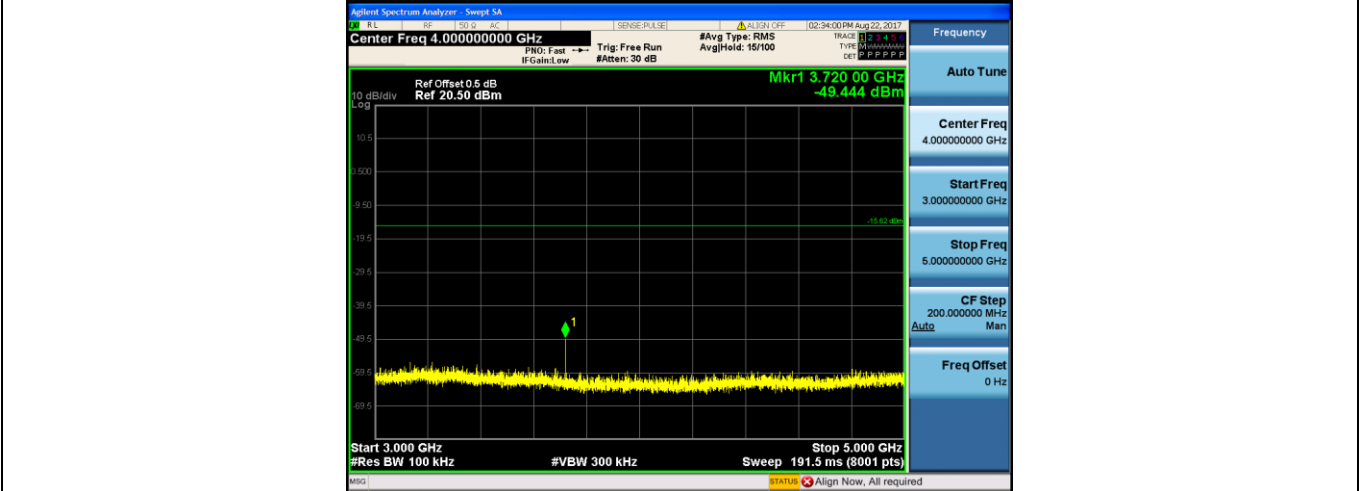
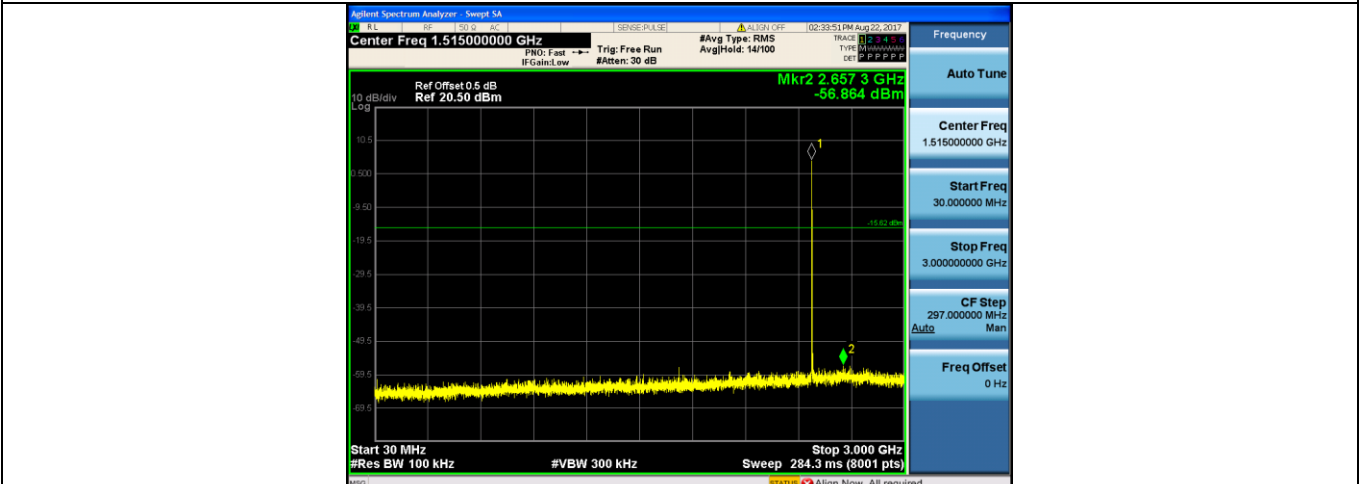
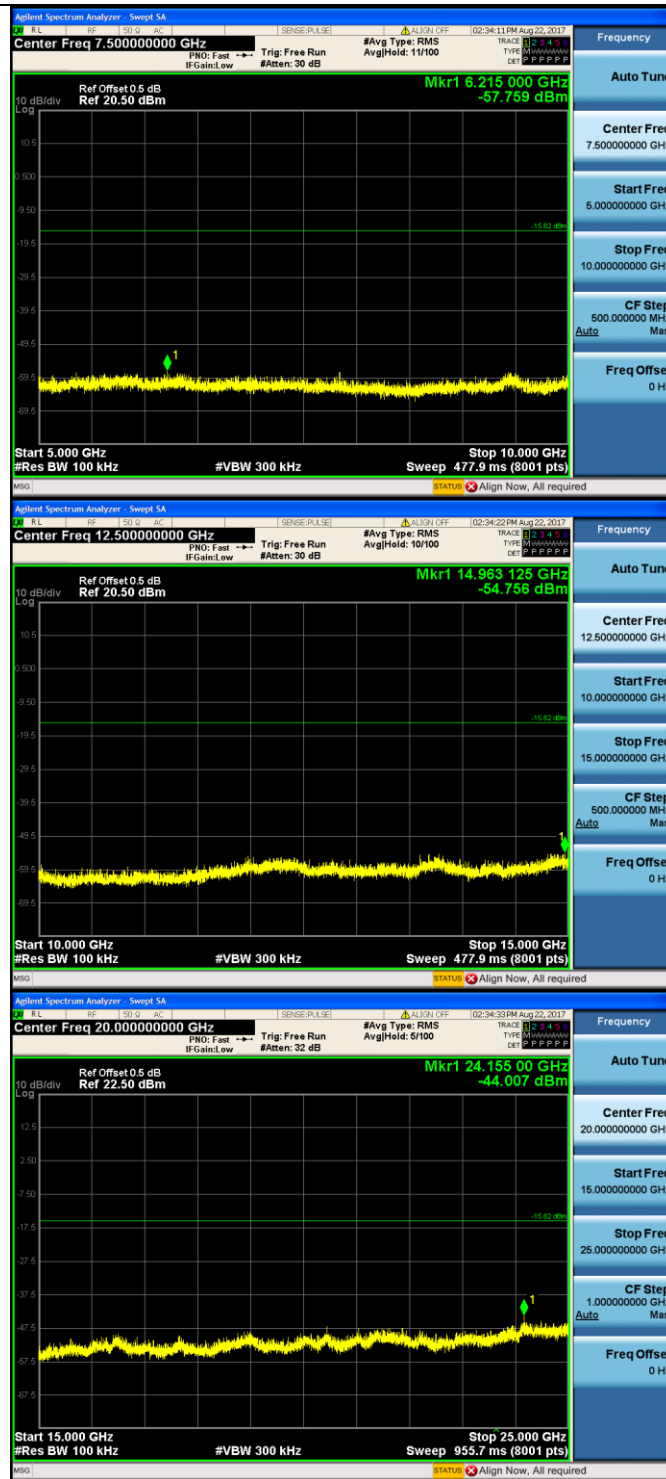
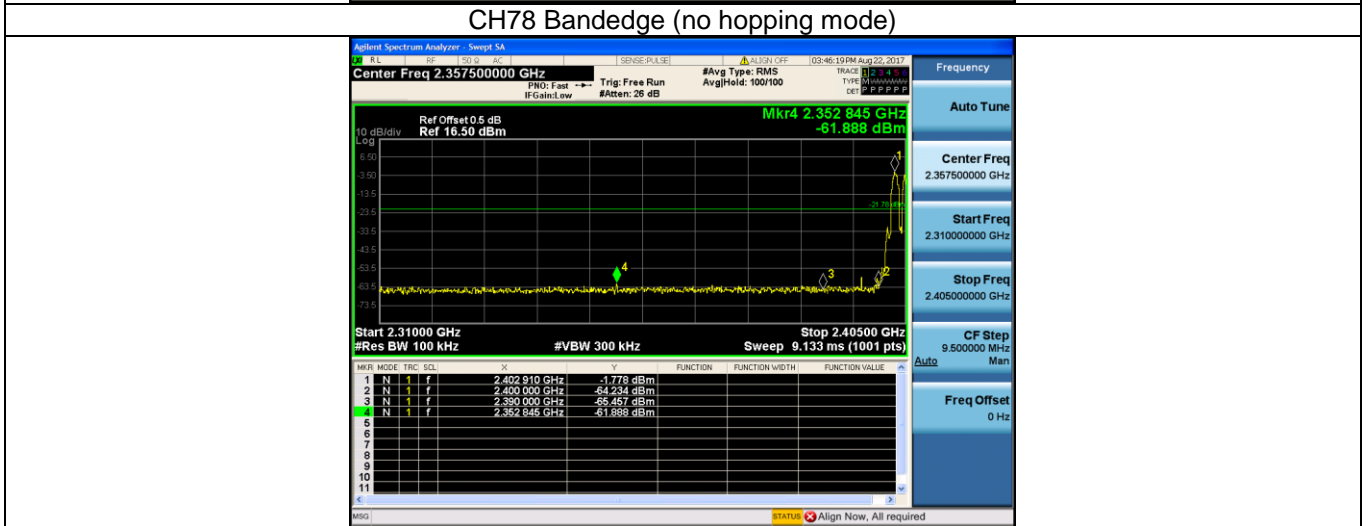
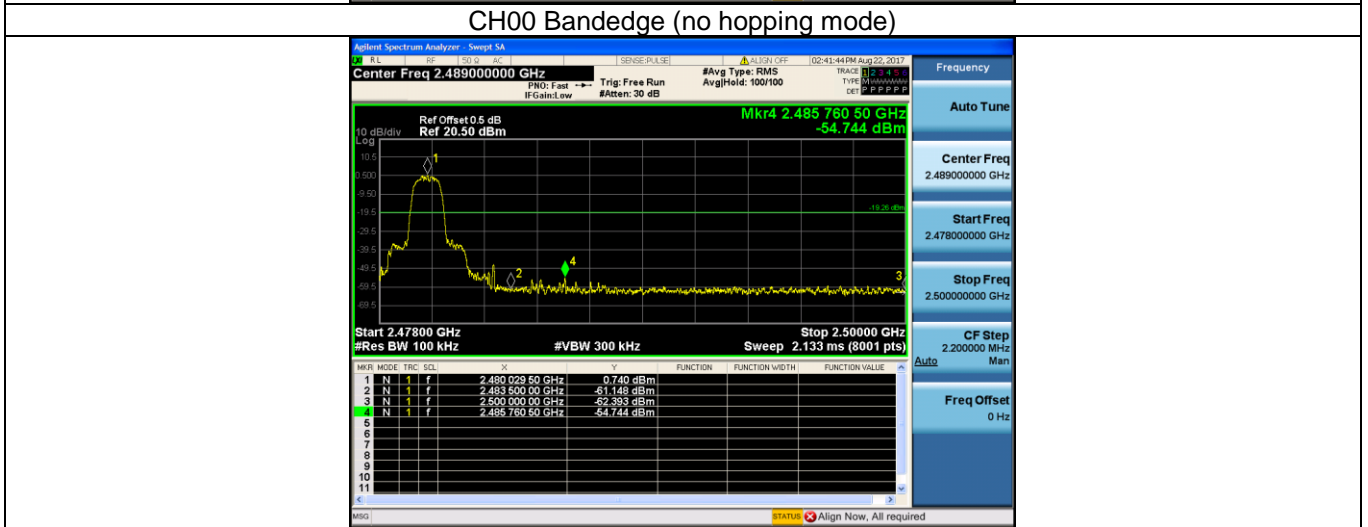
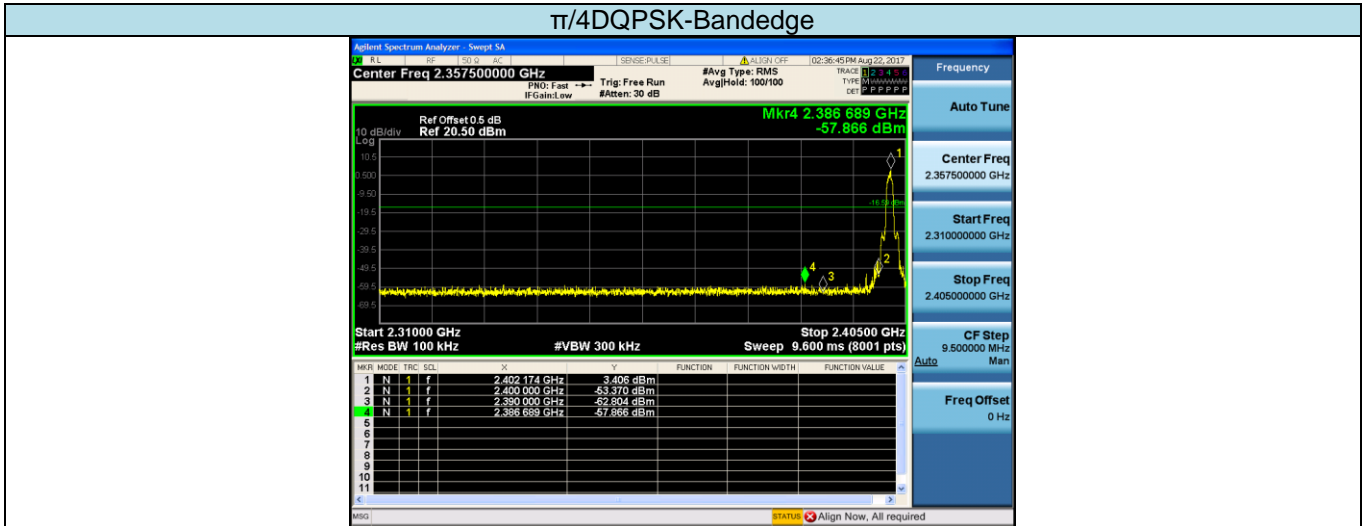


CH39

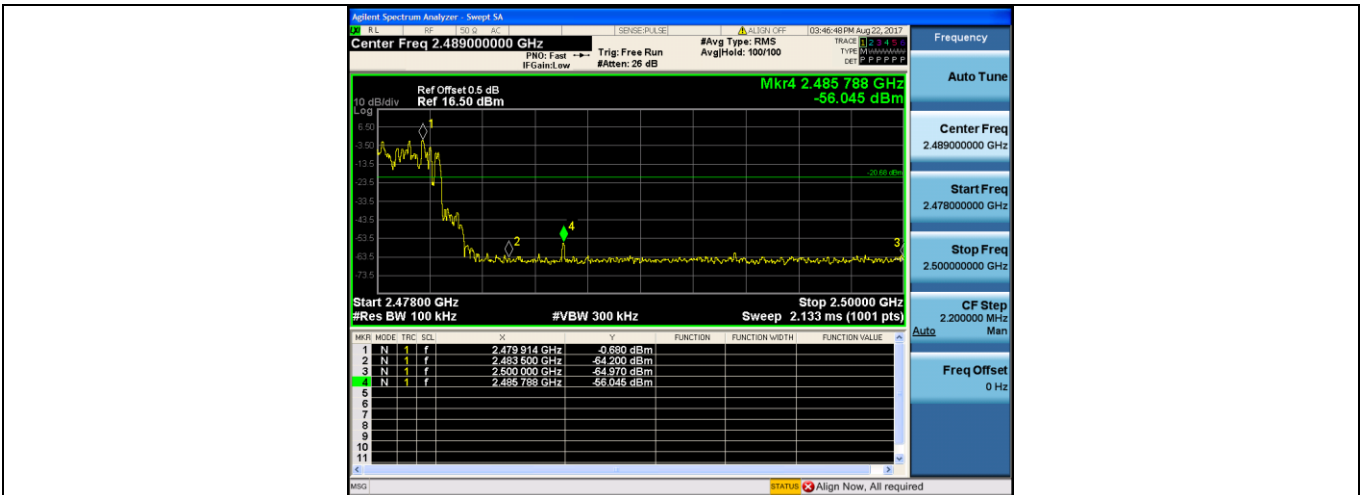




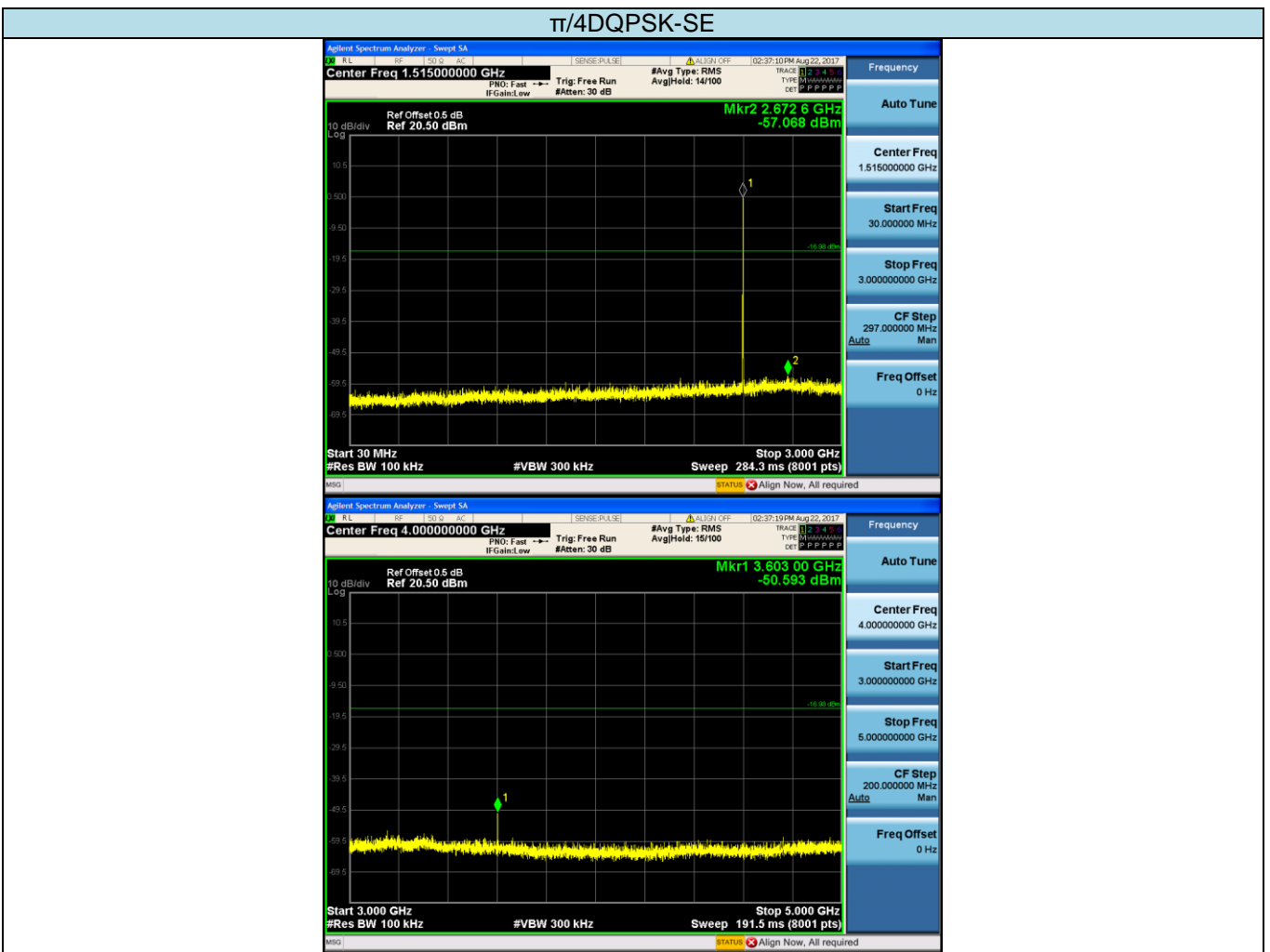
CH78

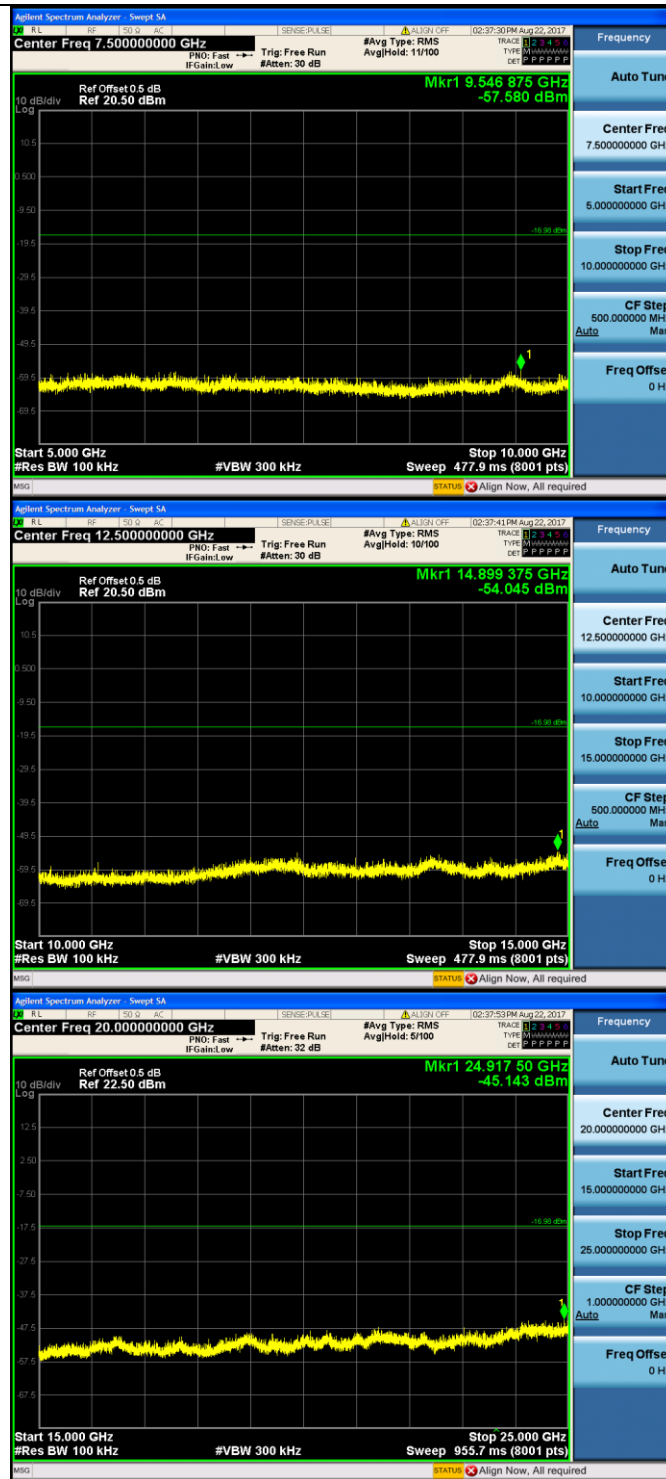


CH00 Bandedge (hopping mode)

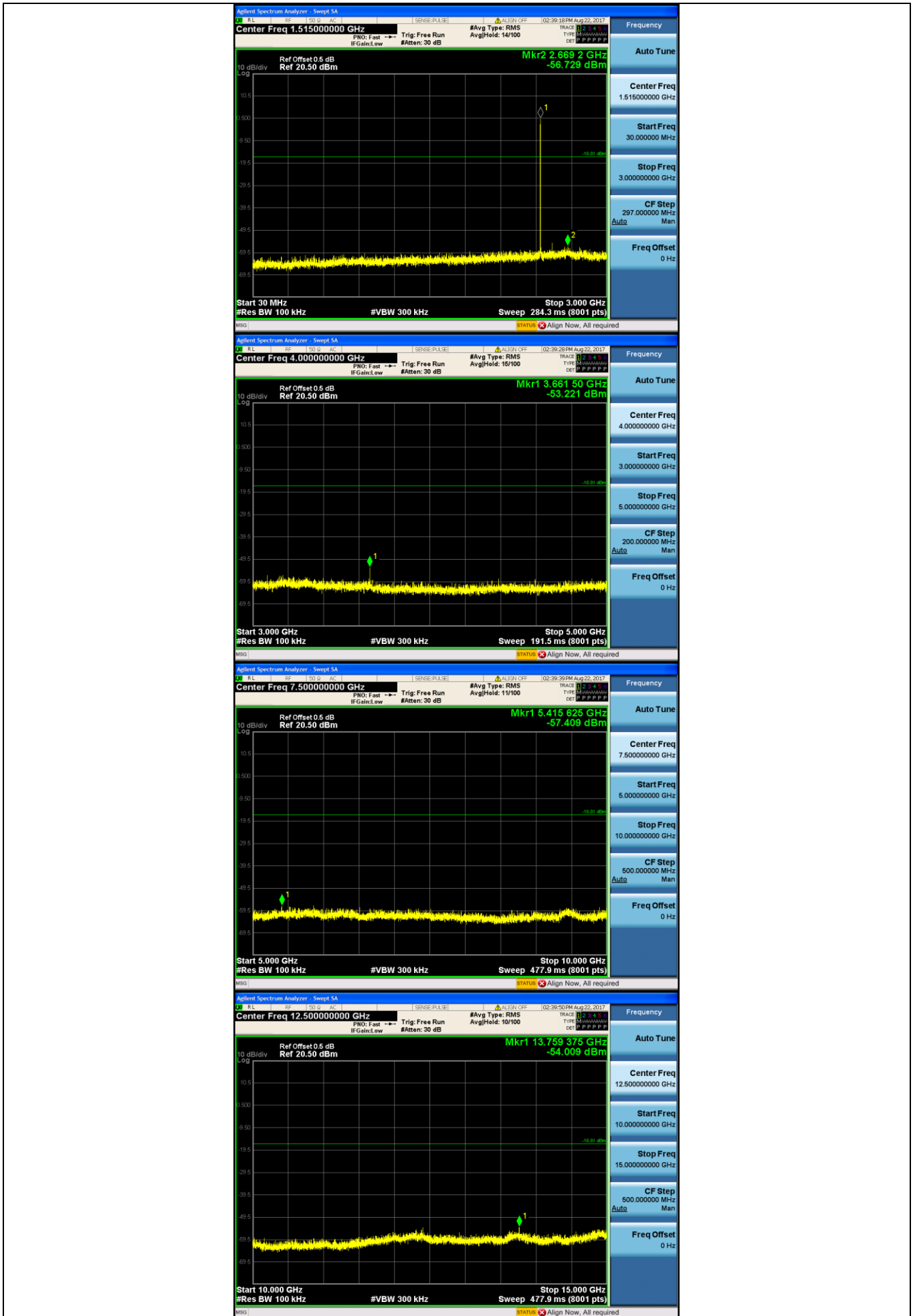


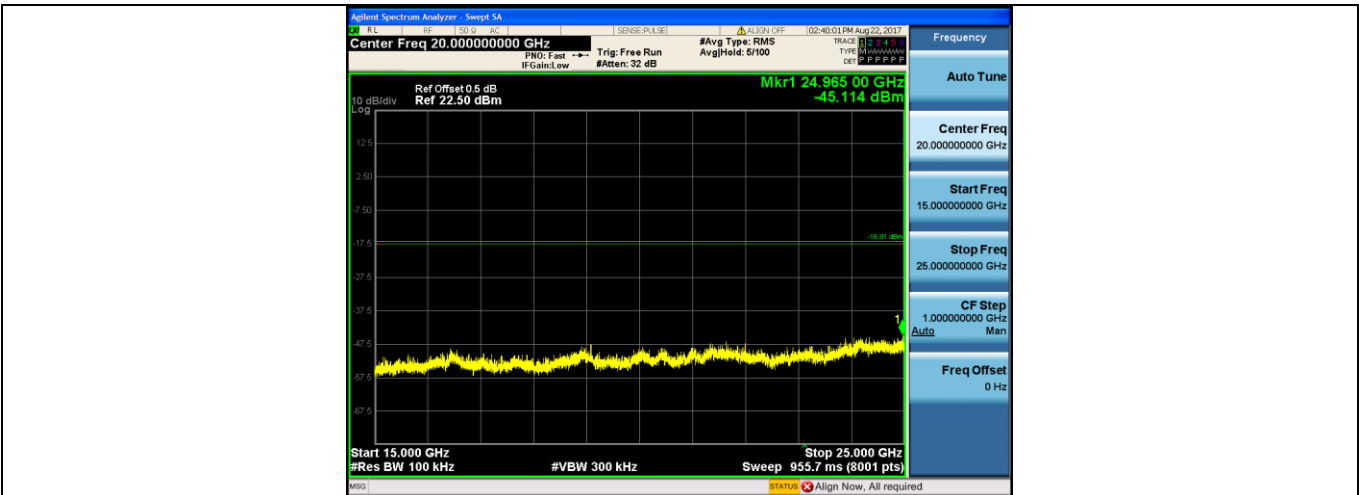
CH78 Bandedge (hopping mode)



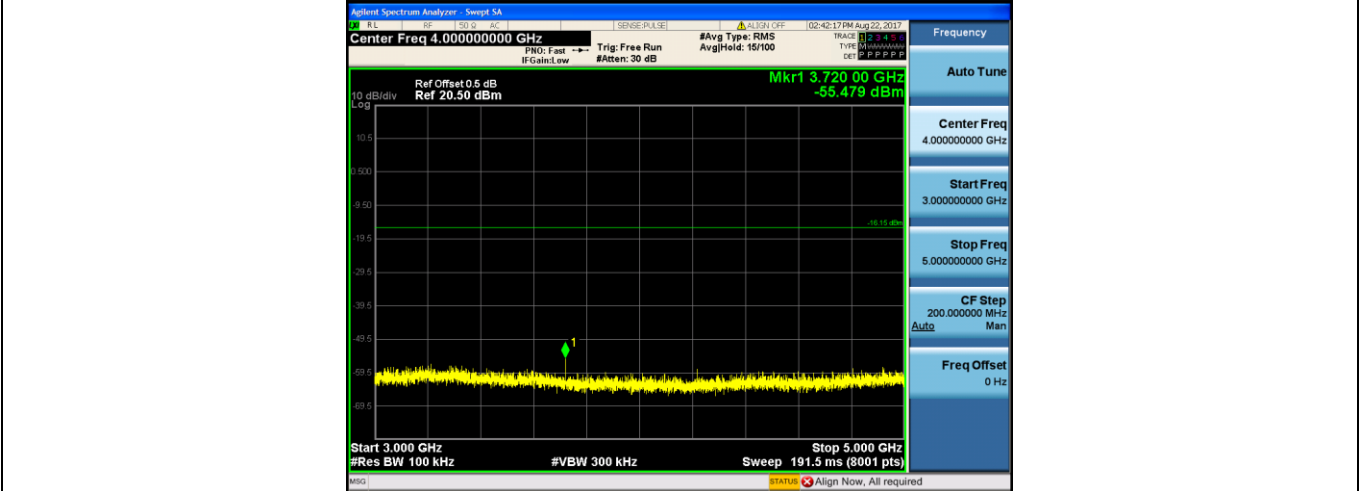
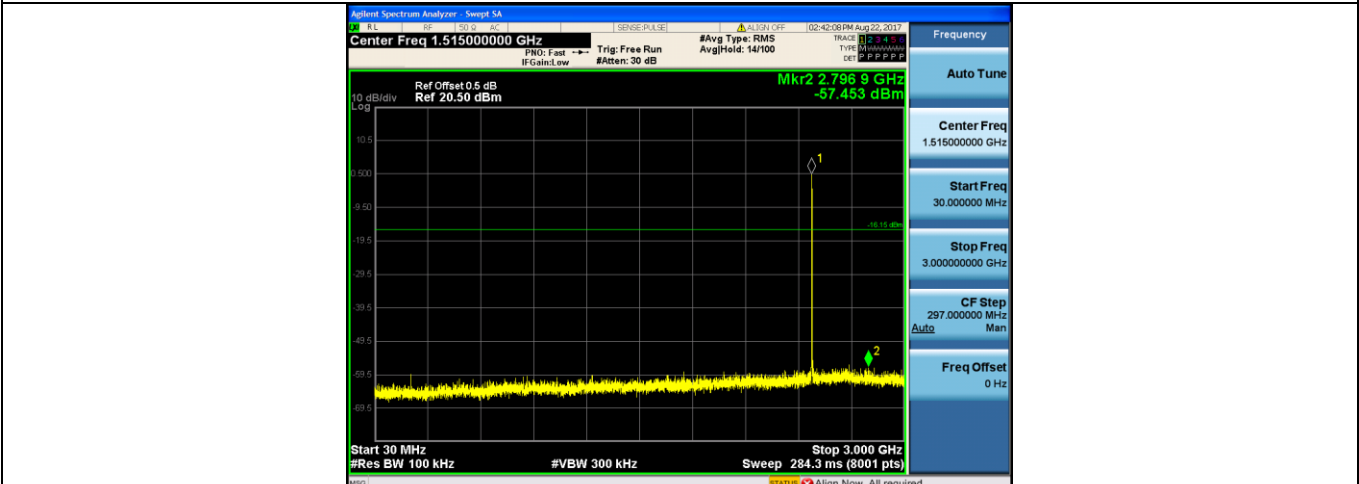


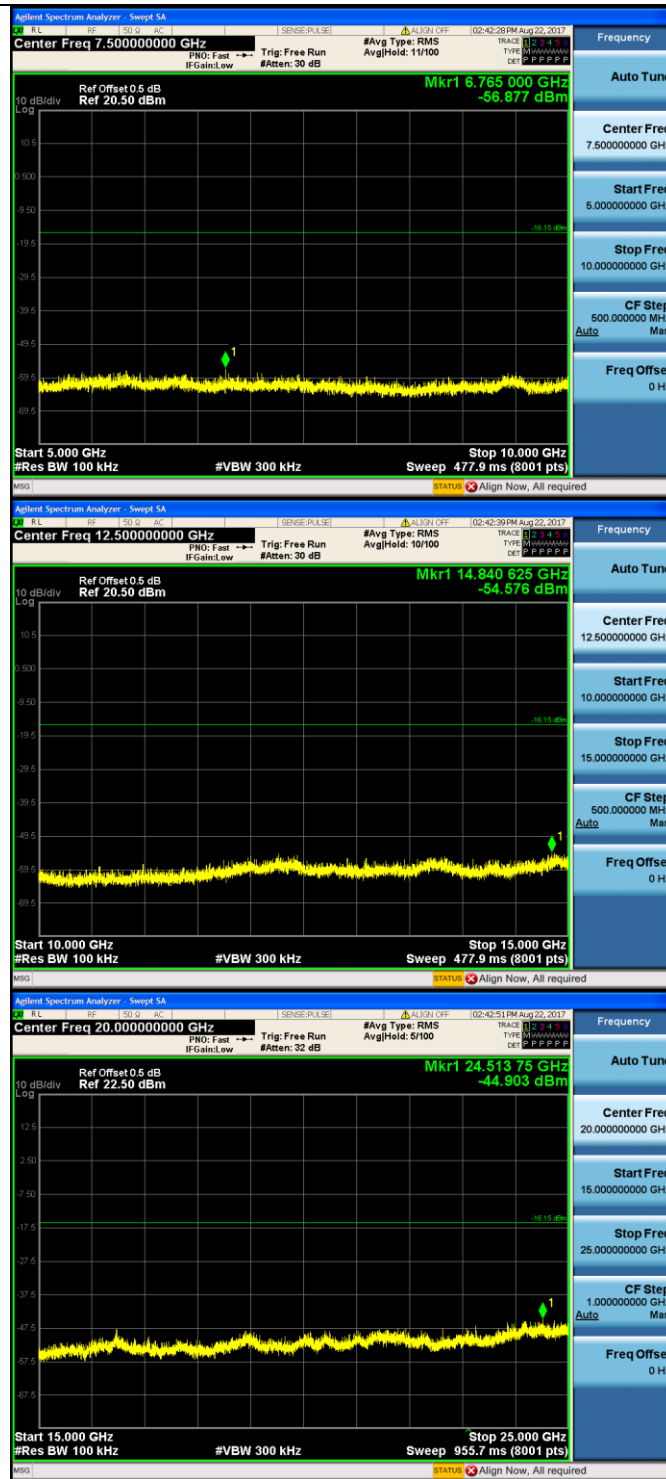
CH00





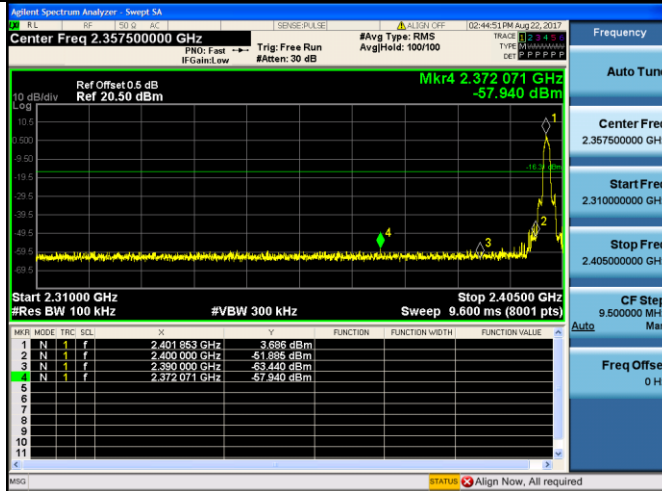
CH39



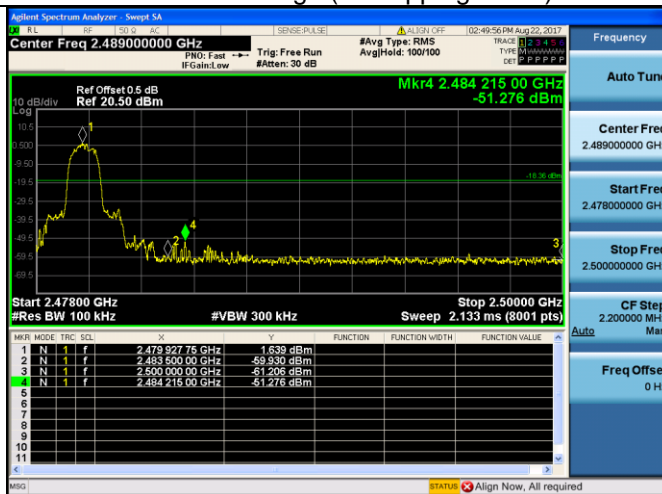


CH78

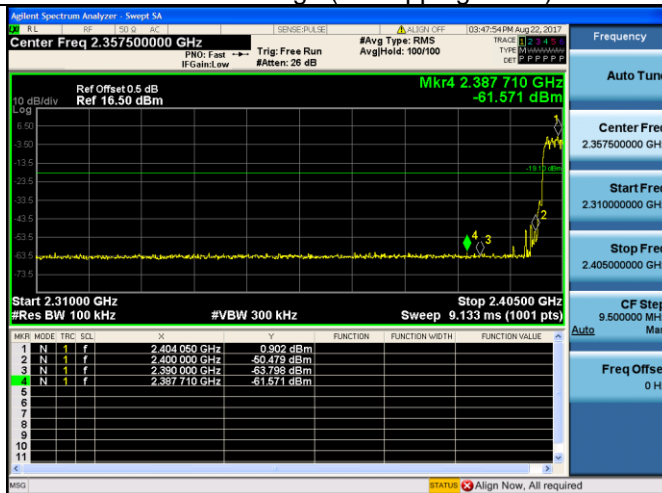
8DPSK-Bandedge



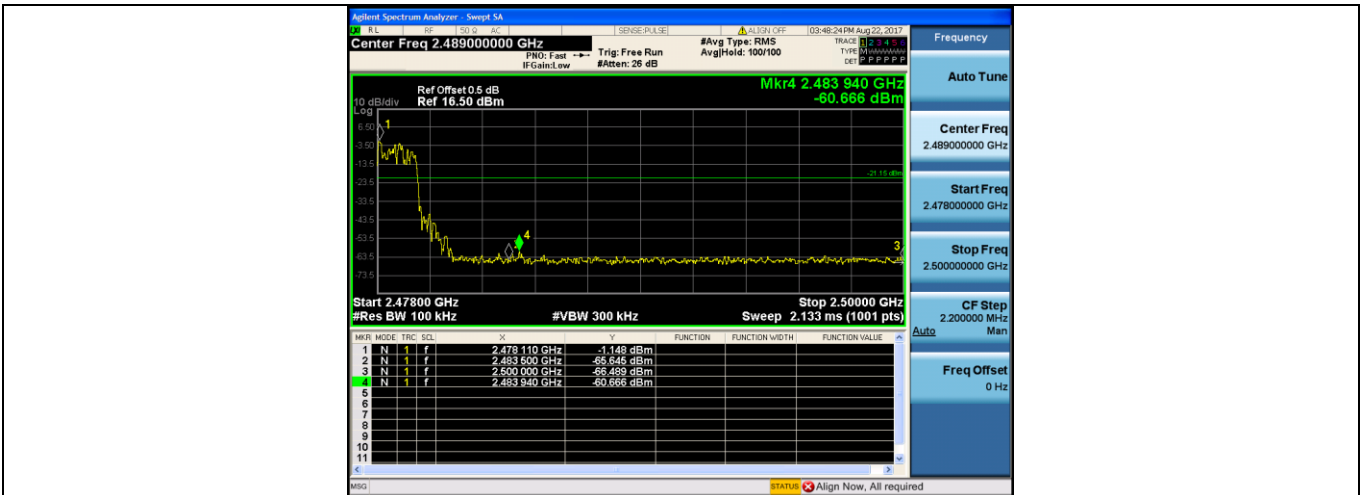
CH00 Bandedge (no hopping mode)



CH78 Bandedge (no hopping mode)

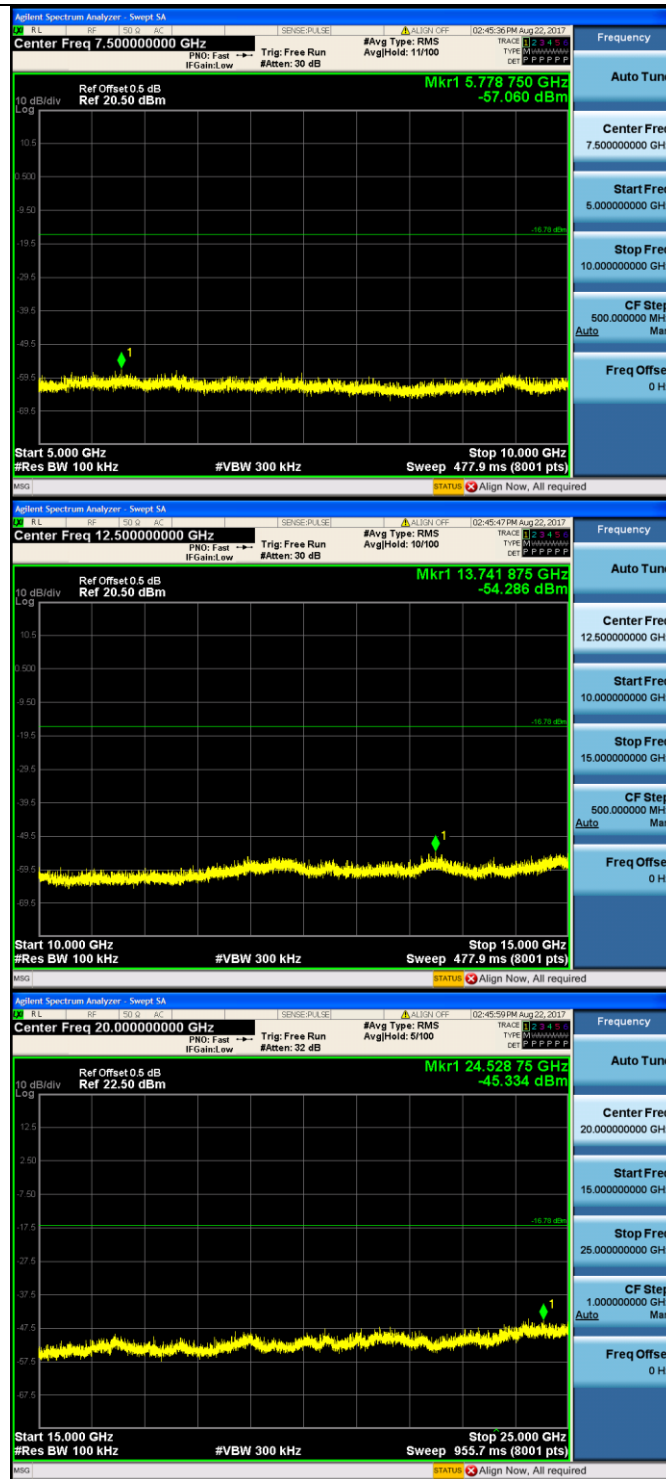


CH00 Bandedge (hopping mode)

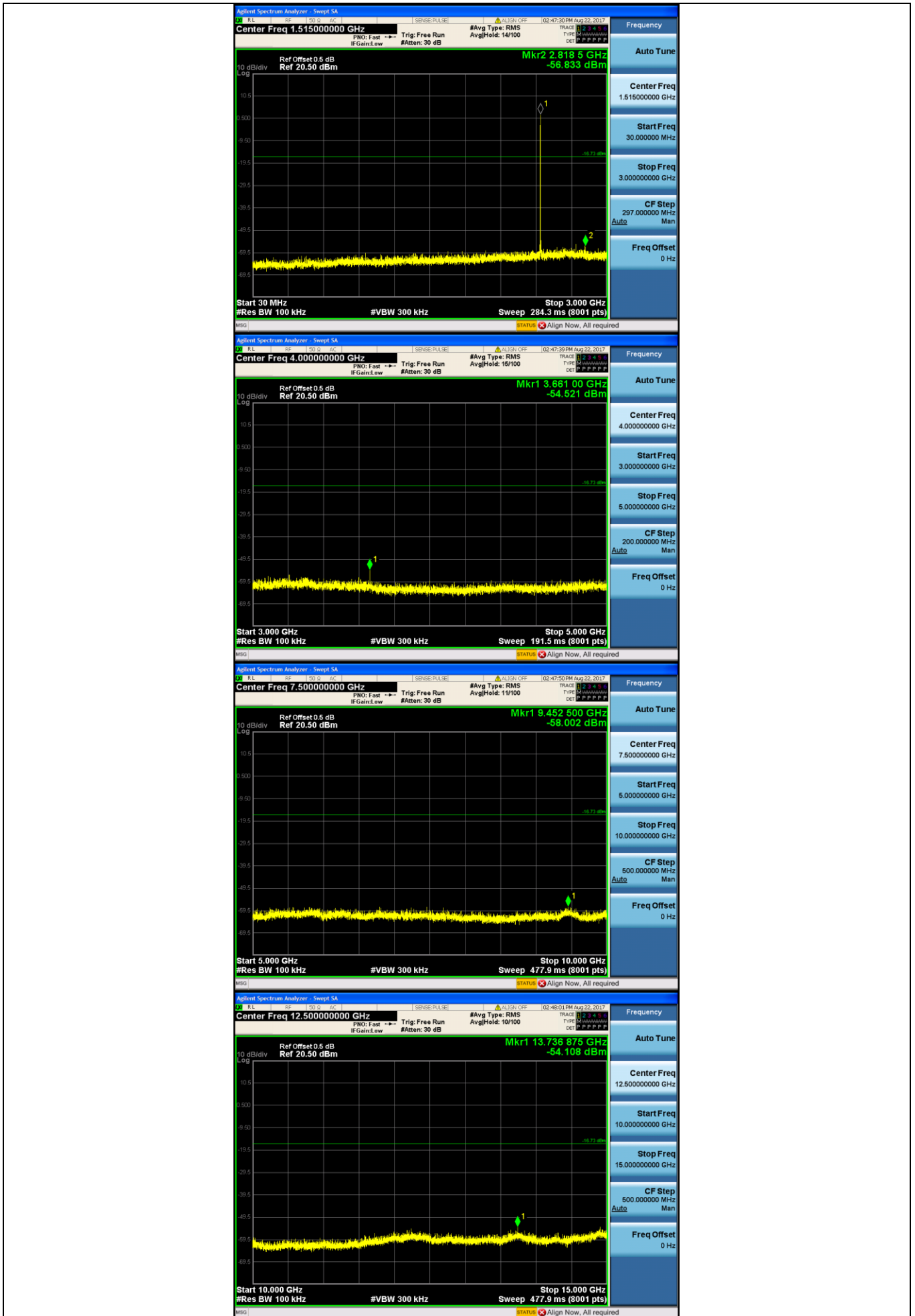


CH78 Bandedge (hopping mode)



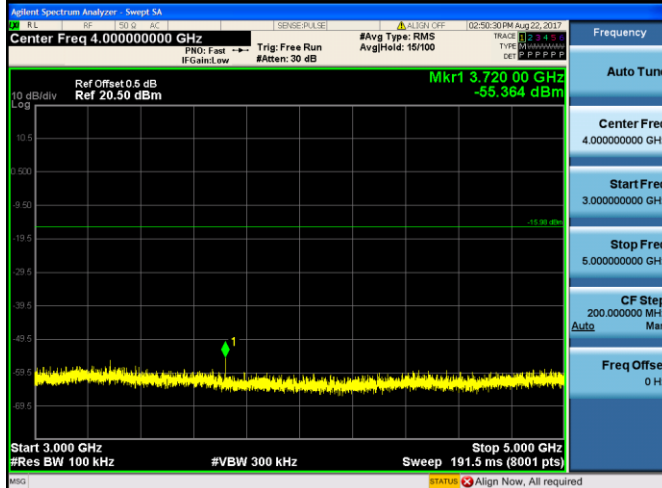
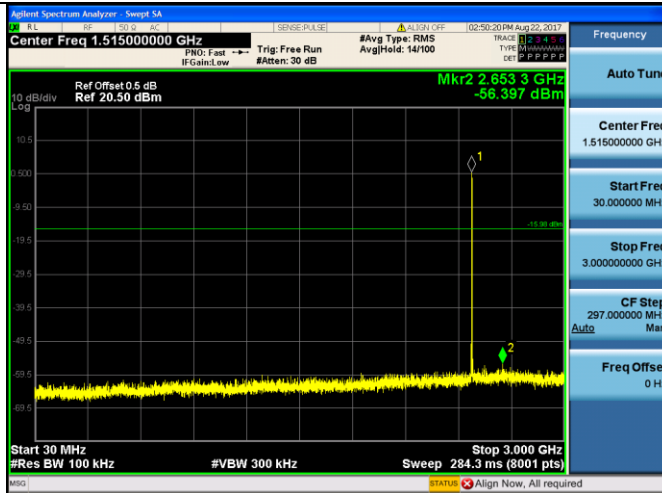


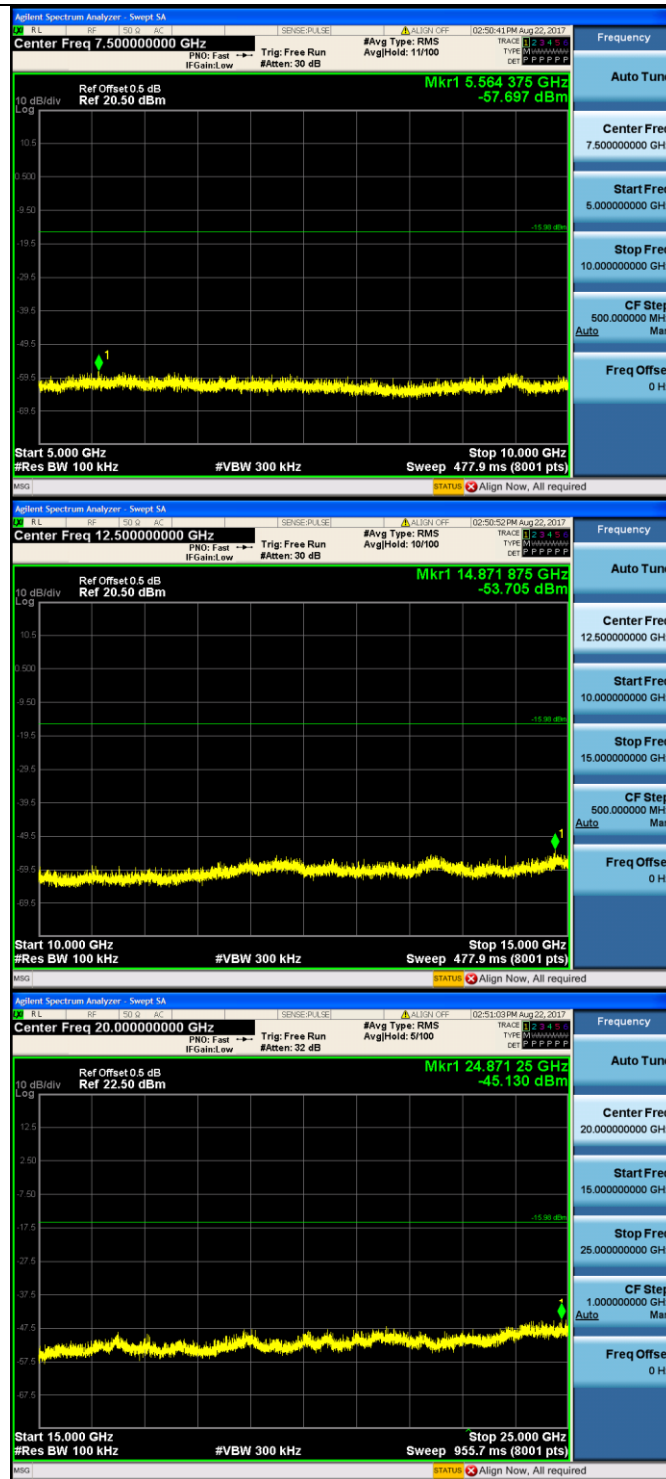
CH00





CH39





CH78

5.11. Spurious Emission (radiated)

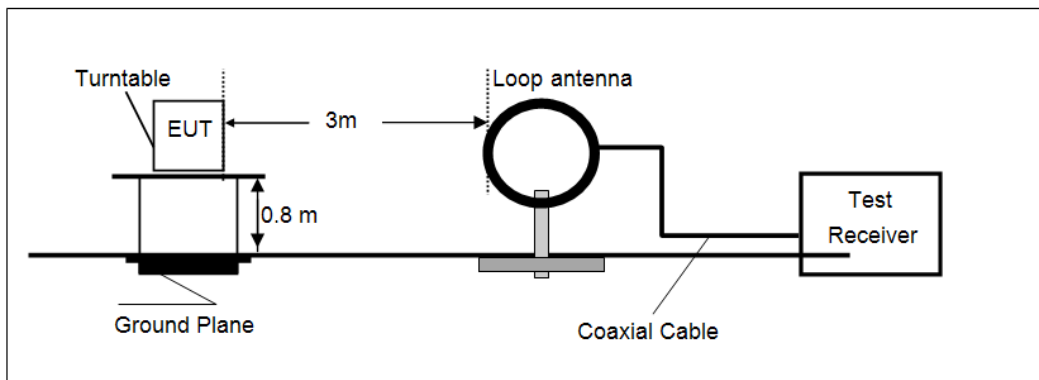
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

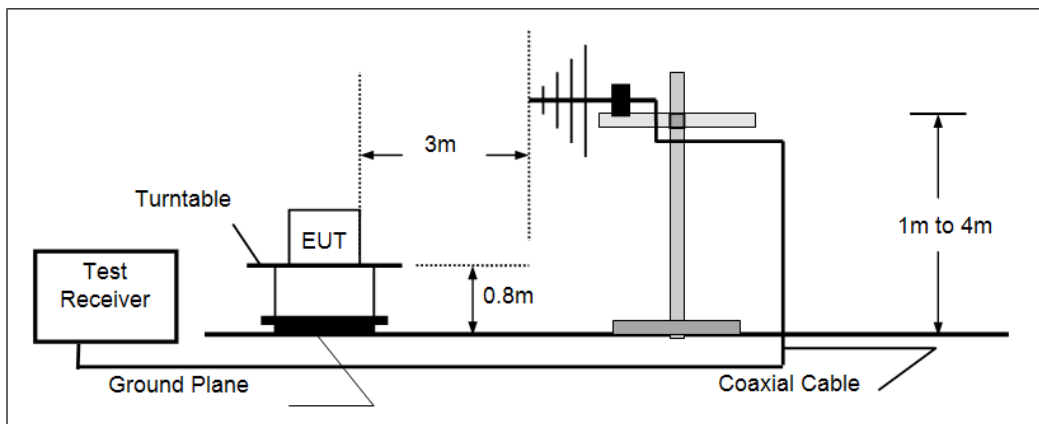
Frequency	Limit (dBuV/m @3m)	Value
30 MHz ~ 88 MHz	40.00	Quasi-peak
88 MHz ~ 216 MHz	43.50	Quasi-peak
216 MHz ~ 960 MHz	46.00	Quasi-peak
960 MHz ~ 1 GHz	54.00	Quasi-peak
Above 1 GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

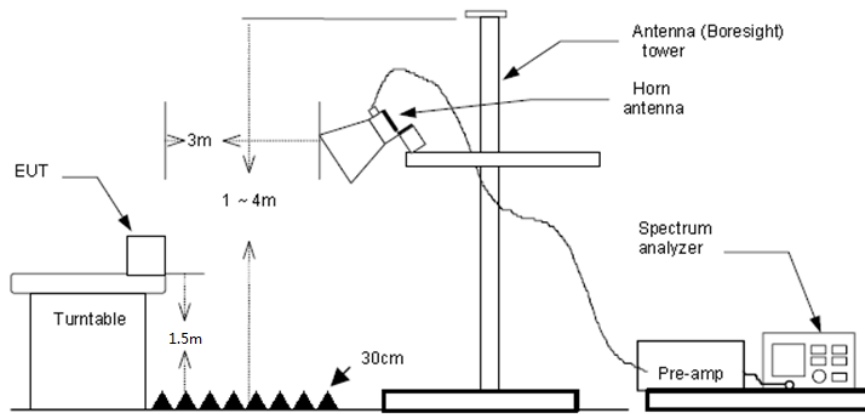
- Below 30 MHz



- 30 MHz ~1000 MHz



- Above 1 GHz



TEST PROCEDURE

1. The EUT was tested according to ANSI C63.10:2013 for compliance to FCC 47CFR 15.247 requirements.
2. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned 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.
5. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) 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.
 - (3) Above 1 GHz, RBW=1 MHz, VBW=3 MHz for Peak value
RBW=1 MHz, VBW=10 Hz for Average value.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

Passed **Not Applicable**

Note:

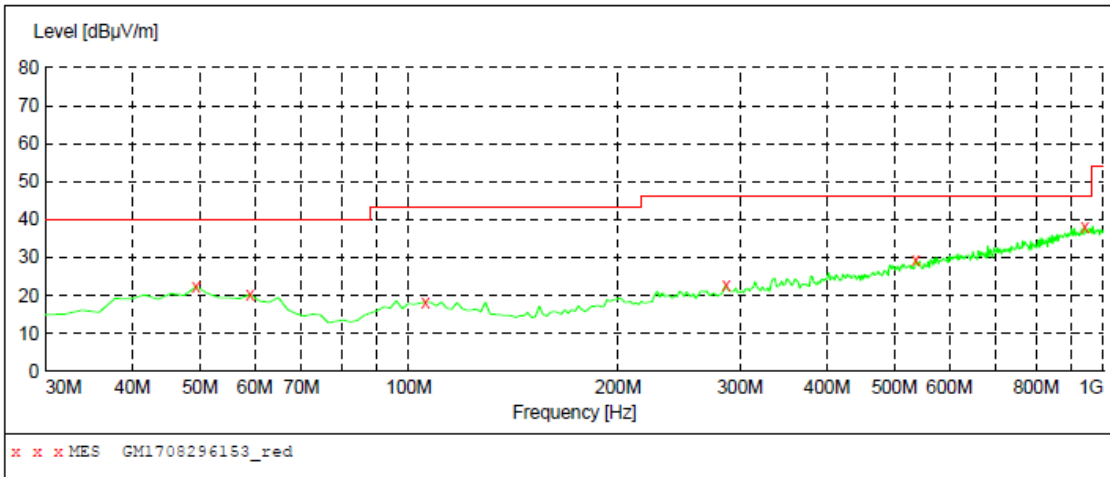
- 1) Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2) The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3) Below 1 GHz, Have pre-scan all modulation mode, found the GFSK modulation High channel which it was worst case, so only the worst case's data on the test report.
- 4) Above 1 GHz, Have pre-scan all modulation mode, found the GFSK modulation which it was worst case, so only the worst case's data on the test report
- 5) The peak level is lower than average limit (54 dBuV/m), this data is the too weak instrument of signal is unable to test.

➤ **9 kHz ~ 30 MHz**

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 15.31(o) was not reported.

➤ 30 MHz ~ 1 GHz

Polarization: Vertical

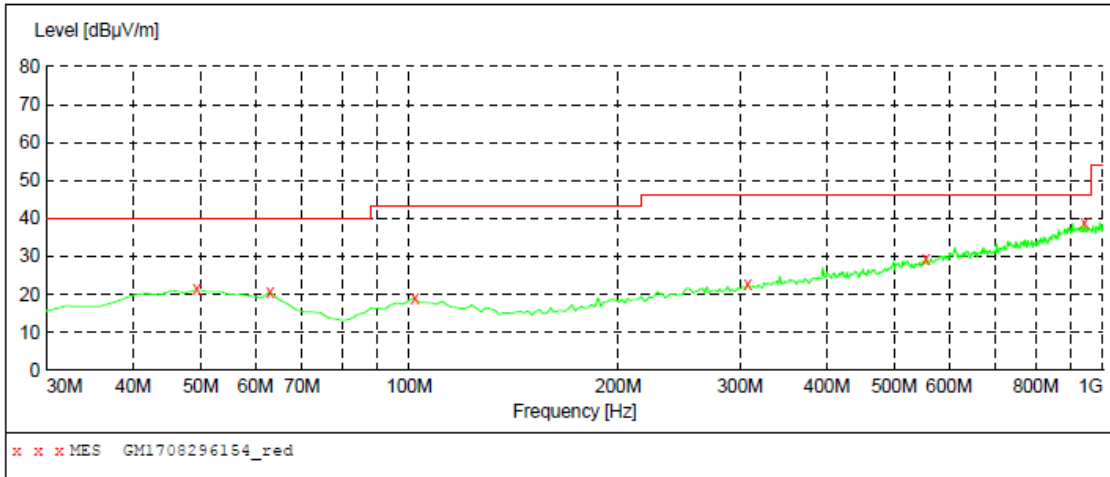


MEASUREMENT RESULT: "GM1708296153_red"

8/29/2017 9:58PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
49.400000	22.30	-8.7	40.0	17.7	QP	100.0	289.00	VERTICAL
59.100000	20.20	-9.8	40.0	19.8	QP	100.0	211.00	VERTICAL
105.660000	18.30	-10.5	43.5	25.2	QP	100.0	0.00	VERTICAL
286.080000	22.60	-7.5	46.0	23.4	QP	100.0	0.00	VERTICAL
536.340000	29.50	-1.0	46.0	16.5	QP	100.0	238.00	VERTICAL
939.860000	38.20	7.2	46.0	7.8	QP	100.0	174.00	VERTICAL

Polarization: Horizontal



MEASUREMENT RESULT: "GM1708296154_red"

8/29/2017 10:01PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
49.400000	21.30	-8.7	40.0	18.7	QP	100.0	76.00	HORIZONTAL
62.980000	20.60	-10.8	40.0	19.4	QP	300.0	0.00	HORIZONTAL
101.780000	19.10	-10.5	43.5	24.4	QP	300.0	195.00	HORIZONTAL
307.420000	22.60	-7.1	46.0	23.4	QP	100.0	192.00	HORIZONTAL
555.740000	29.30	-0.6	46.0	16.7	QP	100.0	3.00	HORIZONTAL
939.860000	39.10	7.2	46.0	6.9	QP	100.0	192.00	HORIZONTAL

➤ Above 1 GHz

CH00 for GFSK									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1424.51	37.83	25.87	5.07	36.49	32.28	74.00	-41.72	Vertical	Peak
3873.75	36.67	29.67	8.60	38.19	38.19	74.00	-37.25	Vertical	
4809.50	38.85	31.58	9.55	36.93	36.93	74.00	-30.95	Vertical	
8002.06	33.26	37.10	12.30	34.53	34.53	74.00	-25.87	Vertical	
1585.25	37.91	25.03	5.53	36.70	31.77	74.00	-42.23	Horizontal	Peak
3096.33	36.52	28.79	7.60	38.22	34.69	74.00	-39.31	Horizontal	
4809.50	39.91	31.58	9.55	36.93	44.11	74.00	-29.89	Horizontal	
7172.41	32.79	36.04	11.86	35.04	45.65	74.00	-28.35	Horizontal	

CH39 for GFSK									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1431.78	36.93	25.87	5.09	36.50	31.39	74.00	-42.61	Vertical	Peak
3516.59	37.56	29.05	8.14	38.39	36.36	74.00	-37.64	Vertical	
4117.79	35.41	29.92	8.87	37.84	36.36	74.00	-37.64	Vertical	
5971.29	32.53	32.44	10.66	35.43	40.20	74.00	-33.80	Vertical	
1521.98	36.25	25.60	5.35	36.62	30.58	74.00	-43.42	Horizontal	Peak
3873.75	36.12	29.67	8.60	38.19	36.20	74.00	-37.80	Horizontal	
4883.52	36.77	31.43	9.59	36.73	41.06	74.00	-32.94	Horizontal	
7900.86	32.42	36.70	12.78	34.80	47.10	74.00	-26.90	Horizontal	

CH78 for GFSK									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1381.66	38.31	25.95	4.97	36.47	32.76	74.00	-41.24	Vertical	Peak
3662.78	35.90	29.30	8.34	38.26	35.28	74.00	-38.72	Vertical	
4821.76	34.41	31.56	9.55	36.90	38.62	74.00	-35.38	Vertical	
8083.96	32.91	37.02	12.50	34.54	47.89	74.00	-26.11	Vertical	
1420.89	36.89	25.88	5.06	36.49	31.34	74.00	-42.66	Horizontal	Peak
3561.64	36.43	29.19	8.21	38.32	35.51	74.00	-38.49	Horizontal	
5138.58	34.01	31.74	9.78	36.26	39.27	74.00	-34.73	Horizontal	
7489.60	32.02	36.12	12.36	34.89	45.61	74.00	-28.39	Horizontal	

6. Test Setup Photos of the EUT

Conducted Emission (AC Mains)



Radiated Emission





7. External and Internal Photos of the EUT

Reference to Test Report No.: TRE1708011801

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