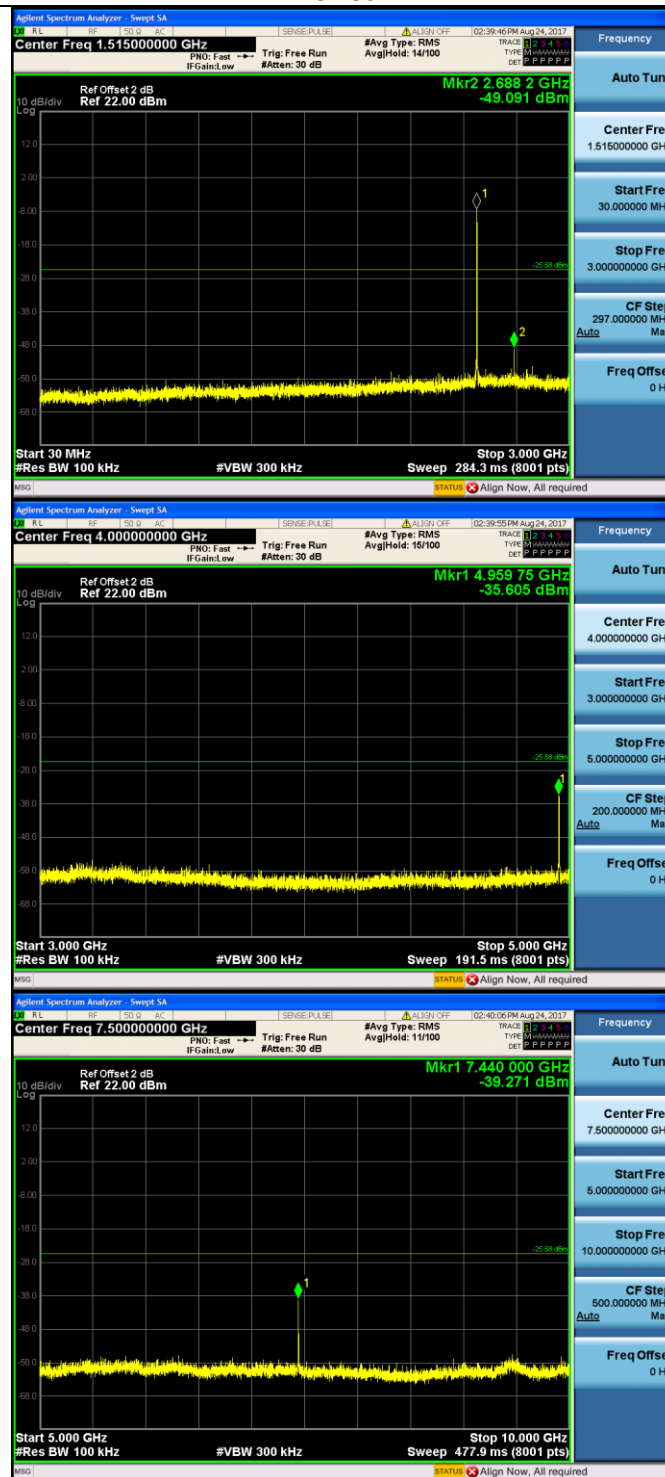
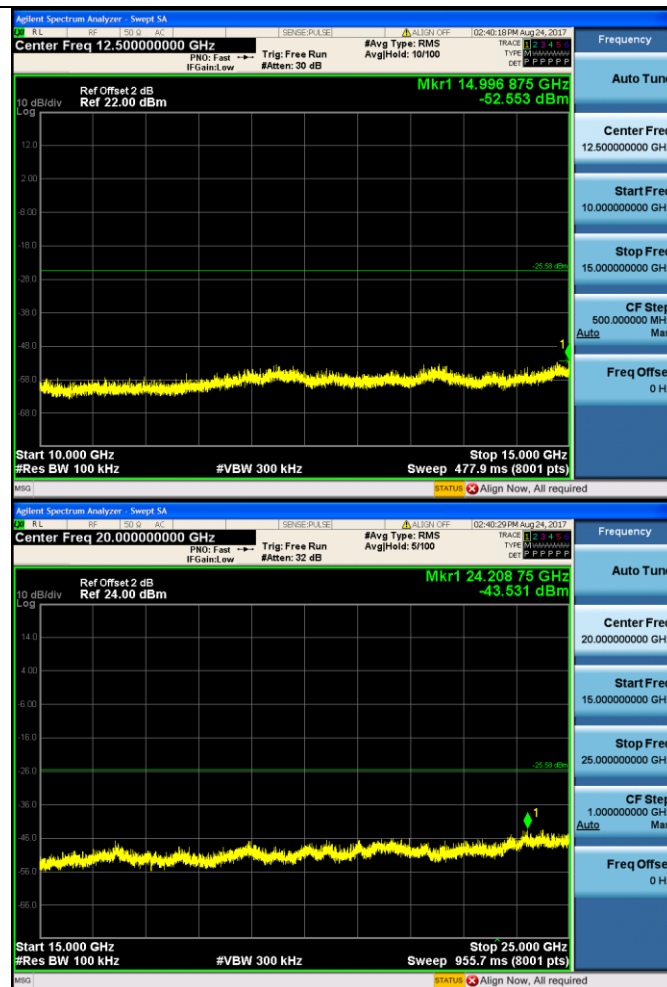


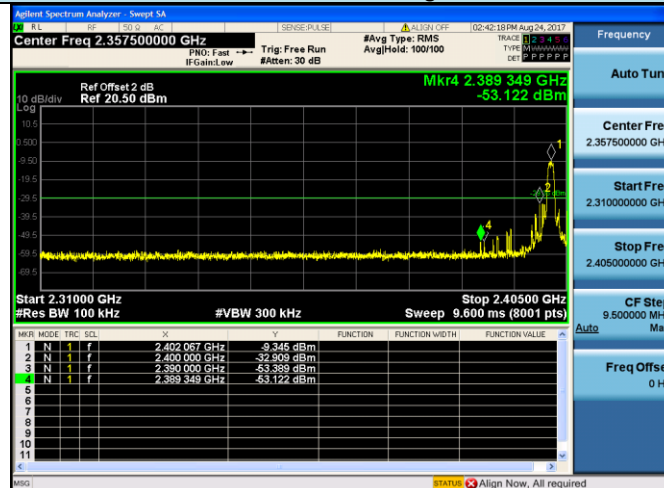
CH39



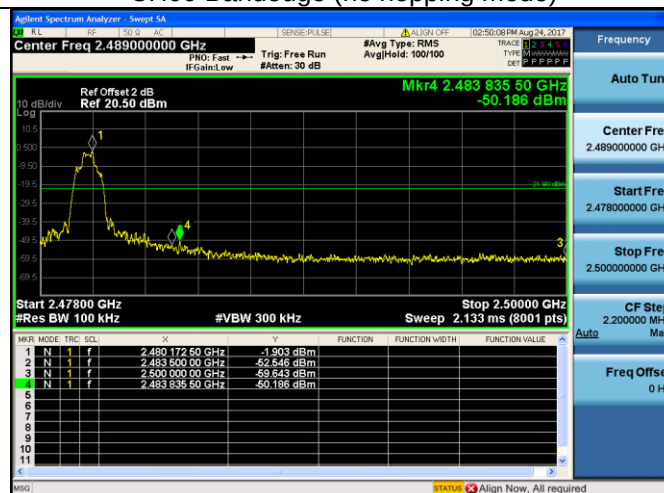


CH78

8DPSK-Bandedge



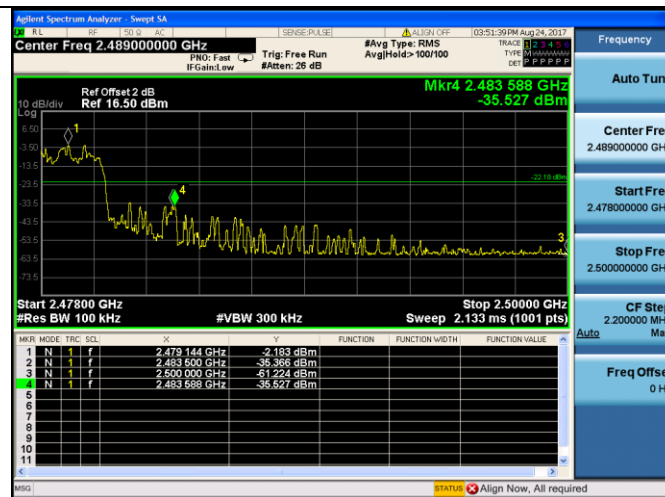
CH00 Bandedge (no hopping mode)



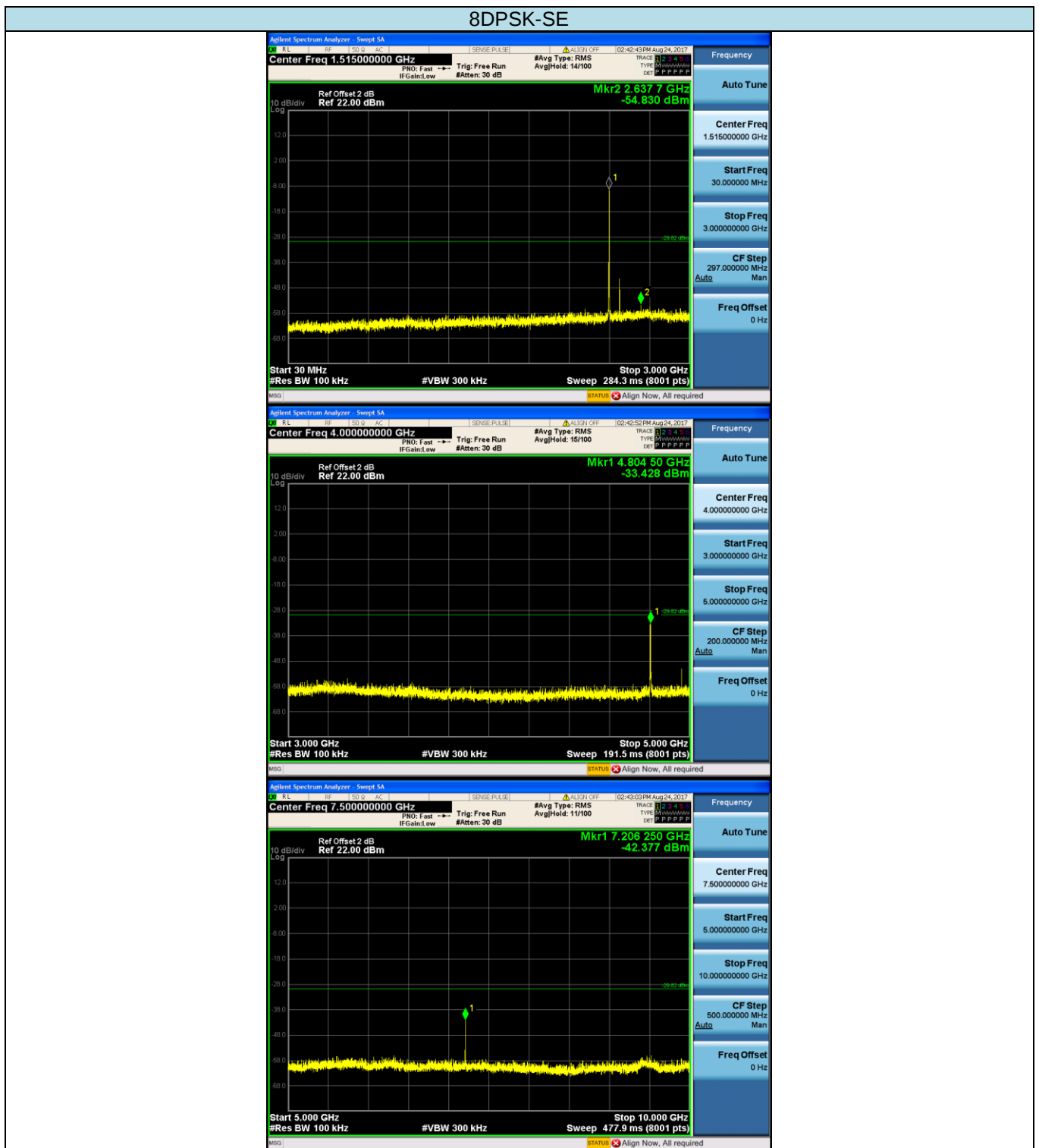
CH78 Bandedge (no hopping mode)

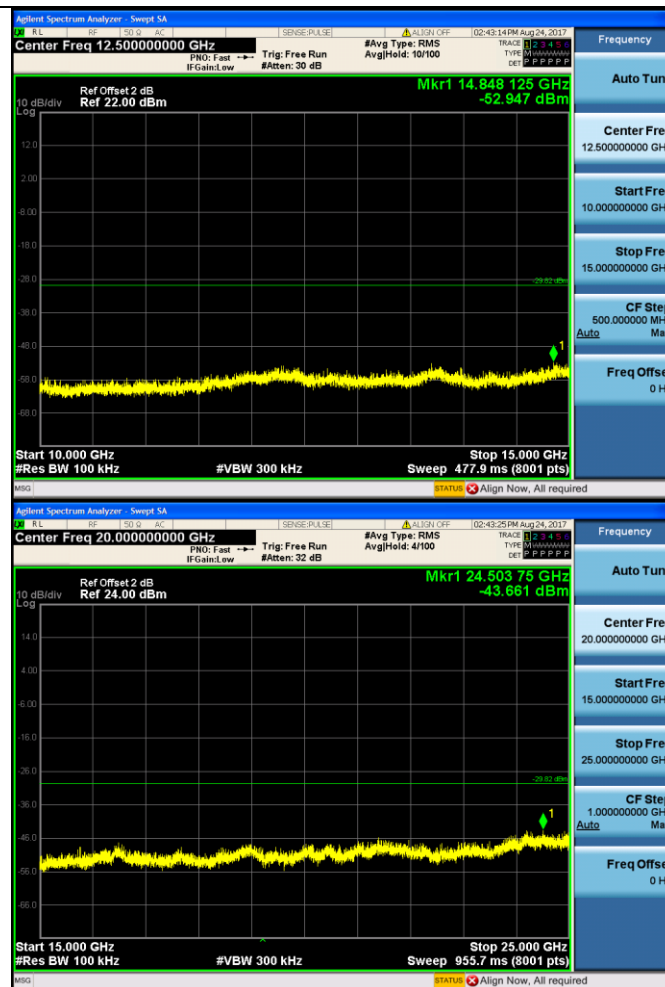


CH00 Bandedge (hopping mode)

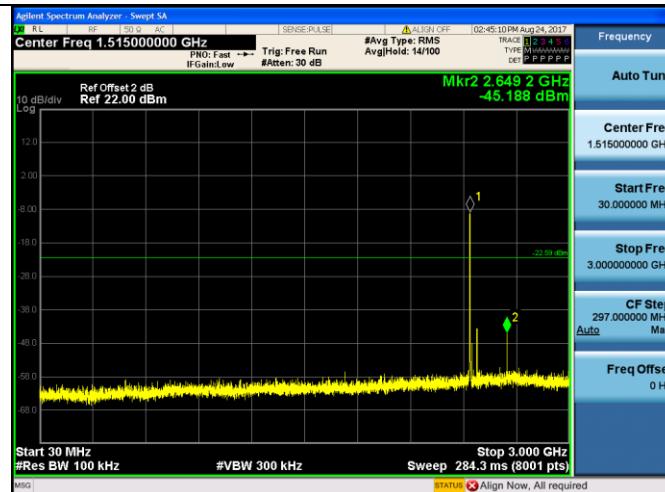


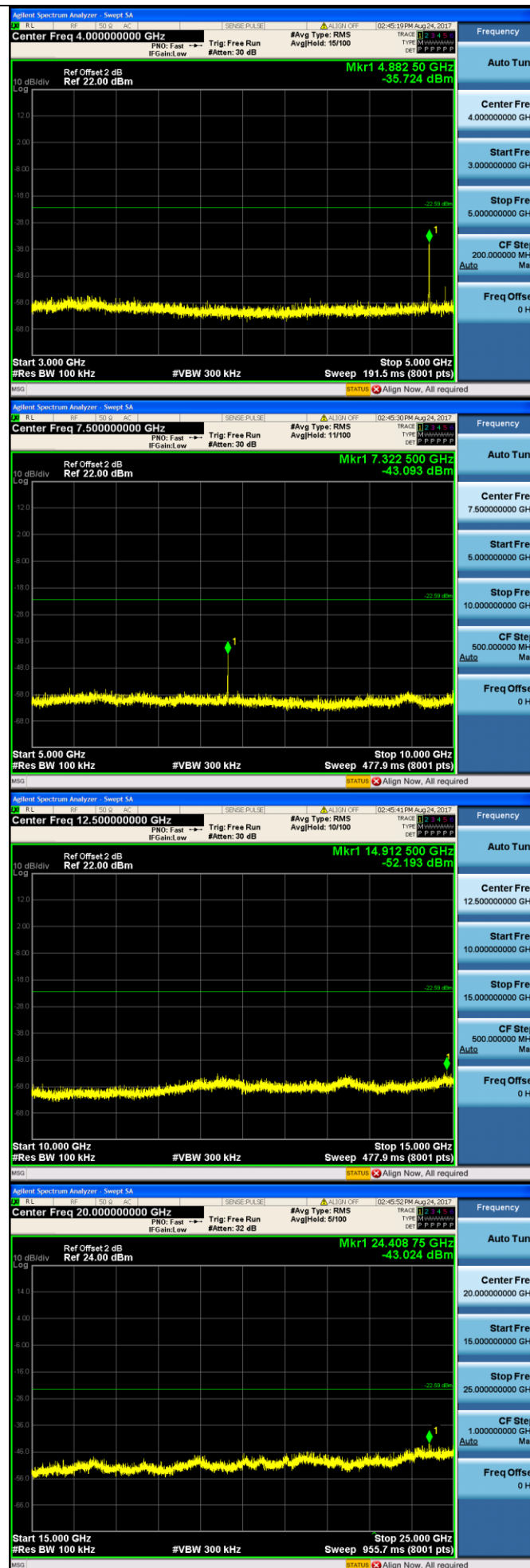
CH78 Bandedge (hopping mode)



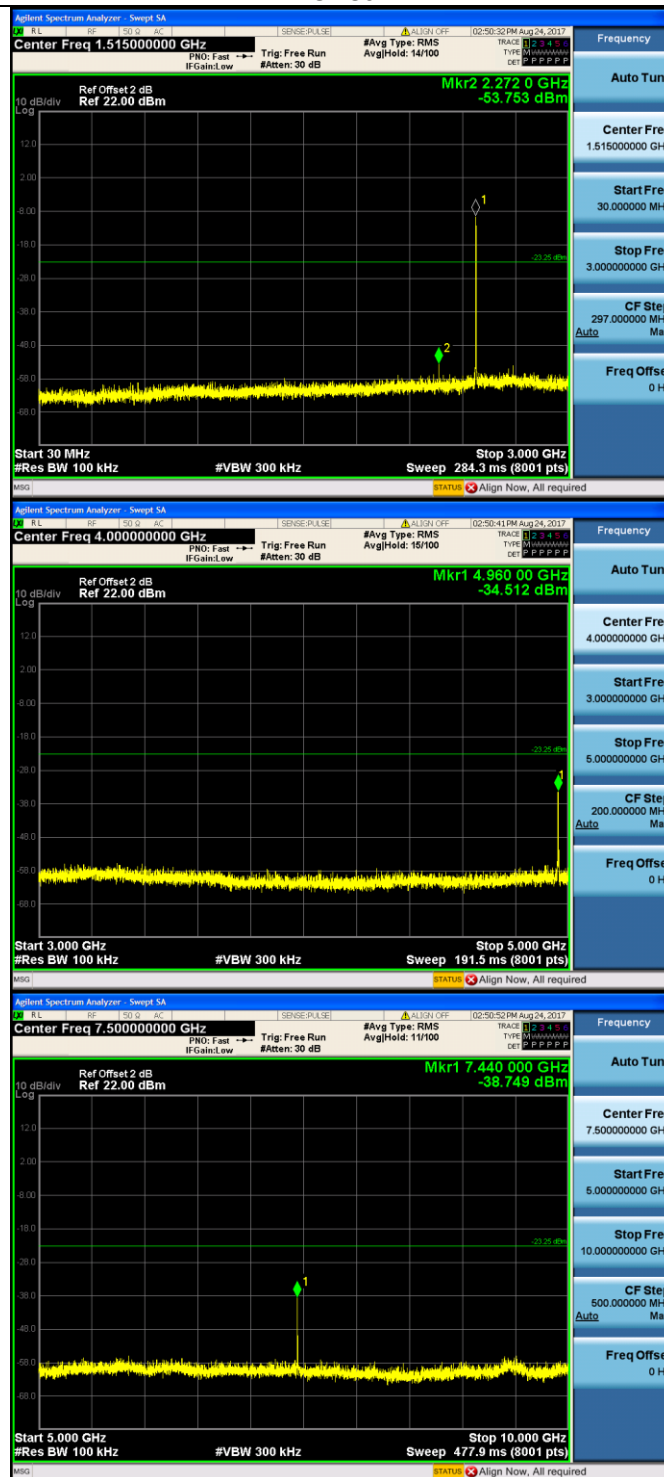


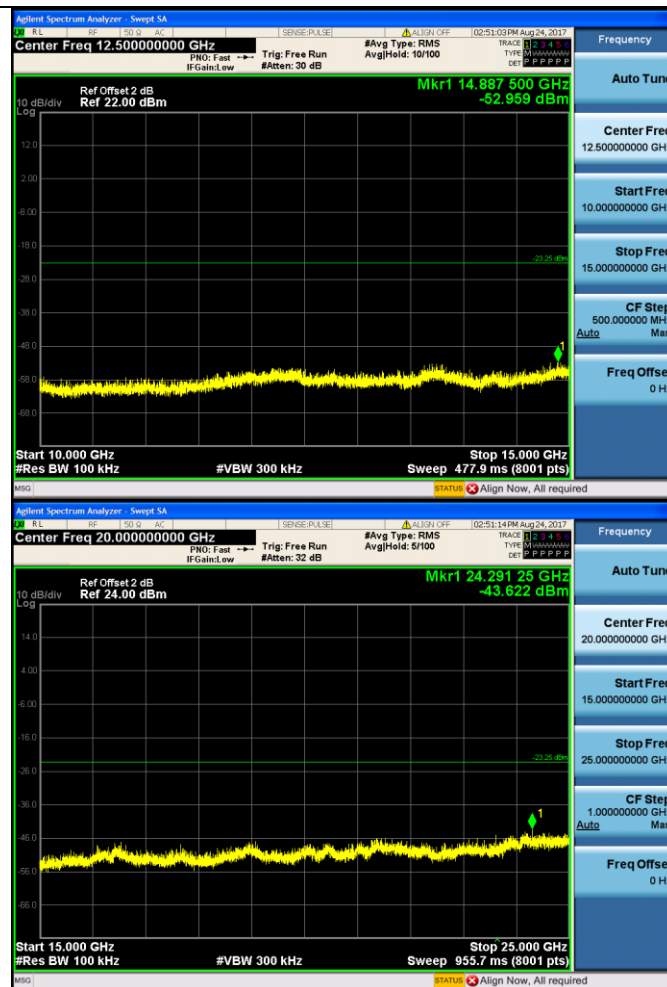
CH00





CH39





CH78

5.11. Spurious Emission (radiated)

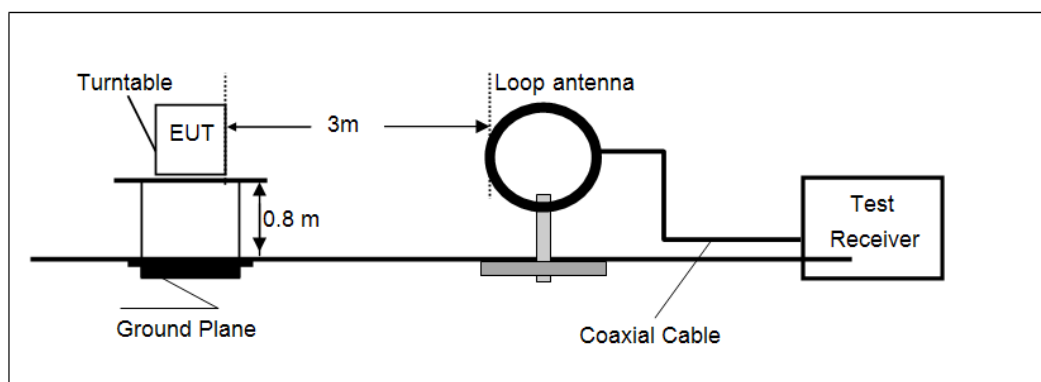
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

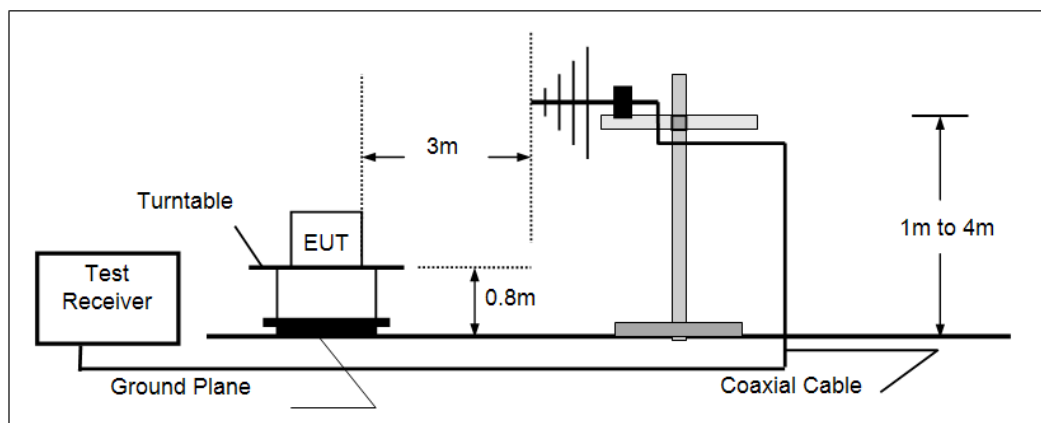
Frequency	Limit (dBuV/m @3m)	Value
30 MHz ~ 88 MHz	40.00	Quasi-peak
88 MHz ~ 216 MHz	43.50	Quasi-peak
216 MHz ~ 960 MHz	46.00	Quasi-peak
960 MHz ~ 1 GHz	54.00	Quasi-peak
Above 1 GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

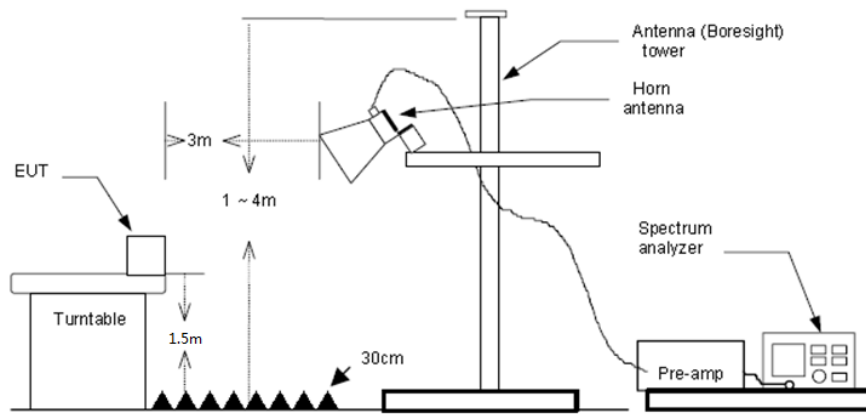
- Below 30 MHz



- 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 too weak instrument of signal is unable to test.

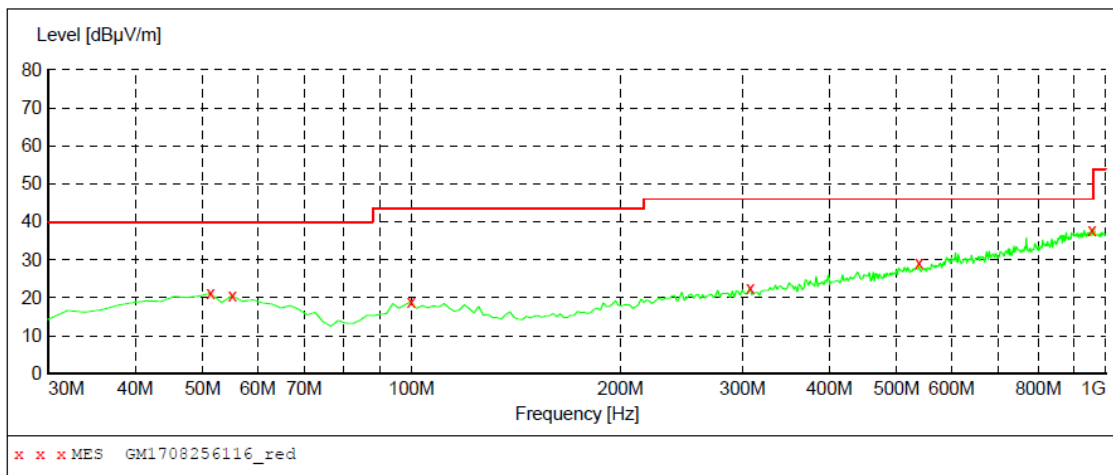
➤ 9 kHz ~ 30 MHz

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

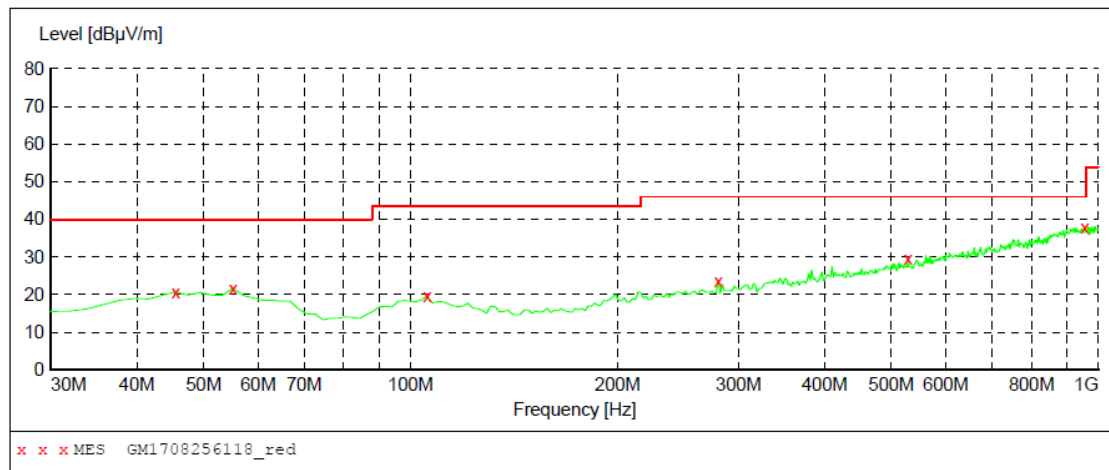
**MEASUREMENT RESULT: "GM1708256116_red"**

8/25/2017 11:40PM

Frequency MHz	Level dBuV/m	Transd dB	Limit dBuV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
51.340000	21.20	-8.8	40.0	18.8	QP	100.0	129.00	VERTICAL
55.220000	20.50	-9.2	40.0	19.5	QP	100.0	47.00	VERTICAL
99.840000	18.90	-10.6	43.5	24.6	QP	100.0	188.00	VERTICAL
307.420000	22.50	-7.1	46.0	23.5	QP	100.0	336.00	VERTICAL
538.280000	29.10	-1.0	46.0	16.9	QP	100.0	147.00	VERTICAL
955.380000	37.90	7.3	46.0	8.1	QP	100.0	254.00	VERTICAL

Polarization:

Horizontal

**MEASUREMENT RESULT: "GM1708256118_red"**

8/25/2017 11:43PM

Frequency MHz	Level dBuV/m	Transd dB	Limit dBuV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
45.520000	20.70	-8.8	40.0	19.3	QP	100.0	118.00	HORIZONTAL
55.220000	21.70	-9.2	40.0	18.3	QP	300.0	360.00	HORIZONTAL
105.660000	19.70	-10.5	43.5	23.8	QP	300.0	221.00	HORIZONTAL
280.260000	23.60	-7.7	46.0	22.4	QP	300.0	183.00	HORIZONTAL
528.580000	29.40	-1.2	46.0	16.6	QP	300.0	21.00	HORIZONTAL
955.380000	37.70	7.3	46.0	8.3	QP	300.0	312.00	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
1198.10	40.35	26.29	4.66	36.57	34.73	74.00	-39.27	Vertical	Peak
4117.79	39.09	29.92	8.87	37.84	40.04	74.00	-33.96	Vertical	
4895.97	63.82	31.41	9.60	36.69	68.14	74.00	-5.86	Vertical	
7282.79	54.75	36.28	11.95	34.97	68.01	74.00	-5.99	Vertical	
4895.97	45.12	31.41	9.60	36.69	49.44	54.00	-4.56	Vertical	Average
7282.79	37.40	36.28	11.95	34.97	50.66	54.00	-3.34	Vertical	
1257.47	37.31	26.24	4.76	36.54	31.77	74.00	-42.23	Horizontal	Peak
4117.79	37.46	29.92	8.87	37.84	38.41	74.00	-35.59	Horizontal	
4834.05	57.48	31.53	9.56	36.86	61.71	74.00	-12.29	Horizontal	
8770.01	37.12	37.76	13.07	34.32	53.63	74.00	-20.37	Horizontal	
4834.05	44.43	31.53	9.56	36.86	48.66	54.00	-5.34	Horizontal	Average

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
1450.12	37.60	25.85	5.14	36.53	32.06	74.00	-41.94	Vertical	Peak
4117.79	39.82	29.92	8.87	37.84	40.77	74.00	-33.23	Vertical	
4908.44	63.11	31.41	9.61	36.66	67.47	74.00	-6.53	Vertical	
7264.28	55.18	36.26	11.93	35.00	68.37	74.00	-5.63	Vertical	
4908.44	42.49	31.41	9.61	36.66	46.85	54.00	-7.15	Vertical	Average
7264.28	33.14	36.26	11.93	35.00	46.33	54.00	-7.67	Vertical	
1464.96	36.42	25.83	5.19	36.54	30.90	74.00	-43.10	Horizontal	Peak
3700.26	35.96	29.30	8.39	38.25	35.40	74.00	-38.60	Horizontal	
4883.52	59.98	31.43	9.59	36.73	64.27	74.00	-9.73	Horizontal	
7301.36	45.94	36.30	11.97	34.95	59.26	74.00	-14.74	Horizontal	
4883.52	44.62	31.43	9.59	36.73	48.91	54.00	-5.09	Horizontal	Average
7301.36	30.62	36.30	11.97	34.95	43.94	54.00	-10.06	Horizontal	

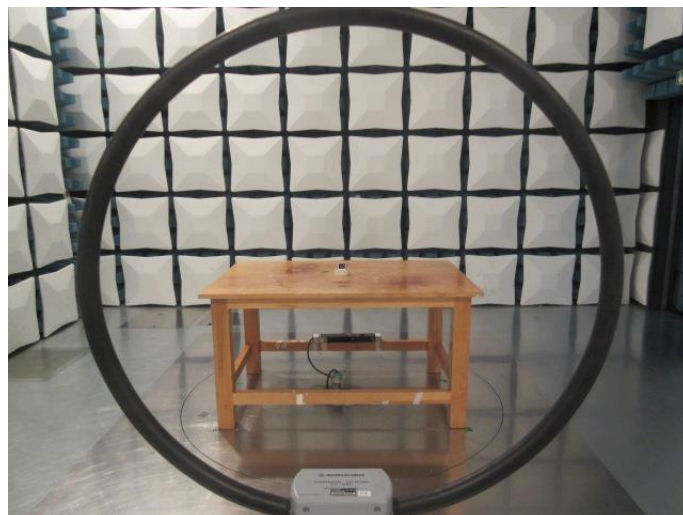
CH78 for GFSK									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1198.10	38.93	26.29	4.66	36.57	33.31	74.00	-40.69	Vertical	Peak
4117.79	37.77	29.92	8.87	37.84	38.72	74.00	-35.28	Vertical	
4933.50	57.08	31.43	9.63	36.59	61.55	74.00	-12.45	Vertical	
7394.88	51.69	36.30	12.06	34.83	65.22	74.00	-8.78	Vertical	
4933.50	45.70	31.43	9.63	36.59	50.17	54.00	-3.83	Vertical	Average
7394.88	36.03	36.30	12.06	34.83	49.56	54.00	-4.44	Vertical	
1450.12	36.87	25.85	5.14	36.53	31.33	74.00	-42.67	Horizontal	Peak
3824.76	35.72	29.62	8.53	38.22	35.65	74.00	-38.35	Horizontal	
4883.52	59.88	31.43	9.59	36.73	64.17	74.00	-9.83	Horizontal	
7319.96	47.94	36.30	11.99	34.92	61.31	74.00	-12.69	Horizontal	
4883.52	38.77	31.43	9.59	36.73	43.06	54.00	-10.94	Horizontal	Average
7319.96	25.47	36.30	11.99	34.92	38.84	54.00	-15.16	Horizontal	

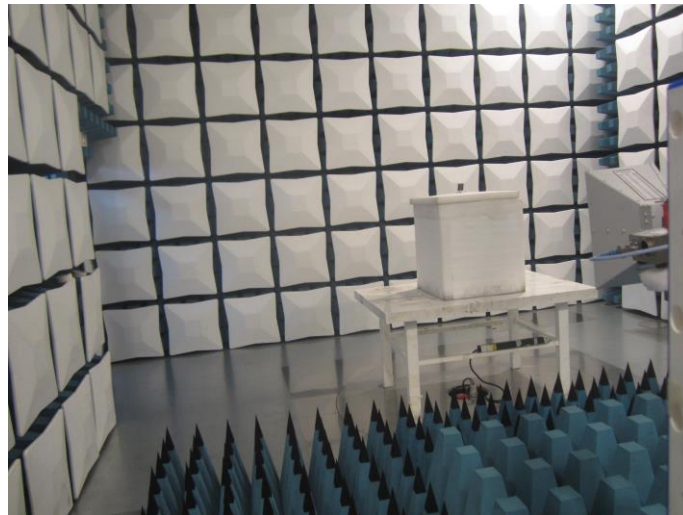
6. Test Setup Photos of the EUT

Conducted Emission (AC Mains)



Radiated Emission





7. External and Internal Photos of the EUT

Reference to Test Report No.: TRE1708012901.

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