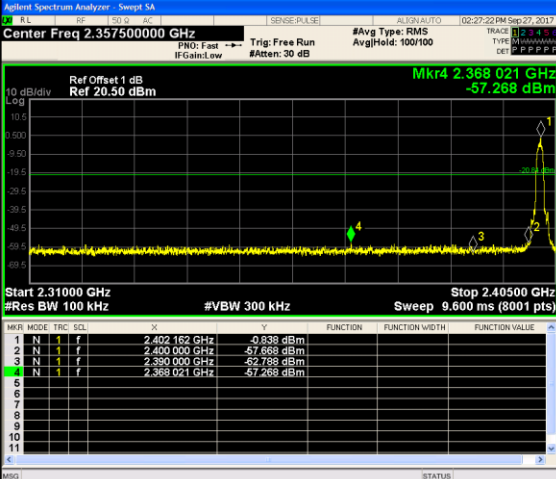
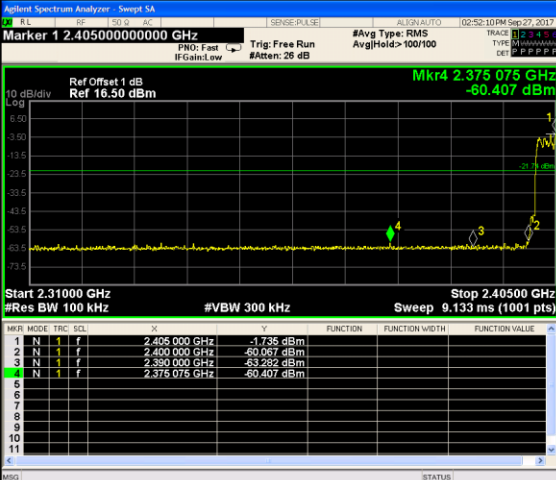
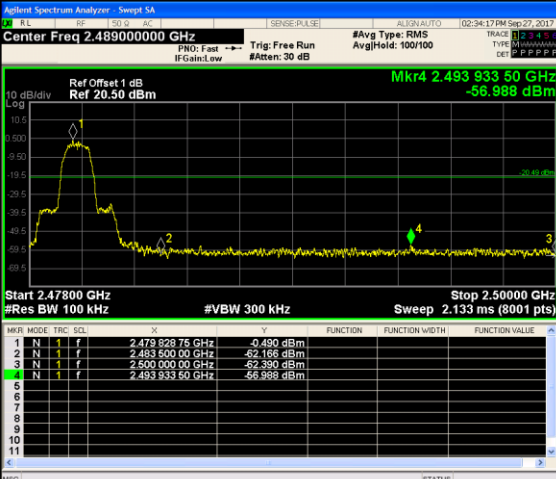
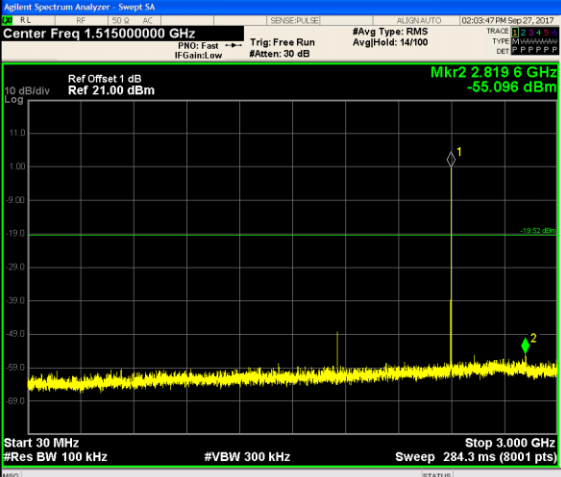
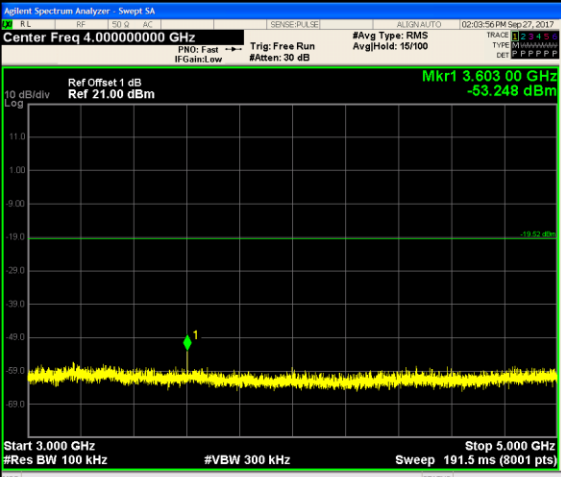
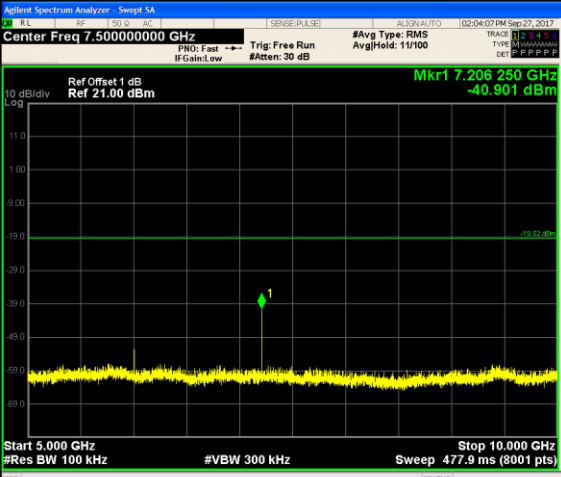


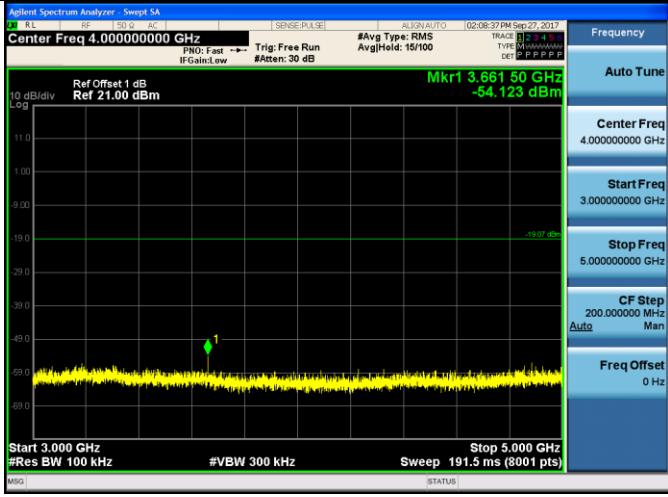
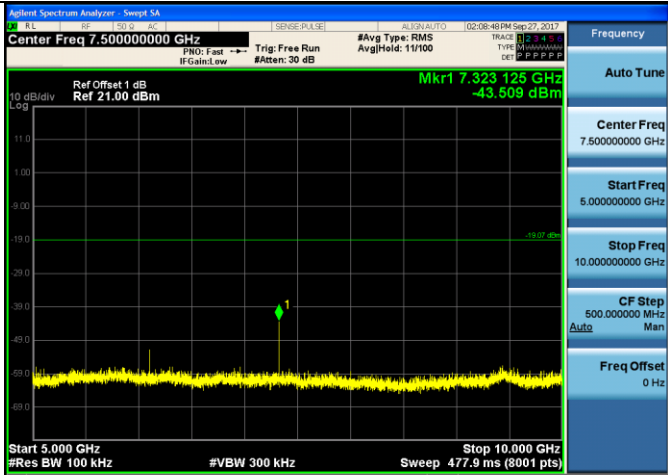
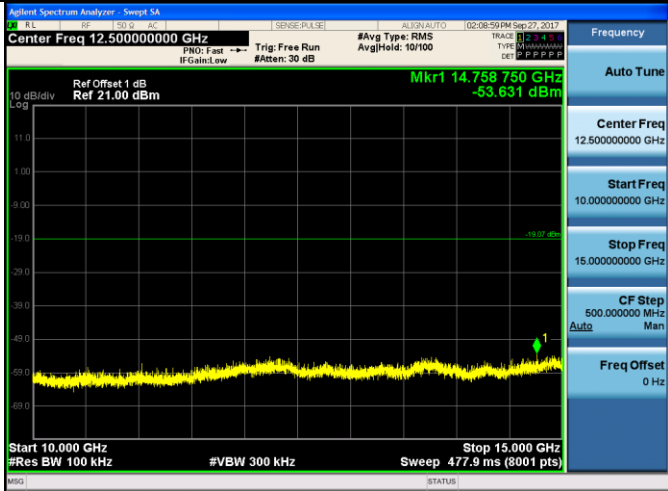
Test Item:	Band edge	Modulation type:	8DPSK
<p>CH00</p> <p>No hopping mode</p>		<p>Center Freq 2.357500000 GHz</p> <p>Start Freq 2.310000000 GHz</p> <p>Stop Freq 2.405000000 GHz</p> <p>CF Step 9.500000 MHz</p> <p>Freq Offset 0 Hz</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.357500000 GHz</p> <p>Start Freq 2.310000000 GHz</p> <p>Stop Freq 2.405000000 GHz</p> <p>CF Step 9.500000 MHz</p> <p>Freq Offset 0 Hz</p>
<p>CH00</p> <p>Hopping mode</p>		<p>Marker 1 2.405000000 GHz</p> <p>Start 2.310000 GHz</p> <p>Stop 2.405000 GHz</p>	<p>Peak Search</p> <p>Next Peak</p> <p>Next Pk Right</p> <p>Next Pk Left</p> <p>Marker Delta</p> <p>Mkr--CF</p> <p>Mkr--Ref Lvl</p> <p>More 1 of 2</p>
<p>CH78</p> <p>No hopping mode</p>		<p>Center Freq 2.489000000 GHz</p> <p>Start Freq 2.478000000 GHz</p> <p>Stop Freq 2.500000000 GHz</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.489000000 GHz</p> <p>Start Freq 2.478000000 GHz</p> <p>Stop Freq 2.500000000 GHz</p> <p>CF Step 2.200000 MHz</p> <p>Freq Offset 0 Hz</p>


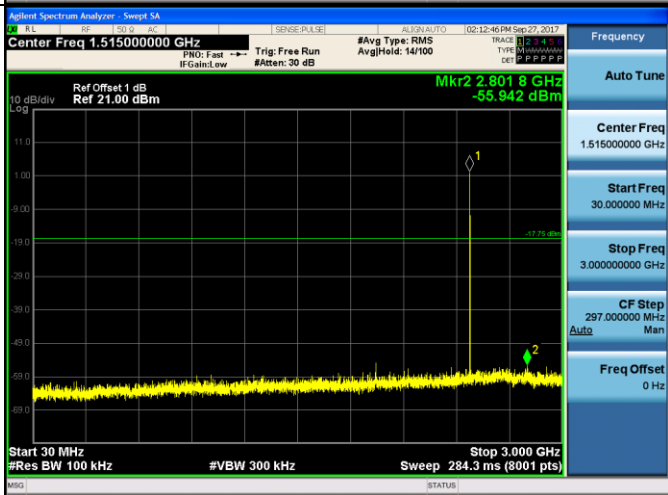
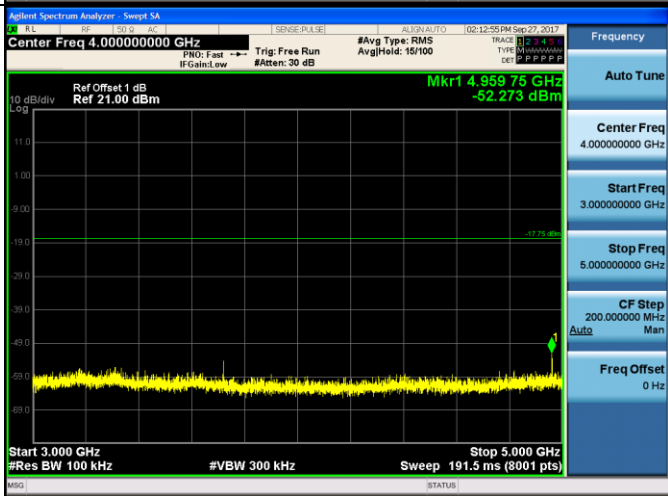
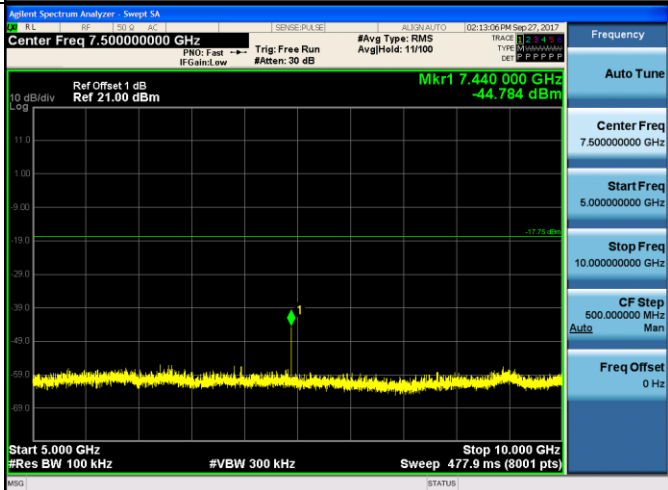
CH78
Hoppig mode

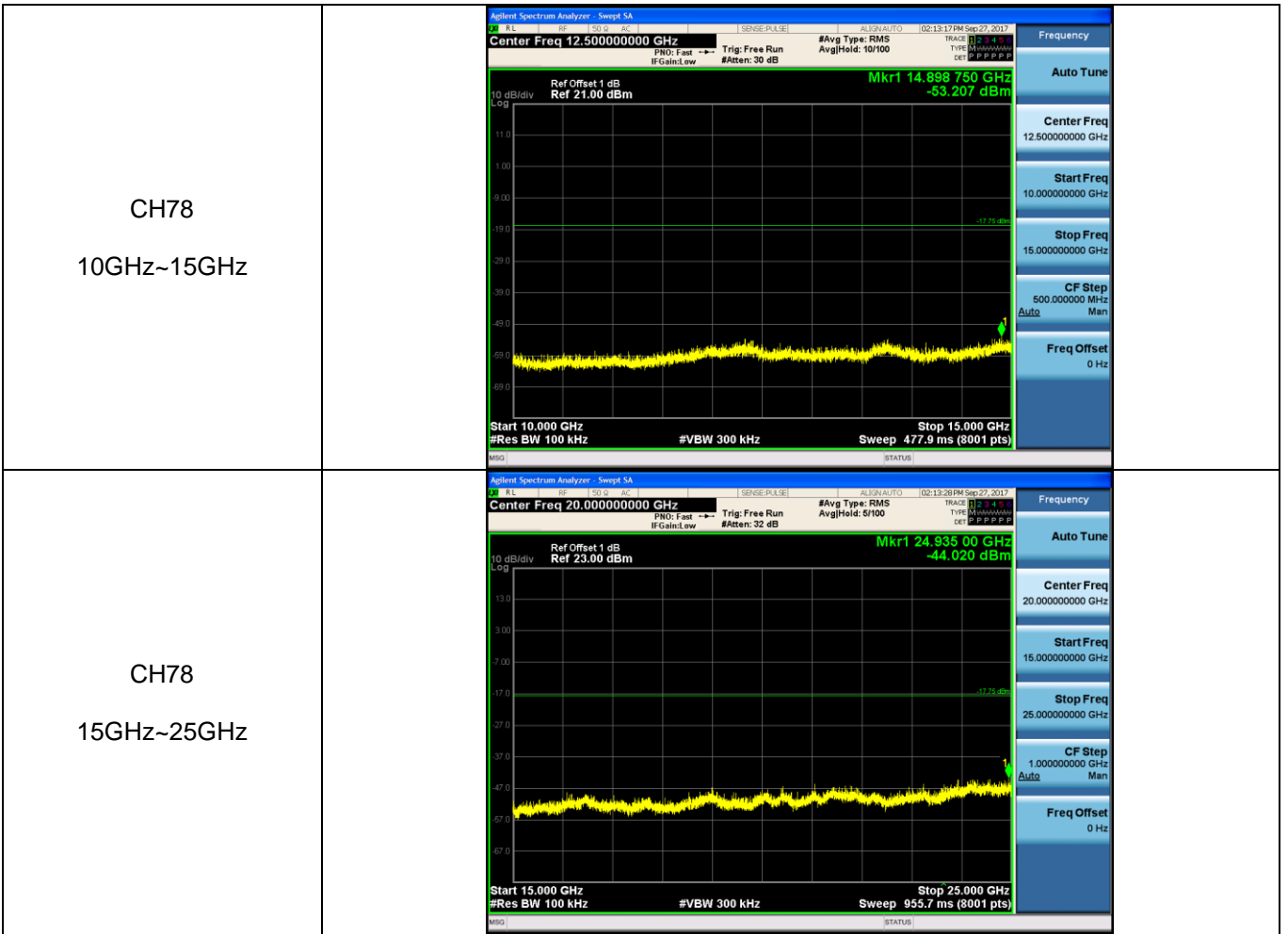


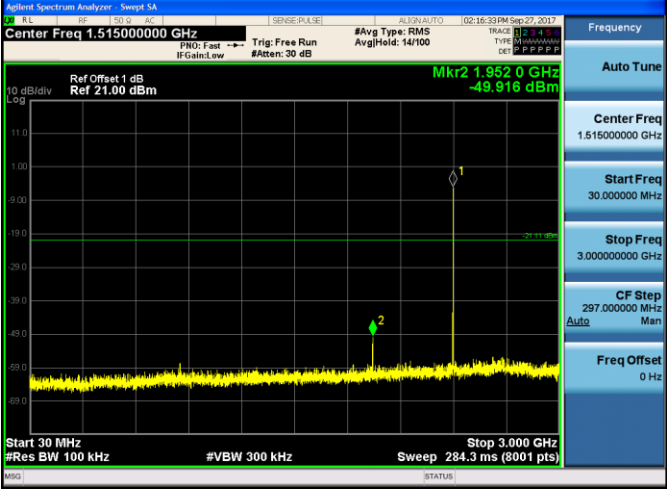
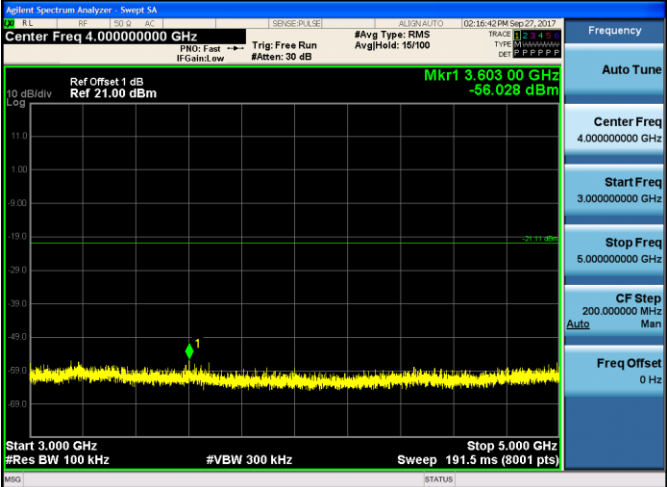
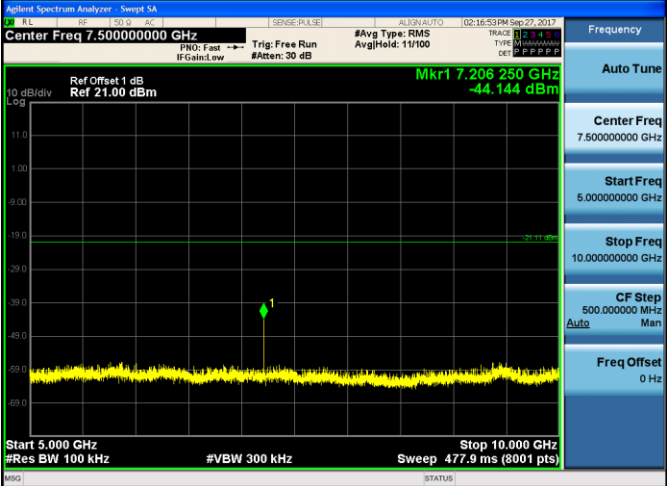
Test Item:	SE	Modulation type:	GFSK
<p>CH00 30MHz~3GHz</p>			<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 1.515000000 GHz</p> <p>Start Freq 30.0000000 MHz</p> <p>Stop Freq 3.000000000 GHz</p> <p>CF Step 297.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH00 3GHz~5GHz</p>			<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 4.000000000 GHz</p> <p>Start Freq 3.000000000 GHz</p> <p>Stop Freq 5.000000000 GHz</p> <p>CF Step 200.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH00 5GHz~10GHz</p>			<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 7.500000000 GHz</p> <p>Start Freq 5.000000000 GHz</p> <p>Stop Freq 10.000000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

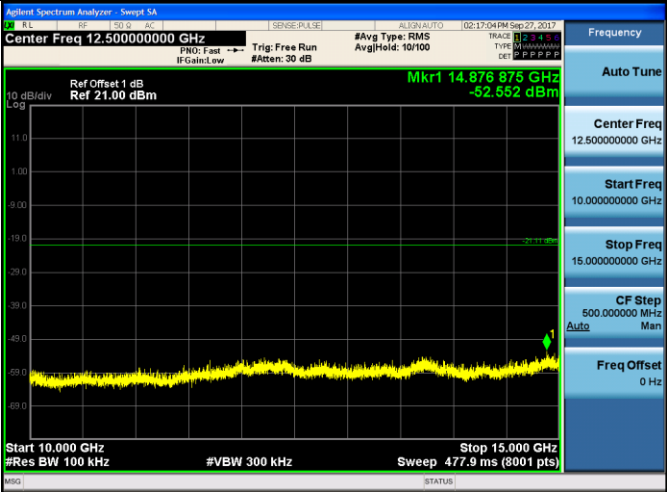

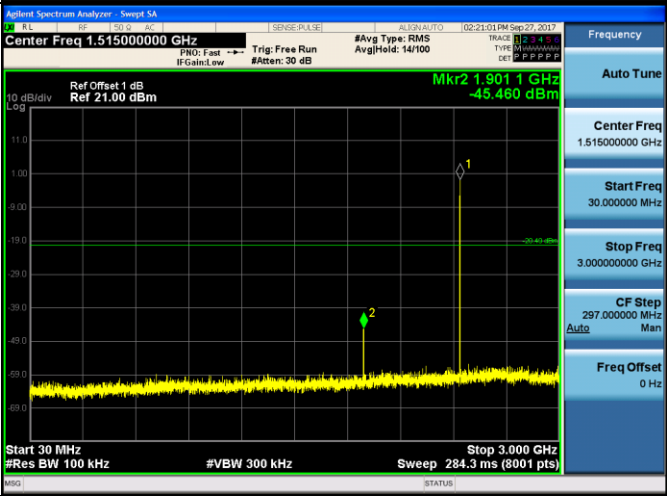
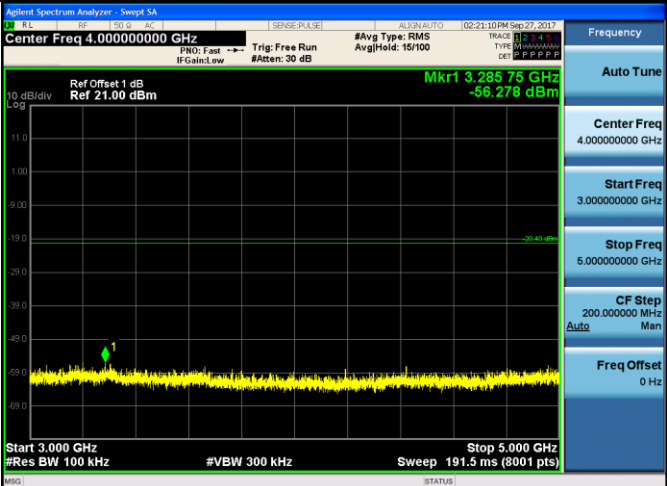
<p>CH00 10GHz~15GHz</p>	
<p>CH00 15GHz~25GHz</p>	
<p>CH39 30MHz~3GHz</p>	

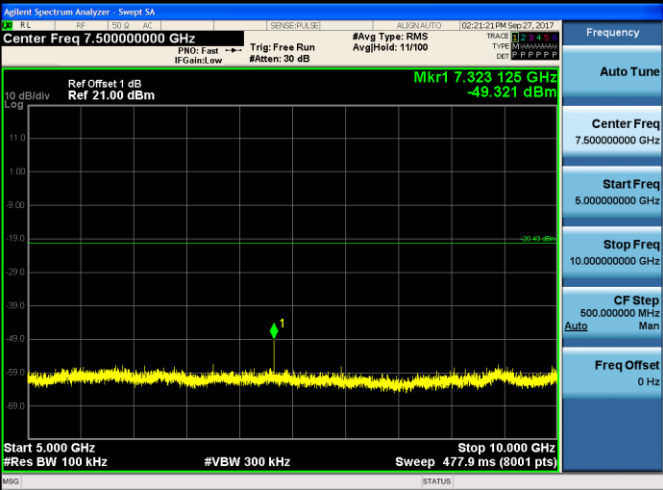
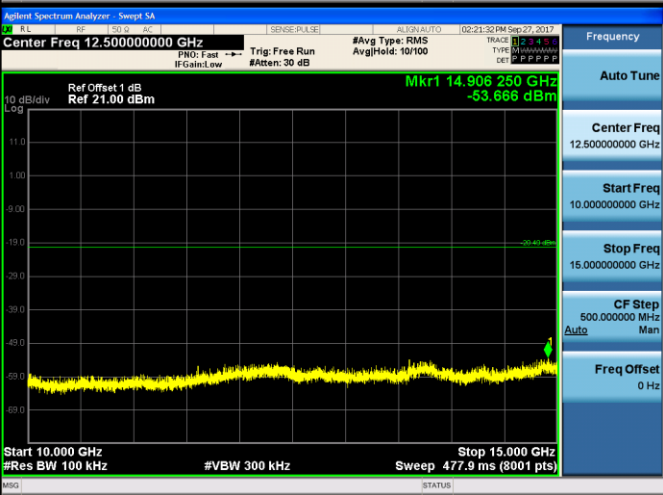

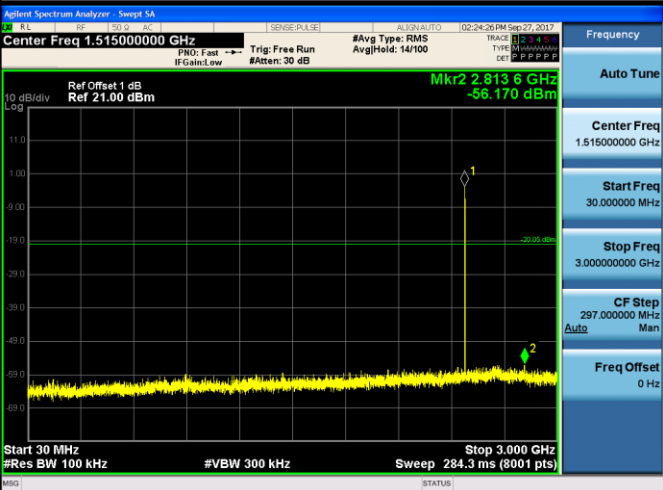
<p>CH39 3GHz~5GHz</p>	
<p>CH39 5GHz~10GHz</p>	
<p>CH39 10GHz~15GHz</p>	

<p>CH39 15GHz~25GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 20.00000000 GHz</p> <p>Start Freq 15.00000000 GHz</p> <p>Stop Freq 25.00000000 GHz</p> <p>CF Step 1.00000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 30MHz~3GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 1.515000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 3.000000000 GHz</p> <p>CF Step 297.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 3GHz~5GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 4.000000000 GHz</p> <p>Start Freq 3.000000000 GHz</p> <p>Stop Freq 5.000000000 GHz</p> <p>CF Step 200.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 5GHz~10GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 7.500000000 GHz</p> <p>Start Freq 5.000000000 GHz</p> <p>Stop Freq 10.00000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

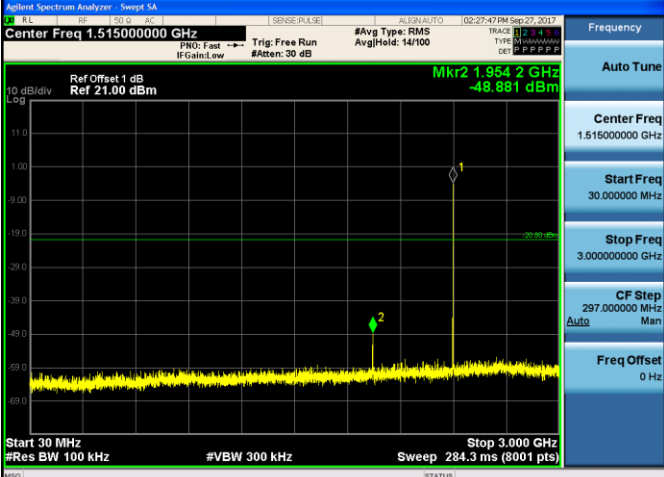
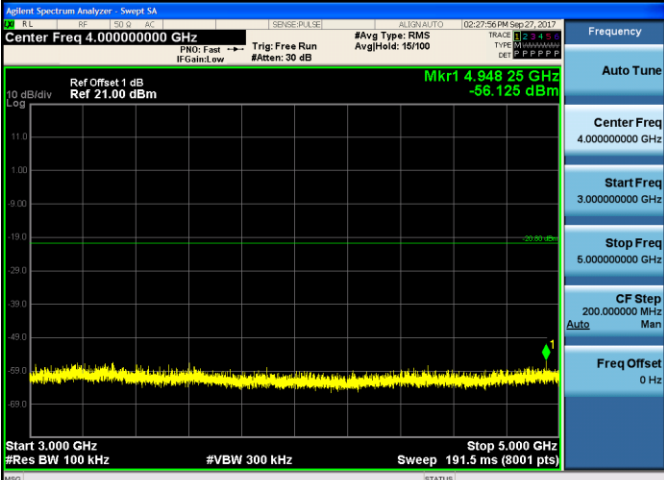
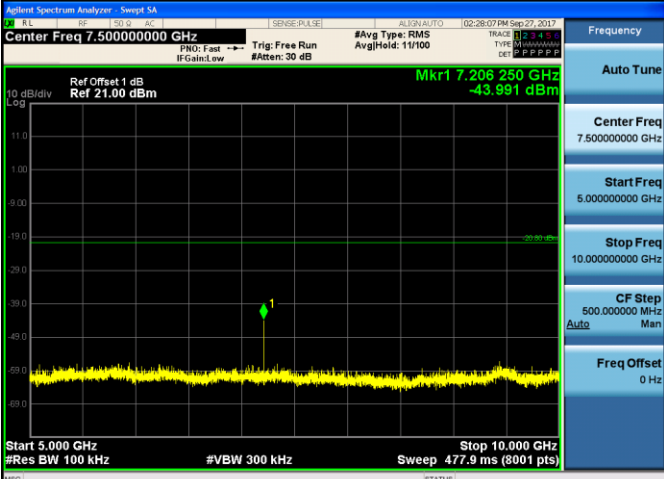


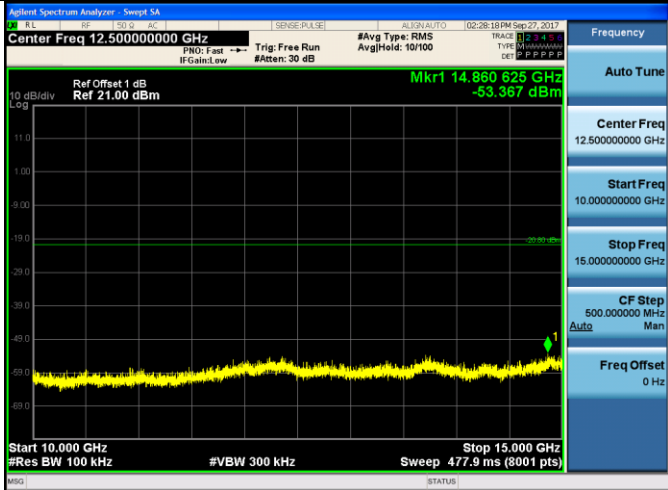

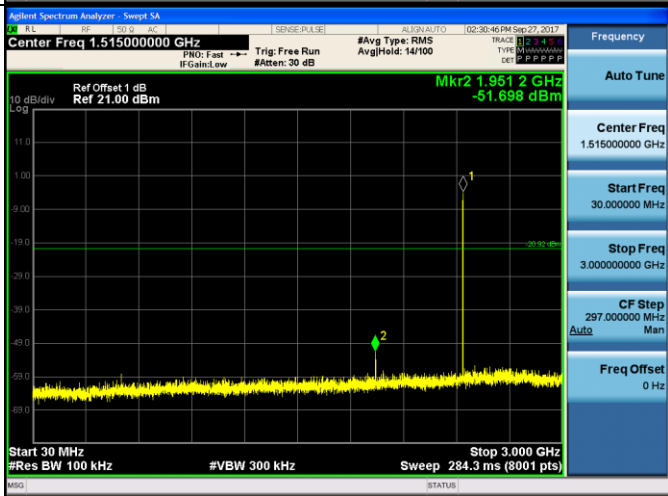
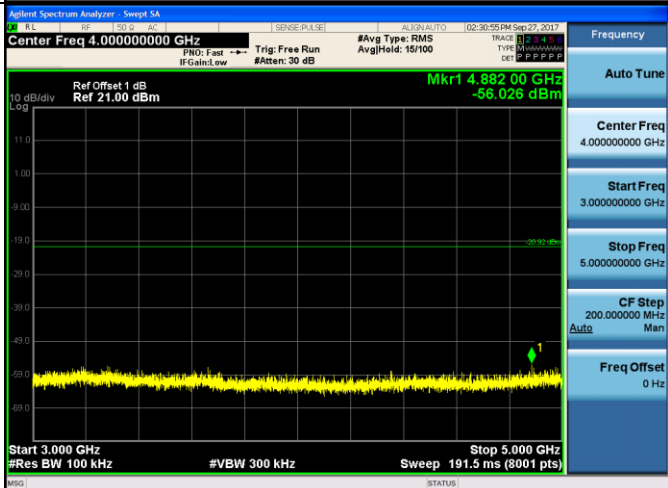
Test Item:	SE	Modulation type:	π/4DQPSK
<p>CH00 30MHz~3GHz</p>			
<p>CH00 3GHz~5GHz</p>			
<p>CH00 5GHz~10GHz</p>			

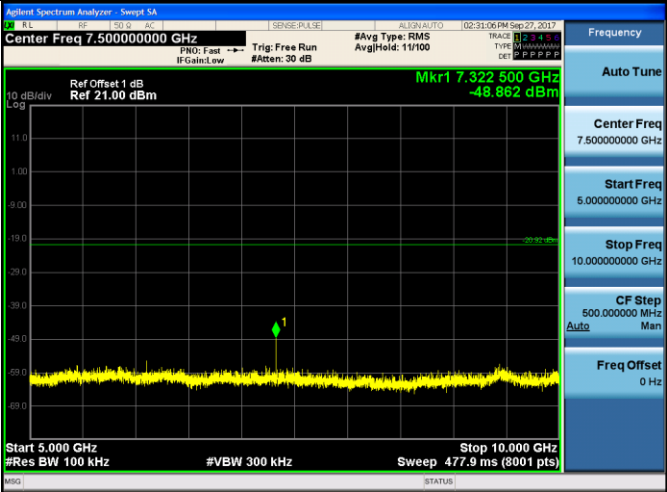
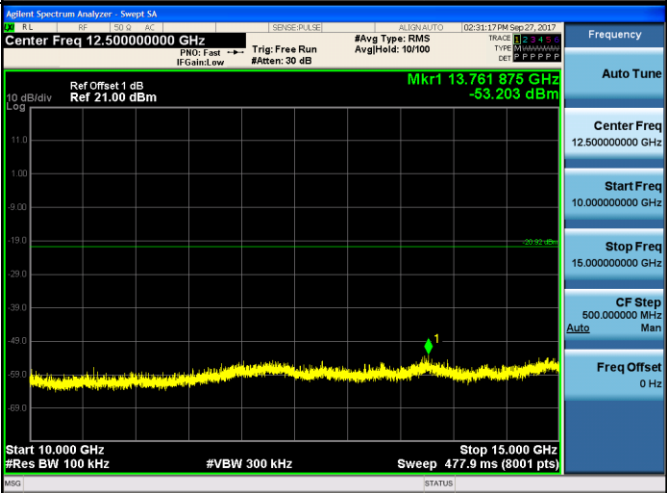

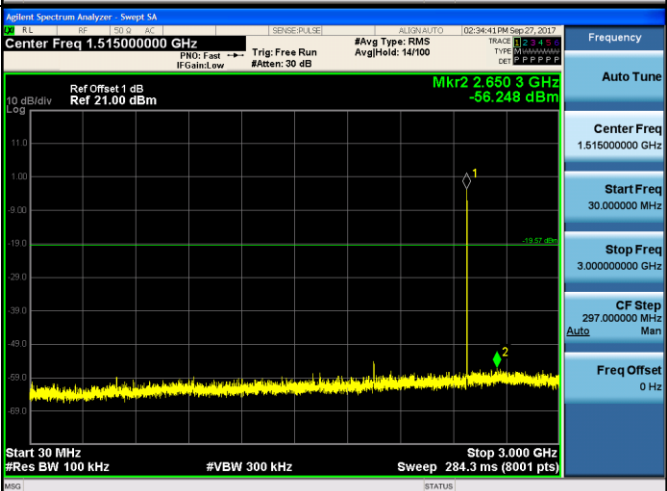
<p>CH00 10GHz~15GHz</p>	
<p>CH00 15GHz~25GHz</p>	
<p>CH39 30MHz~3GHz</p>	
<p>CH39 3GHz~5GHz</p>	

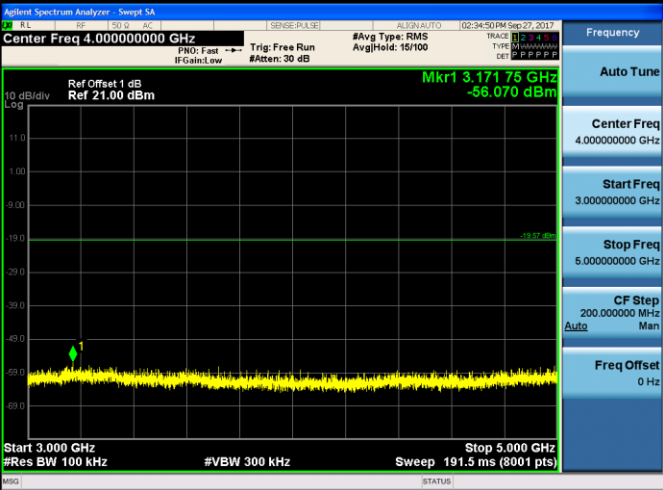
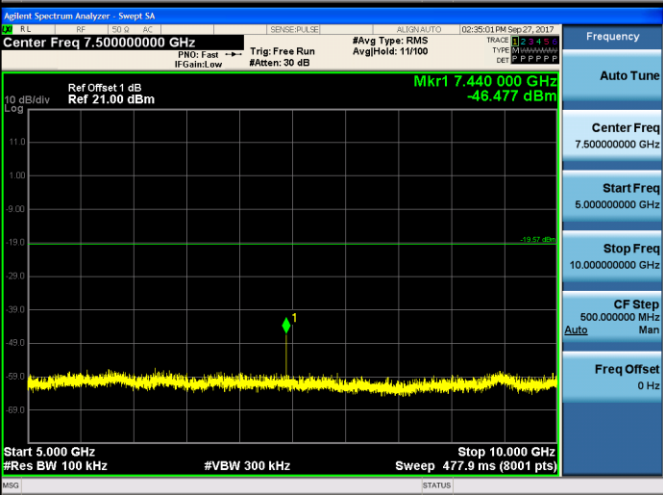
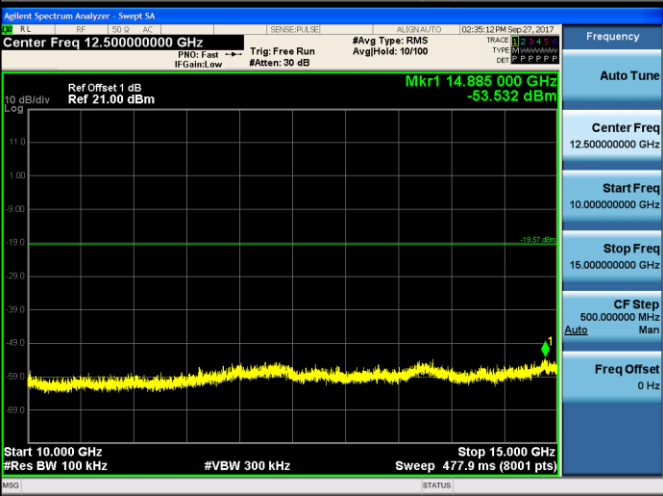

<p>CH39 5GHz~10GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 7.50000000 GHz</p> <p>Start Freq 5.00000000 GHz</p> <p>Stop Freq 10.00000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH39 10GHz~15GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 12.50000000 GHz</p> <p>Start Freq 10.00000000 GHz</p> <p>Stop Freq 15.00000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH39 15GHz~25GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 20.00000000 GHz</p> <p>Start Freq 15.00000000 GHz</p> <p>Stop Freq 25.00000000 GHz</p> <p>CF Step 1.00000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 30MHz~3GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 1.515000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 3.000000000 GHz</p> <p>CF Step 297.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

<p>CH78 3GHz~5GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 4.00000000 GHz</p> <p>Start Freq 3.00000000 GHz</p> <p>Stop Freq 5.00000000 GHz</p> <p>CF Step 200.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 5GHz~10GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 7.50000000 GHz</p> <p>Start Freq 5.00000000 GHz</p> <p>Stop Freq 10.00000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 10GHz~15GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 12.50000000 GHz</p> <p>Start Freq 10.00000000 GHz</p> <p>Stop Freq 15.00000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 15GHz~25GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 20.00000000 GHz</p> <p>Start Freq 15.00000000 GHz</p> <p>Stop Freq 25.00000000 GHz</p> <p>CF Step 1.00000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>

Test Item:	SE	Modulation type:	8DPSK
<p>CH00</p> <p>30MHz~3GHz</p>			
<p>CH00</p> <p>3GHz~5GHz</p>			
<p>CH00</p> <p>5GHz~10GHz</p>			

<p>CH00 10GHz~15GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 12.50000000 GHz</p> <p>Start Freq 10.00000000 GHz</p> <p>Stop Freq 15.00000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH00 15GHz~25GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 20.00000000 GHz</p> <p>Start Freq 15.00000000 GHz</p> <p>Stop Freq 25.00000000 GHz</p> <p>CF Step 1.00000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH39 30MHz~3GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 1.51500000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 3.00000000 GHz</p> <p>CF Step 297.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH39 3GHz~5GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 4.00000000 GHz</p> <p>Start Freq 3.00000000 GHz</p> <p>Stop Freq 5.00000000 GHz</p> <p>CF Step 200.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

<p>CH39 5GHz~10GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 7.500000000 GHz</p> <p>Start Freq 5.000000000 GHz</p> <p>Stop Freq 10.000000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH39 10GHz~15GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 12.500000000 GHz</p> <p>Start Freq 10.000000000 GHz</p> <p>Stop Freq 15.000000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH39 15GHz~25GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 20.000000000 GHz</p> <p>Start Freq 15.000000000 GHz</p> <p>Stop Freq 25.000000000 GHz</p> <p>CF Step 1.000000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 30MHz~3GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 1.515000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 3.000000000 GHz</p> <p>CF Step 297.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

<p>CH78 3GHz~5GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 4.00000000 GHz</p> <p>Start Freq 3.00000000 GHz</p> <p>Stop Freq 5.00000000 GHz</p> <p>CF Step 200.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 5GHz~10GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 7.50000000 GHz</p> <p>Start Freq 5.00000000 GHz</p> <p>Stop Freq 10.00000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 10GHz~15GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 12.50000000 GHz</p> <p>Start Freq 10.00000000 GHz</p> <p>Stop Freq 15.00000000 GHz</p> <p>CF Step 500.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>CH78 15GHz~25GHz</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 20.00000000 GHz</p> <p>Start Freq 15.00000000 GHz</p> <p>Stop Freq 25.00000000 GHz</p> <p>CF Step 1.00000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>

5.11. Spurious Emissions (radiated)

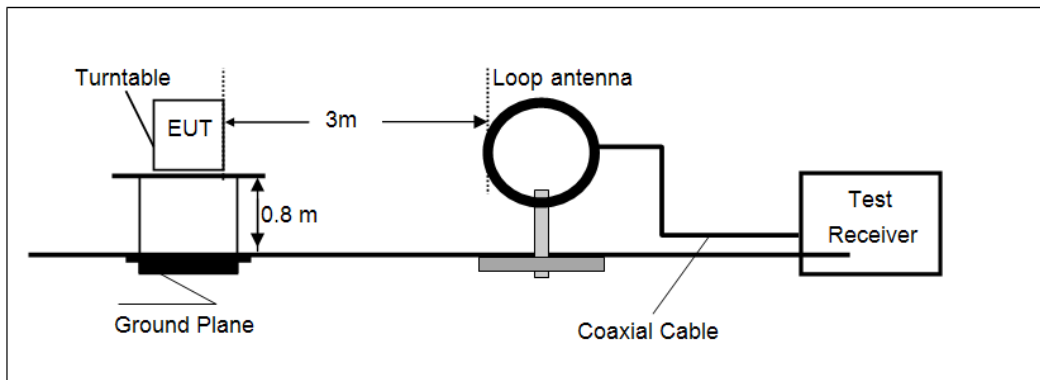
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

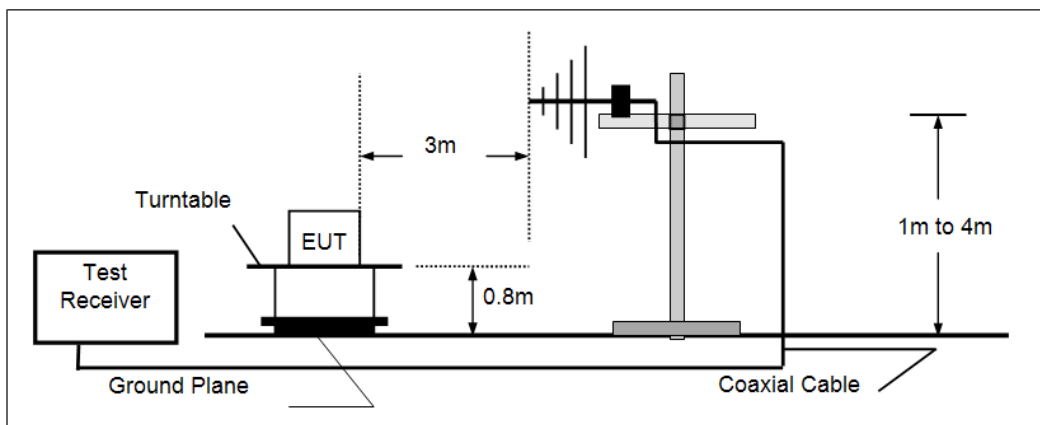
Frequency	Limit (dBuV/m @3m)	Value
30 MHz ~ 88 MHz	40.00	Quasi-peak
88 MHz ~ 216 MHz	43.50	Quasi-peak
216 MHz ~ 960 MHz	46.00	Quasi-peak
960 MHz ~ 1 GHz	54.00	Quasi-peak
Above 1 GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

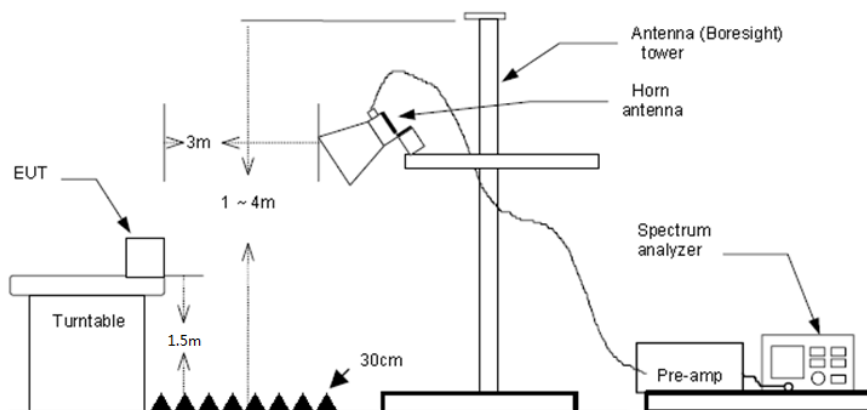
➤ Below 30 MHz



➤ 30 MHz ~1000 MHz



➤ Above 1 GHz



TEST PROCEDURE

1. The EUT was tested according to ANSI C63.10:2013.
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 Peak detector for Peak value
RBW=1 MHz, VBW=10 Hz Peak detector for Average value.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

Passed **Not Applicable**

Note:

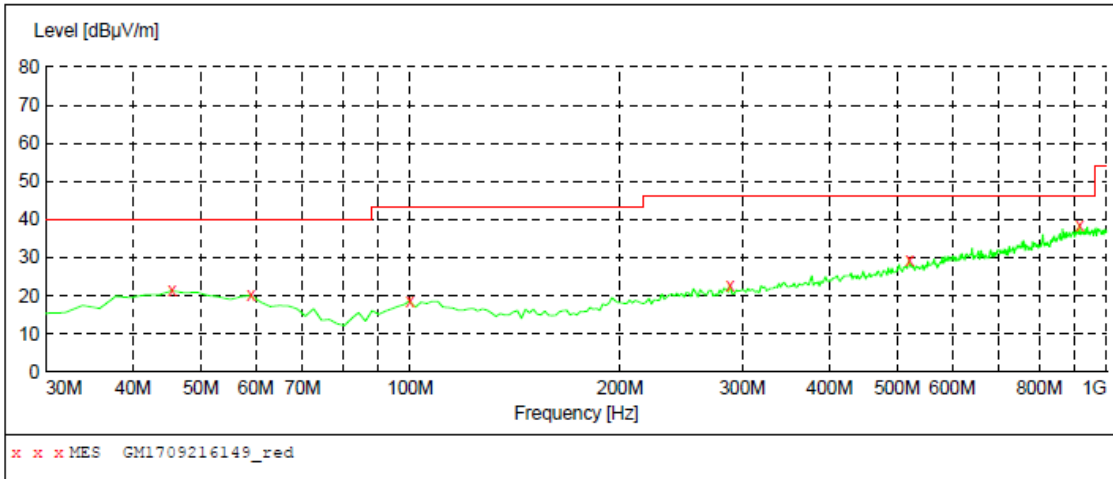
- 1) Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2) The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3) Below 1 GHz, Have pre-scan all modulation mode, found the GFSK modulation High channel which it was 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

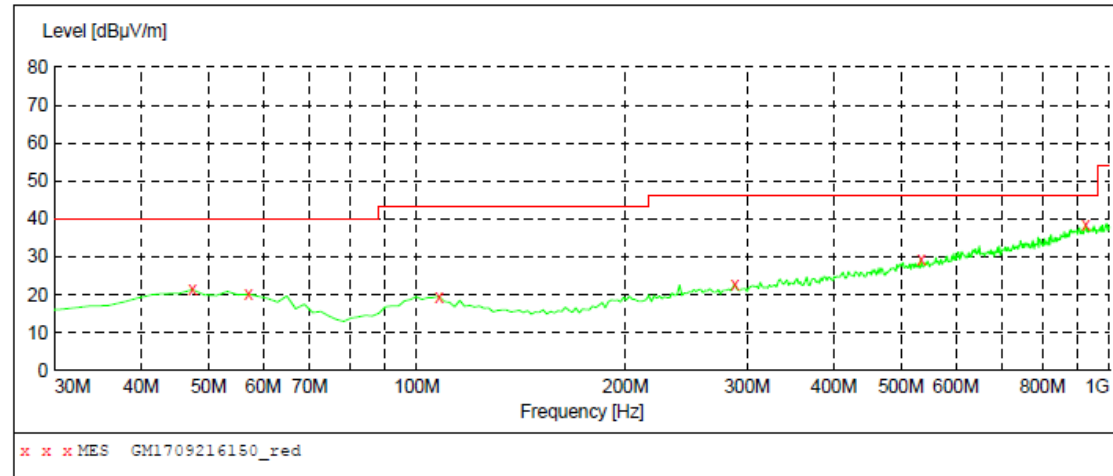


MEASUREMENT RESULT: "GM1709216149_red"

9/21/2017 8:34PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
45.520000	21.40	-8.8	40.0	18.6	QP	100.0	282.00	VERTICAL
59.100000	20.10	-9.8	40.0	19.9	QP	100.0	257.00	VERTICAL
99.840000	18.70	-10.6	43.5	24.8	QP	100.0	232.00	VERTICAL
288.020000	22.70	-7.5	46.0	23.3	QP	100.0	309.00	VERTICAL
520.820000	29.20	-1.3	46.0	16.8	QP	100.0	222.00	VERTICAL
914.640000	38.60	6.9	46.0	7.4	QP	100.0	84.00	VERTICAL

Polarization: Horizontal



MEASUREMENT RESULT: "GM1709216150_red"

9/21/2017 8:38PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
47.460000	21.40	-8.8	40.0	18.6	QP	300.0	17.00	HORIZONTAL
57.160000	20.20	-9.4	40.0	19.8	QP	300.0	56.00	HORIZONTAL
107.600000	19.60	-10.6	43.5	23.9	QP	300.0	298.00	HORIZONTAL
288.020000	22.80	-7.5	46.0	23.2	QP	100.0	179.00	HORIZONTAL
534.400000	29.20	-1.1	46.0	16.8	QP	100.0	50.00	HORIZONTAL
924.340000	38.30	7.0	46.0	7.7	QP	100.0	0.00	HORIZONTAL

➤ Above 1 GHz

CH00									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1823.48	37.52	25.38	6.00	37.16	31.74	74.00	-42.26	Vertical	Peak
4343.90	35.44	30.33	9.08	37.59	37.26	74.00	-36.74	Vertical	Peak
5703.86	34.54	31.62	10.44	35.58	41.02	74.00	-32.98	Vertical	Peak
8571.38	32.66	37.19	12.88	34.48	48.25	74.00	-25.75	Vertical	Peak
1943.29	47.32	25.74	6.18	37.25	41.99	74.00	-32.01	Horizontal	Peak
3128.01	37.22	28.80	7.63	38.21	35.44	74.00	-38.56	Horizontal	Peak
4809.50	43.14	31.58	9.55	36.93	47.34	74.00	-26.66	Horizontal	Peak
7209.02	35.93	36.21	11.87	35.07	48.94	74.00	-25.06	Horizontal	Peak

CH39									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1529.75	38.22	25.53	5.37	36.63	32.49	74.00	-41.51	Vertical	Peak
3552.58	36.51	29.16	8.20	38.34	35.53	74.00	-38.47	Vertical	Peak
4883.52	51.03	31.43	9.59	36.73	55.32	74.00	-18.68	Vertical	Peak
7432.62	33.01	36.23	12.18	34.85	46.57	74.00	-27.43	Vertical	Peak
4883.52	42.04	31.43	9.59	36.73	46.33	54.00	-7.67	Vertical	Average
1943.29	41.58	25.74	6.18	37.25	36.25	74.00	-37.75	Horizontal	Peak
4288.96	35.23	30.18	9.02	37.61	36.82	74.00	-37.18	Horizontal	Peak
5099.49	34.26	31.90	9.75	36.30	39.61	74.00	-34.39	Horizontal	Peak
7470.56	32.77	36.16	12.30	34.88	46.35	74.00	-27.65	Horizontal	Peak

CH78									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
3080.60	37.34	28.76	7.58	38.22	35.46	74.00	-38.54	Vertical	Peak
4712.55	34.26	31.25	9.51	37.08	37.94	74.00	-36.06	Vertical	Peak
7432.62	33.88	36.23	12.18	34.85	47.44	74.00	-26.56	Vertical	Peak
9784.47	34.12	39.10	13.65	35.65	51.22	74.00	-22.78	Vertical	Peak
1958.19	42.59	25.89	6.21	37.27	37.42	74.00	-36.58	Horizontal	Peak
3923.37	35.41	29.70	8.67	38.16	35.62	74.00	-38.38	Horizontal	Peak
4958.68	46.97	31.46	9.64	36.52	51.55	74.00	-22.45	Horizontal	Peak
7063.69	32.80	35.49	11.85	34.88	45.26	74.00	-28.74	Horizontal	Peak

6. TEST SETUP PHOTOS

Conducted Emissions



Radiated Emissions





7. EXTERANAL AND INTERNAL PHOTOS

Reference to the test report No.: TRE1709016401.

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