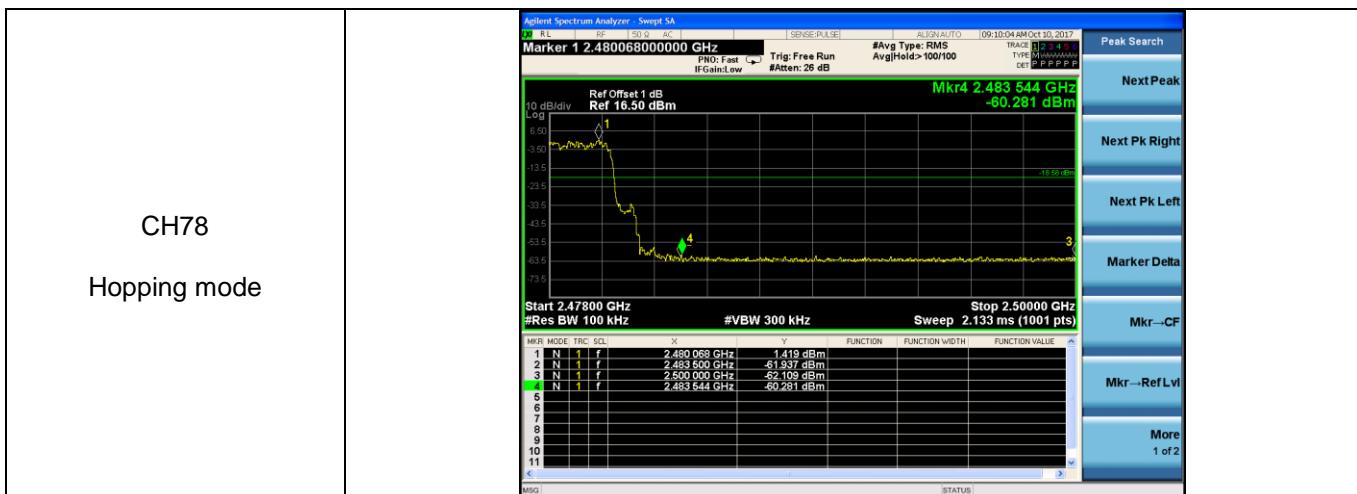
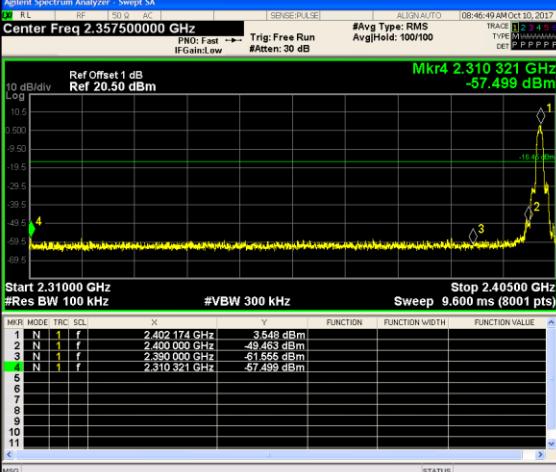
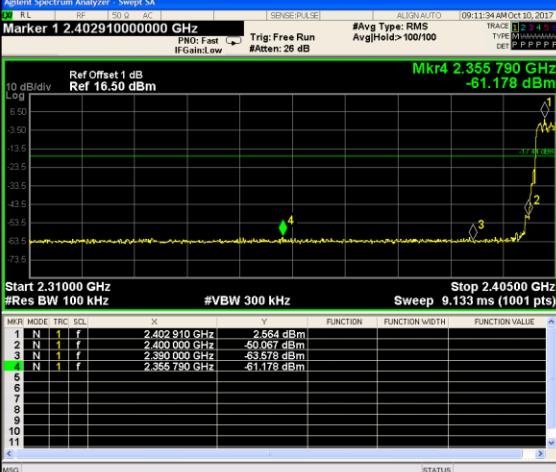
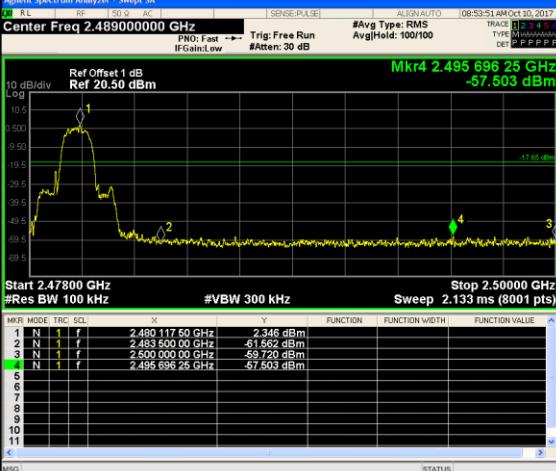
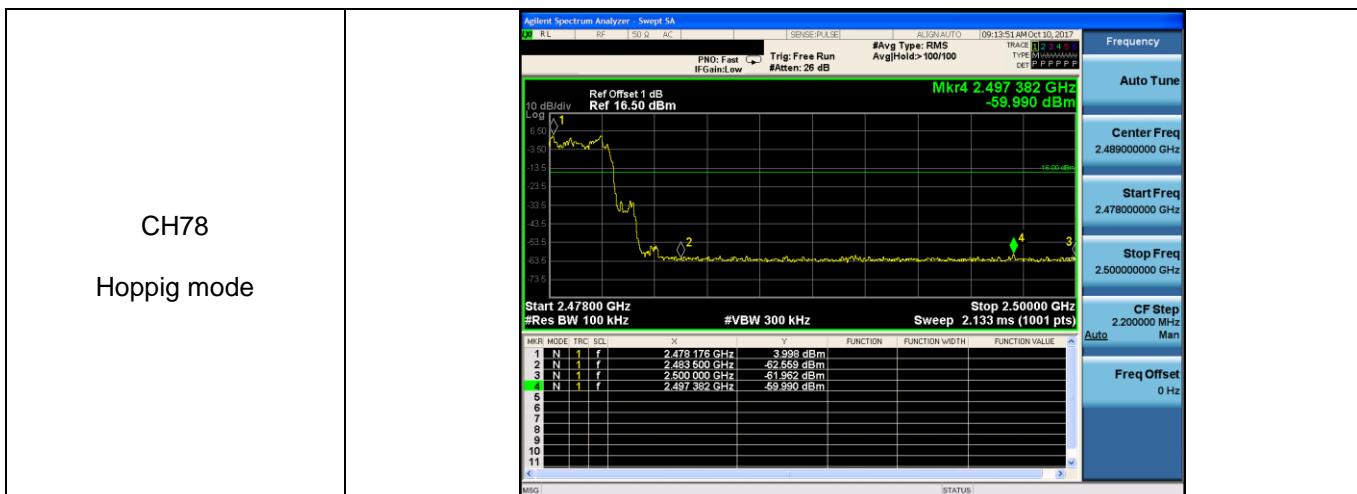
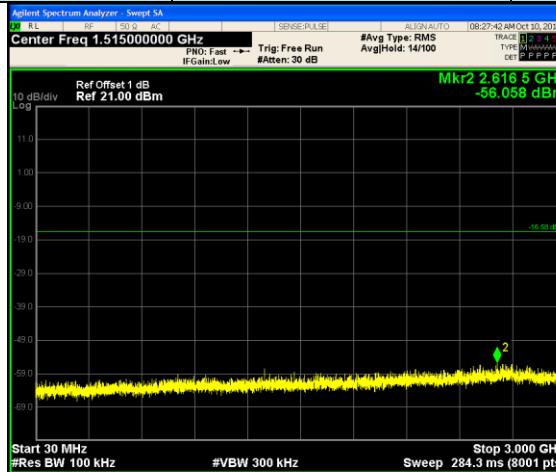
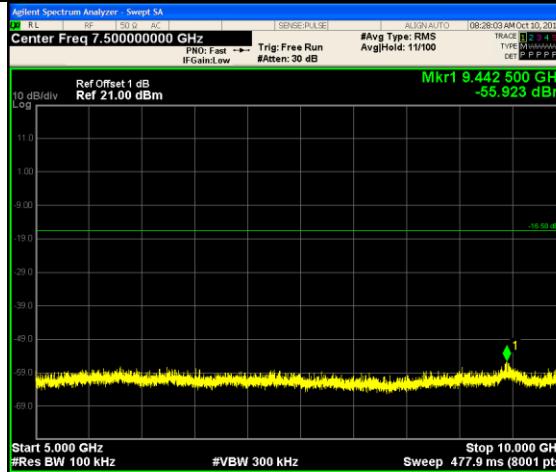


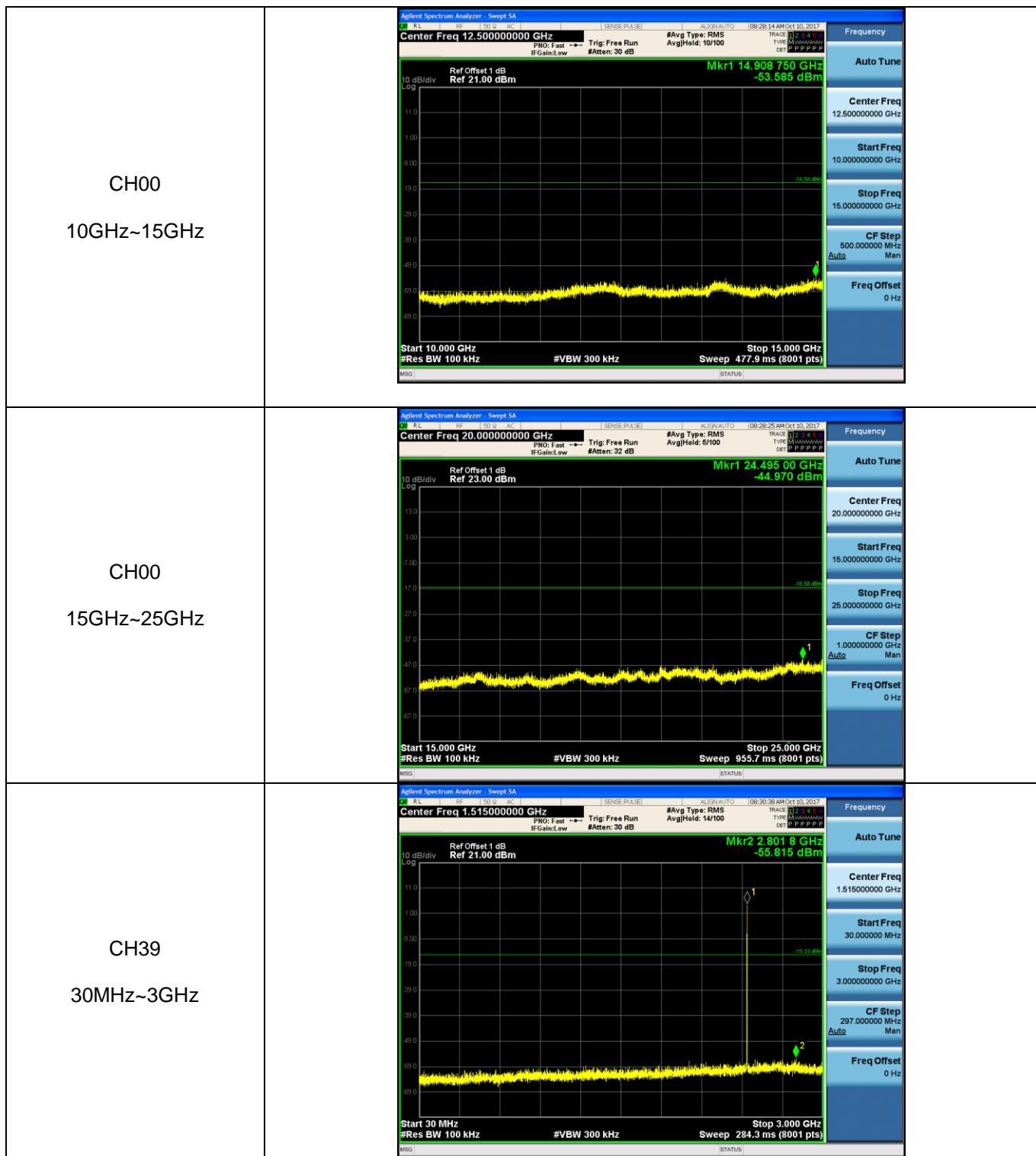
Test Item:	Band edge	Modulation type:	$\pi/4$ DQPSK																								
CH00	No hopping mode	<p>Agilent Spectrum Analyzer - Sweep SA</p> <p>Center Freq 2.357500000 GHz</p> <p>Ref Offset 1 dB Ref 20.50 dBm</p> <p>Start 2.31000 GHz Stop 2.40500 GHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 9.600 ms (8001 pts)</p> <p>Mkr4 2.375 146 GHz -58.351 dBm</p> <p>Marker Data:</p> <table border="1"> <tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.402 079 GHz</td><td>2.162 dBm</td></tr> <tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.400 000 GHz</td><td>-51.977 dBm</td></tr> <tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.399 000 GHz</td><td>-52.277 dBm</td></tr> <tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.375 146 GHz</td><td>-58.351 dBm</td></tr> </table>	1	N	1	f	2.402 079 GHz	2.162 dBm	2	N	1	f	2.400 000 GHz	-51.977 dBm	3	N	1	f	2.399 000 GHz	-52.277 dBm	4	N	1	f	2.375 146 GHz	-58.351 dBm	Frequency Auto Tune Center Freq 2.357500000 GHz Start Freq 2.310000000 GHz Stop Freq 2.405000000 GHz CF Step 9.500000 MHz Auto Freq Offset 0 Hz
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CH00	Hopping mode	<p>Agilent Spectrum Analyzer - Sweep SA</p> <p>Marker 1 2.402150000000 GHz</p> <p>Ref Offset 1 dB Ref 16.50 dBm</p> <p>Start 2.31000 GHz Stop 2.40500 GHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 9.133 ms (1001 pts)</p> <p>Mkr4 2.389 230 GHz -60.830 dBm</p> <p>Marker Data:</p> <table border="1"> <tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.402 150 GHz</td><td>1.961 dBm</td></tr> <tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.400 000 GHz</td><td>-53.363 dBm</td></tr> <tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.399 000 GHz</td><td>-52.693 dBm</td></tr> <tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.389 230 GHz</td><td>-60.830 dBm</td></tr> </table>	1	N	1	f	2.402 150 GHz	1.961 dBm	2	N	1	f	2.400 000 GHz	-53.363 dBm	3	N	1	f	2.399 000 GHz	-52.693 dBm	4	N	1	f	2.389 230 GHz	-60.830 dBm	Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr-->Ref Lvl More 1 of 2
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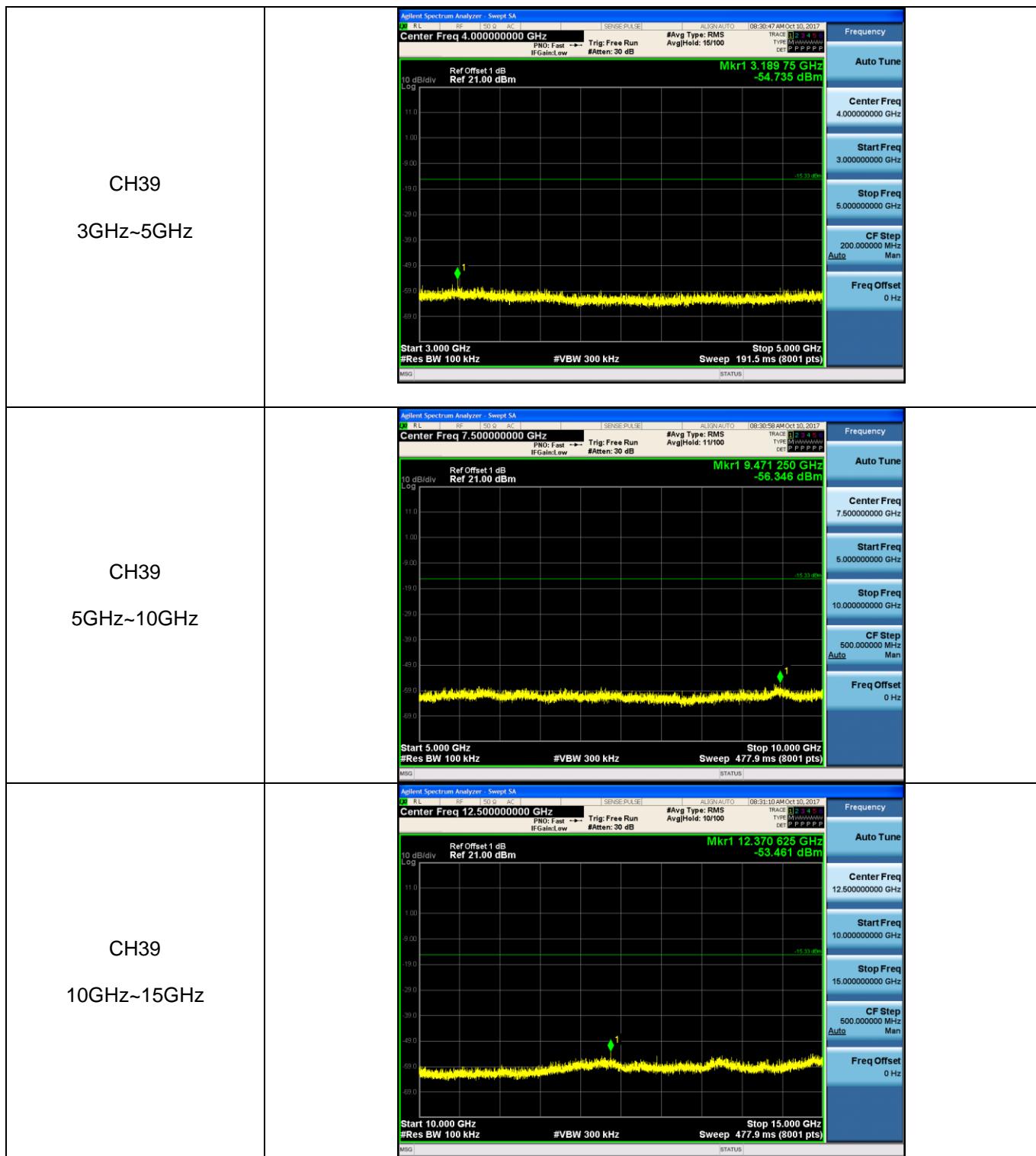


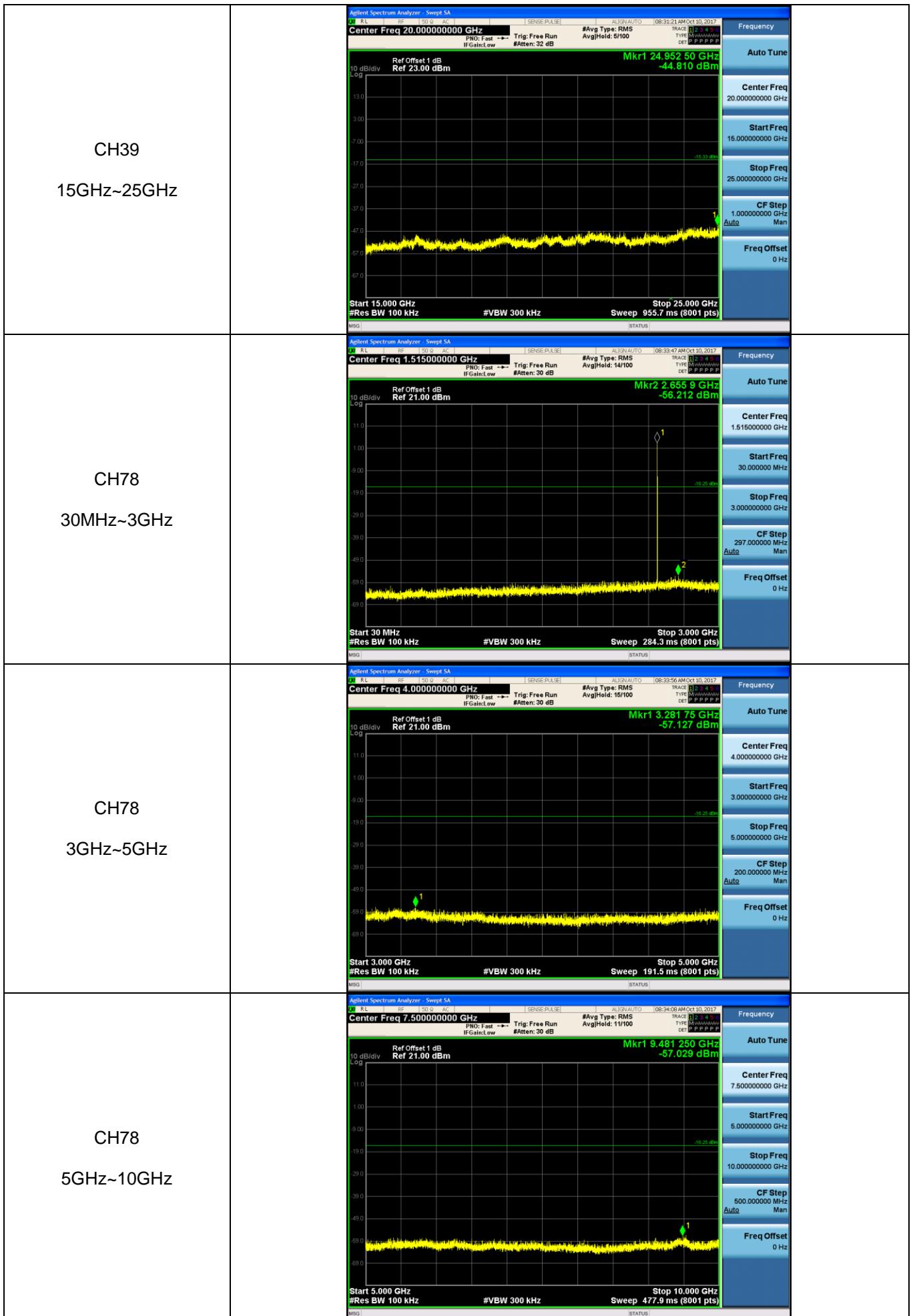
Test Item:	Band edge	Modulation type:	8DPSK																																																																																																
CH00	No hopping mode	 <p>Marker 2.310321 GHz -57.499 dBm</p> <p>Start 2.31000 GHz Stop 2.40500 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 9.600 ms (8001 pts)</p> <table border="1"> <tr><td>MKR MODE</td><td>TRC</td><td>SCL</td><td>X</td><td>Y</td><td>FUNCTION</td><td>FUNCTION WIDTH</td><td>FUNCTION VALUE</td></tr> <tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.402 174 GHz</td><td>3.548 dBm</td><td></td><td></td></tr> <tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.400 000 GHz</td><td>-49.463 dBm</td><td></td><td></td></tr> <tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.390 000 GHz</td><td>-61.565 dBm</td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.310 321 GHz</td><td>-57.499 dBm</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	MKR MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.402 174 GHz	3.548 dBm			2	N	1	f	2.400 000 GHz	-49.463 dBm			3	N	1	f	2.390 000 GHz	-61.565 dBm			4	N	1	f	2.310 321 GHz	-57.499 dBm			5								6								7								8								9								10								11								Frequency Auto Tune Center Freq 2.35750000 GHz Start Freq 2.31000000 GHz Stop Freq 2.40500000 GHz CF Step 9.500000 MHz Auto Freq Offset 0 Hz
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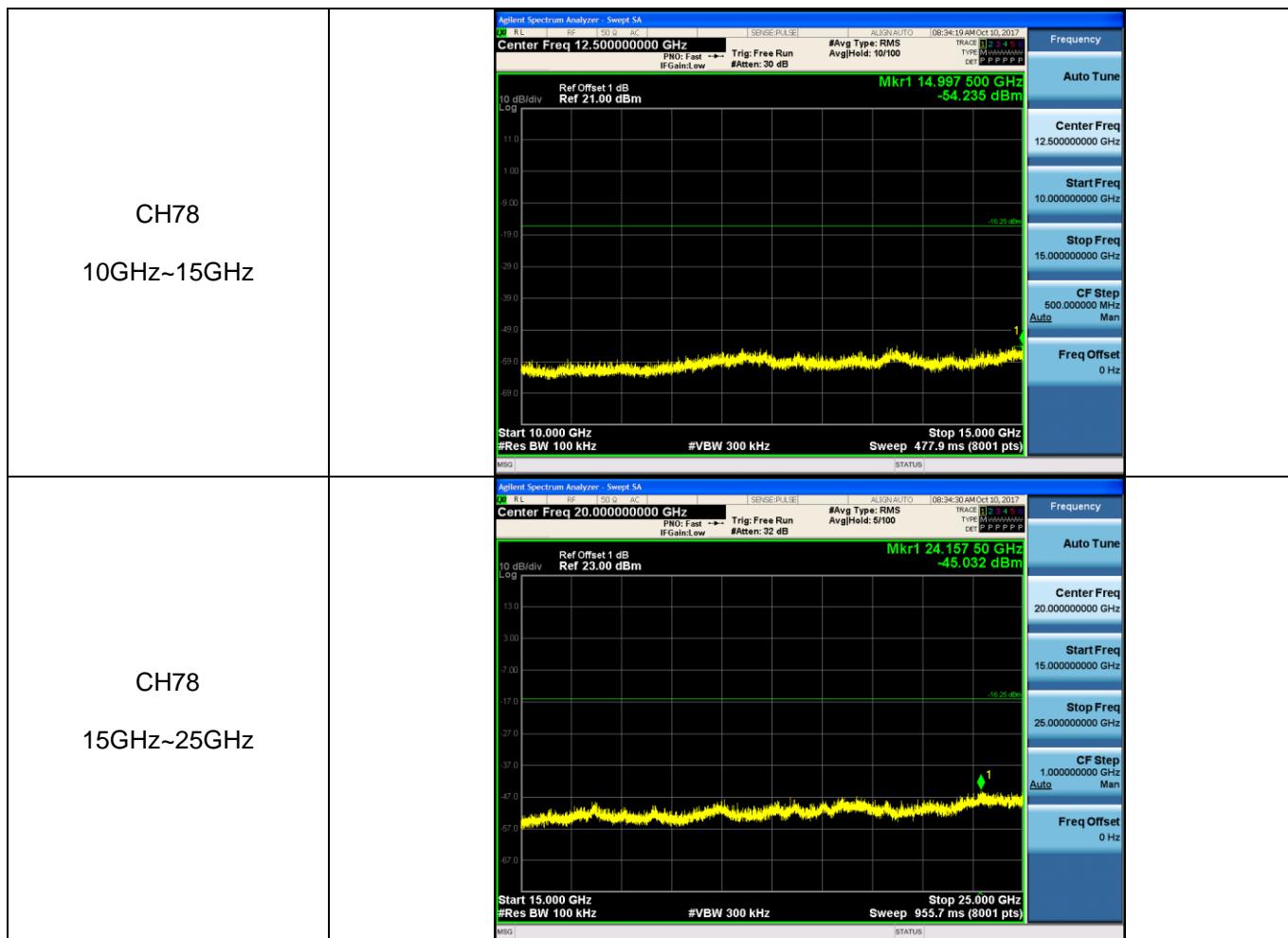


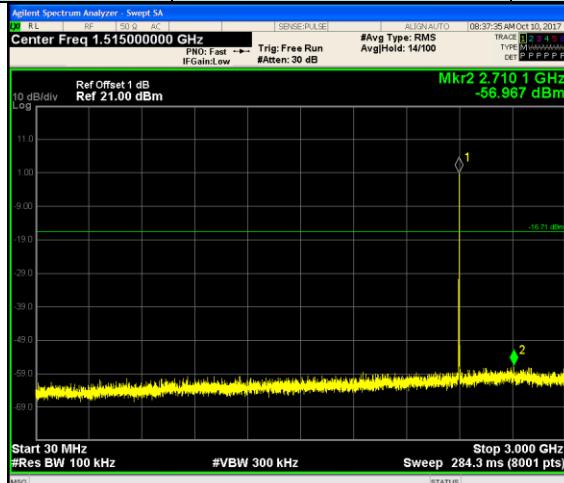
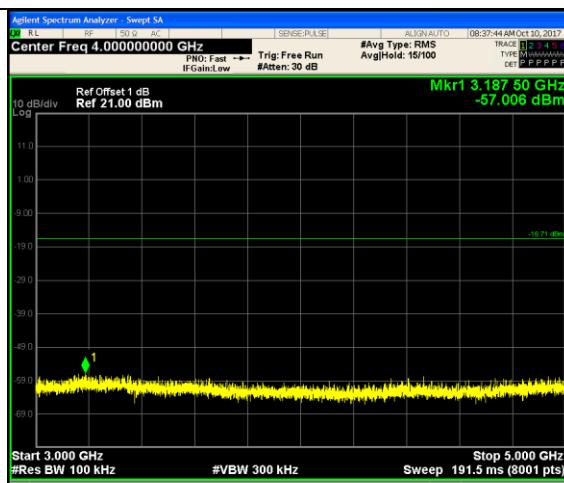
Test Item:	SE	Modulation type:	GFSK
CH00 30MHz~3GHz			
CH00 3GHz~5GHz			
CH00 5GHz~10GHz			

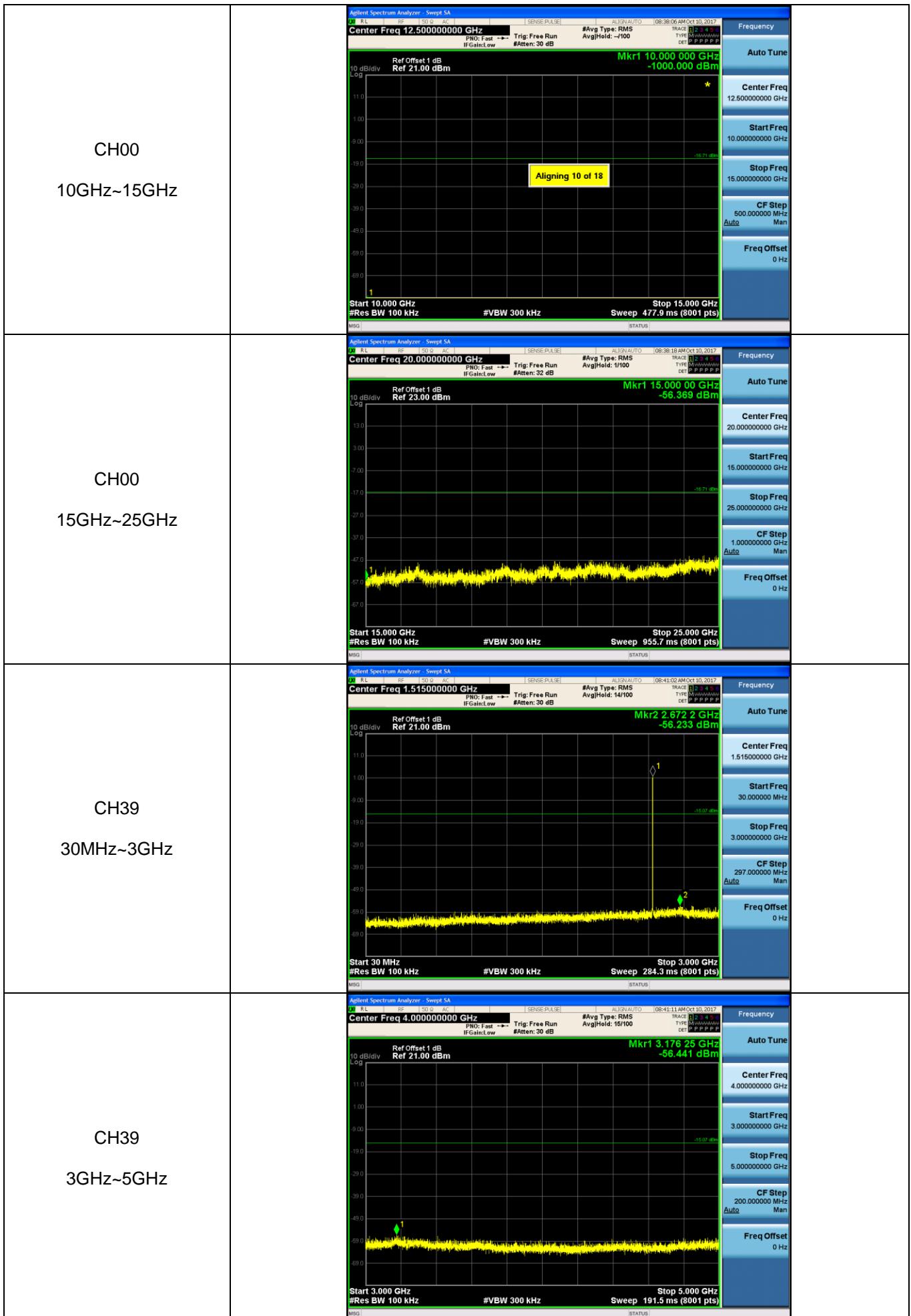


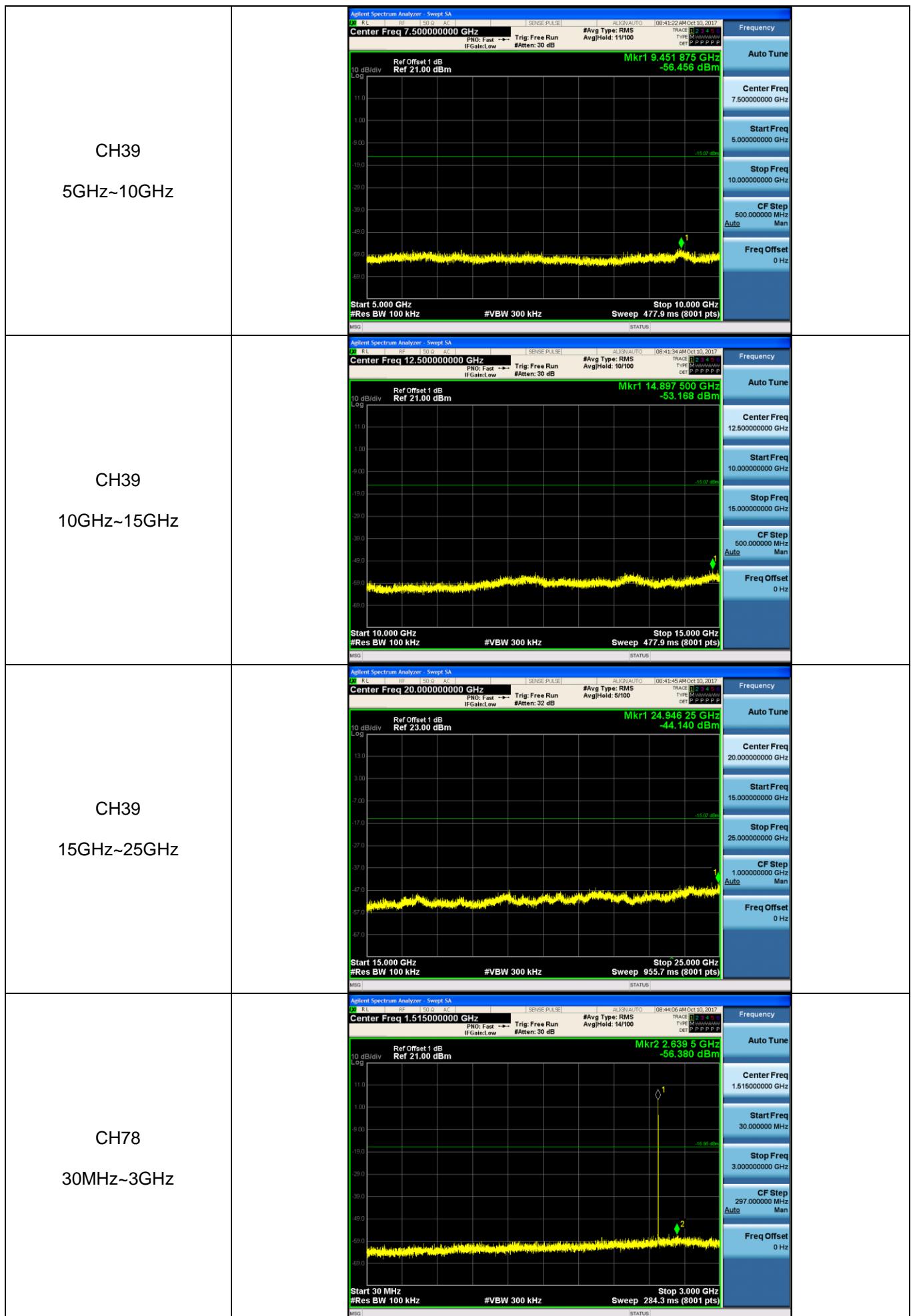


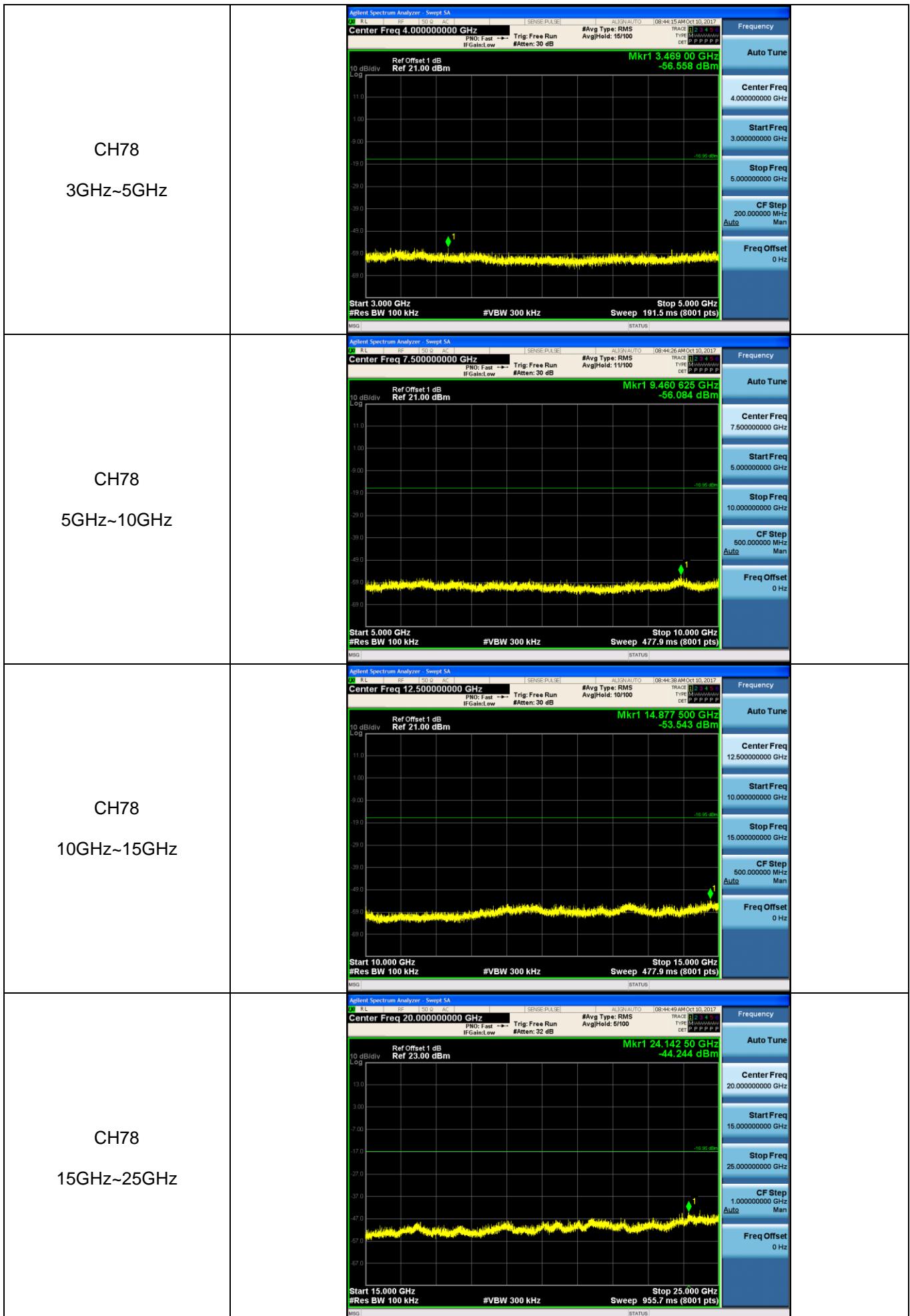


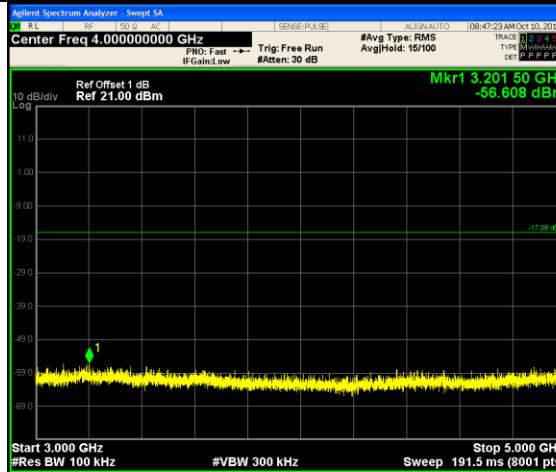
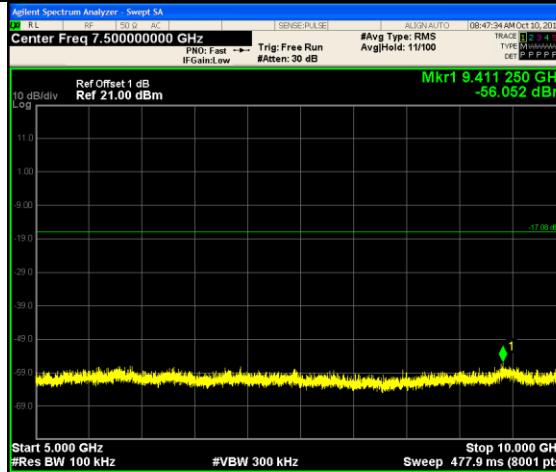


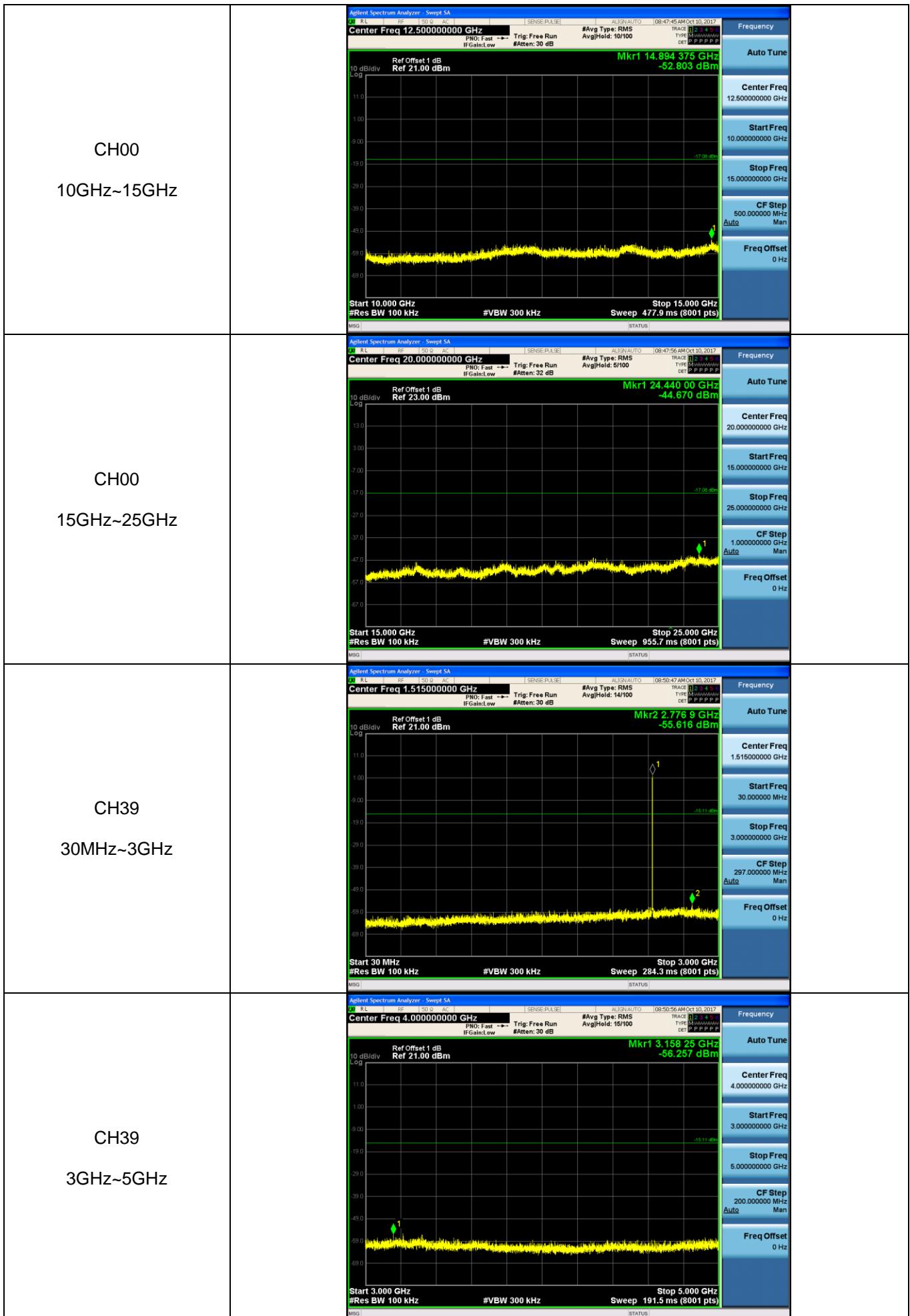
Test Item:	SE	Modulation type:	$\pi/4$ DQPSK
CH00 30MHz~3GHz			
CH00 3GHz~5GHz			
CH00 5GHz~10GHz			

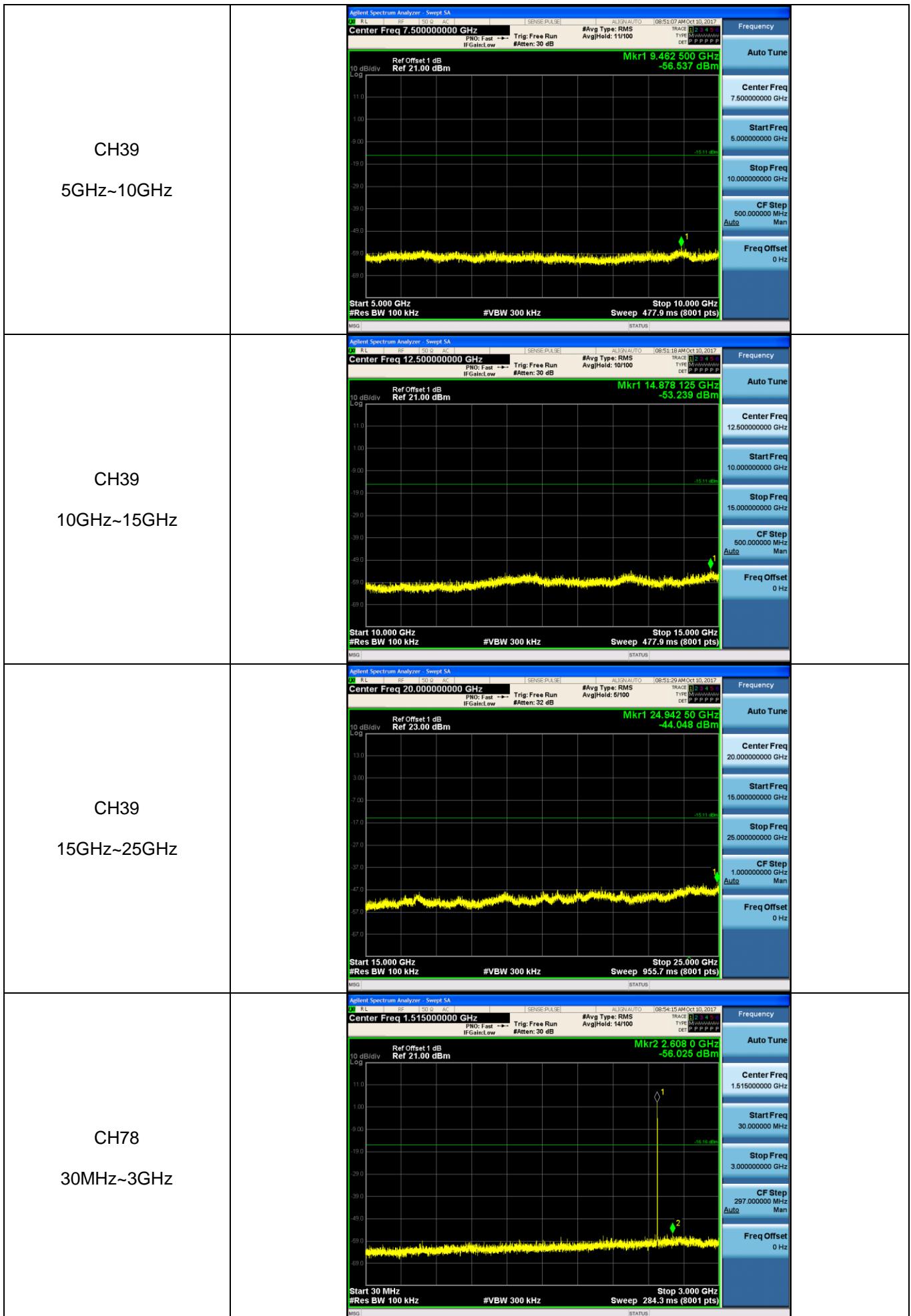


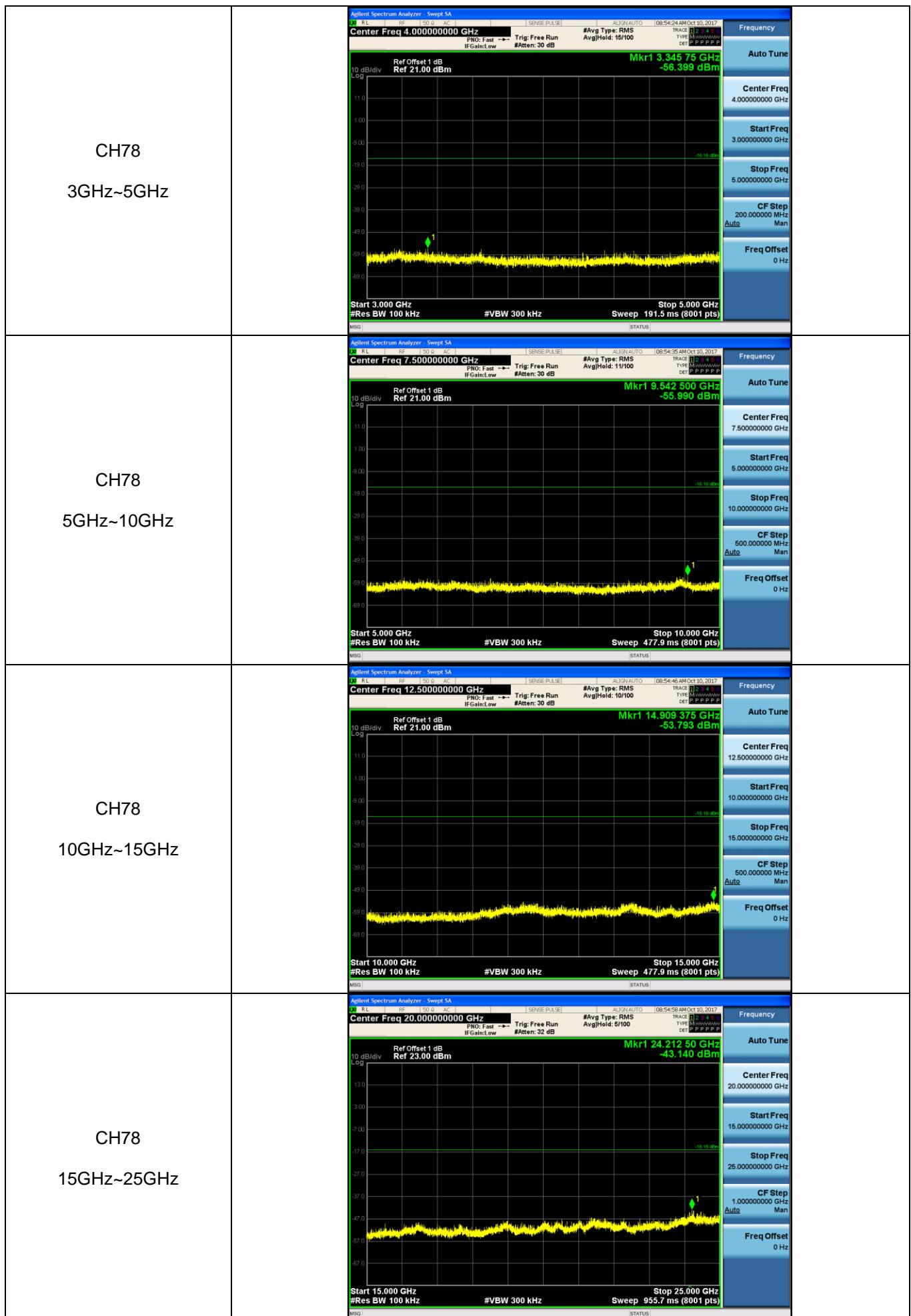




Test Item:	SE	Modulation type:	8DPSK
CH00 30MHz~3GHz			
CH00 3GHz~5GHz			
CH00 5GHz~10GHz			







5.11. Spurious Emissions (radiated)

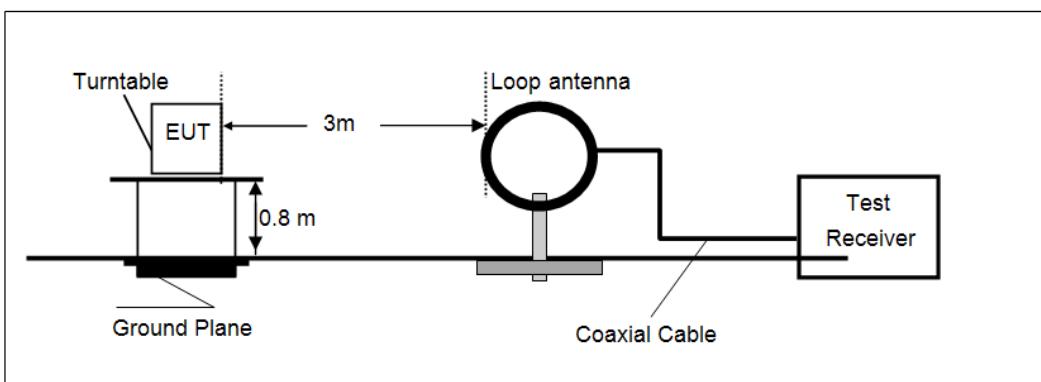
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

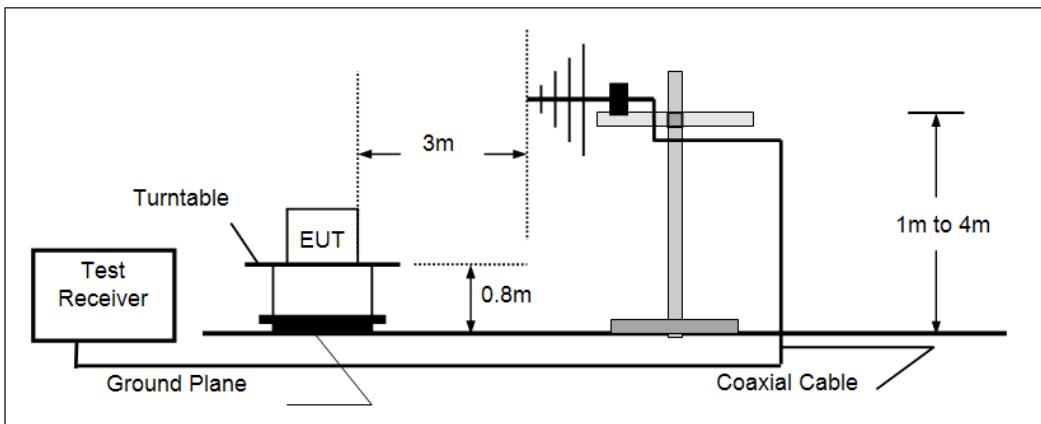
Frequency	Limit (dB _{UV} /m @ 3m)	Value
30 MHz ~ 88 MHz	40.00	Quasi-peak
88 MHz ~ 216 MHz	43.50	Quasi-peak
216 MHz ~ 960 MHz	46.00	Quasi-peak
960 MHz ~ 1 GHz	54.00	Quasi-peak
Above 1 GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

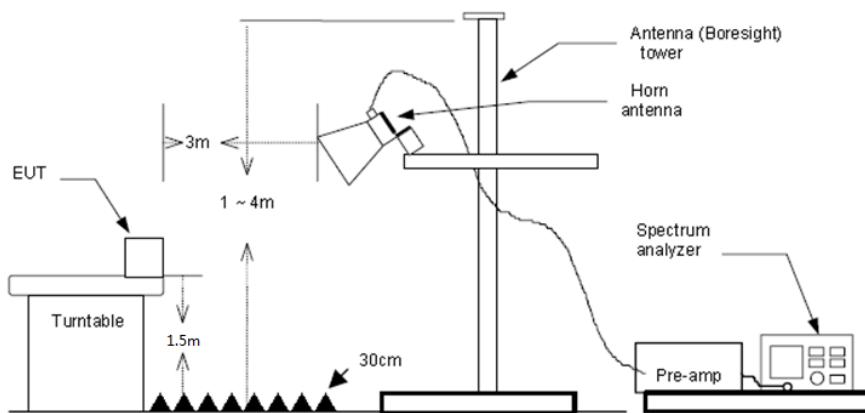
- Below 30 MHz



- 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

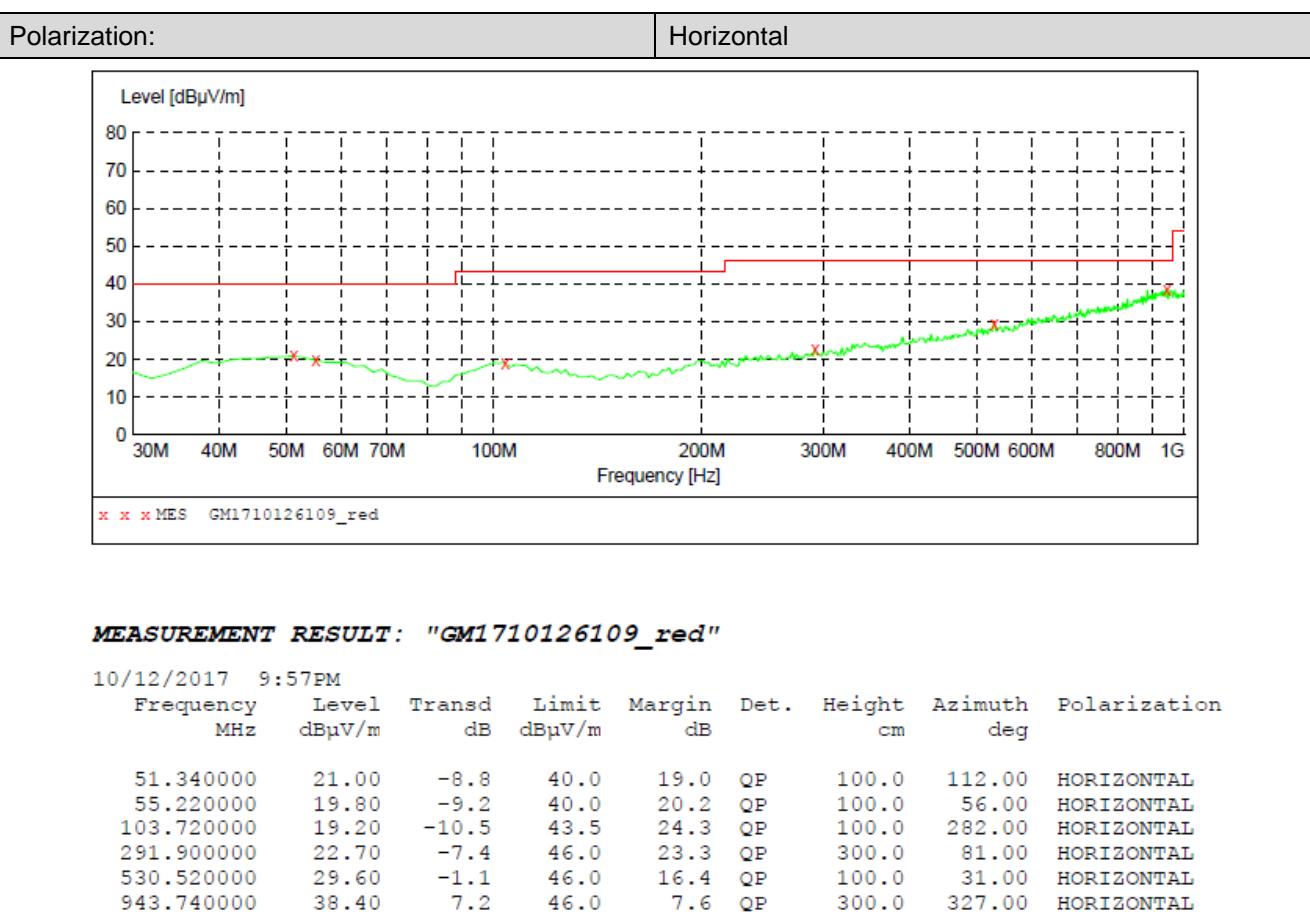
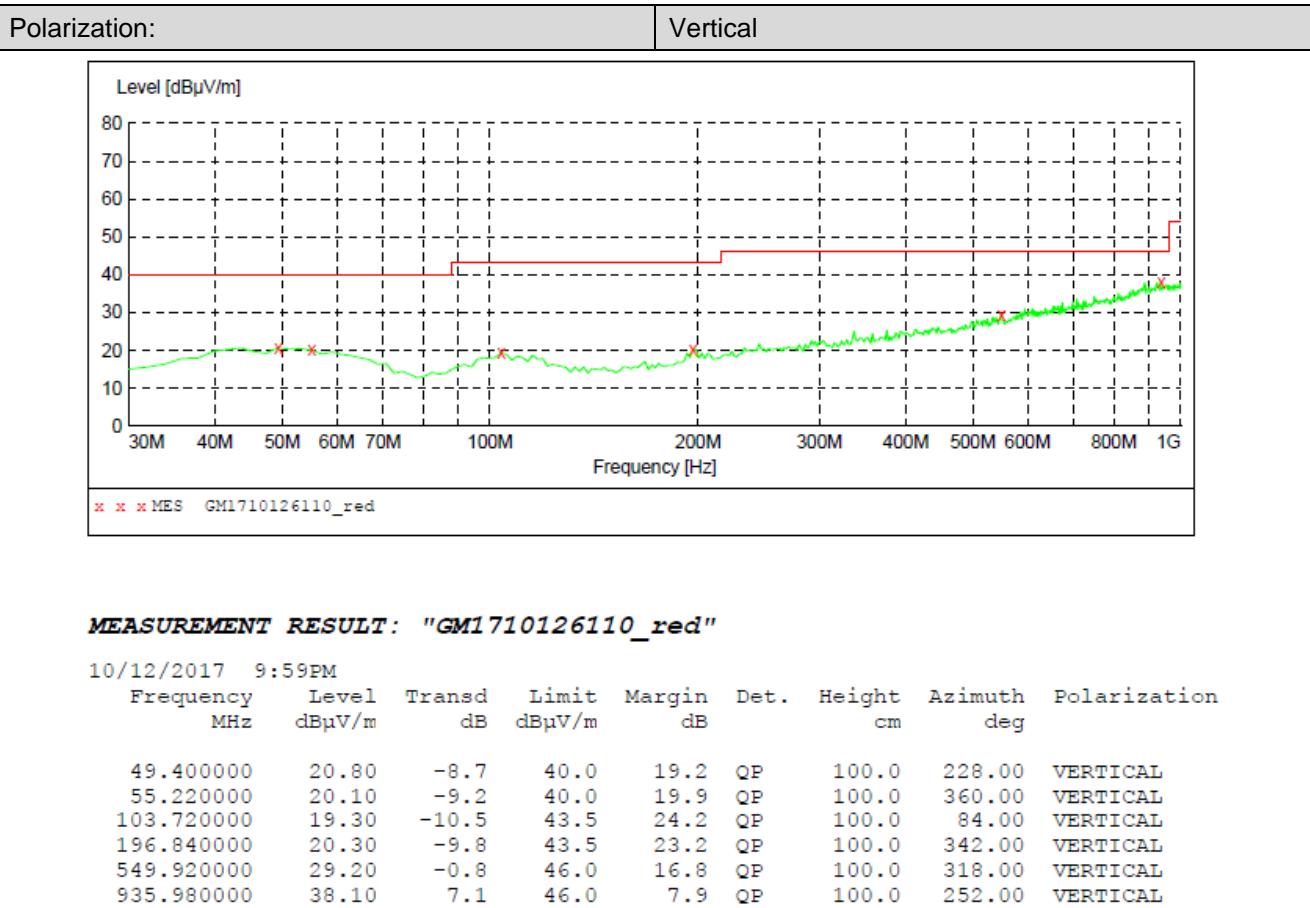
Note:

- 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



> 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
1510.40	36.67	25.70	5.31	36.60	31.08	74.00	-42.92	Vertical	Peak
3653.46	36.31	29.30	8.33	38.26	35.68	74.00	-38.32	Vertical	Peak
4871.10	42.39	31.46	9.59	36.76	46.68	74.00	-27.32	Vertical	Peak
5747.59	38.76	31.84	10.51	35.46	45.65	74.00	-28.35	Vertical	Peak
1442.76	35.97	25.86	5.12	36.52	30.43	74.00	-43.57	Horizontal	Peak
3266.35	35.77	28.40	7.80	38.32	33.65	74.00	-40.35	Horizontal	Peak
4760.78	31.70	31.44	9.52	37.01	35.65	74.00	-38.35	Horizontal	Peak
4871.10	39.55	31.46	9.59	36.76	43.84	74.00	-30.16	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
1510.40	36.67	25.70	5.31	36.60	31.08	74.00	-42.92	Vertical	Peak
3653.46	36.31	29.30	8.33	38.26	35.68	74.00	-38.32	Vertical	Peak
4871.10	40.39	31.46	9.59	36.76	44.68	74.00	-29.32	Vertical	Peak
7319.96	35.60	36.30	11.99	34.92	48.97	74.00	-25.03	Vertical	Peak
1442.76	35.97	25.86	5.12	36.52	30.43	74.00	-43.57	Horizontal	Peak
3266.35	35.77	28.40	7.80	38.32	33.65	74.00	-40.35	Horizontal	Peak
4871.10	39.55	31.46	9.59	36.76	43.84	74.00	-30.16	Horizontal	Peak
7357.33	31.60	36.30	12.03	34.88	45.05	74.00	-28.95	Horizontal	Peak

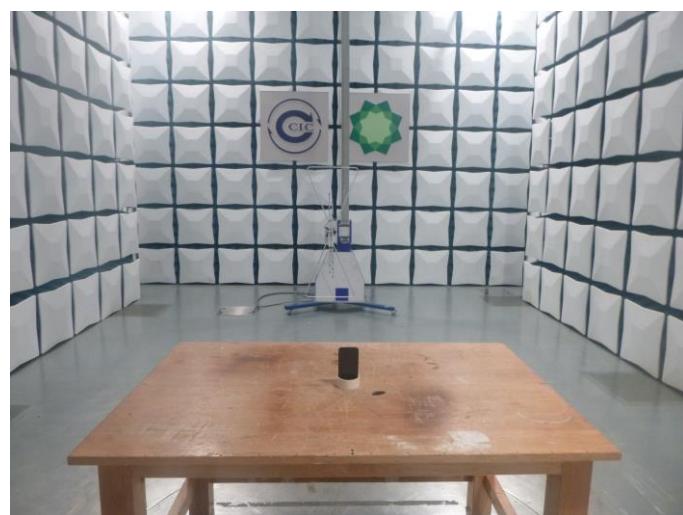
CH78									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1424.51	36.45	25.87	5.07	36.49	30.90	74.00	-43.10	Vertical	Peak
3786.01	34.98	29.56	8.48	38.23	34.79	74.00	-39.21	Vertical	Peak
4958.68	42.47	31.46	9.64	36.52	47.05	74.00	-26.95	Vertical	Peak
7961.43	32.39	36.95	12.49	34.63	47.20	74.00	-26.80	Vertical	Peak
1283.34	36.54	26.22	4.80	36.52	31.04	74.00	-42.96	Horizontal	Peak
3168.08	35.71	28.80	7.68	38.20	33.99	74.00	-40.01	Horizontal	Peak
4958.68	38.73	31.46	9.64	36.52	43.31	74.00	-30.69	Horizontal	Peak
7585.53	32.88	36.19	12.67	34.97	46.77	74.00	-27.23	Horizontal	Peak

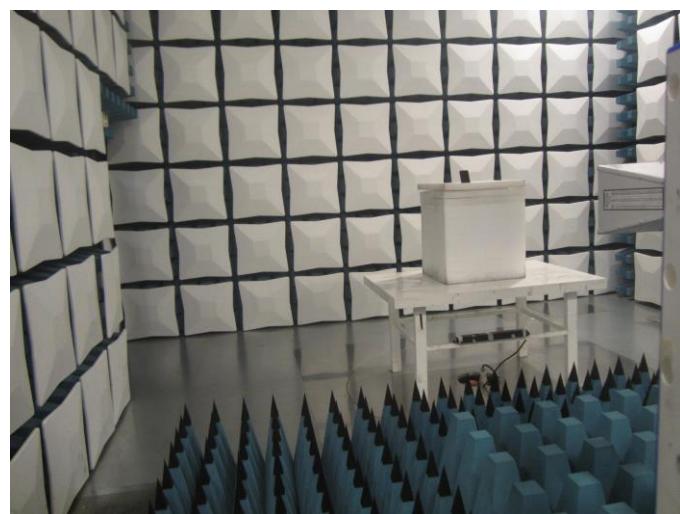
6. TEST SETUP PHOTOS

Conducted Emissions



Radiated Emissions





7. EXTERANAL AND INTERNAL PHOTOS

Reference to the test report No.: TRE1709024801.

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