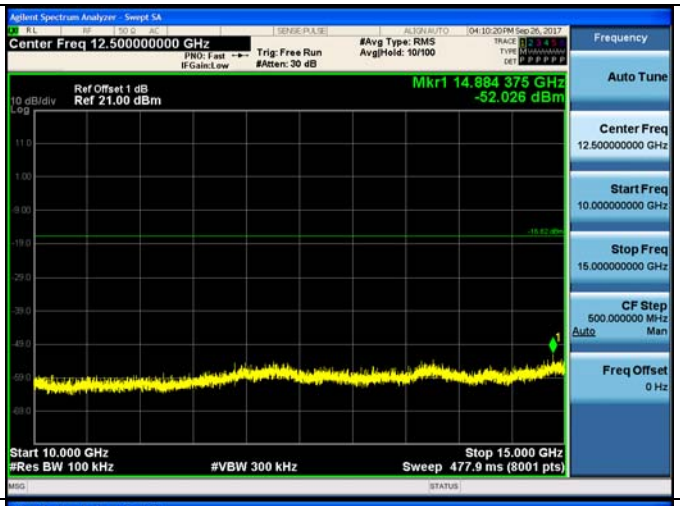
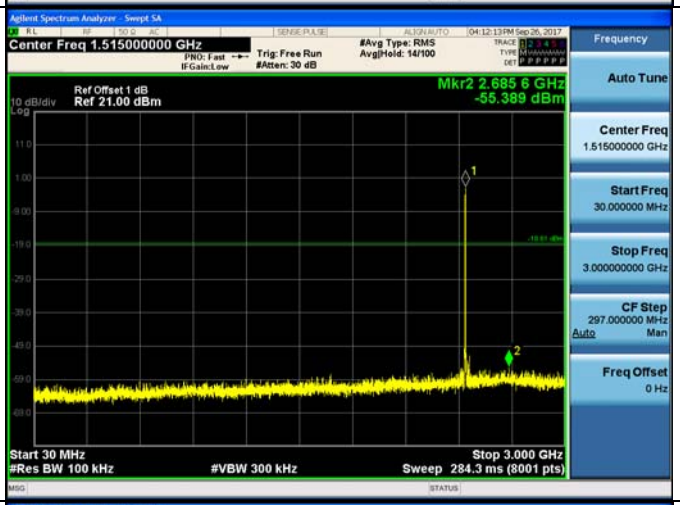
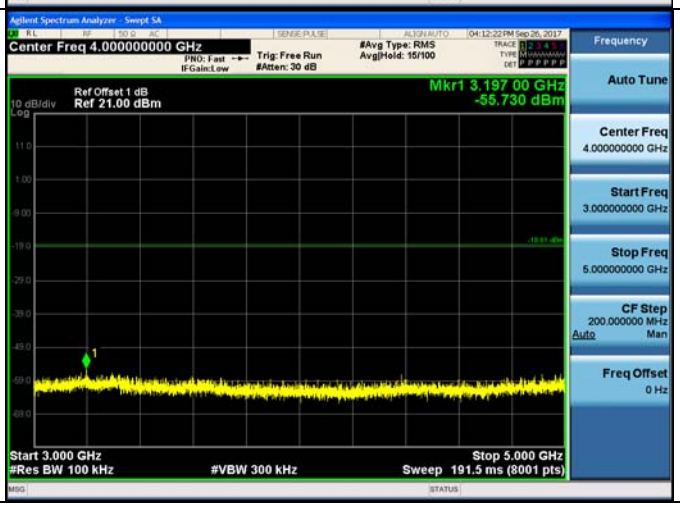
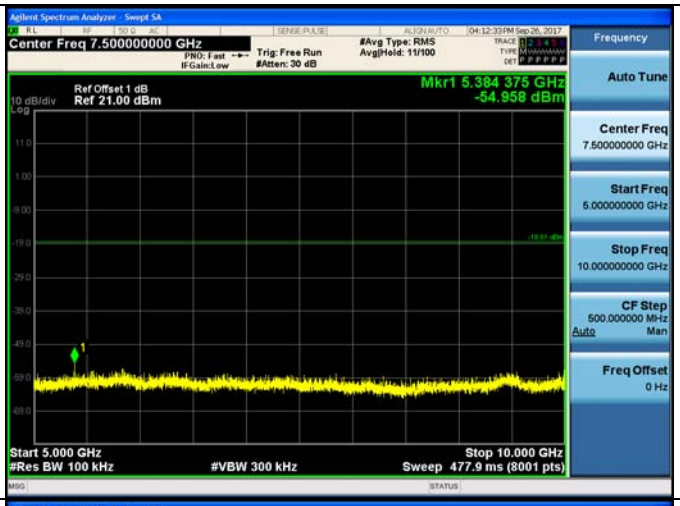
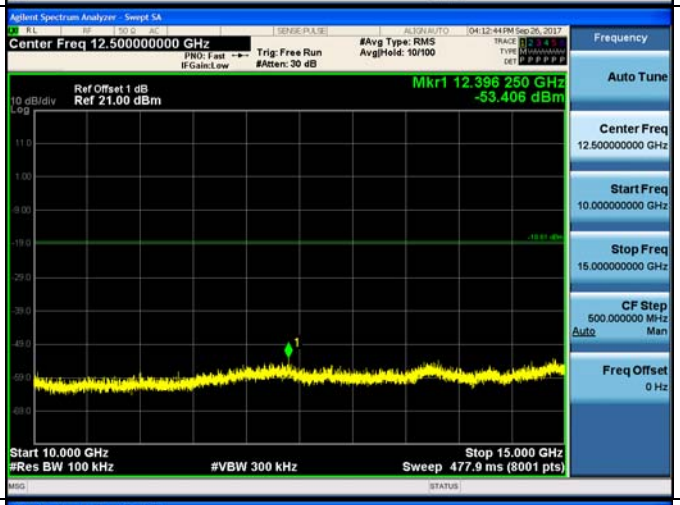
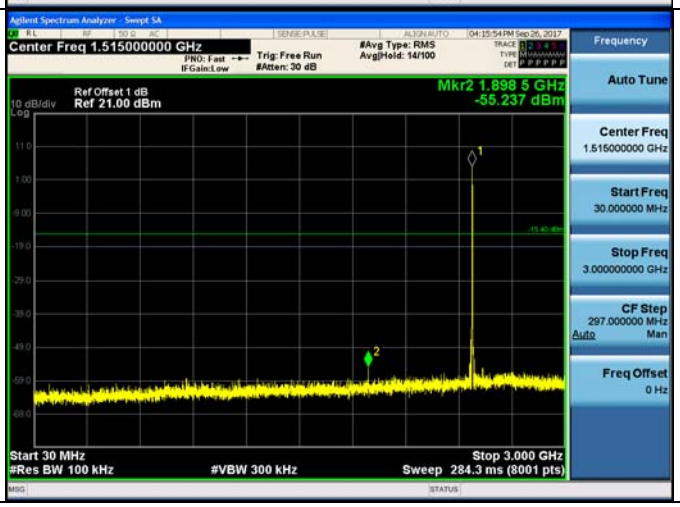
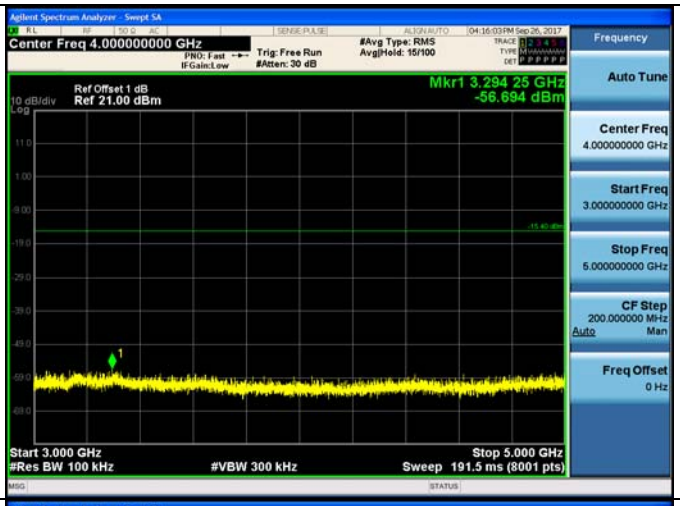
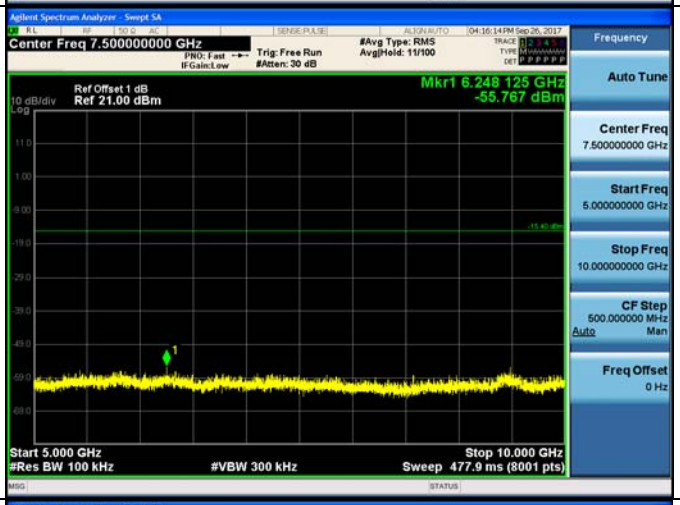
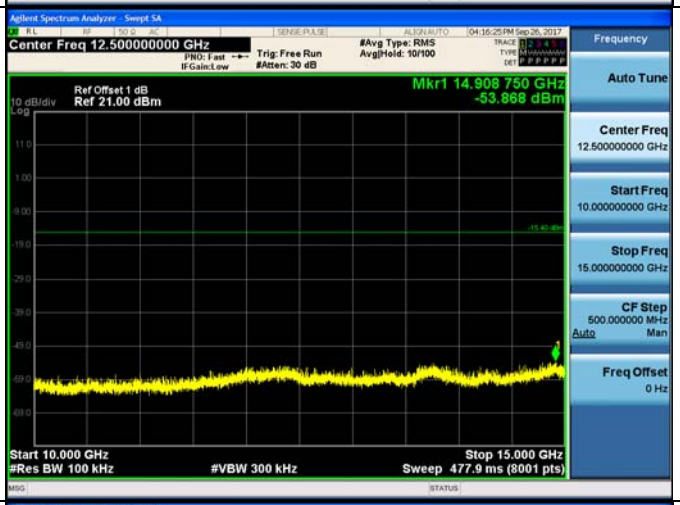
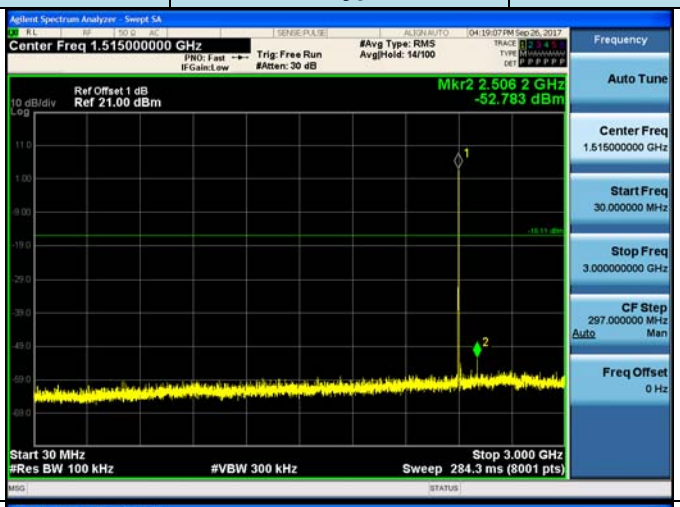
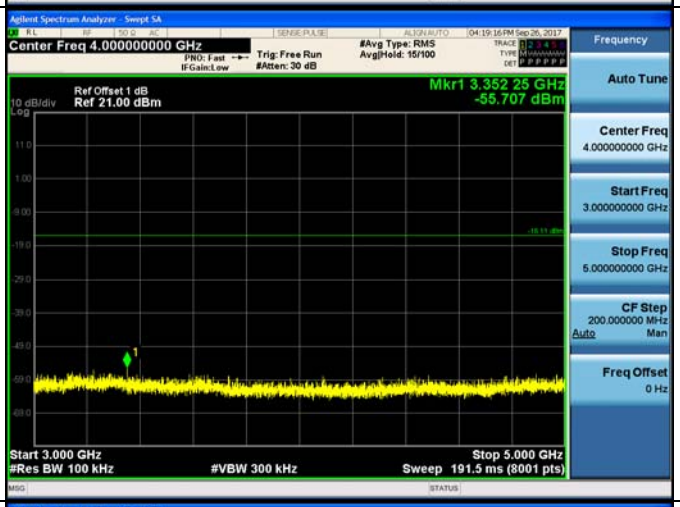
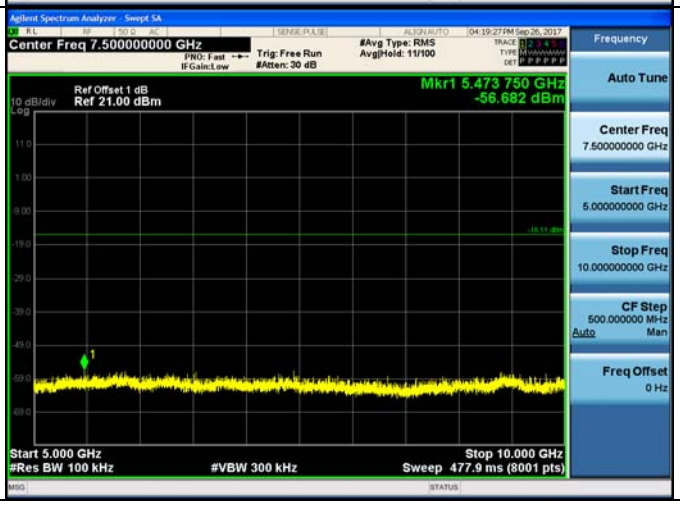
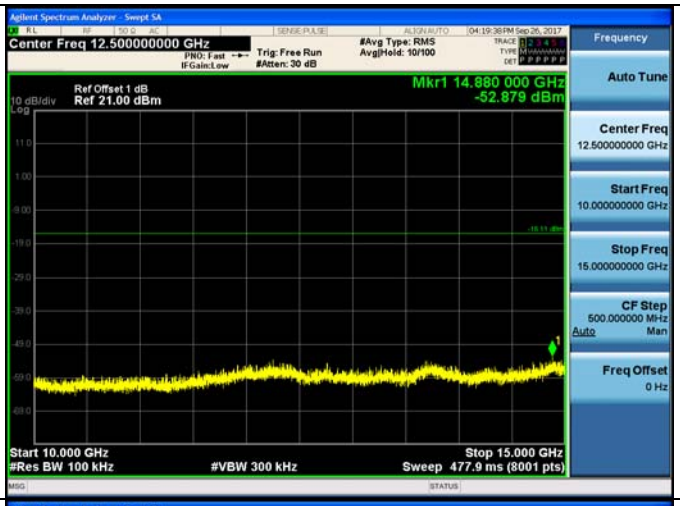
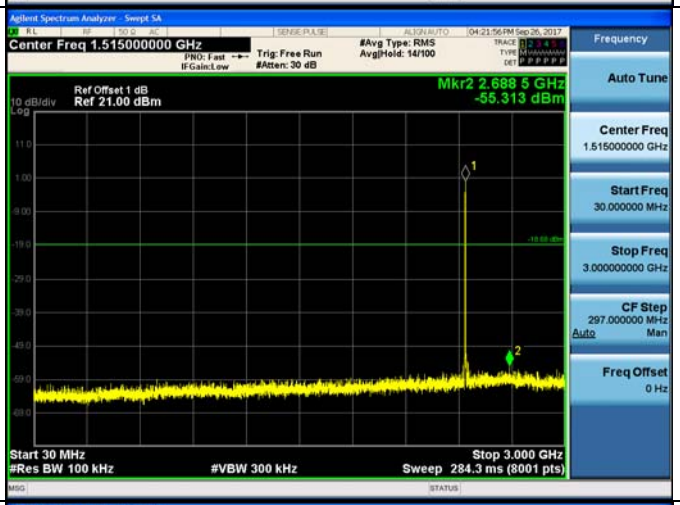
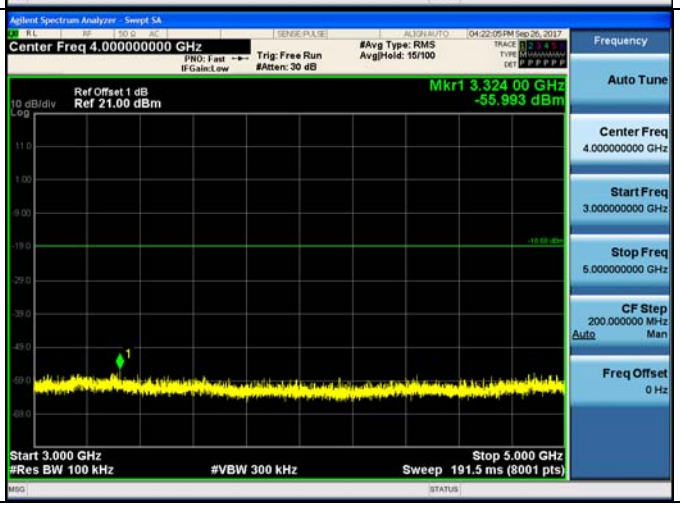
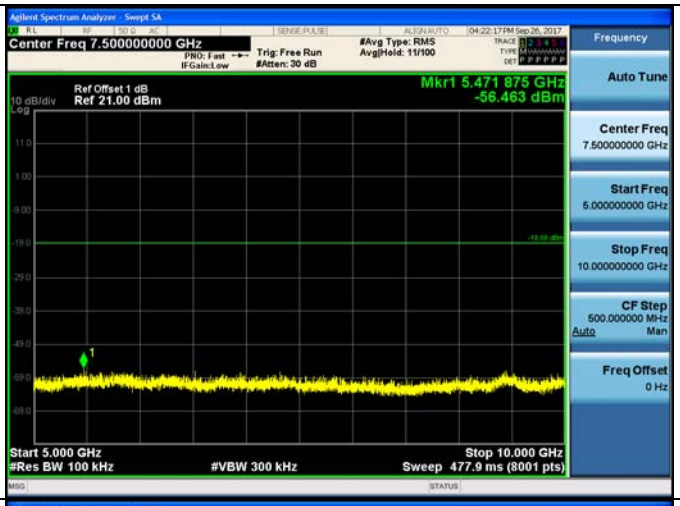
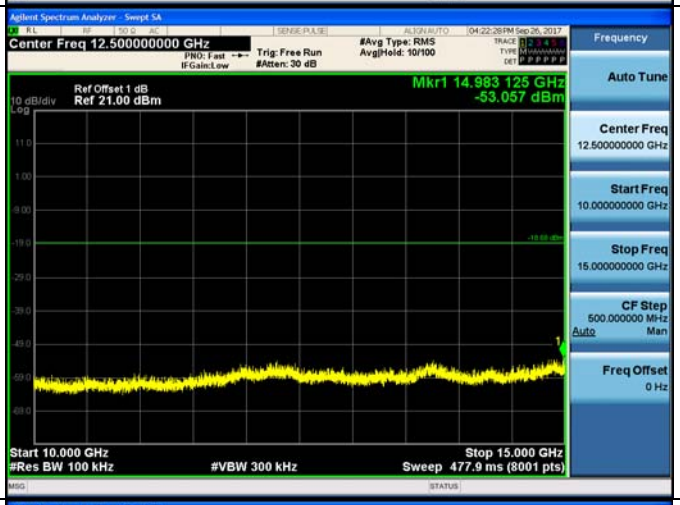
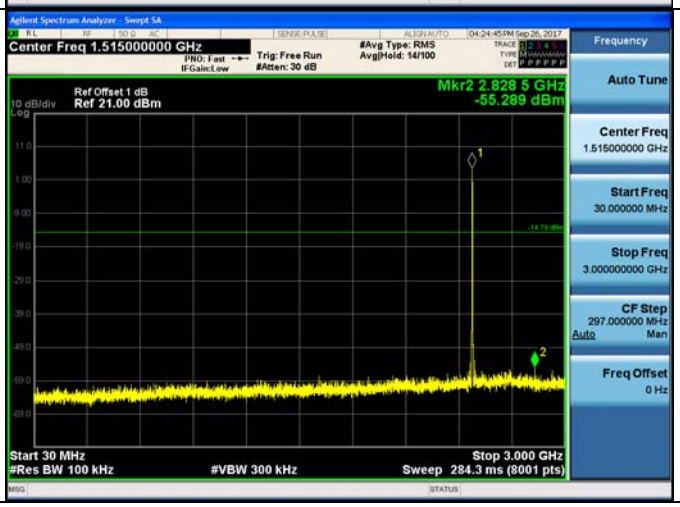
CH00 10GHz~15GHz		
CH00 15GHz~25GHz		
CH39 30MHz~3GHz		
CH39 3GHz~5GHz		

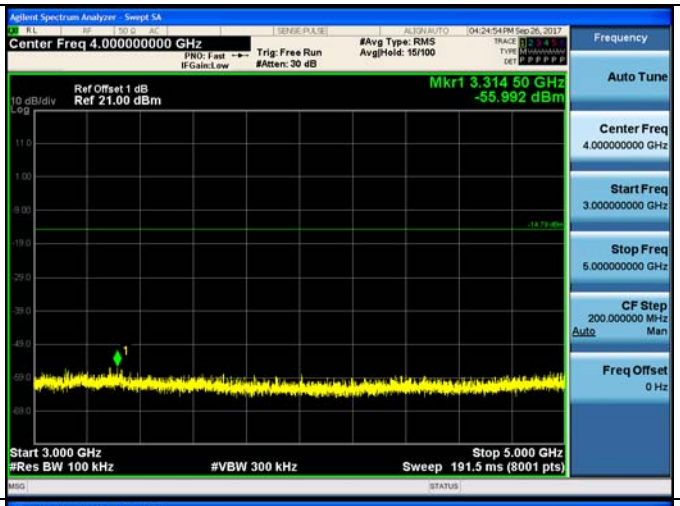
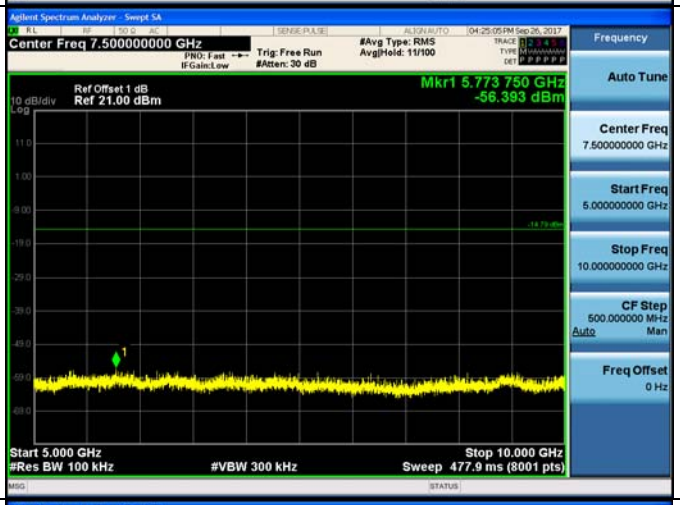
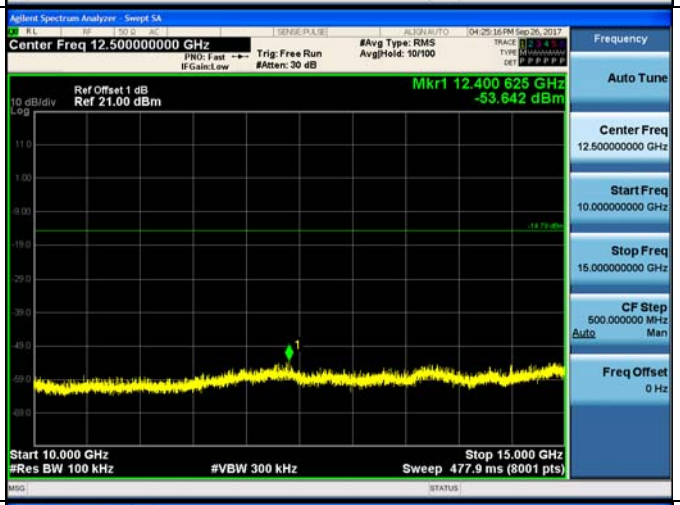
CH39 5GHz~10GHz		
CH39 10GHz~15GHz		
CH39 15GHz~25GHz		
CH78 30MHz~3GHz		

CH78 3GHz~5GHz		
CH78 5GHz~10GHz		
CH78 10GHz~15GHz		
CH78 15GHz~25GHz		

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

CH00 10GHz~15GHz		
CH00 15GHz~25GHz		
CH39 30MHz~3GHz		
CH39 3GHz~5GHz		

CH39 5GHz~10GHz		
CH39 10GHz~15GHz		
CH39 15GHz~25GHz		
CH78 30MHz~3GHz		

CH78 3GHz~5GHz		
CH78 5GHz~10GHz		
CH78 10GHz~15GHz		
CH78 15GHz~25GHz		

5.11. Spurious Emissions (radiated)

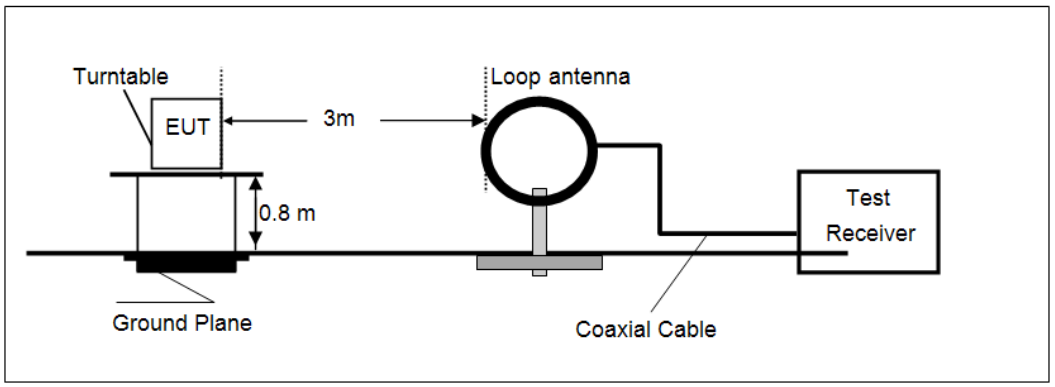
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

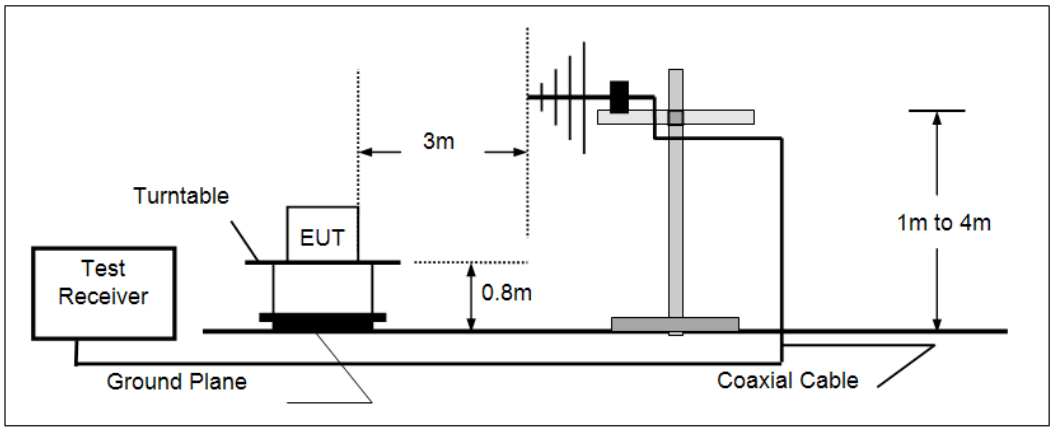
Frequency	Limit (dBuV/m @3m)	Value
30 MHz ~ 88 MHz	40.00	Quasi-peak
88 MHz ~ 216 MHz	43.50	Quasi-peak
216 MHz ~ 960 MHz	46.00	Quasi-peak
960 MHz ~ 1 GHz	54.00	Quasi-peak
Above 1 GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

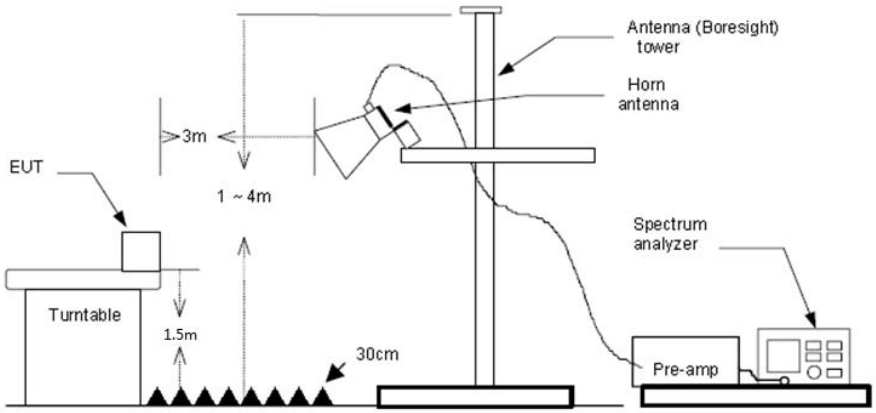
- Below 30 MHz



- 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 detectoris 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:

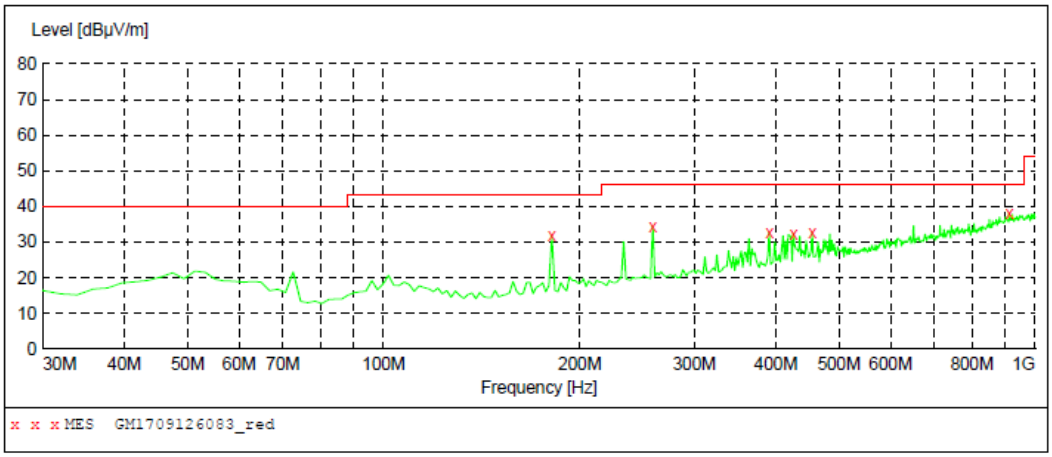
1) Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2) The emission levels of other frequencies are very lower than the limit and not show in test report.
3) Below 1 GHz,Have pre-scan all modulation mode, found the GFSK modulation High channel which it was worst case,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

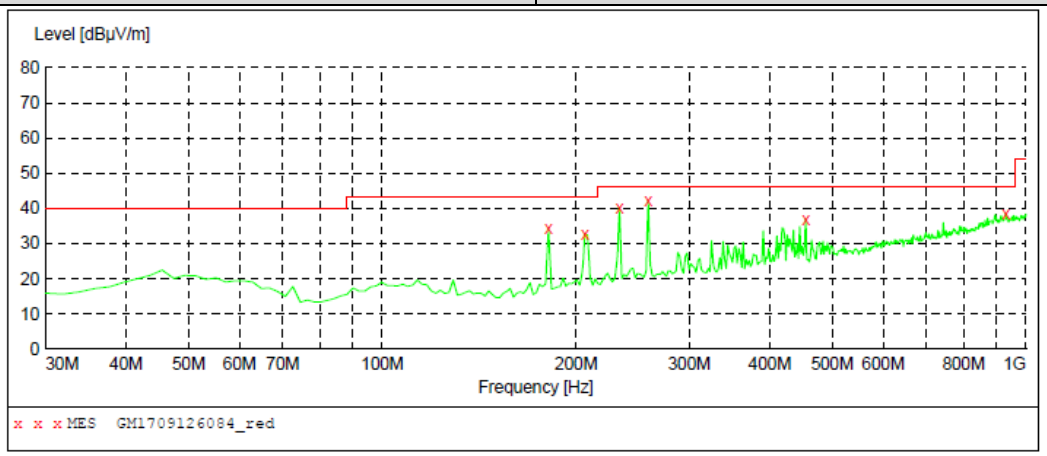


MEASUREMENT RESULT: "GM1709126083_red"

9/12/2017 4:48PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
181.320000	31.80	-12.1	43.5	11.7	QP	100.0	290.00	VERTICAL
258.920000	34.40	-8.2	46.0	11.6	QP	100.0	342.00	VERTICAL
390.840000	32.60	-4.6	46.0	13.4	QP	100.0	342.00	VERTICAL
425.760000	32.40	-3.6	46.0	13.6	QP	100.0	119.00	VERTICAL
454.860000	32.60	-3.2	46.0	13.4	QP	100.0	187.00	VERTICAL
912.700000	37.90	6.9	46.0	8.1	QP	100.0	221.00	VERTICAL

Polarization:	Horizontal



MEASUREMENT RESULT: "GM1709126084_red"

9/12/2017 4:51PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
181.320000	34.20	-12.1	43.5	9.3	QP	100.0	292.00	HORIZONTAL
206.540000	32.60	-10.5	43.5	10.9	QP	100.0	292.00	HORIZONTAL
233.700000	40.10	-9.1	46.0	5.9	QP	100.0	292.00	HORIZONTAL
258.920000	42.10	-8.2	46.0	3.9	QP	100.0	308.00	HORIZONTAL
454.860000	37.00	-3.2	46.0	9.0	QP	100.0	66.00	HORIZONTAL
930.160000	38.40	7.1	46.0	7.6	QP	100.0	197.00	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
1491.30	37.72	25.81	5.26	36.58	32.21	74.00	-41.79	Vertical	Peak
3634.91	36.41	29.30	8.31	38.26	35.76	74.00	-38.24	Vertical	Peak
4809.50	43.77	31.58	9.55	36.93	47.97	74.00	-26.03	Vertical	Peak
7209.02	35.94	36.21	11.87	35.07	48.95	74.00	-25.05	Vertical	Peak
1491.30	37.72	25.81	5.26	36.58	32.21	74.00	-41.79	Vertical	Average
3634.91	36.41	29.30	8.31	38.26	35.76	74.00	-38.24	Vertical	Average
1529.75	36.10	25.53	5.37	36.63	30.37	74.00	-43.63	Horizontal	Peak
3049.39	35.02	28.70	7.54	38.22	33.04	74.00	-40.96	Horizontal	Peak
4809.50	43.80	31.58	9.55	36.93	48.00	74.00	-26.00	Horizontal	Peak
7209.02	34.56	36.21	11.87	35.07	47.57	74.00	-26.43	Horizontal	Peak
1529.75	36.10	25.53	5.37	36.63	30.37	74.00	-43.63	Horizontal	Average

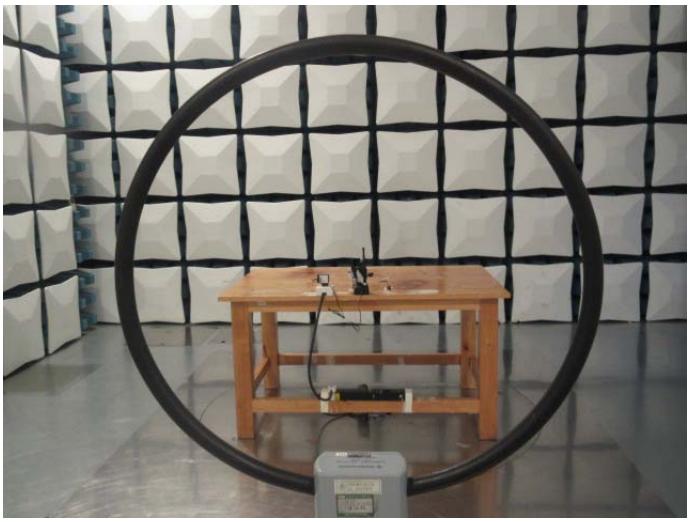
CH39									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1498.91	36.27	25.80	5.28	36.59	30.76	74.00	-43.24	Vertical	Peak
3815.03	35.09	29.62	8.52	38.22	35.01	74.00	-38.99	Vertical	Peak
4883.52	41.50	31.43	9.59	36.73	45.79	74.00	-28.21	Vertical	Peak
8334.70	32.32	36.47	12.82	34.35	47.26	74.00	-26.74	Vertical	Peak
1746.25	37.23	25.29	5.86	37.03	31.35	74.00	-42.65	Horizontal	Peak
3588.94	35.83	29.27	8.25	38.29	35.06	74.00	-38.94	Horizontal	Peak
4883.52	41.97	31.43	9.59	36.73	46.26	74.00	-27.74	Horizontal	Peak
7319.96	32.51	36.30	11.99	34.92	45.88	74.00	-28.12	Horizontal	Peak

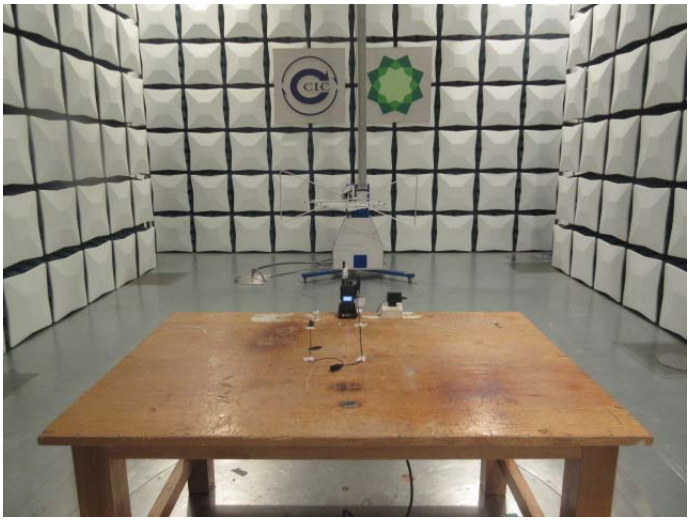
CH78									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1502.73	36.69	25.77	5.29	36.59	31.16	74.00	-42.84	Vertical	Peak
4444.56	34.00	30.59	9.20	37.49	36.30	74.00	-37.70	Vertical	Peak
4958.68	39.80	31.46	9.64	36.52	44.38	74.00	-29.62	Vertical	Peak
7451.57	35.58	36.20	12.24	34.86	49.16	74.00	-24.84	Vertical	Peak
1502.73	36.69	25.77	5.29	36.59	31.16	74.00	-42.84	Vertical	Average
4444.56	34.00	30.59	9.20	37.49	36.30	74.00	-37.70	Vertical	Average
1468.70	37.59	25.83	5.20	36.55	32.07	74.00	-41.93	Horizontal	Peak
3588.94	37.50	29.27	8.25	38.29	36.73	74.00	-37.27	Horizontal	Peak
4958.68	43.29	31.46	9.64	36.52	47.87	74.00	-26.13	Horizontal	Peak
7451.57	35.91	36.20	12.24	34.86	49.49	74.00	-24.51	Horizontal	Peak
1468.70	37.59	25.83	5.20	36.55	32.07	74.00	-41.93	Horizontal	Average
3588.94	37.50	29.27	8.25	38.29	36.73	74.00	-37.27	Horizontal	Average

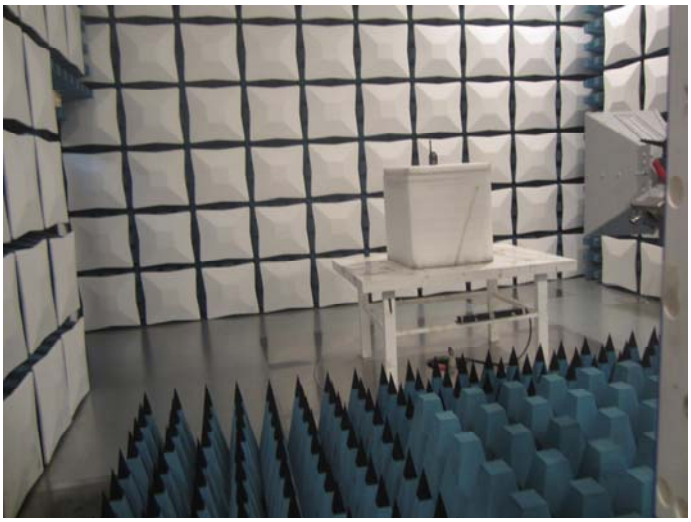
6. TEST SETUP PHOTOS

Conducted Emissions (AC Mains)

Radiated Emissions



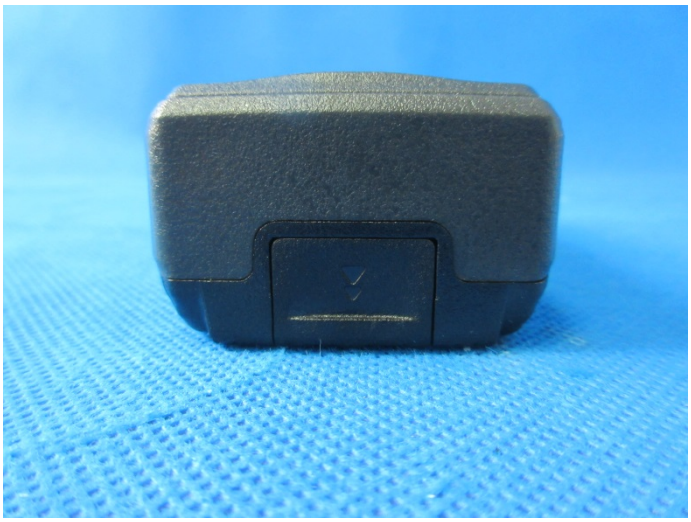




7. EXTERNAL AND INTERNAL PHOTOS

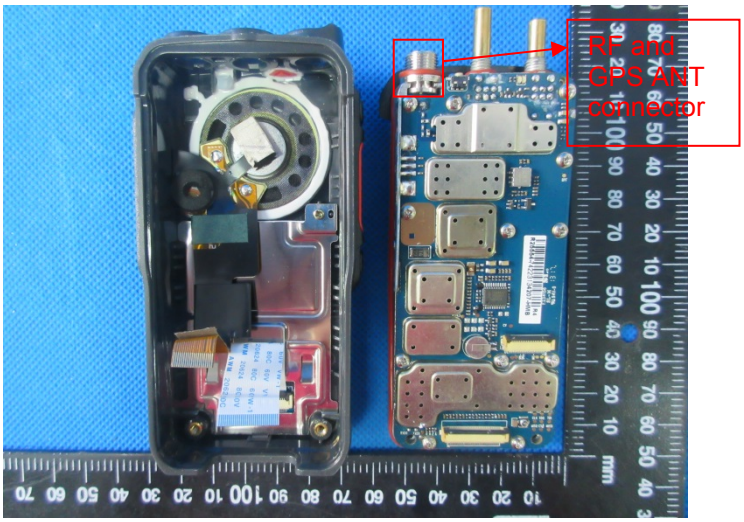
External Photos of the EUT

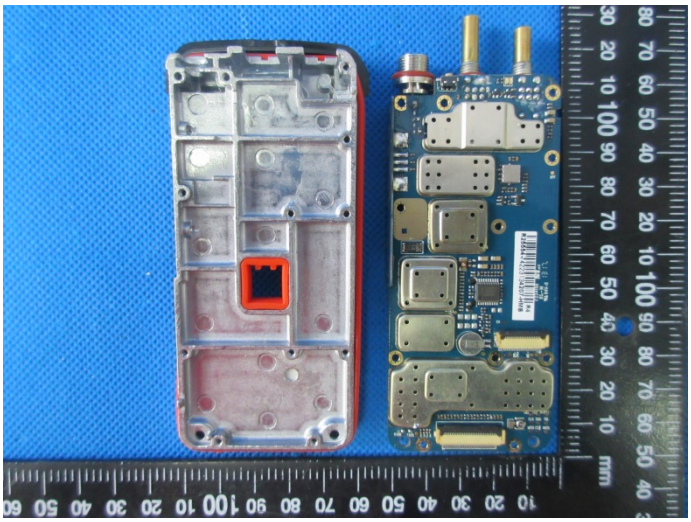

DP586

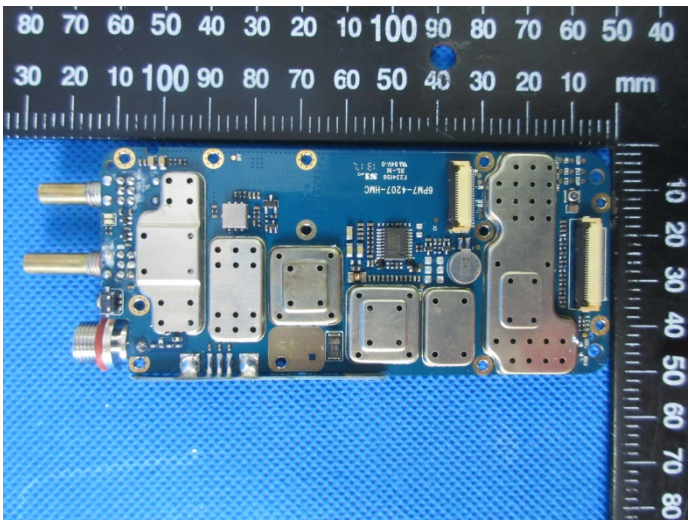


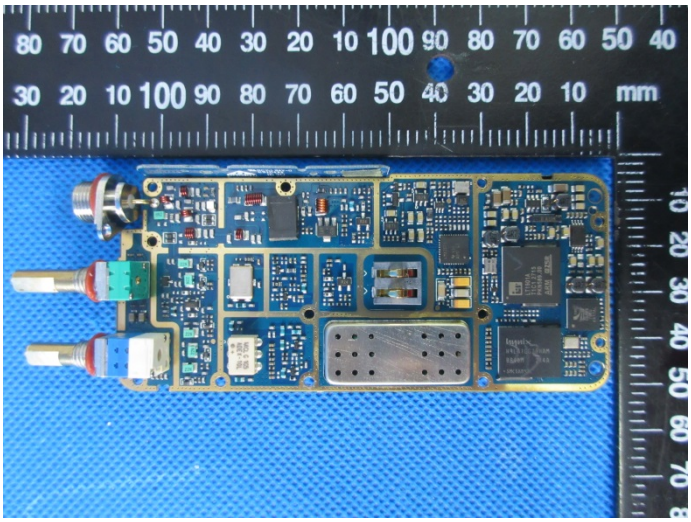

Adapter
Model: ZAU-A120100A-04
Input: 100-240V ~ 50/60Hz 0.4A
Output: 12V ⎓ 1000mA
ShenZhen Zhongjing Electronics Technology Co.,Ltd
Made in China
LISTED
E479473
I.T.E POWER SUPPLY

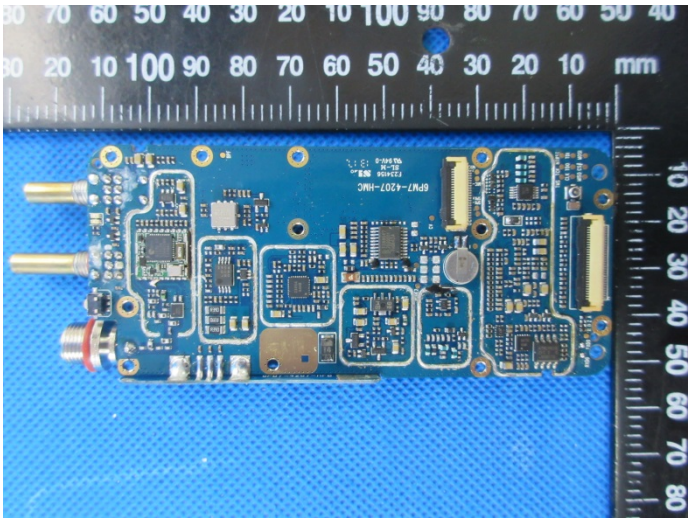
Internal Photos of the EUT

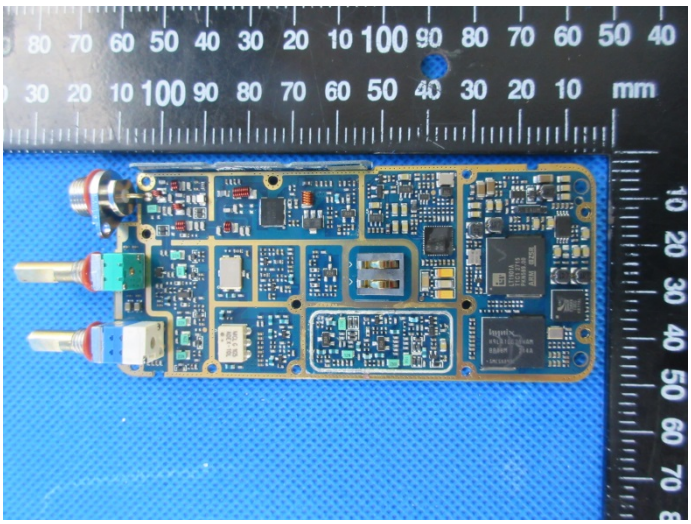


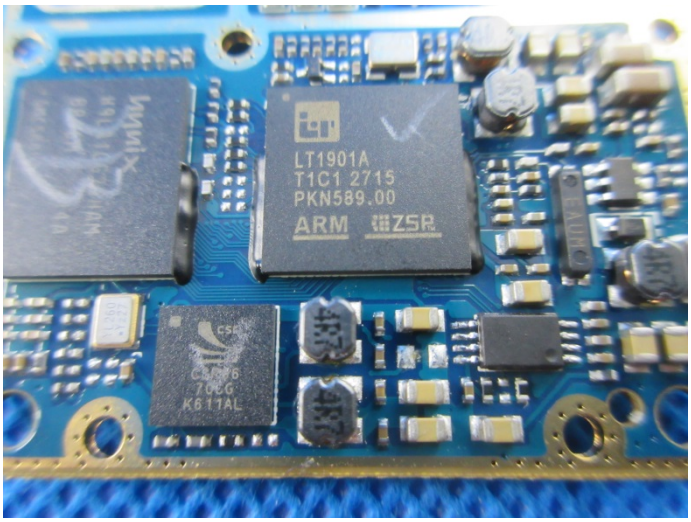




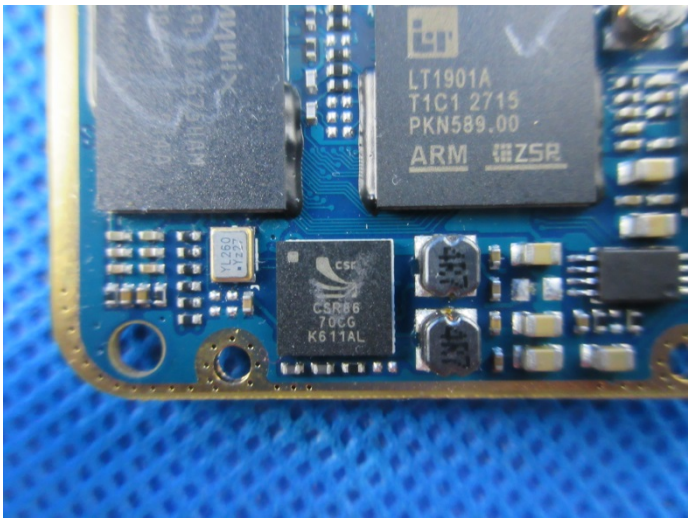


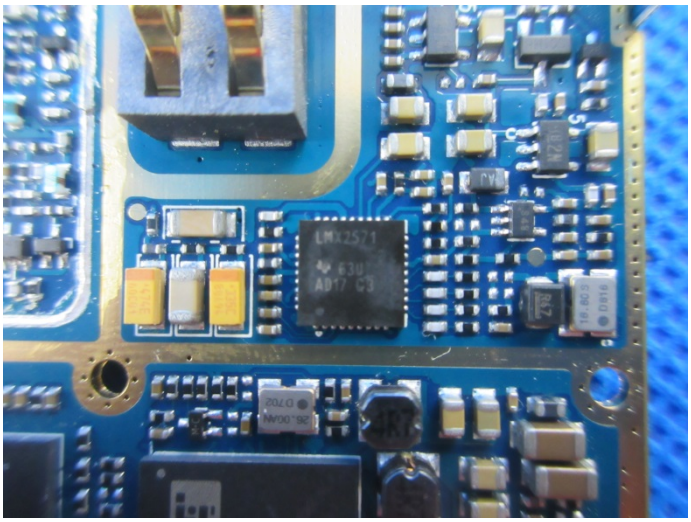


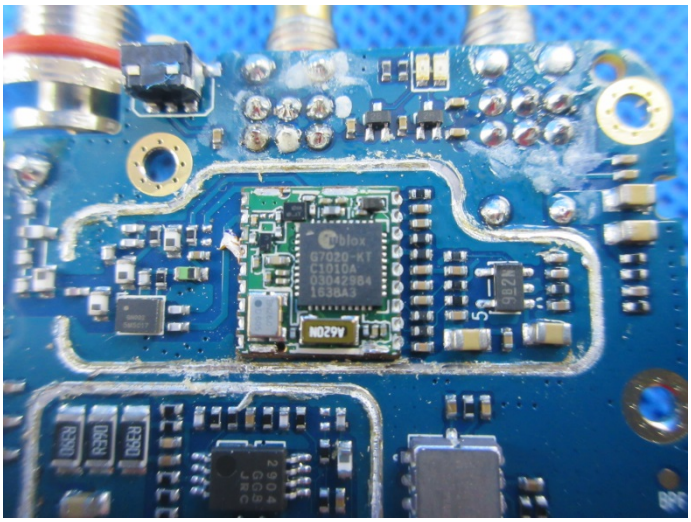


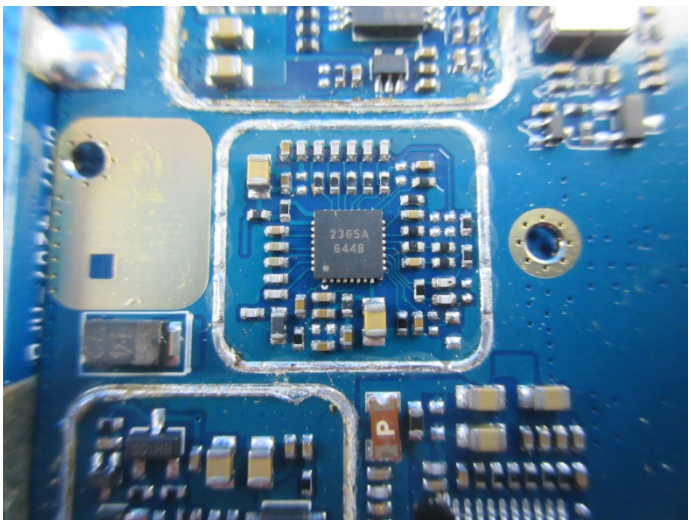

LT1901A
T1C1 2715
PKN589.00
ARM
ZSR

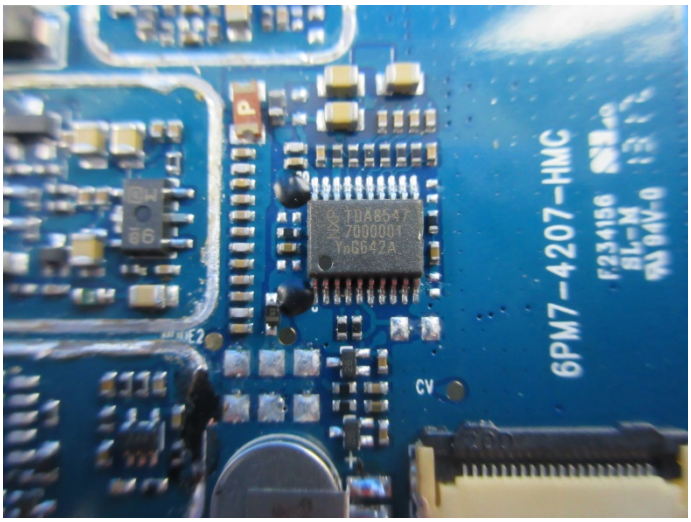

hynix
H9LA1GG25HAM
BA46M 214A
SMCS8893C

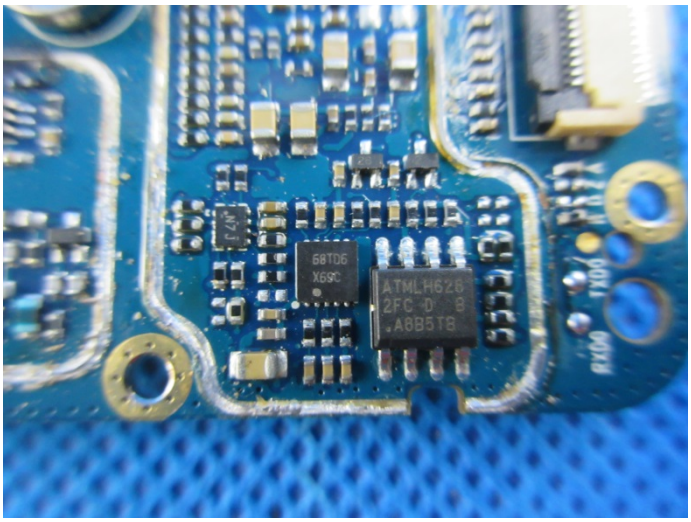

LT1901A
T1C1 2715
PKN589.00
ARM
ZSR
CSR86
70CG
K611AL

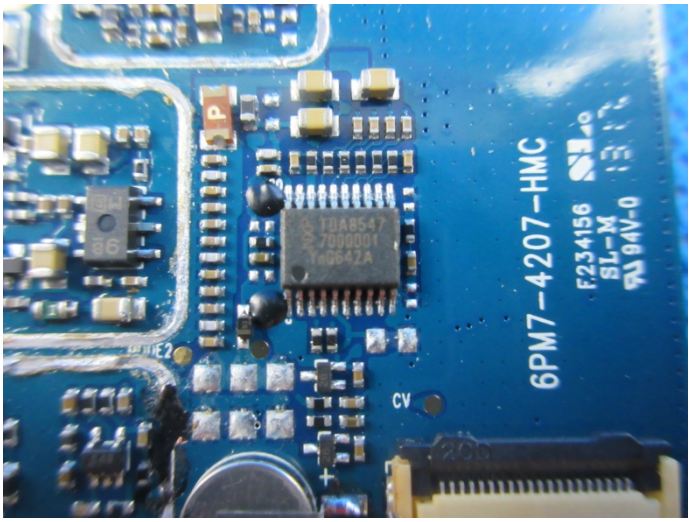

LMX2571


u-blox
G7020-KT
C1010A
03042984
1638A3


2365A
644B


TDA8547
7Q00001
YnG642A
6PM7-4207-HMC





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