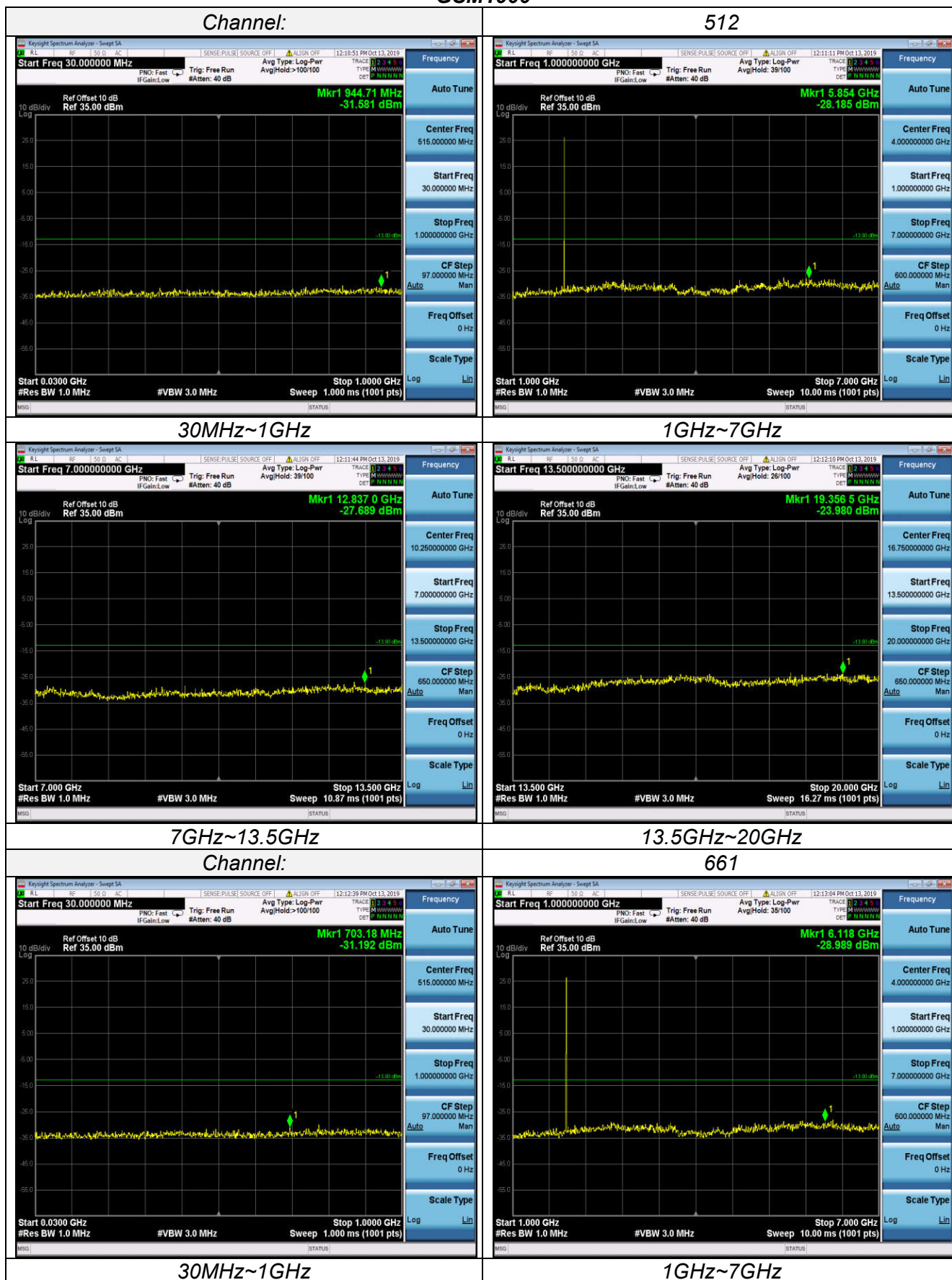
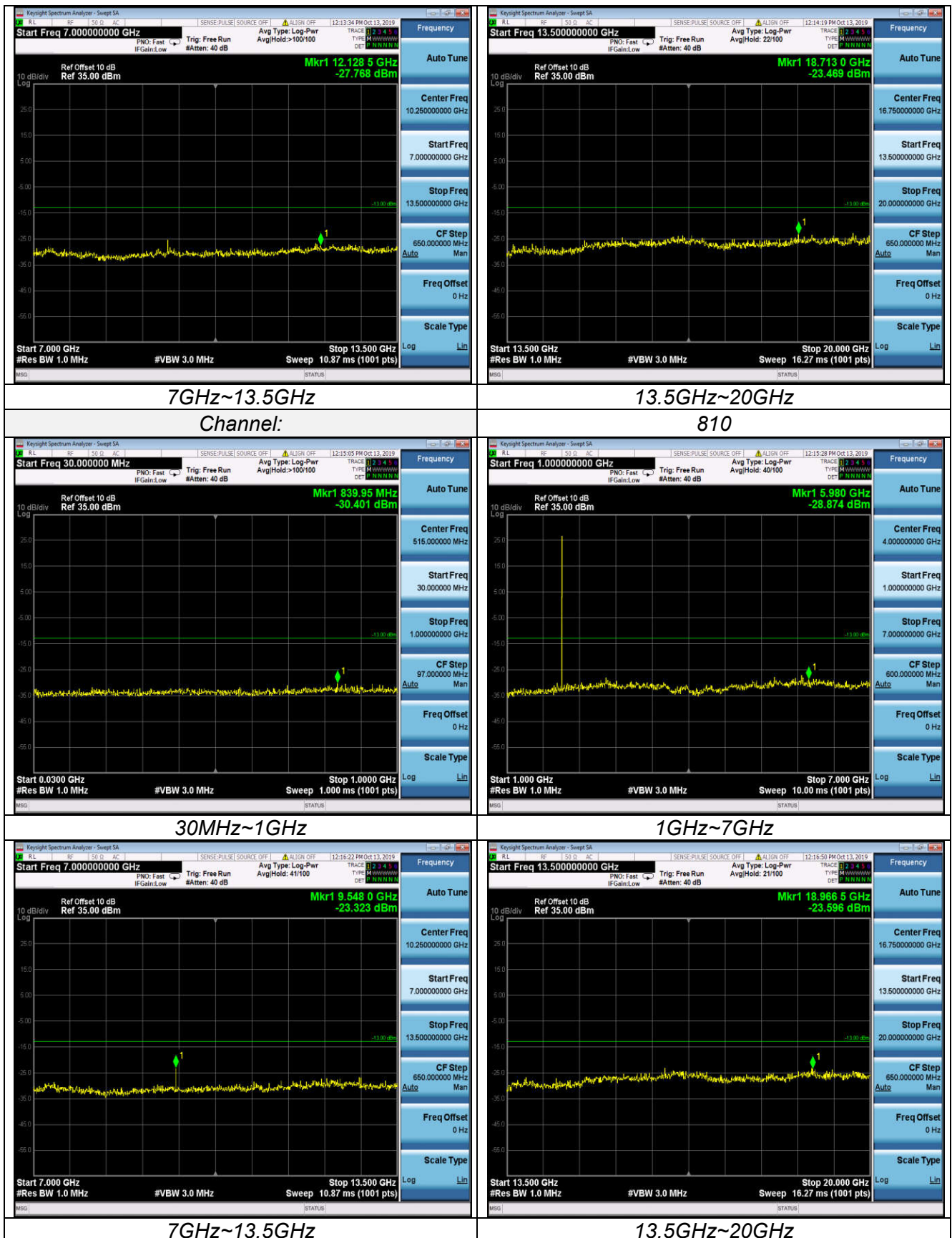
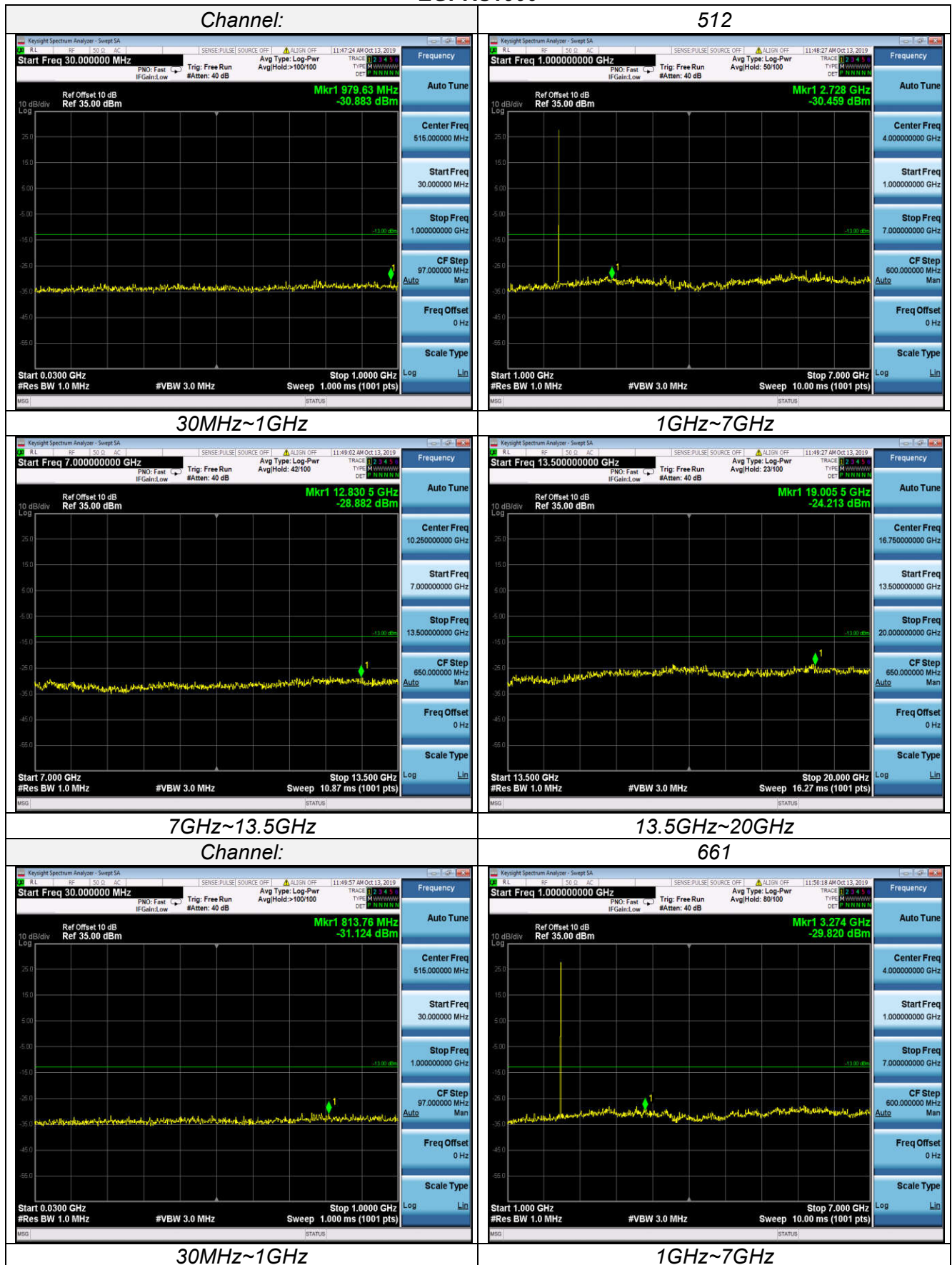


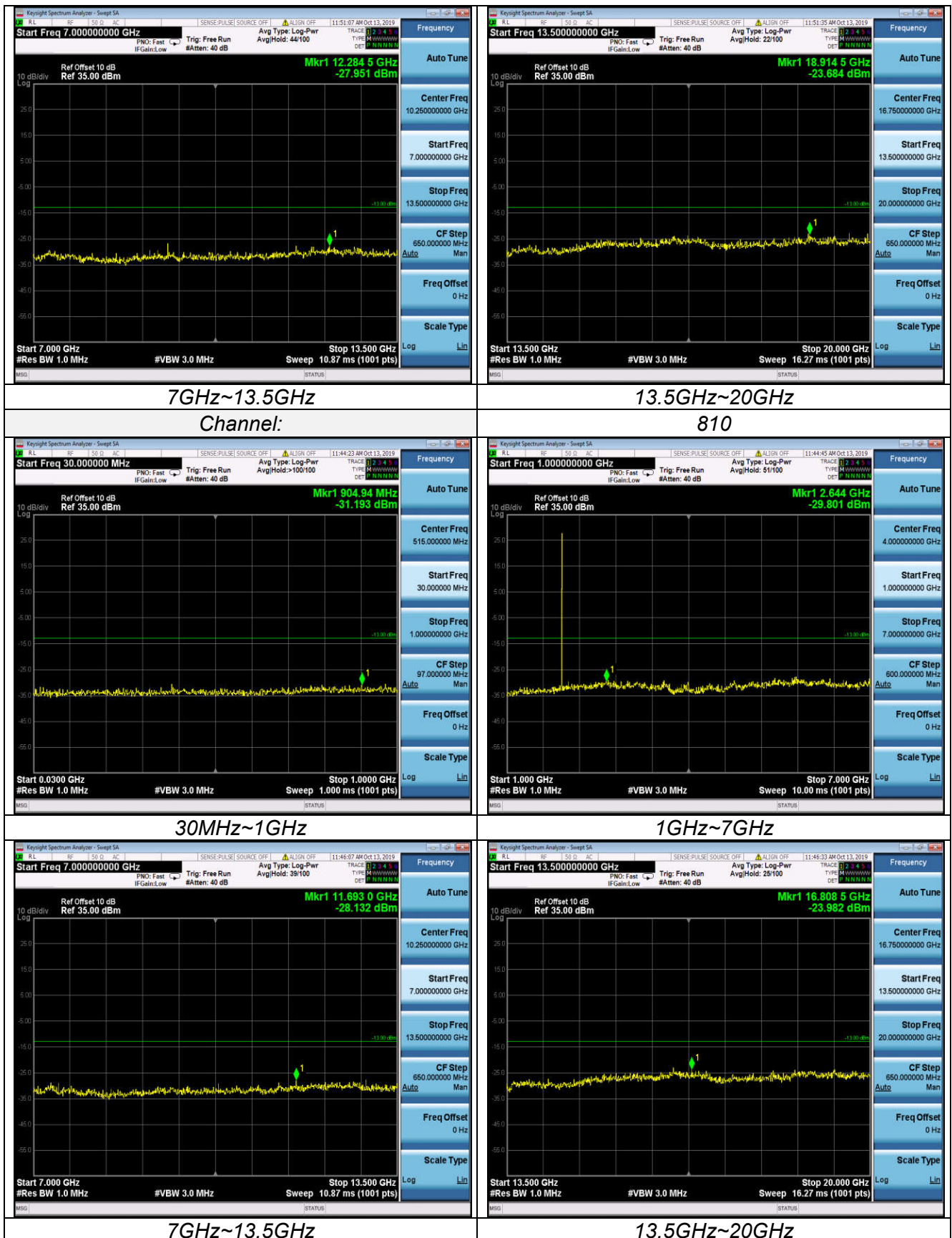
GSM1900



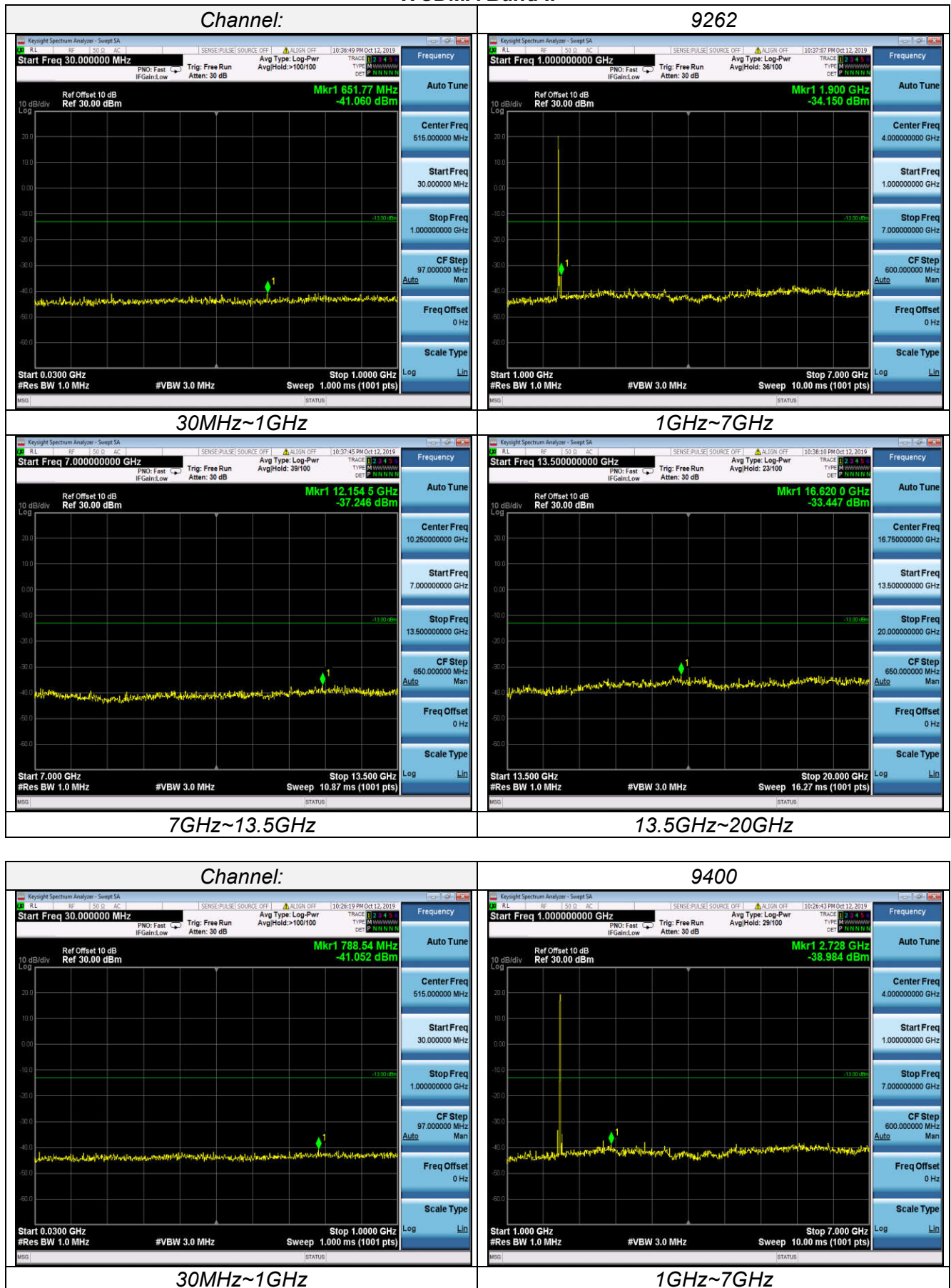


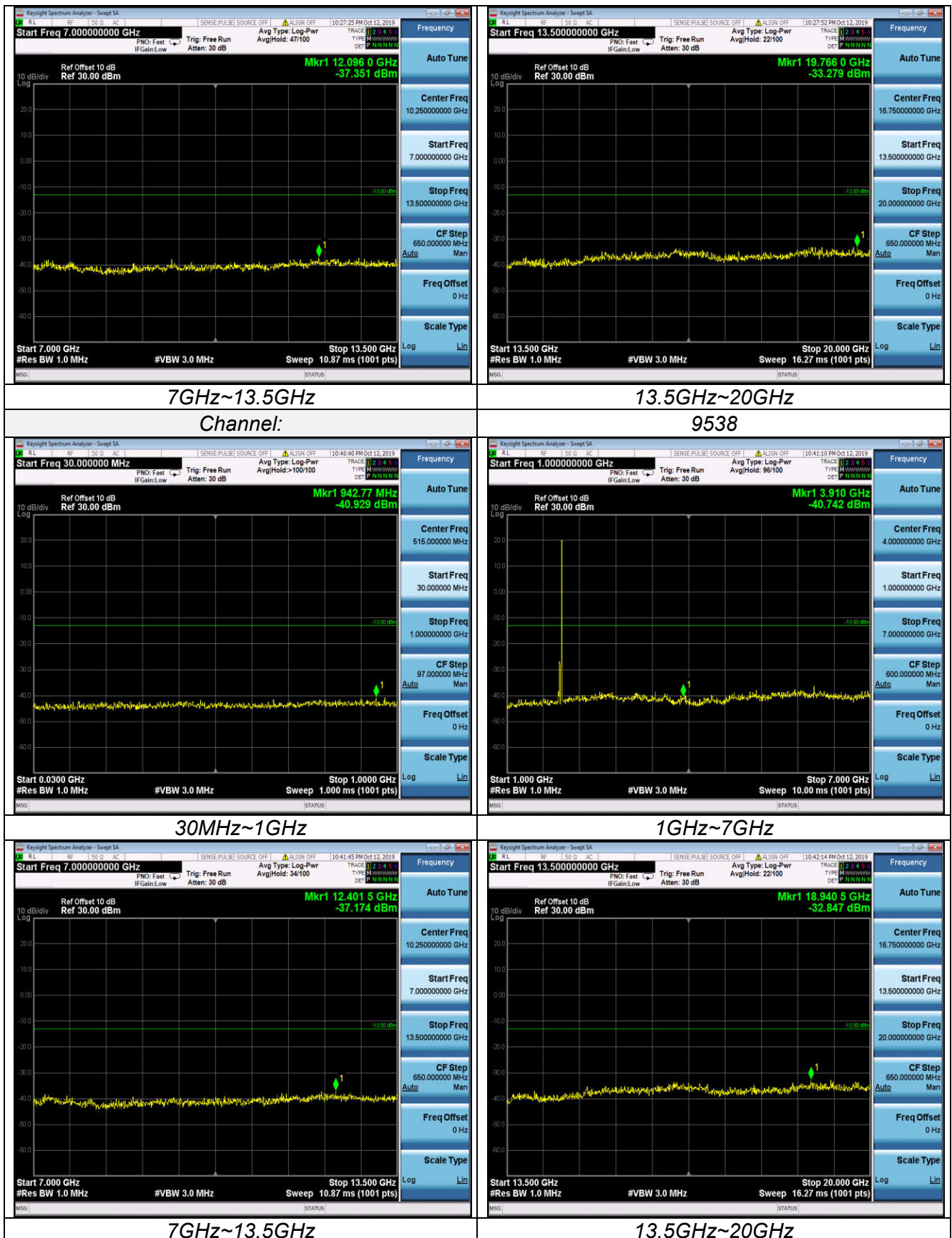
EGPRS1900



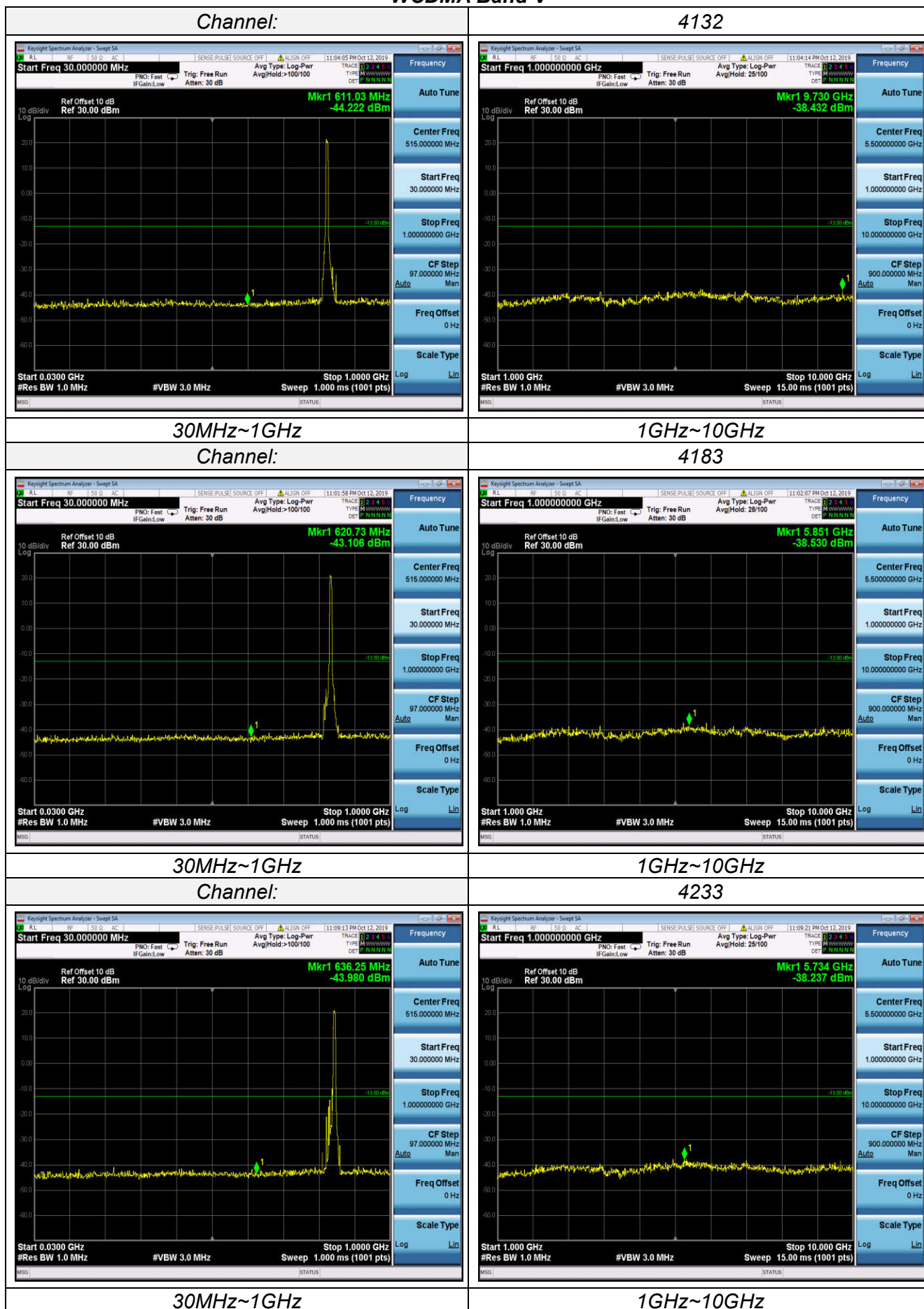


WCDMA Band II





WCDMA Band V



Radiated Measurement:**GSM850**

Channel	Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
128	1648.40	-36.06	3.00	3.00	9.58	-29.48	-13.00	16.48	H
	2472.60	-40.79	3.47	3.00	10.72	-33.54	-13.00	20.54	H
	1648.40	-35.20	3.00	3.00	9.68	-28.52	-13.00	15.52	V
	2472.60	-39.99	3.47	3.00	10.72	-32.74	-13.00	19.74	V
190	1673.20	-35.73	3.14	3.00	9.61	-29.26	-13.00	16.26	H
	2509.80	-45.54	3.59	3.00	10.77	-38.36	-13.00	25.36	H
	1673.20	-35.01	3.14	3.00	9.61	-28.54	-13.00	15.54	V
	2509.80	-40.05	3.59	3.00	10.77	-32.87	-13.00	19.87	V
251	1697.60	-37.05	3.26	3.00	9.77	-30.54	-13.00	17.54	H
	2546.40	-40.46	3.69	3.00	10.89	-33.26	-13.00	20.26	H
	1697.60	-34.87	3.26	3.00	9.77	-28.36	-13.00	15.36	V
	2546.40	-39.78	3.69	3.00	10.89	-32.58	-13.00	19.58	V

EGPRS850

Channel	Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
128	1648.40	-39.27	3.00	3.00	9.58	-32.69	-13.00	19.69	H
	2472.60	-44.09	3.47	3.00	10.72	-36.84	-13.00	23.84	H
	1648.40	-38.20	3.00	3.00	9.68	-31.52	-13.00	18.52	V
	2472.60	-42.58	3.47	3.00	10.72	-35.33	-13.00	22.33	V
190	1673.20	-39.04	3.14	3.00	9.61	-32.57	-13.00	19.57	H
	2509.80	-43.87	3.59	3.00	10.77	-36.69	-13.00	23.69	H
	1673.20	-38.02	3.14	3.00	9.61	-31.55	-13.00	18.55	V
	2509.80	-42.42	3.59	3.00	10.77	-35.24	-13.00	22.24	V
251	1697.60	-38.74	3.26	3.00	9.77	-32.23	-13.00	19.23	H
	2546.40	-43.78	3.69	3.00	10.89	-36.58	-13.00	23.58	H
	1697.60	-37.17	3.26	3.00	9.77	-30.66	-13.00	17.66	V
	2546.40	-42.67	3.69	3.00	10.89	-35.47	-13.00	22.47	V

GSM1900

Channel	Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
512	3700.40	-40.83	4.25	3.00	12.34	-32.74	-13.00	19.74	H
	5550.60	-44.76	4.97	3.00	13.52	-36.21	-13.00	23.21	H
	3700.40	-39.35	4.25	3.00	12.34	-31.26	-13.00	18.26	V
	5550.60	-43.24	4.97	3.00	13.52	-34.69	-13.00	21.69	V
661	3760.00	-40.83	4.38	3.00	12.34	-32.87	-13.00	19.87	H
	5640.00	-45.11	5.01	3.00	13.58	-36.54	-13.00	23.54	H
	3760.00	-39.17	4.38	3.00	12.34	-31.21	-13.00	18.21	V
	5640.00	-43.04	5.01	3.00	13.58	-34.47	-13.00	21.47	V
810	3819.60	-40.62	4.49	3.00	12.45	-32.66	-13.00	19.66	H
	5729.40	-44.75	5.26	3.00	13.66	-36.35	-13.00	23.35	H
	3819.60	-38.84	4.49	3.00	12.45	-30.88	-13.00	17.88	V
	5729.40	-42.87	5.26	3.00	13.66	-34.47	-13.00	21.47	V

EGPRS1900

Channel	Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
512	3700.40	-49.98	4.25	3.00	12.34	-41.89	-13.00	28.89	H
	5550.60	-51.09	4.97	3.00	13.52	-42.54	-13.00	29.54	H
	3700.40	-47.80	4.25	3.00	12.34	-39.71	-13.00	26.71	V
	5550.60	-48.81	4.97	3.00	13.52	-40.26	-13.00	27.26	V
661	3760.00	-48.19	4.38	3.00	12.34	-40.23	-13.00	27.23	H
	5640.00	-51.04	5.01	3.00	13.58	-42.47	-13.00	29.47	H
	3760.00	-47.85	4.38	3.00	12.34	-39.89	-13.00	26.89	V
	5640.00	-49.98	5.01	3.00	13.58	-41.41	-13.00	28.41	V
810	3819.60	-48.92	4.49	3.00	12.45	-40.96	-13.00	27.96	H
	5729.40	-50.64	5.26	3.00	13.66	-42.24	-13.00	29.24	H
	3819.60	-46.43	4.49	3.00	12.45	-38.47	-13.00	25.47	V
	5729.40	-49.05	5.26	3.00	13.66	-40.65	-13.00	27.65	V

WCDMA Band II

Channel	Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
9262	3704.80	-48.81	4.27	3.00	12.34	-40.74	-13.00	27.74	H
	5557.20	-50.12	4.99	3.00	13.52	-41.59	-13.00	28.59	H
	3704.80	-47.38	4.27	3.00	12.34	-39.31	-13.00	26.31	V
	5557.20	-47.95	4.99	3.00	13.52	-39.42	-13.00	26.42	V
9400	3760.00	-48.65	4.38	3.00	12.34	-40.69	-13.00	27.69	H
	5640.00	-51.42	5.01	3.00	13.58	-42.85	-13.00	29.85	H
	3760.00	-47.17	4.38	3.00	12.34	-39.21	-13.00	26.21	V
	5640.00	-49.01	5.01	3.00	13.58	-40.44	-13.00	27.44	V
9538	3815.20	-48.21	4.47	3.00	12.45	-40.23	-13.00	27.23	H
	5722.80	-50.99	5.23	3.00	13.66	-42.56	-13.00	29.56	H
	3815.20	-47.86	4.47	3.00	12.45	-39.88	-13.00	26.88	V
	5722.80	-49.14	5.23	3.00	13.66	-40.71	-13.00	27.71	V

WCDMA Band V

Channel	Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
9262	1652.80	-46.22	3.02	3.00	9.58	-39.66	-13.00	26.66	H
	2479.20	-49.05	3.51	3.00	10.72	-41.84	-13.00	28.84	H
	1652.80	-44.88	3.02	3.00	9.68	-38.22	-13.00	25.22	V
	2479.20	-47.56	3.51	3.00	10.72	-40.35	-13.00	27.35	V
9400	1673.20	-47.03	3.14	3.00	9.61	-40.56	-13.00	27.56	H
	2509.80	-50.13	3.59	3.00	10.77	-42.95	-13.00	29.95	H
	1673.20	-44.68	3.14	3.00	9.61	-38.21	-13.00	25.21	V
	2509.80	-48.70	3.59	3.00	10.77	-41.52	-13.00	28.52	V
9538	1693.20	-45.97	3.24	3.00	9.77	-39.44	-13.00	26.44	H
	2539.80	-48.57	3.65	3.00	10.89	-41.33	-13.00	28.33	H
	1693.20	-43.11	3.24	3.00	9.77	-36.58	-13.00	23.58	V
	2539.80	-46.11	3.65	3.00	10.89	-38.87	-13.00	25.87	V

Remark:

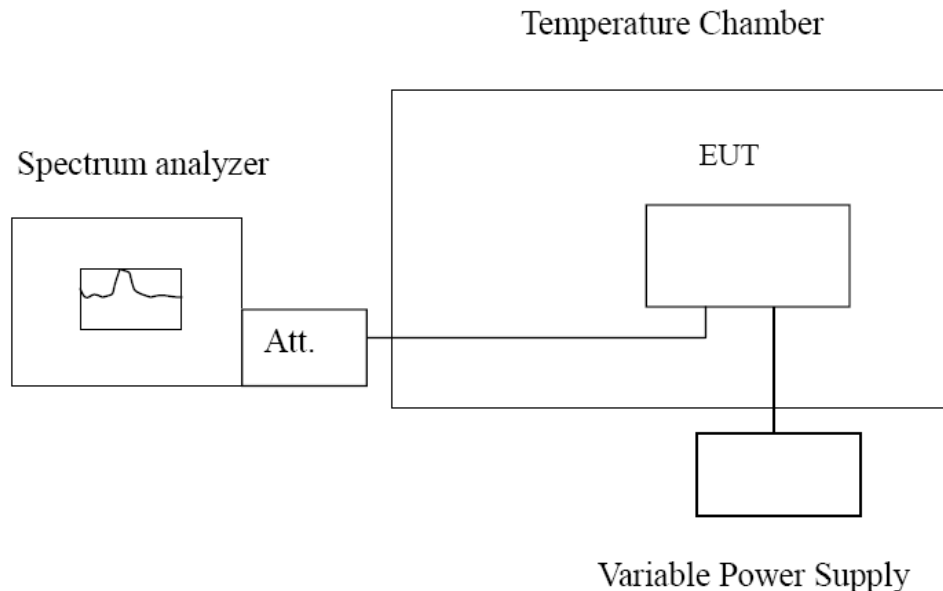
1. $EIRP = P_{Mea}(dBm) - P_{cl}(dB) + G_a(dBi)$
2. We were not recorded other points as values lower than limits.
3. $Margin = Limit - EIRP$

3.5 Frequency Stability under Temperature & Voltage Variations

LIMIT

Cellular Band: ± 2.5 ppm PCS Band: Within the authorized frequency block

TEST CONFIGURATION



TEST PROCEDURE

The EUT was setup according to EIA/TIA 603C

Frequency Stability under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Frequency Stability under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

TEST RESULTS

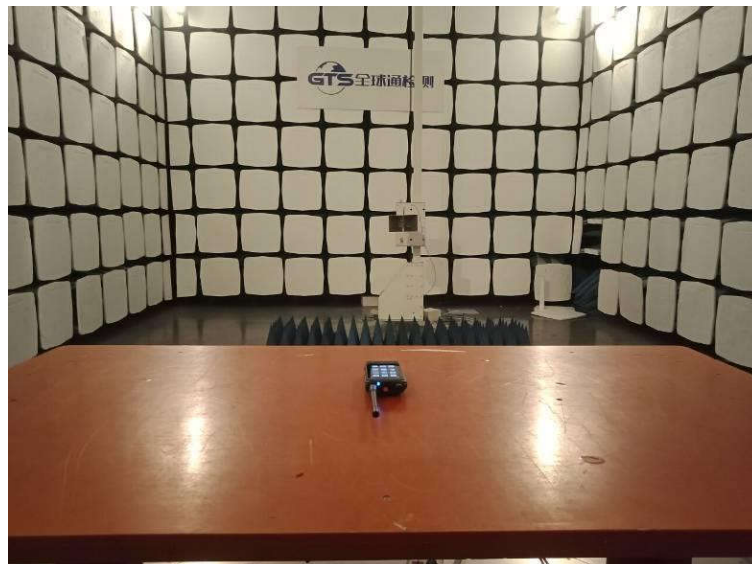
Reference Frequency: GSM850 Middle channel=190 channel=836.6MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.8	-30	75.18	0.090	±2.5	Pass
	-20	68.16	0.081		
	-10	33.40	0.040		
	0	95.24	0.114		
	10	72.30	0.086		
	20	62.76	0.075		
	30	44.30	0.053		
	40	73.28	0.088		
	50	51.64	0.062		
4.37	25	76.37	0.091	±2.5	Pass
End point 3.23	25	90.38	0.108		

Reference Frequency: PCS1900 Middle channel=661 channel=1880MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.8	-30	63.06	0.034	Within the authorized frequency block	Pass
	-20	71.42	0.038		
	-10	79.07	0.042		
	0	85.19	0.045		
	10	87.67	0.047		
	20	65.27	0.035		
	30	31.69	0.017		
	40	82.56	0.044		
	50	89.27	0.047		
4.37	25	56.81	0.030	Within the authorized frequency block	Pass
End point 3.23	25	74.57	0.040		

Reference Frequency: WCDMA Band II Middle channel=9400 channel=1880MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.8	-30	91.79	0.049	Within the authorized frequency block	Pass
	-20	89.98	0.048		
	-10	53.07	0.028		
	0	59.62	0.032		
	10	63.87	0.034		
	20	99.60	0.053		
	30	45.16	0.024		
	40	81.59	0.043		
	50	59.43	0.032		
4.37	25	76.58	0.041	Within the authorized frequency block	Pass
End point 3.23	25	79.18	0.042		

Reference Frequency: WCDMA Band V Middle channel=4182 channel=836.6MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.8	-30	71.90	0.086	±2.5	Pass
	-20	73.62	0.088		
	-10	68.34	0.082		
	0	48.11	0.058		
	10	35.32	0.042		
	20	88.42	0.106		
	30	49.74	0.059		
	40	41.93	0.050		
	50	83.58	0.100		
4.37	25	56.06	0.067	±2.5	Pass
End point 13.23	25	53.63	0.064		

4 Test Setup Photos of the EUT

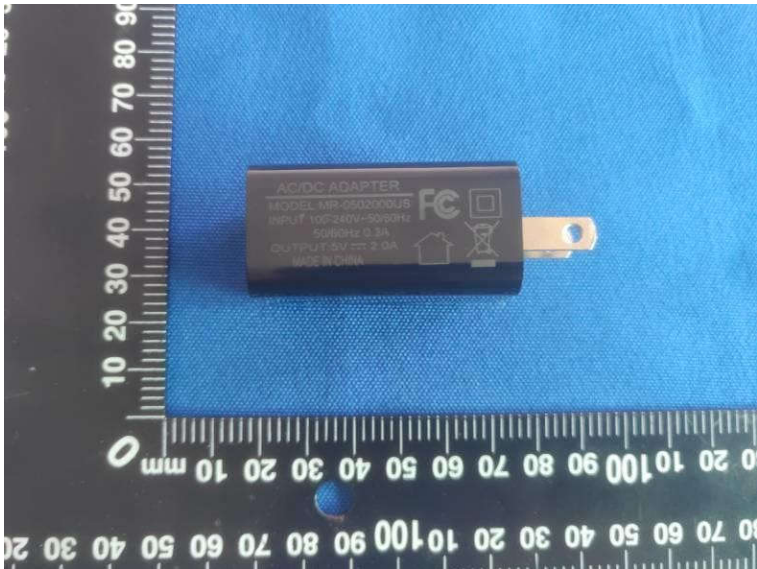


5 External and Internal Photos of the EUT

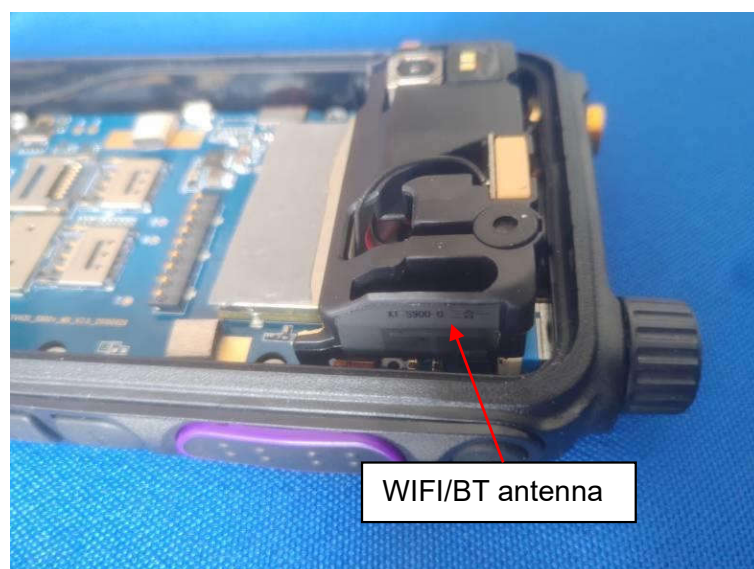
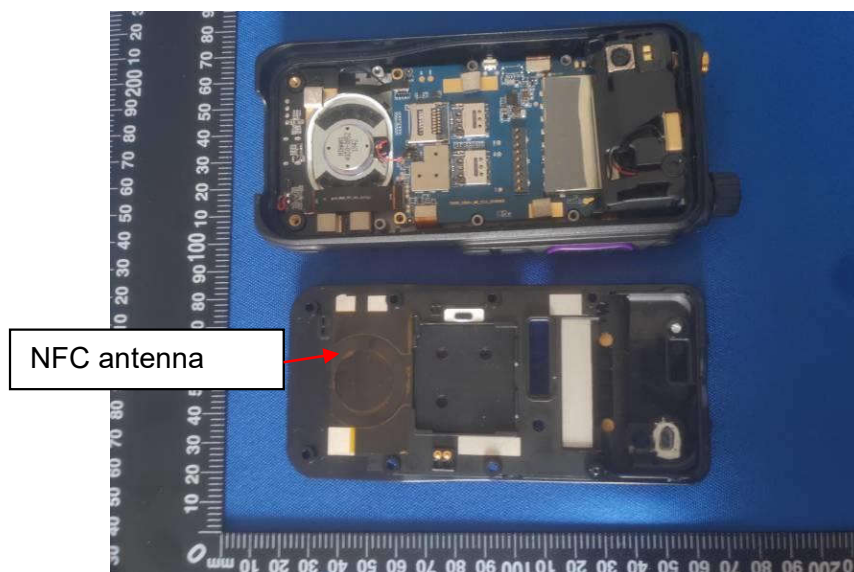
External Photos of EUT

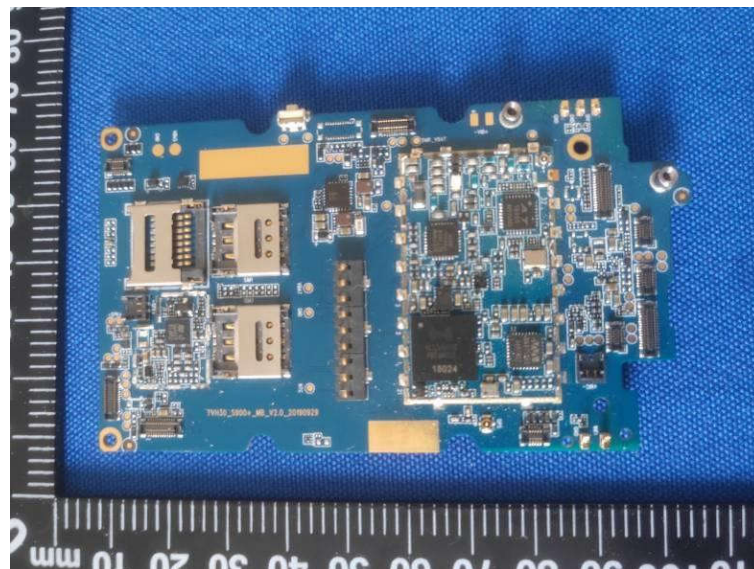
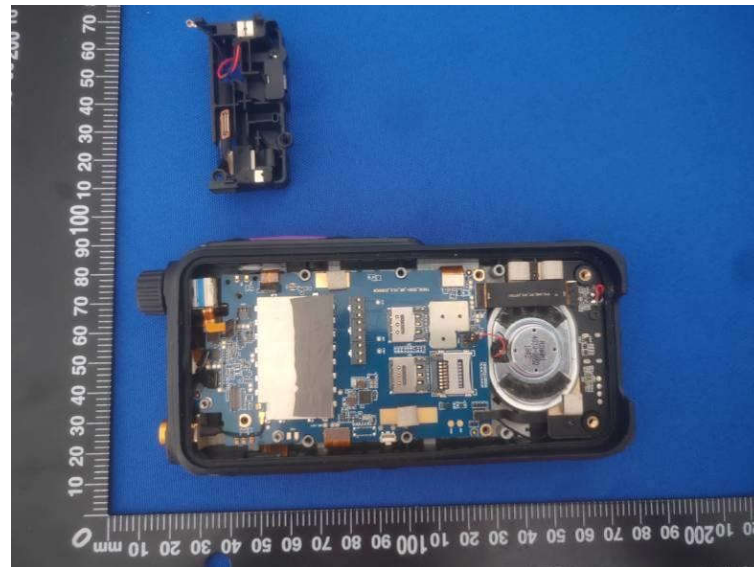


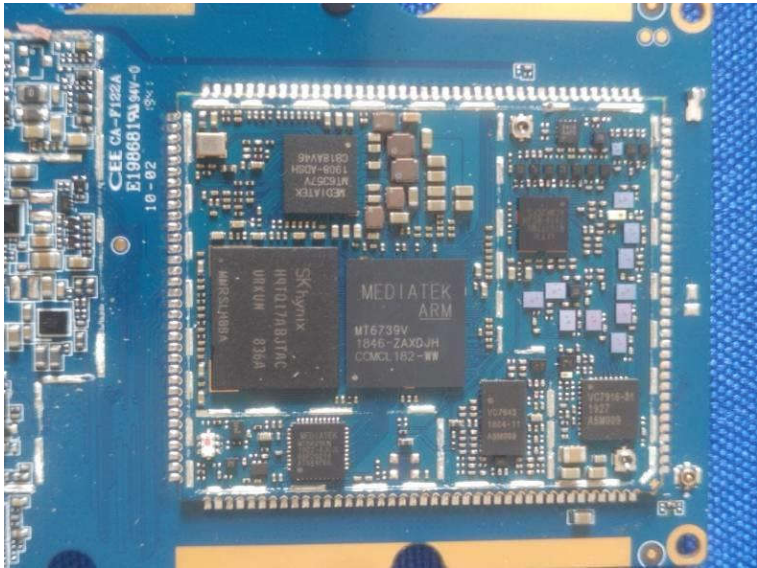
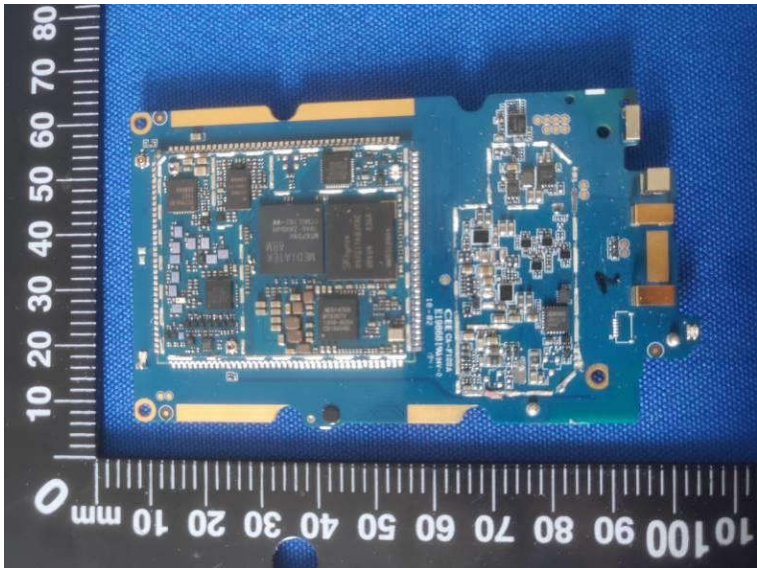
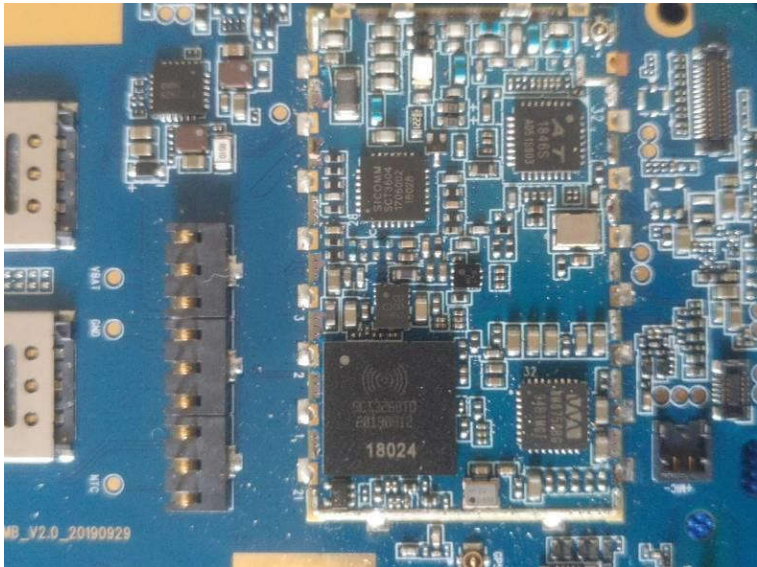


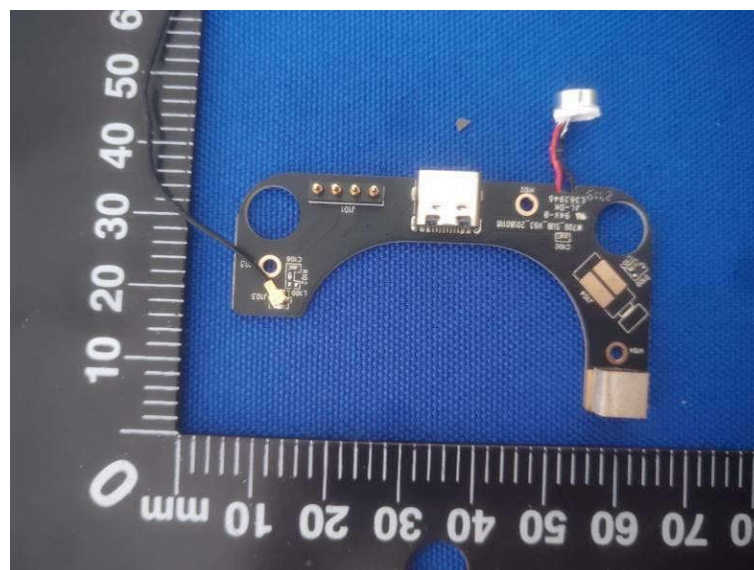
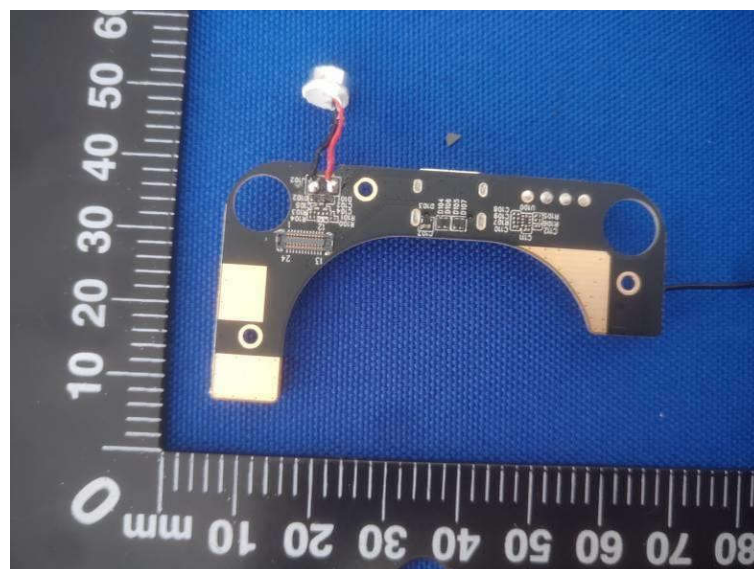


Internal Photos of EUT









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