

## 2.7. Transmitter Radiated Power (EIRP/ERP)

### 2.7.1. Requirement

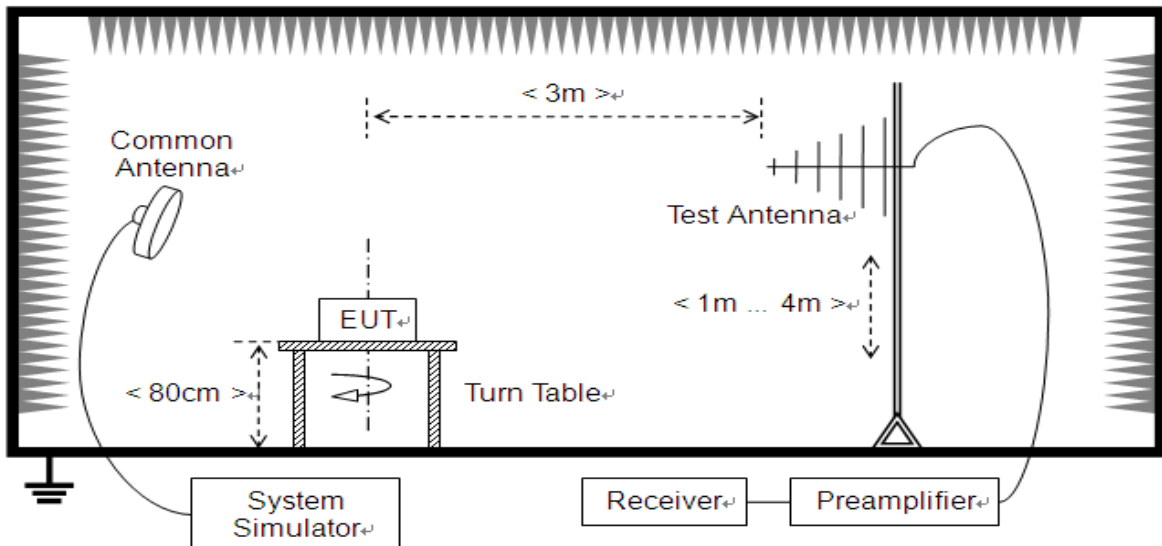
According to FCC section 22.913, the Effective Radiated Power (ERP) of mobile transmitters and auxiliary test transmitters must not exceed 7Watts.

According to FCC section 24.232, the broadband PCS mobile station is limited to 2 Watts e.i.r.p. peak power.

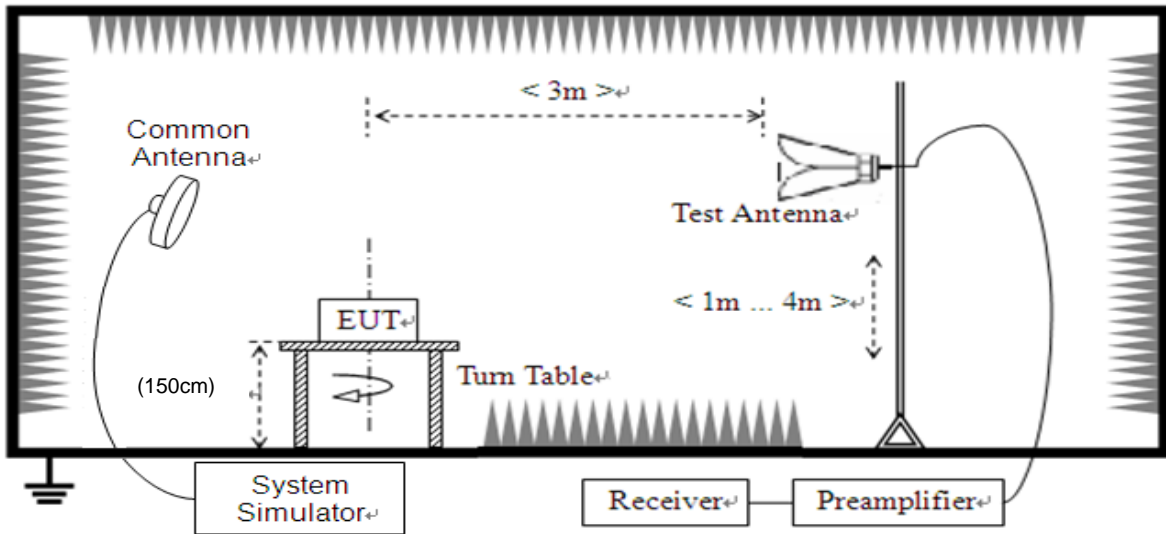
### 2.7.2. Test Description

Test Setup:

- 1) Below 1GHz



2) Above 1GHz



The EUT is located in a 3m Full-Anechoic Chamber; the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading. A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. GSM850MHz band Power Control Level (PCL) = 5/19 and Power Class = 4, GSM1900MHz band Power Control Level (PCL) = 0/15 and Power Class = 1), and only the test result of the maximum output power was recorded. Please refer to section 2.1.3 of this report.

- Step size (dB): 3dB

The Test Antenna is a Bi-Log one (used for 30MHz to 1GHz) or a Horn one (used for above 3GHz), it's located at the same height as the EUT. The Filters consists of Notch Filters and High Pass Filter.

### 2.7.3. Test Result

The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested.

The substitution corrections are obtained as described below:

$$A_{\text{SUBST}} = P_{\text{SUBST\_TX}} - P_{\text{SUBST\_RX}} - L_{\text{SUBST\_CABLES}} + G_{\text{SUBST\_TX\_ANT}}$$

$$A_{\text{TOT}} = L_{\text{CABLES}} + A_{\text{SUBST}}$$

Where  $A_{\text{SUBST}}$  is the final substitution correction including receive antenna gain.

$P_{\text{SUBST\_TX}}$  is signal generator level,

$P_{\text{SUBST\_RX}}$  is receiver level,

$L_{\text{SUBST\_CABLES}}$  is cable losses including TX cable,

$G_{\text{SUBST\_TX\_ANT}}$  is substitution antenna gain.

$A_{\text{TOT}}$  is total correction factor including cable loss and substitution correction

During the test, the data of  $A_{\text{TOT}}$  was added in the Test Spectrum Analyze, so Spectrum Analyze reading is the final values which contain the data of  $A_{\text{TOT}}$ .

**GSM Test verdict:**

Band	Channel	Frequency (MHz)	PCL	Measured ERP		Limit		Verdict
				dBm	W	dBm	W	
GSM 850MHz	128	824.20	5	27.64	0.581	38.5	7	PASS
	190	836.60	5	27.65	0.582			PASS
	251	848.80	5	27.61	0.577			PASS
GPRS 850MHz	128	824.20	5	27.62	0.578	38.5	7	PASS
	190	836.60	5	27.63	0.579			PASS
	251	848.80	5	27.60	0.575			PASS
EDGE 850MHz	128	824.20	5	27.53	0.566	38.5	7	PASS
	190	836.60	5	27.54	0.568			PASS
	251	848.80	5	27.52	0.565			PASS

**Note 1:**For the GPRS and EDGE model, all the slots were tested and just the worst data were recorded in this report.

**Note 2:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

Band	Channel	Frequency (MHz)	PCL	Measured EIRP		Limit		Verdict
				dBm	W	dBm	W	
GSM 1900MHz	512	1850.2	0	28.40	0.692	33	2	PASS
	661	1880.0	0	28.37	0.687			PASS
	810	1909.8	0	28.26	0.670			PASS
GPRS 1900MHz	512	1850.2	0	28.39	0.690	33	2	PASS
	661	1880.0	0	28.35	0.684			PASS
	810	1909.8	0	28.24	0.667			PASS
EDGE 1900MHz	512	1850.2	0	25.29	0.338	33	2	PASS
	661	1880.0	0	25.25	0.335			PASS
	810	1909.8	0	25.11	0.324			PASS

**Note 1:**For the GPRS and EDGE model, all the slots were tested and just the worst data were recorded in this report.

**Note 2:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

**WCDMA Test verdict:**

Band	Channel	Frequency (MHz)	Measured ERP		Limit		Verdict
			dBm	W	dBm	W	
WCDMA Band V	4132	826.4	17.21	0.053	38.5	7	PASS
	4182	836.4	16.98	0.050			PASS
	4233	846.6	17.05	0.051			PASS
HSDPA Band V	4132	826.4	15.58	0.036	38.5	7	PASS
	4182	836.4	15.48	0.035			PASS
	4233	846.6	15.56	0.036			PASS
HSUPA Band V	4132	826.4	15.59	0.036	38.5	7	PASS
	4182	836.4	15.52	0.036			PASS
	4233	846.6	15.57	0.036			PASS

**Note:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

Band	Channel	Frequency (MHz)	Measured EIRP		Limit		Verdict
			dBm	W	dBm	W	
WCDMA Band II	9262	1852.4	20.82	0.121	33	2	PASS
	9400	1880.0	20.70	0.117			PASS
	9538	1907.6	20.69	0.117			PASS
HSDPA Band II	9262	1852.4	19.36	0.086	33	2	PASS
	9400	1880.0	19.26	0.084			PASS
	9538	1907.6	19.34	0.086			PASS
HSUPA Band II	9262	1852.4	19.37	0.086	33	2	PASS
	9400	1880.0	19.20	0.083			PASS
	9538	1907.6	19.32	0.086			PASS

**Note:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

## 2.8. Radiated Out of Band Emissions

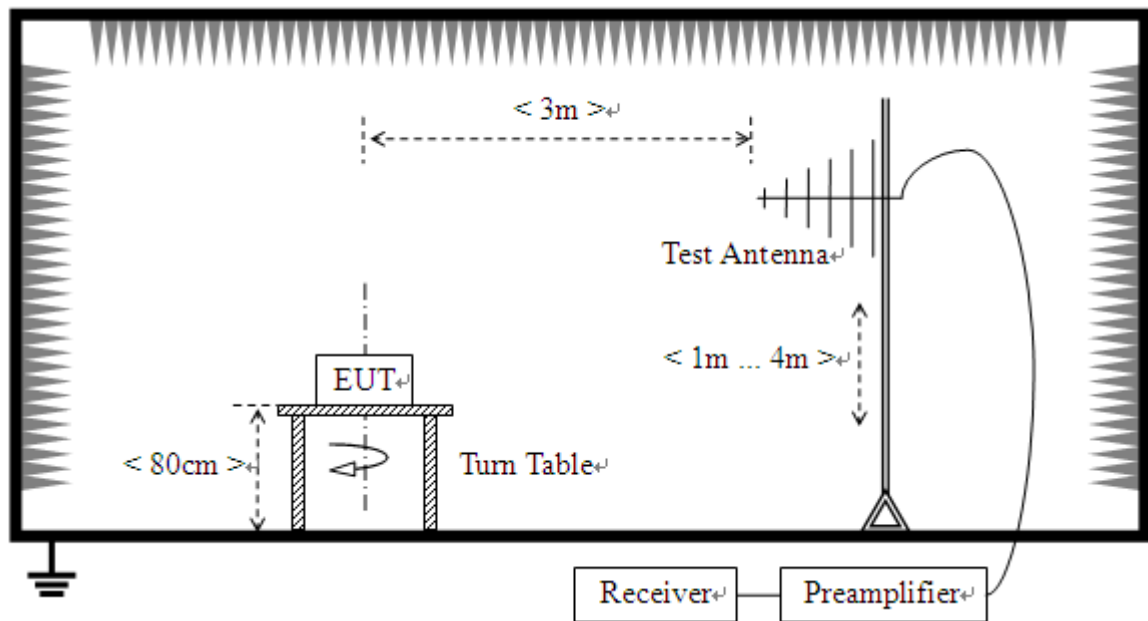
### 2.8.1. Requirement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43+10*\log(P)$ dB. This calculated to be -13dBm.

### 2.8.2. Test Description

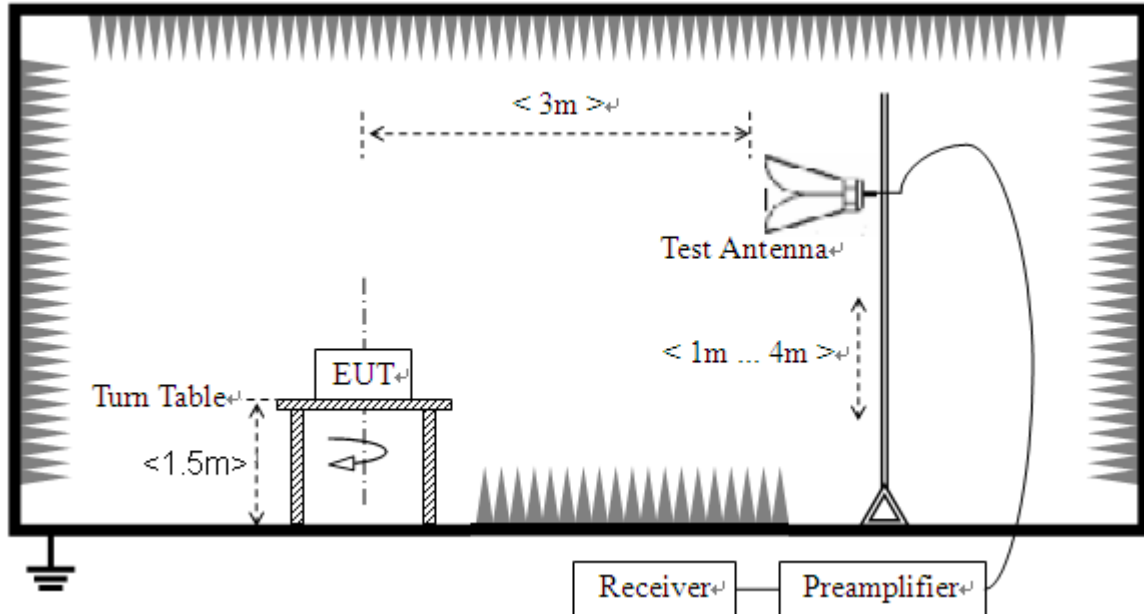
Test Setup:

- 1) Below1GHz





2) Above 1GHz



The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. GSM850MHz band Power Control Level (PCL) = 5/19 and Power Class = 4, GSM1900MHz band Power Control Level (PCL) = 0/15 and Power Class = 1), and only the test result of the maximum output power was recorded. Please refer to section 2.1.3 of this report.

- Step size (dB): 3dB

The Test Antenna is a Bi-Log one (used for 30MHz to 1GHz) and a Horn one (used for above 3GHz), it's located at the same height as the EUT. The Filters consists of Notch Filters and High Pass Filter.

Note: when doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

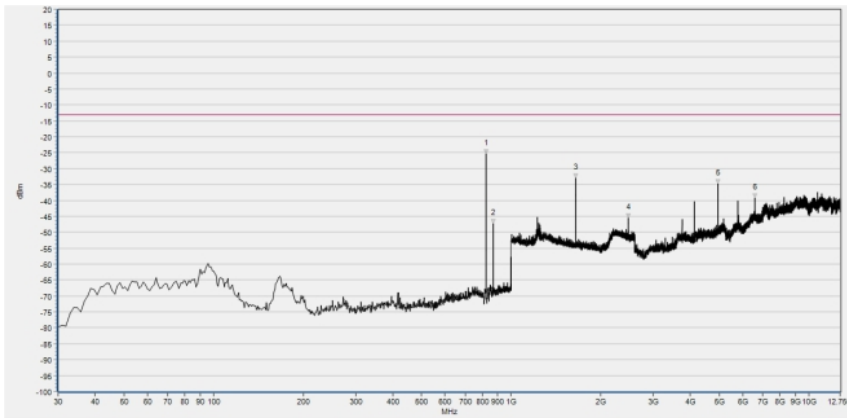
### 2.8.3. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested to verify the out of band emissions. The power of the EUT transmitting frequency should be ignored.

Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)		Limit (dBm)	Verdict
			Test Antenna Horizontal	Test Antenna Vertical		
GSM 850MHz	128	824.2	< -25	< -25	-13	PASS
	190	836.6	< -25	< -25		PASS
	251	848.8	< -25	< -25		PASS
GSM 1900MHz	512	1850.2	< -25	< -25	-13	PASS
	661	1880.0	< -25	< -25		PASS
	810	1909.8	< -25	< -25		PASS
EDGE 850MHz	128	824.2	< -25	< -25	-13	PASS
	190	836.6	< -25	< -25		PASS
	251	848.8	< -25	< -25		PASS
EDGE 1900MHz	512	1850.2	< -25	< -25	-13	PASS
	661	1880.0	< -25	< -25		PASS
	810	1909.8	< -25	< -25		PASS
WCDMA Band V	4132	826.4	< -25	< -25	-13	PASS
	4183	836.4	< -25	< -25		PASS
	4233	846.6	< -25	< -25		PASS
WCDMA Band II	9262	1852.4	< -25	< -25	-13	PASS
	9400	1880.0	< -25	< -25		PASS
	9538	1907.6	< -25	< -25		PASS

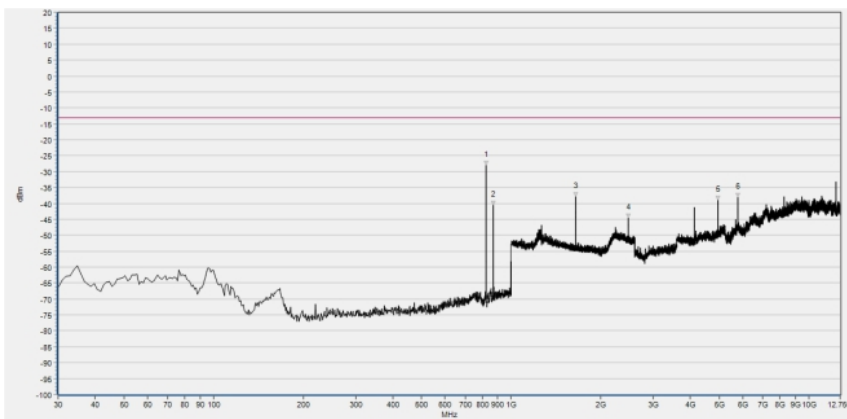
**Note 1:** All test mode and condition mentioned were considered and evaluated respectively by performing full test, only the worst data were recorded and reported.

**Note 2:** All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.



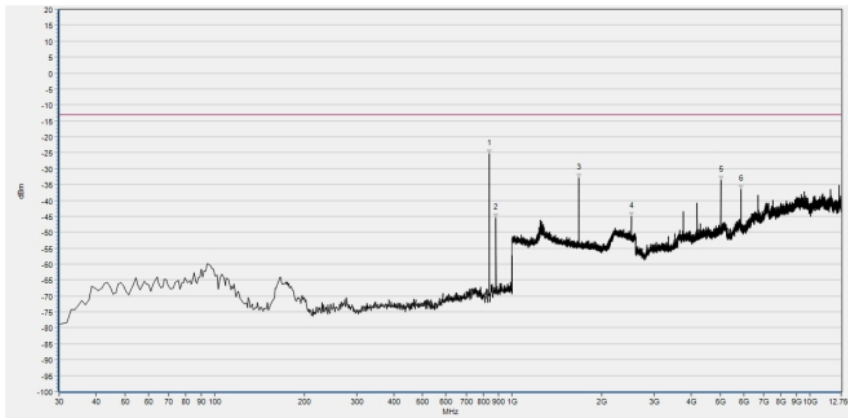
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	824.430	-25.46	-13.00	Horizontal	N/A
2	869.050	-47.18	-13.00	Horizontal	N/A
3	1647.939	-32.96	-13.00	Horizontal	PASS
4	2472.589	-45.43	-13.00	Horizontal	PASS
5	4945.999	-34.83	-13.00	Horizontal	PASS
6	6592.444	-39.12	-13.00	Horizontal	PASS

(GSM 850MHz, Channel = 128, Horizontal)



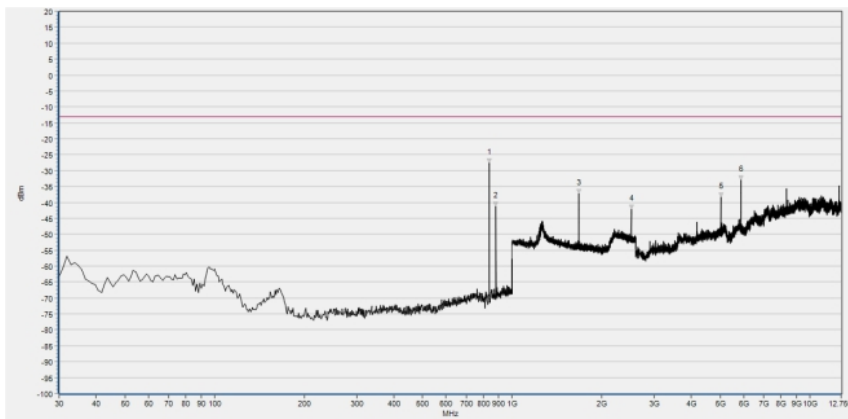
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	824.430	-27.95	-13.00	Vertical	N/A
2	869.050	-40.65	-13.00	Vertical	N/A
3	1647.939	-37.83	-13.00	Vertical	PASS
4	2471.949	-44.67	-13.00	Vertical	PASS
5	4945.999	-38.98	-13.00	Vertical	PASS
6	5769.222	-38.18	-13.00	Vertical	PASS

(GSM 850MHz, Channel = 128, Vertical)



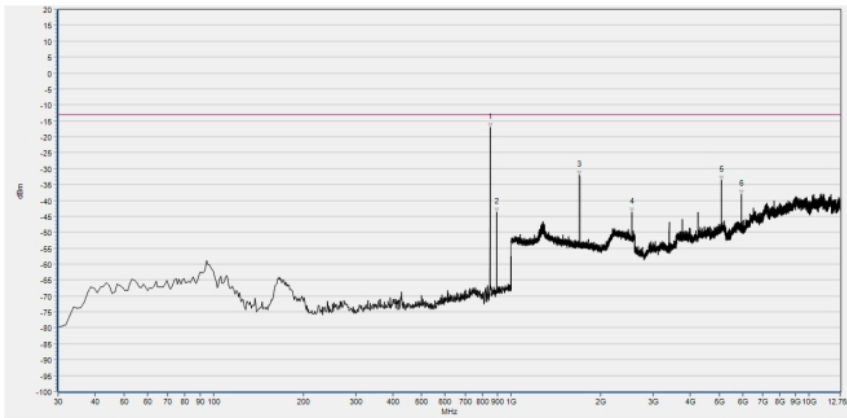
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	836.070	-25.29	-13.00	Horizontal	N/A
2	881.660	-45.49	-13.00	Horizontal	N/A
3	1672.909	-33.00	-13.00	Horizontal	PASS
4	2509.724	-45.06	-13.00	Horizontal	PASS
5	5019.831	-33.61	-13.00	Horizontal	PASS
6	5855.974	-36.56	-13.00	Horizontal	PASS

(GSM850MHz, Channel = 190, Horizontal)



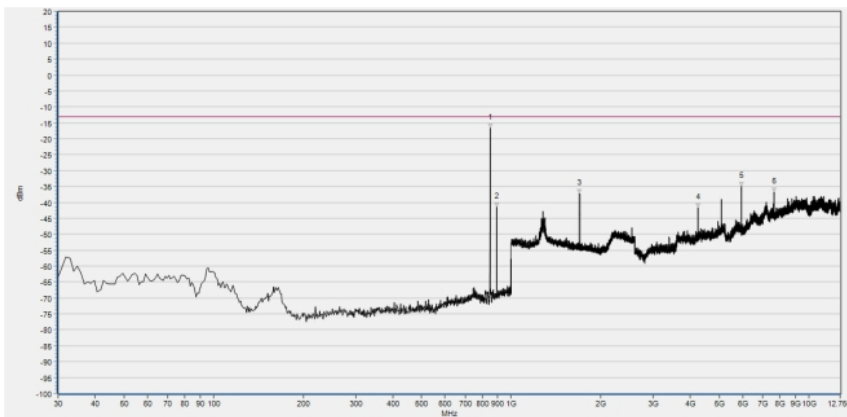
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	837.040	-27.59	-13.00	Vertical	N/A
2	881.660	-41.28	-13.00	Vertical	N/A
3	1672.909	-37.28	-13.00	Vertical	PASS
4	2509.724	-42.23	-13.00	Vertical	PASS
5	5019.831	-38.34	-13.00	Vertical	PASS
6	5855.974	-32.97	-13.00	Vertical	PASS

(GSM 850MHz, Channel = 190, Vertical)



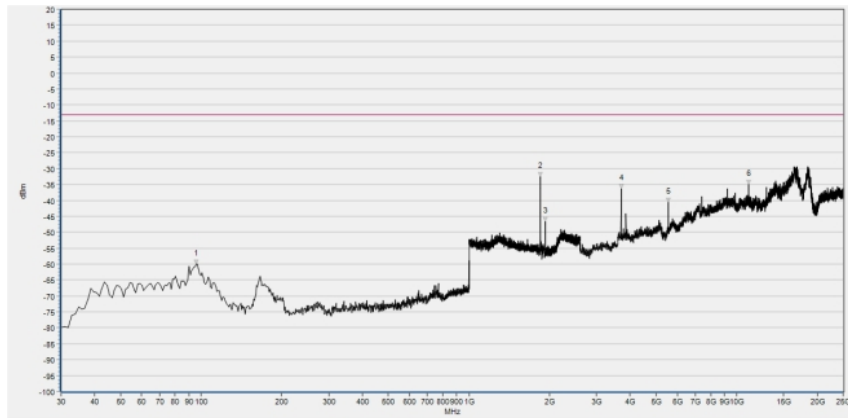
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	848.680	-17.02	-13.00	Horizontal	N/A
2	893.300	-43.77	-13.00	Horizontal	N/A
3	1697.239	-31.97	-13.00	Horizontal	PASS
4	2546.218	-43.70	-13.00	Horizontal	PASS
5	5093.662	-33.65	-13.00	Horizontal	PASS
6	5940.880	-38.10	-13.00	Horizontal	PASS

(GSM 850MHz, Channel = 251,Horizontal)



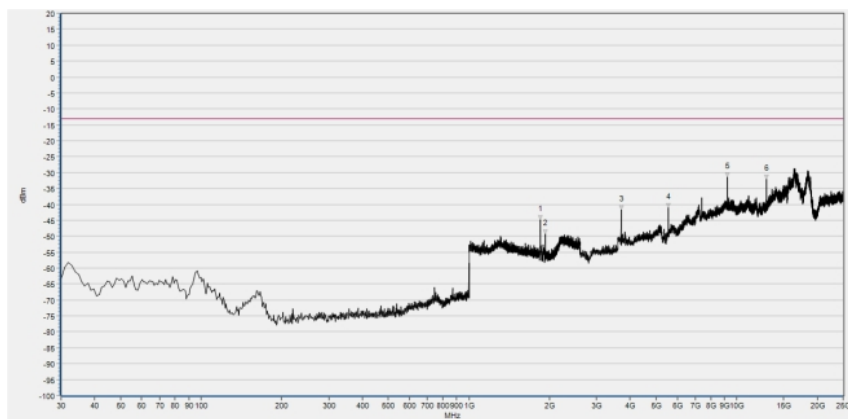
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	848.680	-16.68	-13.00	Vertical	N/A
2	893.300	-41.41	-13.00	Vertical	N/A
3	1697.239	-37.14	-13.00	Vertical	PASS
4	4244.599	-41.67	-13.00	Vertical	PASS
5	5940.880	-35.01	-13.00	Vertical	PASS
6	7639.007	-36.73	-13.00	Vertical	PASS

(GSM 850MHz, Channel = 251, Vertical)



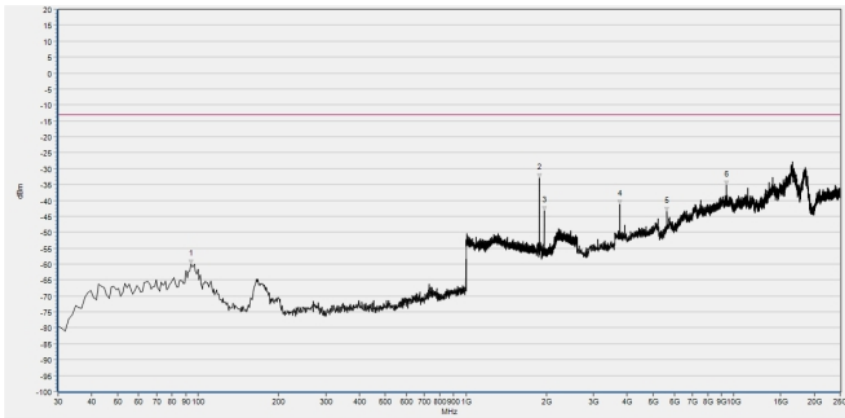
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	95.960	-59.91	-13.00	Horizontal	PASS
2	1850.260	-32.44	-13.00	Horizontal	N/A
3	1930.292	-46.57	-13.00	Horizontal	N/A
4	3699.836	-36.28	-13.00	Horizontal	PASS
5	5549.191	-40.63	-13.00	Horizontal	PASS
6	11101.328	-34.92	-13.00	Horizontal	PASS

(GSM 1900MHz, Channel = 512, Horizontal)



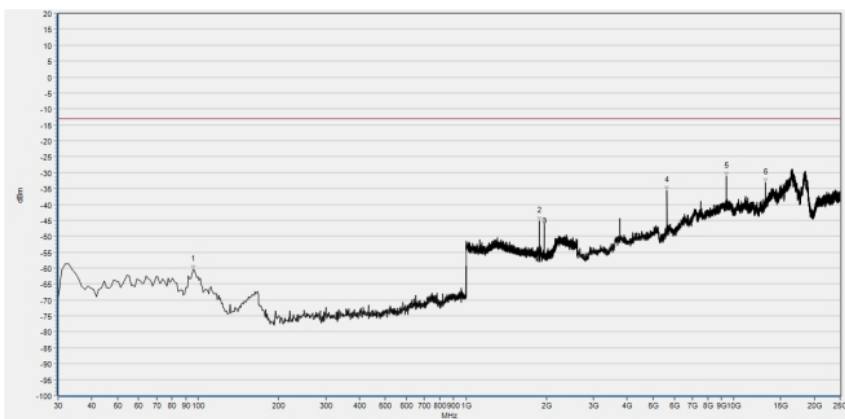
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	1850.260	-44.79	-13.00	Vertical	N/A
2	1930.292	-49.20	-13.00	Vertical	N/A
3	3699.836	-41.59	-13.00	Vertical	PASS
4	5549.191	-41.03	-13.00	Vertical	PASS
5	9251.973	-31.44	-13.00	Vertical	PASS
6	12950.682	-32.10	-13.00	Vertical	PASS

(GSM 1900MHz, Channel = 512, Vertical)



Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	94.020	-60.09	-13.00	Horizontal	PASS
2	1879.712	-33.04	-13.00	Horizontal	N/A
3	1959.744	-43.17	-13.00	Horizontal	N/A
4	3760.938	-41.23	-13.00	Horizontal	PASS
5	5638.807	-43.37	-13.00	Horizontal	PASS
6	9398.618	-35.17	-13.00	Horizontal	PASS

(GSM 1900MHz, Channel = 661, Horizontal)



Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	95.960	-60.53	-13.00	Vertical	PASS
2	1879.712	-45.30	-13.00	Vertical	N/A
3	1959.744	-46.06	-13.00	Vertical	N/A
4	5638.807	-35.58	-13.00	Vertical	PASS
5	9398.618	-31.13	-13.00	Vertical	PASS
6	13158.429	-33.26	-13.00	Vertical	PASS

(GSM 1900MHz, Channel = 661, Vertical)

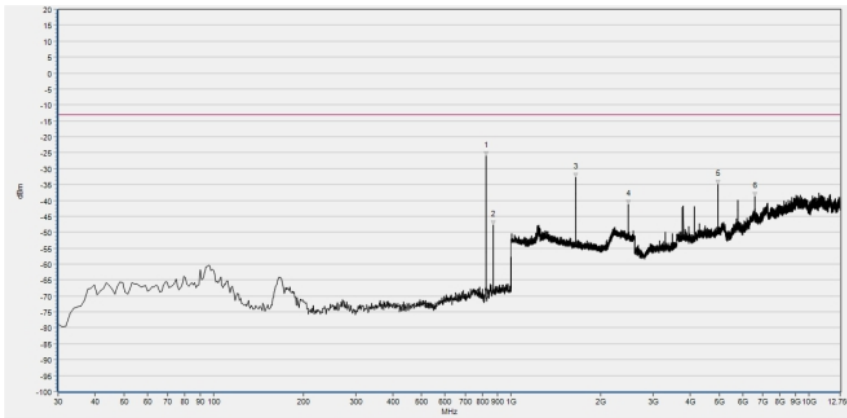


(GSM 1900MHz, Channel = 810, Horizontal)



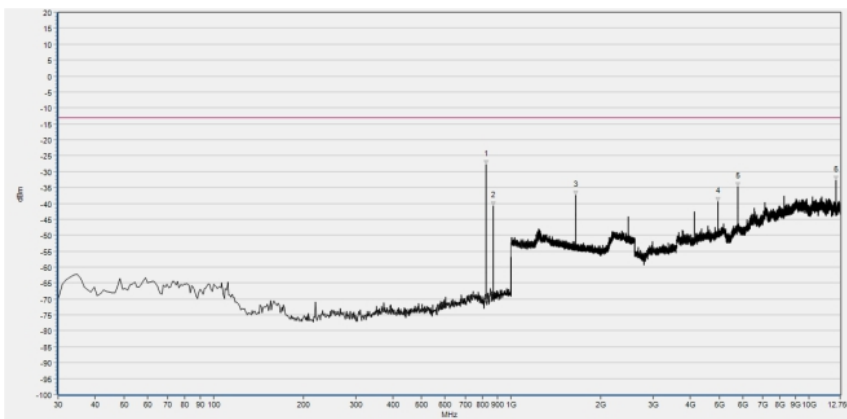
(GSM 1900MHz, Channel = 810, Vertical)





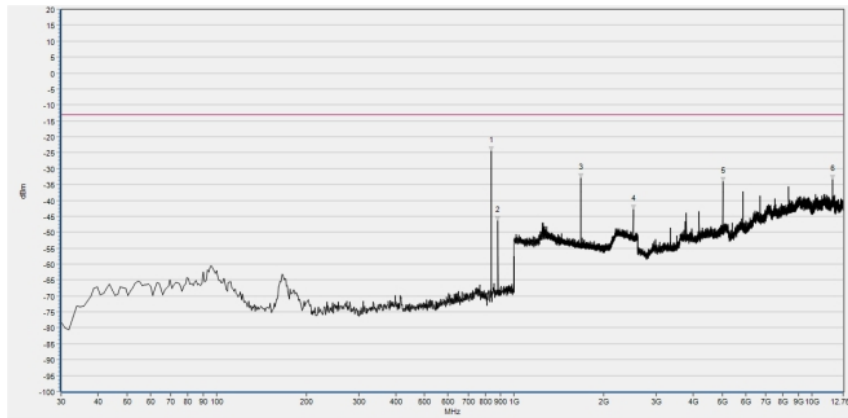
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	824.430	-26.12	-13.00	Horizontal	N/A
2	869.050	-47.62	-13.00	Horizontal	N/A
3	1648.579	-32.72	-13.00	Horizontal	PASS
4	2472.589	-41.19	-13.00	Horizontal	PASS
5	4945.999	-34.89	-13.00	Horizontal	PASS
6	6594.290	-38.69	-13.00	Horizontal	PASS

(EDGE 850MHz, Channel = 128, Horizontal)



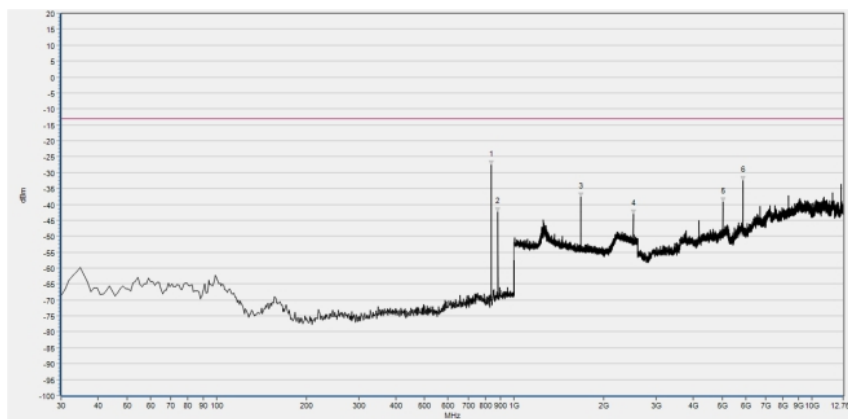
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	824.430	-27.84	-13.00	Vertical	N/A
2	869.050	-40.80	-13.00	Vertical	N/A
3	1647.939	-37.40	-13.00	Vertical	PASS
4	4945.999	-39.52	-13.00	Vertical	PASS
5	5769.222	-34.85	-13.00	Vertical	PASS
6	12362.384	-32.68	-13.00	Vertical	PASS

(EDGE 850MHz, Channel = 128, Vertical)



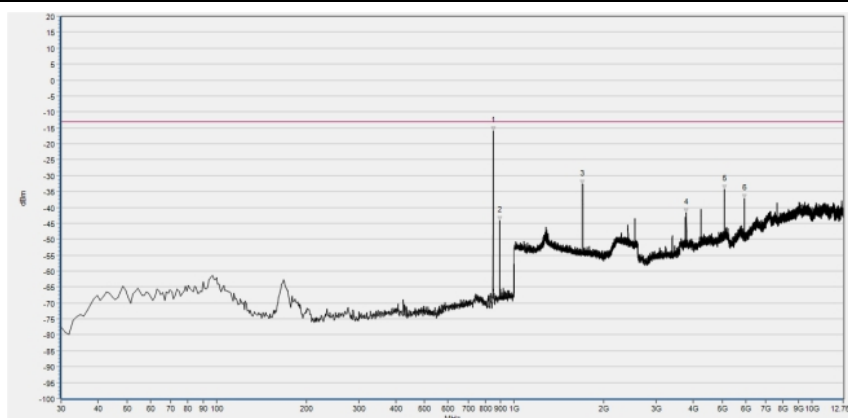
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	836.070	-24.47	-13.00	Horizontal	N/A
2	881.660	-46.35	-13.00	Horizontal	N/A
3	1672.909	-33.03	-13.00	Horizontal	PASS
4	2509.724	-42.88	-13.00	Horizontal	PASS
5	5019.831	-34.09	-13.00	Horizontal	PASS
6	11710.820	-33.44	-13.00	Horizontal	PASS

(EDGE 850MHz, Channel = 190, Horizontal)



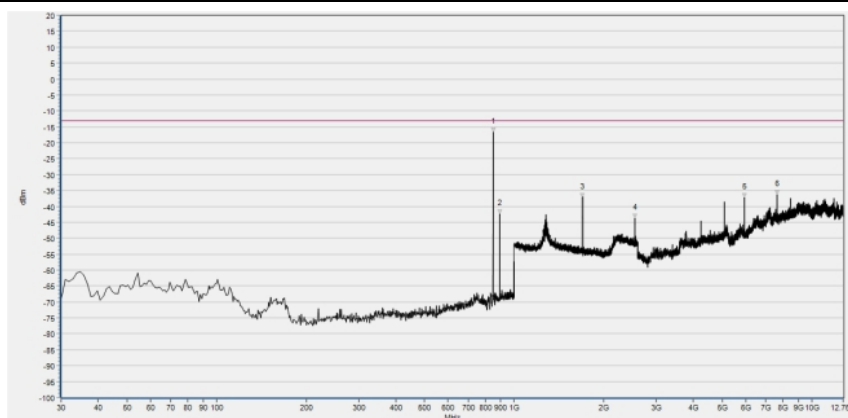
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	836.070	-27.58	-13.00	Vertical	N/A
2	881.660	-42.44	-13.00	Vertical	N/A
3	1672.909	-37.59	-13.00	Vertical	PASS
4	2509.724	-43.05	-13.00	Vertical	PASS
5	5019.831	-39.24	-13.00	Vertical	PASS
6	5855.974	-32.56	-13.00	Vertical	PASS

(EDGE 850MHz, Channel = 190, Vertical)



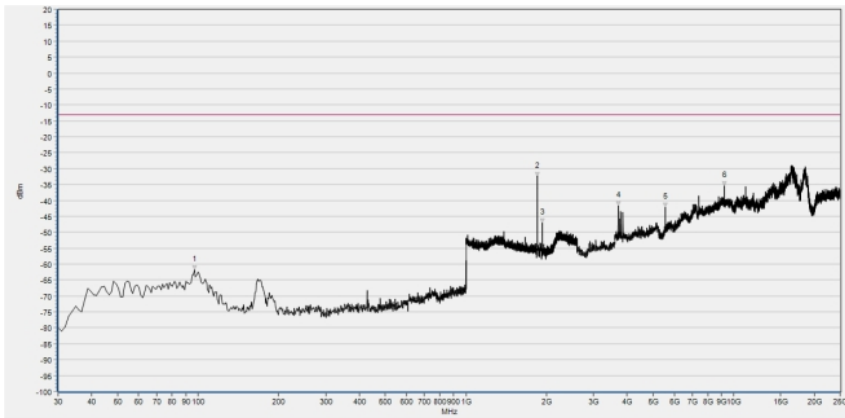
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	848.680	-15.87	-13.00	Horizontal	N/A
2	894.270	-44.10	-13.00	Horizontal	N/A
3	1697.239	-32.78	-13.00	Horizontal	PASS
4	3786.843	-41.59	-13.00	Horizontal	PASS
5	5091.817	-34.23	-13.00	Horizontal	PASS
6	5942.726	-37.17	-13.00	Horizontal	PASS

(EDGE 850MHz, Channel = 251, Horizontal)



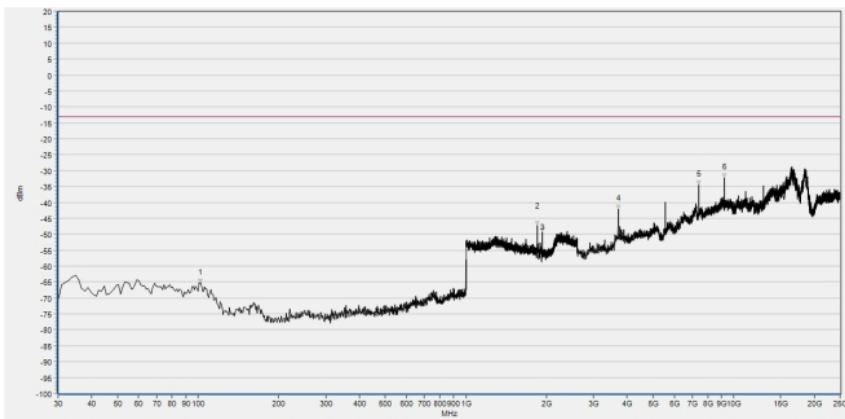
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	848.680	-16.71	-13.00	Vertical	N/A
2	893.300	-42.44	-13.00	Vertical	N/A
3	1697.239	-37.15	-13.00	Vertical	PASS
4	2546.218	-43.68	-13.00	Vertical	PASS
5	5942.726	-37.30	-13.00	Vertical	PASS
6	7639.007	-36.37	-13.00	Vertical	PASS

(EDGE 850MHz, Channel = 251, Vertical)



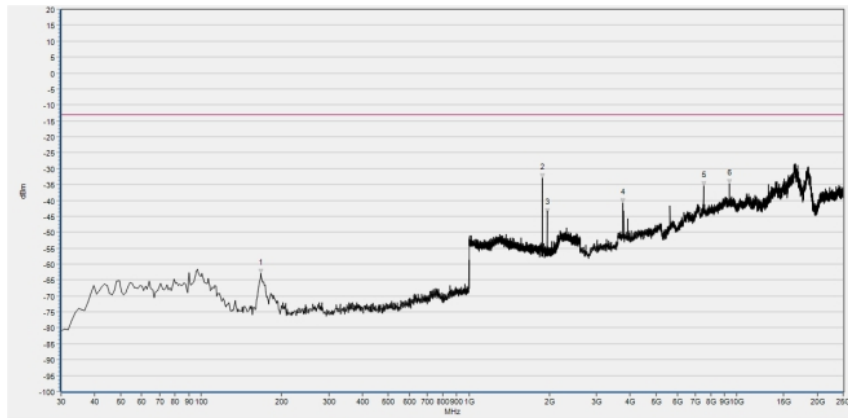
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	96.930	-61.82	-13.00	Horizontal	PASS
2	1849.620	-32.48	-13.00	Horizontal	N/A
3	1929.652	-47.15	-13.00	Horizontal	N/A
4	3699.836	-41.59	-13.00	Horizontal	PASS
5	5549.191	-42.12	-13.00	Horizontal	PASS
6	9251.973	-35.42	-13.00	Horizontal	PASS

(EDGE 1900MHz, Channel = 512, Horizontal)



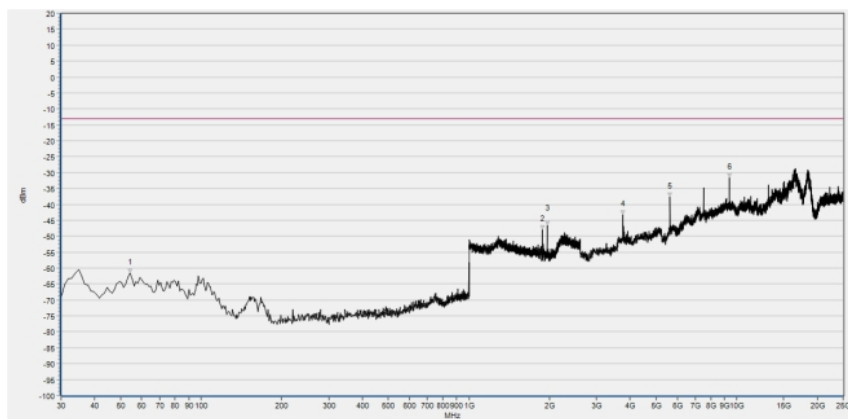
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	101.780	-65.46	-13.00	Vertical	PASS
2	1850.260	-47.19	-13.00	Vertical	N/A
3	1930.292	-49.32	-13.00	Vertical	N/A
4	3699.836	-42.17	-13.00	Vertical	PASS
5	7402.619	-34.49	-13.00	Vertical	PASS
6	9251.973	-32.37	-13.00	Vertical	PASS

(EDGE 1900MHz, Channel = 512, Vertical)



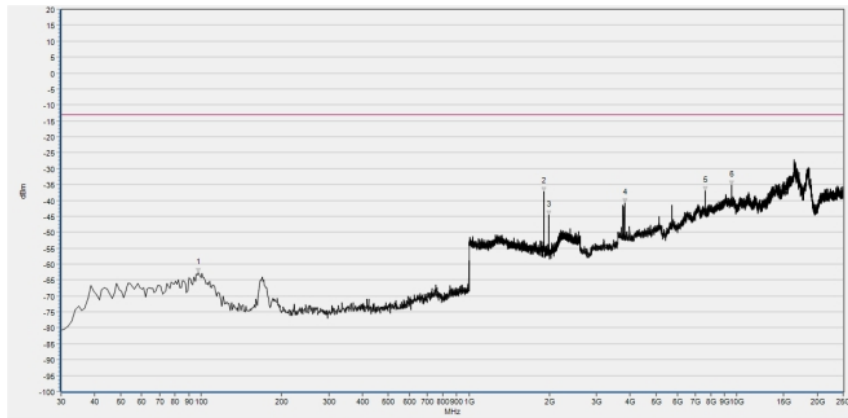
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	166.770	-62.88	-13.00	Horizontal	PASS
2	1879.712	-32.91	-13.00	Horizontal	N/A
3	1960.384	-43.91	-13.00	Horizontal	N/A
4	3760.938	-40.83	-13.00	Horizontal	PASS
5	7520.749	-35.51	-13.00	Horizontal	PASS
6	9398.618	-34.83	-13.00	Horizontal	PASS

(EDGE 1900MHz, Channel = 661, Horizontal)



Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	54.250	-61.65	-13.00	Vertical	PASS
2	1879.712	-47.87	-13.00	Vertical	N/A
3	1959.744	-46.70	-13.00	Vertical	N/A
4	3760.938	-43.19	-13.00	Vertical	PASS
5	5638.807	-37.56	-13.00	Vertical	PASS
6	9398.618	-31.55	-13.00	Vertical	PASS

(EDGE 1900MHz, Channel = 661, Vertical)



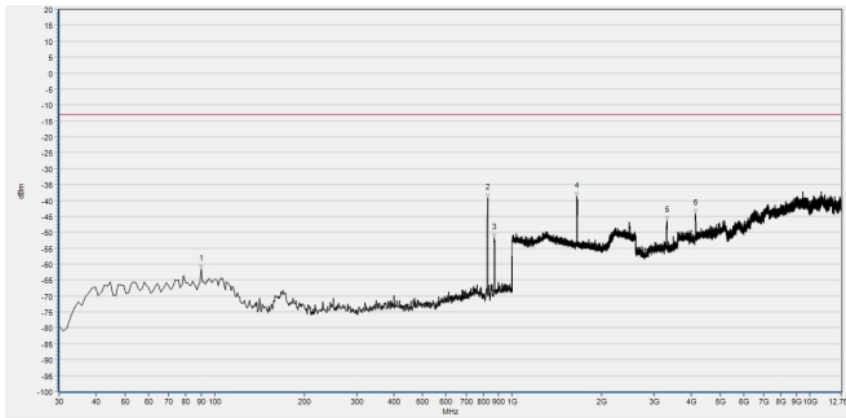
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	97.900	-62.76	-13.00	Horizontal	PASS
2	1909.804	-37.11	-13.00	Horizontal	N/A
3	1989.836	-44.52	-13.00	Horizontal	N/A
4	3817.967	-40.76	-13.00	Horizontal	PASS
5	7638.880	-36.89	-13.00	Horizontal	PASS
6	9549.336	-35.29	-13.00	Horizontal	PASS

(EDGE 1900MHz, Channel = 810, Horizontal)



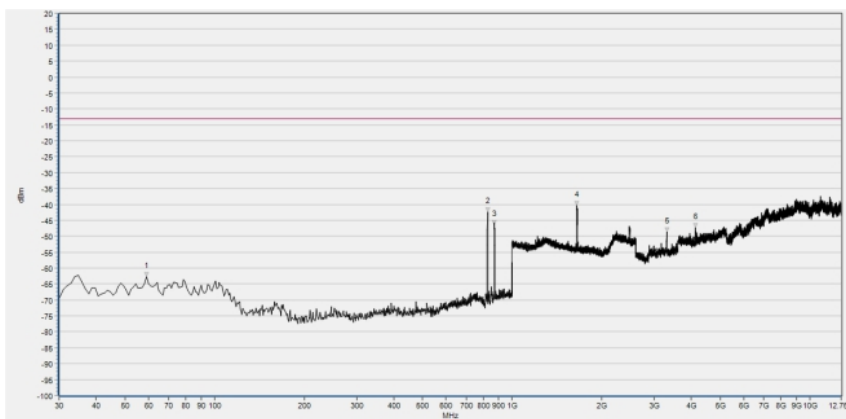
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	101.780	-62.97	-13.00	Vertical	PASS
2	1909.804	-49.61	-13.00	Vertical	N/A
3	1989.836	-47.39	-13.00	Vertical	N/A
4	3817.967	-43.86	-13.00	Vertical	PASS
5	5728.423	-34.45	-13.00	Vertical	PASS
6	9549.336	-29.44	-13.00	Vertical	PASS

(EDGE 1900MHz, Channel = 810, Vertical)



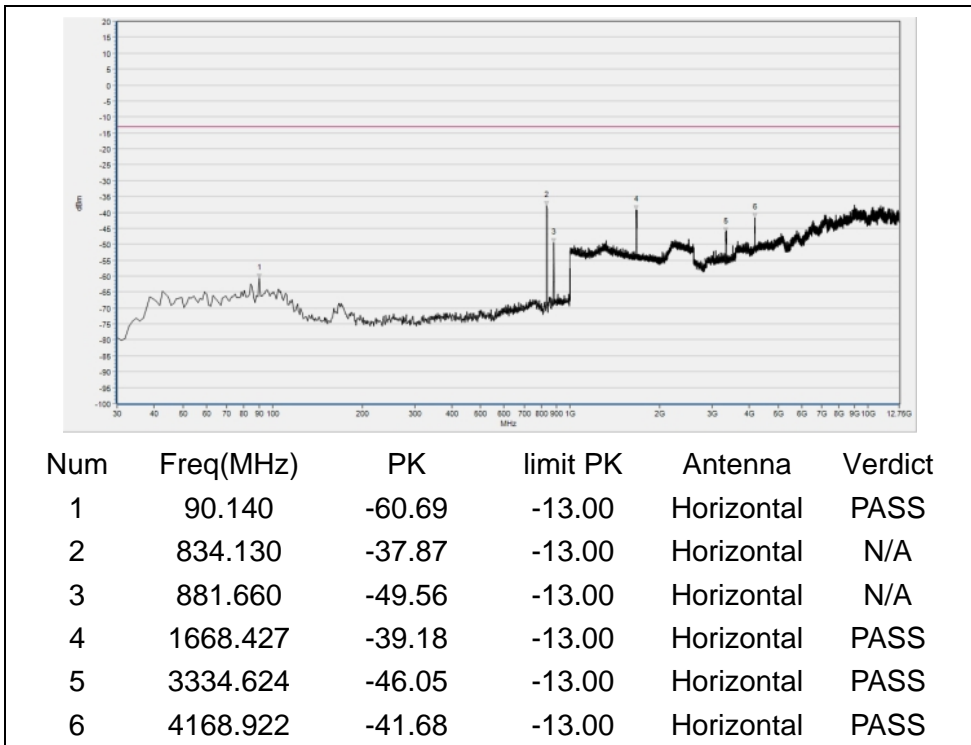
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	90.140	-61.64	-13.00	Horizontal	PASS
2	827.340	-39.25	-13.00	Horizontal	N/A
3	870.990	-51.64	-13.00	Horizontal	N/A
4	1651.140	-38.83	-13.00	Horizontal	PASS
5	3310.629	-46.46	-13.00	Horizontal	PASS
6	4130.160	-44.22	-13.00	Horizontal	PASS

(WCDMA Band V, Channel = 4132, Horizontal)

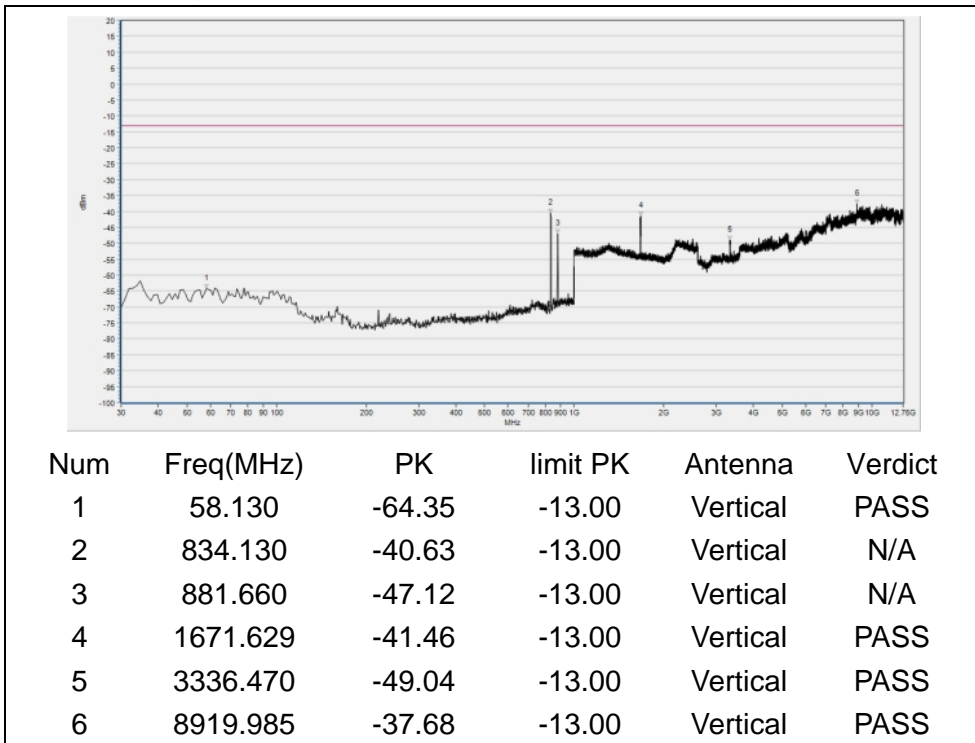


Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	59.100	-62.75	-13.00	Vertical	PASS
2	827.340	-42.36	-13.00	Vertical	N/A
3	870.020	-46.33	-13.00	Vertical	N/A
4	1651.140	-40.41	-13.00	Vertical	PASS
5	3303.246	-48.69	-13.00	Vertical	PASS
6	4130.160	-47.36	-13.00	Vertical	PASS

(WCDMA Band V, Channel = 4132, Vertical)

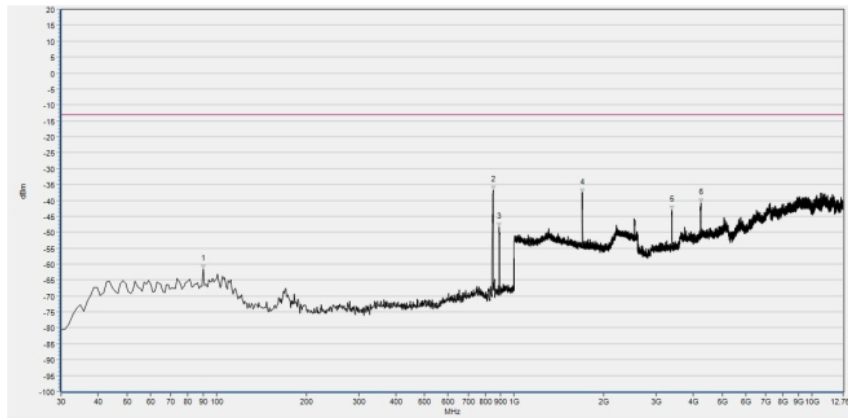


(WCDMA Band V, Channel = 4183, Horizontal)



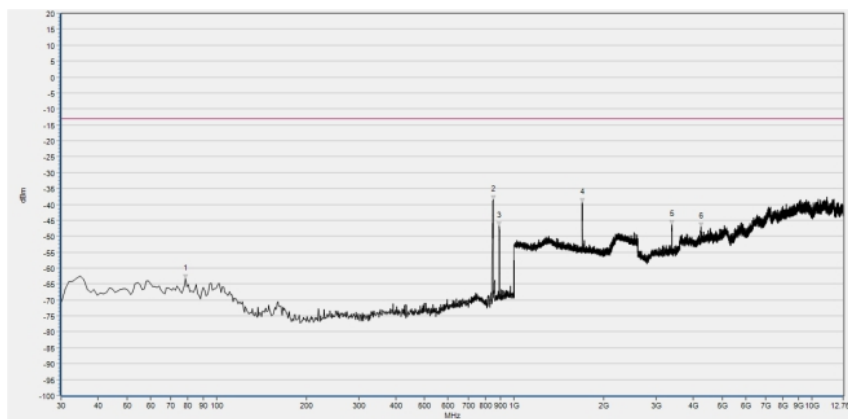
(WCDMA Band V, Channel = 4183, Vertical)





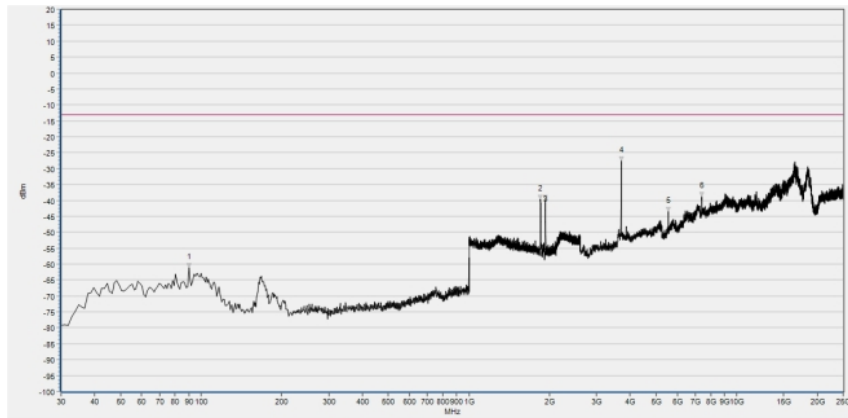
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	90.140	-61.51	-13.00	Horizontal	PASS
2	848.680	-36.71	-13.00	Horizontal	N/A
3	890.390	-48.48	-13.00	Horizontal	N/A
4	1690.196	-37.70	-13.00	Horizontal	PASS
5	3389.998	-42.95	-13.00	Horizontal	PASS
6	4237.216	-40.78	-13.00	Horizontal	PASS

(WCDMA Band V, Channel = 4233, Horizontal)



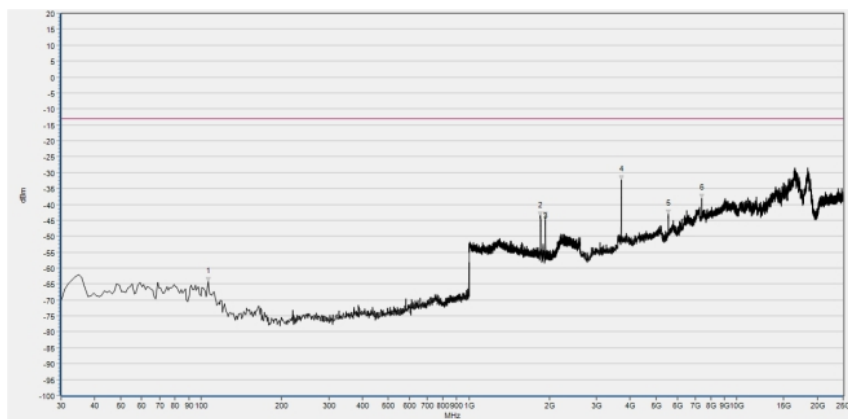
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	78.500	-63.40	-13.00	Vertical	PASS
2	848.680	-38.49	-13.00	Vertical	N/A
3	891.360	-46.84	-13.00	Vertical	N/A
4	1695.318	-39.55	-13.00	Vertical	PASS
5	3380.769	-46.35	-13.00	Vertical	PASS
6	4239.062	-47.10	-13.00	Vertical	PASS

(WCDMA Band V, Channel = 4233, Vertical)



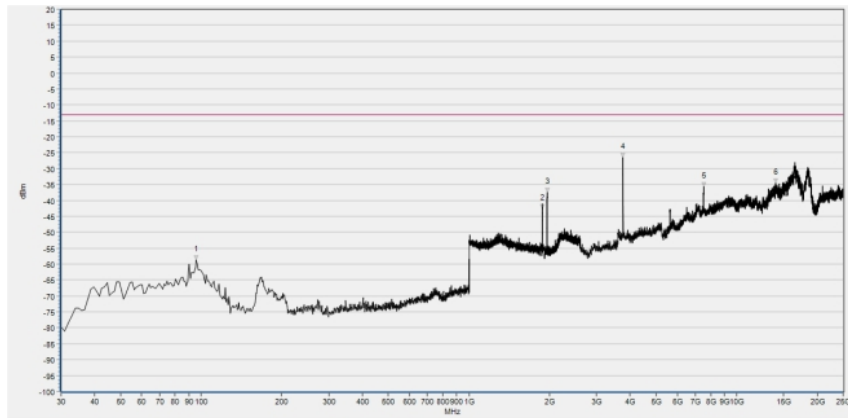
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	90.140	-61.09	-13.00	Horizontal	PASS
2	1850.900	-39.56	-13.00	Horizontal	N/A
3	1932.853	-39.74	-13.00	Horizontal	N/A
4	3707.983	-27.71	-13.00	Horizontal	PASS
5	5561.411	-43.52	-13.00	Horizontal	PASS
6	7414.839	-38.67	-13.00	Horizontal	PASS

(WCDMA Band II, Channel = 9262, Horizontal)



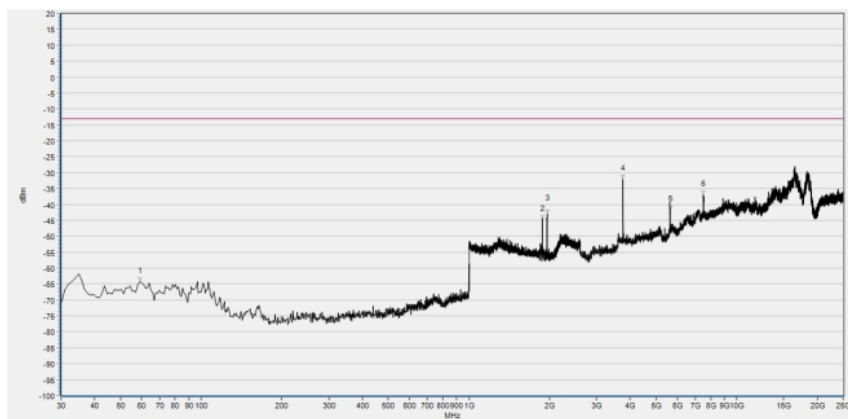
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	106.630	-64.22	-13.00	Vertical	PASS
2	1850.900	-43.77	-13.00	Vertical	N/A
3	1932.853	-43.67	-13.00	Vertical	N/A
4	3703.910	-32.24	-13.00	Vertical	PASS
5	5561.411	-43.10	-13.00	Vertical	PASS
6	7406.692	-38.11	-13.00	Vertical	PASS

(WCDMA Band II, Channel = 9262, Vertical)



Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	95.960	-58.77	-13.00	Horizontal	PASS
2	1877.791	-42.48	-13.00	Horizontal	N/A
3	1959.104	-37.42	-13.00	Horizontal	N/A
4	3756.865	-26.40	-13.00	Horizontal	PASS
5	7524.823	-35.55	-13.00	Horizontal	PASS
6	14005.710	-34.58	-13.00	Horizontal	PASS

(WCDMA Band II, Channel = 9400, Horizontal)



Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	59.100	-64.18	-13.00	Vertical	PASS
2	1878.431	-44.73	-13.00	Vertical	N/A
3	1960.384	-42.99	-13.00	Vertical	PASS
4	3756.865	-32.06	-13.00	Vertical	PASS
5	5642.881	-41.65	-13.00	Vertical	PASS
6	7516.676	-36.88	-13.00	Vertical	PASS

(WCDMA Band II, Channel = 9400, Vertical)

## Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test items	Uncertainty
Output Power	$\pm 2.22\text{dB}$
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	$\pm 2.77\text{ dB}$
Radiated Emission	$\pm 2.95\text{dB}$

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$

# Annex B Testing Laboratory Information

## 1. Identification of the Responsible Testing Laboratory

<b>Laboratory Name:</b>	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
<b>Laboratory Address:</b>	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
<b>Telephone:</b>	+86 755 36698555
<b>Facsimile:</b>	+86 755 36698525

## 2. Identification of the Responsible Testing Location

<b>Name:</b>	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
<b>Address:</b>	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

## 3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.

#### 4. Test Equipments Utilized

##### 4.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
Power Splitter	NW521	1506A	Weinschel	2019.04.17	2020.04.16
Attenuator 1	(N/A.)	10dB	Resnet	2019.04.17	2020.04.16
Attenuator 2	(N/A.)	3dB	Resnet	2019.04.17	2020.04.16
MXA Signal Analyzer	MY51511149	N9010A	Agilent	2019.07.29	2020.07.28
Wireless synthesizer	MY48364176	8960 -E5515C	Agilent	2019.04.17	2020.04.16
RF cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial cable	CB02	RF02	Morlab	N/A	N/A
SMA connector	CN01	RF03	HUBER-SUHNER	N/A	N/A
Temperature Chamber	(N/A)	HUT705P	CHONGQING HANBA EXPERIMENTAL EQUIPMENT CO.,LTD	2019.04.17	2020.04.16
Computer	T430i	Think Pad	Lenovo	N/A	N/A

**4.2 Radiated Test Equipments**

<b>Equipment Name</b>	<b>Serial No.</b>	<b>Type</b>	<b>Manufacturer</b>	<b>Cal. Date</b>	<b>Cal.Due</b>
System Simulator	152038	CMW500	R&S	2019.08.04	2020.08.03
Receiver	MY54130016	N9038A	Agilent	2019.05.18	2020.05.17
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2019.03.03	2020.03.02
Test Antenna - Horn	9170C-531	BBHA9170	Schwarzbeck	2019.08.06	2020.08.05
Test Antenna - Horn	01774	BBHA 9120D	Schwarzbeck	2019.08.02	2020.08.01
Coaxial cable (N male) (9KHz-30MHz)	CB04	EMC04	Morlab	N/A	N/A
Coaxial cable (N male) (30MHz-26GHz)	CB02	EMC02	Morlab	N/A	N/A
Coaxial cable(N male) (30MHz-26GHz)	CB03	EMC03	Morlab	N/A	N/A
1-18GHz pre-Amplifier	MA02	TS-PR18	Rohde& Schwarz	2019.05.08	2020.05.07
18-26.5GHz pre-Amplifier	MA03	TS-PR18	Rohde& Schwarz	2019.05.08	2020.05.07
Notch Filter	N/A	WRCG-GSM 850	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCG-GSM 1900	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV-W Band V	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV-W Band II	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV-W Band IV	Wainwright	2019.12.01	2020.11.30
Anechoic Chamber	N/A	9m*6m*6m	CRT	2017.11.19	2020.11.18

————— END OF REPORT —————