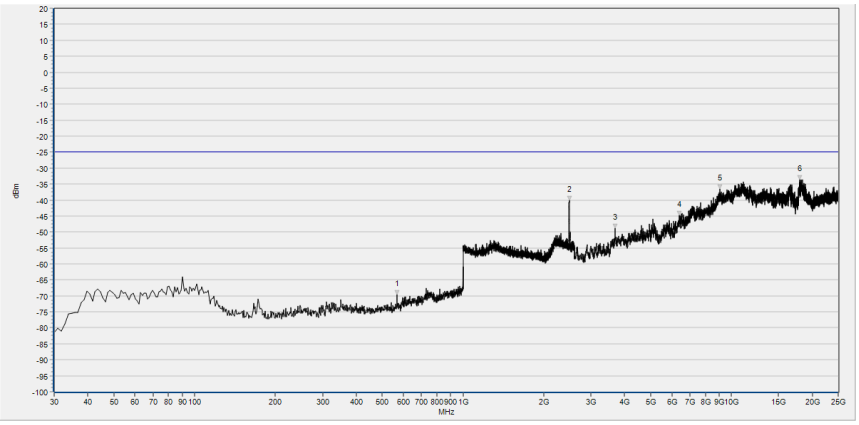
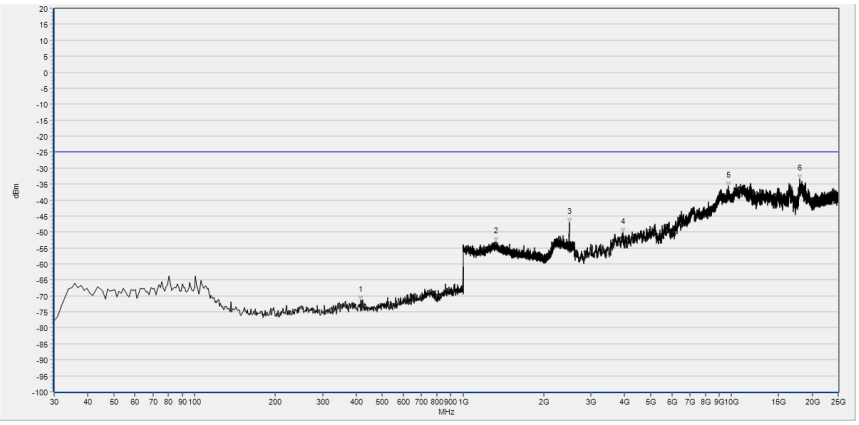
LTE Band 7 20MHz BW, Low Channel, QPSK

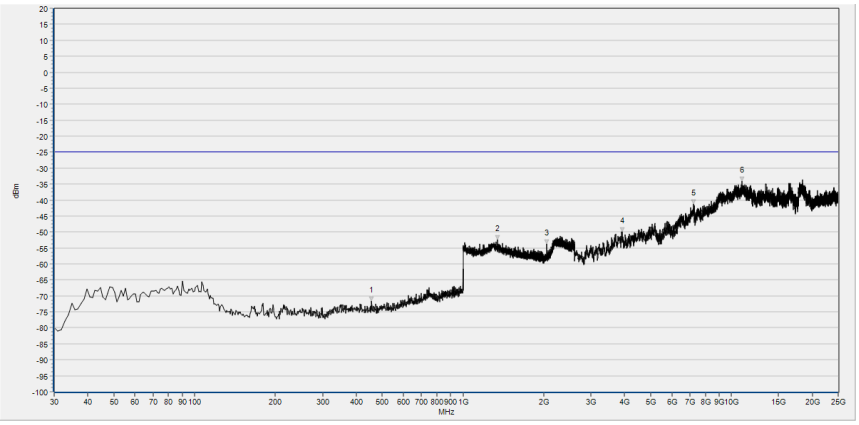


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	567.380	-69.67	-25.00	Horizontal	PASS
2	2488.595	-40.15	-25.00	Horizontal	NA
3	3683.542	-48.84	-25.00	Horizontal	PASS
4	6400.546	-44.85	-25.00	Horizontal	PASS
5	9056.447	-36.52	-25.00	Horizontal	PASS
6	17969.194	-33.62	-25.00	Horizontal	PASS



No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	417.030	-71.31	-25.00	Vertical	PASS
2	1325.250	-53.13	-25.00	Vertical	PASS
3	2488.595	-47.04	-25.00	Vertical	NA
4	3940.171	-50.10	-25.00	Vertical	PASS
5	9740.789	-35.63	-25.00	Vertical	PASS
6	17993.635	-33.44	-25.00	Vertical	PASS

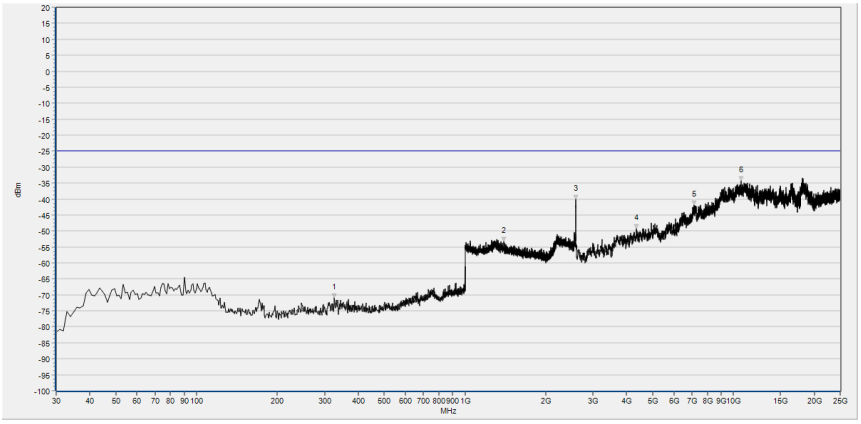
LTE Band 7 20MHz BW, Mid Channel, QPSK



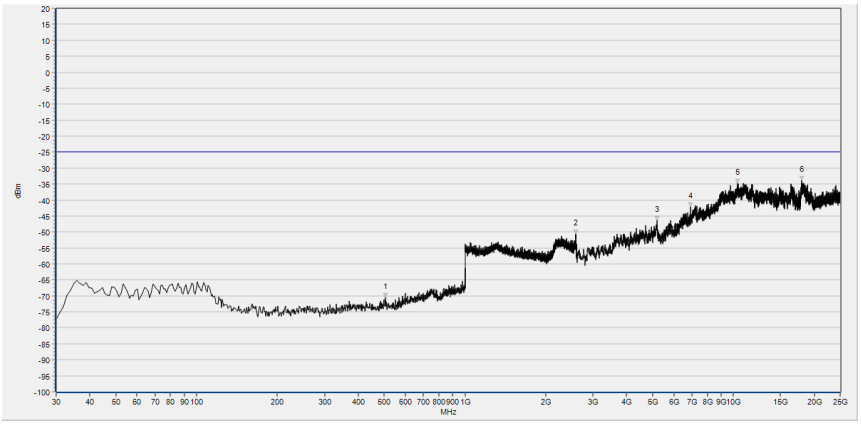
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	456.800	-71.72	-25.00	Horizontal	PASS
2	1348.299	-52.50	-25.00	Horizontal	PASS
3	2050.020	-53.82	-25.00	Horizontal	PASS
4	3927.951	-49.96	-25.00	Horizontal	PASS
5	7219.313	-41.14	-25.00	Horizontal	PASS
6	10958.756	-34.05	-25.00	Horizontal	PASS

No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	630.430	-69.26	-25.00	Vertical	PASS
2	1562.785	-54.52	-25.00	Vertical	PASS
3	2518.047	-52.02	-25.00	Vertical	PASS
4	4376.032	-48.12	-25.00	Vertical	PASS
5	9748.936	-36.38	-25.00	Vertical	PASS
6	18270.631	-33.93	-25.00	Vertical	PASS

LTE Band 7 20MHz BW, High Channel, QPSK

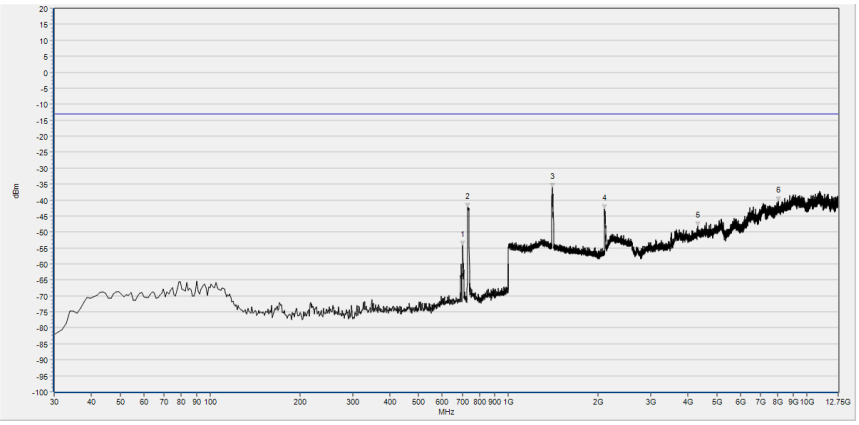


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	325.850	-71.02	-25.00	Horizontal	PASS
2	1396.319	-53.37	-25.00	Horizontal	PASS
3	2583.353	-40.01	-25.00	Horizontal	NA
4	4355.665	-49.34	-25.00	Horizontal	PASS
5	7154.137	-41.88	-25.00	Horizontal	PASS
6	10669.540	-34.33	-25.00	Horizontal	PASS

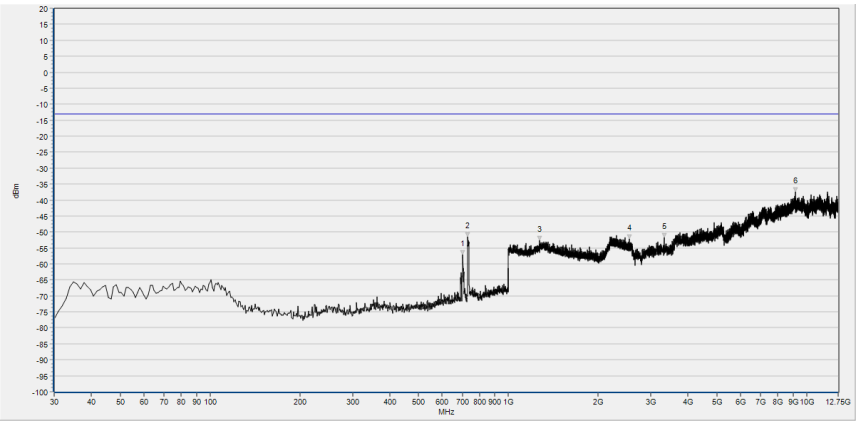


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	504.330	-70.45	-25.00	Vertical	PASS
2	2581.433	-50.51	-25.00	Vertical	NA
3	5182.579	-46.35	-25.00	Vertical	PASS
4	6934.170	-42.21	-25.00	Vertical	PASS
5	10343.662	-34.72	-25.00	Vertical	PASS
6	17977.341	-33.89	-25.00	Vertical	PASS

LTE Band 12 10MHz BW, Low Channel, QPSK

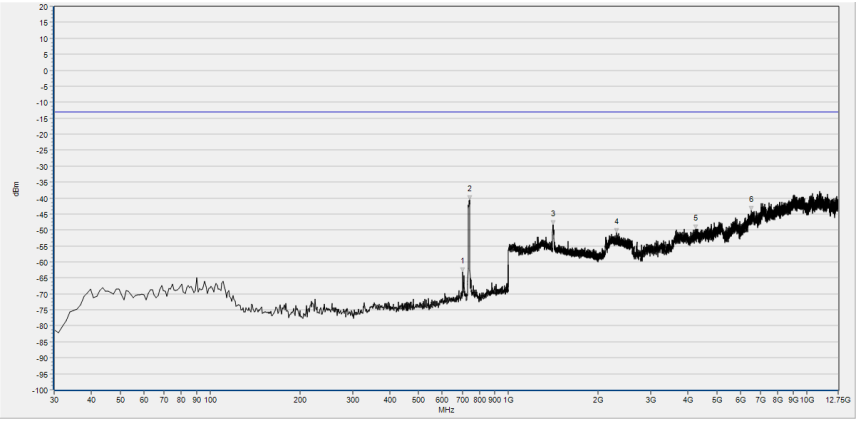


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	702.210	-54.16	-13.00	Horizontal	NA
2	730.340	-42.35	-13.00	Horizontal	NA
3	1400.800	-36.01	-13.00	Horizontal	PASS
4	2101.240	-42.90	-13.00	Horizontal	PASS
5	4307.356	-48.22	-13.00	Horizontal	PASS
6	8010.011	-40.27	-13.00	Horizontal	PASS

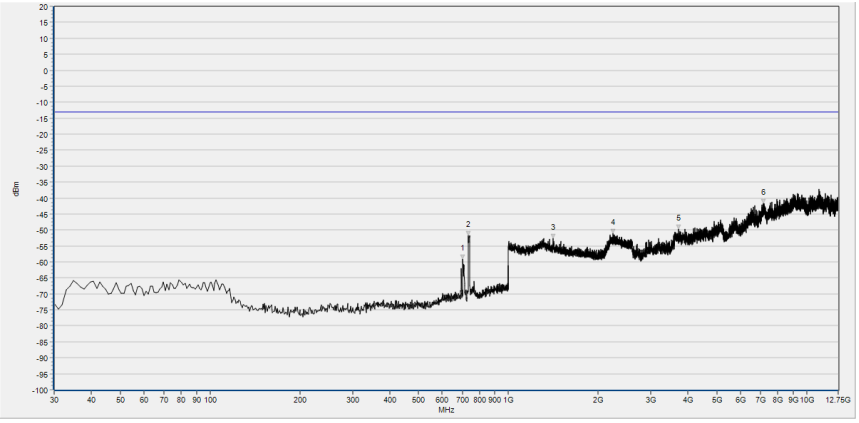


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	702.210	-57.12	-13.00	Vertical	NA
2	731.310	-51.50	-13.00	Vertical	NA
3	1270.188	-52.55	-13.00	Vertical	PASS
4	2542.377	-52.27	-13.00	Vertical	PASS
5	3321.704	-51.79	-13.00	Vertical	PASS
6	9169.167	-37.38	-13.00	Vertical	PASS

LTE Band 12 10MHz BW, Mid Channel, QPSK

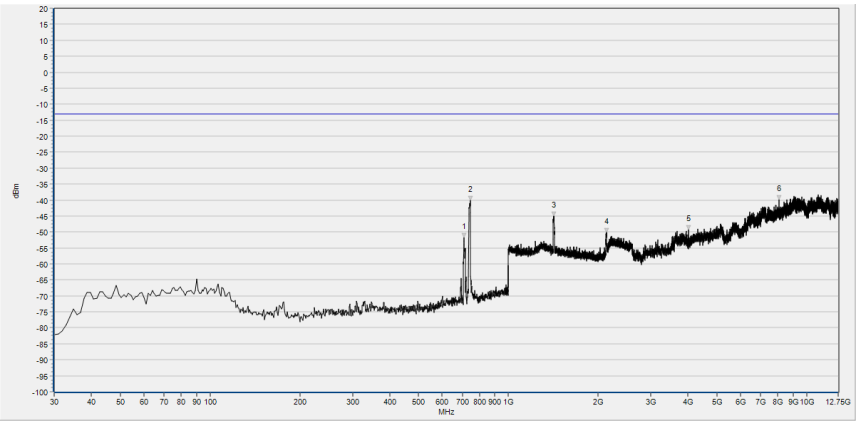


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	703.180	-63.20	-13.00	Horizontal	NA
2	741.010	-40.48	-13.00	Horizontal	NA
3	1407.843	-48.29	-13.00	Horizontal	PASS
4	2302.281	-50.73	-13.00	Horizontal	PASS
5	4253.828	-49.67	-13.00	Horizontal	PASS
6	6533.379	-43.93	-13.00	Horizontal	PASS

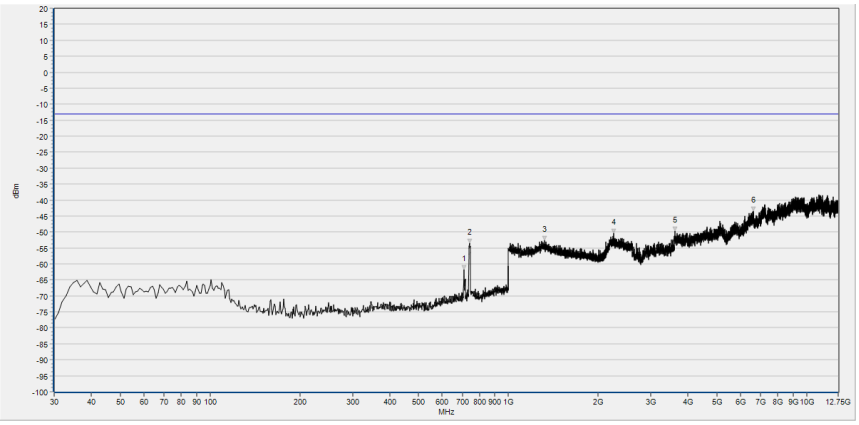


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	703.180	-59.18	-13.00	Vertical	NA
2	734.220	-51.83	-13.00	Vertical	NA
3	1414.246	-52.65	-13.00	Vertical	PASS
4	2245.298	-50.97	-13.00	Vertical	PASS
5	3709.320	-49.82	-13.00	Vertical	PASS
6	7149.873	-41.73	-13.00	Vertical	PASS

LTE Band 12 10MHz BW, High Channel, QPSK

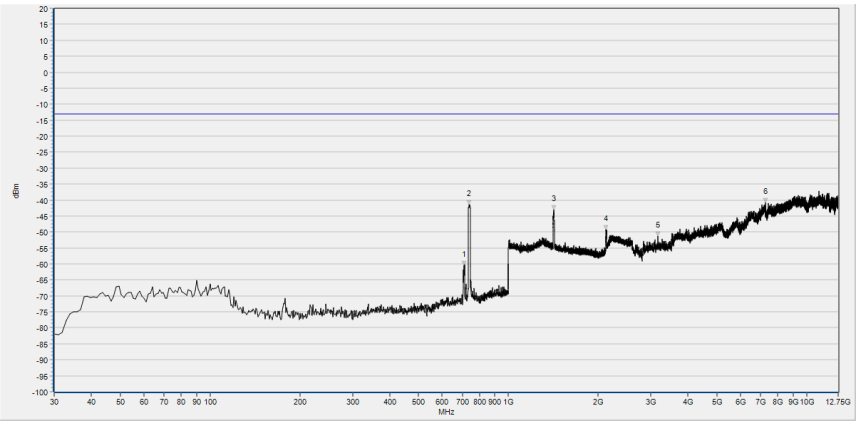


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	709.000	-51.76	-13.00	Horizontal	NA
2	744.890	-40.21	-13.00	Horizontal	NA
3	1417.447	-44.97	-13.00	Horizontal	PASS
4	2127.491	-50.06	-13.00	Horizontal	PASS
5	4019.413	-49.18	-13.00	Horizontal	PASS
6	8072.768	-39.95	-13.00	Horizontal	PASS

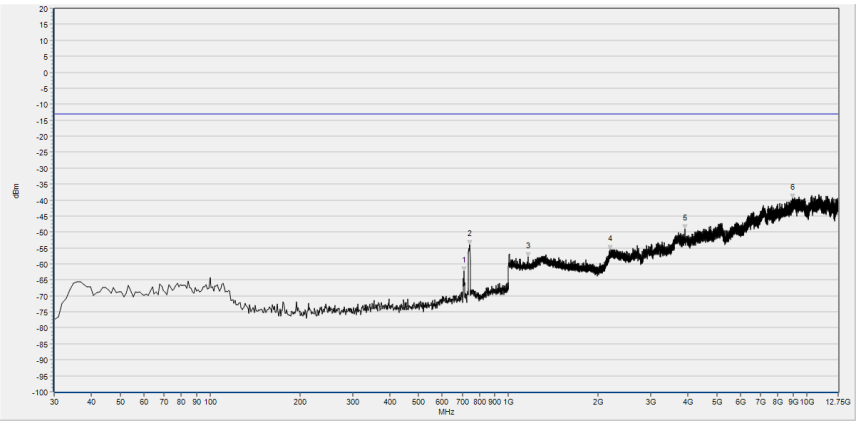


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	709.000	-61.83	-13.00	Vertical	NA
2	740.040	-53.51	-13.00	Vertical	NA
3	1319.488	-52.51	-13.00	Vertical	PASS
4	2249.140	-50.30	-13.00	Vertical	PASS
5	3620.722	-49.66	-13.00	Vertical	PASS
6	6620.131	-43.39	-13.00	Vertical	PASS

LTE Band 17 10MHz BW, Low Channel, QPSK

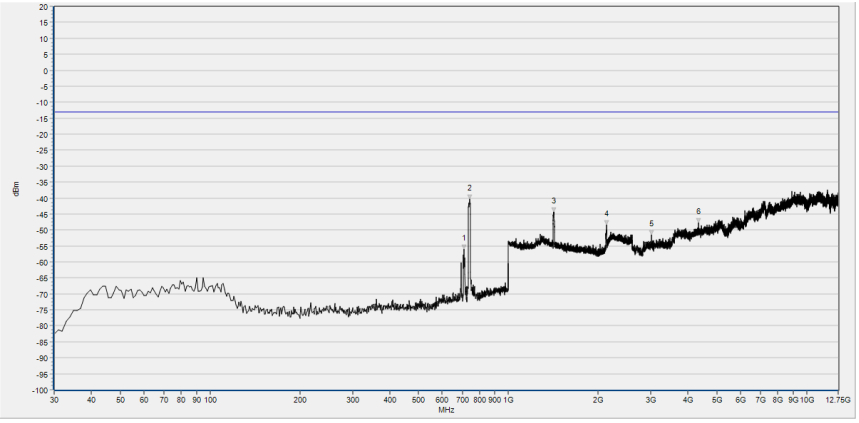


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	709.000	-60.43	-13.00	Horizontal	NA
2	739.070	-41.40	-13.00	Horizontal	NA
3	1418.087	-43.10	-13.00	Horizontal	PASS
4	2125.570	-49.17	-13.00	Horizontal	PASS
5	3166.658	-51.29	-13.00	Horizontal	PASS
6	7256.929	-40.89	-13.00	Horizontal	PASS

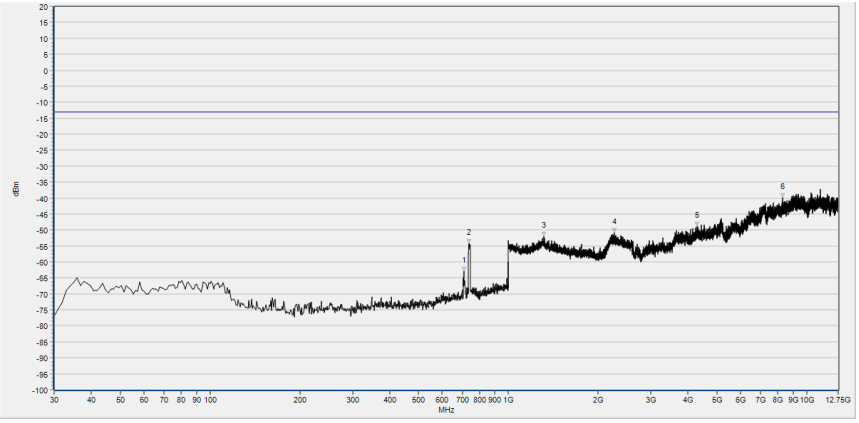


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	709.000	-62.31	-13.00	Vertical	NA
2	740.040	-53.98	-13.00	Vertical	NA
3	1165.826	-57.87	-13.00	Vertical	PASS
4	2186.395	-55.53	-13.00	Vertical	PASS
5	3908.665	-49.13	-13.00	Vertical	PASS
6	8949.518	-39.40	-13.00	Vertical	PASS

LTE Band 17 10MHz BW, Mid Channel, QPSK

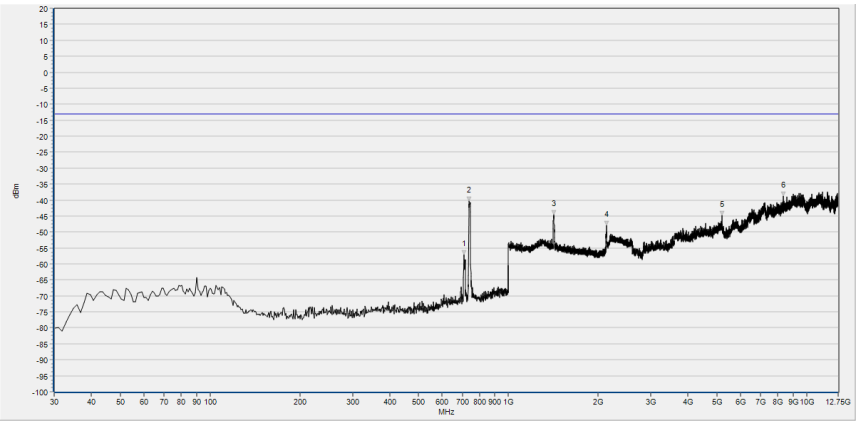


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	709.000	-56.03	-13.00	Horizontal	NA
2	741.010	-40.43	-13.00	Horizontal	NA
3	1416.807	-44.33	-13.00	Horizontal	PASS
4	2131.333	-48.46	-13.00	Horizontal	PASS
5	3013.457	-51.49	-13.00	Horizontal	PASS
6	4327.660	-47.67	-13.00	Horizontal	PASS

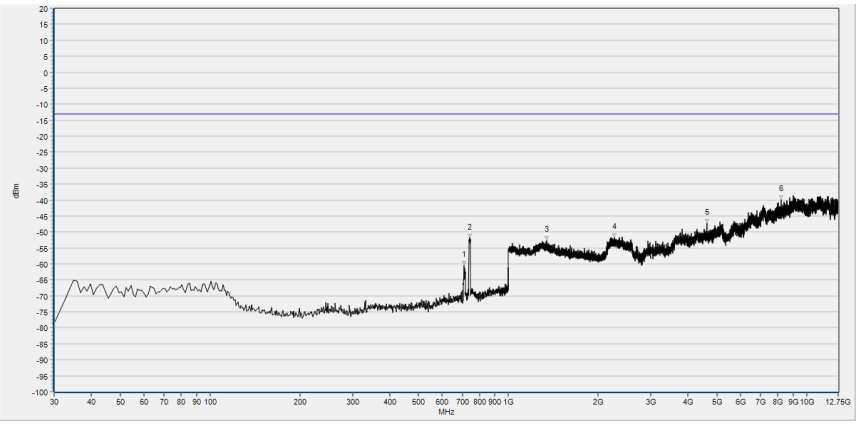


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	709.000	-63.01	-13.00	Vertical	NA
2	738.100	-54.15	-13.00	Vertical	NA
3	1316.287	-52.07	-13.00	Vertical	PASS
4	2268.347	-50.81	-13.00	Vertical	PASS
5	4281.515	-48.72	-13.00	Vertical	PASS
6	8299.800	-39.92	-13.00	Vertical	PASS

LTE Band 17 10MHz BW, High Channel, QPSK



No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	709.000	-57.06	-13.00	Horizontal	NA
2	739.070	-40.42	-13.00	Horizontal	NA
3	1420.648	-44.65	-13.00	Horizontal	PASS
4	2129.412	-47.90	-13.00	Horizontal	PASS
5	5211.793	-44.82	-13.00	Horizontal	PASS
6	8333.024	-38.68	-13.00	Horizontal	PASS



No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	709.970	-60.34	-13.00	Vertical	NA
2	740.040	-52.02	-13.00	Vertical	NA
3	1346.379	-52.72	-13.00	Vertical	PASS
4	2268.347	-51.82	-13.00	Vertical	PASS
5	4621.140	-47.37	-13.00	Vertical	PASS
6	8213.048	-39.96	-13.00	Vertical	PASS

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	±2.22 dB
Bandwidth	±5%
Conducted Spurious Emission	±2.77 dB
Band Edge	±2.77 dB
Equivalent Isotropic Radiated Power	±2.22 dB
Radiated Spurious Emissions	±6 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

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

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	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 C63.10-2013and 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	2020.04.15	2021.04.14
Attenuator 1	(N/A.)	10dB	Resnet	2020.04.15	2021.04.14
Attenuator 2	(N/A.)	3dB	Resnet	2020.04.15	2021.04.14
EXA Signal Analzyer	MY51511149	N9020A	Agilent	2019.07.29	2020.07.28
USB Power Sensor	MY54210011	U2021XA	Agilent	2020.04.15	2021.04.14
System Simulator	6200995016	MT8820C	Anritsu	2020.01.13	2021.01.12
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	2020.03.25	2021.03.24
Computer	T430i	Think Pad	Lenovo	N/A	N/A

4.2 Radiated Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal.Due
System Simulator	152038	CMW500	R&S	2020.01.13	2021.01.12
Receiver	MY54130016	N9038A	Agilent	2019.07.29	2020.07.28
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2019.05.24	2022.05.23
Test Antenna - Horn	9170C-531	BBHA9170	Schwarzbeck	2019.07.26	2022.07.25
Test Antenna - Horn	01774	BBHA 9120D	Schwarzbeck	2019.05.24	2022.05.23
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	S020180L3203	N/A	Dongsheng	2019.07.29	2020.07.28
18-26.5GHz pre-Amplifier	S10M100L3802	N/A	Dongsheng	2019.07.29	2020.07.28
Notch Filter	N/A	WRCGV -LTE B2	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B4	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B5	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B7	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B12	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B17	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B19	Wainwright	2019.12.01	2020.11.30

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal.Due
Notch Filter	N/A	WRCGV -LTE B25	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B26	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B30	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE 38	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B40	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCGV -LTE B41	Wainwright	2019.12.01	2020.11.30
Anechoic Chamber	N/A	9m*6m*6m	CRT	2019.07.13	2022.07.12

END OF REPORT