FCC REPORT
(GSM)

Applicant:	BLU Products, Inc.
Address of Applicant:	10814 NW 33rd St # 100 Doral, FL 33172, USA

Equipment Under Test (EUT)

Product Name:	Smart Phone
Model No.:	B110DL
Trade mark:	BLU
FCC ID:	YHLBLUB110DL
Applicable standards:	FCC CFR Title 47 Part 2 FCC CFR Title 47 Part 22 Subpart H FCC CFR Title 47 Part 24 Subpart E
Date of sample receipt:	09 Dec., 2021
Date of Test:	10 Dec., 2021 to 15 Jan., 2022
Date of report issued:	16 Jan., 2022
Test Result:	PASS*

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Bruce Zhang
Laboratory Manager

2. Version

Version No.	Date	Description
00	*16 Jan., 2022*	*Original*

Tested by: Mike.ou ***Date:*** *16 Jan., 2022*

Test Engineer

Reviewed by: Winner Zhang ***Date:*** *16 Jan., 2022*

Project Engineer

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4. Test Summary

Test Items	FCC Part Section(s)	Result
RF Output Power	Part 2.1046 Part 22.913 (a)(5) Part 24.232 (c)	Pass[2]
Peak-to-Average Power Ratio	Part 24.232 (d)	Pass[1]
Modulation Characteristics	Part 2.1047	Pass[1]
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917(b) Part 24.238(b)	Pass[1]
Out of band emission at antenna terminals	Part 2.1053 Part 22.917 (a) Part 24.238 (a)	Pass[1]
Field strength of spurious radiation	Part 22.917 (a) Part 24.238 (a)	Pass[2]
Frequency stability vs. temperature	Part 22.355 Part 24.235 Part 2.1055(a)(1)(b)	Pass[1]
Frequency stability vs. voltage	Part 22.355 Part 24.235 Part 2.1055(d)(2)	Pass[1]

Remark:

1. *Pass[1]: Items data are refer from the original report issued by SGS-CSTC Standards Technical Services, Co., Ltd.Shenzhen Branch.(Date of Test: 2019/10/17-2019/10/31).The detailed data refer to Appendix B.1 of GSM850 & GSM1900.*
2. *Pass[2]: These items are tested by JianYan Testing Group Shenzhen Co., Ltd.*
3. *The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB(Fundamental Frequency below 1GHz)/1.0dB(Fundamental Frequency above 1GHz) (provided by the customer).*

Test Method:	*ANSI/TIA-603-E-2016* *ANSI C63.26-2015*

5. General Information

5.1 Client Information

Applicant:	BLU Products, Inc.
Address:	10814 NW 33rd St # 100 Doral, FL 33172, USA
Manufacturer:	BLU Products, Inc.
Address:	10814 NW 33rd St # 100 Doral, FL 33172, USA

5.2 General Description of E.U.T.

Product Name:	Smart Phone
Model No.:	B110DL
Hardware Version:	V0.23
Software Version:	PPR1.180610.011
Operation Frequency range:	GSM 850: 824.20MHz-848.80MHz PCS1900: 1850.20MHz-1909.80MHz
Modulation type:	2G ☒Voice(GMSK) ☒GPRS(GMSK) ☒EGPRS(GMSK, 8PSK)
Antenna type:	Integrated Antenna
Antenna gain:	GSM 850: -1.75 dBi(declare by Applicant) PCS 1900: -0.87 dBi(declare by Applicant)
Power supply:	Rechargeable Li-ion Battery DC3.8V, 3000mAh
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

Operation Frequency List:

GSM 850		PCS1900	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
128	824.20	512	1850.20
129	824.40	513	1850.40
….	….	….	….
189	836.40	660	1879.80
190	836.60	661	1880.00
191	836.80	662	1880.20
…	…	…	…
250	848.60	809	1909.60
251	848.80	810	1909.80

Regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

GSM850			PCS1900		
Channel		Frequency(MHz)	Channel		Frequency(MHz)
Lowest	128	824.20	Lowest	512	1850.20
Middle	190	836.60	Middle	661	1880.00
Highest	251	848.80	Highest	810	1909.80

5.3 Test environment and mode

Operating Environment:	
Temperature:	Normal: 15℃ ~ 35℃
Humidity:	20 % ~ 75 % RH
Atmospheric Pressure:	1008 mbar
Voltage:	Nominal: 3.8Vdc
Test mode:	
GSM mode	Keep the EUT communication with simulated station in GSM mode
GPRS mode	Keep the EUT communication with simulated station in GPRS mode
EGPRS mode	Keep the EUT communication with simulated station in EGPRS mode
Remark: The EUT has been tested under continuous transmitting mode. Channel Low, Mid and High for each type band with rated data rate were chosen for full testing. The field strength of spurious radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for these modes. Just the worst case position (H mode) shown in report.	

5.4 Description of Test Auxiliary Equipment

Test Equipment	Manufacturer	Model No.	Serial No.
Simulated Station	Anritsu	MT8820C	6201026545

5.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%)
Radiated Emission (9kHz ~ 30MHz electric field) for 3m SAC	3.13 dB
Radiated Emission (9kHz ~ 30MHz magnetic field) for 3m SAC	3.13 dB
Radiated Emission (30MHz ~ 1GHz) for 3m SAC	4.45 dB
Radiated Emission (1GHz ~ 18GHz) for 3m SAC	5.34 dB
Radiated Emission (18GHz ~ 40GHz) for 3m SAC	5.34 dB

5.6 Additions to, deviations, or exclusions from the method

No

5.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.
Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info-JYTee@lets.com, Website: http://www.ccis-cb.com

5.9 Test Instruments list

Radiated Emission:

Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
3m SAC	ETS	RFD-100	Q1984	04-14-2021	04-13-2024
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-044	03-07-2021	03-06-2022
BiConiLog Antenna	SCHWARZBECK	VULB9163	9163-1246	03-07-2021	03-06-2022
Biconical Antenna	SCHWARZBECK	VUBA 9117	9117#359	06-17-2021	06-17-2022
Horn Antenna	SCHWARZBECK	BBHA9120D	912D-916	03-07-2021	03-06-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1067	04-02-2021	04-01-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1068	04-02-2021	04-01-2022
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-03-2021	03-02-2022
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-03-2021	03-02-2022
Spectrum analyzer	Keysight	N9010B	MY60240202	10-27-2021	10-26-2022
Simulated Station	Anritsu	MT8820C	6201026545	03-03-2021	03-02-2022
Band Reject Filter Group	Tonscend	JS0806	21B8060367	04-06-2021	04-05-2022
Low Pre-amplifier	SCHWARZBECK	BBV9743B	00305	03-07-2021	03-06-2022
High Pre-amplifier	SKET	LNPA_0118G-50	MF280208233	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-NN-8M	JYT3M-1	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-18G-NN-8M	JYT3M-2	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-BB-5M	JYT3M-3	03-07-2021	03-06-2022
Cable	Bost	JYT3M-40G-SS-8M	JYT3M-4	04-02-2021	04-01-2022
EMI Test Software	Tonscend	TS+	Version:3.0.0.1		

Conducted Method:

Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
Simulated Station	Rohde & Schwarz	CMW500	MY57431500	07-02-2021	07-01-2022
DC Power Supply	Keysight	E3642A	MY60296194	10-25-2021	10-24-2022
Temperature Humidity Chamber	HONG ZHI	CZ-A-80D	ZH210166	03-19-2021	03-18-2022
RF Control Unit	Tonscend	JS0806-1	21F8060438	N/A	
Test Software	Tonscend	TS+	Version: 2.6.9.0526		

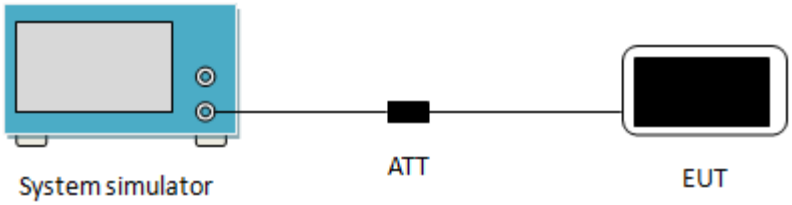
6. Test results

6.1 Conducted Output Power

6.1.1 Re-test statement

Re-test statement: The EUT is operating at the same power level with the original testing of SGS-CSTC Standards Technical Services, Co Ltd. Shenzhen Branch.

6.1.2 Test Results

Test Requirement:	FCC part 22.913(a)(5), FCC part 24.232(c)
Limit:	GSM 850: 7W, PCS 1900: 2W
Test setup:	
Test Procedure:	The transmitter output was connected to a calibrated attenuator, the other end of which was connected to the simulated station. Transmitter output power was read off in dBm.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

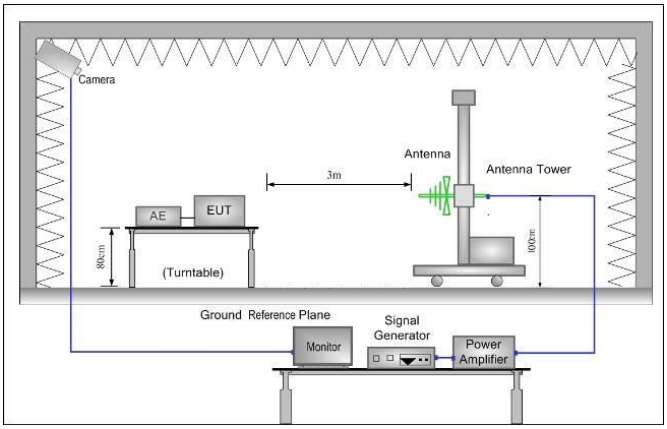
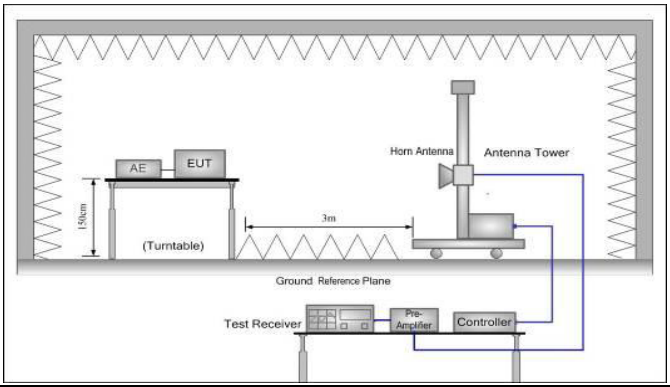
Measurement Data:

BAND	Channel	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
GSM850	128	31.91	31.59
GSM850	190	31.93	31.65
GSM850	251	31.94	31.61
BAND	Channel	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
GSM1900	512	29.08	28.99
GSM1900	661	29.10	29.30
GSM1900	810	29.00	28.67

Remark:

	The Original Reports	Re-Test Reports
File name:	test report GSM	Test Report GSM rev1
Test location:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch	JianYan Testing Group Shenzhen Co., Ltd.
The output power is re-test at JianYan Testing Group Shenzhen Co., Ltd.		

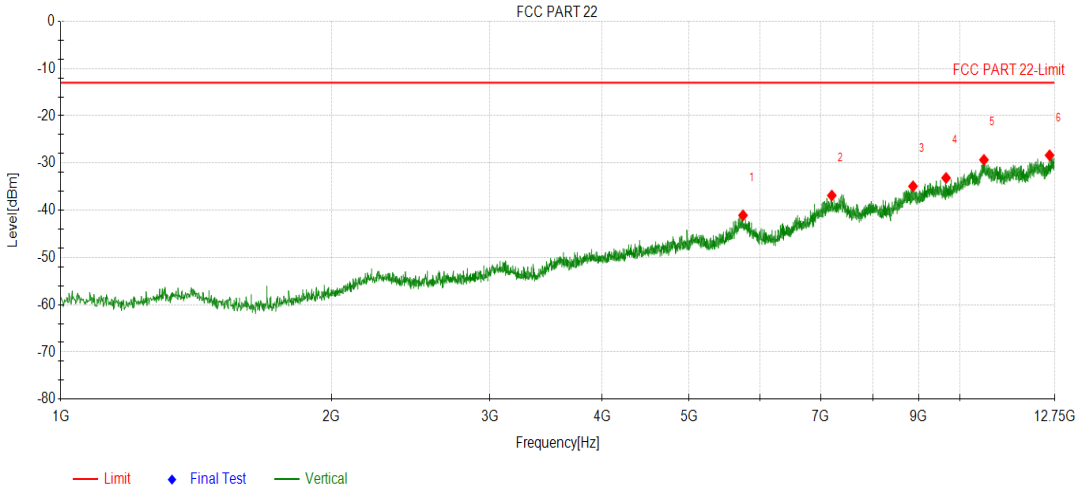
6.1 Field strength of spurious radiation measurement

Test Requirement:	FCC part 22.917(a), FCC part 24.238(a)
Limit:	-13dBm
Test setup:	Below 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground at a 3 meter camber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method. 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. ERP / EIRP = S.G. output (dBm) + Antenna Gain(dB/dBi) – Cable Loss (dB)
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details.
Environment:	Temp: 21.2℃, Huni: 52%
Test results:	Passed

Measurement Data (worst case):

Remark: During the test, use Band Reject Filter Group to filter out fundamental signal

Product Name:	Smart Phone	**Product model:**	B110DL
Test By:	Mike	**Test mode:**	GSM850 Tx Low CH
Test Voltage:	DC 3.8V	**Polarization:**	Vertical

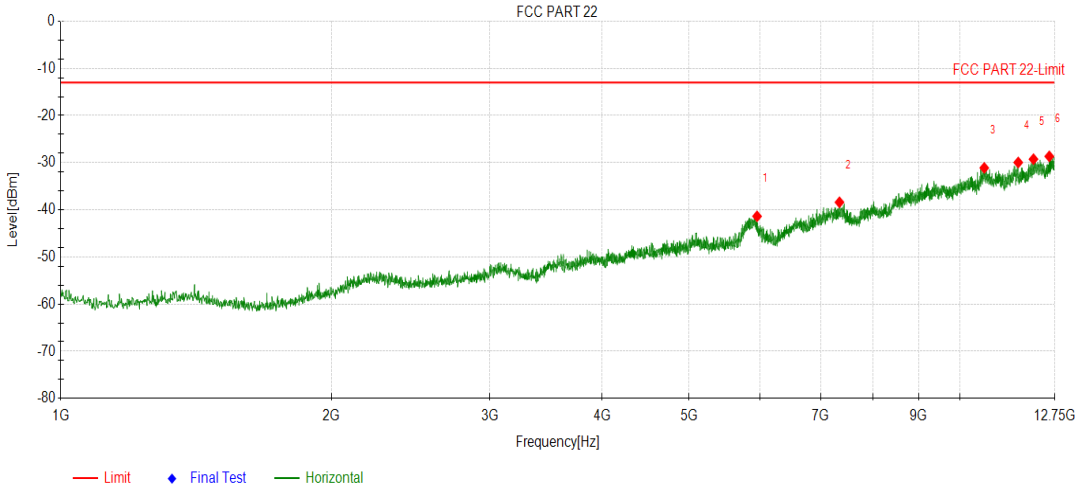


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Height [cm]	Polarity
1	5739.656	-49.50	-41.07	-13.00	28.07	8.43	158	133	Vertical
2	7205.468	-49.97	-36.87	-13.00	23.87	13.10	200	152	Vertical
3	8872.500	-49.51	-34.92	-13.00	21.92	14.59	22	134	Vertical
4	9655.343	-48.73	-33.15	-13.00	20.15	15.58	331	158	Vertical
5	10639.40	-49.96	-29.32	-13.00	16.32	20.64	53	167	Vertical
6	12588.43	-49.90	-28.36	-13.00	15.36	21.54	209	149	Vertical

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	GSM850 Tx Low CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

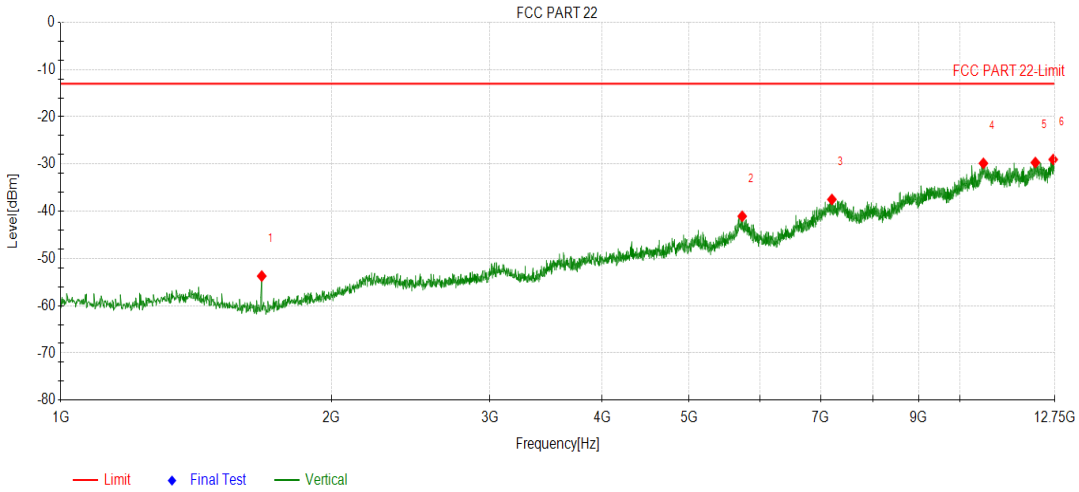


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5949.687	-49.35	-41.37	-13.00	28.37	7.98	65	135	Horizontal
2	7347.937	-49.67	-38.39	-13.00	25.39	11.28	189	157	Horizontal
3	10648.21	-50.31	-31.10	-13.00	18.10	19.21	163	167	Horizontal
4	11616.12	-49.86	-29.95	-13.00	16.95	19.91	190	154	Horizontal
5	12078.78	-50.21	-29.25	-13.00	16.25	20.96	152	146	Horizontal
6	12578.15	-50.10	-28.66	-13.00	15.66	21.44	188	167	Horizontal

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	GSM850 Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

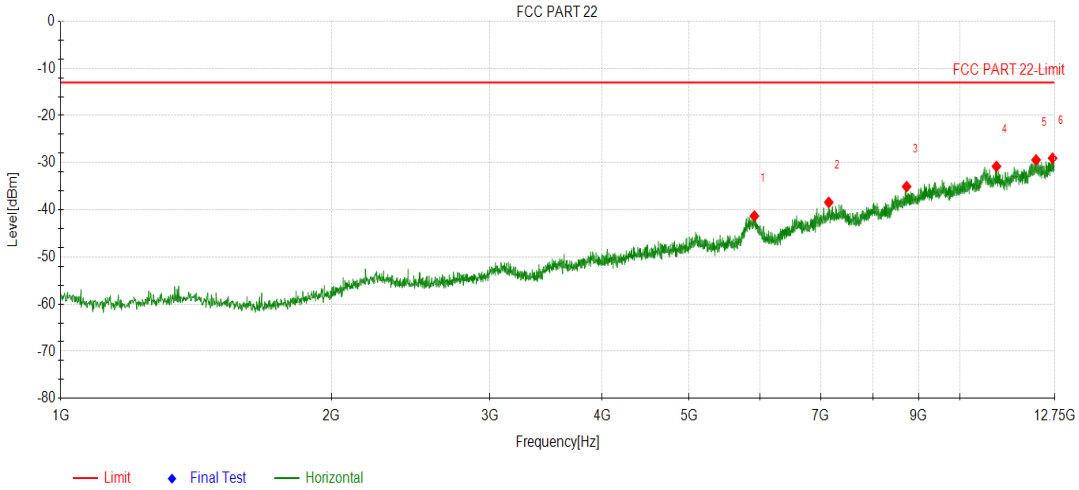


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	1672.687	-42.59	-53.72	-13.00	40.72	-11.13	298	135	Vertical
2	5727.906	-49.57	-41.06	-13.00	28.06	8.51	61	154	Vertical
3	7206.937	-50.59	-37.50	-13.00	24.50	13.09	37	166	Vertical
4	10624.71	-50.49	-29.85	-13.00	16.85	20.64	321	134	Vertical
5	12137.53	-50.77	-29.69	-13.00	16.69	21.08	143	157	Vertical
6	12705.93	-51.16	-29.04	-13.00	16.04	22.12	203	161	Vertical

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	GSM850 Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

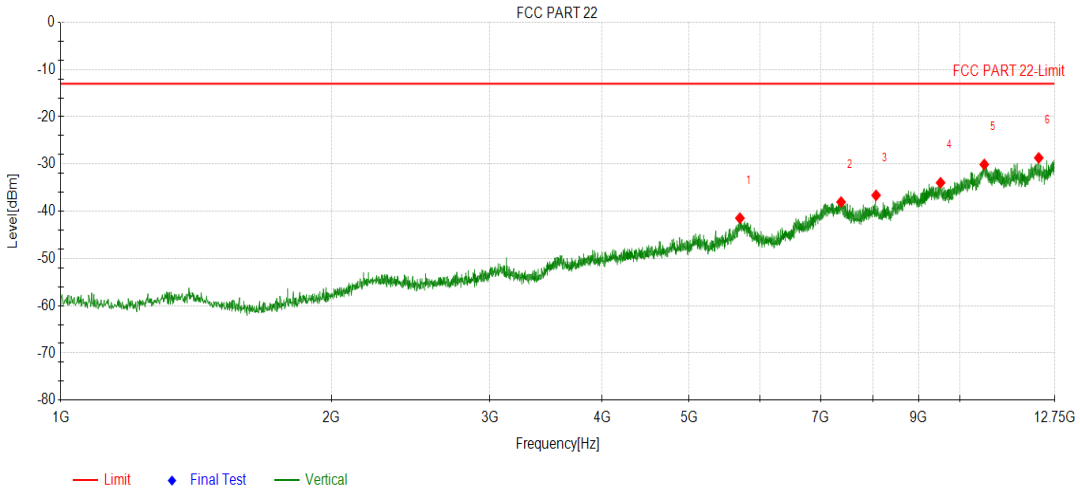


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Height [cm]	Polarity
1	5908.562	-50.18	-41.32	-13.00	28.32	8.86	311	156	Horizontal
2	7149.656	-49.40	-38.41	-13.00	25.41	10.99	42	147	Horizontal
3	8727.093	-48.93	-35.07	-13.00	22.07	13.86	267	131	Horizontal
4	10986.03	-49.86	-30.79	-13.00	17.79	19.07	87	164	Horizontal
5	12159.56	-50.64	-29.41	-13.00	16.41	21.23	157	154	Horizontal
6	12685.37	-51.18	-29.05	-13.00	16.05	22.13	190	157	Horizontal

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	GSM850 Tx High CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

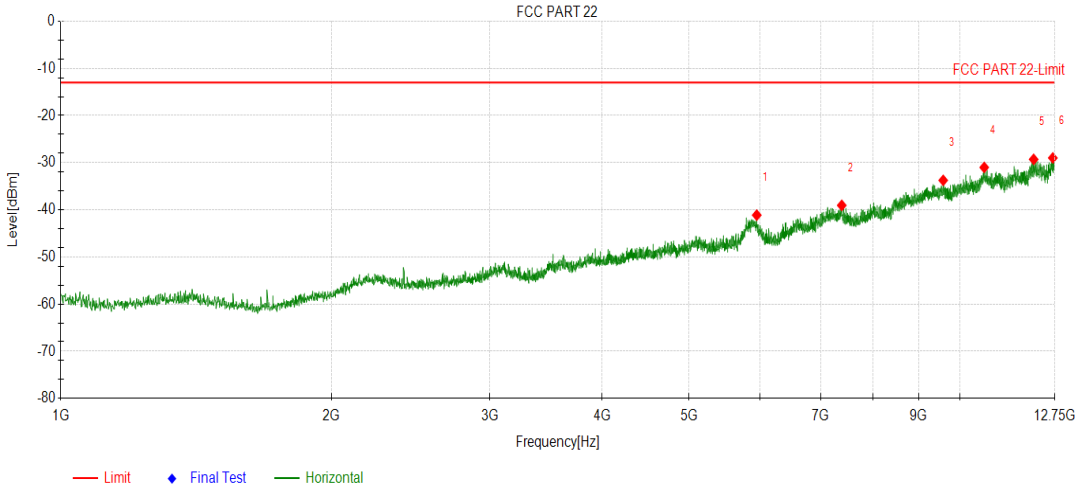


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5694.125	-50.01	-41.46	-13.00	28.46	8.55	154	152	Vertical
2	7378.781	-51.16	-38.04	-13.00	25.04	13.12	204	145	Vertical
3	8070.562	-48.93	-36.61	-13.00	23.61	12.32	77	136	Vertical
4	9520.218	-50.05	-33.96	-13.00	20.96	16.09	187	157	Vertical
5	10648.21	-50.72	-30.08	-13.00	17.08	20.64	134	169	Vertical
6	12243.28	-49.98	-28.70	-13.00	15.70	21.28	216	137	Vertical

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	GSM850 Tx High CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

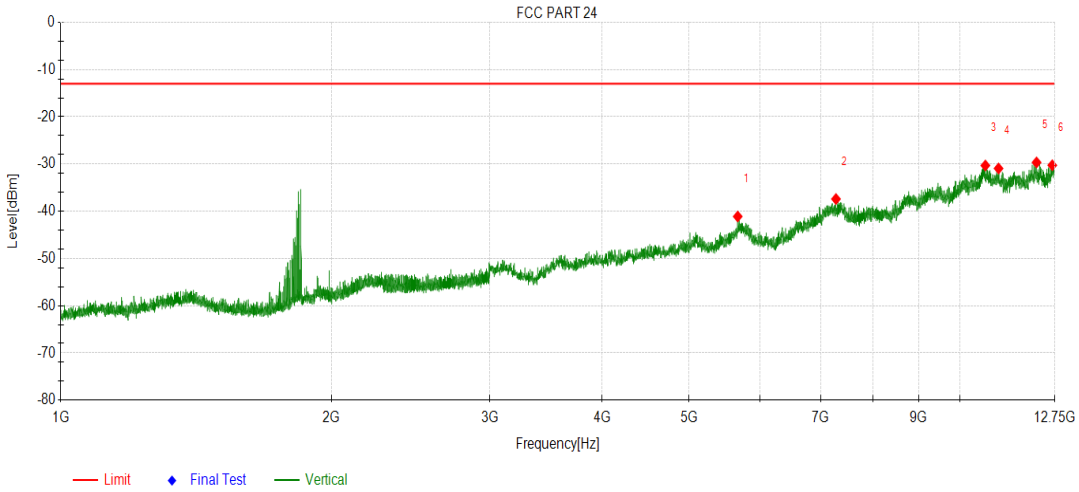


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [◦]	Height [cm]	Polarity
1	5945.281	-49.20	-41.12	-13.00	28.12	8.08	19	156	Horizontal
2	7392.000	-50.58	-39.05	-13.00	26.05	11.53	340	134	Horizontal
3	9584.843	-50.15	-33.74	-13.00	20.74	16.41	169	157	Horizontal
4	10646.75	-50.20	-31.00	-13.00	18.00	19.20	190	167	Horizontal
5	12084.65	-50.27	-29.29	-13.00	16.29	20.98	124	157	Horizontal
6	12692.71	-51.16	-28.99	-13.00	15.99	22.17	234	164	Horizontal

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	PCS1900 Tx Low CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

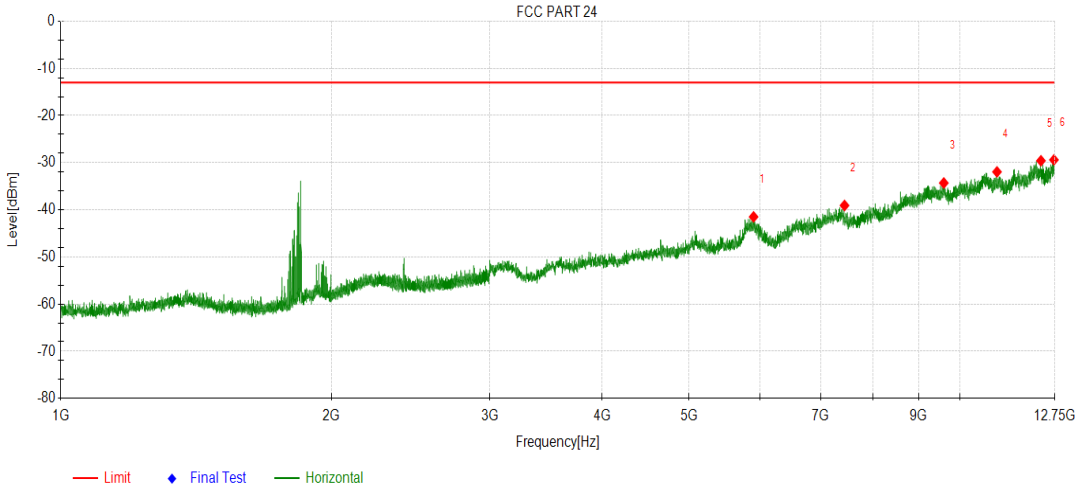


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5661.750	-48.54	-41.10	-13.00	28.10	7.44	29	135	Vertical
2	7282.687	-49.94	-37.41	-13.00	24.41	12.53	337	154	Vertical
3	10678.12	-50.48	-30.31	-13.00	17.31	20.17	115	164	Vertical
4	11044.96	-50.48	-30.93	-13.00	17.93	19.55	234	158	Vertical
5	12174.75	-50.81	-29.66	-13.00	16.66	21.15	154	145	Vertical
6	12675.65	-51.97	-30.26	-13.00	17.26	21.71	196	162	Vertical

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz and above 12.75GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	PCS1900 Tx Low CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

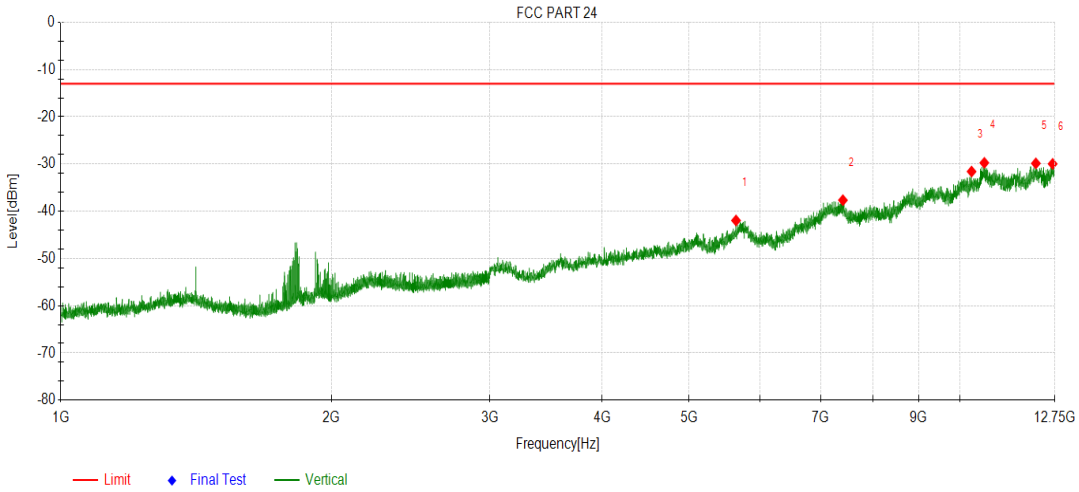


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5896.968	-50.02	-41.48	-13.00	28.48	8.54	31	167	Horizontal
2	7443.562	-49.98	-39.07	-13.00	26.07	10.91	329	134	Horizontal
3	9599.531	-50.87	-34.30	-13.00	21.30	16.57	150	159	Horizontal
4	11001.09	-50.68	-31.95	-13.00	18.95	18.73	207	147	Horizontal
5	12312.46	-50.48	-29.58	-13.00	16.58	20.90	164	162	Horizontal
6	12729.28	-51.52	-29.40	-13.00	16.40	22.12	205	156	Horizontal

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz and above 12.75GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	PCS1900 Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

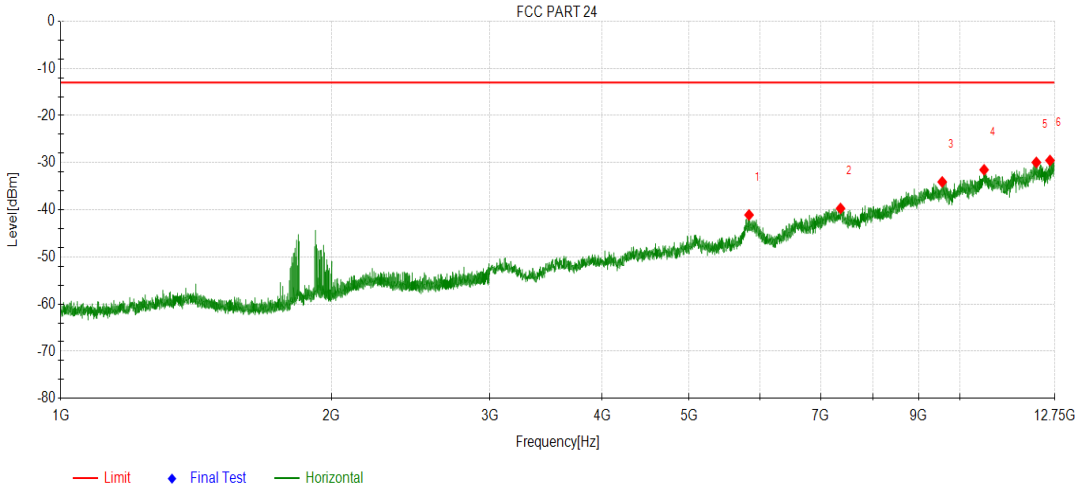


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Height [cm]	Polarity
1	5637.375	-48.85	-41.95	-13.00	28.95	6.90	20	134	Vertical
2	7413.093	-50.63	-37.65	-13.00	24.65	12.98	269	157	Vertical
3	10307.62	-50.90	-31.59	-13.00	18.59	19.31	80	164	Vertical
4	10650.09	-49.96	-29.74	-13.00	16.74	20.22	276	149	Vertical
5	12152.81	-50.89	-29.86	-13.00	16.86	21.03	17	167	Vertical
6	12686.62	-51.72	-29.96	-13.00	16.96	21.76	341	144	Vertical

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz and above 12.75GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	PCS1900 Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

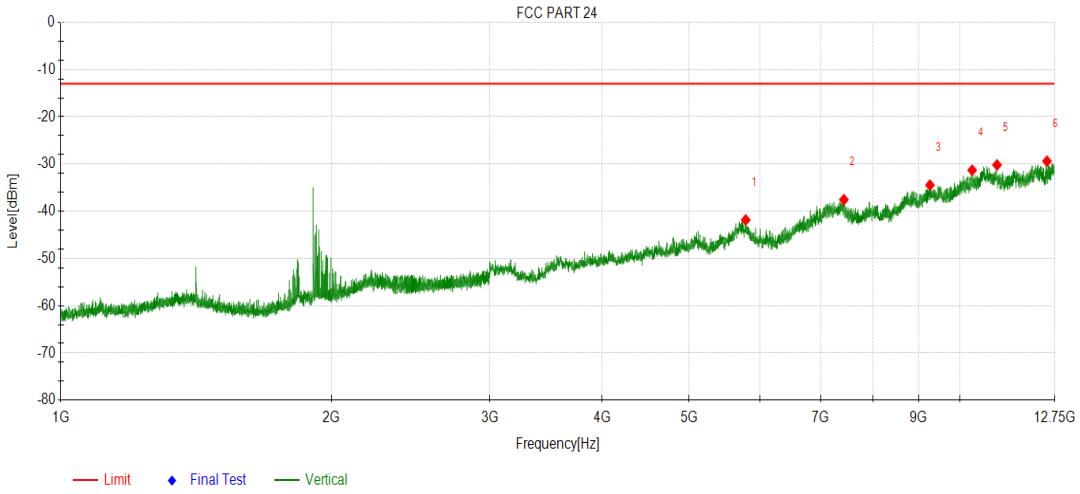


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5828.718	-49.42	-41.08	-13.00	28.08	8.34	23	146	Horizontal
2	7368.000	-50.98	-39.70	-13.00	26.70	11.28	331	158	Horizontal
3	9560.531	-50.12	-34.08	-13.00	21.08	16.04	17	164	Horizontal
4	10644.00	-50.30	-31.51	-13.00	18.51	18.79	342	134	Horizontal
5	12168.65	-51.07	-29.94	-13.00	16.94	21.13	75	154	Horizontal
6	12601.31	-50.88	-29.53	-13.00	16.53	21.35	294	143	Horizontal

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz and above 12.75GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	PCS1900 Tx High CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

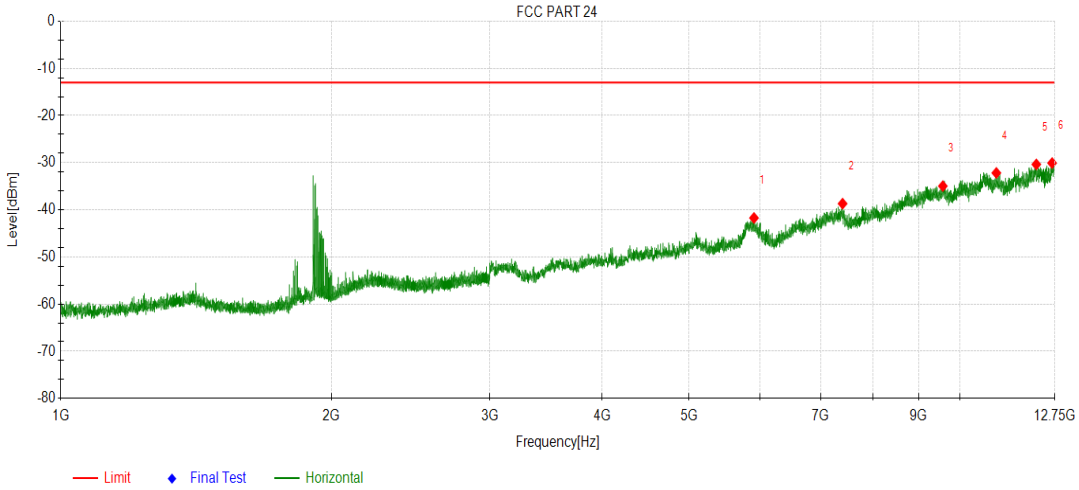


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5778.750	-49.88	-41.82	-13.00	28.82	8.06	17	156	Vertical
2	7431.375	-50.27	-37.53	-13.00	24.53	12.74	343	147	Vertical
3	9264.375	-50.35	-34.45	-13.00	21.45	15.90	123	134	Vertical
4	10323.46	-50.58	-31.30	-13.00	18.30	19.28	246	164	Vertical
5	11002.31	-50.02	-30.19	-13.00	17.19	19.83	149	158	Vertical
6	12503.81	-49.57	-29.40	-13.00	16.40	20.17	215	143	Vertical

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz and above 12.75GHz are lower than the limit 20dB and not show in test report.*

Product Name:	Smart Phone	Product model:	B110DL
Test By:	Mike	Test mode:	PCS1900 Tx High CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5903.062	-50.23	-41.73	-13.00	28.73	8.50	44	156	Horizontal
2	7407.000	-50.03	-38.69	-13.00	25.69	11.34	316	131	Horizontal
3	9576.375	-51.21	-34.96	-13.00	21.96	16.25	54	138	Horizontal
4	10984.03	-50.92	-32.17	-13.00	19.17	18.75	312	164	Horizontal
5	12167.43	-51.49	-30.36	-13.00	17.36	21.13	134	154	Horizontal
6	12669.56	-51.84	-30.08	-13.00	17.08	21.76	235	146	Horizontal

Remark:

1. *Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).*
2. *The emission levels of below 1GHz and above 12.75GHz are lower than the limit 20dB and not show in test report.*

7. Appendix

The below Appendix was detail result tested by SGS-CSTC Standards Technical Services, Co., Ltd.Shenzhen Branch. (Date of Test: 2019/10/17-2019/10/31).

Appendix	*Item*
Appendix B.1 of GSM850 & GSM1900	*GSM*