FCC REPORT
(WCDMA)

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 FCC CFR Title 47 Part 27 Subpart L
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

3. Contents

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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) Part 27.50 (d)(4)	Pass[2]
Peak-to-Average Power Ratio	Part 24.232 (d) Part 27.50(d)(5)	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) Part 27.53(h)	Pass[1]
Out of band emission at antenna terminals	Part 2.1053 Part 22.917 (a) Part 24.238 (a) Part 27.53(h)	Pass[1]
Field strength of spurious radiation	Part 22.917 (a) Part 24.238 (a) Part 27.53(h)	Pass[2]
Frequency stability vs. temperature	Part 22.355 Part 24.235 Part 27.54 Part 2.1055(a)(1)(b)	Pass[1]
Frequency stability vs. voltage	Part 22.355 Part 24.235 Part 27.54 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.2 of WCDMA BAND II & IV & V.*
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			
Operation Frequency range:	WCDMA Band V: 826.4MHz-846.6MHz WCDMA Band II: 1852.4 MHz-1907.6 MHz WCDMA Band IV: 1712.4 MHz-1752.6 MHz			
Modulation type:	3G	☒RMC(QPSK)	☒HSUPA(QPSK)	☒HSDPA(QPSK,16QAM)
Antenna type:	Integrated Antenna			
Antenna gain:	WCDMA Band V: -1.75 dBi(declare by Applicant) WCDMA Band II: 0.11 dBi(declare by Applicant) WCDMA Band IV: 2.05 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:

WCDMA Band V		WCDMA Band II	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
4132	826.40	9262	1852.40
4133	826.60	9263	1852.60
….	….	….	….
4182	836.40	9399	1879.80
4183	836.60	9400	1880.00
4184	836.80	9401	1880.20
…	…	…	…
4232	846.40	9537	1907.40
4233	846.60	9538	1907.60
WCDMA Band IV			
Channel	Frequency (MHz)		
1312	1712.40		
1313	1712.60		
….	….		
1412	1732.40		
1413	1732.60		
1414	1732.80		
…	…		
1512	1752.40		
1513	1752.60		

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:

WCDMA Band V			WCDMA Band II		
Channel		Frequency(MHz)	Channel		Frequency(MHz)
Lowest	4132	826.40	Lowest	9262	1852.40
Middle	4183	836.60	Middle	9400	1880.00
Highest	4233	846.60	Highest	9538	1907.60
WCDMA Band IV					
Channel		Frequency(MHz)			
Lowest	1312	1712.40			
Middle	1413	1732.60			
Highest	1513	1752.60			

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:	
RMC mode	Keep the EUT communication with simulated station in RMC mode
HSDPA	Keep the EUT communication with simulated station in HSDPA mode
HSUPA	Keep the EUT communication with simulated station in HSUPA 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 Support Units

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		

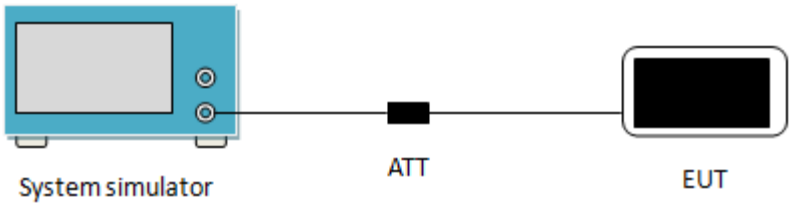
6. Test results

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), FCC part 27.50(d)(4)
Limit:	WCDMA Band V: 7W, WCDMA Band II: 2W, WCDMA Band IV: 1W
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

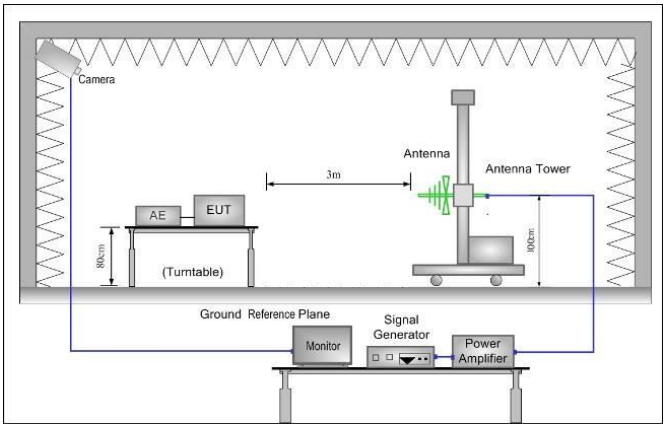
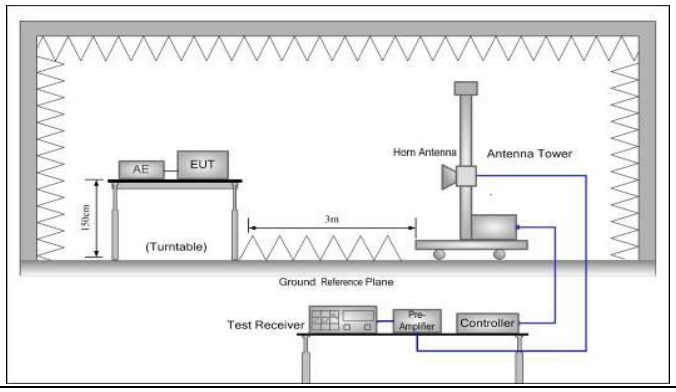
Measurement Data:

BAND	Modulation	Channel	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
WCDMA Band II	WCDMA /TM1	LCH	23.76	23.46
WCDMA Band II	WCDMA /TM1	MCH	23.78	23.12
WCDMA Band II	WCDMA /TM1	HCH	23.81	23.52
BAND	Modulation	Channel	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
WCDMA Band IV	WCDMA /TM1	LCH	24.16	23.74
WCDMA Band IV	WCDMA /TM1	MCH	24.07	23.51
WCDMA Band IV	WCDMA /TM1	HCH	24.23	23.86
BAND	Modulation	Channel	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
WCDMA Band V	WCDMA /TM1	LCH	24.40	23.81
WCDMA Band V	WCDMA /TM1	MCH	24.31	23.86
WCDMA Band V	WCDMA /TM1	HCH	24.29	23.93

Remark:

	The Original Reports	Re-Test Reports
File name:	test report WCDMA	Test Report WCDMA 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.		

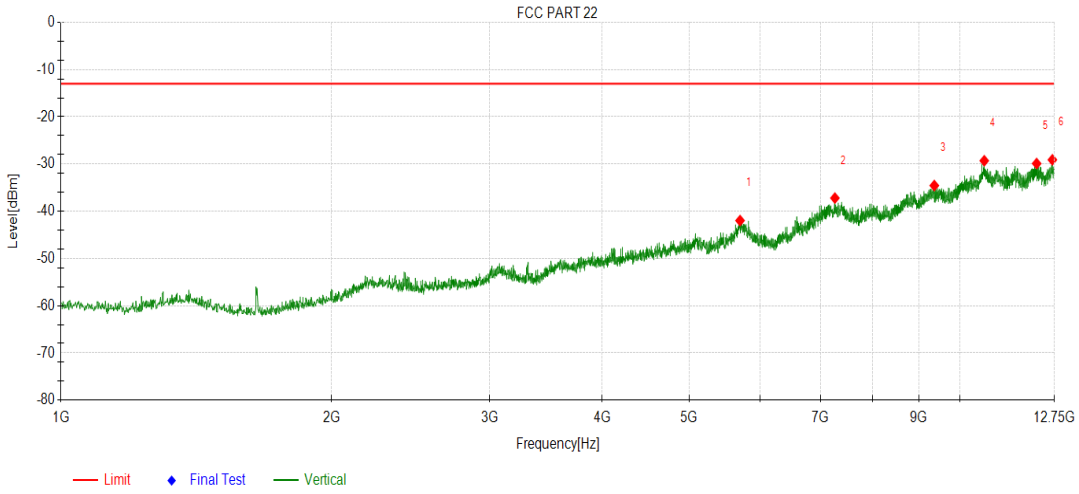
6.2 Field strength of spurious radiation measurement

Test Requirement:	FCC part 22.917(a), FCC part 24.238(a), FCC part 27.53(h)
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 WCDMA Band II & V fundamental signal

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

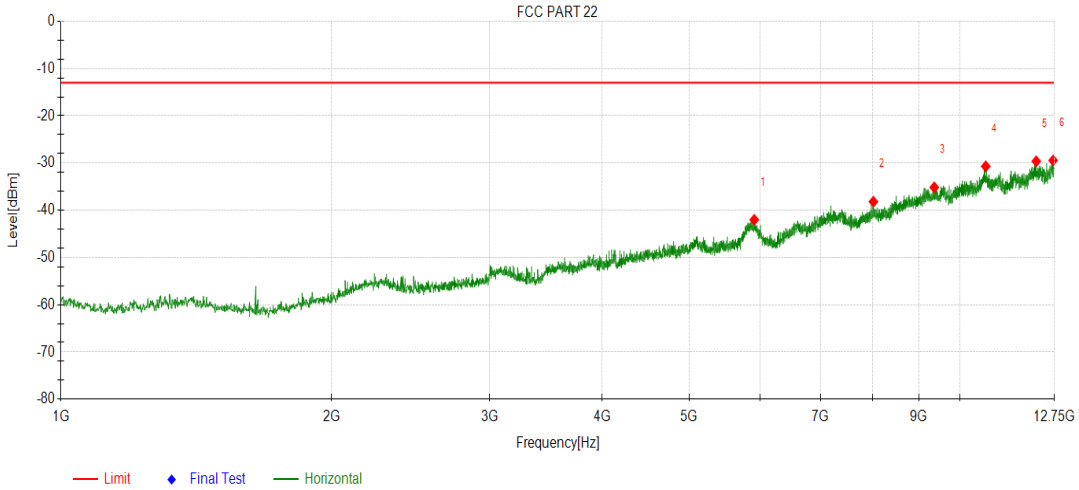


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5695.593	-50.56	-41.97	-13.00	28.97	8.59	348	159	Vertical
2	7262.750	-49.89	-37.20	-13.00	24.20	12.69	13	143	Vertical
3	9368.937	-50.48	-34.56	-13.00	21.56	15.92	303	163	Vertical
4	10648.21	-49.94	-29.30	-13.00	16.30	20.64	54	147	Vertical
5	12177.18	-51.19	-29.89	-13.00	16.89	21.30	256	137	Vertical
6	12678.03	-51.11	-29.10	-13.00	16.10	22.01	107	141	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:	Band V Tx Low CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

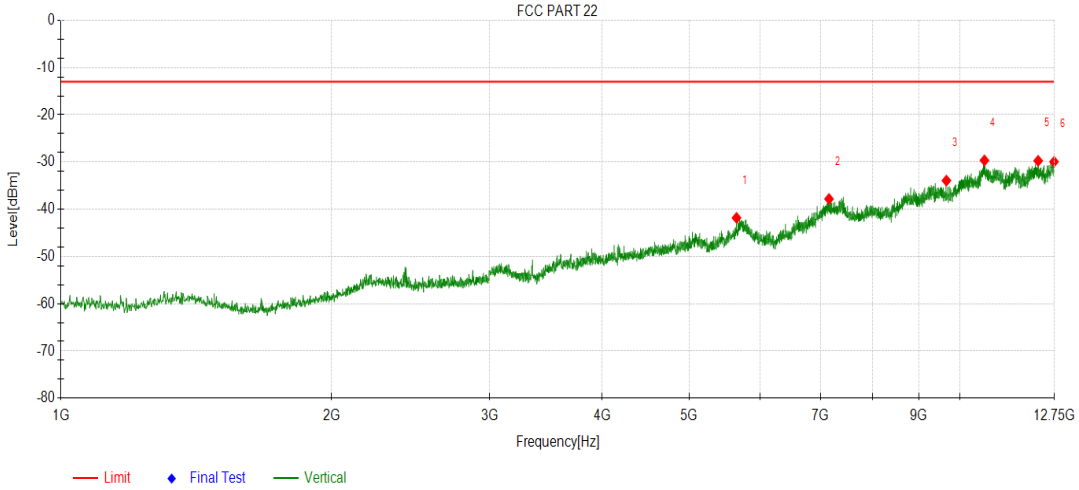


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5907.093	-50.90	-42.01	-13.00	29.01	8.89	246	132	Horizontal
2	8016.218	-50.22	-38.18	-13.00	25.18	12.04	107	142	Horizontal
3	9367.468	-51.05	-35.14	-13.00	22.14	15.91	320	159	Horizontal
4	10689.34	-50.11	-30.69	-13.00	17.69	19.42	37	161	Horizontal
5	12165.43	-50.88	-29.62	-13.00	16.62	21.26	129	167	Horizontal
6	12703.00	-51.64	-29.43	-13.00	16.43	22.21	237	152	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:	Band V Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

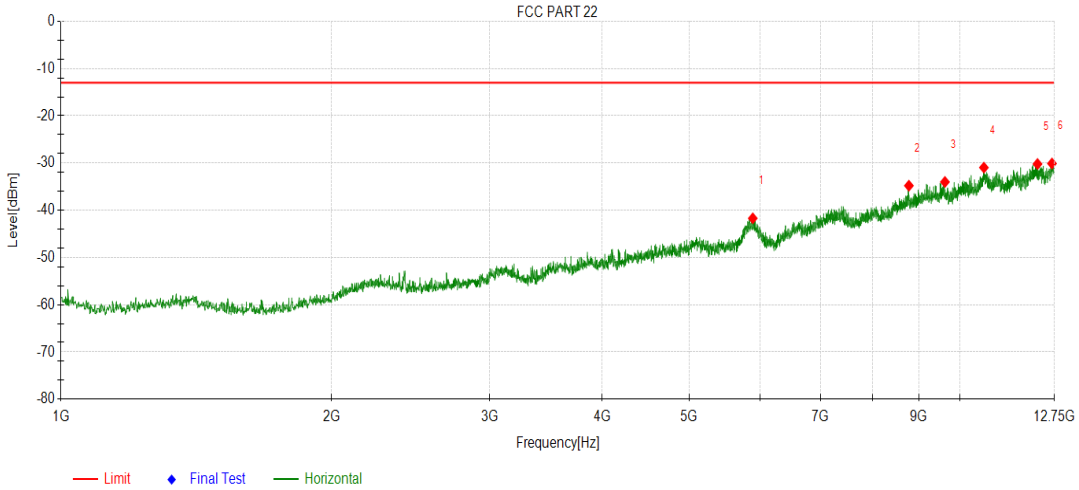


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5644.187	-49.02	-41.82	-13.00	28.82	7.20	349	157	Vertical
2	7154.062	-50.61	-37.81	-13.00	24.81	12.80	18	152	Vertical
3	9664.156	-49.51	-33.93	-13.00	20.93	15.58	319	163	Vertical
4	10652.62	-50.28	-29.64	-13.00	16.64	20.64	48	145	Vertical
5	12224.18	-51.08	-29.74	-13.00	16.74	21.34	162	134	Vertical
6	12732.37	-52.16	-29.93	-13.00	16.93	22.23	201	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:	Band V Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

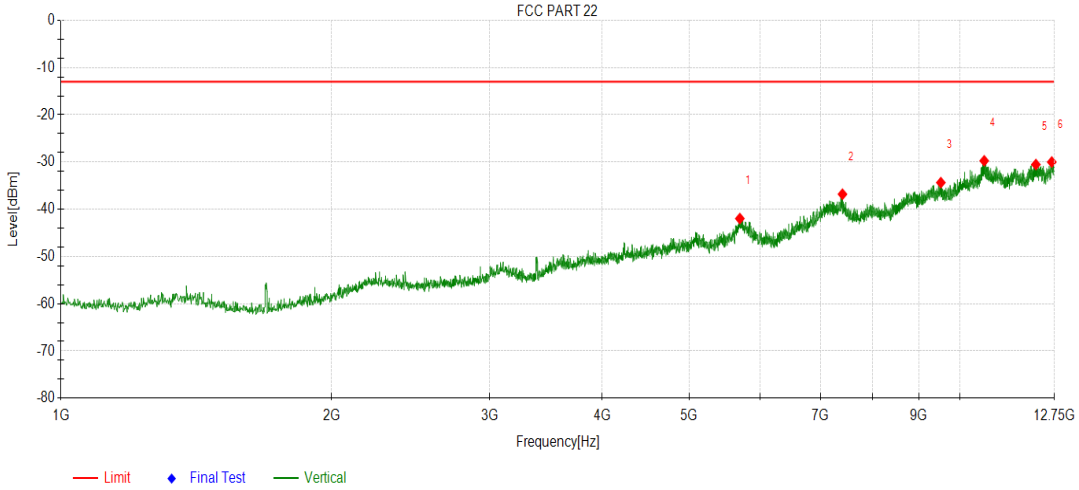


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5885.062	-50.62	-41.70	-13.00	28.70	8.92	317	159	Horizontal
2	8778.500	-48.86	-34.80	-13.00	21.80	14.06	54	132	Horizontal
3	9627.437	-50.32	-34.01	-13.00	21.01	16.31	197	146	Horizontal
4	10637.93	-50.12	-30.96	-13.00	17.96	19.16	150	163	Horizontal
5	12203.62	-51.57	-30.20	-13.00	17.20	21.37	91	152	Horizontal
6	12664.81	-52.14	-30.10	-13.00	17.10	22.04	254	143	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:	Band V Tx High CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

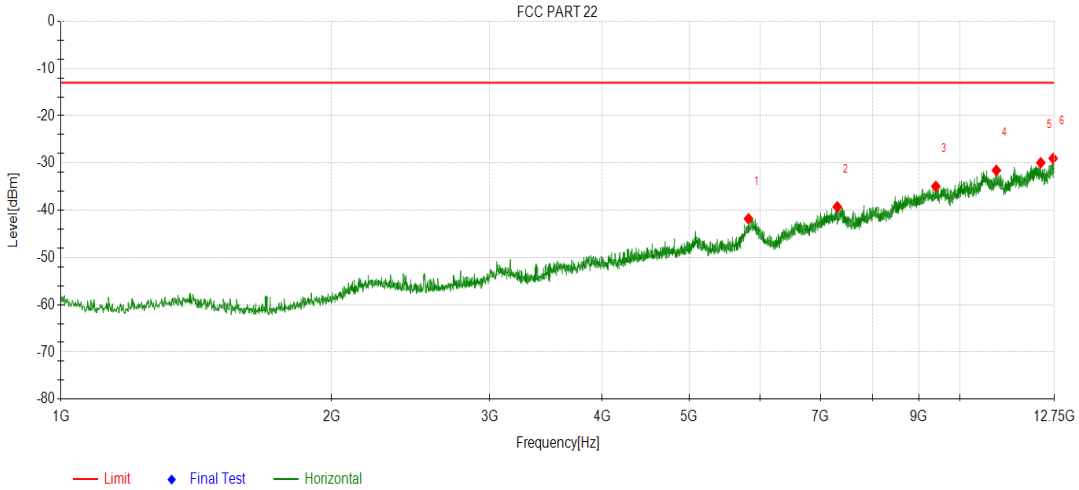


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5692.656	-50.48	-41.97	-13.00	28.97	8.51	107	150	Vertical
2	7405.218	-50.06	-36.81	-13.00	23.81	13.25	251	160	Vertical
3	9527.562	-50.41	-34.36	-13.00	21.36	16.05	100	143	Vertical
4	10646.75	-50.37	-29.73	-13.00	16.73	20.64	34	132	Vertical
5	12153.68	-51.70	-30.53	-13.00	17.53	21.17	334	146	Vertical
6	12657.46	-51.94	-30.00	-13.00	17.00	21.94	27	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:	Band V Tx High CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

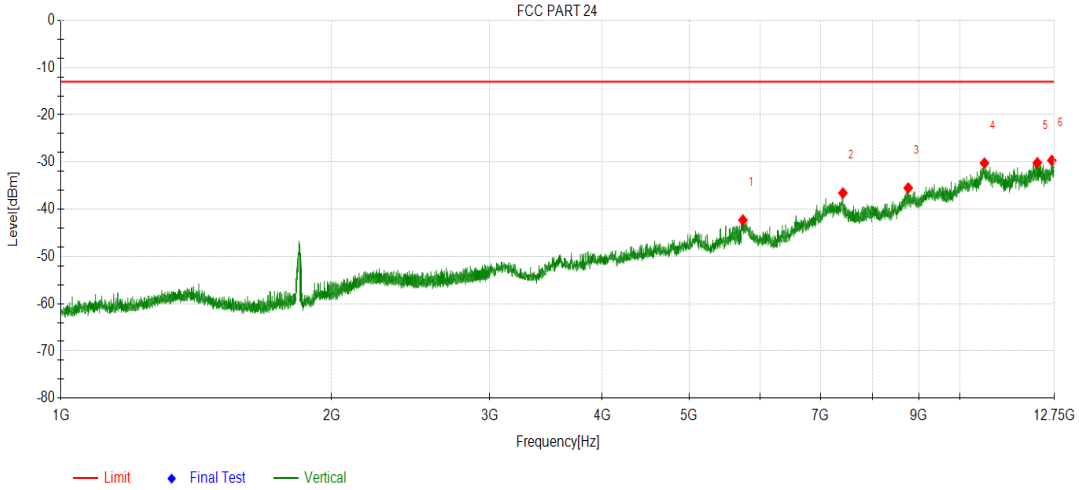


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5820.437	-50.21	-41.80	-13.00	28.80	8.41	237	135	Horizontal
2	7306.812	-50.33	-39.28	-13.00	26.28	11.05	26	156	Horizontal
3	9405.656	-51.13	-34.95	-13.00	21.95	16.18	152	149	Horizontal
4	10983.09	-50.60	-31.54	-13.00	18.54	19.06	217	131	Horizontal
5	12306.43	-51.10	-29.94	-13.00	16.94	21.16	18	154	Horizontal
6	12703.00	-51.23	-29.02	-13.00	16.02	22.21	340	144	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:	Band II Tx Low CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

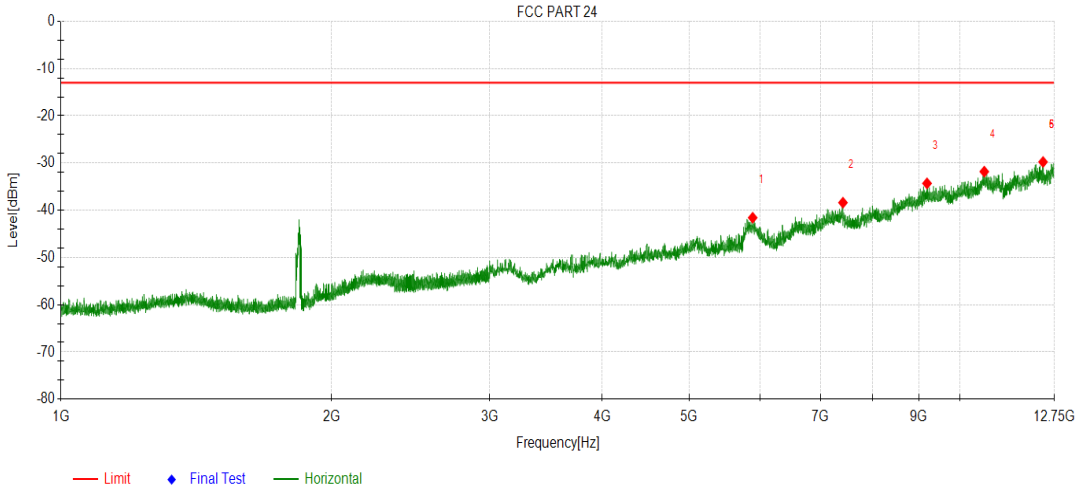


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5738.531	-50.46	-42.29	-13.00	29.29	8.17	156	164	Vertical
2	7413.093	-49.55	-36.57	-13.00	23.57	12.98	203	156	Vertical
3	8763.468	-49.81	-35.50	-13.00	22.50	14.31	156	147	Vertical
4	10653.75	-50.45	-30.23	-13.00	17.23	20.22	217	167	Vertical
5	12199.12	-51.45	-30.16	-13.00	17.16	21.29	144	135	Vertical
6	12659.81	-51.28	-29.65	-13.00	16.65	21.63	220	154	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:	Band II Tx Low CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

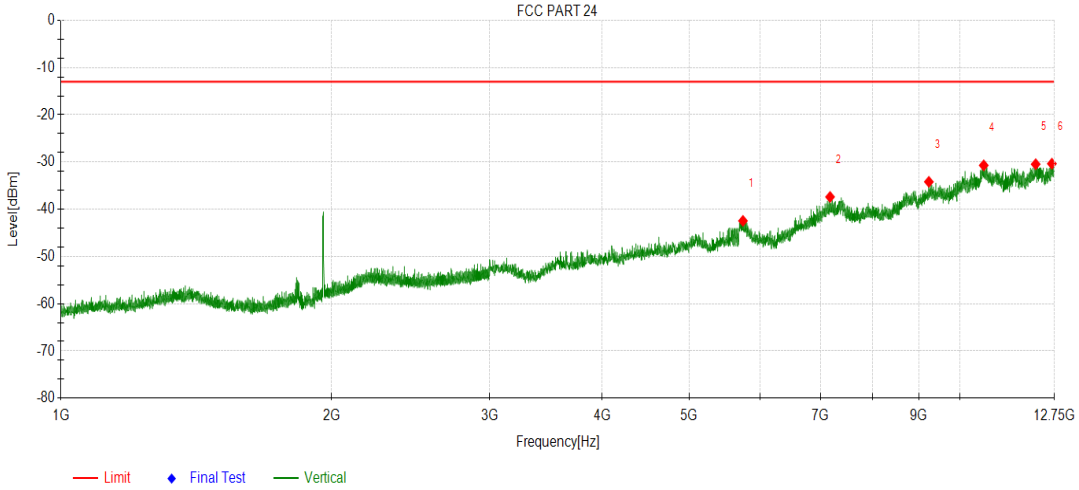


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5883.562	-50.07	-41.57	-13.00	28.57	8.50	234	155	Horizontal
2	7414.312	-49.63	-38.38	-13.00	25.38	11.25	134	134	Horizontal
3	9196.125	-50.09	-34.30	-13.00	21.30	15.79	101	164	Horizontal
4	10648.87	-50.61	-31.81	-13.00	18.81	18.80	257	156	167Horizo
5	12379.50	-50.62	-29.77	-13.00	16.77	20.85	169	134	Horizontal
6	12379.50	-50.62	-29.77	-13.00	16.77	20.85	202	157	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:	Band II Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

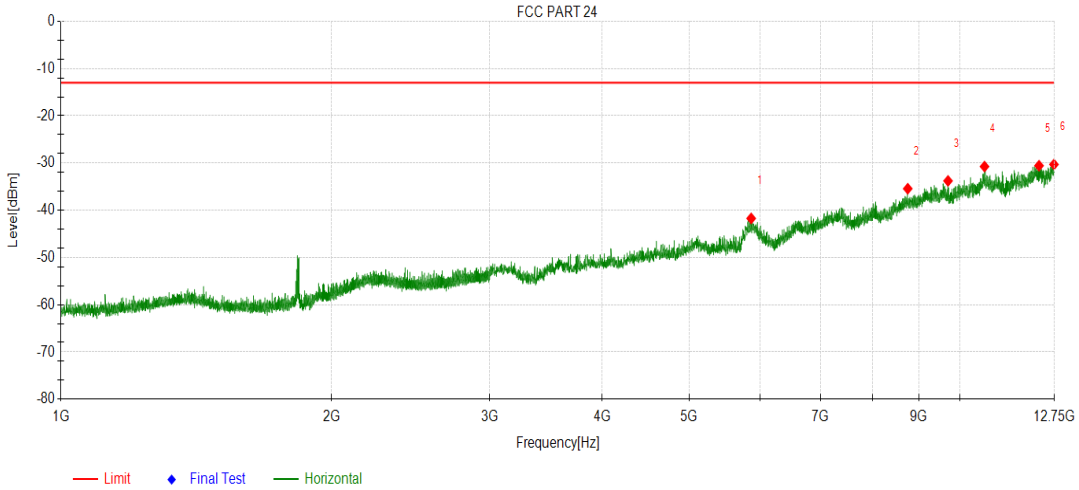


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5738.531	-50.62	-42.45	-13.00	29.45	8.17	31	156	Vertical
2	7173.000	-50.30	-37.39	-13.00	24.39	12.91	327	147	Vertical
3	9240.000	-49.93	-34.19	-13.00	21.19	15.74	156	154	Vertical
4	10633.03	-50.96	-30.70	-13.00	17.70	20.26	214	132	Vertical
5	12146.71	-51.46	-30.46	-13.00	17.46	21.00	14	161	Vertical
6	12661.03	-51.98	-30.35	-13.00	17.35	21.63	349	149	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:	Band II Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

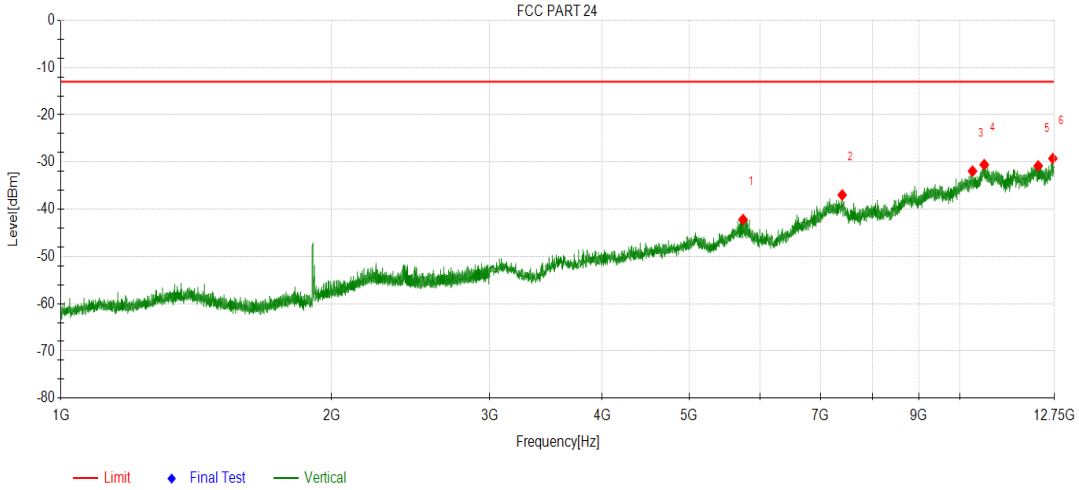


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Height [cm]	Polarity
1	5860.406	-50.16	-41.73	-13.00	28.73	8.43	157	156	Horizontal
2	8752.500	-49.48	-35.43	-13.00	22.43	14.05	203	147	Horizontal
3	9704.343	-49.30	-33.78	-13.00	20.78	15.52	119	134	Horizontal
4	10654.96	-49.56	-30.74	-13.00	17.74	18.82	247	156	Horizontal
5	12251.53	-51.64	-30.57	-13.00	17.57	21.07	214	158	Horizontal
6	12729.28	-52.41	-30.29	-13.00	17.29	22.12	143	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.*

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

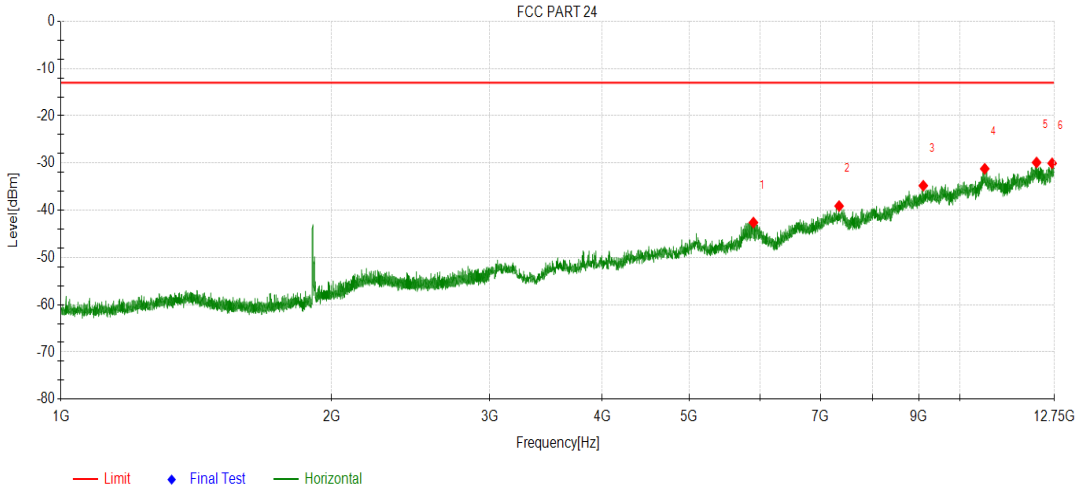


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5739.750	-50.35	-42.18	-13.00	29.18	8.17	324	135	Vertical
2	7399.687	-50.12	-36.97	-13.00	23.97	13.15	37	156	Vertical
3	10333.21	-51.18	-31.93	-13.00	18.93	19.25	160	162	Vertical
4	10647.65	-50.79	-30.56	-13.00	17.56	20.23	198	154	Vertical
5	12225.93	-51.99	-30.82	-13.00	17.82	21.17	154	148	Vertical
6	12693.93	-51.05	-29.25	-13.00	16.25	21.80	214	167	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:	Band II Tx High CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

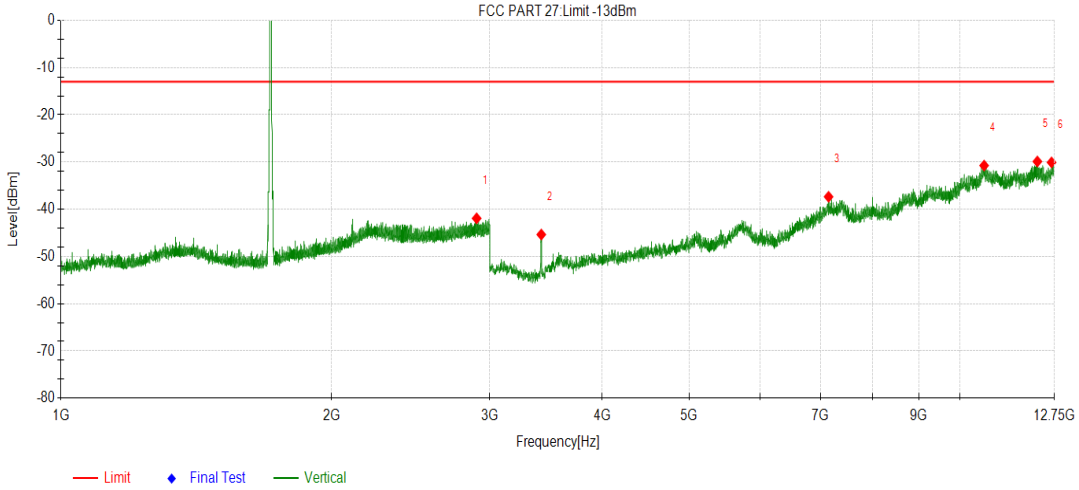


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	5894.531	-51.13	-42.60	-13.00	29.60	8.53	216	134	Horizontal
2	7341.187	-50.28	-39.11	-13.00	26.11	11.17	139	156	Horizontal
3	9108.375	-50.12	-34.80	-13.00	21.80	15.32	106	159	Horizontal
4	10661.06	-50.05	-31.21	-13.00	18.21	18.84	248	154	Horizontal
5	12174.75	-51.05	-29.89	-13.00	16.89	21.16	152	149	Horizontal
6	12670.78	-51.82	-30.06	-13.00	17.06	21.76	204	167	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:	Band IV Tx Low CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

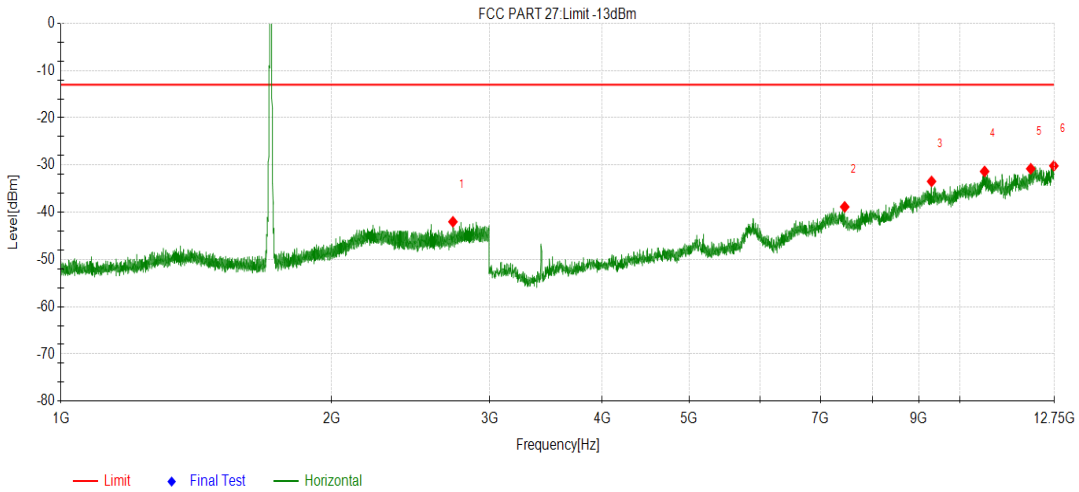


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	2900.500	-47.83	-41.93	-13.00	28.93	5.90	129	134	Vertical
2	3422.906	-41.11	-45.35	-13.00	32.35	-4.24	224	159	Vertical
3	7146.187	-50.07	-37.35	-13.00	24.35	12.72	289	167	Vertical
4	10644.00	-50.98	-30.74	-13.00	17.74	20.24	84	156	Vertical
5	12199.12	-51.18	-29.89	-13.00	16.89	21.29	249	149	Vertical
6	12651.28	-51.66	-30.08	-13.00	17.08	21.58	104	157	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:	Band IV Tx Low CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

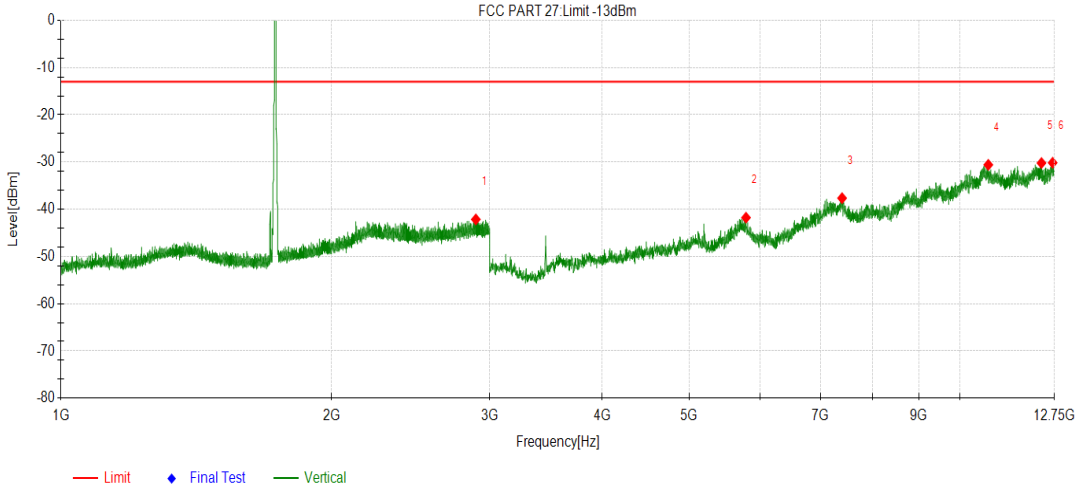


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	2729.750	-46.63	-42.01	-13.00	29.01	4.62	273	135	Horizontal
2	7447.218	-49.73	-38.86	-13.00	25.86	10.87	87	134	Horizontal
3	9303.375	-48.81	-33.47	-13.00	20.47	15.34	143	156	Horizontal
4	10657.40	-50.18	-31.35	-13.00	18.35	18.83	221	149	Horizontal
5	11995.59	-51.15	-30.79	-13.00	17.79	20.36	237	148	Horizontal
6	12726.84	-52.28	-30.17	-13.00	17.17	22.11	127	145	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:	Band IV Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

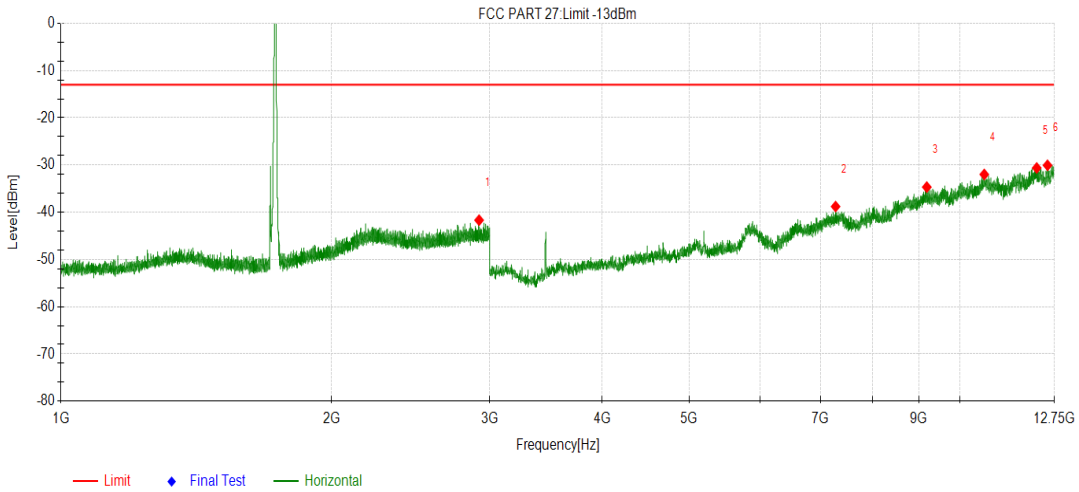


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	2894.500	-48.01	-42.14	-13.00	29.14	5.87	319	134	Vertical
2	5783.625	-49.83	-41.78	-13.00	28.78	8.05	42	159	Vertical
3	7397.250	-50.78	-37.65	-13.00	24.65	13.13	313	164	Vertical
4	10758.56	-50.70	-30.59	-13.00	17.59	20.11	48	149	Vertical
5	12328.31	-51.01	-30.21	-13.00	17.21	20.80	324	167	Vertical
6	12687.84	-51.92	-30.15	-13.00	17.15	21.77	37	155	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:	Band IV Tx Mid CH
Test Voltage:	DC 3.8V	Polarization:	Horizontal

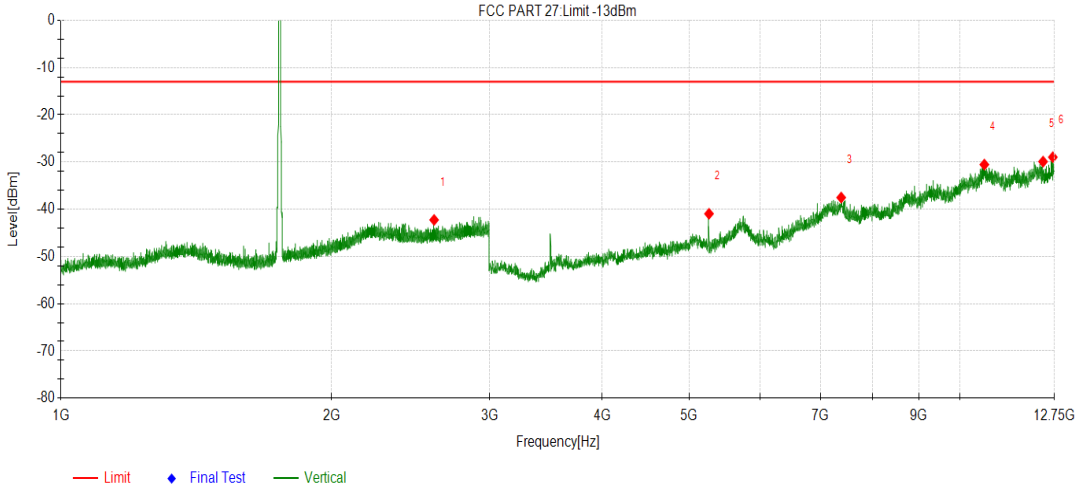


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	2919.000	-47.38	-41.67	-13.00	28.67	5.71	151	159	Horizontal
2	7275.375	-49.87	-38.79	-13.00	25.79	11.08	219	157	Horizontal
3	9190.031	-50.43	-34.67	-13.00	21.67	15.76	197	167	Horizontal
4	10648.87	-50.79	-31.99	-13.00	18.99	18.80	204	154	Horizontal
5	12179.62	-51.79	-30.62	-13.00	17.62	21.17	167	135	Horizontal
6	12520.87	-50.60	-30.06	-13.00	17.06	20.54	200	164	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:	Band IV Tx High CH
Test Voltage:	DC 3.8V	Polarization:	Vertical

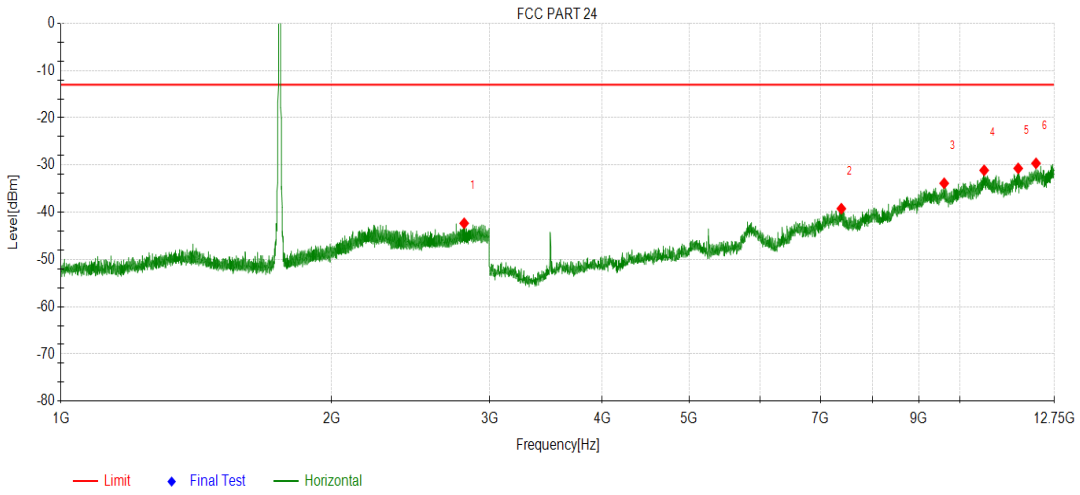


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [∘]	Height [cm]	Polarity
1	2601.250	-47.01	-42.25	-13.00	29.25	4.76	144	154	Vertical
2	5260.781	-44.53	-40.95	-13.00	27.95	3.58	217	162	Vertical
3	7380.187	-50.52	-37.52	-13.00	24.52	13.00	131	134	Vertical
4	10651.31	-50.76	-30.54	-13.00	17.54	20.22	229	159	Vertical
5	12379.50	-50.67	-29.91	-13.00	16.91	20.76	349	157	Vertical
6	12692.71	-50.76	-28.97	-13.00	15.97	21.79	17	141	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:	Band IV 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	2809.500	-47.79	-42.33	-13.00	29.33	5.46	108	159	Horizontal
2	7383.843	-50.58	-39.23	-13.00	26.23	11.35	253	147	Horizontal
3	9609.281	-50.34	-33.86	-13.00	20.86	16.48	114	134	Horizontal
4	10645.21	-49.91	-31.12	-13.00	18.12	18.79	243	162	Horizontal
5	11615.34	-50.41	-30.71	-13.00	17.71	19.70	111	148	Horizontal
6	12157.68	-50.73	-29.64	-13.00	16.64	21.09	243	152	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.2 of WCDMA BAND II & IV & V	*WCDMA*