FCC Test Report FCC ID: ZSW-30-129

Product: Mobile Phone

Trade Mark: Bmobile

Model Number: BL65 PLUS Family Model: BM65 PLUS

Report No.: \$23060802602001

Prepared for

b mobile HK Limited

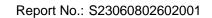
Flat 18; 14/F Block 1; Golden Industrial Building;16-26 Kwai Tak Street; Kwai Chung; New Territories; Hong Kong, China

Prepared by

Shenzhen NTEK Testing Technology Co., Ltd.

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street Bao'an District, Shenzhen P.R. China Tel. 400-800-6106, 0755-2320 0050, 0755-2320 0090 Website:http://www.ntek.org.cn

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TEST RESULT CERTIFICATION

Manufacturer's Name:	b mobile HK Limited
Address:	Flat 18; 14/F Block 1; Golden Industrial Building;16-26 Kwai Tak Street; Kwai Chung; New Territories; Hong Kong, China
Applicant's name:	b mobile HK Limited

Product description

Test Sample Number.....: S230608026002
Product name.....: Mobile Phone
Model and/or type reference : BL65 PLUS
Family Model....: BM65 PLUS
FCC Part15B
ANSI C63.4:2014

Test Result Pass

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with Part 15 of FCC Rules. And it is applicable only to the tested sample identified in the report.

This report shall not be reproduced except in full, without the written approval of NTEK, this document may be altered or revised by NTEK, personnel only, and shall be noted in the revision of the document.

08 Jun. 2023 ~ 29 Jun. 2023
29 Jun. 2023

Testing Engineer	: Blen lin
	(Allen Liu)
Authorized Signatory	Alex
	(Alex Li)

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1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission					
Standard	Test Item	Limit	Judgment	Remark	
FCC Part15B ANSI C63.4: 2014	Conducted Emission	Class B	PASS		
	Radiated Emission	Class B	PASS		

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report
- (2) For client's request and manual description, the test will not be executed.

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1.1 TEST FACILITY

Shenzhen NTEK Testing Technology Co., Ltd

Add.: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District,

Shenzhen 518126 P.R. China.

IC-Registration The Certificate Registration Number is 9270A.

CAB identifier:CN0074

FCC- Accredited Test Firm Registration Number: 463705.

Designation Number: CN1184

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expended uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k=2}$, providing a level of confidence of approximately 95 %.

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
NTEKC01	ANSI	150 KHz ~ 30MHz	±2.80dB	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
NTEKA01	ANSI	30MHz~1000MHz	±2.64dB	
		1GHz~6GHz	±2.40dB	
		6GHz~26.5GHz	±2.52dB	

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2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile Phone		
Trade Mark	Bmobile		
Model Name	BL65 PLUS		
Family Model	BM65 PLUS		
Model Difference	All models are the same	circuit and RF module, except the model name.	
Product Description Adapter	Connecting I/O port: Micro USB, Earphone Operation Frequency: 2.4GHz Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual. INPUT: AC 100-240V~50-60Hz 0.3A OUTPUT: DC 5.0V—24		
Battery	DC 3.85V/4000mAh		
Power supply	DC 3.85V from battery or DC 5V from Adapter.		
HW Version	Bmobile_BL65Plus_HW_V1.0		
SW Version	Bmobile_BL65Plus_TIGO_	LATAM_V001	

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2.1.1 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

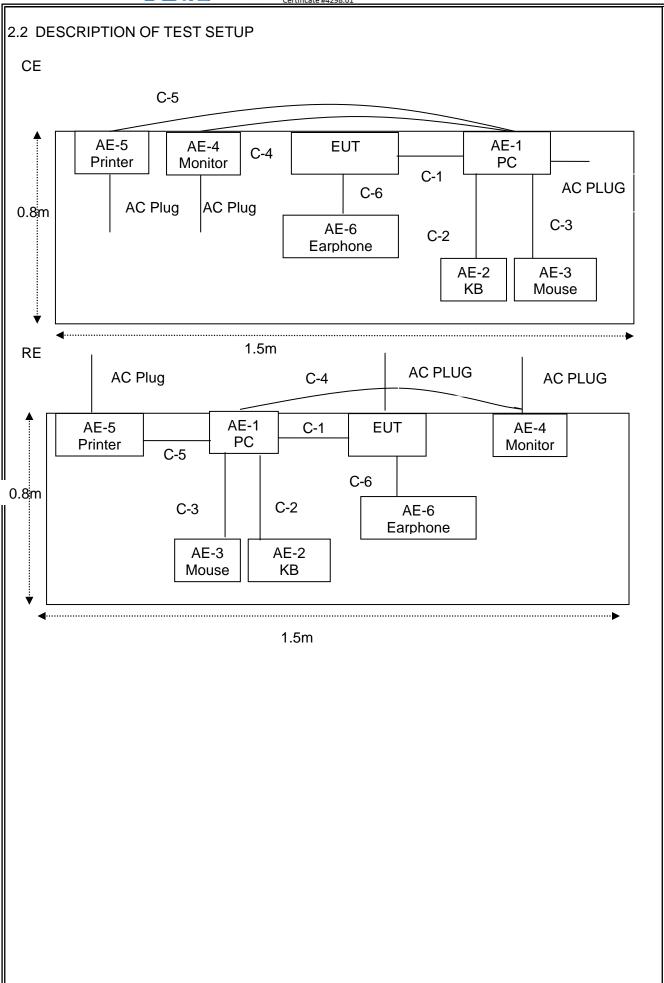
Pretest Mode	Description
Mode 1	USB Data Transmission
Mode 2	TF card Playing
Mode 3	REC
Mode 4	FM
Mode 5	GPS

For Conducted Test			
Final Test Mode	Description		
Mode 1	USB Data Transmission		
Mode 2	TF card Playing		
Mode 3	REC		
Mode 4	FM		
Mode 5	GPS		

For Radiated Test			
Final Test Mode	Description		
Mode 1	USB Data Transmission		
Mode 2	TF card Playing		
Mode 3	REC		
Mode 4	FM		
Mode 5	GPS		

Note: Final Test Mode: Through Pre-scan, find the mode 1 is the worst case. Only the worst case mode is recorded in the report.

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2.3 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
AE-1	PC	DELL	FT4Y23X	N/A	Peripherals
AE-2	КВ	N/A	N/A	N/A	Peripherals
AE-3	Mouse	N/A	N/A	N/A	Peripherals
AE-4	Monitor	N/A	N/A	N/A	Peripherals
AE-5	Printer	Canon	L11121E	N/A	Peripherals
AE-6	Earphone	N/A	N/A	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length	Note
C-1	USB Cable	NO	NO	0.9m	
C-2	USB Cable	NO	NO	1.2m	
C-3	USB Cable	NO	NO	1.2m	
C-4	HDMI Cable	YES	YES	1.0m	
C-5	USB Cable	NO	NO	1.2m	
C-6	Earphone Cable	NO	ОИ	1.2m	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in <code>FLength_</code> column.
- (3) "YES" means "shielded" "with core"; "NO" means "unshielded" "without core".

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2.4 MEASUREMENT INSTRUMENTS LIST

Radiation Test equipment

Radia	ation Test equip	oment					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2023.03.27	2024.03.26	1 year
2	Test Receiver	R&S	ESPI	101318	2023.03.27	2024.03.26	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2023.03.27	2024.03.26	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2023.05.06	2026.05.05	3 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2023.03.27	2024.03.26	1 year
6	Horn Antenna	EM	EM-AH-1018 0	2011071402	2023.03.27	2024.03.26	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2022.11.08	2023.11.07	1 year
8	Amplifier	EMC	EMC051835 SE	980246	2023.05.29	2024.05.28	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2023.03.27	2024.03.26	1 year
10	Power Meter	DARE	RPR3006W	15I00041SN O84	2023.05.29	2024.05.28	1 year
11	Power Sensor	R&S	URV4-Z4	0395.1619.0 5	2023.05.29	2024.05.28	1 year
12	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2022.06.17	2025.06.16	3 year
13	High Test Cable(1G-40G Hz)	N/A	R-03	N/A	2022.06.17	2025.06.16	3 year
14	High Test Cable(1G-40G Hz)	N/A	R-04	N/A	2022.06.17	2025.06.16	3 year
15	Test Receiver	R&S	ESCI	101160	2023.03.27	2024.03.26	1 year

AC Conduction Test equipment

_ , .	Conduction i	est equipment					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2023.03.27	2024.03.26	1 year
2	LISN	R&S	ENV216	101313	2023.03.27	2024.03.26	1 year
3	LISN	SCHWARZBE CK	NNLK 8129	8129245	2023.03.27	2024.03.26	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2023.05.06	2026.05.05	3 year
5	Test Cable (9KHz-30MH z)	N/A	C01	N/A	2023.05.06	2026.05.05	3 year
6	Test Cable (9KHz-30MH z)	N/A	C02	N/A	2023.05.06	2026.05.05	3 year
7	Test Cable (9KHz-30MH z)	N/A	C03	N/A	2023.05.06	2026.05.05	3 year

Note: Each piece of equipment is scheduled for calibration once a year except the Test Cable which is scheduled for calibration every 3 years.

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3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A	(dBuV)	Class B (dBuV)	
FREQUENCY (MHZ)	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

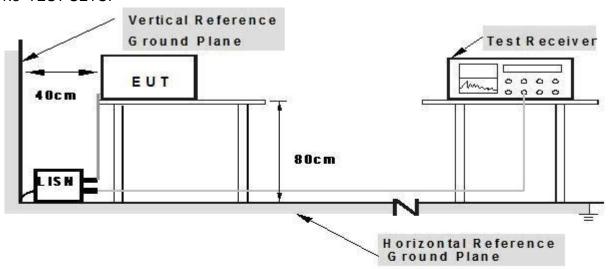
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3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

3.1.3 TEST SETUP



Note: 1.Support units were connected to second LISM.

2.Both of LISMs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

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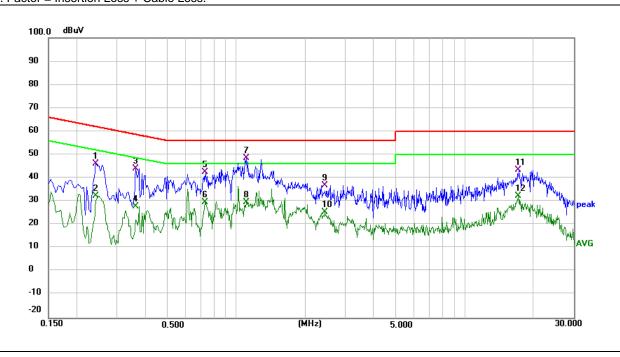
3.1.5 TEST RESULTS

EUT:	Mobile Phone	Model Name.:	BL65 PLUS
Temperature:	24.5 ℃	Relative Humidity:	52%
Pressure:	1010hPa	Test Date:	2023-06-26
Test Mode:	Mode 1	Phase :	L
Test Voltage:	DC 5V from PC AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.2420	36.13	10.12	46.25	62.03	-15.78	QP
0.2420	22.27	10.12	32.39	52.03	-19.64	AVG
0.3620	33.60	10.36	43.96	58.68	-14.72	QP
0.3620	17.61	10.36	27.97	48.68	-20.71	AVG
0.7300	31.35	11.11	42.46	56.00	-13.54	QP
0.7300	18.59	11.11	29.70	46.00	-16.30	AVG
1.1100	36.71	11.88	48.59	56.00	-7.41	QP
1.1100	17.84	11.88	29.72	46.00	-16.28	AVG
2.4460	27.27	9.66	36.93	56.00	-19.07	QP
2.4460	15.76	9.66	25.42	46.00	-20.58	AVG
17.1620	33.79	9.71	43.50	60.00	-16.50	QP
17.1620	22.56	9.71	32.27	50.00	-17.73	AVG

Remark:

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.



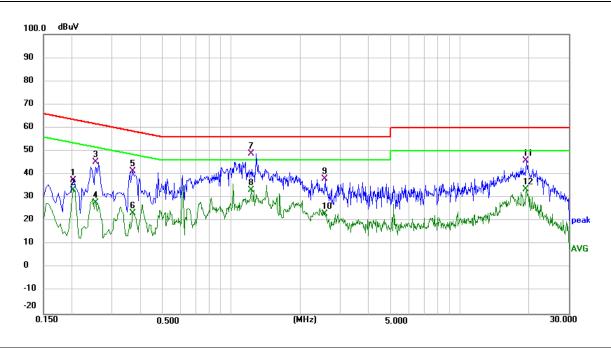
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EUT:	Mobile Phone	Model Name. :	BL65 PLUS
Temperature:	24.5 ℃	Relative Humidity:	52%
Pressure:	1010hPa	Test Date:	2023-06-26
Test Mode:	Mode 1	Phase :	N
Test Voltage:	DC 5V from PC AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.2020	27.30	10.04	37.34	63.53	-26.19	QP
0.2020	23.32	10.04	33.36	53.53	-20.17	AVG
0.2540	35.14	10.14	45.28	61.63	-16.35	QP
0.2540	17.68	10.14	27.82	51.63	-23.81	AVG
0.3700	30.83	10.38	41.21	58.50	-17.29	QP
0.3700	12.88	10.38	23.26	48.50	-25.24	AVG
1.2220	36.61	12.10	48.71	56.00	-7.29	QP
1.2220	21.28	12.10	33.38	46.00	-12.62	AVG
2.5660	28.45	9.67	38.12	56.00	-17.88	QP
2.5660	13.46	9.67	23.13	46.00	-22.87	AVG
19.5459	36.17	9.72	45.89	60.00	-14.11	QP
19.5459	23.74	9.72	33.46	50.00	-16.54	AVG

Remark:

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.



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3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

	Class A (at 10m)	Class B (at 3m)
FREQUENCY (MHz)	dBuV/m	dBuV/m
30 ~ 88	39.0	40.0
88 ~ 216	43.5	43.5
216 ~ 960	46.5	46.0
Above 960	49.5	54.0

Notes:

- (1) The limit for radiated test was performed according to as following: FCC PART 15B /ICES-003.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

3.2.2 TEST PROCEDURE

Test Arrangement for Radiated Emissions up to 1 GHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited test facility. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for quasi-peak detection (QP) at frequency below 1GHz.

Test Arrangement for Radiated Emissions above 1 GHz.

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to detect the maximum value of the field strength.Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Note: For the hand-held device, the EUT should be measured for all 3 axes and only the worst case is recorded in the report

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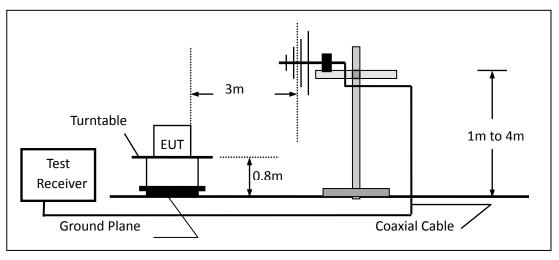


During the radiated emission test, according to ANSI C63.4-2014(4.2), the Spectrum Analyzer was set with the following configurations:

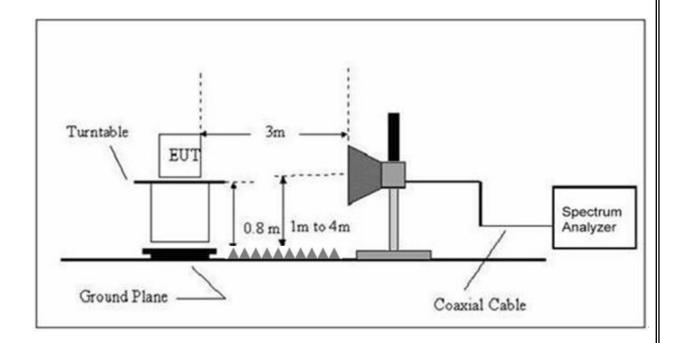
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
	Peak	1 MHz	3 MHz
Above 1000	Avg	1 MHz	10 Hz

3.2.3 TEST SETUP

For Radiated Emission 30~1000MHz



(B) Radiated Emission Test Set-Up Frequency Above 1GHz



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3.2.4 TEST RESULTS

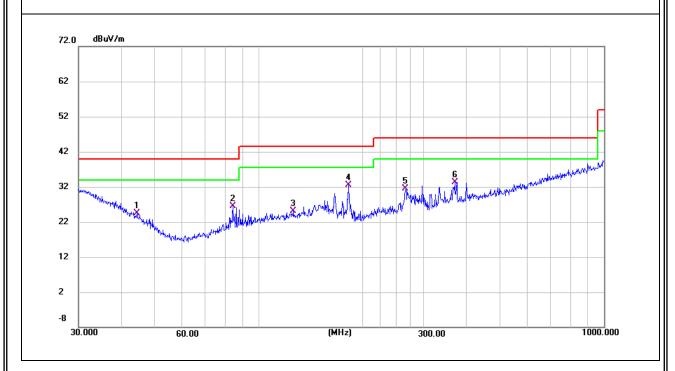
TEST RESULTS (30~1000 MHz)

	(00 1000 1111 12)		
EUT:	Mobile Phone	Model Name:	BL65 PLUS
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023-06-26
Test Mode:	Mode 1	Polarization :	Horizontal
Test Power ·	DC 5V from PC AC 120V/60Hz		

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	. todire
Н	44.2752	5.99	18.58	24.57	40.00	-15.43	QP
Н	84.1100	10.47	15.94	26.41	40.00	-13.59	QP
Н	125.8864	6.37	18.78	25.15	43.50	-18.35	QP
Н	181.9202	15.74	16.82	32.56	43.50	-10.94	QP
Н	266.6089	11.75	19.66	31.41	46.00	-14.59	QP
Н	369.4047	10.71	22.55	33.26	46.00	-12.74	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.



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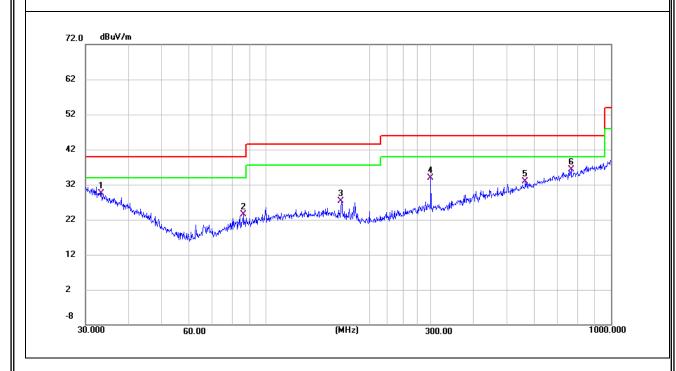


EUT:	Mobile Phone	Model Name :	BL65 PLUS
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023-06-26
Test Mode :	Mode 1	Polarization :	Vertical
Test Power:	DC 5V from PC AC 120V/60Hz		

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	33.3279	4.98	24.61	29.59	40.00	-10.41	QP
V	85.8984	7.30	16.19	23.49	40.00	-16.51	QP
V	165.4866	9.51	17.75	27.26	43.50	-16.24	QP
V	300.3672	13.66	20.21	33.87	46.00	-12.13	QP
V	564.6389	6.97	25.91	32.88	46.00	-13.12	QP
V	766.0571	7.21	29.05	36.26	46.00	-9.74	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.



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3.2.5 TEST RESULTS(1000~18000MHz)

EUT:	Mobile Phone	Model Name :	BL65 PLUS
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023-06-26
Test Mode:	Mode 1		
Test Power:	DC 5V from PC AC 120V/60Hz		

All the modulation modes have been tested, and the worst result was report as below:

Polar (H/V)	Frequency	Reading	Correct	Result	Limit	Over Limit	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	T COTTO
V	1020.438	37.94	4.83	42.77	74.00	-31.23	peak
V	1020.438	20.53	4.83	25.36	54.00	-28.64	AVG
V	1312.187	36.47	5.31	41.78	74.00	-32.22	peak
V	1312.187	21.38	5.31	26.69	54.00	-27.31	AVG
V	2201.351	35.51	7.34	42.85	74.00	-31.15	peak
V	2201.351	20.78	7.34	28.12	54.00	-25.88	AVG
V	3069.345	34.16	9.97	44.13	74.00	-29.87	peak
V	3069.345	17.36	9.97	27.33	54.00	-26.67	AVG
V	4128.000	33.56	11.96	45.52	74.00	-28.48	peak
V	4128.000	14.36	11.96	26.32	54.00	-27.68	AVG
V	5794.000	31.97	15.19	47.16	74.00	-26.84	peak
V	5794.000	11.96	15.19	27.15	54.00	-26.85	AVG
Н	1056.453	38.22	4.93	43.15	74.00	-30.85	peak
Н	1056.453	20.40	4.93	25.33	54.00	-28.67	AVG
Н	1346.769	36.17	5.34	41.51	74.00	-32.49	peak
Н	1346.769	21.11	5.34	26.45	54.00	-27.55	AVG
Н	2373.157	35.77	7.48	43.25	74.00	-30.75	peak
Н	2373.157	20.85	7.48	28.33	54.00	-25.67	AVG
Н	2710.622	35.55	8.53	44.08	74.00	-29.92	peak
Н	2710.622	20.62	8.53	29.15	54.00	-24.85	AVG
Н	3567.000	35.33	10.28	45.61	74.00	-28.39	peak
Н	3567.000	18.19	10.28	28.47	54.00	-25.53	AVG
Н	5148.000	32.58	14.28	46.86	74.00	-27.14	peak
Н	5148.000	12.87	14.28	27.15	54.00	-26.85	AVG

Remark:

Result = Reading + Correct, Over Limit= Result - Limit

Note: Only the worst results data points are reported in the report.

Other emissions are attenuated 20dB below the limit that does not recorded in the report

END OF REPORT

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