

# FCC REPORT

**Applicant:** SHENZHEN GOTRON ELECTRONIC CO., LTD

**Address of Applicant:** 518, 5F, R&D building, Tsinghua Hi-Tech park(North) Nanshan district, Shenzhen 518057 P.R. China

## Equipment Under Test (EUT)

**Product Name:** Mobile Phone

**Model No.:** GQ3071, Armor 6, Armor 6S

**Trade mark:** ulefone

**FCC ID:** 2AOWK3071

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart C Section 15.225

**Date of sample receipt:** 09 Nov., 2018

**Date of Test:** 12 Nov., to 06 Dec., 2018

**Date of report issue:** 07 Dec., 2018

**Test Result:** PASS\*

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

Authorized Signature:



Bruce Zhang  
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

## 2 Version

Version No.	Date	Description
00	07 Dec., 2018	Original

**Tested by:**



**Date:**

07 Dec., 2018

**Test Engineer**

**Reviewed by:**



**Date:**

07 Dec., 2018

**Project Engineer**

### 3 Contents

	Page
1 COVER PAGE.....	1
2 VERSION.....	2
3 CONTENTS.....	3
4 TEST SUMMARY.....	4
5 GENERAL INFORMATION.....	5
5.1 CLIENT INFORMATION.....	5
5.2 GENERAL DESCRIPTION OF E.U.T.....	5
5.3 TEST MODE .....	6
5.4 DESCRIPTION OF SUPPORT UNITS.....	6
5.5 LABORATORY FACILITY.....	6
5.6 LABORATORY LOCATION .....	6
5.7 TEST INSTRUMENTSLIST.....	7
6 TEST RESULTS ANDMEASUREMENT DATA.....	8
6.1 ANTENNA REQUIREMENT .....	8
6.2 RADIATED EMISSION .....	9
6.3 20DB BANDWIDTH.....	16
6.4 FREQUENCY TOLERANCE.....	18
6.5 CONDUCTED EMISSION .....	20
7 TEST SETUP PHOTOS.....	23
8 EUT CONSTRUCTIONAL PHOTOS.....	24

## 4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
Field strength of the fundamental signal	15.225 (a)	Pass
Spurious emissions	15.225(d)& 15.209	Pass
20dB Bandwidth	15.215(c)	Pass
Frequency tolerance	15.225 (e)	Pass
Conducted Emission	15.207	Pass

Remarks:

Pass: The EUT complies with the essential requirements in the standard.

## 5 General Information

### 5.1 Client Information

Applicant:	SHENZHEN GOTRON ELECTRONIC CO., LTD
Address:	518, 5F, R&D building, Tsinghua Hi-Tech park(North) Nanshan district, Shenzhen 518057 P.R. China
Manufacturer:	SHENZHEN GOTRON ELECTRONIC CO., LTD
Address:	518, 5F, R&D building, Tsinghua Hi-Tech park(North) Nanshan district, Shenzhen 518057 P.R. China

### 5.2 General Description of E.U.T.

Product Name:	Mobile Phone
Model No.:	GQ3071, Armor 6, Armor 6S
Operation Frequency:	13.56MHz
Channel numbers:	1
Modulation type:	ASK
Antenna Type:	Internal Antenna
Antenna gain:	0dBi
Power supply:	Rechargeable Li-ion Battery DC3.85V/5000mAh
AC adapter:	Model: APS-KI018WU-G Input: AC100-240V, 50/60Hz, 0.5A Output: DC 5V/7V/9V, 2.0A DC 12V, 1.5A
Test Sample Condition:	The test samples were provided in good working order with no visible defects.
Remark:	Different model names

### 5.3 Test mode

Transmitting mode:	Keep the EUT in transmitting mode with modulation										
<b>Pre-Test Mode:</b>											
CCIS has verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:											
<table border="1"><thead><tr><th>Axis</th><th>X</th><th>Y</th><th>Z</th></tr></thead><tbody><tr><td>Field Strength(dBuV/m)</td><td>54.47</td><td>52.42</td><td>50.21</td></tr></tbody></table>				Axis	X	Y	Z	Field Strength(dBuV/m)	54.47	52.42	50.21
Axis	X	Y	Z								
Field Strength(dBuV/m)	54.47	52.42	50.21								
<b>Final Test Mode:</b>											
According to ANSI C63.4 standards, the test results are both the “worst case” and “worst setup”: Y axis (see the test setup photo).											

### 5.4 Description of Support Units

N/A

### 5.5 Laboratory Facility

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

● **FCC - Registration No.: 727551**

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

● **IC - Registration No.: 10106A-1**

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing 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 L6048**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

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

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 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>

### 5.6 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.  
Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,  
Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755-23118282, Fax: +86-755-23116366  
Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

## 5.7 Test Instrumentslist

Radiated Emission:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	SAEMC	9m*6m*6m	966	07-22-2017	07-21-2020
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-16-2018	03-15-2019
Biconical Antenna	SCHWARZBECK	VUBA9117	359	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-16-2018	03-15-2019
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2017	11-20-2018
Loop Antenna	SCHWARZBECK	FMZB 1519 B		11-21-2018	11-20-2019
EMI Test Software	AUDIX	E3	Version: 6.110919b		
Pre-amplifier	HP	8447D	2944A09358	03-07-2018	03-06-2019
Pre-amplifier	CD	PAP-1G18	11804	03-07-2018	03-06-2019
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-07-2018	03-06-2019
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-21-2017 11-21-2018	11-20-2018 11-20-2019
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-07-2018	03-06-2019
Signal Generator	Rohde & Schwarz	SMX	835454/016	03-07-2018	03-06-2019
Signal Generator	R&S	SMR20	1008100050	03-07-2018	03-06-2019
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-07-2018	03-06-2019
Cable	MICRO-COAX	MFR64639	K10742-5	03-07-2018	03-06-2019
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-07-2018	03-06-2019

Conducted Emission:					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	07-22-2017	07-21-2020
EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	03-07-2018	03-06-2019
LISN	CHASE	MN2050D	CCIS0074	03-19-2018	03-18-2019
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2018	07-20-2019
Coaxial Cable	CCIS	N/A	CCIS0086	03-07-2018	03-06-2019
EMI Test Software	AUDIX	E3	Version: 6.110919b		

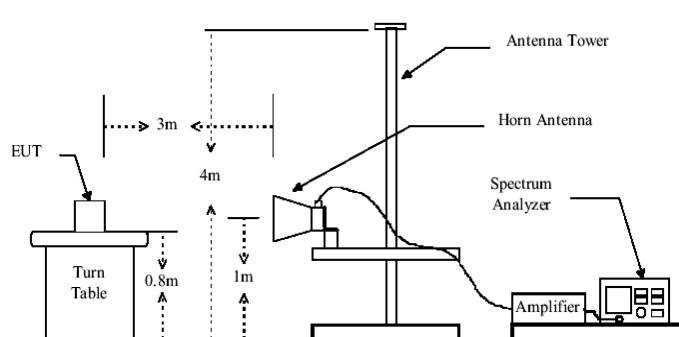
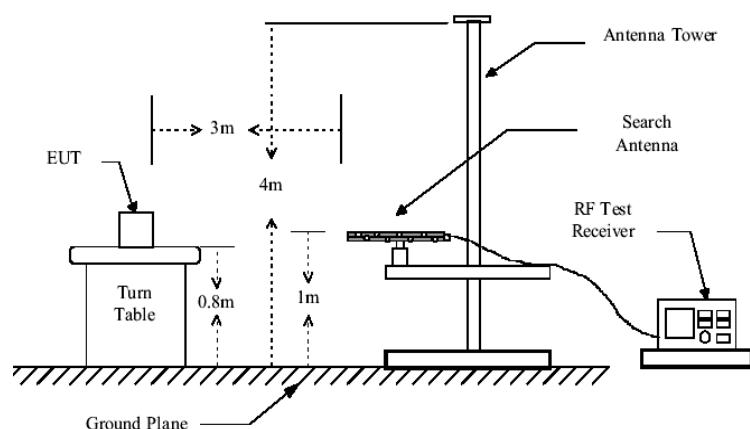
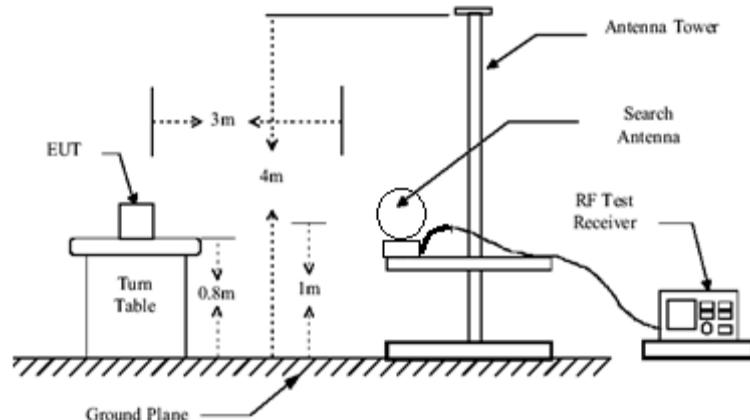
## 6 Test results and Measurement Data

### 6.1 Antenna requirement

<b>Standard requirement:</b>	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
<b>E.U.T Antenna:</b>	The EUT make use of an integrated antenna, The typical gain of the antenna is 0dBi.

## 6.2 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.225(a) and 15.209								
Test Method:	ANSI C63.10: 2013								
Test Frequency Range:	9 kHz to 1000MHz								
Test site:	Measurement Distance: 3m(Semi-Anechoic Chamber)								
Receiver setup:	Frequency	Detector	RBW	VBW	Remark				
	9kHz-150kHz	Quasi-peak	200Hz	600Hz	Quasi-peak Value				
	150kHz-30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value				
	30MHz-1GHz	Quasi-peak	120kHz	300KHz	Quasi-peak Value				
	Above 1GHz	Peak	1MHz	3MHz	Peak Value				
Limit: (Field strength of the fundamental signal)	Frequency	Limit (uV/m @30m)		Limit (dBuV/m @3m)					
	13.553MHz-13.567MHz	15848		124.0					
	13.410MHz-13.553MHz & 13.567MHz-13.710MHz	334		90.5					
	13.110MHz-13.410MHz & 13.710MHz-14.010MHz	106		80.5					
	Remark: Per FCC part 15.31, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances or at least one radial to determine the proper extrapolation factor or by using the square root of an inverse linear distance extrapolation factor (40 dB/decade).								
Limit: (Spurious Emissions)	Frequency (MHz)	Limit (uV/m @3m)		Distance (m)					
	0.009-0.490	2400/F(kHz)		300					
	0.490-1.705	24000/F(kHz)		30					
	1.705-30	30		30					
	30-88	100		3					
	88-216	150		3					
	216-960	200		3					
	Above 1GHz	500		3					
Test Procedure:	<ol style="list-style-type: none"> <li>The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>The antenna 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.</li> <li>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.</li> <li>The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>If the emission level of the EUT in peak mode was 10dB lower than the limits specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</li> </ol>								
Test setup:	9kHz-30MHz								



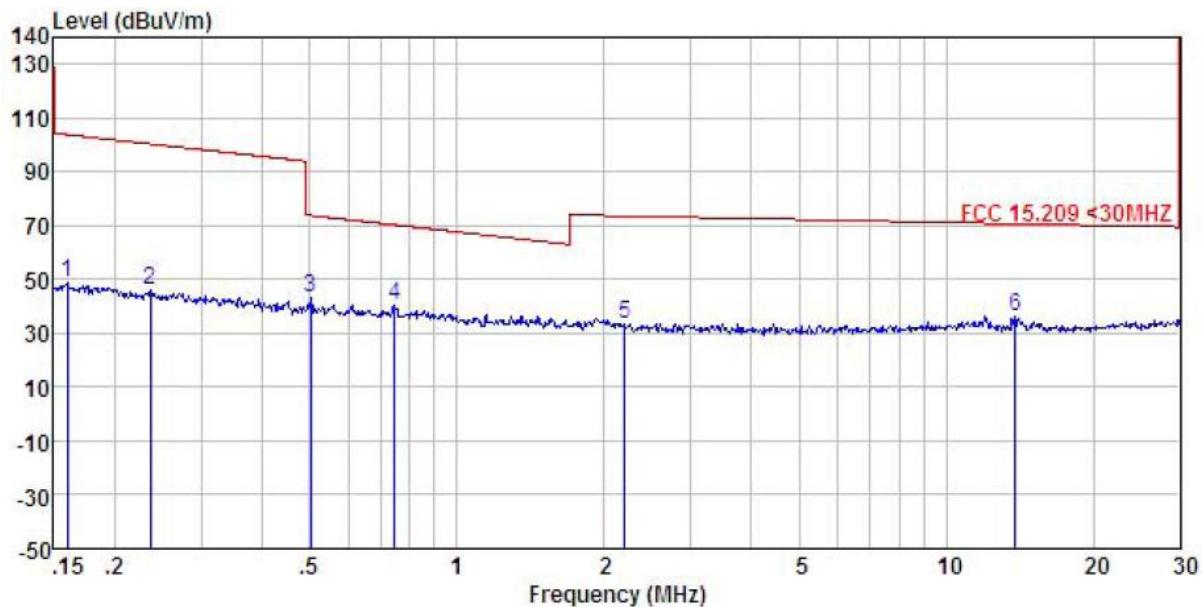
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Measurement Record:	Uncertainty: $\pm 4.88 \text{ dB}$
Test results:	Pass

**Measurement Data:****Field Strength of fundamental signal:**

<b>Product Name:</b>	Mobile Phone	<b>Product model:</b>	GQ3071																					
<b>Test By:</b>	Yaro	<b>Test mode:</b>	NFC Tx mode																					
<b>Test Voltage:</b>	AC 120/60Hz	<b>Environment:</b>	Temp: 24°C Huni: 57%																					
<hr/>																								
<table border="1"> <thead> <tr> <th>Freq</th> <th>ReadAntenna Level</th> <th>Cable Preamp Factor</th> <th>Limit Loss</th> <th>Line Level</th> <th>Over Limit</th> <th>Remark</th> </tr> <tr> <th>MHz</th> <th>dBuV</th> <th>dB/m</th> <th>dB</th> <th>dB</th> <th>dBuV/m</th> <th></th> </tr> </thead> <tbody> <tr> <td>13.560</td> <td>28.80</td> <td>-26.47</td> <td>0.64</td> <td>0.00</td> <td>54.47</td> <td>124.00 -69.53</td> </tr> </tbody> </table>				Freq	ReadAntenna Level	Cable Preamp Factor	Limit Loss	Line Level	Over Limit	Remark	MHz	dBuV	dB/m	dB	dB	dBuV/m		13.560	28.80	-26.47	0.64	0.00	54.47	124.00 -69.53
Freq	ReadAntenna Level	Cable Preamp Factor	Limit Loss	Line Level	Over Limit	Remark																		
MHz	dBuV	dB/m	dB	dB	dBuV/m																			
13.560	28.80	-26.47	0.64	0.00	54.47	124.00 -69.53																		
<b>Remark:</b> 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.																								

**Spurious Emissions:****Test frequency range: 150 kHz- 30 MHz**

<b>Product Name:</b>	Mobile Phone	<b>Product model:</b>	GQ3071
<b>Test By:</b>	Yaro	<b>Test mode:</b>	NFC Tx mode
<b>Test Frequency:</b>	150 kHz ~ 30 MHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	AC 120/60Hz	<b>Environment:</b>	Temp: 24°C Huni: 57%

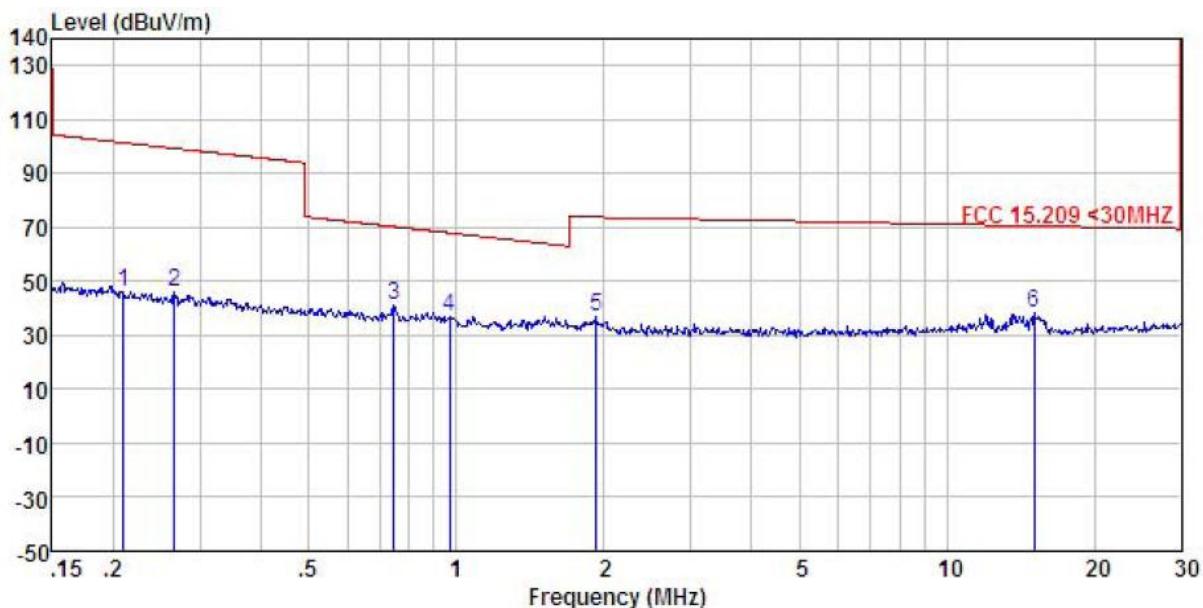


Freq	ReadAntenna	Cable	Preamp	Limit	Over	Remark	
	Freq	Level	Antenna Factor	Loss Factor	Level	Line	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	0.160	22.93	-26.17	0.28	0.00	48.54	103.81 -55.27
2	0.237	20.59	-26.22	0.34	0.00	46.21	100.38 -54.17
3	0.502	17.33	-26.30	0.45	0.00	42.98	73.79 -30.81
4	0.747	14.87	-26.30	0.57	0.00	40.64	70.28 -29.64
5	2.201	8.00	-26.51	0.65	0.00	33.64	73.60 -39.96
6	13.841	10.70	-26.48	0.65	0.00	36.37	70.71 -34.34

**Remark:**

- Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
- The emission levels of 9 kHz~150 kHz are background noise and very lower than the limit, not show in test report.

<b>Product Name:</b>	Mobile Phone	<b>Product model:</b>	GQ3071
<b>Test By:</b>	Yaro	<b>Test mode:</b>	NFC Tx mode
<b>Test Frequency:</b>	150 kHz ~ 30 MHz	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	AC 120/60Hz	<b>Environment:</b>	Temp: 24°C Huni: 57%



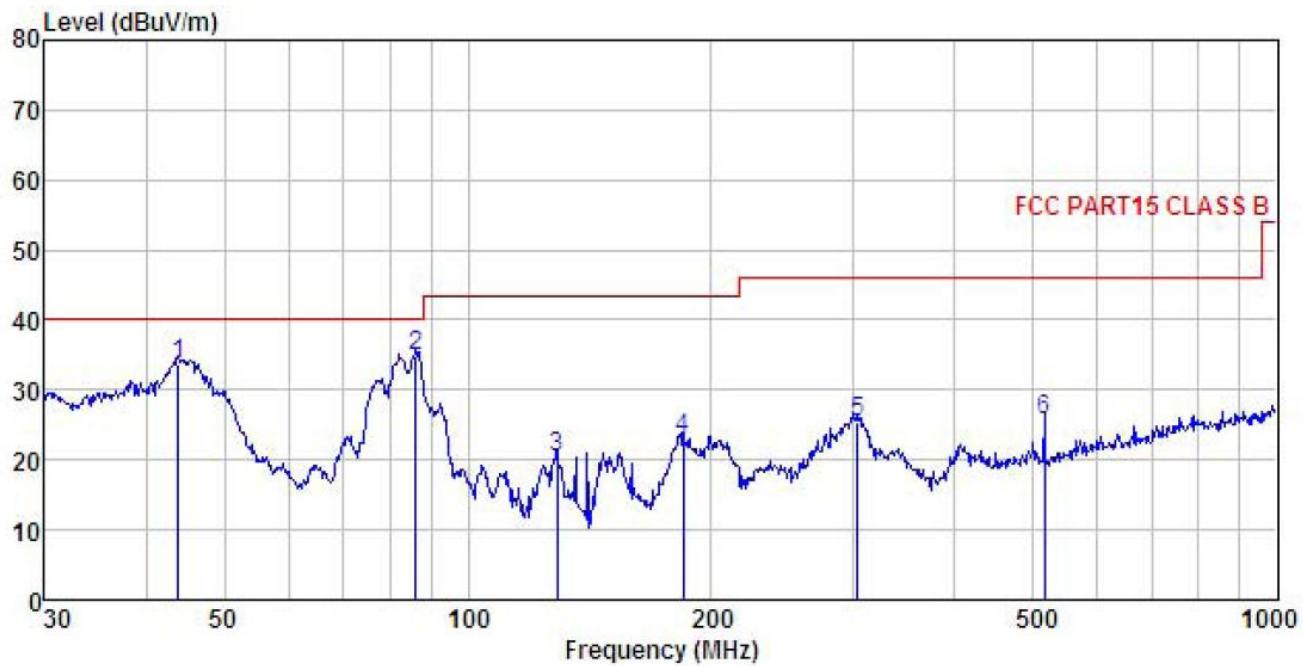
Freq MHz	Read Level MHz	Antenna Factor	Cable Loss dB	Preamplifier Factor	Limit Line dBuV/m	Over Line dBuV/m	Over Limit dB	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	
1	0.209	20.77	-26.21	0.33	0.00	46.39	101.44	-55.05
2	0.266	20.48	-26.23	0.35	0.00	46.10	99.35	-53.25
3	0.747	15.68	-26.30	0.57	0.00	41.45	70.28	-28.83
4	0.968	11.44	-26.30	0.61	0.00	37.25	67.99	-30.74
5	1.928	11.31	-26.49	0.65	0.00	36.97	73.81	-36.84
6	15.066	12.82	-26.50	0.67	0.00	38.49	70.58	-32.09

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
2. The emission levels of 9 kHz~150 kHz are background noise and very lower than the limit, not show in test report.

Test frequency range: 30MHz-1000MHz

<b>Product Name:</b>	Mobile Phone	<b>Product model:</b>	GQ3071
<b>Test By:</b>	Yaro	<b>Test mode:</b>	NFC Tx mode
<b>Test Frequency:</b>	30 MHz -1G	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	AC 120/60Hz	<b>Environment:</b>	Temp: 24°C Huni: 57%

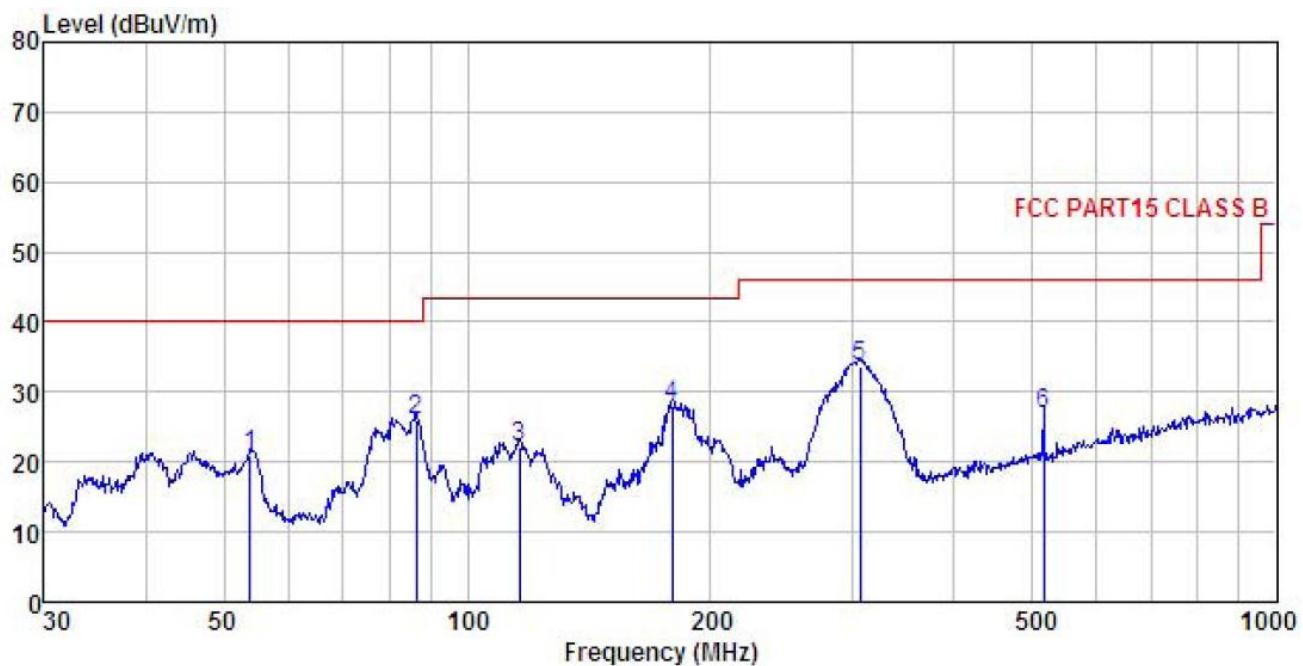


Freq MHz	Read		Antenna		Cable		Preamp		Limit Line dBuV/m	Over Line dB	Remark
	Freq MHz	Level dBuV	Antenna Factor	Loss dB	Cable Loss Factor	Preamp dB	Level dBuV/m	Level dB			
1 43.812	43.812	48.86	13.50	1.26	29.87	33.75	40.00	-6.25	QP		
2 86.200	86.200	53.33	9.30	1.91	29.59	34.95	40.00	-5.05	QP		
3 129.015	129.015	38.71	8.84	2.27	29.33	20.49	43.50	-23.01	QP		
4 184.490	184.490	38.64	10.44	2.76	28.94	22.90	43.50	-20.60	QP		
5 303.544	303.544	37.30	13.68	2.95	28.46	25.47	46.00	-20.53	QP		
6 515.437	515.437	33.30	17.66	3.70	29.00	25.66	46.00	-20.34	QP		

**Remark:**

- Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
- The emission levels of other frequencies are very lower than the limit and not show in test report.

<b>Product Name:</b>	Mobile Phone	<b>Product model:</b>	GQ3071
<b>Test By:</b>	Yaro	<b>Test mode:</b>	NFC Tx mode
<b>Test Frequency:</b>	30 MHz -1G	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	AC 120/60Hz	<b>Environment:</b>	Temp: 24°C Huni: 57%



Freq MHz	ReadAntenna Level Factor		Cable Preamp Loss Factor		Limit Level	Over Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB				
1 53.882	35.89	13.40	1.34	29.80	20.83	40.00	-19.17	QP
2 86.503	44.30	9.36	1.91	29.59	25.98	40.00	-14.02	QP
3 116.132	38.52	10.99	2.12	29.42	22.21	43.50	-21.29	QP
4 179.386	44.53	9.78	2.73	28.98	28.06	43.50	-15.44	QP
5 305.680	45.36	13.72	2.96	28.46	33.58	46.00	-12.42	QP
6 515.437	34.61	17.66	3.70	29.00	26.97	46.00	-19.03	QP

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

### 6.3 20dB Bandwidth

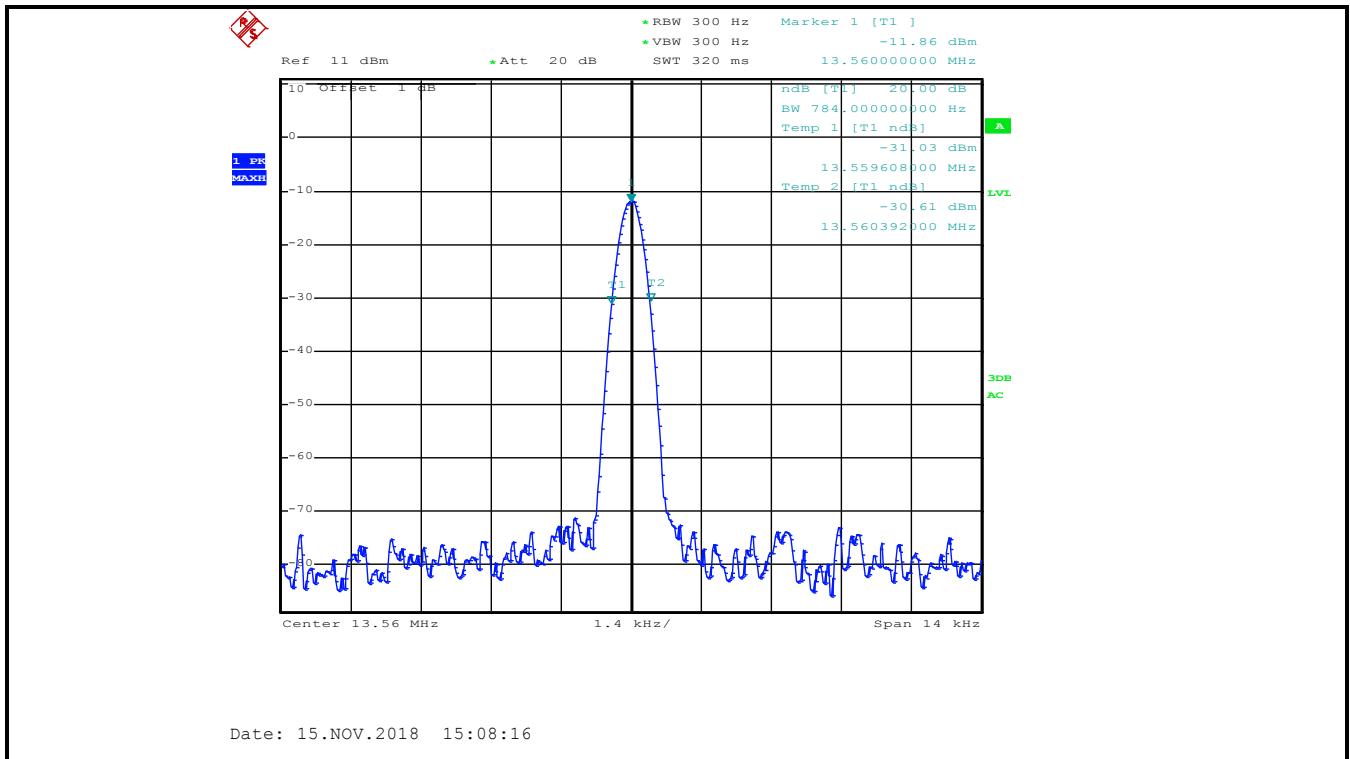
Test Requirement:	FCC Part15 C Section 15.215 (c)
Test Method:	ANSI C63.4:2014
Receiver setup:	RBW=200Hz, VBW=300Hz, detector: Peak
Limit:	The fundamental emission be kept within atleast the central 80% of the permitted band
Test Procedure:	<ol style="list-style-type: none"> <li>According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT.</li> <li>Set the EUT to proper test channel.</li> <li>Max hold the radiated emissions, mark the peak power frequency point and the -20dB upper and lower frequency points.</li> <li>Read 20dB bandwidth.</li> </ol>
Test setup:	<p style="text-align: center;"><b>Spectrum Analyzer</b></p> <p style="text-align: center;">Non-Conducted Test Adapter</p> <p style="text-align: center;">Ground Reference Plane</p>
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

#### Measurement Data

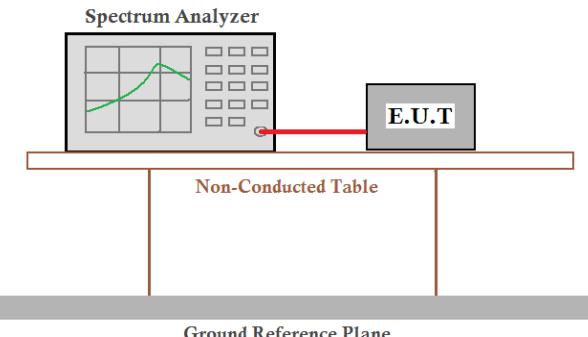
20dB bandwidth (kHz)	Limit (kHz)	Results
0.784	11.2	Passed

Note: For 13.56MHz, permitted Band is 14 kHz, so the Limit is 11.2 kHz.

Test plot as follows:



## 6.4 Frequency Tolerance

Test Requirement:	FCC Part15 C Section 15.225 (e)
Test Method:	ANSI C63.10: 2013
Receiver setup:	RBW=200Hz, VBW=300Hz, span=14kHz, detector: Peak
Limit:	$\pm 0.01\%$ of the operating frequency
Test mode:	Transmitting mode
Test Procedure:	<p><b>Frequency stability V.S. Temperature measurement</b></p> <ol style="list-style-type: none"> <li>The equipment under test was powered by a fresh battery.</li> <li>RF output was connected to spectrum analyzer via feed through attenuators.</li> <li>The EUT was placed inside the temperature chamber.</li> <li>Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency.</li> <li>Turn EUT off and set the chamber temperature to -20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.</li> <li>Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached</li> </ol> <p><b>Frequency stability V.S. Voltage measurement</b></p> <ol style="list-style-type: none"> <li>Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage.</li> <li>Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.</li> </ol> <p>Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.</p>
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

**Measurement Data:****a) Frequency stability V.S. Temperature measurement**

Voltage (Vdc)	Temperature (°C)	Frequency Tolerance (MHz)	Frequency Error (%)	Limit (%)	Results
3.85	-20	13.561068	0.008	0.01	Pass
	-10	13.561067	0.008	0.01	Pass
	0	13.561067	0.008	0.01	Pass
	+10	13.561065	0.008	0.01	Pass
	+20	13.561066	0.008	0.01	Pass
	+30	13.561067	0.008	0.01	Pass
	+40	13.561065	0.008	0.01	Pass
	+50	13.561064	0.008	0.01	Pass

**b) Frequency stability V.S. Voltage measurement**

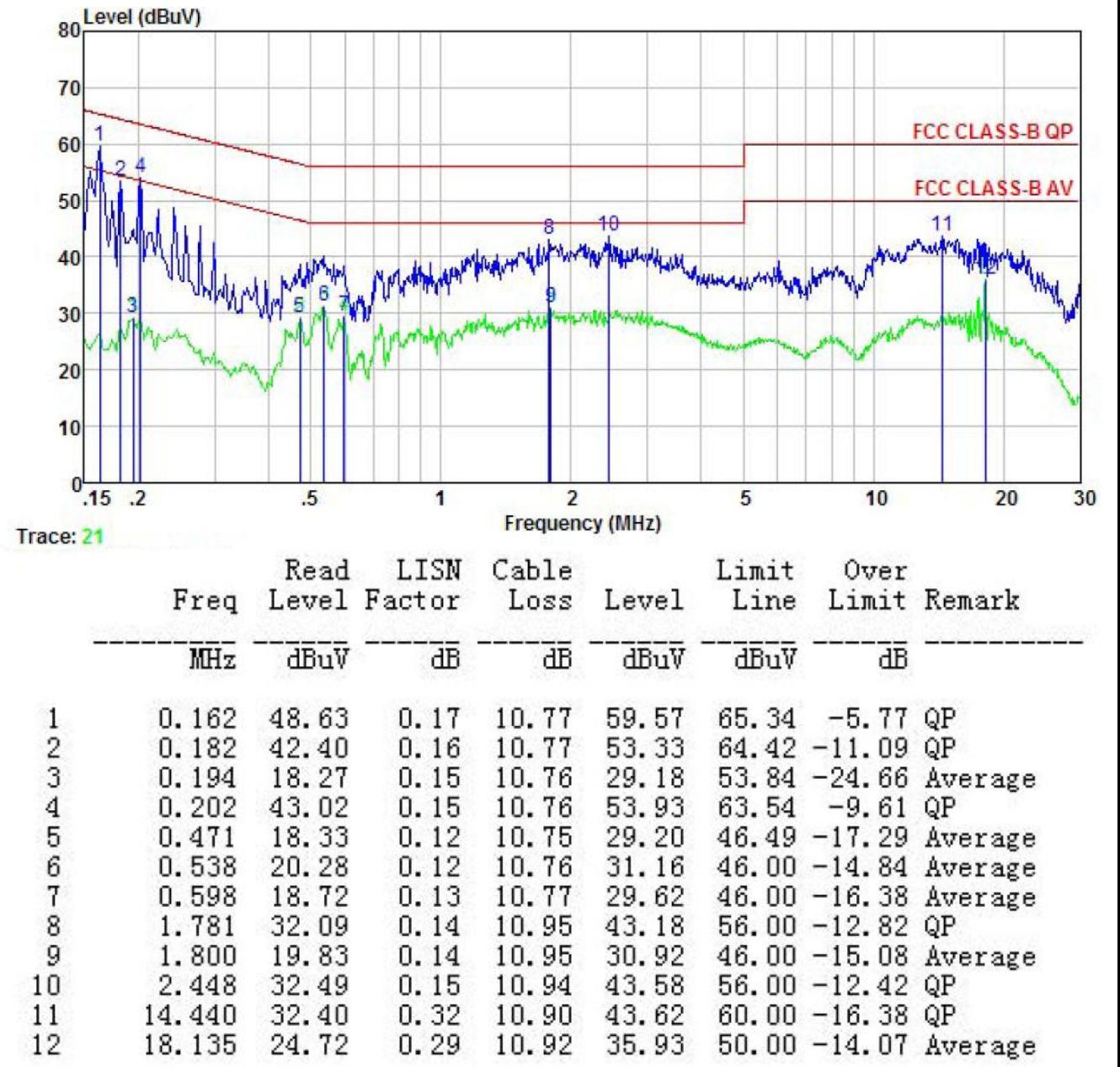
Temperature (°C)	Voltage (Vdc)	Frequency Tolerance (MHz)	Frequency Error (%)	Limit (%)	Results
25	3.50	13.561065	0.008	0.01	Pass
	3.85	13.561067	0.008	0.01	Pass
	4.40	13.561068	0.008	0.01	Pass

## 6.5 Conducted Emission

Test Requirement:	FCC Part15 B Section 15.207					
Test Method:	ANSI C63.4:2014					
Test Frequency Range:	150kHz to 30MHz					
Class / Severity:	Class B					
Receiver setup:	RBW=9kHz, VBW=30kHz					
Limit:	Frequency range (MHz)	Limit (dB <sub>u</sub> V)				
		Quasi-peak	Average			
	0.15-0.5	66 to 56*	56 to 46*			
	0.5-5	56	46			
	0.5-30	60	50			
* Decreases with the logarithm of the frequency.						
Test setup:	<p>Reference Plane</p> <p>LISN</p> <p>40cm</p> <p>80cm</p> <p>AUX Equipment</p> <p>E.U.T</p> <p>EMI Receiver</p> <p>Filter</p> <p>AC power</p> <p>Test table/Insulation plane</p> <p>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p>					
Test procedure	<ol style="list-style-type: none"> <li>The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). It provides a 50ohm/50uH coupling impedance for the measuring equipment.</li> <li>The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</li> <li>Both sides of the A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.</li> </ol>					
Test environment:	Temp.:	22.5°C	Humid.:	55%	Press.:	101kPa
Measurement Record:	Uncertainty: 3.28dB					
Test Instruments:	Refer to section 5.7 for details					
Test mode:	Refer to section 5.3 for details					
Test results:	Pass					

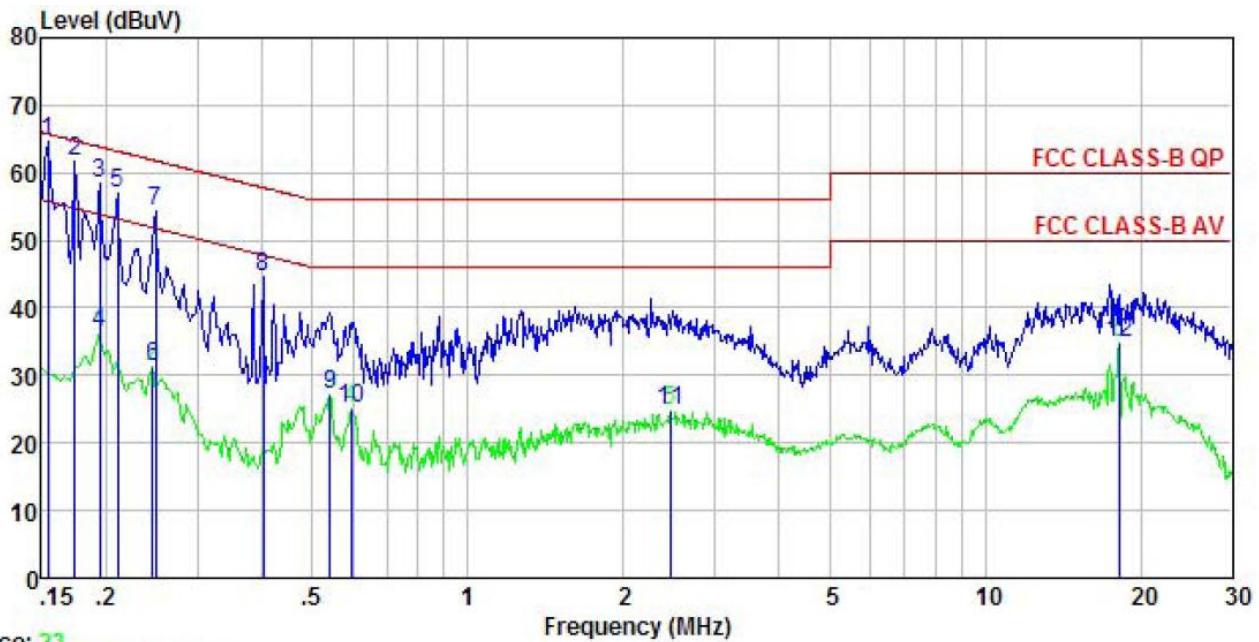
**Measurement Data:**

<b>Product name:</b>	Mobile Phone	<b>Product model:</b>	GQ3071
<b>Test by:</b>	Yaro	<b>Test mode:</b>	NFC Tx mode
<b>Test frequency:</b>	150 kHz ~ 30 MHz	<b>Phase:</b>	Line
<b>Test voltage:</b>	AC 120 V/60 Hz	<b>Environment:</b>	Temp: 22.5°C Huni: 55%

**Notes:**

- An initial pre-scan was performed on the line and neutral lines with peak detector.
- Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- Final Level = Receiver Read level + LISN Factor + Cable Loss.

<b>Product name:</b>	Mobile Phone	<b>Product model:</b>	GQ3071
<b>Test by:</b>	Yaro	<b>Test mode:</b>	NFC Tx mode
<b>Test frequency:</b>	150 kHz ~ 30 MHz	<b>Phase:</b>	Neutral
<b>Test voltage:</b>	AC 120 V/60 Hz	<b>Environment:</b>	Temp: 22.5°C Huni: 55%



Freq	Read Level	LISN Factor	Cable Loss	Limit		Over Line Limit	Remark
				MHz	dBuV	dB	
1	0.154	53.02	0.98	10.78	64.78	65.78	-1.00 QP
2	0.174	49.83	0.95	10.77	61.55	64.77	-3.22 QP
3	0.194	46.75	0.93	10.76	58.44	63.84	-5.40 QP
4	0.194	24.61	0.93	10.76	36.30	53.84	-17.54 Average
5	0.211	45.29	0.93	10.76	56.98	63.18	-6.20 QP
6	0.246	19.61	0.95	10.75	31.31	51.91	-20.60 Average
7	0.249	42.48	0.95	10.75	54.18	61.78	-7.60 QP
8	0.402	33.01	0.97	10.72	44.70	57.81	-13.11 QP
9	0.541	15.56	0.97	10.76	27.29	46.00	-18.71 Average
10	0.595	13.38	0.97	10.77	25.12	46.00	-20.88 Average
11	2.461	12.83	0.99	10.94	24.76	46.00	-21.24 Average
12	18.135	23.01	0.76	10.92	34.69	50.00	-15.31 Average

## Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss.