

# FCC REPORT (GSM)

**Applicant:** GSM GLOBE.COM INC

**Address of Applicant:** 8212 NW 30th Terrace, Doral, FL 33122

**Equipment Under Test (EUT)**

**Product Name:** MOBILE PHONE

**Model No.:** S1 Madrid

**Trade mark:** GOL

**FCC ID:** 2AEJAS1MADRID

FCC CFR Title 47 Part 2

**Applicable standards:** FCC CFR Title 47 Part 22 Subpart H  
FCC CFR Title 47 Part 24 Subpart E

**Date of sample receipt:** 26 Nov., 2019

**Date of Test:** 27 Nov., to 24 Dec., 2019

**Date of report issued:** 26 Dec., 2019

**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.

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## 2. Version

Version No.	Date	Description
00	05 Dec., 2019	Original
01	24 Dec., 2019	Update page 5, 7, 12, 25, 27
02	26 Dec., 2019	Update page 7

Tested by:

Date:

26 Dec., 2019

Test Engineer

Reviewed by:

Date:

26 Dec., 2019

Project Engineer

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## 4. Test Summary

Test Item	Section in CFR 47	Result
RF Exposure (SAR)	Part 1.1307 Part 2.1093	Pass (Please refer to SAR Report)
RF Output Power	Part 2.1046 Part 22.913 (a)(5) Part 24.232 (c)	Pass
Peak-to-Average Power Ratio	Part 24.232 (d)	Pass
Modulation Characteristics	Part 2.1047	Pass
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917(b) Part 24.238(b)	Pass
Out of band emission at antenna terminals	Part 2.1053 Part 22.917 (a) Part 24.238 (a)	Pass
Field strength of spurious radiation	Part 22.917 (a) Part 24.238 (a)	Pass
Frequency stability vs. temperature	Part 22.355 Part 24.235 Part 2.1055(a)(1)(b)	Pass
Frequency stability vs. voltage	Part 22.355 Part 24.235 Part 2.1055(d)(2)	Pass
<b>Remark:</b>		
1. Pass: The EUT complies with the essential requirements in the standard.		
2. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (provided by the customer).		
<b>Test Method:</b>	ANSI/TIA-603-E-2016 ANSI C63.26-2015	

## 5. General Information

### 5.1 Client Information

Applicant:	GSM GLOBE.COM INC
Address:	134 N.E 1 Street,Miami,FL 33132
Manufacturer:	GSM GLOBE.COM INC
Address:	134 N.E 1 Street,Miami,FL 33132

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

Product Name:	MOBILE PHONE
Model No.:	S1 Madrid
Operation Frequency range:	GSM 850: 824.20MHz-848.80MHz PCS1900: 1850.20MHz-1909.80MHz
Modulation type:	GSM/GPRS: GMSK
Antenna type:	Internal Antenna
Antenna gain:	GSM 850: 0.5 dBi PCS 1900: 1.0 dBi
Power supply:	Rechargeable Li-ion Battery DC3.7V, 600mAh
AC adapter:	Input: AC100-240V, 50/60Hz, 0.15A Output: DC 5.2V, 0.5A
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 modes

<b>Operating Environment:</b>	
Temperature:	Normal: 15°C ~ 35°C, Extreme: -30°C ~ +50°C
Humidity:	20 % ~ 75 % RH
Atmospheric Pressure:	1008 mbar
Voltage:	Nominal: 3.7Vdc, Extreme: Low 3.5 Vdc, High 4.20 Vdc
<b>Test mode:</b>	
GSM mode	Keep the EUT communication with simulated station in GSM mode (Worst mode)
GPRS mode	Keep the EUT communication with simulated station in GPRS mode
Remark:	
<ol style="list-style-type: none"> <li>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 with power adaptor, earphone and Data cable. Just the worst case position (H mode) shown in report.</li> <li>During the test, pre-scan SIM 1 and SIM 2, found SIM 1 was worse case. The report only reflects the worst case.</li> <li>During the test, pre-scan GSM and GPRS, found GSM was worse case. The report only reflects the worst case</li> </ol>	

### 5.4 Description of Test Auxiliary Equipment

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

### 5.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Radiated Emission (9kHz ~ 30MHz)	±3.12 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.32 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	±5.38 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±3.36 dB (k=2)

### 5.6 Additions to, deviations from or exclusions from the method

No
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## 5.7 Laboratory Facility

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

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

Shenzhen Zhongjian Nanfang Testing 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 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>

## 5.8 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

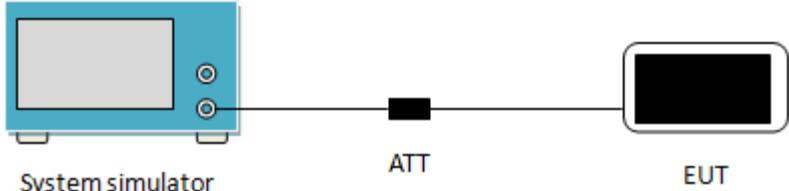
## 5.9 Test Instruments list

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	03-18-2019	03-17-2020	
Biconical Antenna	SCHWARZBECK	VUBA9117	359	06-22-2017	06-21-2020	
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-18-2019	03-17-2020	
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020	
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2018	11-20-2019	
				11-21-2019	11-20-2020	
EMI Test Software	AUDIX	E3	Version: 6.110919b			
Pre-amplifier	HP	8447D	2944A09358	03-18-2019	03-17-2020	
Pre-amplifier	CD	PAP-1G18	11804	03-18-2019	03-17-2020	
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-18-2019	03-17-2020	
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-21-2018	11-20-2019	
				11-21-2019	11-20-2020	
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-18-2019	03-17-2020	
Spectrum Analyzer	Agilent	N9020A	MY50510123	11-10-2018	11-09-2019	
				11-10-2019	11-09-2020	
Signal Generator	Rohde & Schwarz	SMX	835454/016	03-18-2019	03-17-2020	
Signal Generator	R&S	SMR20	1008100050	03-18-2019	03-17-2020	
RF Switch Unit	MWRFTEST	MW200	N/A	N/A	N/A	
Test Software	MWRFTEST	MTS8200	Version: 2.0.0.0			
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-18-2019	03-17-2020	
Cable	MICRO-COAX	MFR64639	K10742-5	03-18-2019	03-17-2020	
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-18-2019	03-17-2020	
DC Power Supply	XinNuoEr	WYK-10020K	1409050110020	10-31-2018	10-30-2019	
				10-31-2019	10-30-2020	

Temperature Humidity Chamber	HengPu	HPGDS-500	20140828008	09-24-2018	09-23-2019
				09-24-2019	09-23-2020
Simulated Station	Rohde & Schwarz	CMW500	140493	07-16-2018	07-15-2019
				07-16-2019	07-15-2020

## 6. Test results

### 6.1 Conducted Output Power, ERP and EIRP

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:**

EUT Mode	Burst Average power (dBm)		
	128	190	251
	824.20 (MHz)	836.60 (MHz)	848.80 (MHz)
GSM 850	34.57	35.54	34.45
GPRS 850 (1 Uplink slot)	31.08	31.12	31.06
GPRS 850 (2 Uplink slot)	31.22	31.25	31.21
GPRS 850 (3 Uplink slot)	31.30	31.38	31.33
GPRS 850 (4 Uplink slot)	29.78	29.77	29.66
Antenna Gain (dBi)	0.5		
Max. ERP (dBm)	32.92		
ERP Limit (dBm)	38.45		
EUT Mode	Burst Average power (dBm)		
	512	661	810
	1850.20 (MHz)	1880.00 (MHz)	1909.80 (MHz)
PCS 1900	30.25	30.98	30.04
GPRS 1900 (1 Uplink slot)	30.32	30.17	30.11
GPRS 1900 (2 Uplink slot)	28.99	28.63	28.35
GPRS 1900 (3 Uplink slot)	27.88	27.44	27.04
GPRS 1900 (4 Uplink slot)	26.19	25.74	25.32
Antenna Gain (dBi)	1.0		
Max. EIRP (dBm)	31.98		
EIRP Limit (dBm)	33.00		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).  
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

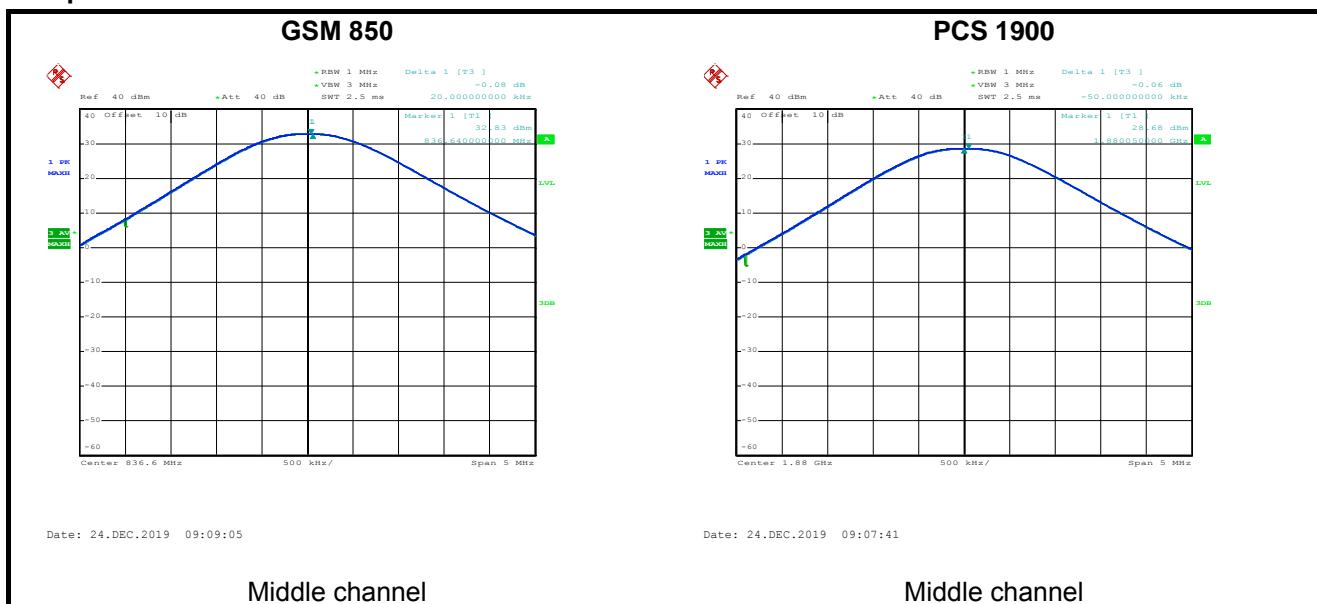
## 6.2 Peak-to-Average Power Ratio

Test Requirement:	FCC part 24.232(d)
Limit:	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.
Test setup:	<p>System simulator</p> <p>Spectrum Analyzer</p> <p>EUT</p> <p>Splitter ATT</p>
Test Procedure:	<ol style="list-style-type: none"> <li>1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.</li> <li>2 Set the CCDF option in spectrum analyzer, RBW <math>\geq</math> OBW,</li> <li>3 Set the EUT working in highest power level, measured and recorded the 0.1% as PAPR level.</li> <li>4 Repeat step 1~3 at other frequency and modulations.</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

### Measurement Data:

Modulation	Test channel	PAPR
GSM 850	190	0.08
PCS 1900	661	0.06

Test plots as below:



### 6.3 Occupy Bandwidth

Test Requirement:	FCC part 22.917(b), FCC part 24.238(b)
Test setup:	<p>The diagram illustrates the test setup. At the top is a blue rectangular box labeled "System simulator". Below it is another blue rectangular box labeled "Spectrum Analyzer". Two lines connect the bottom of the System simulator to the top of the Spectrum Analyzer. From the bottom of the Spectrum Analyzer, two lines emerge: one goes directly to a "Splitter" (represented by a small rectangle with two outputs), and the other goes through a black rectangular component labeled "ATT" (Attenuator) before reaching the "Splitter". The Splitter has two outputs, both of which are connected to the "EUT" (Equipment Under Test), represented by a black rectangle at the bottom right.</p>
Test Procedure:	<ol style="list-style-type: none"> <li>1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer</li> <li>2. RBW was set to about 1% of emission BW, VBW= 3 times RBW.</li> <li>3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

**Measurement Data:**

EUT Mode	Channel	Frequency (MHz)	99% Occupy bandwidth (kHz)	-26dB bandwidth (kHz)
GSM 850	128	824.2	246	308
	190	836.6	248	322
	251	848.8	250	314
PCS 1900	512	1850.2	246	314
	661	1880.0	250	314
	810	1909.8	244	322

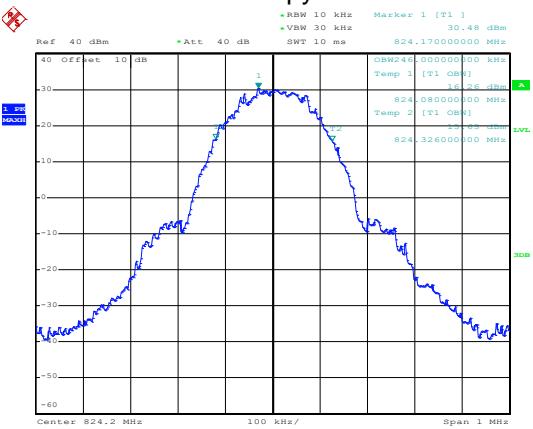
*Note:*

*GSM & GPRS use the same modulation technical (GMSK), and with the same channels, so the 99% OBW and the -26dB of GPRS not performed.*

Test plot as follows:

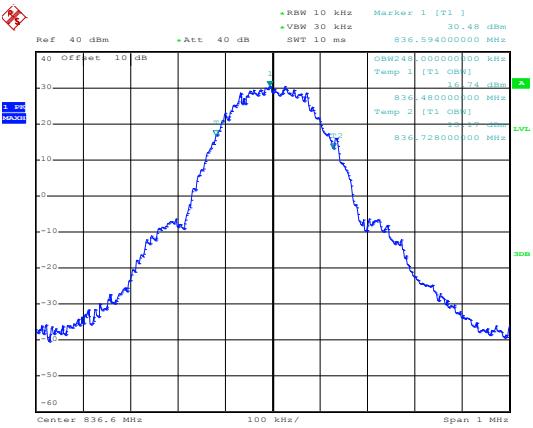
## GSM 850

### 99% Occupy bandwidth



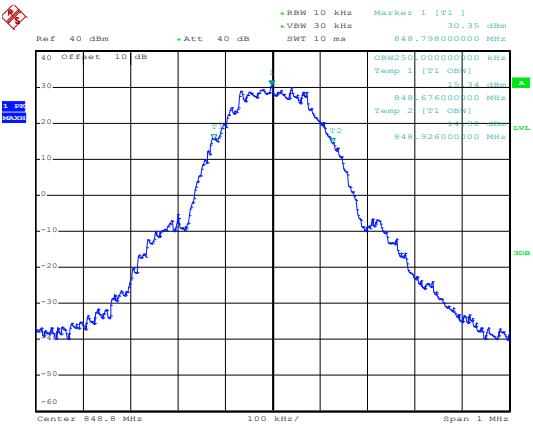
Date: 30.NOV.2019 13:18:54

### Lowest channel



Date: 30.NOV.2019 13:19:56

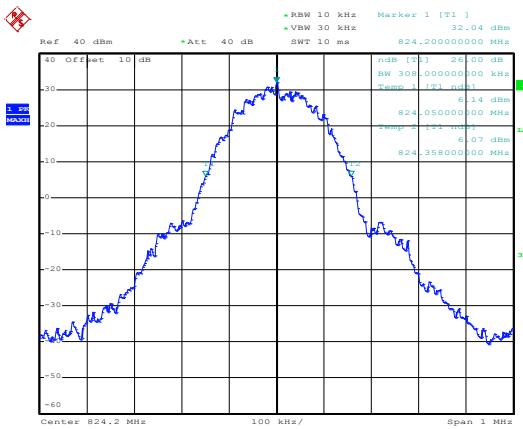
### Middle channel



Date: 30.NOV.2019 13:20:16

### Highest channel

### 26dB Emission Bandwidth



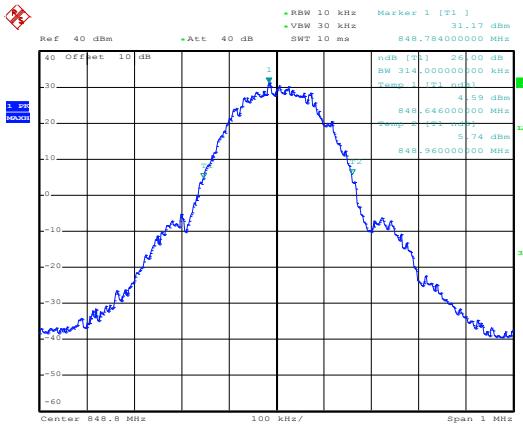
Date: 30.NOV.2019 13:19:09

### Lowest channel



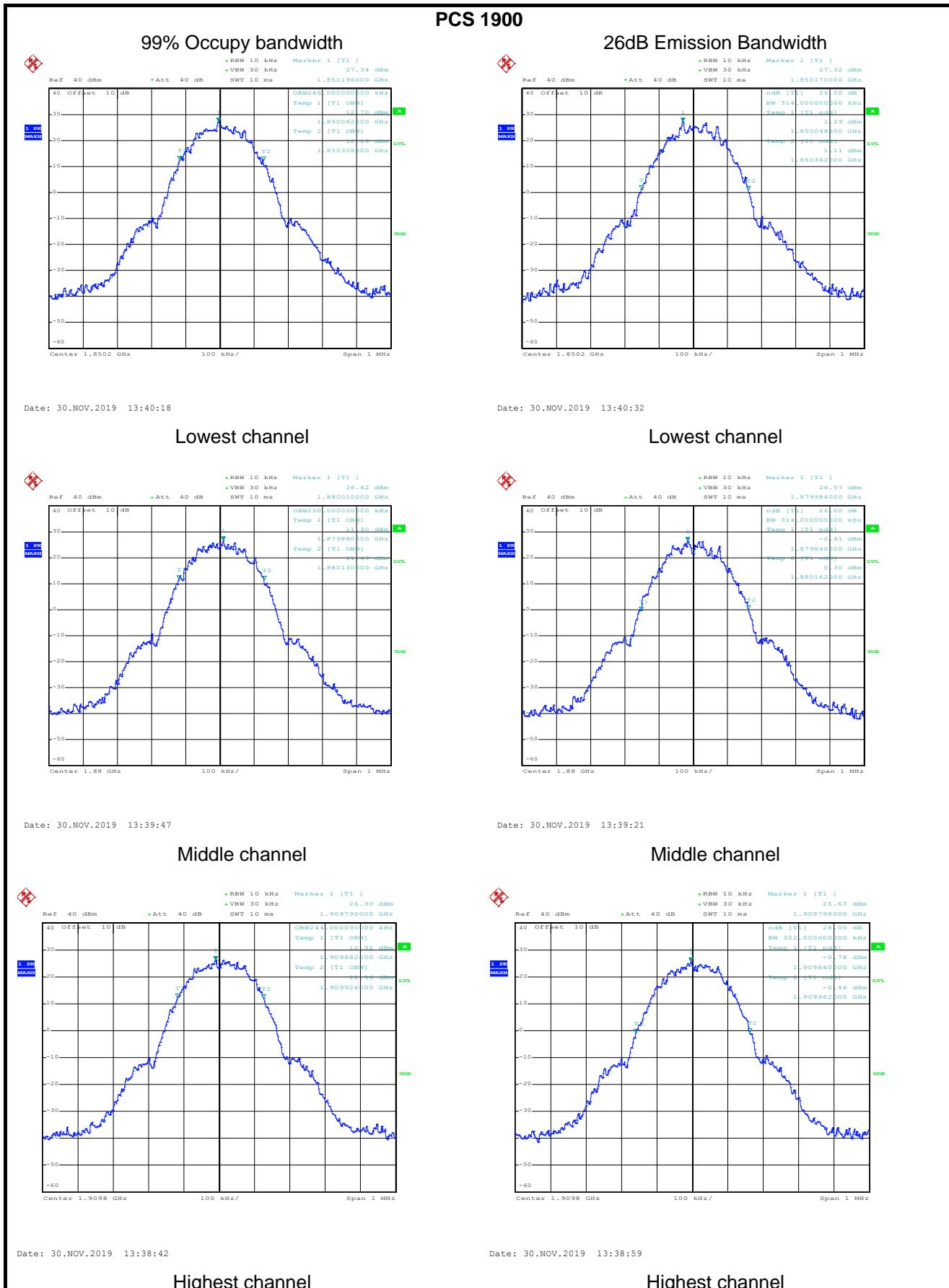
Date: 30.NOV.2019 13:19:37

### Middle channel



Date: 30.NOV.2019 13:20:35

### Highest channel



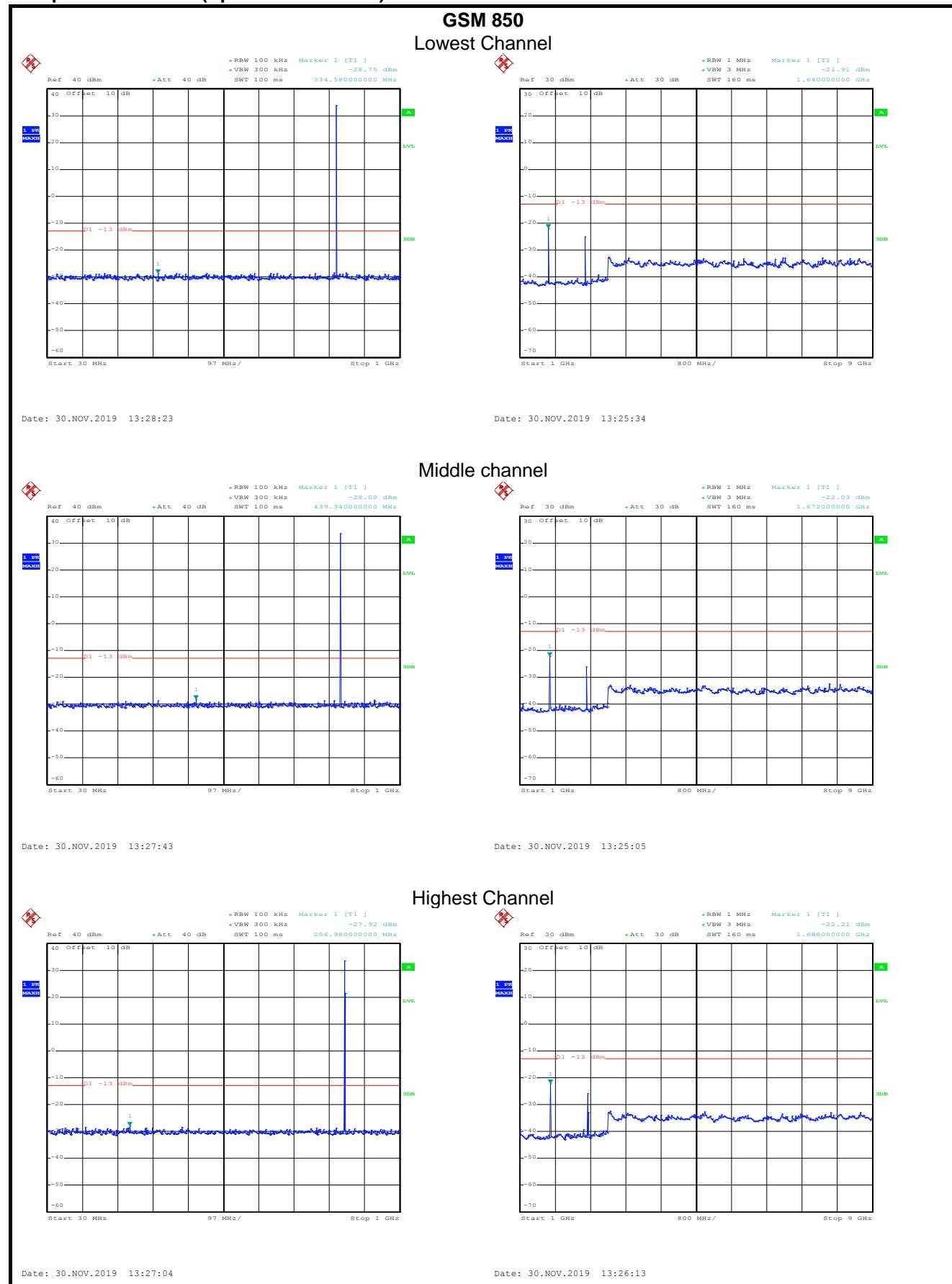
## 6.4 Modulation Characteristic

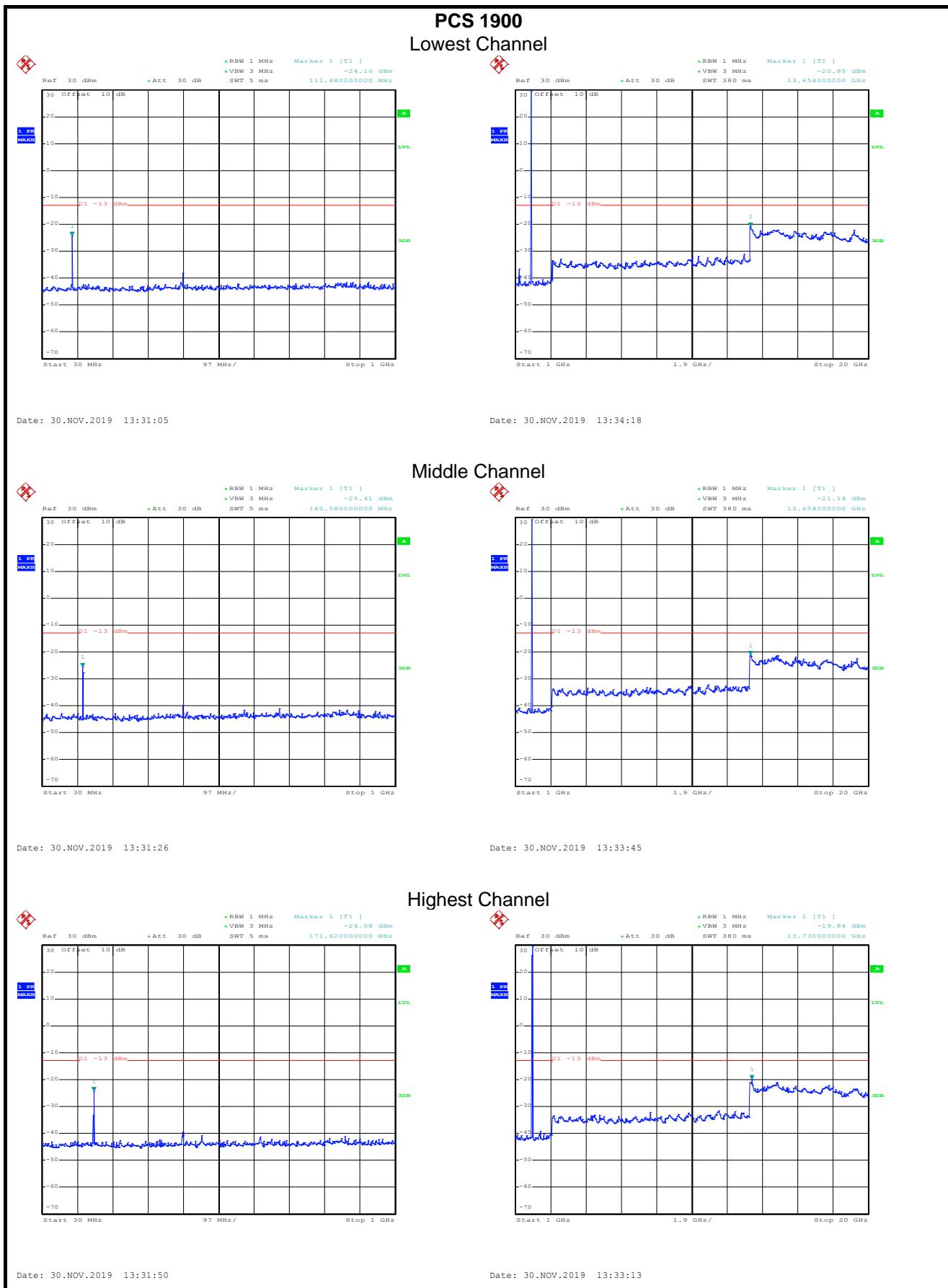
According to FCC § 2.1047(d), Part 22H & 24E there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

## 6.5 Out of band emission at antenna terminals

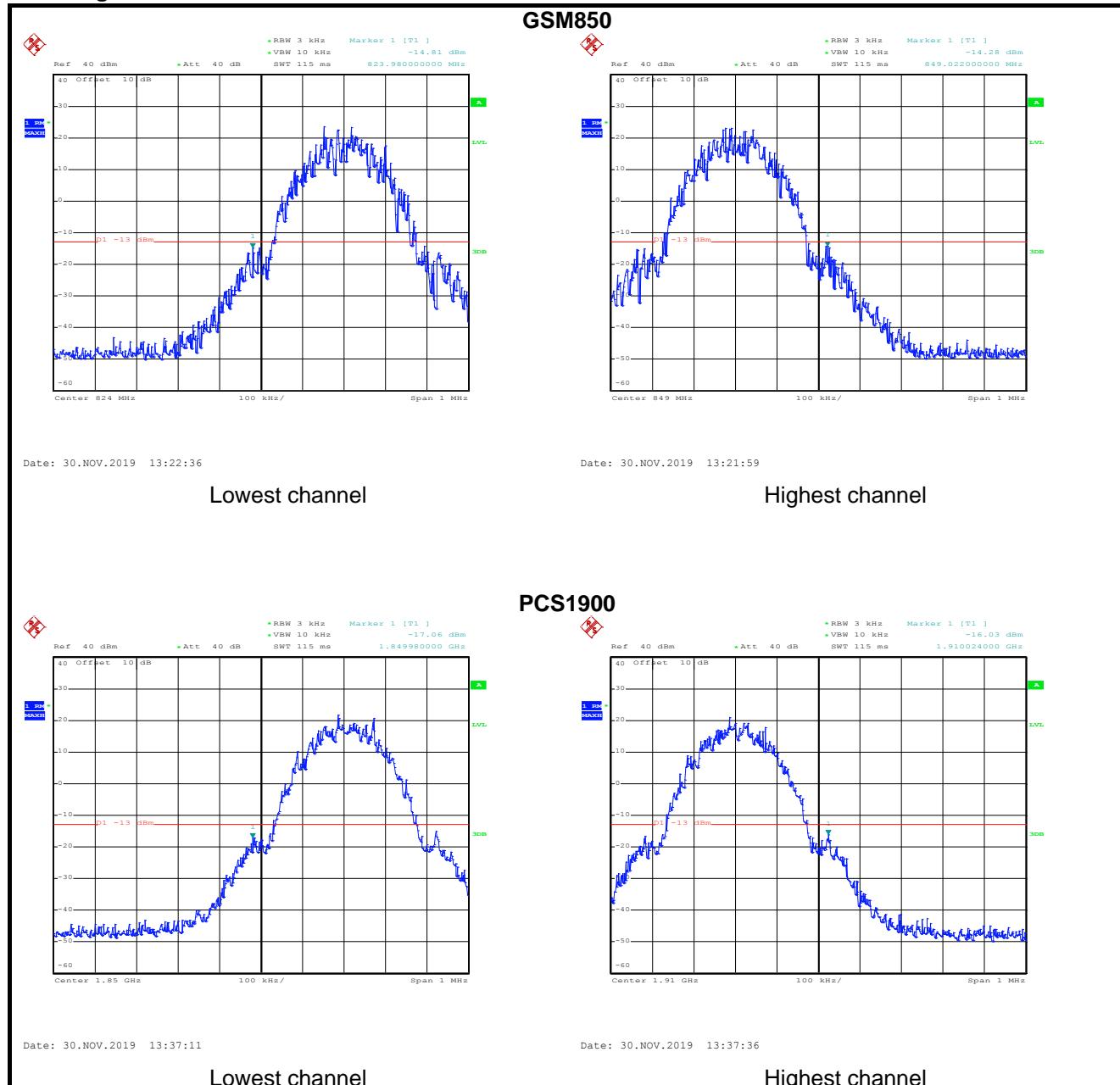
Test Requirement:	FCC part 22.917(a), FCC part 24.238(a)
Limit:	-13dBm
Test setup:	<p>The diagram shows a 'System simulator' and a 'Spectrum Analyzer' connected to an 'EUT'. A 'Splitter' and an 'ATT' are placed between the two instruments and the EUT.</p>
Test Procedure:	<ol style="list-style-type: none"> <li>1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.</li> <li>2 The resolution bandwidth of the spectrum analyzer was set at 100 kHz when below 1GHz, 1MHz when above 1 GHz; sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.</li> <li>3 For the out of band: Set the RBW=100 kHz, VBW=300 kHz when below 1 GHz, RBW =1 MHz, VBW=3 MHz when above 1 GHz, Start=30MHz, Stop= 10th harmonic.</li> <li>4 Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Test plots as follows (Spurious emission):





## Band edge emission:



## 6.6 Field strength of spurious radiation measurement

Test Requirement:	FCC part 22.917(a), FCC part 24.238(a)
Limit:	-13dBm
Test setup:	<p>Below 1GHz</p> <p>Above 1GHz</p>
Test Procedure:	<ol style="list-style-type: none"> <li>The EUT was placed on a non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.</li> <li>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.</li> <li>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.</li> <li>The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.  <math display="block">\text{ERP / EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}</math> </li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed

## Measurement Data (worst case):

GSM850						
Lowest channel						
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result		
	Polarization	Level (dBm)				
1648.40	Vertical	-32.19	-13.00	Pass		
2472.60	V	-34.13				
3296.80	V	-46.74				
1648.40	Horizontal	-31.69	-13.00	Pass		
2472.60	H	-39.82				
3296.80	H	-45.96				
Middle channel						
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result		
	Polarization	Level (dBm)				
1673.20	Vertical	-31.26	-13.00	Pass		
2509.80	V	-33.65				
3346.40	V	-47.18				
1673.20	Horizontal	-32.26	-13.00	Pass		
2509.80	H	-40.36				
3346.40	H	-44.12				
Highest channel						
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result		
	Polarization	Level (dBm)				
1697.60	Vertical	-32.47	-13.00	Pass		
2546.40	V	-34.19				
3395.20	V	-45.58				
1697.60	Horizontal	-31.63	-13.00	Pass		
2546.40	H	-39.64				
3395.20	H	-45.15				
<i>Remark:</i>						
1. The emission levels of below 1 GHz are at least 20 dB below the limit and not show in test report.						

PCS1900				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3700.40	Vertical	-23.50	-13.00	Pass
5550.60	V	-39.23		
3700.40	Horizontal	-25.69	-13.00	Pass
5550.60	H	-40.50		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-23.26	-13.00	Pass
5640.00	V	-40.76		
3760.00	Horizontal	-25.46	-13.00	Pass
5640.00	H	-39.74		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3819.60	Vertical	-23.16	-13.00	Pass
5729.40	V	-39.75		
3819.60	Horizontal	-24.12	-13.00	Pass
5729.40	H	-40.19		

*Remark:*

1. The emission levels of below 1 GHz are at least 20 dB below the limit and not show in test report.

## 6.7 Frequency stability V.S. Temperature measurement

Test Requirement:	FCC Part 22.355, FCC Part 24.235 FCC Part 2.1055(a)(1)(b)
Limit:	±2.5 ppm for GSM 850 Within authorized band for PCS 1900
Test setup:	<p>The diagram illustrates the test setup. A central gray box labeled 'Divider' has two output lines. One line goes to a blue box labeled 'SA' (Spectrum Analyzer), which also receives an input from a blue box labeled 'SS' (Secondary Standard). The other line from the Divider goes to a black box labeled 'EUT' (Equipment Under Test). Both the 'EUT' and the 'SS' are situated within a large gray rectangular area labeled 'Temperature &amp; Humidity Chamber'. A red line connects the 'Power Source' at the bottom to the 'Divider'.</p>
Test procedure:	<ol style="list-style-type: none"> <li>1. The equipment under test was connected to an external DC power supply and input rated voltage.</li> <li>2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.</li> <li>3. The EUT was placed inside the temperature chamber.</li> <li>4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency.</li> <li>5. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.</li> <li>6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

**Measurement Data (the worst channel):**

Reference Frequency: GSM850 Middle channel=190 channel=836.6MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	178	0.212766	±2.5	Pass
	-20	165	0.197227		
	-10	157	0.187664		
	0	150	0.179297		
	10	144	0.172125		
	20	136	0.162563		
	30	129	0.154196		
	40	120	0.143438		
	50	116	0.138656		
Reference Frequency: PCS1900 Middle channel=661 channel=1880MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	179	0.095213	Within authorized band for PCS 1900	Pass
	-20	168	0.089362		
	-10	160	0.085106		
	0	156	0.082979		
	10	149	0.079255		
	20	140	0.074468		
	30	136	0.072340		
	40	127	0.067553		
	50	119	0.063298		

*Note: Only the worst case shown in the report.*

## 6.8 Frequency stability V.S. Voltage measurement

Test Requirement:	FCC Part 22.355, FCC Part 24.235 FCC Part 2.1055(d)(2)
Limit:	$\pm 2.5$ ppm for GSM 850 Within authorized band for PCS 1900
Test setup:	<p>The diagram illustrates the test setup. It starts with a Source Selection (SS) unit and a Spectrum Analyzer (SA). Both are connected to a central Divider. The Divider has two outputs: one goes to the External Under Test (EUT), which is shown as a black smartphone icon, and the other output is connected to a Power Source. The Power Source is also connected to the EUT. The entire setup is housed within a Temperature &amp; Humidity Chamber.</p>
Test procedure:	<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> <li>Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

**Measurement Data (the worst channel):**

Reference Frequency: GSM850 Middle channel=190 channel=836.6MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.20	90	0.107578	±2.5	Pass
	3.70	86	0.102797		
	3.55	75	0.089649		
Reference Frequency: PCS1900 Middle channel=661 channel=1880MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.20	88	0.046809	Within authorized band for PCS 1900	Pass
	3.70	70	0.037234		
	3.55	66	0.035106		

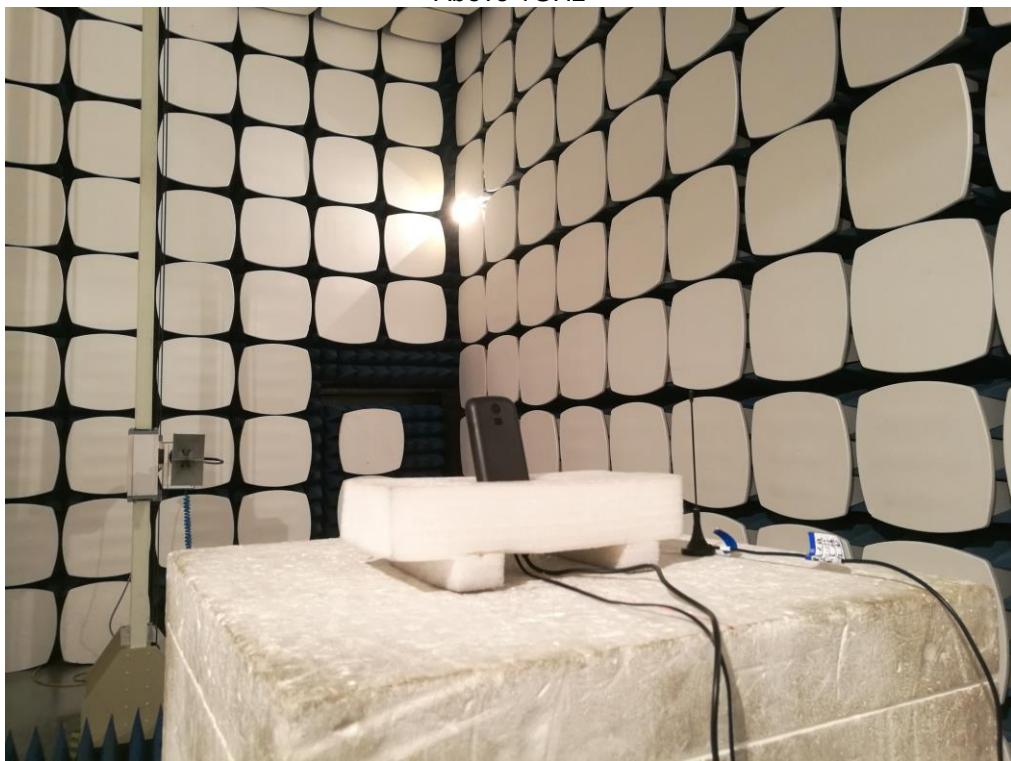
*Note: Only the worst case shown in the report.*

## 7 Test Setup Photo

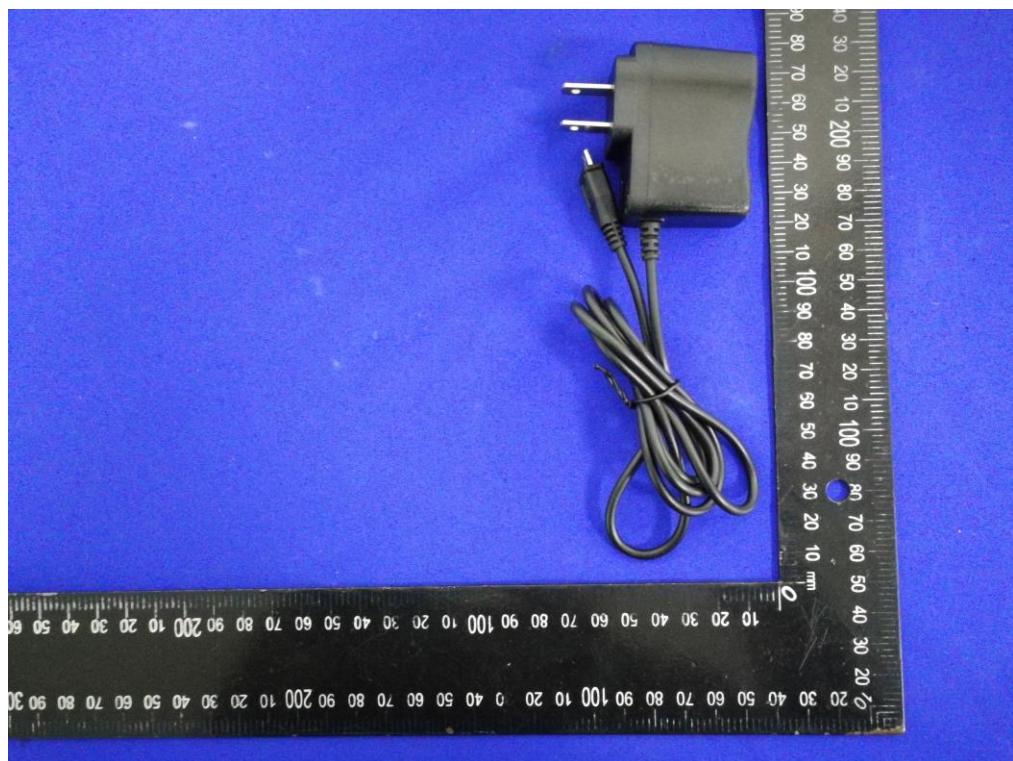
Radiated Spurious Emission  
Below 1GHz

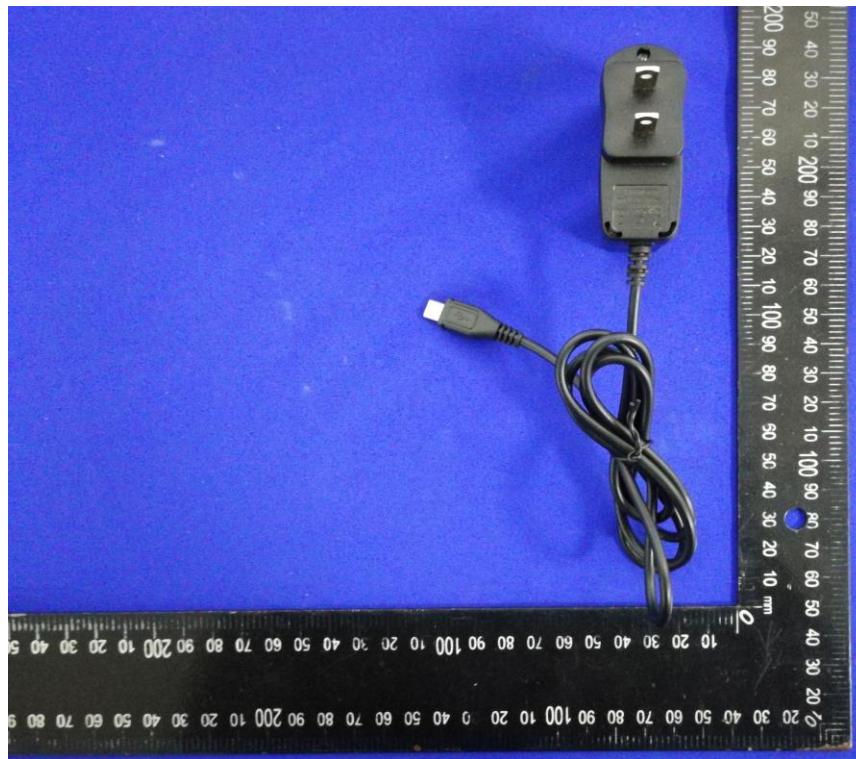
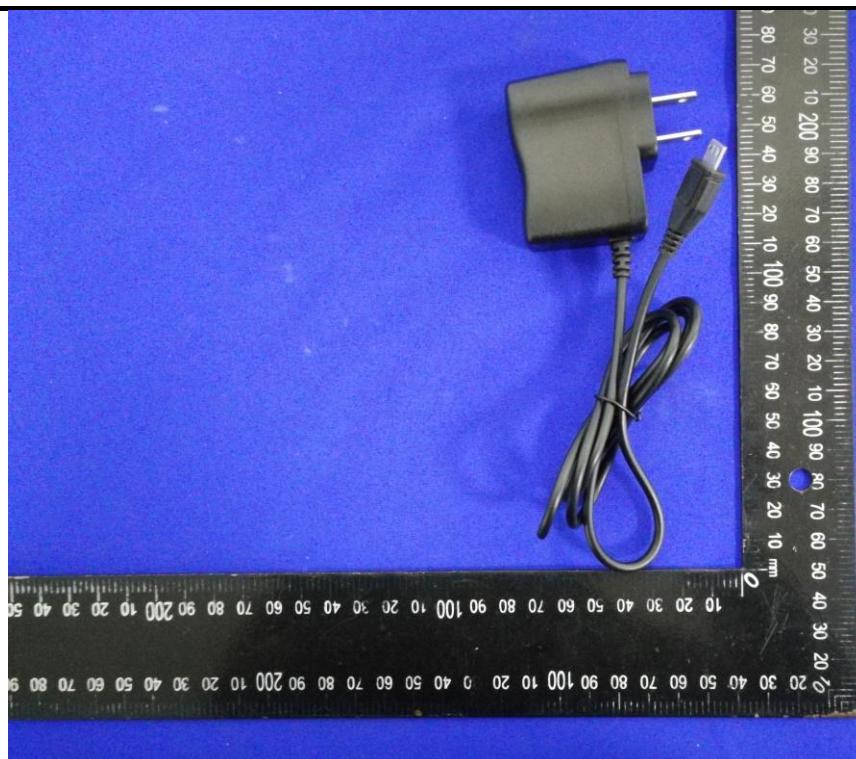


Above 1GHz



## 8 EUT Constructional Details



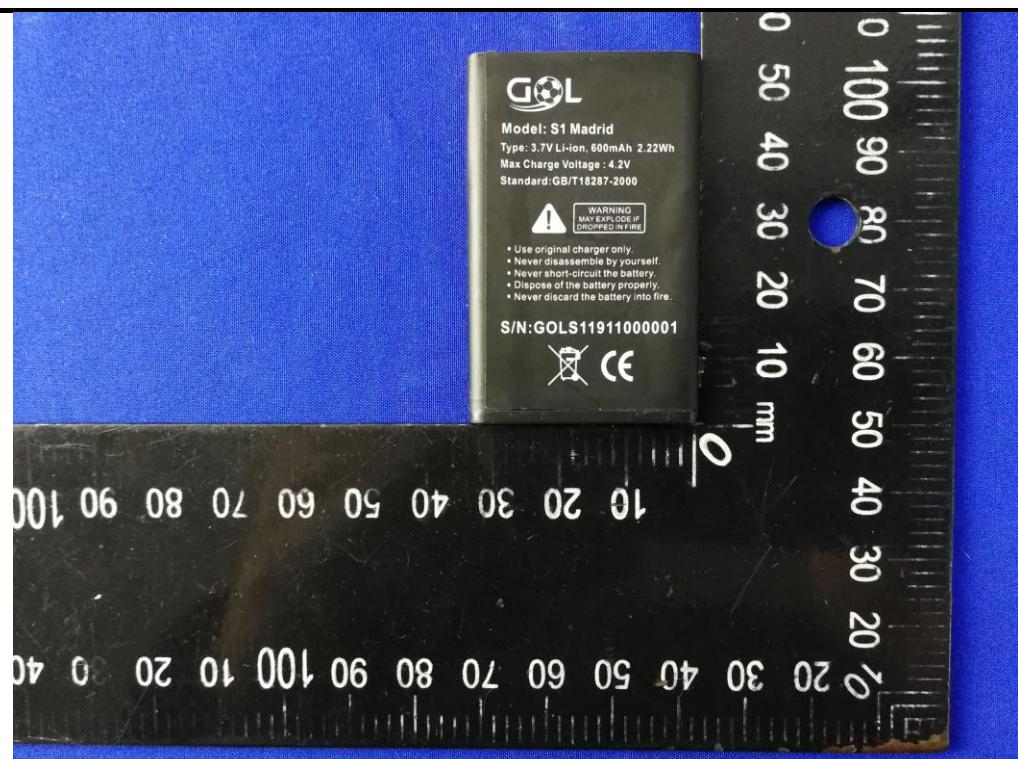


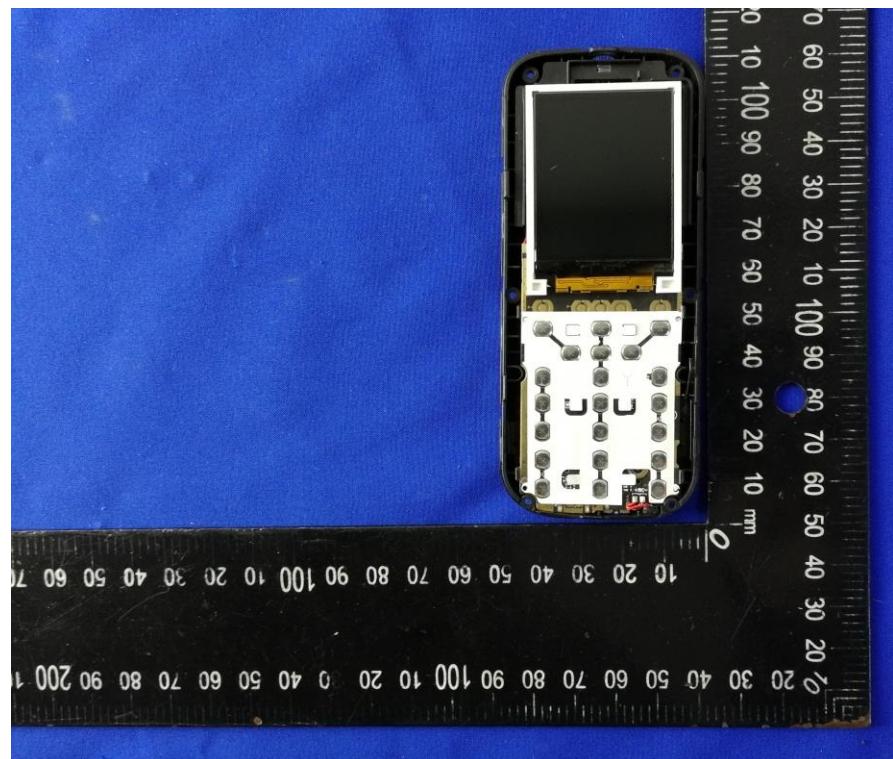
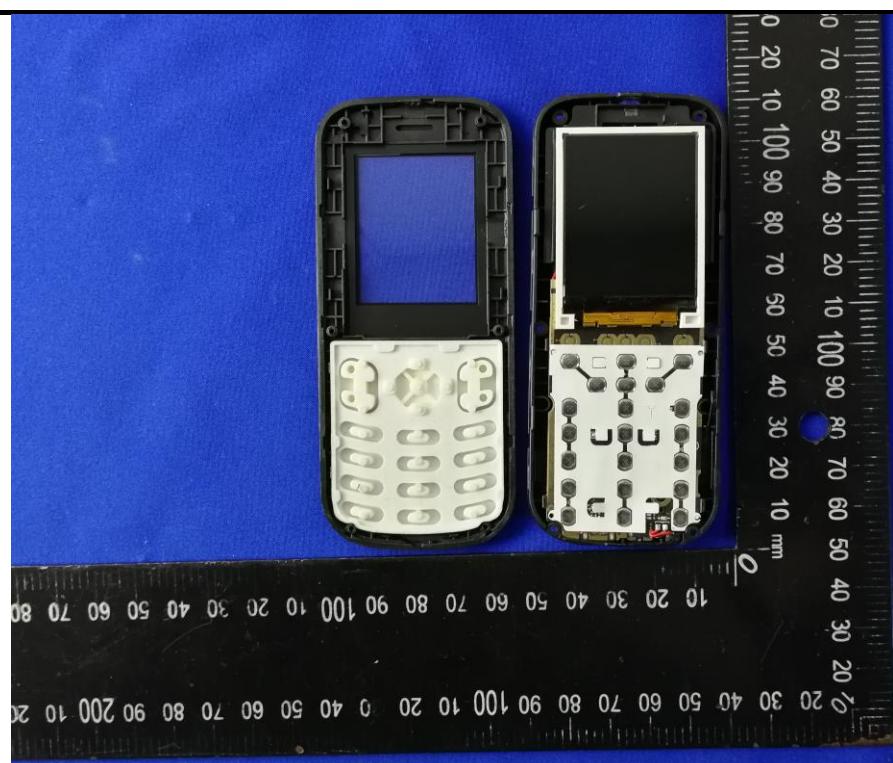


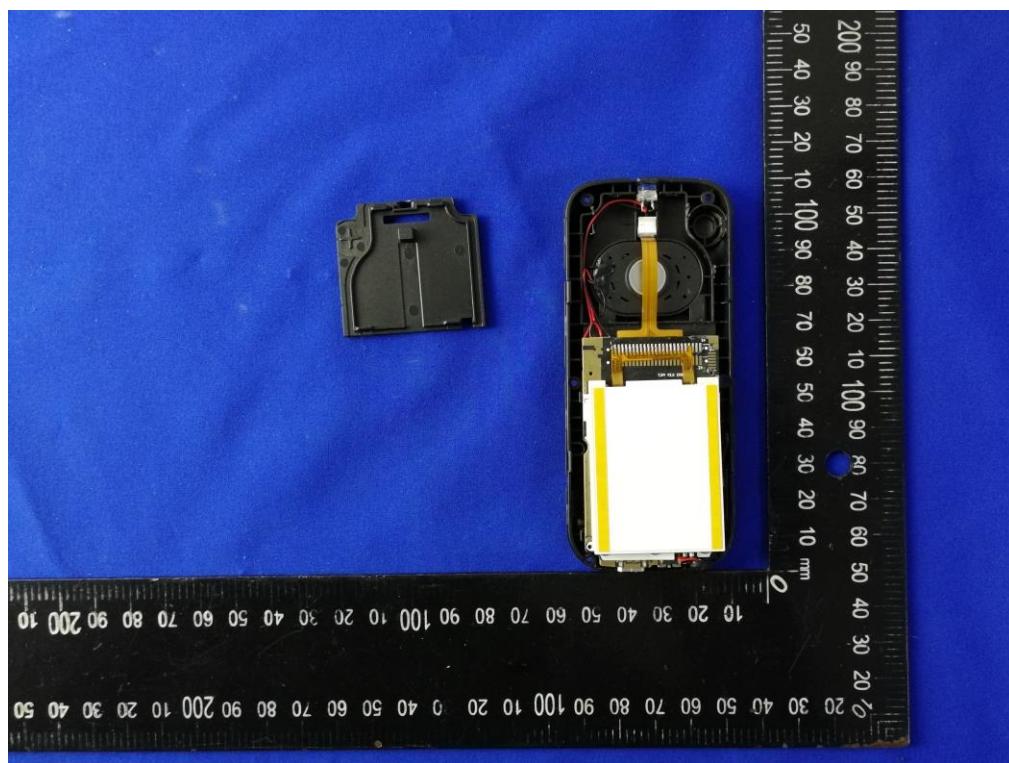
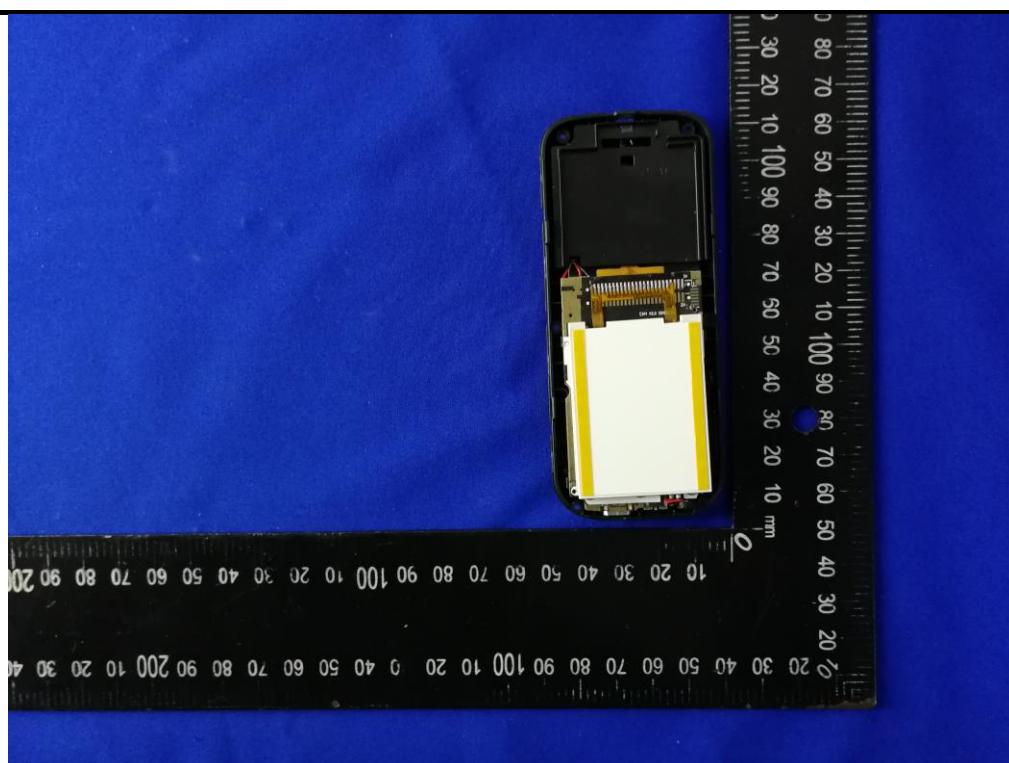


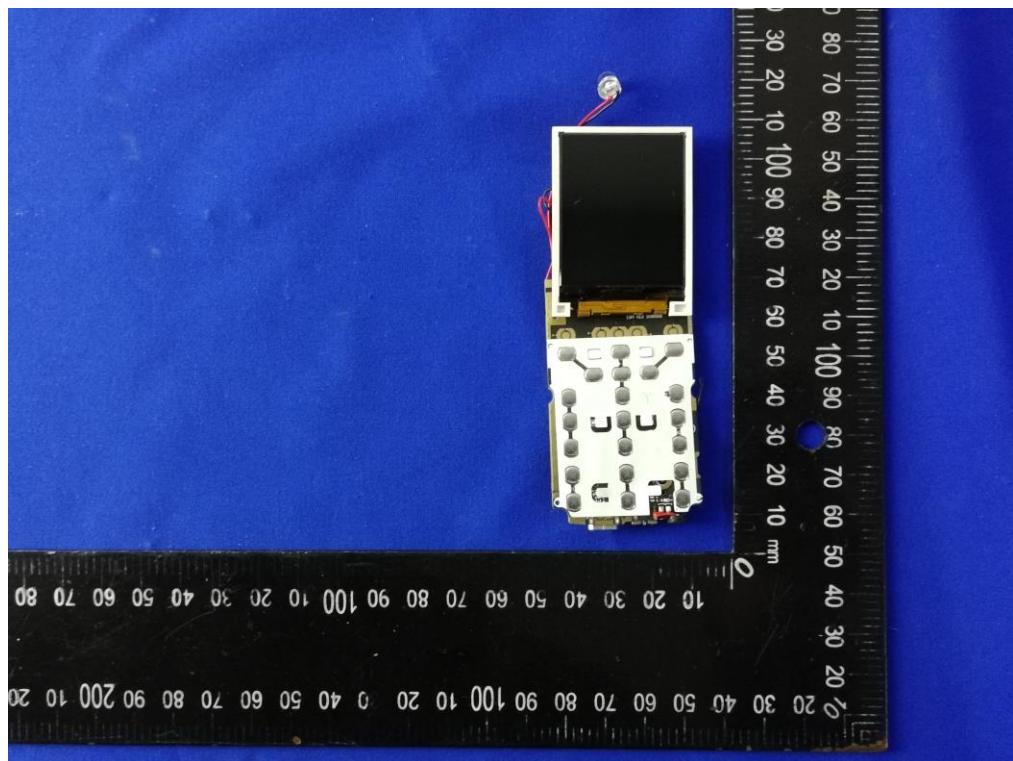
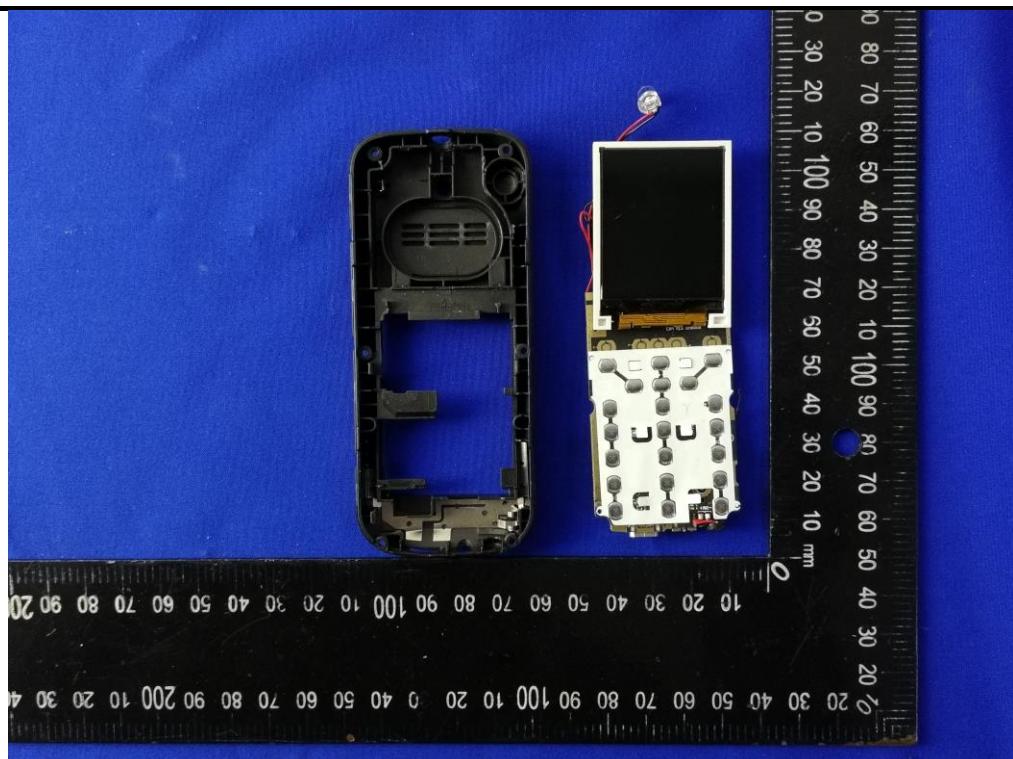


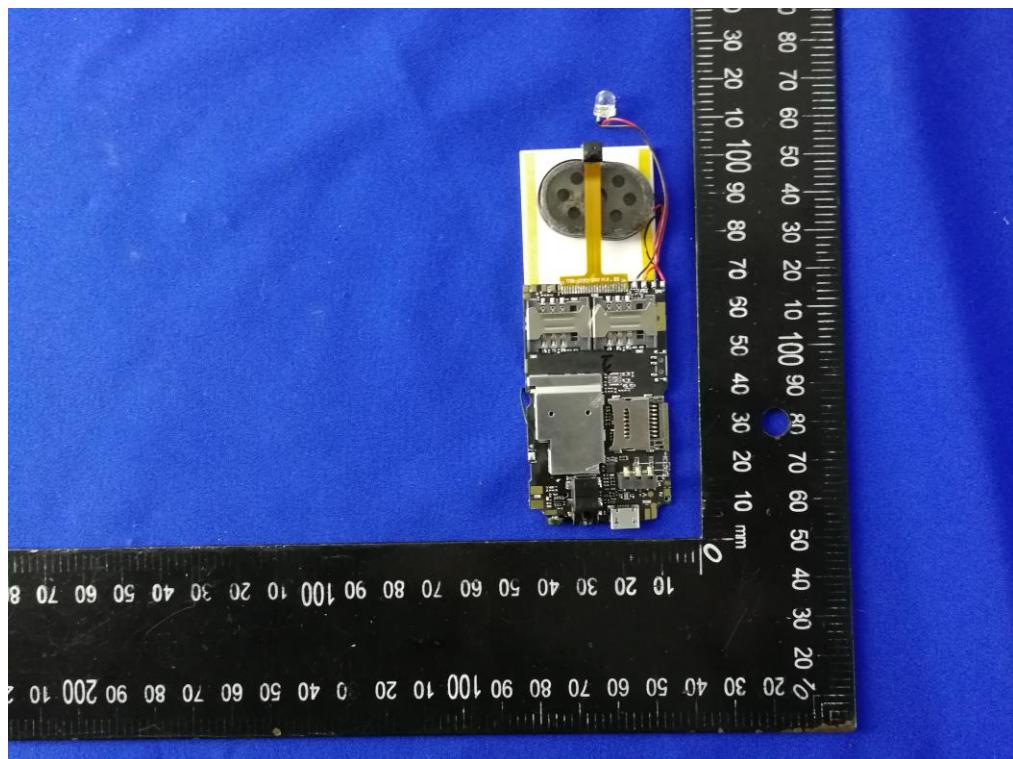
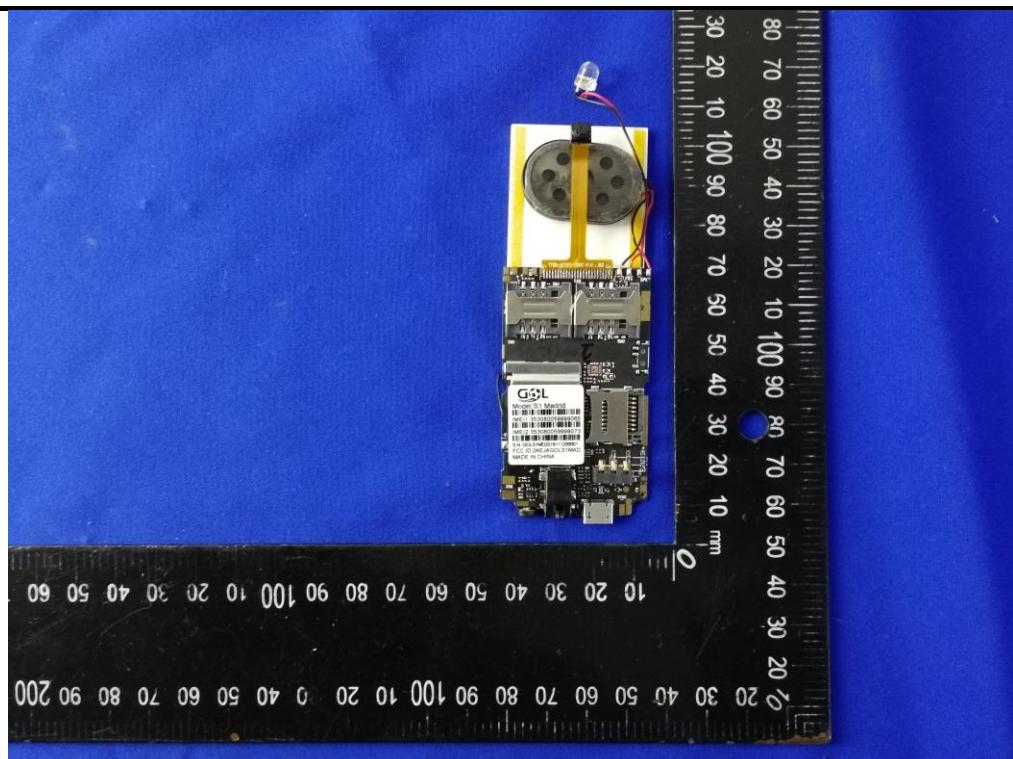


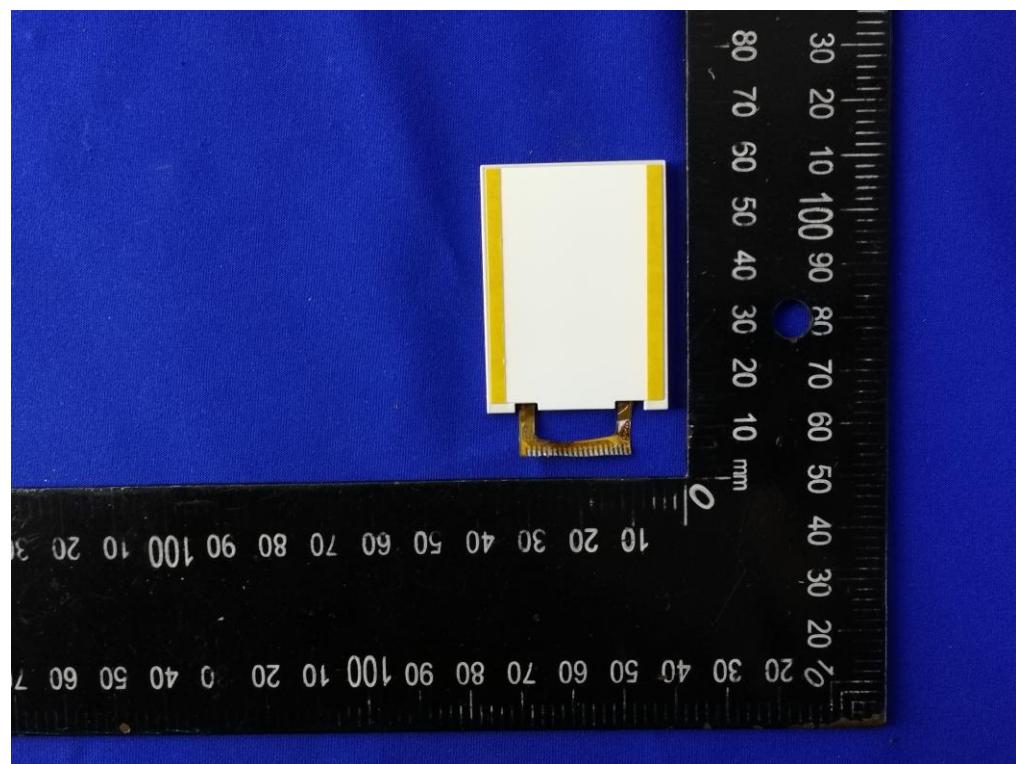
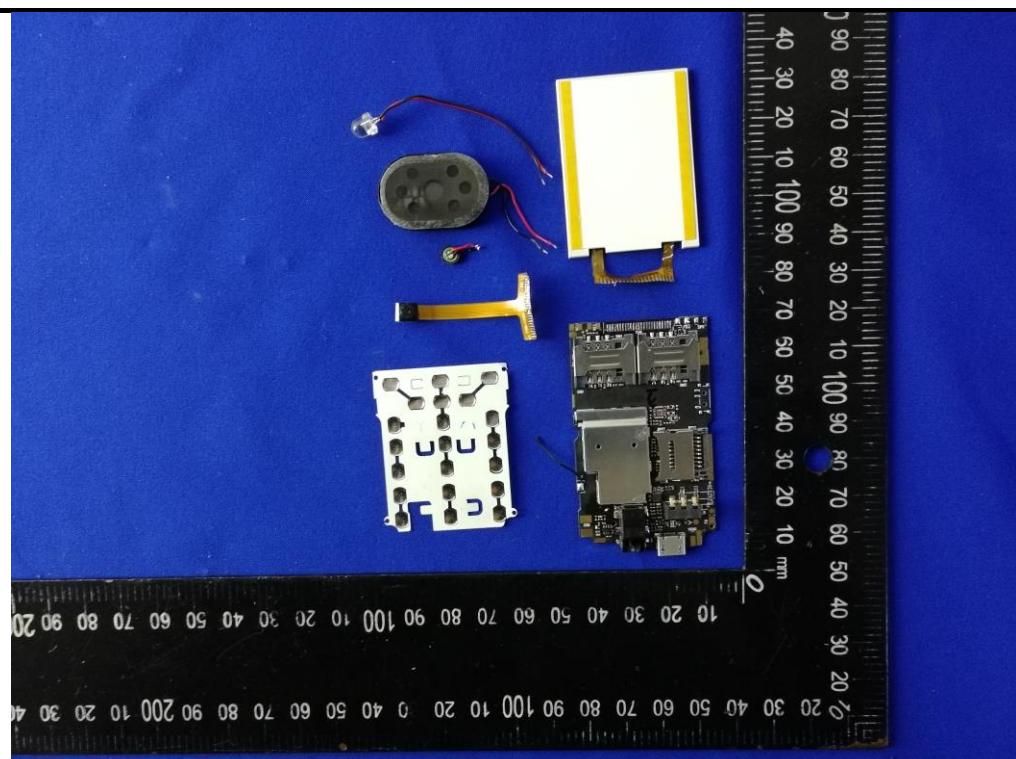


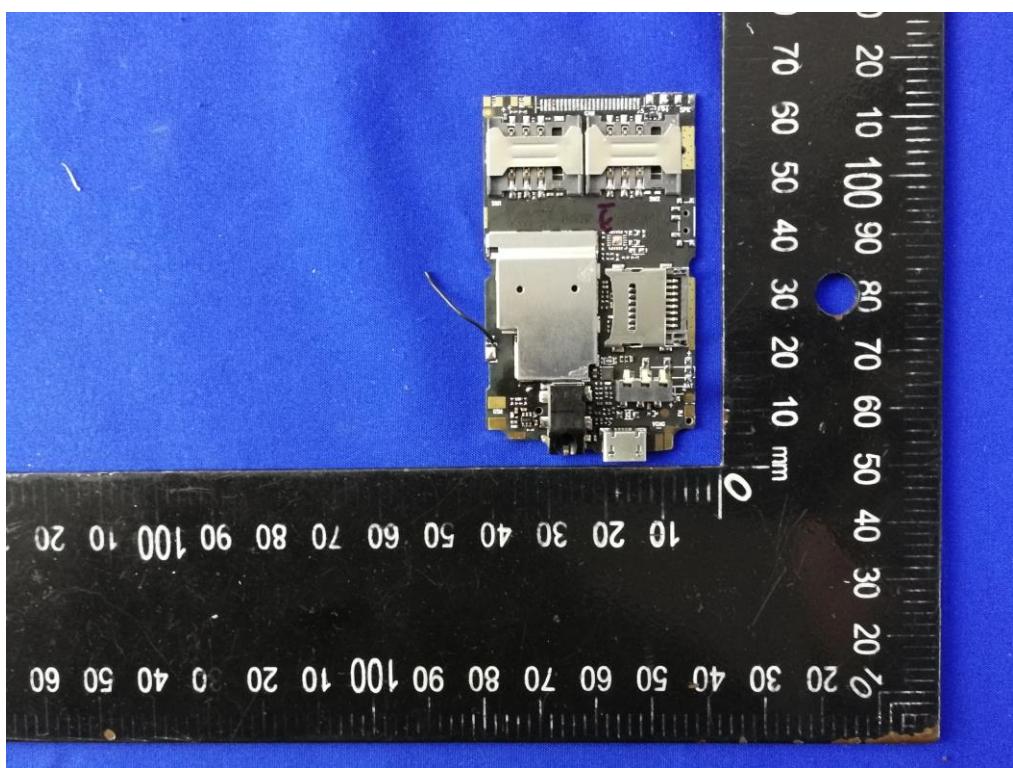
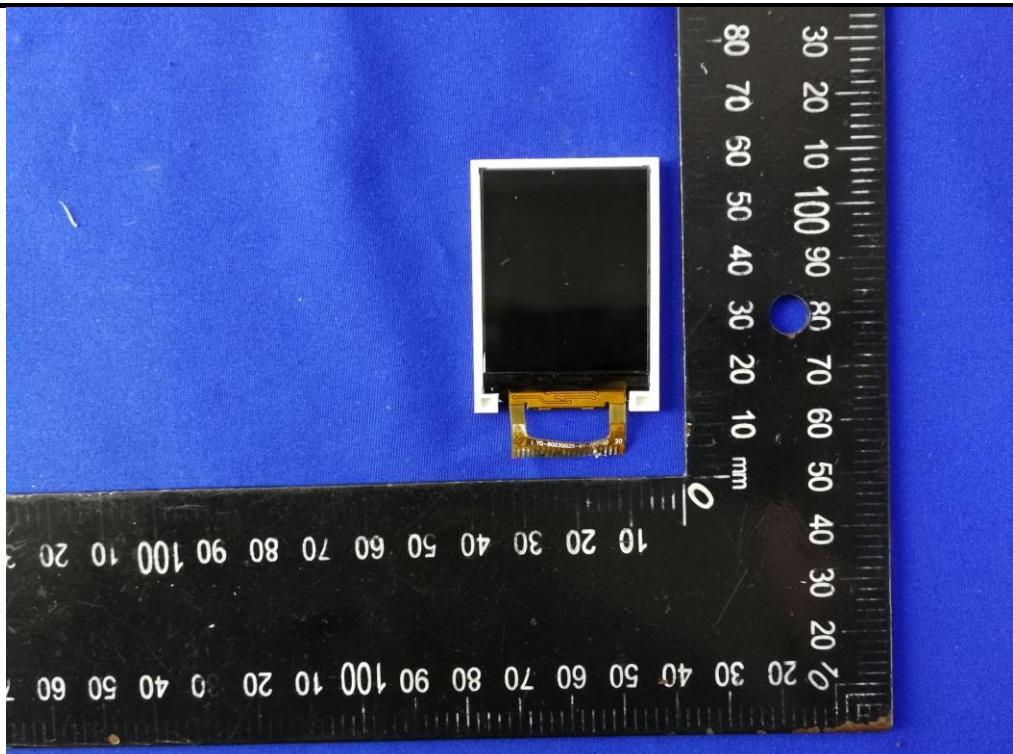


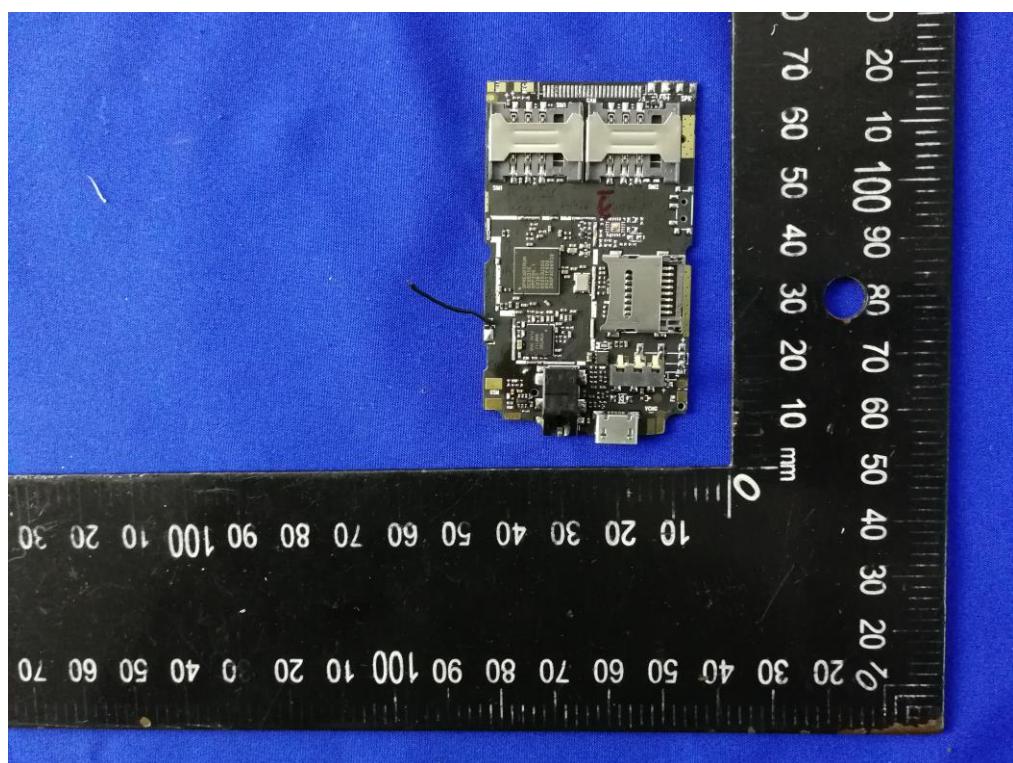
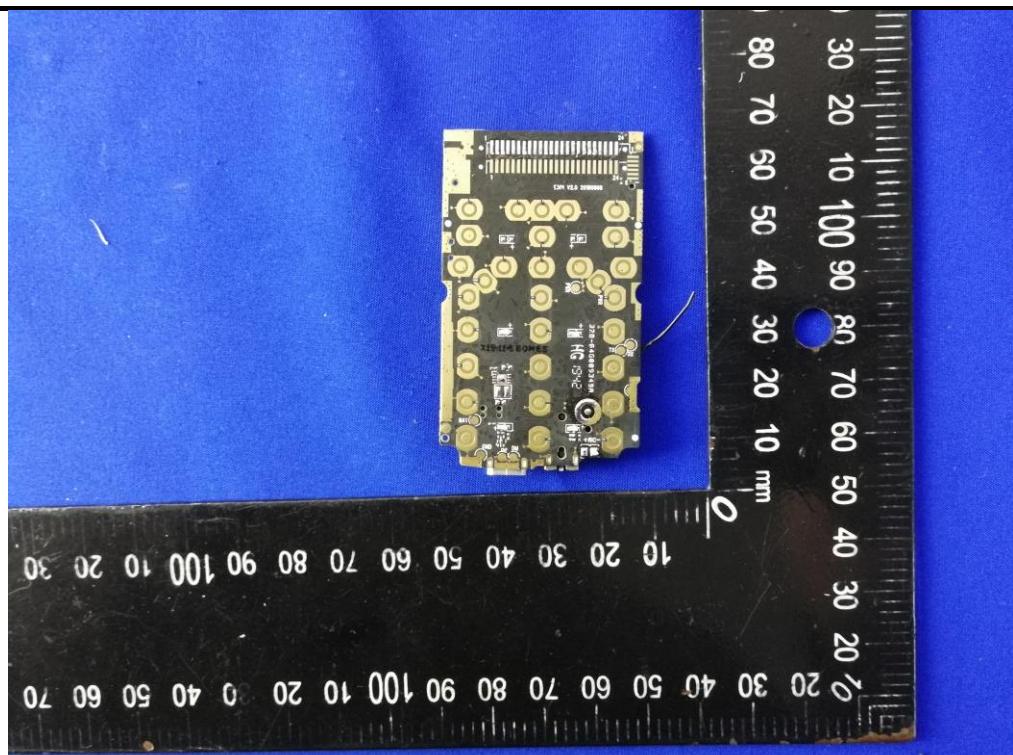


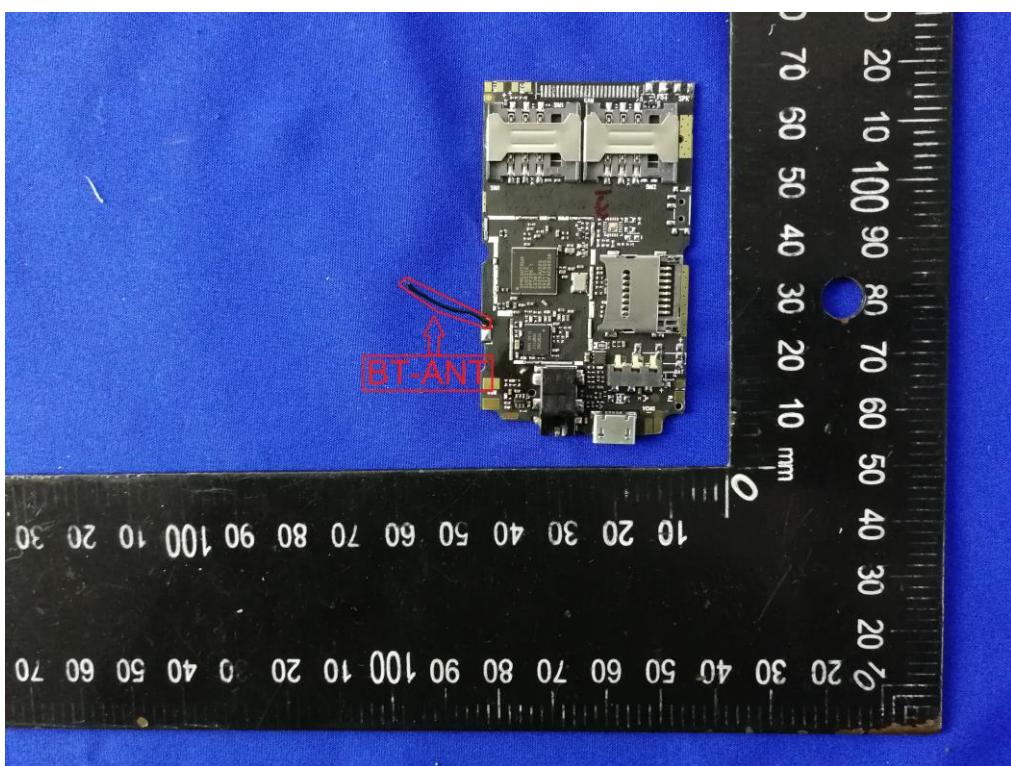
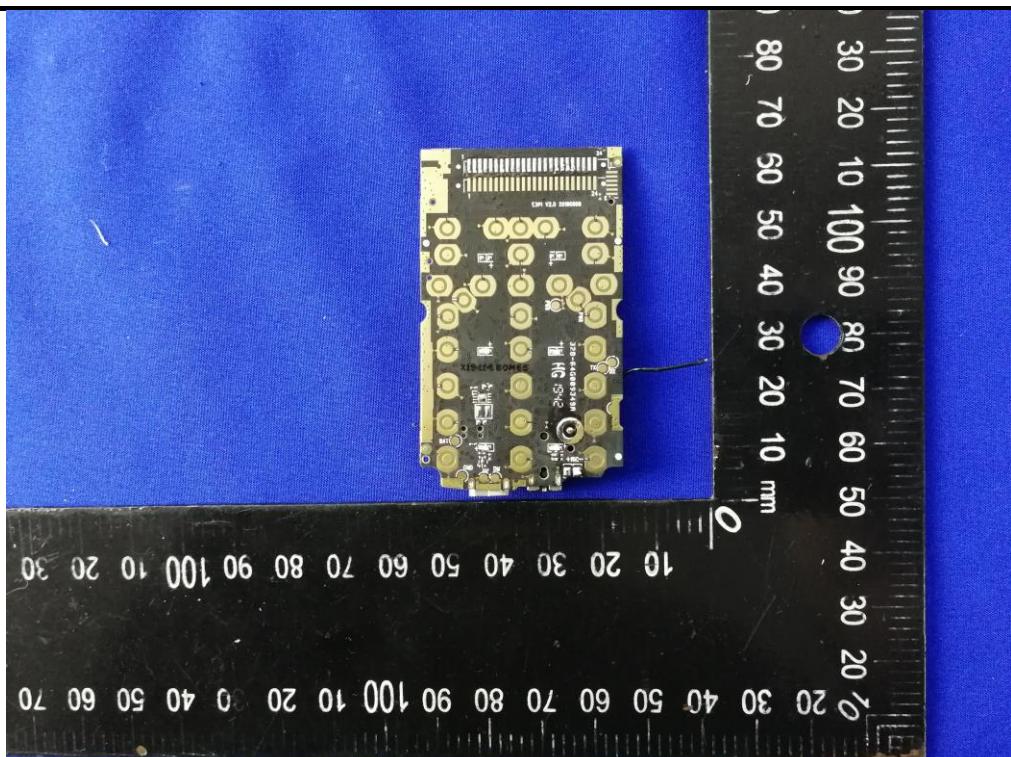


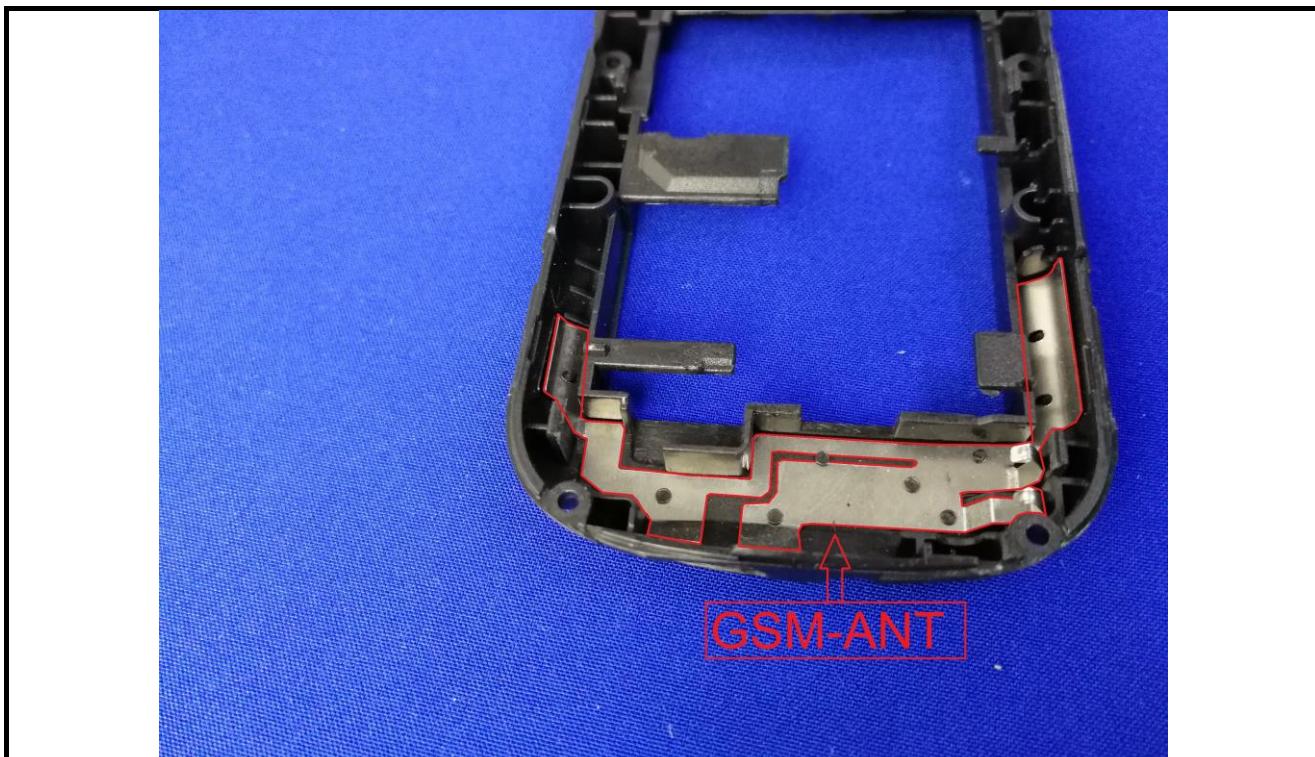












-----End of report-----