

# TEST REPORT

<b>FCC ID.</b> .....	2A9LJ-ME74	
<b>Test Report No.</b> .....	TCT240516E050	
<b>Date of issue</b> .....	Aug. 28, 2024	
<b>Testing laboratory</b> .....	SHENZHEN TONGCE TESTING LAB	
<b>Testing location/ address:</b>	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
<b>Applicant's name</b> .....	Meferi Technologies Co., Ltd.	
<b>Address</b> .....	4F, A6, Tianfu Software Park, No. 1129, Century City Road, High-tech Zone, 610041, Chengdu, Sichuan, 610041 China	
<b>Manufacturer's name</b> .....	Meferi Technologies Co., Ltd.	
<b>Address</b> .....	4F, A6, Tianfu Software Park, No. 1129, Century City Road, High-tech Zone, 610041, Chengdu, Sichuan, 610041 China	
<b>Standard(s)</b> .....	FCC CFR Title 47 Part 2 FCC CFR Title 47 Part22	
<b>Test item description</b> .....	MOBILE COMPUTER	
<b>Trade Mark</b> .....	MEFERI	
<b>Model/Type reference</b> .....	ME74	
<b>Rating(s)</b> .....	Refer to EUT description of page 3	
<b>Date of receipt of test item</b> .....	May 16, 2024	
<b>Date (s) of performance of test</b> .....	May 16, 2024 ~ Aug. 28, 2024	
<b>Tested by (+signature)</b> .....	Brews XU	
<b>Check by (+signature)</b> .....	Beryl ZHAO	
<b>Approved by (+signature)</b> :	Tomsin	

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### Appendix A: Photographs of Test Setup

### Appendix B: Photographs of EUT

## 1. General Product Information

### 1.1. EUT description

Test item description .....	MOBILE COMPUTER
Model/Type reference.....	ME74
Sample Number.....	TCT240516E022-0102
Tx Frequency.....	CDMA BC0: 824.70MHz ~ 848.31MHz
Rx Frequency .....	CDMA BC0: 869.70MHz ~ 893.31MHz
Maximum Output Power to Antenna.....	CDMA BC0: 22.81dBm
99% Occupied Bandwidth.....	CDMA BC0: 1M28F9W
Type of Modulation.....	1xRTT: QPSK 1xEV-DO: QPSK/8PSK
Antenna Type.....	FPC Antenna
Antenna Gain.....	CDMA BC0: -0.1dBi
Rating(s).....	Adapter Information: Model: HJ-FC001K7-US Input: AC 100-240V, 50/60Hz, 0.6A Output: DC 5.0V, 3.0A/DC 9.0V, 2.0A/DC 12.0V, 1.5A, 18.0W Rechargeable Li-ion Battery DC 3.8V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

### 1.2. Model(s) list

None.

### 1.3. Operation Frequency

CDMA BC0	
Channel:	Frequency (MHz)
1013	824.70
1014	824.73
....	....
383	836.49
384	836.52
385	836.55
...	...
776	848.28
777	848.31

## 2. Test Result Summary

Requirement	CFR 47 Section	Result
Conducted Output Power	§22.913; §2.1046	PASS
Peak-to-Average Ratio	§2.1046; §22.913	PASS
Effective Radiated Power	§2.1046; §22.913(a)	PASS
Equivalent Isotropic Radiated Power	§2.1046; §22.913(a)	PASS
Occupied Bandwidth	§2.1049	PASS
Band Edge	§2.1051 §22.917(a)	PASS
Conducted Spurious Emission	§2.1051; §22.917	PASS
Field Strength of Spurious Radiation	§2.1053; §22.917(a)	PASS
Frequency Stability for Temperature & Voltage	§2.1055; §22.355	PASS

**Note:**

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.

### 3. General Information

#### 3.1. Test environment and mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	56 % RH
Atmospheric Pressure:	1010 mbar

Keep the EUT in communication with CMU200 and select channel with modulation All modes and data rates and positions were investigated. Test modes are chosen to be reported as the worst case configuration below:

Test Mode		
Band	Radiated TCs	Conducted TCs
CDMA BC0	1xRTT Link	1xRTT Link

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power. Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission. The sample was placed (0.8m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarization. The emissions worst-case (Z axis) are shown in Test Results of the following pages.

### 3.2. Description of Support Units

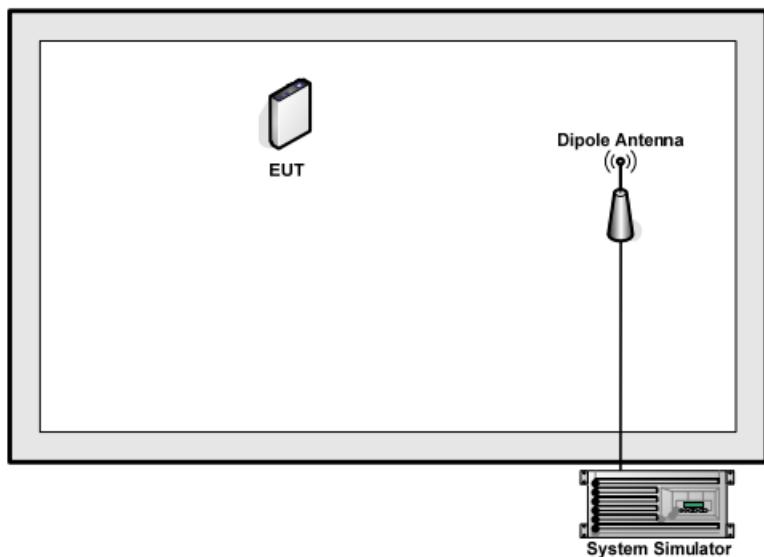
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

**Note:**

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

### 3.3. Configuration of Tested System



### 3.4. Measurement Results Explanation Example

#### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level. The spectrum analyzer offset is derived from RF cable loss and attenuator factor.  
*Offset = RF cable loss + attenuator factor.*

The following shows an offset computation example with RF cable loss 3 dB and a 5dB attenuator.

Example:  $\text{Offset (dB)} = \text{RF cable loss (dB)} + \text{attenuator factor (dB)}$ .  
= 8(dB)

## 4. Facilities and Accreditations

### 4.1. Facilities

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

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Innovation, Science and Economic Development Canada for radio equipment testing.

### 4.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

### 4.3. Measurement Uncertainty

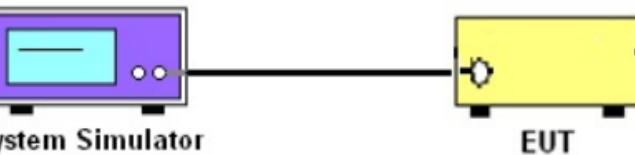
The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	$\pm 3.10$ dB
2	RF power, conducted	$\pm 0.12$ dB
3	Spurious emissions, conducted	$\pm 0.11$ dB
4	All emissions, radiated(<1 GHz)	$\pm 4.56$ dB
5	All emissions, radiated(1 GHz - 18 GHz)	$\pm 4.22$ dB
6	All emissions, radiated(18 GHz- 40 GHz)	$\pm 4.36$ dB
7	Temperature	$\pm 0.1^\circ\text{C}$
8	Humidity	$\pm 1.0\%$

## 5. Test Results and Measurement Data

## 5.1. Conducted Output Power Measurement

### 5.1.1. Test Specification

<b>Test Requirement:</b>	FCC part 22.913(a)
<b>Test Method:</b>	FCC KDB 971168 D01 v03r01
<b>Operation mode:</b>	Refer to item 3.1
<b>Limits:</b>	CDMA BC0: 7W
<b>Test Setup:</b>	
<b>Test Procedure:</b>	<ol style="list-style-type: none"><li>1. The transmitter output port was connected to the system simulator.</li><li>2. Set EUT at maximum power through system simulator.</li><li>3. Select lowest, middle, and highest channels for each band and different modulation.</li><li>4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.</li></ol>
<b>Test Result:</b>	PASS

### 5.1.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
System simulator	R&S	CMU200	110188	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB	/	/

### 5.1.3. Test data

#### Conducted Power Measurement Results:

Average Conducted Power (*Unit: dBm)			
Band	CDMA BC0		
Channel	1013	384	777
Frequency(MHz)	824.70	836.52	848.31
1XRTT RC1 SO55	22.54	22.77	22.75
1XRTT RC3 SO55	22.46	22.81	22.59
1XEV-DO RTAP 153.6Kbps	22.56	22.65	22.49
1XEV-DO RETAP 4096bITS	22.51	22.73	22.55

## 5.2. Peak to Average Ratio

### 5.2.1. Test Specification

<b>Test Requirement:</b>	FCC part 22.913
<b>Test Method:</b>	ANSI C63.26:2013
<b>Operation mode:</b>	Refer to item 3.1
<b>Limit:</b>	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.
<b>Test Setup:</b>	
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows FCC KDB 971168 D01v03r01 Section 5.7.1.</li> <li>2. The EUT was connected to spectrum analyzer and system simulator via a power divider.</li> <li>3. Set EUT to transmit at maximum output power.</li> <li>4. For GSM/EGPRS operating modes, signal gating is implemented on the spectrum analyzer by triggering from the system simulator.</li> <li>5. Set the CCDF (Complementary Cumulative Distribution Function) option of the spectrum analyzer.</li> </ol> <p>Record the maximum PAPR level associated with a probability of 0.1%.</p>
<b>Test Result:</b>	PASS

### 5.2.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
System simulator	R&S	CMU200	110188	Jun. 26, 2025
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB	/	/

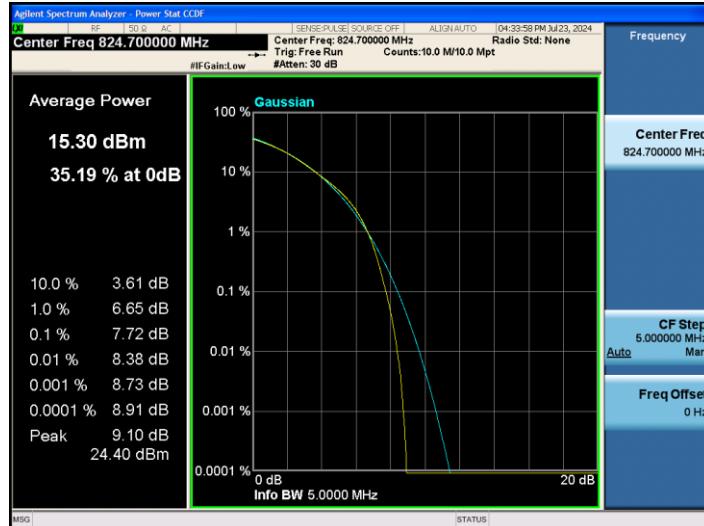
**5.2.3. Test Data**

Cellular Band			
Mode	CDMA BC0		
Channel	1013	384	777
Frequency (MHz)	824.70	836.52	848.31
Peak-to-Average Ratio (dB)	7.72	7.57	7.12

**Test plots as follows:**

## CDMA BC0

### Peak-to-Average Ratio on Channel 1013



### Peak-to-Average Ratio on Channel 384



### Peak-to-Average Ratio on Channel 777



### 5.3. 99% Occupied Bandwidth and 26dB Bandwidth Measurement

#### 5.3.1. Test Specification

<b>Test Requirement:</b>	FCC part 2.1049
<b>Test Method:</b>	FCC KDB 971168 D01v03r01
<b>Operation mode:</b>	Refer to item 3.1
<b>Limit:</b>	N/A
<b>Test Setup:</b>	<p>System Simulator</p> <p>Spectrum Analyzer</p> <p>Power Divider</p> <p>EUT</p>
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows FCC KDB 971168 D01v03r01 Section 4.2.</li> <li>2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.</li> <li>3. The RF output of the EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.</li> <li>4. The 99% occupied bandwidth were measured, set RBW= 1% of span, VBW= 3*RBW, sample detector, trace maximum hold.</li> <li>5. The 26dB bandwidth were measured, set RBW= 1% of EBW, VBW= 3*RBW, peak detector, trace maximum hold.</li> </ol>
<b>Test Result:</b>	PASS

#### 5.3.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
System simulator	R&S	CMU200	110188	Jun. 26, 2025
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB	/	/

**5.3.3. Test data**

Cellular Band			
Mode	CDMA BC0		
Channel	1013	384	777
Frequency (MHz)	824.70	836.52	848.31
99% OBW (kHz)	1275.1	1269.1	1274.2
26dB BW (kHz)	1446.0	1432.0	1431.0

**Test plots as follows:**

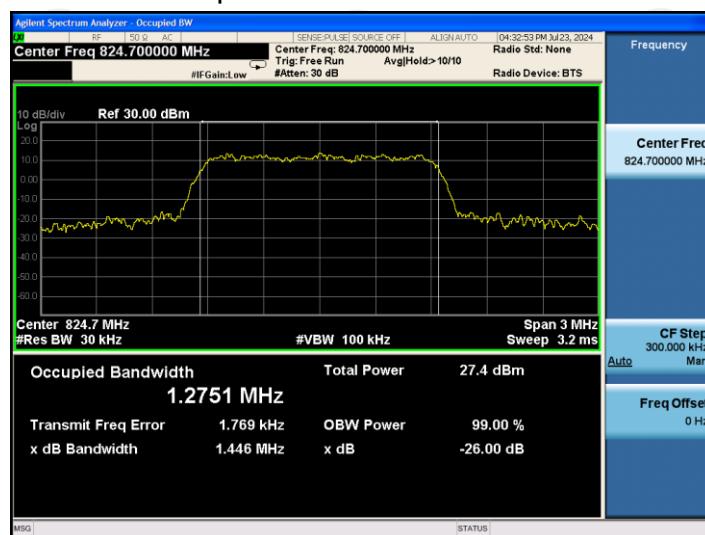
Band:

CDMA BC0

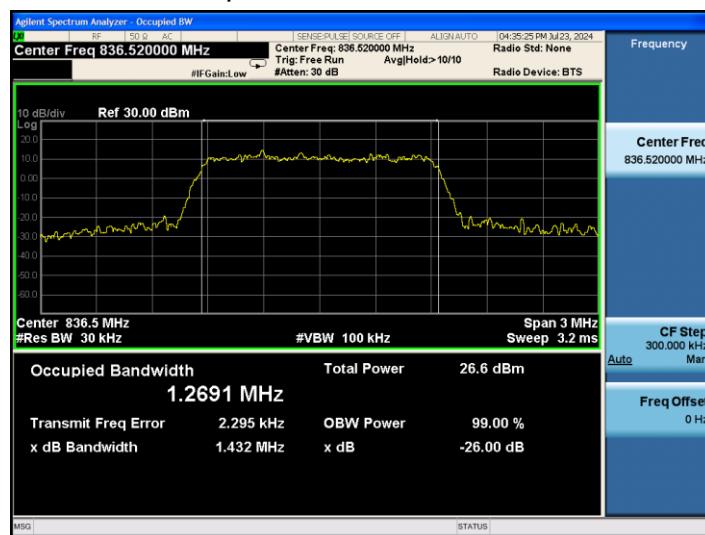
Test Mode:

1xRTT Link

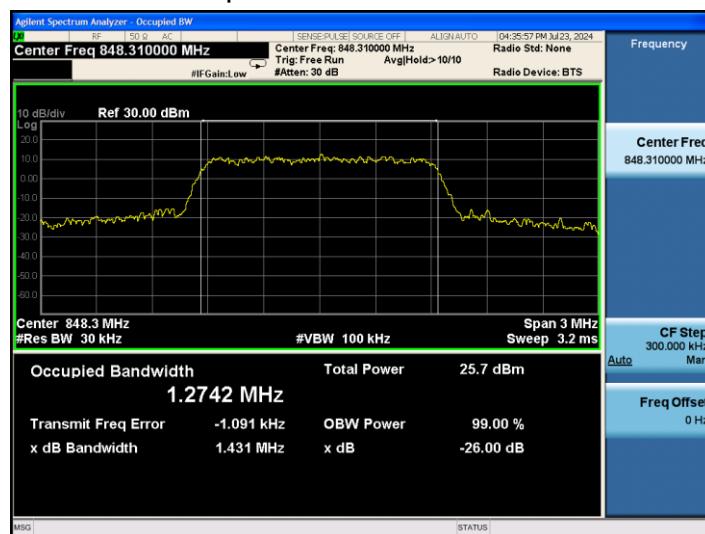
### 26dB&99% Occupied Bandwidth Plot on Channel 1013



### 26dB&99% Occupied Bandwidth Plot on Channel 384



### 26dB&99% Occupied Bandwidth Plot on Channel 777



## 5.4. Band Edge and Conducted Spurious Emission Measurement

### 5.4.1. Test Specification

<b>Test Requirement:</b>	FCC part22.917(a)
<b>Test Method:</b>	FCC KDB 971168 D01v03r01
<b>Operation mode:</b>	Refer to item 3.1
<b>Limit:</b>	-13dBm
<b>Test Setup:</b>	<p>The diagram illustrates the test setup. A 'System Simulator' (represented by a purple box with a blue screen) is connected to a 'Power Divider' (represented by a black rectangle). The 'Power Divider' has two outputs: one leading to a 'Spectrum Analyzer' (represented by a green box with a blue screen) and another leading to the 'EUT' (Equipment Under Test, represented by a yellow box with a blue screen).</p>
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows FCC KDB 971168 D01v03r01 Section 6.0.</li> <li>2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.</li> <li>3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.</li> <li>4. The band edges of low and high channels for the highest RF powers were measured.</li> <li>5. The conducted spurious emission for the whole frequency range was taken.</li> <li>6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.</li> <li>7. The limit line is derived from <math>43 + 10\log(P)</math> dB below the transmitter power  <math>P(\text{Watts}) = P(\text{W}) - [43 + 10\log(P)] \text{ (dB)} = [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)} = -13\text{dBm}.</math></li> </ol>
<b>Test Result:</b>	PASS

### 5.4.2. Test Instruments

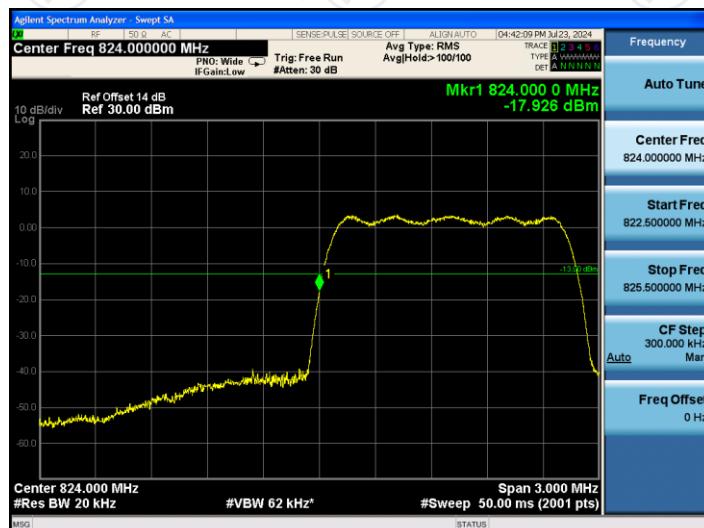
Equipment	Manufacturer	Model	Serial Number	Calibration Due
System simulator	R&S	CMU200	110188	Jun. 26, 2025
Spectrum Analyzer	R&S	FSU	200054	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB	/	/

### 5.4.3. Test data

Test plots as follows:

Band:	CDMA BC0	Test Mode:	1xRTT Link
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Lower Band Edge Plot on Channel 1013



Higher Band Edge Plot on Channel 777



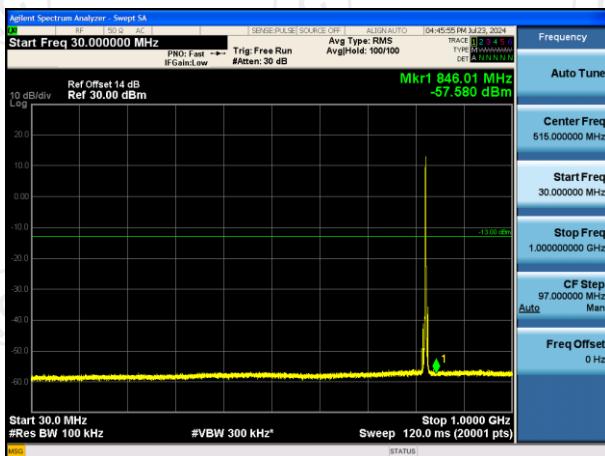
Band:

CDMA BC0

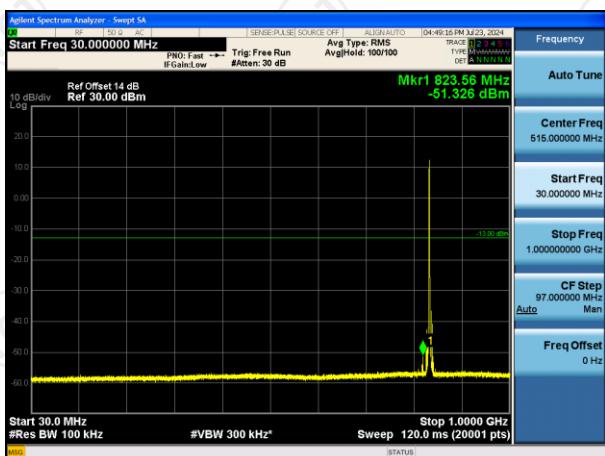
Test Mode:

1xRTT Link

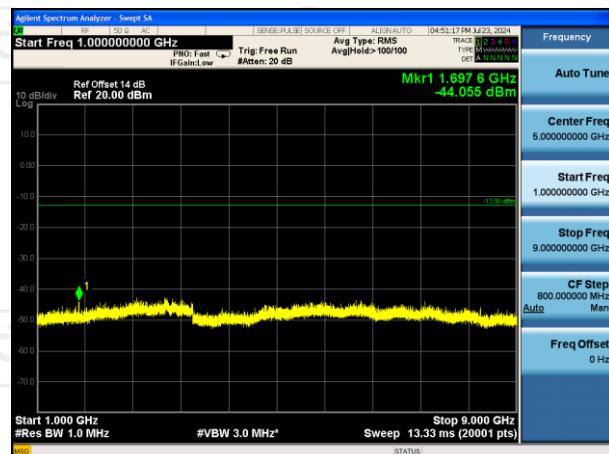
## Conducted Spurious Emission on Channel 1013



## Conducted Spurious Emission on Channel 384

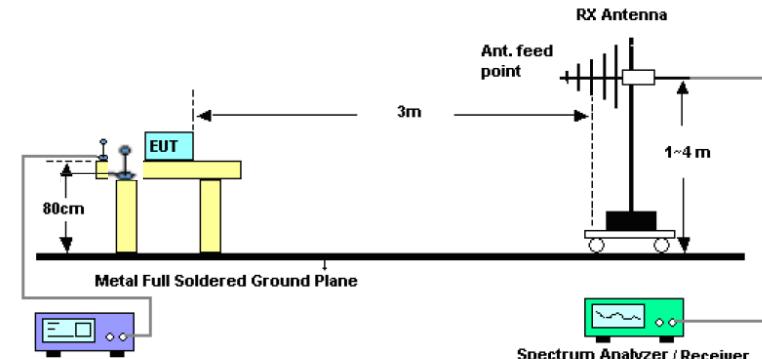
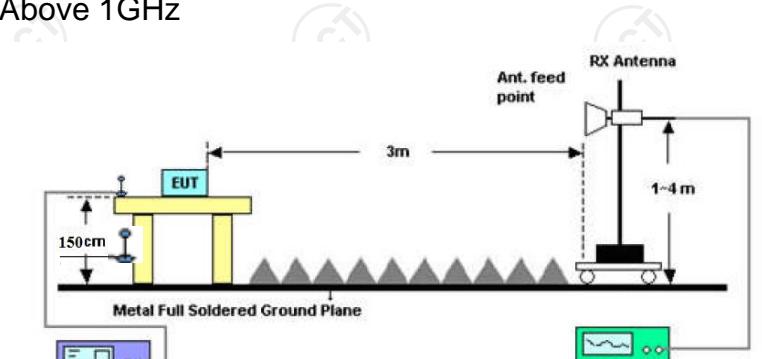


## Conducted Spurious Emission on Channel 777



## 5.5. Effective Radiated Power and Effective Isotropic Radiated Power Measurement

### 5.5.1. Test Specification

<b>Test Requirement:</b>	FCC part 22.913(a)																								
<b>Test Method:</b>	FCC KDB 971168 D01v03r01																								
<b>Receiver Setup:</b>	<table border="1"> <thead> <tr> <th></th> <th>GSM/GPRS/EDGE</th> <th>WCDMA/HSPA</th> </tr> </thead> <tbody> <tr> <td>SPAN</td> <td>500kHz</td> <td>10MHz</td> </tr> <tr> <td>RBW</td> <td>10kHz</td> <td>100kHz</td> </tr> <tr> <td>VBW</td> <td>30kHz</td> <td>300kHz</td> </tr> <tr> <td>Detector</td> <td>RMS</td> <td>RMS</td> </tr> <tr> <td>Trace</td> <td>Average</td> <td>Average</td> </tr> <tr> <td>Average Type</td> <td>Power</td> <td>Power</td> </tr> <tr> <td>Sweep Count</td> <td>100</td> <td>100</td> </tr> </tbody> </table>		GSM/GPRS/EDGE	WCDMA/HSPA	SPAN	500kHz	10MHz	RBW	10kHz	100kHz	VBW	30kHz	300kHz	Detector	RMS	RMS	Trace	Average	Average	Average Type	Power	Power	Sweep Count	100	100
	GSM/GPRS/EDGE	WCDMA/HSPA																							
SPAN	500kHz	10MHz																							
RBW	10kHz	100kHz																							
VBW	30kHz	300kHz																							
Detector	RMS	RMS																							
Trace	Average	Average																							
Average Type	Power	Power																							
Sweep Count	100	100																							
<b>Limit:</b>	CDMA BC0: 7W ERP																								
<b>Test Setup:</b>	<p>From 30MHz to 1GHz</p>  <p>Above 1GHz</p> 																								
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>The testing follows FCC KDB 971168 D01v03r01 Section 5.8. and ANSI / TIA-603-D-2010 Section 2.2.17.</li> <li>The EUT was placed on a non-conductive rotating platform 0.8 meters high in a semi-anechoic</li> </ol>																								

	<p>chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector per section 5. of KDB 971168 D01v03.</p> <ol style="list-style-type: none"> <li>3. Key the transmitter, then rotate the EUT 360° azimuthally and record spectrum analyzer power level (LVL) measurements at angular increments that are sufficiently small to permit resolution of all peaks. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading at each angular increment.</li> <li>4. Replace the transmitter under test with a substitution antenna. The center of the antenna should be at the same location as the center of the antenna under test.</li> <li>5. Connect the antenna to a signal generator with a known output power and record the path loss (in dB) as LOSS. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading.</li> </ol> <p>LOSS = Generator Output Power (dBm) – Analyzer reading (dBm)</p> <ol style="list-style-type: none"> <li>6. Determine the effective radiated output power at each angular position from the readings in steps 3) and 5) using the following equation:</li> </ol> $\text{ERP (dBm)} = \text{LVL (dBm)} + \text{LOSS (dB)}$ <ol style="list-style-type: none"> <li>7. The maximum ERP is the maximum value determined in the preceding step.</li> <li>8. Calculating ERP:</li> </ol> $\text{ERP (dBm)} = \text{Output Power (dBm)} - \text{Losses (dB)} + \text{Antenna Gain (dBd)}$ $\text{Antenna Gain (dBd)} = \text{Antenna Gain (dBi)} - 2.15$ $\text{EIRP} = \text{ERP} + 2.15$
<b>Test results:</b>	PASS

### 5.5.2. Test Instruments

Radiated Emission Test Site (966)				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Universal Radio Communication Tester	R&S	CMU200	110188	Jun. 26, 2025
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 26, 2025
Signal Generator	Agilent	N5173B	MY58108823	Jan. 31, 2025
Broadband Antenna	Schwarzbeck	VULB9163	340	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jun. 28, 2025
Broadband Antenna	Schwarzbeck	VULB9163	412	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9120D	1201	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Feb. 02, 2025
Coaxial cable	SKET	RE-03-D	/	Jun. 26, 2025
Coaxial cable	SKET	RE-03-M	/	Jun. 26, 2025
Coaxial cable	SKET	RE-03-L	/	Jun. 26, 2025
Coaxial cable	SKET	RE-04-D	/	Jun. 26, 2025
Coaxial cable	SKET	RE-04-M	/	Jun. 26, 2025
Coaxial cable	SKET	RE-04-L	/	Jun. 26, 2025
Antenna Mast	Keleto	RE-AM	/	/
EMI Test Software	EZ_EMC	FA-03A2 RE+	1.1.4.2	/

### 5.5.3. Test Data

#### Test Result of ERP

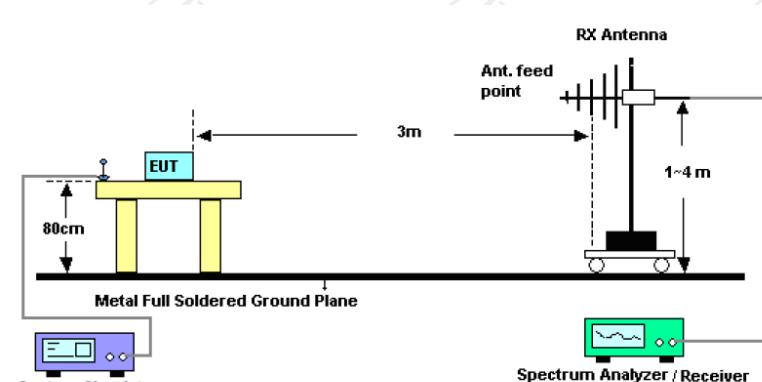
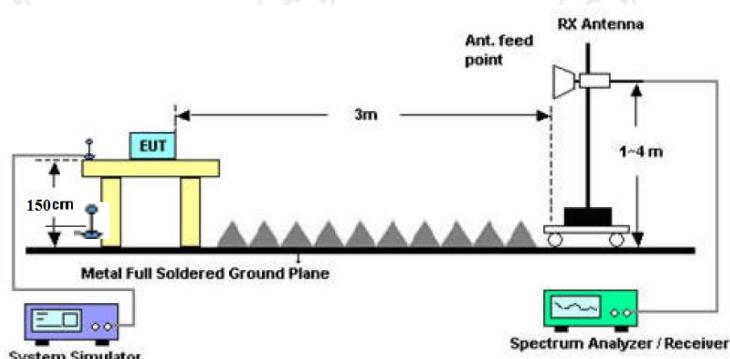
CDMA BC0 Radiated Power ERP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.70	H	0.45	21.66	19.96	0.10
836.52	H	0.22	21.54	19.61	0.09
848.31	H	-0.23	21.46	19.08	0.08
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.70	V	0.31	21.66	19.82	0.10
836.52	V	0.36	21.54	19.75	0.09
848.31	V	0.04	21.46	19.35	0.09

**Note:** \*  $ERP = LVL (dBm) + Correction Factor (dB) - 2.15$

Correction Factor= S.G. Power - Cable loss + Antenna Gain- SPA. Reading

## 5.6. Field Strength of Spurious Radiation Measurement

### 5.6.1. Test Specification

<b>Test Requirement:</b>	FCC part 22.917(a)
<b>Test Method:</b>	FCC KDB 971168 D01v03r01
<b>Operation mode:</b>	Refer to item 3.1
<b>Limit:</b>	-13dBm
<b>Test setup:</b>	<p>For 30MHz~1GHz</p>  <p>Above 1GHz</p> 
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows FCC KDB 971168 D01v03r01 Section 6 and ANSI / TIA-603-D-2010 Section 2.2.12.</li> <li>2. The EUT was placed on a rotatable wooden table 0.8 meters above the ground.</li> <li>3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.</li> <li>4. The table was rotated 360 degrees to determine the position of the highest spurious emission.</li> <li>5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.</li> <li>6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of</li> </ol>

	<p>maximum spurious emission.</p> <p>7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.</p> <p>8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.</p> <p>9. Taking the record of output power at antenna port.</p> <p>10. Repeat step 7 to step 8 for another polarization.</p> <p>11. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain</p> <p>12. ERP (dBm) = EIRP - 2.15</p> <p>13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.</p> <p>14. The limit line is derived from <math>43 + 10\log(P)</math> dB below the transmitter power P(Watts)</p> $= P(W) - [43 + 10\log(P)] \text{ (dB)}$ $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$ $= -13 \text{ dBm.}$
<b>Test results:</b>	PASS
<b>Remark:</b>	All modulations have been tested, but only the worst modulation show in this test item.

### 5.6.2. Test Instruments

Radiated Emission Test Site (966)				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Universal Radio Communication Tester	R&S	CMU200	110188	Jun. 26, 2025
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 26, 2025
Signal Generator	Agilent	N5173B	MY58108823	Jan. 31, 2025
Broadband Antenna	Schwarzbeck	VULB9163	340	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jun. 28, 2025
Broadband Antenna	Schwarzbeck	VULB9163	412	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9120D	1201	Jun. 28, 2025
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Feb. 02, 2025
Coaxial cable	SKET	RE-03-D	/	Jun. 26, 2025
Coaxial cable	SKET	RE-03-M	/	Jun. 26, 2025
Coaxial cable	SKET	RE-03-L	/	Jun. 26, 2025
Coaxial cable	SKET	RE-04-D	/	Jun. 26, 2025
Coaxial cable	SKET	RE-04-M	/	Jun. 26, 2025
Coaxial cable	SKET	RE-04-L	/	Jun. 26, 2025
Antenna Mast	Keleto	RE-AM	/	/
EMI Test Software	EZ_EMC	FA-03A2 RE+	1.1.4.2	/

**5.6.3. Test Data****Frequency Range (9 kHz-30MHz)**

Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Limit@3m (dB $\mu$ V/m)
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--	--	--
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**Note:** 1. Emission Level=Reading+ Cable loss+Antenna factor-Amp factor

2. The emission levels are 20 dB below the limit value, which are not reported. It is deemed to comply with the requirement

<b>Band</b>	<b>CDMA BC0</b>		<b>Test channel:</b>	<b>Lowest</b>
<b>Test mode:</b>			<b>Temperature:</b>	<b>25°C</b>
			<b>Relative Humidity:</b>	<b>56%</b>
<b>Note:</b>	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.			
<b>Frequency (MHz)</b>	<b>Spurious Emission</b>		<b>Limit (dBm)</b>	<b>Result</b>
	<b>Polarization</b>	<b>Level (dBm)</b>		
1649.40	Vertical	-44.63	-13.00	PASS
2474.10	V	-42.80		
3298.80	V	-53.25		
1649.40	Horizontal	-45.44		
2474.10	H	-40.97		
3298.80	H	-53.29		
<b>Band</b>	<b>CDMA BC0</b>		<b>Test channel:</b>	<b>Middle</b>
<b>Test mode:</b>			<b>Temperature:</b>	<b>25°C</b>
			<b>Relative Humidity:</b>	<b>56%</b>
<b>Note:</b>	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.			
<b>Frequency (MHz)</b>	<b>Spurious Emission</b>		<b>Limit (dBm)</b>	<b>Result</b>
	<b>Polarization</b>	<b>Level (dBm)</b>		
1673.04	Vertical	-45.14		PASS
2509.56	V	-47.27		
3346.08	V	-55.18		
1673.04	Horizontal	-44.59		
2509.56	H	-41.51		
3346.08	H	-55.00		
<b>Band</b>	<b>CDMA BC0</b>		<b>Test channel:</b>	<b>Highest</b>
<b>Test mode:</b>			<b>Temperature:</b>	<b>25°C</b>
			<b>Relative Humidity:</b>	<b>56%</b>
<b>Note:</b>	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.			
<b>Frequency (MHz)</b>	<b>Spurious Emission</b>		<b>Limit (dBm)</b>	<b>Result</b>
	<b>Polarization</b>	<b>Level (dBm)</b>		
1696.62	Vertical	-42.77		PASS
2544.93	V	-47.46		
3393.24	V	-55.79		
1696.62	Horizontal	-45.44		
2544.93	H	-43.15		
3393.24	H	-54.51		

## 5.7. Frequency Stability Measurement

### 5.7.1. Test Specification

<b>Test Requirement:</b>	FCC Part 2.1055; FCC Part 22.355
<b>Test Method:</b>	FCC KDB 971168 D01v03r01
<b>Operation mode:</b>	Refer to item 3.1
<b>Limit:</b>	FCC Part 22.355: $\pm 2.5$ ppm
<b>Test Setup:</b>	<p>The diagram illustrates the test setup. A purple rectangular box labeled 'System Simulator' is connected by a line to a yellow rectangular box labeled 'EUT'. The 'EUT' is positioned inside a large blue rectangular frame labeled 'Thermal Chamber'.</p>
<b>Test Procedure:</b>	<p><b>Test Procedures for Temperature Variation</b></p> <ol style="list-style-type: none"> <li>1. The testing follows FCC KDB 971168 D01v03r01 Section 9.0.</li> <li>2. The EUT was set up in the thermal chamber and connected with the system simulator.</li> <li>3. With power OFF, the temperature was decreased to <math>-30^{\circ}\text{C}</math> and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.</li> <li>4. With power OFF, the temperature was raised in <math>10^{\circ}\text{C}</math> steps up to <math>50^{\circ}\text{C}</math>. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.</li> </ol> <p><b>Test Procedures for Voltage Variation</b></p> <ol style="list-style-type: none"> <li>1. The testing follows FCC KDB 971168 D01v03r01 Section 9.0.</li> <li>2. The EUT was placed in a temperature chamber at <math>25\pm 5^{\circ}\text{C}</math> and connected with the system simulator.</li> <li>3. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.</li> <li>4. The variation in frequency was measured for the worst case.</li> </ol>
<b>Test Result:</b>	PASS
<b>Remark:</b>	All three channels of all modulations have been tested, but only the worst channel and the worst modulation show in this test item.

**5.7.2. Test Instruments**

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Universal Radio Communication Tester	R&S	CMU200	110188	Jun. 26, 2025
Programable temprature and humidity chamber	JQ	JQ-2000	/	Jun. 26, 2025
DC power supply	Kingrang	KR3005K	/	Jun. 26, 2025
Combiner Box	AT890-RFB	Ascentest	/	/

### 5.7.3. Test Data

#### Test Result of Temperature Variation

Band:	CDMA BC0	Channel:	384	
Limit (ppm):	2.5	Frequency:	836.52MHz	
Temperature (°C)	Deviation (ppm)		Result	
50	0.015		PASS	
40	0.014			
30	0.013			
20	0.011			
10	0.012			
0	0.013			
-10	0.015			
-20	0.016			
-30	0.017			

**Note:** The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

**Test Result of Voltage Variation**

Band & Channel	Mode	Voltage (Volt)	Deviation (ppm)	Limit (ppm)	Result
CDMA BC0	CDMA	4.35	+0.014	2.5	PASS
		3.8	+0.013		
		BEP	+0.016		

**Note:**

1. Normal Voltage = 3.8V.
2. Battery End Point (BEP) = 3.5V.
3. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

## Appendix A: Photographs of Test Setup

Refer to the test report No. TCT240516E049

## Appendix B: Photographs of EUT

Refer to the test report No. TCT240516E022

\*\*\*\*\***END OF REPORT**\*\*\*\*\*