Report No.: NTC1609074F

FCC ID: ZKQ-PME



FCC PART 22H /24E TEST REPORT

The device described below is tested by Dongguan Nore Testing Center Co., Ltd. to determine the maximum emission levels emanating from the device, the severe levels which the device can endure and E.U.T.'s performance criterion. The test results, data evaluation, test procedures, and equipment of configurations shown in this report were made in accordance with the procedures in FCC CFR47 Rules.

Applicant / Manufacturer: Micron Electronics LLC.

Address 1001 Yamato Road, Suite 400, Boca Raton, FL 33431 USA

Micron Electronics LLC. Factory

Address 1001 Yamato Road, Suite 400, Boca Raton, FL 33431 USA

E.U.T. Tracker

Brand Name N/A

Model No. Prime ME

ZKQ-PME FCC ID

Measurement Standard : FCC PART 22H, FCC PART 24E

Date of Receiver : September 13, 2016

: September 13, 2016 to October 21, 2016 Date of Test

: October 21, 2016 Date of Report

This Test Report is Issued Under the Authority of :

Prepared by

Approved & Authorized Signer

Rose Hu / Engineer

Signatory

This test report is for the customer shown above and their specific product only. This report applies to above tested sample only and shall not be reproduced in part without written approval of Dongguan Nore Testing Center Co., Ltd.



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Revision History of This Test Report

| Report Number | Description | Issued Date |
|---------------|---------------|-------------|
| NTC1609074F | Initial Issue | 2016-10-21 |
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1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test

This device is a Tracker, it's powered by DC 3.8V come from internal li-ion battery or DC 5V come from external Adapter. For more details features, please refer to User's Manual.

Power Supply : DC 3.8V, DC 5V come from Adapter

Adapter : M/N: JT-M050100

Input: AC100-240V 50/60Hz

Output: DC5V, 1000mA

Test voltage : AC 120V 60Hz Adapter input, DC 3.8V battery

Model name : Prime ME

Model difference : None

Hardware version : V1.0

Software version : V1.0

Serial number : N/A

Note : This report only applies to modulation technology

PCE(GSM).

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Technical parameters

Frequency Range : Cellular Band: 824.2-848.8MHz (TX)

869.2-893.8MHz(RX)

PCS Band: 1850.2-1909.8MHz (TX)

1930.2-1989.8MHz(RX)

Modulation : GMSK for GSM/PCS

GPRS Multi-slot class : 8/10/12

Antenna Type : Integral

Antenna Gain : 0.6dBi for GSM850

1.1dBi for PCS1900

Number of Channels : 299 for GSM850

124 for PCS1900

Maximum Output Power : GSM850: 31.90dBm

to Antenna

PCS1900: 28.60dBm

Channel list

| GSM850 | | PCS1900 | |
|---------|------------------|---------|------------------|
| Channel | Frequency MHz | Channel | Frequency MHz |
| 128 | 824.2 | 512 | 1850.2 |
| 189 | 836.4 | 661 | 1880.0 |
| 251 | 848.8 | 810 | 1909.8 |

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1.2 Related Submittal(s) / Grant (s)

This submittal(s) test report is filing to comply with Section Part 22 subpart H and Part 24 subpart E of the FCC CFR47 Rules.

1.3 Test Methodology

Both conducted and radiated testing were performed according to the procedures document to TIA/EIA 603 and FCC CFR 47.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055 and 2.1057

1.4 Equipment Modifications

Not available for this EUT intended for grant.

1.5 Support Device

N/A

1.6 Test Facility and Location

Listed by FCC, July 03, 2014
The Certificate Registration Number is 665078.
Listed by Industry Canada, June 18, 2014
The Certificate Registration Number is 9743A.

Dongguan NTC Co., Ltd. (Full Name: Dongguan Nore Testing Center Co., Ltd.)

Building D, Gaosheng Science and Technology Park, Hongtu Road, Nancheng District, Dongguan City, Guangdong, China (Full Name: Building D, Gaosheng Science & Technology Park, Zhouxi Longxi Road, Nancheng District, Dongguan, Guangdong, China. Dongguan Nore Testing Center Co., Ltd. Report No.: NTC1609074F FCC ID: ZKQ-PME



1.7 Summary of Test Results

| FCC Rules | Description Of Test | Result |
|--|---|---------------------------------------|
| §2.1046 §22.913(a) §24.232(c) | RF Output Power | Compliant |
| § 2.1049 § 22.905 § 22.917 § 24.238 | Occupied Bandwidth | Compliant |
| § 2.1055 § 22.355 § 24.235 | Frequency stability vs. temperature Frequency stability vs. voltage | Compliant |
| § 22.917 (a) § 24.238 (a) | Out of band emission, Band Edge | Compliant |
| § 2.1047 | Modulation Characteristics | N/A |
| § 2.1051 § 22.917 (a) § 24.238 (a) | Spurious Emissions at Antenna Terminal | Compliant |
| § 2.1053 § 22.917 (a) § 24.238 (a) | Field Strength of Spurious Radiation | Compliant |
| §1.1307, §2.1093 | RF Exposure (SAR) | Compliant(refer to SAR report please) |
| §24.232(d) | Peak-to-average ratio | Compliant |

Note: The fully-charged battery is used during the measurement.

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2. RF OUTPUT POWER

2.1 Applicable Standard

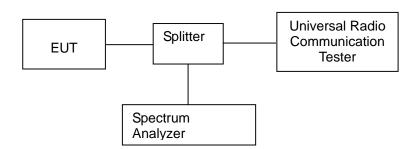
According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC §2.1046 and §24.232 (C), in no case may the peak output power of a base station transmitter exceed 2 watt EIRP.

2.2 Test Procedure

Conducted Method:

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a spectrum analysis. Transmitter output was read off the spectrum analysis in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to spectrum analysis reading.



Radiated method:

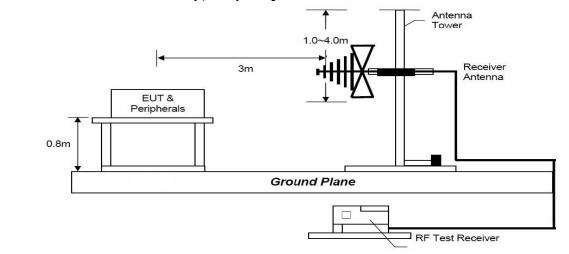
The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 1m to 4m. The reading was recorded and the field strength (E in dBuV/m) was calculated. ERP in frequency band 824.2 –848.80.8MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows: EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows: ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable Loss (dB) EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable Loss (dB)

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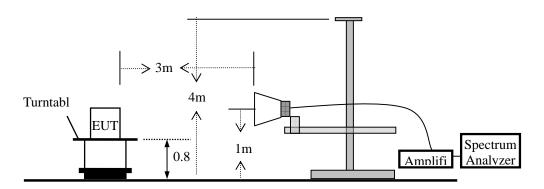
FCC ID: ZKQ-PME



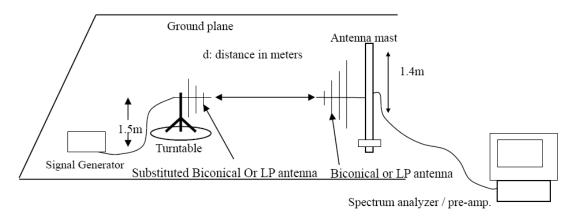
Radiated Emission Test Set-Up, Frequency Below 1000MHz



Radiated Emission Test Set-Up, Frequency above 1GHz



Substituted Method Test Set-UP



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Conducted Power:

| Cellular Band (Part 22H) GSM 850 | | | | | | |
|----------------------------------|---------|-----------|---------------|---------------|--|--|
| Humidity: | | 50 % | Temperature : | 22 ℃ | | |
| Test Result | • | PASS | Test By: | Sance | | |
| Mode | Channel | Frequency | Output Power | Tune up power | | |
| | | (MHz) | (dBm) | tolerant | | |
| CCM | 128 | 824.2 | 31.90 | 32±1 | | |
| GSM (1 Uplink) | 189 | 836.4 | 31.50 | 32±1 | | |
| (1 Opilitk) | 251 | 848.8 | 31.30 | 32±1 | | |
| ODDC 0 | 128 | 824.2 | 31.87 | 32±1 | | |
| GPRS 8 (1 Uplink) | 189 | 836.4 | 31.42 | 32±1 | | |
| (1 Opilitik) | 251 | 848.8 | 31.45 | 32±1 | | |
| CDDC 40 | 128 | 824.2 | 31.19 | 31±1 | | |
| GPRS 10 (2 Uplink) | 189 | 836.4 | 30.80 | 31±1 | | |
| (Z Opilitk) | 251 | 848.8 | 30.76 | 31±1 | | |
| 000046 | 128 | 824.2 | 28.14 | 28±1 | | |
| GPRS 12 (4 Uplink) | 189 | 836.4 | 27.93 | 28±1 | | |
| (+ Opilitk) | 251 | 848.8 | 28.15 | 28±1 | | |

| PCS Band (Part 24E) PCS 1900 | | | | | |
|------------------------------|---------|-----------|---------------|---------------|--|
| Humidity: | | 50 % | Temperature : | 22 ℃ | |
| Test Result | : | PASS | Test By: | Sance | |
| Mode | Channel | Frequency | Output Power | Tune up power | |
| | | (MHz) | (dBm) | tolerant | |
| CCM | 512 | 1850.2 | 28.60 | 28±1 | |
| GSM (1 Uplink) | 661 | 1880.0 | 28.50 | 28±1 | |
| (т Оршік) | 810 | 1909.8 | 28.50 | 28±1 | |
| GPRS 8 | 512 | 1850.2 | 27.86 | 27±1 | |
| (1 Uplink) | 661 | 1880.0 | 27.76 | 27±1 | |
| (1 Opilitk) | 810 | 1909.8 | 27.85 | 27±1 | |
| GPRS 10 | 512 | 1850.2 | 27.70 | 27±1 | |
| (2 Uplink) | 661 | 1880.0 | 27.53 | 27±1 | |
| (2 Opilitik) | 810 | 1909.8 | 27.65 | 27±1 | |
| CDDC 10 | 512 | 1850.2 | 26.72 | 26±1 | |
| GPRS 12 (4 Uplink) | 661 | 1880.0 | 26.43 | 26±1 | |
| (+ Оршік) | 810 | 1909.8 | 25.95 | 26±1 | |

Note: Measurement uncertainty ±0.56dB

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Radiated Power (ERP and EIRP)

| Cellular Band (Part 22H)/ ERP | | | | | | | |
|-------------------------------|--------------------|-------------------------------|----------------------------------|-----------------------------|--------------------|----------------------------|----------------|
| Humidity: | | 50 % | Temperatu | re: | | 22 ℃ | |
| Mode: | | GSM850 | Test By: | | | Sance | |
| Test Resu | ılt: | PASS | | | | | |
| Channel | Frequency (MHz) | Substituted level (dBm) | Polarization (H/V) Antenna | Gain Correction (dBi) | Cable Loss (dB) | Absolute Level (dBm) | Limit (dBm) |
| 400 | 204.0 | 16.49 | н | 7.86 | 0.9 | 23.45 | 38.45 |
| 128 | 824.2 | 14.81 | V | 7.86 | 0.9 | 21.77 | 38.45 |
| 400 | 000.4 | 15.14 | Н | 7.81 | 0.9 | 22.05 | 38.45 |
| 189 836.4 | 836.4 | 12.78 | V | 7.81 | 0.9 | 19.69 | 38.45 |
| 251 | 040.0 | 17.87 | Н | 7.81 | 0.9 | 24.78 | 38.45 |
| | 848.8 | 13.00 | V | 7.81 | 0.9 | 19.91 | 38.45 |

| PCS Band (Part 24E)/ EIRP | | | | | | | |
|---------------------------|--------------------|-------------------------------|----------------------------------|-----------------------------|--------------------|----------------------------|----------------|
| Humidity: | | 50 % | Temperatu | re: | | 22 ℃ | |
| Mode: | | PCS1900 | Test By: | | | Sance | |
| Test Resu | ılt: | PASS | | | | | |
| Channel | Frequency (MHz) | Substituted level (dBm) | Polarization (H/V) Antenna | Gain Correction (dBi) | Cable Loss (dB) | Absolute Level (dBm) | Limit (dBm) |
| -10 | 512 1850.2 | 18.20 | н | 8.04 | 2.3 | 23.94 | 33.0 |
| 512 | | 13.01 | V | 8.04 | 2.3 | 18.75 | 33.0 |
| 664 | 4000.0 | 18.43 | Н | 8.06 | 2.3 | 24.19 | 33.0 |
| 661 18 | 1080.0 | 1880.0 | V | 8.06 | 2.3 | 18.23 | 33.0 |
| 810 | 4000.0 | 19.00 | Н | 8.09 | 2.3 | 24.79 | 33.0 |
| | 1909.8 | 14.19 | V | 8.09 | 2.3 | 19.98 | 33.0 |

Note: Measurement uncertainty ±3.7dB.

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3. TEST OCCUPIED BANDWIDTH

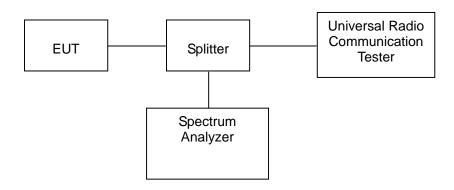
3.1 Applicable Standard

CFR 47 §2.1049, §22.917, §22.905 and §24.238.

3.2 Test Procedure

The RF output of the transmitter was connected to the simulator and the spectrum analyzer through sufficient attenuation.

The resolution bandwidth of the spectrum analyzer was set at 30 kHz (Cellular /PCS) and the 26 dB & 99% bandwidth was recorded.



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| Cellular Band (Part 22H) | | | | | | | |
|--|---------|-----------|---------------------|-----------------|--|--|--|
| Humidity : 50% Temperature : 22% | | | | | | | |
| Test Result: | | PASS | Test By: | Sance | | | |
| Mode | Channel | Frequency | 99% Power Bandwidth | 26 dB Bandwidth | | | |
| | | (MHz) | (kHz) | (kHz) | | | |
| | 128 | 824.2 | 242.0 | 318.9 | | | |
| GSM850 | 189 | 836.4 | 242.0 | 320.5 | | | |
| | 251 | 848.8 | 242.0 | 315.7 | | | |

| PCS Band (Part 24E) | | | | | | | |
|-----------------------------------|-----|-------------------------------|-------|-----------------|--|--|--|
| Humidity: 50 % Temperature: 22 °C | | | | | | | |
| Test Result: | | PASS Test By: | | Sance | | | |
| Mode Channel | | Frequency 99% Power Bandwidth | | 26 dB Bandwidth | | | |
| | | (MHz) | (kHz) | (kHz) | | | |
| | 512 | 1850.2 | 243.6 | 322.1 | | | |
| PCS1900 | 661 | 1880.0 | 245.2 | 317.3 | | | |
| | 810 | 1909.8 | 245.2 | 320.5 | | | |

FCC ID: ZKQ-PME



Cellular Band (Part 22H)

26 dB Bandwidth (Channel 128)



Date: 14.OCT.2016 09:42:48

99% Band width (Channel 128)



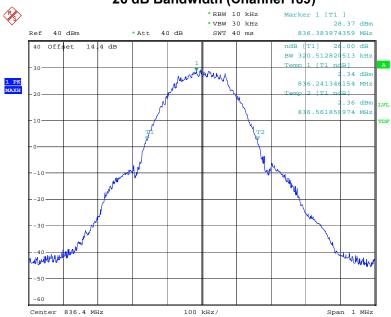
Date: 14.0CT.2016 09:44:07

FCC ID: ZKQ-PME



Cellular Band (Part 22H)

26 dB Bandwidth (Channel 189)



Date: 14.OCT.2016 09:46:37

99% Band width (Channel 189)



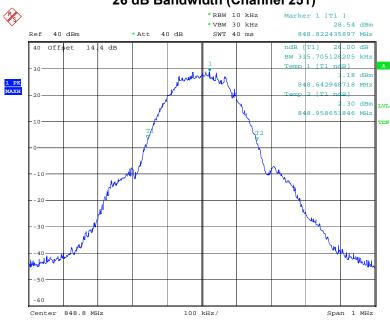
Date: 14.0CT.2016 09:45:31

FCC ID: ZKQ-PME

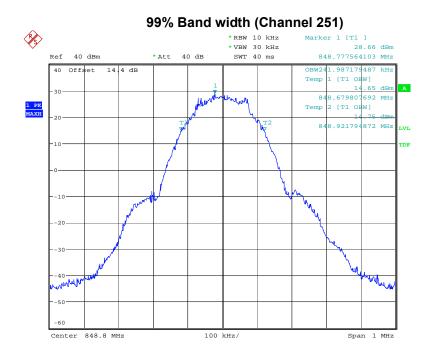


Cellular Band (Part 22H)

26 dB Bandwidth (Channel 251)



Date: 14.OCT.2016 09:47:39



FCC ID: ZKQ-PME



PCS Band (Part 24H)

26 dB Bandwidth (Channel 512)



Date: 14.0CT.2016 10:05:10

99% Band width (Channel 512)



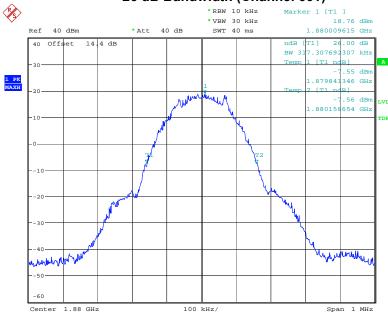
Date: 14.0CT.2016 10:05:57

FCC ID: ZKQ-PME



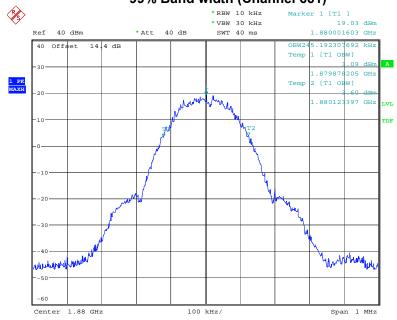
PCS Band (Part 24H)

26 dB Bandwidth (Channel 661)



Date: 14.0CT.2016 10:07:18

99% Band width (Channel 661)



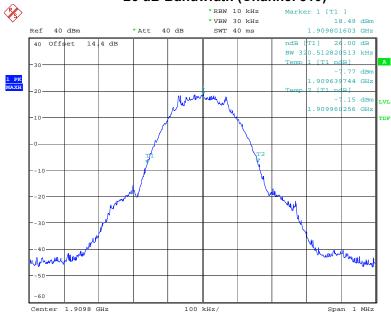
Date: 14.0CT.2016 10:06:35

FCC ID: ZKQ-PME



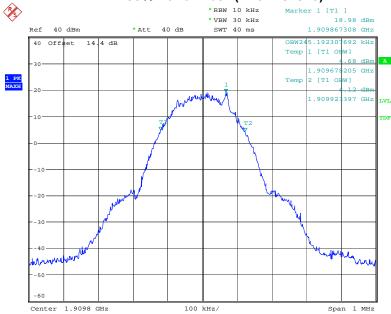
PCS Band (Part 24H)

26 dB Bandwidth (Channel 810)



Date: 14.OCT.2016 10:08:59

99% Band width (Channel 810)



Date: 14.OCT.2016 10:10:08

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4. FREQUENCY STABILITY

4.1 Applicable Standard

CFR47 § 2.1055 (a), § 2.1055 (d), §22.355, §24.235

According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below:

| Frequency | Tolerance for | or Transmitters | in the Public | Mobile Services |
|-----------|---------------|-----------------|---------------|-----------------|
|-----------|---------------|-----------------|---------------|-----------------|

| Frequency Range (MHz) | Base, fixed (ppm) | Mobile ≤ 3 watts (ppm) | Mobile ≤ 3 watts (ppm) |
|--------------------------|----------------------|------------------------------|---------------------------|
| 25 to 50 | 20.0 | 20.0 | 50.0 |
| 50 to 450 | 5.0 | 5.0 | 50.0 |
| 450 to 512 | 2.5 | 5.0 | 5.0 |
| 821 to 896 | 1.5 | 2.5 | 2.5 |
| 928 to 929. | 5.0 | N/A | N/A |
| 929 to 960. | 1.5 | N/A | N/A |
| 2110 to 2220 | 10.0 | N/A | N/A |

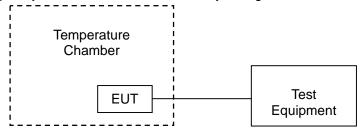
According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

4.2 Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 30 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: An external variable DC power supply was connected to the battery terminals of the equipment under test. The voltage was set to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the battery end point. The output frequency was recorded for each battery voltage.



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| Cellular Band | | | | | | | |
|---------------------|-------------------------|---------|-------------------------|----------------------------|-----|----------------|--|
| Humidity: 50 % | | Tempe | | ature : | 22 | $^{\circ}$ C | |
| Mode: | GSM850 | | Test By | : | Sar | nce | |
| Test Result: | PASS | | | | | | |
| | Middle | channel | , f _o =836.4 | lМHz; | | | |
| Temperature (°C) | Power Supplied (Vdc) | | | Frequent Error (ppm) | су | Limit (ppm) | |
| -10 | | 2 | 20 | 0.02391 | 2 | 2.5 | |
| 0 | | , | 18 | 0.02152 | 21 | 2.5 | |
| 10 | | , | 17 | 0.020325 | | 2.5 | |
| 20 | 3.8 | , | 14 | 0.01673 | 38 | 2.5 | |
| 30 | | , | 15 | 0.01793 | 34 | 2.5 | |
| 40 | | , | 17 | 0.02032 | 25 | 2.5 | |
| 50 | | 2 | 20 | 0.02391 | 2 | 2.5 | |
| | 3.8 | | 7 | 0.008369 | | 2.5 | |
| 25 | 4.2 | | 9 | 0.01076 | 60 | 2.5 | |
| | 3.4 | , | 10 | 0.01195 | 6 | 2.5 | |

Note: The manufacturer declared that the EUT could work within temperature range -10 $^{\circ}\mathrm{C}$ to 50°C and voltage range DC 3.4V to DC 4.2V. The nominal voltage is DC 3.8V.

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| PCS Band | | | | | | | | |
|---------------------|-----|---|---------|-------------------------|-----------------------------|-----|----------------|--|
| Humidity: 50 % | | 50 % | Temper | | ature : | 22 | $^{\circ}$ | |
| Mode: | | PCS1900 | | Test By | | Sar | nce | |
| Test Result: | | PASS | | | | | | |
| | | Middle | channel | , f _o =1880. | OMHz; | | | |
| Temperature (°C) | Pow | wer Supplied Frequency (Vdc) Frequency (Hz) | | rror | Frequency Error (ppm) | | Limit (ppm) | |
| -10 | | | | 23 | -0.012230 | | 2.5 | |
| 0 | | | _ | 34 | -0.018090 | | 2.5 | |
| 10 | | | | 10 | 0.005319 | | 2.5 | |
| 20 | | 3.8 | | 19 | 0.010106 | | 2.5 | |
| 30 | | | : | 28 | 0.01489 | | 2.5 | |
| 40 | | | , | 15 | 0.007979 | | 2.5 | |
| 50 | | | _ | 11 | -0.0058 | 350 | 2.5 | |
| | | 3.8 | | 14 | 0.0074 | 147 | 2.5 | |
| 25 | | 4.2 | | 21 | 0.0111 | 70 | 2.5 | |
| | | 3.4 | | 19 | 0.0101 | 06 | 2.5 | |

to 50℃ and voltage range DC 3.4V to DC 4.2V. The nominal voltage is DC 3.8V.

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5. BAND EDGES

5.1 Applicable Standard

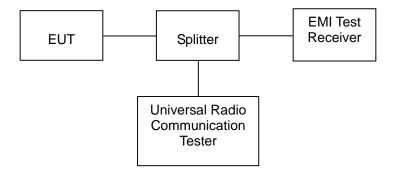
According to § 22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

5.2 Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

The center of the spectrum analyzer was set to block edge frequency, RBW set to 3 kHz.



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| Cellular Band | | | | | | |
|---------------|---------|------------|-------|-------------|--|--|
| Humidity: | 50 % | Temperatur | e : | 22 ℃ | | |
| Test Result: | PASS | Test By: | | Sance | | |
| Mode | GSM850 | | | | | |
| Frequency | Emissio | | | Limit | | |
| (MHz) | (dBm) | | (dBm) | | | |
| 824 | -15.36 | 6 | -13 | | | |
| 849 | -14.81 | | | -13 | | |

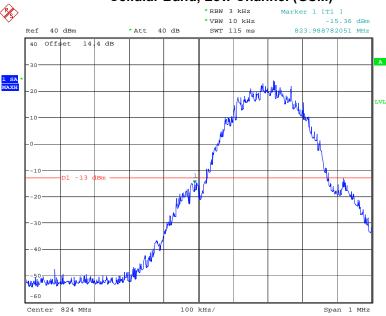
| PCS Band | | | | | | |
|--------------|---------|------------|-----|-------------|--|--|
| Humidity: | 50 % | Temperatur | e : | 22 ℃ | | |
| Test Result: | PASS | Test By: | | Sance | | |
| Mode | PCS1900 | | | | | |
| Frequency | Emissio | | | Limit | | |
| (MHz) | (dBm) | | | (dBm) | | |
| 1850 | -21.38 | | -13 | | | |
| 1910 | -21.60 | | | -13 | | |

Note: 1. Measurement uncertainty ±0.56dB

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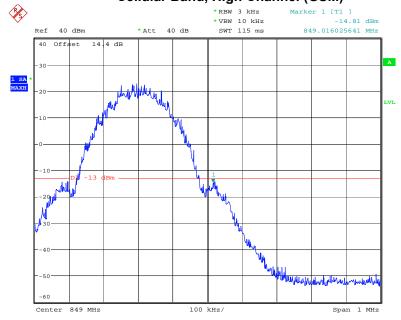






Date: 14.OCT.2016 09:52:32

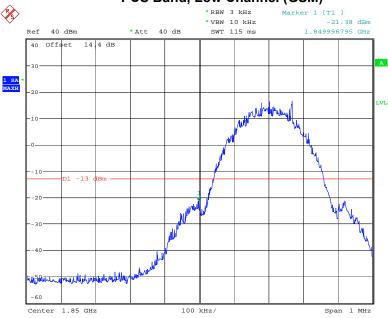
Cellular Band, High Channel (GSM)



FCC ID: ZKQ-PME

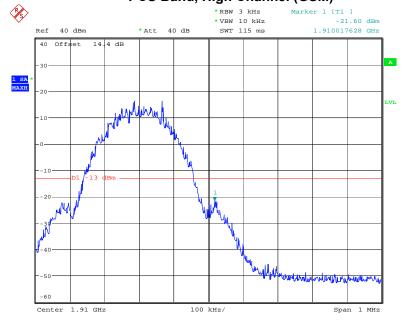






Date: 14.0CT.2016 10:12:22

PCS Band, High Channel (GSM)



Date: 14.OCT.2016 10:14:05

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6. 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.

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7. SPURIOUS EMISSIONS AT ANTENNA TERMINALS

7.1 Applicable Standards

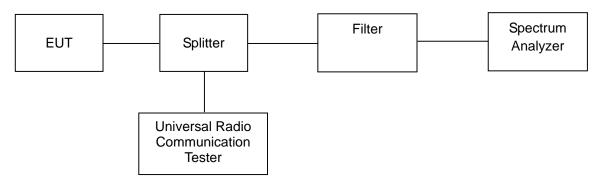
CFR 47 §2.1051, §22.917(a) and §24.238(a).

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in § 2.1051.

7.2 Test Procedure

The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate

attenuation. The resolution bandwidth of the spectrum analyzer was set at 1000 kHz. Sufficient scans were taken to show any out of band emissions up to 10th harmonic.

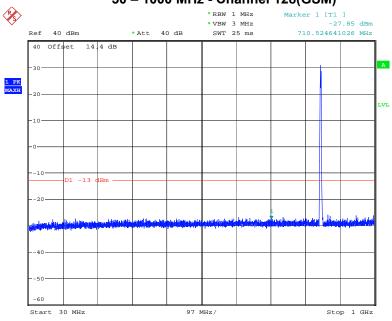


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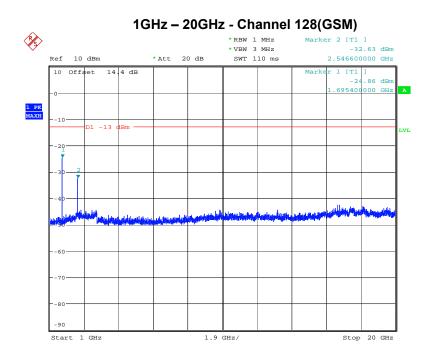
FCC ID: ZKQ-PME



Cellular Band (Part 22H) 30 - 1000 MHz - Channel 128(GSM)

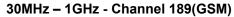


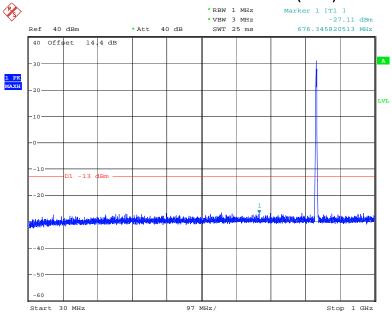
Date: 14.OCT.2016 09:56:12



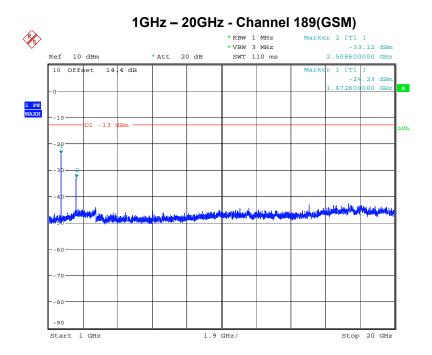
FCC ID: ZKQ-PME







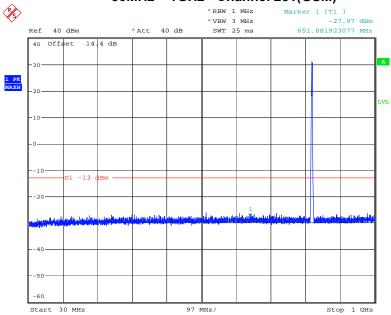
Date: 14.OCT.2016 09:58:08



FCC ID: ZKQ-PME

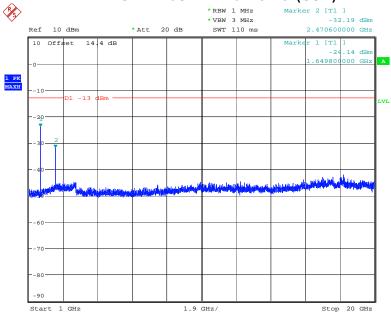






Date: 14.OCT.2016 09:58:54

1GHz - 20GHz - Channel 251(GSM) *RBW 1 MHz



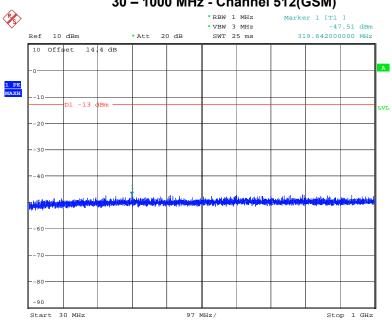
Date: 14.OCT.2016 09:59:21

Dongguan Nore Testing Center Co., Ltd. Report No.: NTC1609074F

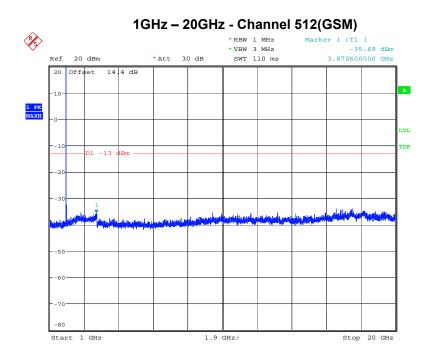
FCC ID: ZKQ-PME



PCS Band (Part24E) 30 - 1000 MHz - Channel 512(GSM)



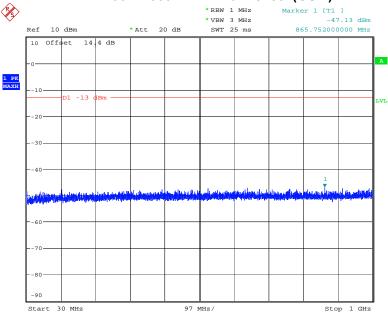
Date: 14.OCT.2016 10:15:51



FCC ID: ZKQ-PME

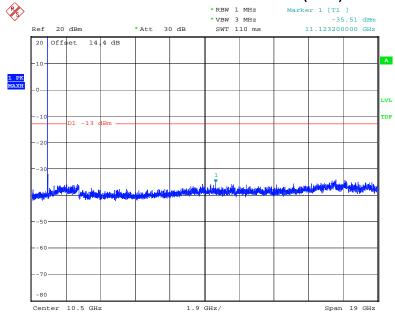






Date: 14.0CT.2016 10:16:18

1GHz - 20GHz - Channel 661(GSM)



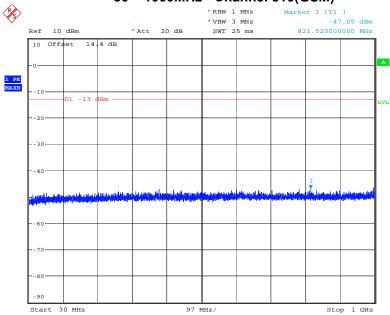
Date: 14.0CT.2016 10:18:15

Dongguan Nore Testing Center Co., Ltd. Report No.: NTC1609074F

FCC ID: ZKQ-PME

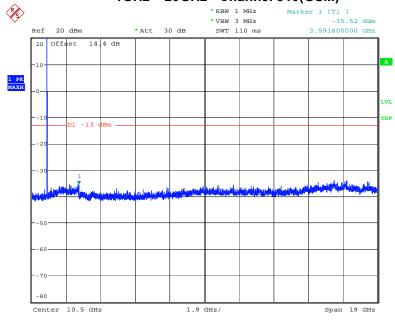


30 - 1000MHz - Channel 810(GSM)



Date: 14.0CT.2016 10:16:31

1GHz - 20GHz - Channel 810(GSM)



Date: 14.OCT.2016 10:18:37

FCC ID: ZKQ-PME



8. FIELD STRENGTH OF SPURIOUS RADIATED EMISSIONS

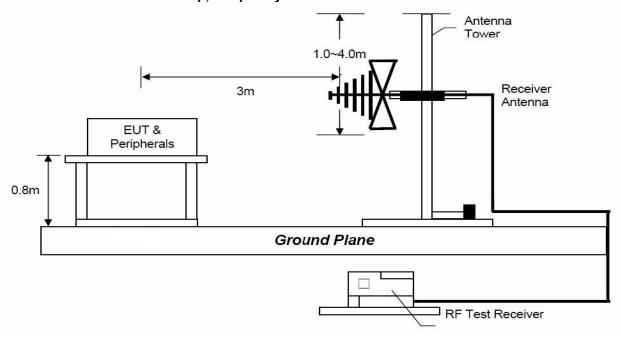
8.1 Applicable Standards

According to FCC §2.1053

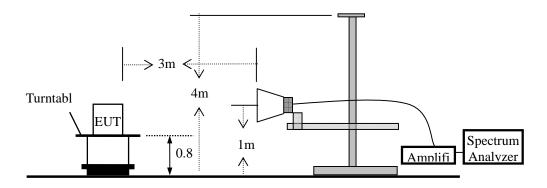
FCC §22.917(a),§24.238(a), the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specified in the instruction manual and/ or alignment procedure, shall not be less than 43 + 10 log (mean output power in watts) dBc below the mean power output outside a license's frequency block (-13dBm)

8.2 Test of Block Diagram of configuration

Radiated Emission Test Set-Up, Frequency Below 1000MHz



Radiated Emission Test Set-Up, Frequency above 1GHz

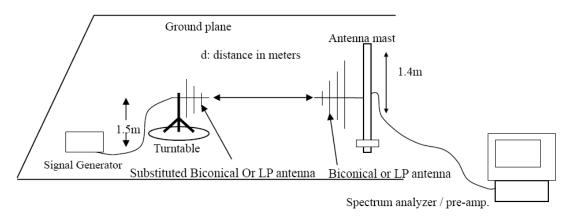


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Substituted Method Test Set-UP



8.3 Test Procedure

The EUT was placed on a non-conductive, The measurement antenna was placed at a distance of 3 meters from the EUT. 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. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission were identified, the power of the emission was determined using the substitution method. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. EIRP = S.G. output (dBm) + Antenna Gain(dBi) – Cable Loss (dB)

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| | | Ce | ellular Band | (Part 22H) | | | | |
|-----------|--------------------|-------------------------------|----------------------------------|-----------------------------|--------------------|----------------------------|----------------|--|
| Humidity: | | 50 % | Temperatui | re : | | 22 ℃ | | |
| Mode: | | GSM850 | Test By: | | Sance | | | |
| Test Resu | lt: | PASS | | | | | | |
| Channel | Frequency (MHz) | Substituted level (dBm) | Polarization (H/V) Antenna | Gain Correction (dBi) | Cable Loss (dB) | Absolute Level (dBm) | Limit (dBm) | |
| | 1648.4 | -48.64 | н | 8.26 | 2.1 | -42.48 | -13.00 | |
| | 1648.4 | -51.32 | ٧ | 8.26 | 2.1 | -45.16 | -13.00 | |
| 128 | 2472.6 | -54.02 | Н | 9.2 | 2.6 | -47.42 | -13.00 | |
| 128 | 2472.6 | -49.29 | V | 9.2 | 2.6 | -42.69 | -13.00 | |
| | | | | | | | | |
| | 1672.4 | -49.03 | Н | 8.26 | 2.1 | -42.87 | -13.00 | |
| | 1672.4 | -50.12 | V | 8.26 | 2.1 | -43.96 | -13.00 | |
| 189 | 2509.2 | -49.65 | H | 9.2 | 2.6 | -43.05 | -13.00 | |
| 189 | 2509.2 | -49.33 | V | 9.2 | 2.6 | -42.73 | -13.00 | |
| | | | | | | | | |
| | 1697.6 | -49.78 | Н | 8.24 | 2.1 | -43.64 | -13.00 | |
| 251 | 1697.6 | -47.36 | V | 8.24 | 2.1 | -41.22 | -13.00 | |
| | 2546.4 | -52.49 | Н | 9.3 | 2.6 | -45.79 | -13.00 | |
| | 2546.4 | -49.75 | V | 9.3 | 2.6 | -43.05 | -13.00 | |
| | | | | | | | | |

Note: 1. Spurious emissions below 1000MHz were found more than 20dB below limit line.

2. Measurement uncertainty: ±3.7dB.

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| | | 1 | PCS Band (F | Part 24E) | | | | |
|------------|--------------------|-------------------------------|----------------------------------|-----------------------------|--------------------|----------------------------|----------------|--|
| Humidity: | | 50 % | Temperatui | re : | | 22 ℃ | | |
| Mode: | | PCS1900 | Test By: | | | Sance | | |
| Test Resul | t: | PASS | | | | | | |
| Channel | Frequency (MHz) | Substituted level (dBm) | Polarization (H/V) Antenna | Gain Correction (dBi) | Cable Loss (dB) | Absolute Level (dBm) | Limit (dBm) | |
| | 3700.4 | -55.52 | н | 10.5 | 3.8 | -45.85 | -13.00 | |
| | 3700.4 | -48.96 | V | 10.5 | 3.8 | -42.26 | -13.00 | |
| 512 | | | | | | | | |
| | 3760 | -52.06 | Н | 10.5 | 3.9 | -45.46 | -13.00 | |
| | 3760 | -51.70 | V | 10.5 | 3.9 | -45.10 | -13.00 | |
| 661 | | | | | | | | |
| | 3819.6 | -50.93 | Н | 10.6 | 4.0 | -44.33 | -13.00 | |
| | 3819.6 | -48.89 | V | 10.6 | 4.0 | -42.29 | -13.00 | |
| 810 | | | | | | | | |
| | | | | | | | | |

Note: 1. Spurious emissions below 1000MHz were found more than 20dB below limit line. 2. Measurement uncertainty: ±3.7dB.

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9. PEAK-AVERAGE RATIO

9.1 Applicable Standards

According to FCC §24.232(d)

The peak-to-average radio (PAR) of the transmission ma not exceed 13 dB.

9.2 Test Procedure

According with KDB 971168

The signal analyzer's CCDF measurement profile is enabled,

Frequency = carrier center frequency,

Measurement BW > Emission bandwidth of signal,

The signal analyzer was set to collect one million samples to generate the CCDF curve, The measurement interval was set depending on the type of signal analyzed. For continuous signals > 98% duty cycle, the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power.

9.3 Test Result

| Frequency | Conducted | power(dBm) | Pead-Average |
|-----------|-----------|------------|--------------|
| (MHz) | Peak | Average | Ratio(PAR) |
| 1850.2 | 28.60 | 27.85 | 0.75 |
| 1880 | 28.50 | 27.84 | 0.66 |
| 1909.8 | 28.50 | 27.69 | 0.81 |

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10. RF Exposure

10.1 Applicable Standards

§1.1307 and §2.1093.

10.2 Test Result

Compliance

The EUT is a portable device, thus requires SAR evaluation; please refer to SAR Report Number: WTS16S1062679E.

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11. Test Equipment List

| Description | Manufacturer | Model Number | Serial Number | Calibration Date | Calibration Due Date |
|--|-----------------|-----------------|------------------|---------------------|-------------------------|
| Test Receiver | Rohde & Schwarz | ESCI7 | 100837 | Nov. 23, 2015 | Nov. 22, 2016 |
| Antenna | Schwarzbeck | VULB9162 | 9162-010 | Nov. 26, 2015 | Nov. 25, 2016 |
| Cable | Huber+Suhner | CBL2-NN-1M | 22390001 | Nov. 07, 2015 | Nov. 06, 2016 |
| Antenna | Teseq | CBL 6111D | 27086 | Nov. 26, 2015 | Nov. 25, 2016 |
| Power Amplifier | HP | HP 8447D | 1145A00203 | Nov. 07, 2015 | Nov. 06, 2016 |
| Horn Antenna | Schwarzbeck | BBHA9170 | 9170-372 | Oct.23, 2015 | Oct.22, 2016 |
| Horn Antenna | Com-Power | AH-118 | 071078 | Nov. 04, 2015 | Nov. 04, 2016 |
| Analyzer Modulation | HP | 8901A | 2026A00847 | Dec. 24, 2015 | Dec. 23, 2016 |
| Spectrum Analyzer | Rohde & Schwarz | FSU26 | 200409/026 | Aug. 31, 2016 | Aug. 30, 2017 |
| Pre-Amplifier | Agilent | 8449B | 3008A02964 | Nov. 03, 2015 | Nov. 02, 2016 |
| SMA Cable | REBES | A46-NMNM | N/A | Nov. 07, 2015 | Nov. 06, 2016 |
| Temperature & Humidity Chamber | BELL | BE-TH-408 | N/A | Dec. 24, 2015 | Dec. 23, 2016 |
| DC Source | HUAYI | HY5003-2 | N/A | Dec. 24, 2015 | Dec. 23, 2016 |
| Signal Generator | Agilent | N5182A | MY48180739 | Mar. 07, 2016 | Mar. 06, 2017 |
| Universal Radio Communication Tester | Rohde & Schwarz | CMU200 | 117060 | Mar. 07, 2016 | Mar. 06, 2017 |
| Anechoic chamber | SAEMC | 9*7*7m | N/A | Aug. 22, 2016 | Aug. 20, 2018 |
| Shielded room 1 | SAEMC | 6.2*4*3.6m | N/A | Aug. 22, 2016 | Aug. 20, 2018 |
| Shielded room 2 | SAEMC | 8*4*3.6m | N/A | Aug. 22, 2016 | Aug. 20, 2018 |