# Radio Test Report

Report No.:STS2601367W05

Issued for

Shenzhen Qichang Intelligent Technology Co., Ltd

Room 510, Building 7, Yunli Intelligent Park, No. 7, Bantian Street, Longgang, Shenzhen, China

| | |
|---|---|
| Product Name: | Smart Phone |
| Brand Name: | FOSSiBOT |
| Model Name: | F113 |
| Series Model(s): | F113 Pro, F113 Plus, F113 P |
| FCC ID: | 2BAK2-F113 |
| Test Standards: | 47 CFR Part 2, 22H, 24E, 27, 90 |

# TEST REPORT

| | |
|---|---|
| **Applicant's Name** ..... : | Shenzhen Qichang Intelligent Technology Co., Ltd |
| Address ..... : | Room 510, Building 7, Yunli Intelligent Park, No. 7, Bantian Street, Longgang, Shenzhen, China |
| **Manufacturer's Name** ..... : | Shenzhen Qichang Intelligent Technology Co., Ltd |
| Address ..... : | Room 510, Building 7, Yunli Intelligent Park, No. 7, Bantian Street, Longgang, Shenzhen, China |

**Product Description**

| | |
|---|---|
| Product Name ..... : | Smart Phone |
| Brand Name ..... : | FOSSIBOT |
| Model Name ..... : | F113 |
| Series Model(s) ..... : | F113 Pro, F113 Plus, F113 P |
| **Test Standards** ..... : | 47 CFR Part 2, 22H, 24E, 27, 90 |
| Test Procedure ..... : | KDB 971168 D01 v03r01,ANSI C63.26( 2015) |

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

| | |
|---|---|
| **Date of Test** ..... : | |
| Date of receipt of test item ..... : | 14 Aug. 2025 |
| Date (s) of performance of tests : | 14 Aug. 2025 ~ 1 Apr. 2026 |
| Date of Issue ..... : | 1 Apr. 2026 |
| Test Result ..... : | Pass |

Testing Engineer : Aaron Bu

(Aaron Bu)

Technical Manager : Skylar Li

(Skylar Li)

Authorized Signatory : Bovey Yang

(Bovey Yang)

SHENZHEN STS TEST SERVICES CO., LTD. TESTING APPROVAL

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## Revision History

| Rev. | Issue Date | Report No. | Effect Page | Contents |
|---|---|---|---|---|
| 00 | 1 Apr. 2026 | STS2601367W05 | ALL | Initial Issue |
| | | | | |

# 1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

The radiated emission testing was performed according to the procedures of KDB 971168 D01 v03r01 and ANSI C63.26( 2015)

| Test Description | FCC Rules | Band | Test Limit | Test Result |
|---|---|---|---|---|
| Conducted Output Power | 2.1046 | / | Reporting Only | PASS |
| Transmitter Radiated Power | 22.913 | GSM850, WCDMAB5, B5 | ERP < 7 Watt | PASS |
| | 24.232(c) | GSM1900, WCDMAB2, B2 | EIRP < 2Watt | |
| | 27.50(c) | WCDMAB4, B12, B17 | ERP < 3 Watt | |
| | 27.50(d) | B4 | EIRP < 1Watt | |
| | 27.50(h) | B7 | EIRP < 2Watt | |
| Peak-to-Average Ratio | 22.913(d) | GSM850, WCDMAB5, B5 | < 13 dB | PASS |
| | 24.232(d) | GSM1900, WCDMAB2, B2 | | |
| | 27.50 | WCDMAB4, B4, B7, B12, B17 | | |
| Occupied Bandwidth | 2.1049 | / | Reporting Only | PASS |
| Frequency Stability | 2.1055 | / | < 2.5 ppm | PASS |
| | 22.355 | GSM850, WCDMAB5, B5 | | |
| | 24.235 | GSM1900, WCDMAB2, B2 | | |
| | 27.54 | WCDMAB4, B4, B7, B12, B17 | | |

| | | | | |
|---|---|---|---|---|
| Spurious Emission at Antenna Terminals | 2.1051 | / | < 43+10log10(P[Watts]) | PASS |
| | 22.917 | GSM850, WCDMAB5, B5 | | |
| | 24.238(a) | GSM1900, WCDMAB2, B2 | | |
| | 27.53(g) | B12, B17 | | |
| | 27.53(h) | WCDMAB4, B4 | | |
| | 27.53(m) | B7 | < 55+10log10(P[Watts]) | |
| Band Edge | 2.1051 | / | Please refer to standard | PASS |
| | 22.917 | GSM850, WCDMAB5, B5 | | |
| | 24.238(a) | GSM1900, WCDMAB2, B2 | | |
| | 27.53(g) | B12, B17 | | |
| | 27.53(h) | WCDMAB4, B4 | | |
| | 27.53(m) | B7 | | |
| Field Strength of Spurious Radiation | 2.1053 | / | < 43+10log10(P[Watts]) | PASS |
| | 22.917 | GSM850, WCDMAB5, B5 | | |
| | 24.238(a) | GSM1900, WCDMAB2, B2 | | |
| | 27.53(g) | B12, B17 | | |
| | 27.53(h) | WCDMAB4, B4 | | |
| | 27.53(m) | B7, B41 | < 55+10log10(P[Watts]) | |

1.1 INTRODUCTION

TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements ofANSI C63.4-2014. All measurement uncertainty values are shown with a coverage factor of k = 2 toindicate a 95% level of confidence. The measurement data shown herein meets or exceeds the UCISPRmeasurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly tospecified limits to determine compliance.

| No. | Item | Uncertainty |
|---|---|---|
| 1 | RF output power, conducted | ±0.751dB |
| 2 | Unwanted Emissions, conducted | ±2.888dB |
| 3 | All emissions, radiated 9K-30MHz | ±2.48dB |
| 4 | All emissions, radiated 30M-1GHz | ±2.52dB |
| 5 | All emissions, radiated 1G-18GHz | ±3.48dB |
| 6 | All emissions, radiated>18GHz | ±4.18dB |
| 7 | Conducted Emission (9KHz-150KHz) | ±2.48dB |
| 8 | Conducted Emission (150KHz-30MHz) | ±2.52dB |
| 9 | Occupied Channel Bandwidth | ±3.6% |
| 10 | Power Spectral Density, conducted | ±1.214dB |
| 11 | Duty Cycle | ±3.2% |

## 2 PRODUCT INFORMATION

| | |
|---|---|
| Product Name | Smart Phone |
| Brand Name | FOSSiBOT |
| Model Name | F113 |
| Series Model(s) | F113 Pro, F113 Plus, F113 P |
| Model Difference | All models are identical except for the model name, the test model is F113. |
| Tx Frequency: | GSM/GPRS/EGPRS 850: TX: 824~849MHz;<br>GSM/GPRS/EGPRS 1900: TX:1850~1910MHz;<br>WCDMA Band II: TX: 1852.40~1907.60MHz;<br>WCDMA Band IV: TX: 1712.40~1752.60MHz;<br>WCDMA Band V: TX: 826.40~846.60MHz;<br>LTE Band 2: 1850 MHz ~ 1910 MHz<br>LTE Band 4: 1710 MHz ~ 1755 MHz<br>LTE Band 5: 824 MHz ~ 849 MHz<br>LTE Band 7: 2500MHz-2570MHz<br>LTE Band 12: 699 MHz ~ 716 MHz<br>LTE Band 17: 704MHz ~ 716MHz |
| Rx Frequency: | GSM/GPRS/EGPRS 850: RX: 869~894MHz;<br>GSM/GPRS/EGPRS 1900: RX:1930~1990MHz;<br>WCDMA Band II: Rx: 1932.60~1987.40MHz;<br>WCDMA Band IV: RX: 2112.60 – 2452.40MHz<br>WCDMA Band V: RX: 871.40~ 891.60MHz;<br>LTE Band 2: 1930 MHz ~ 1990 MHz<br>LTE Band 4: 2110 MHz ~ 2155 MHz<br>LTE Band 5: 869 MHz ~ 894 MHz<br>LTE Band 7: 2620MHz ~ 2690MHz<br>LTE Band 12: 729 MHz ~ 746 MHz<br>LTE Band 17: 734MHz ~ 746MHz |
| Max RF Output Power: | GSM/GPRS/EGPRS 850: 30.77 dBm,<br>GSM/GPRS/EGPRS 1900: 27.49 dBm<br>WCDMA Band II: 21.44 dBm<br>WCDMA Band IV: 21.49 dBm<br>WCDMA Band V: 21.72 dBm<br>LTE Band 2: 23.59 dBm<br>LTE Band 4: 23.43 dBm<br>LTE Band 5: 23.54 dBm<br>LTE Band 7: 23.82 dBm<br>LTE Band 12: 23.66 dBm<br>LTE Band 17: 23.71 dBm |
| Modulation Characteristics: | GMSK for GSM/GPRS; GMSK and 8PSK for EDGE<br>WCDMA: QPSK; HSDPA:QPSK/16QAM; HSUPA:BPSK<br>LTE: QPSK /16QAM |
| SIM Card: | SIM 1 |
| Antenna: | Internal Antenna |
| Antenna gain: | GSM850: -0.28 dBi<br>GSM1900: -0.03 dBi<br>WCDMA Band II: -0.03 dBi<br>WCDMA Band IV: -0.64 dBi<br>WCDMA Band V: -0.28 dBi<br>LTE Band 2: -0.03 dBi |

| | |
|---|---|
| | LTE Band 4: -0.64 dBi<br>LTE Band 5: -0.28 dBi<br>LTE Band 7: -1.42 dBi<br>LTE Band 12: -1.45 dBi<br>LTE Band 17: -1.45 dBi |
| GPRS/EDGE Class: | Multi-Class12 |
| Extreme Vol. Limits: | DC 3.48V~4.26V |
| Extreme Temp. Tolerance: | -20℃~60℃ |
| Power Rating | DC 9V from adapter/DC 3.87V from battery |
| Adapter | Model: HJ-PD33W-US<br>Input: 100-240V~50/60Hz 0.8A<br>Output: DC 5.0V 3.0A 15.0W OR DC 9.0V 3.0A 27.0W<br>OR DC 12.0V 2.75A 33.0W MAX. |
| Battery | DC 3.87V |
| Hardware version number: | M1702-MUB-V2 |
| Software version number: | FOSSiBOT_F113_F_ |
| *** Note: The High Voltage ${Max. Vol.} and Low Voltage ${Min. Vol.} was declared by manufacturer, The EUT couldn't be operate normally with higher or lower voltage, the antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.* | |

| Test channel list | | | | | |
|---|---|---|---|---|---|
| GSM850 | Frequency(MHz) | Channel | GSM1900 | Frequency(MHz) | Channel |
| L | 824.2 | 128 | L | 1850.2 | 512 |
| M | 836.6 | 190 | M | 1880 | 661 |
| H | 848.8 | 251 | H | 1909.8 | 810 |

| Test channel list | | | | | |
|---|---|---|---|---|---|
| Band2 | Frequency(MHz) | Channel | Band4 | Frequency(MHz) | Channel |
| L | 1852.4 | 9262 | L | 1712.6 | 1313 |
| M | 1880 | 9400 | M | 1740 | 1450 |
| H | 1907.6 | 9538 | H | 1752.4 | 1512 |
| Band5 | Frequency(MHz) | Channel | / | / | / |
| L | 826.4 | 4132 | / | / | / |
| M | 836.6 | 4183 | / | / | / |
| H | 846.6 | 4233 | / | / | / |

Test channel list

| Band2 | 1.9GHz | Frequency(MHz) | Channel | Band4 | 1.7GHz | Frequency (MHz) | Channel |
|---|---|---|---|---|---|---|---|
| L | 1.4M | 1850.7 | 18607 | L | 1.4M | 1710.7 | 19957 |
| | 3M | 1851.5 | 18615 | | 3M | 1711.5 | 19965 |
| | 5M | 1852.5 | 18625 | | 5M | 1712.5 | 19975 |
| | 10M | 1855 | 18650 | | 10M | 1715 | 20000 |
| | 15M | 1857.5 | 18675 | | 15M | 1717.5 | 20025 |
| | 20M | 1860 | 18700 | | 20M | 1720 | 20050 |
| M | 1.4/3/5/10/15/20M | 1880 | 18900 | M | 1.4/3/5/10/15/20M | 1732.5 | 20175 |
| H | 1.4M | 1909.3 | 19193 | H | 1.4M | 1754.3 | 20393 |
| | 3M | 1908.5 | 19185 | | 3M | 1753.5 | 20385 |
| | 5M | 1907.5 | 19175 | | 5M | 1752.5 | 20375 |
| | 10M | 1905 | 19150 | | 10M | 1750 | 20350 |
| | 15M | 1902.5 | 19125 | | 15M | 1747.5 | 20325 |
| | 20M | 1900 | 19100 | | 20M | 1745 | 20300 |
| Band5 | 850MHz | Frequency(MHz) | Channel | Band7 | 2.6GHz | Frequency (MHz) | Channel |
| L | 1.4M | 824.7 | 20407 | L | 5M | 2502.5 | 20775 |
| | 3M | 825.5 | 20415 | | 10M | 2505 | 20800 |
| | 5M | 826.5 | 20425 | | 15M | 2507.5 | 20825 |
| | 10M | 829 | 20450 | | 20M | 2510 | 20850 |
| M | 1.4/3/5/10M | 836.5 | 20525 | M | 5/1015/20M | 2535 | 21100 |
| H | 1.4M | 848.3 | 20643 | H | 5M | 2567.5 | 21425 |
| | 3M | 847.5 | 20635 | | 10M | 2565 | 21400 |
| | 5M | 846.5 | 20625 | | 15M | 2562.5 | 21375 |
| | 10M | 844 | 20600 | | 20M | 2560 | 21350 |
| Band12 | 700MHz | Frequency(MHz) | Channel | Band17 | 700MHz | Frequency (MHz) | Channel |
| L | 1.4M | 699.7 | 23017 | L | 5M | 706.5 | 23755 |
| | 3M | 700.5 | 23025 | | 10M | 709 | 23780 |
| | 5M | 701.5 | 23035 | M | 5/10M | 710 | 23790 |
| | 10M | 704 | 23060 | H | 5M | 713.5 | 23825 |
| M | 1.4/3/5/10M | 707.5 | 23095 | | 10M | 711 | 23800 |
| H | 1.4M | 715.3 | 23173 | | | | |
| | 3M | 714.5 | 23165 | | | | |
| | 5M | 713.5 | 23155 | | | | |
| | 10M | 711 | 23130 | | | | |

EMISSION DESIGNATOR

ERP (Unit: dBm)
For Cellular Band (GSM850)

| Band | GSM850 | | |
|---|---|---|---|
| **Channel** | **128** | **190** | **251** |
| **Frequency(MHz)** | **824.2** | **836.6** | **848.8** |
| GSM | 30.44 | **30.49** | 30.41 |
| GPRS Subtest-1 | 30.45 | 30.49 | 30.4 |
| GPRS Subtest-2 | 29.67 | 29.73 | 29.64 |
| GPRS Subtest-3 | 27.86 | 27.89 | 27.86 |
| GPRS Subtest-4 | 26.73 | 26.75 | 26.74 |
| EGPRS Subtest-1 | 25.19 | 25.14 | 25.09 |
| EGPRS Subtest-2 | 24.15 | 24.15 | 23.78 |
| EGPRS Subtest-3 | 22.17 | 21.82 | 21.84 |
| EGPRS Subtest-4 | 20.95 | 20.29 | 20.3 |

EIRP(Unit: dBm)
For PCS Band (GSM1900)

| Band | GSM1900 | | |
|---|---|---|---|
| **Channel** | **512** | **661** | **810** |
| **Frequency(MHz)** | **1850.2** | **1880** | **1909.8** |
| GSM | 29.56 | 29.56 | 29.37 |
| GPRS Slot -1 | 29.6 | 29.61 | 29.4 |
| GPRS Slot -2 | 28.83 | 28.84 | 28.71 |
| GPRS Slot -3 | 26.94 | 26.96 | 26.93 |
| GPRS Slot -4 | 25.82 | 25.89 | 25.93 |
| EGPRS Slot -1 | 25.39 | 25.5 | 25.19 |
| EGPRS Slot -2 | 24.87 | 24.01 | 24.03 |
| EGPRS Slot -3 | 22.25 | 21.88 | 22.11 |
| EGPRS Slot -4 | 20.55 | 20.72 | 20.52 |

| Band | Channel | Frequency (MHz) | Power (dBm) | Gain (dBm) | EIRP (dBm) |
|---|---|---|---|---|---|
| HSDPA Band2 Subtest1 | 9262 | 1852.4 | 22.61 | -0.03 | 22.58 |
| HSDPA Band2 Subtest2 | 9262 | 1852.4 | 22.25 | -0.03 | 22.22 |
| HSDPA Band2 Subtest3 | 9262 | 1852.4 | 20.89 | -0.03 | 20.86 |
| HSDPA Band2 Subtest4 | 9262 | 1852.4 | 21.21 | -0.03 | 21.18 |
| HSDPA Band2 Subtest1 | 9400 | 1880 | 22.48 | -0.03 | 22.45 |
| HSDPA Band2 Subtest2 | 9400 | 1880 | 21.97 | -0.03 | 21.94 |
| HSDPA Band2 Subtest3 | 9400 | 1880 | 21.18 | -0.03 | 21.15 |
| HSDPA Band2 Subtest4 | 9400 | 1880 | 21.03 | -0.03 | 21 |
| HSDPA Band2 Subtest1 | 9538 | 1907.6 | 22.33 | -0.03 | 22.3 |
| HSDPA Band2 Subtest2 | 9538 | 1907.6 | 21.94 | -0.03 | 21.91 |
| HSDPA Band2 Subtest3 | 9538 | 1907.6 | 20.53 | -0.03 | 20.5 |
| HSDPA Band2 Subtest4 | 9538 | 1907.6 | 20.47 | -0.03 | 20.44 |

| Band | Channel | Frequency (MHz) | Power (dBm) | Gain (dBm) | EIRP (dBm) |
|---|---|---|---|---|---|
| HSUPA Band2 Subtest1 | 9262 | 1852.4 | 21.57 | -0.03 | 21.54 |
| HSUPA Band2 Subtest2 | 9262 | 1852.4 | 22.58 | -0.03 | 22.55 |
| HSUPA Band2 Subtest3 | 9262 | 1852.4 | 21.22 | -0.03 | 21.19 |
| HSUPA Band2 Subtest4 | 9262 | 1852.4 | 22.59 | -0.03 | 22.56 |
| HSUPA Band2 Subtest5 | 9262 | 1852.4 | 21.17 | -0.03 | 21.14 |
| HSUPA Band2 Subtest1 | 9400 | 1880 | 22.25 | -0.03 | 22.22 |
| HSUPA Band2 Subtest2 | 9400 | 1880 | 22.37 | -0.03 | 22.34 |
| HSUPA Band2 Subtest3 | 9400 | 1880 | 21.03 | -0.03 | 21 |
| HSUPA Band2 Subtest4 | 9400 | 1880 | 22.46 | -0.03 | 22.43 |
| HSUPA Band2 Subtest5 | 9400 | 1880 | 21.86 | -0.03 | 21.83 |
| HSUPA Band2 Subtest1 | 9538 | 1907.6 | 22.16 | -0.03 | 22.13 |
| HSUPA Band2 Subtest2 | 9538 | 1907.6 | 22.30 | -0.03 | 22.27 |
| HSUPA Band2 Subtest3 | 9538 | 1907.6 | 21.11 | -0.03 | 21.08 |
| HSUPA Band2 Subtest4 | 9538 | 1907.6 | 22.31 | -0.03 | 22.28 |
| HSUPA Band2 Subtest5 | 9538 | 1907.6 | 21.71 | -0.03 | 21.68 |

| Band | Channel | Frequency (MHz) | Power (dBm) | Gain (dBm) | EIRP (dBm) | Verdict |
|---|---|---|---|---|---|---|
| WCDMA Band2 | 9262 | 1852.4 | 23.59 | -0.03 | 23.56 | PASS |
| WCDMA Band2 | 9400 | 1880 | 23.45 | -0.03 | 23.42 | PASS |
| WCDMA Band2 | 9538 | 1907.6 | 23.29 | -0.03 | 23.26 | PASS |

| Band | Channel | Frequency (MHz) | Power (dBm) | Gain (dBm) | EIRP (dBm) |
|---|---|---|---|---|---|
| HSDPA Band4 Subtest1 | 1312 | 1712.4 | 22.66 | -0.64 | 22.02 |
| HSDPA Band4 Subtest2 | 1312 | 1712.4 | 22.06 | -0.64 | 21.42 |
| HSDPA Band4 Subtest3 | 1312 | 1712.4 | 21.15 | -0.64 | 20.51 |
| HSDPA Band4 Subtest4 | 1312 | 1712.4 | 20.91 | -0.64 | 20.27 |
| HSDPA Band4 Subtest1 | 1450 | 1740 | 22.58 | -0.64 | 21.94 |
| HSDPA Band4 Subtest2 | 1450 | 1740 | 21.95 | -0.64 | 21.31 |
| HSDPA Band4 Subtest3 | 1450 | 1740 | 21.18 | -0.64 | 20.54 |
| HSDPA Band4 Subtest4 | 1450 | 1740 | 21.17 | -0.64 | 20.53 |
| HSDPA Band4 Subtest1 | 1513 | 1752.6 | 22.40 | -0.64 | 21.76 |
| HSDPA Band4 Subtest2 | 1513 | 1752.6 | 22.22 | -0.64 | 21.58 |
| HSDPA Band4 Subtest3 | 1513 | 1752.6 | 20.99 | -0.64 | 20.35 |
| HSDPA Band4 Subtest4 | 1513 | 1752.6 | 21.07 | -0.64 | 20.43 |

| Band | Channel | Frequency (MHz) | Power (dBm) | Gain (dBm) | EIRP (dBm) |
|---|---|---|---|---|---|
| HSUPA Band4 Subtest1 | 1312 | 1712.4 | 21.73 | -0.64 | 21.09 |
| HSUPA Band4 Subtest2 | 1312 | 1712.4 | 22.58 | -0.64 | 21.94 |
| HSUPA Band4 Subtest3 | 1312 | 1712.4 | 20.70 | -0.64 | 20.06 |
| HSUPA Band4 Subtest4 | 1312 | 1712.4 | 22.62 | -0.64 | 21.98 |
| HSUPA Band4 Subtest5 | 1312 | 1712.4 | 21.20 | -0.64 | 20.56 |
| HSUPA Band4 Subtest1 | 1450 | 1740 | 22.30 | -0.64 | 21.66 |
| HSUPA Band4 Subtest2 | 1450 | 1740 | 22.39 | -0.64 | 21.75 |
| HSUPA Band4 Subtest3 | 1450 | 1740 | 21.12 | -0.64 | 20.48 |
| HSUPA Band4 Subtest4 | 1450 | 1740 | 22.51 | -0.64 | 21.87 |
| HSUPA Band4 Subtest5 | 1450 | 1740 | 21.83 | -0.64 | 21.19 |
| HSUPA Band4 Subtest1 | 1513 | 1752.6 | 22.14 | -0.64 | 21.5 |
| HSUPA Band4 Subtest2 | 1513 | 1752.6 | 22.16 | -0.64 | 21.52 |
| HSUPA Band4 Subtest3 | 1513 | 1752.6 | 21.14 | -0.64 | 20.5 |
| HSUPA Band4 Subtest4 | 1513 | 1752.6 | 22.30 | -0.64 | 21.66 |
| HSUPA Band4 Subtest5 | 1513 | 1752.6 | 21.21 | -0.64 | 20.57 |

| Band | Channel | Frequency (MHz) | Power (dBm) | Gain (dBm) | EIRP (dBm) |
|---|---|---|---|---|---|
| WCDMA Band4 | 1312 | 1712.4 | 23.64 | -0.64 | 23 |
| WCDMA Band4 | 1450 | 1740 | 23.51 | -0.64 | 22.87 |
| WCDMA Band4 | 1513 | 1752.6 | 23.35 | -0.64 | 22.71 |

| Band | Channel | Frequency (MHz) | Power (dBm) | Gain (dBm) | ERP (dBm) |
|---|---|---|---|---|---|
| HSDPA Band5 Subtest1 | 4132 | 826.4 | 22.77 | -0.28 | 20.34 |
| HSDPA Band5 Subtest2 | 4132 | 826.4 | 22.22 | -0.28 | 19.79 |
| HSDPA Band5 Subtest3 | 4132 | 826.4 | 21.49 | -0.28 | 19.06 |
| HSDPA Band5 Subtest4 | 4132 | 826.4 | 21.29 | -0.28 | 18.86 |
| HSDPA Band5 Subtest1 | 4182 | 836.4 | 22.78 | -0.28 | 20.35 |
| HSDPA Band5 Subtest2 | 4182 | 836.4 | 22.31 | -0.28 | 19.88 |
| HSDPA Band5 Subtest3 | 4182 | 836.4 | 21.42 | -0.28 | 18.99 |
| HSDPA Band5 Subtest4 | 4182 | 836.4 | 20.99 | -0.28 | 18.56 |
| HSDPA Band5 Subtest1 | 4233 | 846.6 | 22.87 | -0.28 | 20.44 |
| HSDPA Band5 Subtest2 | 4233 | 846.6 | 22.42 | -0.28 | 19.99 |
| HSDPA Band5 Subtest3 | 4233 | 846.6 | 21.41 | -0.28 | 18.98 |
| HSDPA Band5 Subtest4 | 4233 | 846.6 | 21.08 | -0.28 | 18.65 |

| Band | Channel | Frequency (MHz) | Power (dBm) | Gain (dBm) | ERP (dBm) |
|---|---|---|---|---|---|
| HSUPA Band5 Subtest1 | 4132 | 826.4 | 21.69 | -0.28 | 19.26 |
| HSUPA Band5 Subtest2 | 4132 | 826.4 | 22.65 | -0.28 | 20.22 |
| HSUPA Band5 Subtest3 | 4132 | 826.4 | 21.02 | -0.28 | 18.59 |
| HSUPA Band5 Subtest4 | 4132 | 826.4 | 22.77 | -0.28 | 20.34 |
| HSUPA Band5 Subtest5 | 4132 | 826.4 | 21.21 | -0.28 | 18.78 |
| HSUPA Band5 Subtest1 | 4182 | 836.4 | 22.67 | -0.28 | 20.24 |
| HSUPA Band5 Subtest2 | 4182 | 836.4 | 22.69 | -0.28 | 20.26 |
| HSUPA Band5 Subtest3 | 4182 | 836.4 | 21.53 | -0.28 | 19.1 |
| HSUPA Band5 Subtest4 | 4182 | 836.4 | 22.79 | -0.28 | 20.36 |
| HSUPA Band5 Subtest5 | 4182 | 836.4 | 22.10 | -0.28 | 19.67 |
| HSUPA Band5 Subtest1 | 4233 | 846.6 | 22.66 | -0.28 | 20.23 |
| HSUPA Band5 Subtest2 | 4233 | 846.6 | 22.75 | -0.28 | 20.32 |
| HSUPA Band5 Subtest3 | 4233 | 846.6 | 21.61 | -0.28 | 19.18 |
| HSUPA Band5 Subtest4 | 4233 | 846.6 | 22.88 | -0.28 | 20.45 |
| HSUPA Band5 Subtest5 | 4233 | 846.6 | 22.19 | -0.28 | 19.76 |

| Band | Channel | Frequency (MHz) | Power (dBm) | Gain (dBm) | ERP (dBm) |
|---|---|---|---|---|---|
| WCDMA Band5 | 4132 | 826.4 | 23.76 | -0.28 | 21.33 |
| WCDMA Band5 | 4182 | 836.4 | 23.79 | -0.28 | 21.36 |
| WCDMA Band5 | 4233 | 846.6 | 23.87 | -0.28 | 21.44 |

| LTE Band 2 | QPSK | | 16QAM | |
|---|---|---|---|---|
| BW(MHz) | Emission Designator (99%OBW) | Maximum EIRP(W) | Emission Designator (99%OBW) | Maximum EIRP(W) |
| 1.4 | 1M10G7D | 0.225 | 1M10W7D | 0.183 |
| 3 | 2M70G7D | 0.226 | 2M70W7D | 0.191 |
| 5 | 4M52G7D | 0.229 | 4M51W7D | 0.202 |
| 10 | 9M00G7D | 0.225 | 9M02W7D | 0.196 |
| 15 | 13M5G7D | 0.225 | 13M5W7D | 0.191 |
| 20 | 18M0G7D | 0.220 | 18M0W7D | 0.188 |

| LTE Band 4 | QPSK | | 16QAM | |
|---|---|---|---|---|
| BW(MHz) | Emission Designator (99%OBW) | Maximum EIRP(W) | Emission Designator (99%OBW) | Maximum EIRP(W) |
| 1.4 | 1M10G7D | 0.218 | 1M10W7D | 0.180 |
| 3 | 2M70G7D | 0.214 | 2M70W7D | 0.190 |
| 5 | 4M52G7D | 0.220 | 4M52W7D | 0.193 |
| 10 | 8M99G7D | 0.219 | 8M99W7D | 0.179 |
| 15 | 13M5G7D | 0.214 | 13M4W7D | 0.185 |
| 20 | 17M9G7D | 0.218 | 17M9W7D | 0.182 |

| LTE Band 5 | QPSK | | 16QAM | |
|---|---|---|---|---|
| BW(MHz) | Emission Designator (99%OBW) | Maximum ERP(W) | Emission Designator (99%OBW) | Maximum ERP(W) |
| 1.4 | 1M09G7D | 0.224 | 1M10W7D | 0.183 |
| 3 | 2M70G7D | 0.223 | 2M70W7D | 0.198 |
| 5 | 4M50G7D | 0.226 | 4M52W7D | 0.200 |
| 10 | 9M02G7D | 0.224 | 9M00W7D | 0.195 |

| LTE Band 7 | QPSK | | 16QAM | |
|---|---|---|---|---|
| BW(MHz) | Emission Designator (99%OBW) | Maximum ERP(W) | Emission Designator (99%OBW) | Maximum ERP(W) |
| 5 | 4M52G7D | 0.234 | 4M52W7D | 0.206 |
| 10 | 8M98G7D | 0.233 | 8M98W7D | 0.197 |
| 15 | 13M5G7D | 0.241 | 13M5W7D | 0.200 |
| 20 | 18M0G7D | 0.237 | 18M0W7D | 0.207 |

| LTE Band 12 | QPSK | | 16QAM | |
|---|---|---|---|---|
| BW(MHz) | Emission Designator (99%OBW) | Maximum ERP(W) | Emission Designator (99%OBW) | Maximum ERP(W) |
| 1.4 | 1M10G7D | 0.224 | 1M10W7D | 0.188 |
| 3 | 2M70G7D | 0.223 | 2M70W7D | 0.196 |
| 5 | 4M52G7D | 0.232 | 4M53W7D | 0.201 |
| 10 | 8M99G7D | 0.227 | 9M01W7D | 0.197 |

| LTE Band 17 | QPSK | | 16QAM | |
|---|---|---|---|---|
| BW(MHz) | Emission Designator (99%OBW) | Maximum ERP(W) | Emission Designator (99%OBW) | Maximum ERP(W) |
| 5 | 4M50G7D | 0.235 | 4M52W7D | 0.201 |
| 10 | 8M98G7D | 0.226 | 8M98W7D | 0.196 |

## 3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 and ANSI C63.26 2015 Power Meas. License Digital Systems with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 10th harmonic for GSM850 and WCDMA Band V.

2. 30 MHz to 10th harmonic for WCDMA Band IV.

3. 30 MHz to 10th harmonic for GSM1900 and WCDMA Band II.

All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

| | TEST MODES | |
|---|---|---|
| BAND | RADIATED TCS | CONDUCTED TCS |
| GSM 850 | GSM LINK<br>GPRS/EDGE CLASS 12 LINK | GSM LINK<br>GPRS/EDGE CLASS 12 LINK |
| GSM 1900 | GSM LINK<br>GPRS/EDGE CLASS 12 LINK | GSM LINK<br>GPRS/EDGE CLASS 12 LINK |
| WCDMA BAND V | RMC 12.2KBPS LINK | RMC 12.2KBPS LINK |
| WCDMA BAND II | RMC 12.2KBPS LINK | RMC 12.2KBPS LINK |
| WCDMA BAND IV | RMC 12.2KBPS LINK | RMC 12.2KBPS LINK |

LTE:

| Test Mode | | |
|---|---|---|
| **Band** | **Radiated TCs** | **Conducted TCs** |
| LTE Band 2 | QPSK Link (1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz) | 16QAM Link (1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz) |
| LTE Band 4 | QPSK Link (1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz) | 16QAM Link (1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz) |
| LTE Band 5 | QPSK Link (1.4MHz / 3MHz / 5MHz / 10MHz) | 16QAM Link (1.4MHz / 3MHz / 5MHz / 10MHz) |
| LTE Band 7 | QPSK Link (5MHz /10MHz / 15MHz / 20MHz) | 16QAM Link (5MHz /10MHz / 15MHz / 20MHz) |
| LTE Band 12 | QPSK Link (1.4MHz / 3MHz / 5MHz / 10MHz) | 16QAM Link (1.4MHz / 3MHz / 5MHz / 10MHz) |
| LTE Band 17 | QPSK Link (5MHz /10MHz) | 16QAM Link (5MHz /10MHz) |
| Note 1: All modes and data rates and positions were investigated.<br>Note 2: Both the SIM 1 and SIM 2 were tested, the worst mode is the SIM 1, the data recording in the report. | | |

## 4 MEASUREMENT INSTRUMENTS

| RF Radiation Test Equipment | | | | | |
|---|---|---|---|---|---|
| **Kind of Equipment** | **Manufacturer** | **Type No.** | **Serial No.** | **Last Calibration** | **Calibrated Until** |
| Temperature & Humidity | TP502V4-P | Toprie | N/A | 2025.10.09 | 2026.10.08 |
| Wireless Communications Test Set | R&S | CMW 500 | 117239 | 2025.09.26 | 2026.09.25 |
| Signal Generator | Agilent | 83752A | 3610A02740 | 2026.02.04 | 2027.02.03 |
| Pre-Amplifier(0.1M-3GHz) | EM | EM330 | 060665 | 2026.02.05 | 2027.02.04 |
| Pre-Amplifier (1G-18GHz) | SKET | LNPA-01018G-45 | SK2018080901 | 2025.09.25 | 2026.09.24 |
| Pre-Amplifier(18G-40GHz) | SKET | LNPA_1840-50 | SK2018101801 | 2026.02.04 | 2027.02.03 |
| Positioning Controller | MF | MF-7802 | MF-780208587 | N/A | N/A |
| Signal Analyzer | R&S | FSV 40-N | 101823 | 2025.09.26 | 2026.09.25 |
| Switch Control Box | N/A | N/A | N/A | N/A | N/A |
| Filter Box | BALUN Technology | SU319E | BL-SZ1530051 | N/A | N/A |
| Video Controller | SKET | FCS C-3 | N/A | N/A | N/A |
| Bilog Antenna | TESEQ | CBL6111D | 45873 | 2025.09.21 | 2026.09.20 |
| Horn Antenna | SCHWARZBECK | BBHA 9120D | 9120D-1314 | 2025.09.27 | 2027.09.26 |
| Bilog Antenna | TESEQ | CBL6111D | 34678 | 2025.09.27 | 2027.09.26 |
| Horn Antenna | SCHWARZBECK | BBHA 9120D | 02014 | 2025.09.27 | 2027.09.26 |
| Horn Antenna | A-INFOMW | LB-180400-KF | J211020657 | 2025.09.27 | 2027.09.26 |
| Antenna Mast | MF | MFA-440H | N/A | N/A | N/A |
| Turn Table | MF | N/A | N/A | N/A | N/A |
| AC Power Source | APC | KDF-11010G | F214050035 | N/A | N/A |
| DC Power Supply | Zhaoxin | RXN 605D | 20R605D11010081 | N/A | N/A |
| Test SW | EMC Test Software | 25.5 en | | | |
| | EZ-EMC | Ver.STSLAB-03A1 RE | | | |
| **RF Connected Test Equipment** | | | | | |
| **Kind of Equipment** | **Manufacturer** | **Type No.** | **Serial No.** | **Last Calibration** | **Calibrated Until** |
| Temperature & Humidity | TP502V4-P | Toprie | N/A | 2025.10.09 | 2026.10.08 |
| Wireless Communications Test Set | R&S | CMW 500 | 131428 | 2026.02.04 | 2027.02.03 |
| Signal Analyzer | Agilent | N9020A | MY52440124 | 2026.02.04 | 2027.02.03 |
| RF Automatic Test System | Maiwei | MW200-SFCB | N/A | N/A | N/A |
| Temperature & Humidity Test Chamber | Safety test | AG80L | 171200018 | 2026.02.04 | 2027.02.03 |
| Programmable Power Supply | Agilent | E3642A | MY40002025 | 2025.09.26 | 2026.09.25 |
| POWER DIVIDER | eastsheep | PD-0.5/0.6-2S | N/A | 2026.02.24 | 2027.02.23 |
| Test SW | MTS 8200 | 2.0.0.0 | | | |

# 5 TEST ITEMS

## 5.1 CONDUCTED OUTPUT POWER&TRANSMITTER RADIATED POWER

TEST OVERVIEW

CONDUCTED OUTPUT POWER:
A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.
TRANSMITTER RADIATED POWER (EIRP/ERP)
Determining ERP and/or EIRP from conducted RF output power measurements according to ANSI C63.26 2015 Section 5.2.5.5.
In many cases, RF output power limits are specified in terms of the ERP or the EIRP. Typically, ERP is specified when the operating frequency is less than or equal to 1 GHz and EIRP is specified when the operating frequency is greater than 1 GHz. Both are defined as the product of the power supplied to the antenna and its gain (relative to a dipole antenna in the case of ERP, and relative to an isotropic antenna in the case of EIRP); however, when working in decibels (i.e., logarithmic scale), the ERP and EIRP represent the sum of the transmit antenna gain (in dBd or dBi, respectively) and the conducted RF output power (expressed in dB relative to watts or milliwatts).
The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows:
(1) ERP or EIRP = PMeas + GT
ERP= EIRP-2.15
where
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as PMeas, e.g., dBm or dBW)
PMeas measured transmitter output power or PSD, in dBm or dBW
GT gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)
For devices utilizing multiple antennas, see 6.4 for guidance with respect to determining the effective array transmit antenna gain term to be used in the above equation.
The following equations demonstrate the mathematical relationship between ERP and EIRP:
a) ERP = EIRP − 2.15, where ERP and EIRP are expressed in consistent units.
b) EIRP = ERP + 2.15, where ERP and EIRP are expressed in consistent units.

TEST PROCEDURES

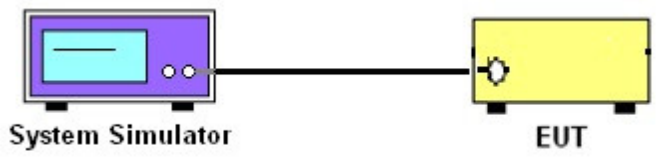
1. The transmitter output port was connected to the system simulator.

2. Set eut at maximum power through the system simulator.

3. Select lowest, middle, and highest channels for each band and different modulation.

4. Measure and record the power level from the system simulator.

TEST SETUP



TEST RESULT

Note: The test data please reference to attachment “STS2601367W05_Appendix GSM” , “STS2601367W05_Appendix WCDMA” and “STS2601367W05_Appendix LTE”.

5.2 PEAK TO AVERAGE RATIO

TEST OVERVIEW

According to §24.232(d), power measurements for transmissions by stations authorized under this section may be made either in accordance with a commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 db.

TEST PROCEDURES

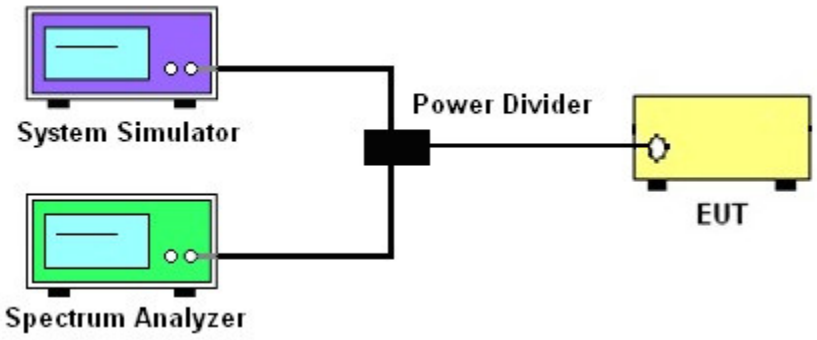
1. The testing follows FCC KDB 971168 v03r01 section.

2. The eut was connected to the peak and av system simulator& spectrum analyzer.

3. Select lowest, middle, and highest channels for each band and different modulation.

4. Set the test probe and measure average power of the spectrum analysis,

TEST SETUP




TEST RESULT

Note: The test data please reference to attachment “STS2601367W05_Appendix GSM” , “STS2601367W05_Appendix WCDMA” and “STS2601367W05_Appendix LTE”.

5.3 OCCUPIED BANDWIDTH

TEST OVERVIEW

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

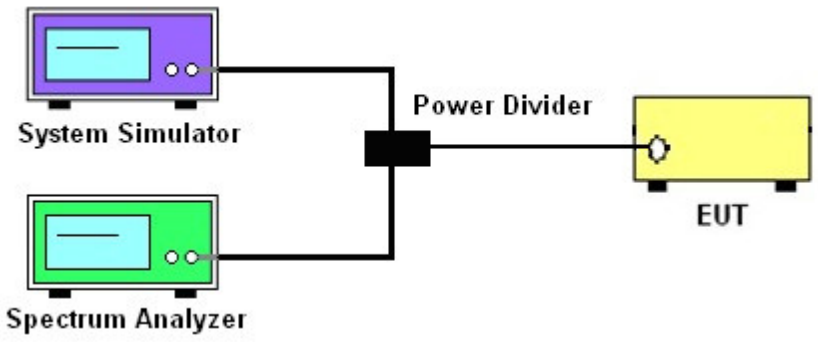
The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

All modes of operation were investigated and the worst case configuration results are reported in this section.

TEST PROCEDURE

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5% of the expected OBW
3. VBW ≥ 3 x RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7.The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5% of the 99% occupied bandwidth observed in Step 7

TEST SETUP




TEST RESULT

Note: The test data please reference to attachment "STS2601367W05_Appendix GSM" , "STS2601367W05_Appendix WCDMA" and "STS2601367W05_Appendix LTE".

5.4 FREQUENCY STABILITY

TEST OVERVIEW

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26 2015.

The frequency stability of the transmitter is measured by:

a.) Temperature: The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.

b.) Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 22, the frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5 ppm) of the center frequency. For Part 24 the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

TEST PROCEDURE

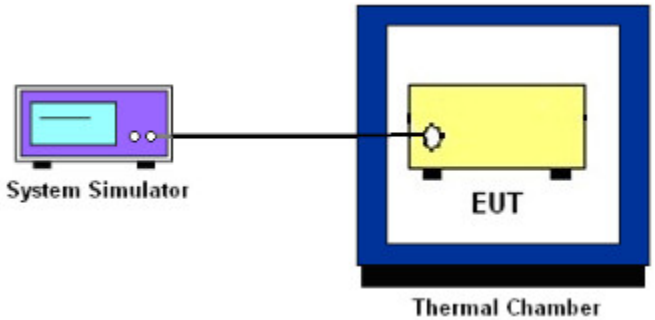
Temperature Variation

1. The testing follows FCC KDB 971168 D01 section 9.0
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C steps up to 50°C. 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.

Voltage Variation

1. The testing follows FCC KDB 971168 D01 Section 9.0.
2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

TEST SETUP



TEST RESULT

Note: The test data please reference to attachment “STS2601367W05_Appendix GSM” , “STS2601367W05_Appendix WCDMA” and “STS2601367W05_Appendix LTE”.

## 5.5 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

### TEST OVERVIEW

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7:

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

### TEST PROCEDURE

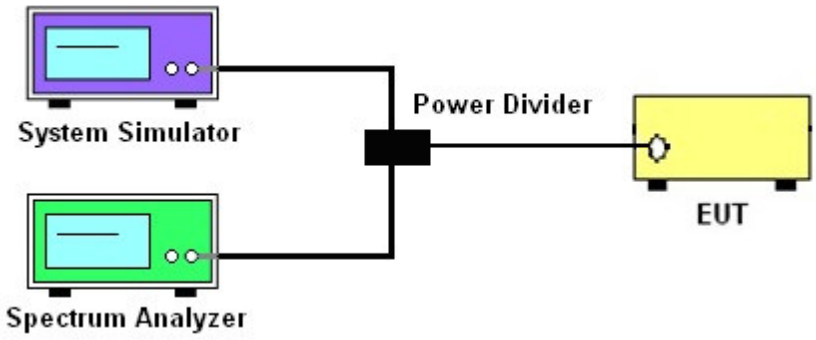
1. The testing FCC KDB 971168 D01 v03r01 Section 6.0. and ANSI C63.26-2015-Section 5.7.
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

= P(W) - [43 + 10log(P)] (dB)

= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)

= -13dBm.

### TEST SETUP




### TEST RESULT

Note: The test data please reference to attachment “STS2601367W05_Appendix GSM” , “STS2601367W05_Appendix WCDMA” and “STS2601367W05_Appendix LTE”.

5.6 BAND EDGE

TEST OVERVIEW

1. §22.917(a)

For operations in the 824 – 849 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

2. §24.238 (a)

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed

3. §27.53 (h)

For operations in the 1710 – 1755 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4. §27.53(m)(4)

For operations in the 2500 MHz ~ 2570 MHz band this section, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHzand 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licenseesoperating on frequencies below 2495 MHz may also submit a documented interference complaintagainst BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

5. §27.53 (g)

For operations in the 698 -746 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

TEST PROCEDURE

1. The testing FCC KDB 971168 D01 v03r01 Section 6.0 and ANSI C63.26-2015-Section 5.7
2. Start and stop frequency were set such that the band edge would be placed in the center of the Plot.
3. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
4. 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.
5. The band edges of low and high channels for the highest RF powers were measured.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7.The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

= P(W) - [43 + 10log(P) ] (dB)

= [30 + 10log(P)] (dBm) - [43 + 10log(P) ] (dB)

= -13dBm.

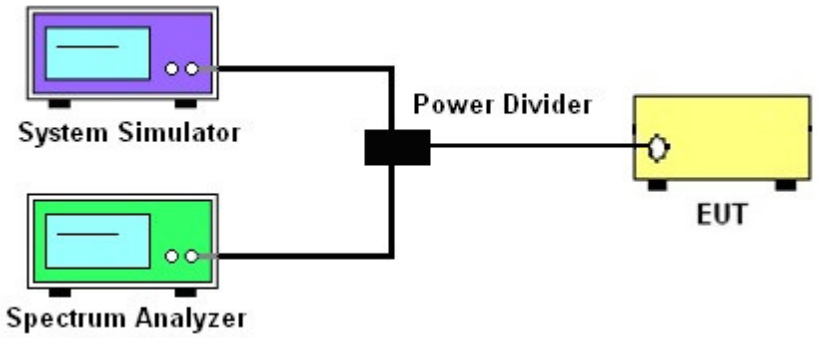
Band 7:

= P(W)- [55 + 10log(P)] (dB)

= [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)

= -25dBm.

TEST SETUP




TEST RESULT

Note: The test data please reference to attachment “STS2601367W05_Appendix GSM” , “STS2601367W05_Appendix WCDMA” and “STS2601367W05_Appendix LTE”.

5.7 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

TEST OVERVIEW

Radiated spurious emissions measurements are performed using the substitution method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signalsoperating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas.Measurements on signals operating above 1GHz are performed using vertically and horizontally polarizedhorn antennas. All measurements are performed as peak measurements while the EUT isoperating at maximum power and at the appropriate frequencies.

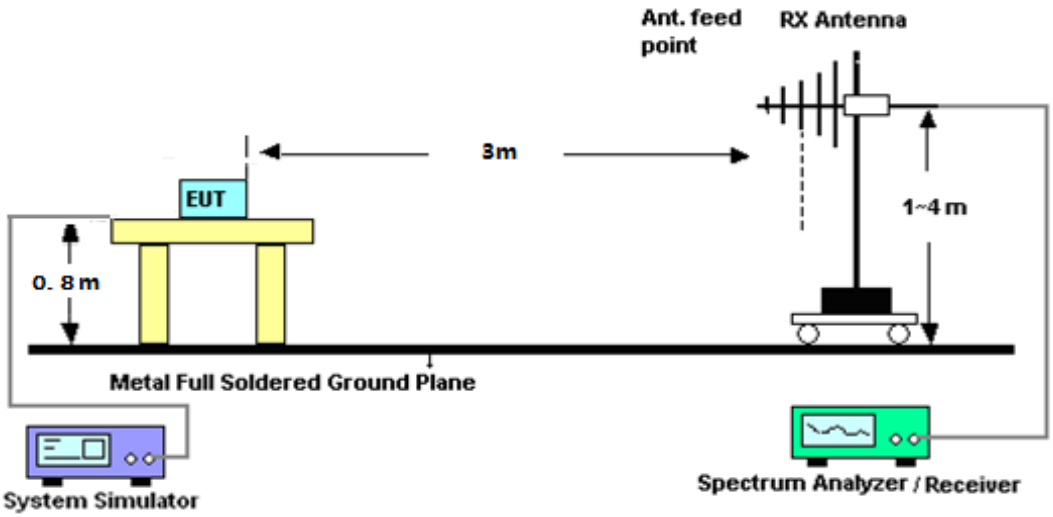
It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

TEST PROCEDURE

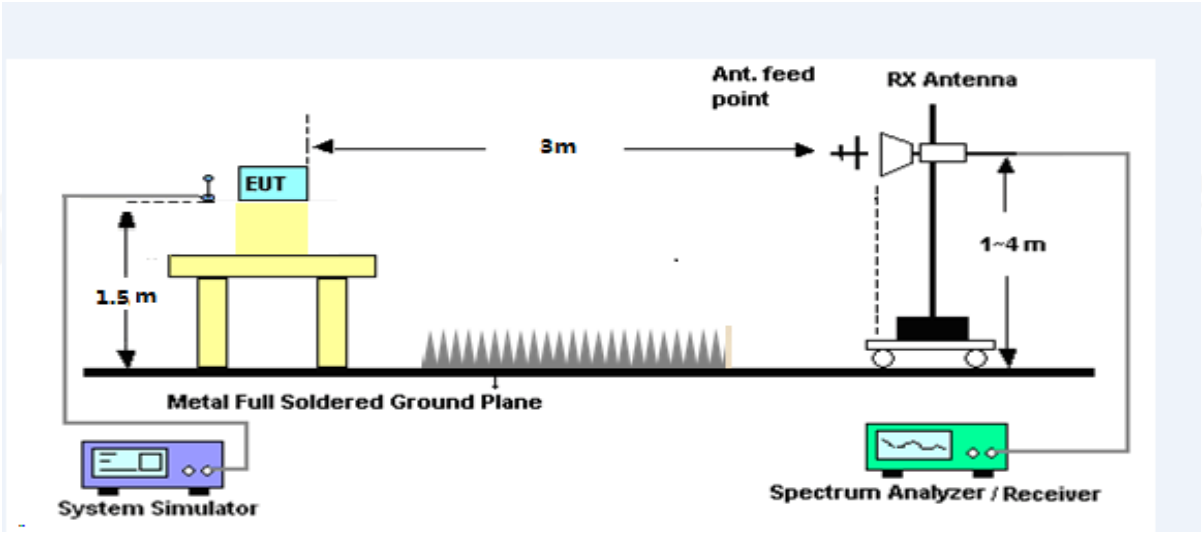
1. The testing FCC KDB 971168 D01 Section 5.8 and ANSI C63.26-2015-Section 5.5.
2. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
3. VBW ≥ 3 x RBW
4. Span = 1.5 times the OBW
5.No. of sweep points > 2 x span/RBW
6. Detector = Peak
7. Trace mode = max hold
8. The trace was allowed to stabilize
9. Effective Isotropic Spurious Radiation was measured by substitution method according to TIA/EIA-603-D. The EUT was replaced by the substitution antenna at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna.
PMea=S.G Level+ Ant-Cable loss; Margin=PMea-Limit.

TEST SETUP

For radiated test from 30MHz to 1GHz




For radiated test from above 1GHz



TEST RESULT

**Note:** (1) Spurious emissions which are attenuated by more than 20dB below the permissible value for frequeny below 1000MHz.

(2) Above 3.5GHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value

(3)Test is divided into three directions, X/Y/Z. X pattern for the worst.

**APPENDIX-PHOTOS OF TEST SETUP**

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

※※※※※END OF THE REPORT※※※※※