



Radio Test Report

Report No.: STS2502058W01

Issued for

Foxx Development Inc.

3480 Preston Ridge Road Suite 500, Alpharetta, GA 30005,
United States

Product Name: LTE Module

Brand Name: FOXX

Model Name: IQ40

Series Model(s): N/A

FCC ID: 2AQRM-IQ40

Test Standards: 47 CFR Part 2, 22, 24, 27, 90

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.

**TEST REPORT**

Applicant's Name: Foxx Development Inc.
Address.....: 3480 Preston Ridge Road Suite 500, Alpharetta, GA 30005,
United States
Manufacturer's Name: Foxx Development Inc.
Address.....: 3480 Preston Ridge Road Suite 500, Alpharetta, GA 30005,
United States

Product Description

Product Name: LTE Module
Brand Name.....: FOXX
Model Name.....: IQ40
Series Model(s): N/A
Test Standards.....: 47 CFR Part 2, 22, 24, 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: 19 Feb. 2025
Date (s) of performance of tests : 19 Feb. 2025 ~ 14 Mar. 2025
Date of Issue: 14 Mar. 2025
Test Result: Pass

Testing Engineer :

(Lenon Hou)

Technical Manager :

(Tony Liu)

Authorized Signatory :

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	14 Mar. 2025	STS2502058W01	ALL	Initial Issue



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	B5, B26	ERP < 7 Watt	PASS
	24.232(c)	B2, B25	EIRP < 2Watt	
	27.50(b)	B13	ERP < 3 Watt	
	27.50(c)	B12	ERP < 3 Watt	
	27.50(d)	B4, B66	EIRP < 1Watt	
	27.50(h)	B7, B38, B41	EIRP < 2Watt	
	90.635(b)	B26	ERP < 100Watt	
Peak-to-Average Ratio	22.913(d)	B5, B26	< 13 dB	PASS
	24.232(d)	B2, B25		
	27.50	B4, B7, B12, B13, B38, B41, B66,		
Occupied Bandwidth	2.1049	/	Reporting Only	PASS
Frequency Stability	2.1055	/	< 2.5 ppm	PASS
	22.355	B5, B26		
	24.235	B2, B25		
	27.54	B4, B7, B12, B13, B38, B41, B66		
	90.213	B26		
Spurious Emission at Antenna Terminals	2.1051	/	< 43+10log10(P[Watts])	PASS
	22.917	B5, B26		



	24.238(a)	B2, B25		
	27.53(c)	B13		
	27.53(g)	B12		
	27.53(h)	B4, B66		
	90.691	B26		
	27.53(m)	B41		
Band Edge	2.1051	/	Please refer to standard	PASS
	22.917	B5, B26		
	24.238(a)	B2, B25		
	27.53(c)	B13		
	27.53(g)	B12		
	27.53(h)	B4, B66		
	27.53(m)	B7, B41		
	90.691	B26		
Field Strength of Spurious Radiation	2.1053	/	< 43+10log10(P[Watts])	PASS
	22.917	B5, B26		
	24.238(a)	B2, B25		
	27.53(c)	B13		
	27.53(g)	B12		
	27.53(h)	B4, B66		
	90.691	B26		
	27.53(m)	B7, B41	< 55+10log10(P[Watts])	



1 INTRODUCTION

1.1 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

1.2 MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.755\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.874\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 3.80\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.18\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 4.90\text{dB}$
6	All emissions, radiated >6G	$\pm 5.24\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.19\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.53\text{dB}$
9	Occupied Channel Bandwidth	$\pm 3.5\%$
10	Power Spectral Density, conducted	$\pm 1.245\text{dB}$
11	Duty Cycle	$\pm 3.2\%$



2 PRODUCT INFORMATION

Product Name	LTE Module
Brand Name	FOXX
Model Name	IQ40
Series Model(s)	N/A
Model Difference	N/A
Tx Frequency:	GSM850: 824-849 MHz GSM1900: 1850-1910 MHz WCDMA B2: 1850-1910 MHz WCDMA B5: 824-849 MHz WCDMA B4: 1710-1755 MHz LTE Band 2:1850~1910MHz LTE Band 4:1710~1755MHz LTE Band 5:824~849MHz LTE Band 7:2500~2570MHz LTE Band 12:699~716MHz LTE Band 13:777~787MHz LTE Band 25:1850~1915MHz LTE Band 26 Part 90:814~824MHz LTE Band 26 Part 22:824-849 MHz LTE Band 38:2570-2620 MHz LTE Band 41:2496~2690MHz LTE Band 66:1710~1780MHz
Rx Frequency:	GSM850: 869-894 MHz GSM1900: 1930-1990 MHz WCDMA B2: 1930-1990 MHz WCDMA B5: 869-894 MHz WCDMA B4: 2110-2155 MHz LTE Band 2:1930 ~1990MHz LTE Band 4:2110~2155MHz LTE Band 5:869~894MHz LTE Band 7:2620~2690MHz LTE Band 12:729~746MHz LTE Band 13:746~756MHz LTE Band 25:1930~1995MHz LTE Band 26 Part 90:859~869MHz LTE Band 26 Part 22:869-894MHz LTE Band 38:2570-2620 MHz LTE Band 41:2496~2690MHz LTE Band 66:2110~2200MHz
Max RF Output Power:	GSM850:31.65 dBm GSM1900: 32.04 dBm WCDMA B2: 23.47 dBm WCDMA B5: 23.88 dBm WCDMA B4:23.6 dBm LTE Band 2: 23.83 dBm LTE Band 4: 24.03 dBm LTE Band 5: 24.07 dBm LTE Band 7: 22.90 dBm LTE Band 12: 24.51 dBm LTE Band 13: 24.15 dBm LTE Band 25: 23.73dBm



	LTE Band 26 Part 22: 23.62dBm LTE Band 26 Part 90: 23.76 dBm LTE Band 38: 13.2dBm LTE Band 41: 23.02dBm LTE Band 66: 23.45 dBm
Modulation Characteristics:	GMSK for GSM/GPRS; GMSK and 8PSK for EDGE WCDMA: QPSK; HSDPA:QPSK/16QAM; HSUPA:BPSK LTE: QPSK /16QAM
SIM Card:	SIM 1 and SIM 2 is a chipset unit and tested as single chipset, SIM 1 is used to tested.
Antenna:	External
Antenna gain:	GSM850:0.47 dBi, PCS1900:1.63 dBi WCDMA B2:1.63 dBi WCDMA B4:3.12dBi WCDMA B5:0.64 dBi LTE B2:1.63 dBi LTE B4:3.12 dBi LTE B5:0.64 dBi LTE B7:2.9 dBi LTE B12:0.95 dBi LTE B13:2.23 dBi LTE B25:1.87 dBi LTE B26:0.91 dBi LTE B38:1.64 dBi LTE B41: 2.9 dBi LTE B66:3.12 dBi
GPRS/EDGE Class:	Multi-Class12
Extreme Vol. Limits:	DC3.4V ~ DC4.2V (Normal: DC 3.8V)
Extreme Temp. Tolerance:	-40°C to +85°C
Power Rating	Input: DC 3.8V
Adapter	N/A
Battery	N/A
Hardware version number:	V2.02
Software version number:	IQ40_V2.02
** Note: The High Voltage DC4.2V and Low Voltage DC3.4V 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.	



2.1 EMISSION DESIGNATOR

Mode	Emission Designator (99%OBW)	
GSM850	242KG7W	
GPRS850	244KG7W	
EGPRS850	246KG7W	
GSM1900	246KG7W	
GPRS1900	241KG7W	
EGPRS1900	245KG7W	
Mode	Emission Designator (99%OBW)	
WCDMA Band2	4M16F9W	
HSDPA Band2	4M14F9W	
HSUPA Band2	4M14F9W	
WCDMA Band4	4M15F9W	
HSDPA Band4	4M14F9W	
HSUPA Band4	4M13F9W	
WCDMA Band5	4M16F9W	
HSDPA Band5	4M16F9W	
HSUPA Band5	4M17F9W	
LTE Band 2	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M71G7D	2M70W7D
5	4M52G7D	4M52W7D
10	8M99G7D	8M98W7D
15	13M5G7D	13M4W7D
20	17M9G7D	18M0W7D
LTE Band 4	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M71G7D	2M70W7D
5	4M52G7D	4M52W7D
10	8M97G7D	8M97W7D
15	13M4G7D	13M5W7D
20	17M9G7D	17M9W7D
LTE Band 5	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M11G7D	1M10W7D
3	2M71G7D	2M70W7D
5	4M51G7D	4M52W7D
10	8M99G7D	8M97W7D
LTE Band 7	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M52G7D	4M52W7D
10	8M99G7D	8M97W7D
15	13M4G7D	13M4W7D
20	17M8G7D	17M9W7D
LTE Band 12	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M70G7D	2M71W7D
5	4M52G7D	4M53W7D
10	8M98G7D	8M99W7D



LTE Band 13	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M53G7D	4M52W7D
10	8M99G7D	8M97W7D
LTE Band 25	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M71G7D	2M70W7D
5	4M52G7D	4M52W7D
10	8M99G7D	8M98W7D
15	13M5G7D	13M4W7D
20	17M9G7D	17M9W7D
LTE Band 26	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M11G7D	1M10W7D
3	2M71G7D	2M70W7D
5	4M52G7D	4M52W7D
10	8M96G7D	8M99W7D
15	13M4G7D	13M4W7D
LTE Band 26	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M11G7D	1M10W7D
3	2M72G7D	2M71W7D
5	4M51G7D	4M54W7D
10	8M96G7D	8M99W7D
LTE Band 38	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M52G7D	4M53W7D
10	8M99G7D	8M98W7D
15	13M5G7D	13M5W7D
20	17M9G7D	17M9W7D
LTE Band 41	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M51G7D	4M51W7D
10	8M99G7D	8M99W7D
15	13M4G7D	13M5W7D
20	17M9G7D	17M9W7D
LTE Band 66	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M71G7D	2M71W7D
5	4M52G7D	4M53W7D
10	8M97G7D	8M96W7D
15	13M4G7D	13M4W7D
20	17M9G7D	18M0W7D



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:

BAND	TEST MODES	
	RADIATED TCS	CONDUCTED TCS
GSM 850	GSM LINK GPRS/EDGE CLASS 12 LINK	GSM LINK GPRS/EDGE CLASS 12 LINK
GSM 1900	GSM LINK GPRS/EDGE CLASS 12 LINK	GSM LINK 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:

ITEMS	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v			v	v	v	v	v	v	v	v
	7			v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v			v	v	v	v	v	v	v	v
	13			v	v			v	v	v	v	v		v	
	25	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v		v	v	v	v	v	v	v	v
	38			v	v	v	v	v	v	v	v	v	v	v	v
	41			v	v	v	v	v	v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak&Avera Ratio	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v			v	v	v			v	v	v
	7			v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v			v	v	v			v	v	v
	13			v	v			v	v	v				v	
	25	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v		v	v	v			v	v	v
	38			v	v	v	v	v	v	v			v	v	v
	41			v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v			v	v	v
26dB&99% Bandwidth	2	v	v	v	v	v	v	v	v			v	v	v	v
	4	v	v	v	v	v	v	v	v			v	v	v	v
	5	v	v	v	v			v	v			v	v	v	v
	7			v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v			v	v			v	v	v	v
	13			v	v			v	v			v		v	
	25	v	v	v	v	v	v	v	v			v	v	v	v
	26	v	v	v	v	v		v	v			v	v	v	v
	38			v	v	v	v	v	v			v	v	v	v
	41			v	v	v	v	v	v			v	v	v	v
	66	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	2	v	v	v	v	v	v	v	v			v	v		v
	4	v	v	v	v	v	v	v	v			v	v		v
	5	v	v	v	v			v	v			v	v		v
	7			v	v	v	v	v	v			v	v		v
	12	v	v	v	v			v	v			v	v		v
	13			v	v			v	v			v		v	
	25	v	v	v	v	v	v	v	v			v	v		v



	26	V	V	V	V	V		V	V			V	V		V
	38			V	V	V	V	V	V			V	V		V
	41			V	V	V	V	V	V			V	V		V
	66	V	V	V	V	V	V	V	V			V	V		V
Conducted Spurious Emission	2	V	V	V	V	V	V	V	V	V		V	V	V	V
	4	V	V	V	V	V	V	V	V	V		V	V	V	V
	5	V	V	V	V			V	V	V		V	V	V	V
	7			V	V	V	V	V	V	V		V	V	V	V
	12	V	V	V	V			V	V	V		V	V	V	V
	13			V	V			V	V	V		V		V	
	25	V	V	V	V	V	V	V	V	V		V	V	V	V
	26	V	V	V	V	V		V	V	V		V	V	V	V
	38			V	V	V	V	V	V	V		V	V	V	V
	41			V	V	V	V	V	V	V		V	V	V	V
	66	V	V	V	V	V	V	V	V	V		V	V	V	V
Frequency Stability	2				V			V				V		V	
	4				V			V				V		V	
	5				V			V				V		V	
	7				V			V				V		V	
	12				V			V				V		V	
	13				V			V				V		V	
	25				V			V				V		V	
	26				V			V				V		V	
	38				V			V				V		V	
	41				V			V				V		V	
	66				V			V				V		V	
E.R.P.& E.I.R.P.	2	V	V	V	V	V	V	V	V	V	V	V	V	V	V
	4	V	V	V	V	V	V	V	V	V	V	V	V	V	V
	5	V	V	V	V			V	V	V	V	V	V	V	V
	7			V	V	V	V	V	V	V	V	V	V	V	V
	12	V	V	V	V			V	V	V	V	V	V	V	V
	13			V	V			V	V	V	V	V		V	
	25	V	V	V	V	V	V	V	V	V	V	V	V	V	V
	26	V	V	V	V	V		V	V	V	V	V	V	V	V
	38			V	V	V	V	V	V	V	V	V	V	V	V
	41			V	V	V	V	V	V	V	V	V	V	V	V
	66	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Radiated Spurious Emission	2	V	V	V	V	V	V	V		V			V	V	V
	4	V	V	V	V	V	V	V		V			V	V	V
	5	V	V	V	V			V		V			V	V	V
	7			V	V	V	V	V		V			V	V	V
	12	V	V	V	V			V		V			V	V	V
	13			V	V			V		V				V	



	25	V	V	V	V	V	V	V		V			V	V	V
	26	V	V	V	V	V		V		V			V	V	V
	38			V	V	V	V	V		V			V	V	V
	41			V	V	V	V	V		V			V	V	V
	66	V	V	V	V	V	V	V		V			V	V	V



4 MEASUREMENT INSTRUMENTS

RF Radiation Test Equipment					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23
Wireless Communications Test Set	R&S	CMW 500	117239	2024.09.23	2025.09.22
Pre-Amplifier(0.1M-3GHz)	EM	EM330	060665	2025.02.22	2026.02.21
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2024.09.23	2025.09.22
Pre-mpifier(18G-40G)	SKET	LNPA_1840-50	SK2018101801	2025.02.22	2026.02.21
Positioning Controller	MF	MF-7802	MF-780208587	N/A	N/A
Signal Analyzer	R&S	FSV 40-N	101823	2024.09.23	2025.09.22
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	34678	2024.09.30	2025.09.29
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2024.09.25	2025.09.24
Horn Antenna	A-INFOMW	LB-180400-KF	J211020657	2023.10.10	2025.10.09
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	15.2.0.339			
	EZ-EMC	Ver.STSLAB-03A1 RE			
RF Connected Test Equipment					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23
Wireless Communications Test Set	R&S	CMW 500	131428	2025.02.22	2026.02.21
Signal Analyzer	Agilent	N9020A	MY52440124	2025.02.22	2026.02.21
RF Automatic Test System	Maiwei	MW200-SFCB	N/A	N/A	N/A
Power Divider	QYMW	QY-PS2-1/26.5-KE	N/A	2025.02.22	2026.02.21
Temperature & Humidity Test Chamber	Safety test	AG80L	171200018	2025.02.22	2026.02.21
Programmable Power Supply	Agilent	E3642A	MY40002025	2024.09.23	2025.09.22
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:

$$(1) \text{ ERP or EIRP} = \text{PMeas} + \text{GT}$$

$$\text{ERP} = \text{EIRP} - 2.15$$

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:

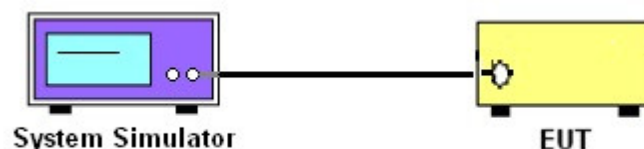
a) $\text{ERP} = \text{EIRP} - 2.15$, where ERP and EIRP are expressed in consistent units.

b) $\text{EIRP} = \text{ERP} + 2.15$, 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

GSM 850							
Mode	Frequency (MHz)	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit (W)	ERP Limit (dBm)	Conclusion
GSM (GMSK,1-Slot)	824.2	33.04	0.47	31.36	7.00	38.45	PASS
	836.6	33.19	0.47	31.51	7.00	38.45	PASS
	848.8	33.27	0.47	31.59	7.00	38.45	PASS
GPRS (GMSK,1-Slot)	824.2	33.05	0.47	31.37	7.00	38.45	PASS
	836.6	33.16	0.47	31.48	7.00	38.45	PASS
	848.8	33.33	0.47	31.65	7.00	38.45	PASS
GPRS (GMSK,2-Slot)	824.2	31.41	0.47	29.73	7.00	38.45	PASS
	836.6	31.48	0.47	29.80	7.00	38.45	PASS
	848.8	31.67	0.47	29.99	7.00	38.45	PASS
GPRS (GMSK,3-Slot)	824.2	29.49	0.47	27.81	7.00	38.45	PASS
	836.6	29.55	0.47	27.87	7.00	38.45	PASS
	848.8	29.88	0.47	28.20	7.00	38.45	PASS
GPRS (GMSK,4-Slot)	824.2	27.86	0.47	26.18	7.00	38.45	PASS
	836.6	28.06	0.47	26.38	7.00	38.45	PASS
	848.8	28.18	0.47	26.50	7.00	38.45	PASS
EGPRS (8PSK,1-Slot)	824.2	27.14	0.47	25.46	7.00	38.45	PASS
	836.6	26.17	0.47	24.49	7.00	38.45	PASS
	848.8	27.16	0.47	25.48	7.00	38.45	PASS
EGPRS (8PSK,2-Slot)	824.2	25.57	0.47	23.89	7.00	38.45	PASS
	836.6	25.9	0.47	24.22	7.00	38.45	PASS
	848.8	25.88	0.47	24.20	7.00	38.45	PASS
EGPRS (8PSK,3-Slot)	824.2	24.5	0.47	22.82	7.00	38.45	PASS
	836.6	24.27	0.47	22.59	7.00	38.45	PASS
	848.8	24.75	0.47	23.07	7.00	38.45	PASS
EGPRS (8PSK,4-Slot)	824.2	23.59	0.47	21.91	7.00	38.45	PASS
	836.6	23.06	0.47	21.38	7.00	38.45	PASS
	848.8	23.48	0.47	21.80	7.00	38.45	PASS



PCS 1900							
Mode	Frequency (MHz)	Conduction AVG Power(dBm)	Ant Gain (dBi)	EIRP (dBm)	EIRP Limit (W)	EIRP Limit (dBm)	Conclusion
GSM (GMSK,1-Slot)	1850.2	30.41	1.63	32.04	2.00	33.01	PASS
	1880.0	30.38	1.63	32.01	2.00	33.01	PASS
	1909.8	30.24	1.63	31.87	2.00	33.01	PASS
GPRS (GMSK,1-Slot)	1850.2	30.4	1.63	32.03	2.00	33.01	PASS
	1880.0	30	1.63	31.63	2.00	33.01	PASS
	1909.8	29.93	1.63	31.56	2.00	33.01	PASS
GPRS (GMSK,2-Slot)	1850.2	26.73	1.63	28.36	2.00	33.01	PASS
	1880.0	26.73	1.63	28.36	2.00	33.01	PASS
	1909.8	26.6	1.63	28.23	2.00	33.01	PASS
GPRS (GMSK,3-Slot)	1850.2	25.13	1.63	26.76	2.00	33.01	PASS
	1880.0	25.1	1.63	26.73	2.00	33.01	PASS
	1909.8	25.07	1.63	26.70	2.00	33.01	PASS
GPRS (GMSK,4-Slot)	1850.2	22.42	1.63	24.05	2.00	33.01	PASS
	1880.0	22.57	1.63	24.20	2.00	33.01	PASS
	1909.8	22.44	1.63	24.07	2.00	33.01	PASS
EGPRS (8PSK,1-Slot)	1850.2	25.35	1.63	26.98	2.00	33.01	PASS
	1880.0	25.71	1.63	27.34	2.00	33.01	PASS
	1909.8	25.10	1.63	26.73	2.00	33.01	PASS
EGPRS (8PSK,2-Slot)	1850.2	24.51	1.63	26.14	2.00	33.01	PASS
	1880.0	24.26	1.63	25.89	2.00	33.01	PASS
	1909.8	24.66	1.63	26.29	2.00	33.01	PASS
EGPRS (8PSK,3-Slot)	1850.2	23.31	1.63	24.94	2.00	33.01	PASS
	1880.0	22.98	1.63	24.61	2.00	33.01	PASS
	1909.8	22.79	1.63	24.42	2.00	33.01	PASS
EGPRS (8PSK,4-Slot)	1850.2	21.59	1.63	23.22	2.00	33.01	PASS
	1880.0	21.73	1.63	23.36	2.00	33.01	PASS
	1909.8	21.53	1.63	23.16	2.00	33.01	PASS



Radiated Power (EIRP) for WCDMA Band 2							
Mode	Frequency (MHz)	Conduction AVG Power(dBm)	Ant Gain (dBi)	EIRP (dBm)	EIRP Limit(W)	EIRP Limit (dBm)	Conclusion
WCDMA	1852.40	23.33	1.63	24.96	2.00	33.01	PASS
	1880.00	23.33	1.63	24.96	2.00	33.01	PASS
	1907.60	23.31	1.63	24.94	2.00	33.01	PASS
HSDPA Subtest 1	1852.40	23.45	1.63	25.08	2.00	33.01	PASS
	1880.00	23.24	1.63	24.87	2.00	33.01	PASS
	1907.60	22.09	1.63	23.72	2.00	33.01	PASS
HSDPA Subtest 2	1852.40	22.19	1.63	23.82	2.00	33.01	PASS
	1880.00	23.47	1.63	25.10	2.00	33.01	PASS
	1907.60	23.17	1.63	24.80	2.00	33.01	PASS
HSDPA Subtest 3	1852.40	22.42	1.63	24.05	2.00	33.01	PASS
	1880.00	22.20	1.63	23.83	2.00	33.01	PASS
	1907.60	23.37	1.63	25.00	2.00	33.01	PASS
HSDPA Subtest 4	1852.40	23.06	1.63	24.69	2.00	33.01	PASS
	1880.00	22.20	1.63	23.83	2.00	33.01	PASS
	1907.60	21.82	1.63	23.45	2.00	33.01	PASS
HSUPA Subtest 1	1852.40	21.68	1.63	23.31	2.00	33.01	PASS
	1880.00	22.40	1.63	24.03	2.00	33.01	PASS
	1907.60	22.13	1.63	23.76	2.00	33.01	PASS
HSUPA Subtest 2	1852.40	22.52	1.63	24.15	2.00	33.01	PASS
	1880.00	21.80	1.63	23.43	2.00	33.01	PASS
	1907.60	21.80	1.63	23.43	2.00	33.01	PASS
HSUPA Subtest 3	1852.40	22.57	1.63	24.20	2.00	33.01	PASS
	1880.00	22.39	1.63	24.02	2.00	33.01	PASS
	1907.60	22.79	1.63	24.42	2.00	33.01	PASS
HSUPA Subtest 4	1852.40	22.04	1.63	23.67	2.00	33.01	PASS
	1880.00	21.97	1.63	23.60	2.00	33.01	PASS
	1907.60	22.70	1.63	24.33	2.00	33.01	PASS
HSUPA Subtest 5	1852.40	22.34	1.63	23.97	2.00	33.01	PASS
	1880.00	22.66	1.63	24.29	2.00	33.01	PASS
	1907.60	21.97	1.63	23.60	2.00	33.01	PASS



Radiated Power (EIRP) for WCDMA Band 4							
Mode	Frequency (MHz)	Conduction AVG Power(dBm)	Ant Gain (dBi)	EIRP (dBm)	EIRP Limit(W)	EIRP Limit (dBm)	Conclusion
WCDMA	1712.40	23.58	3.12	26.70	1.00	30.00	PASS
	1740.00	23.58	3.12	26.70	1.00	30.00	PASS
	1752.60	23.60	3.12	26.72	1.00	30.00	PASS
HSDPA Subtest 1	1712.40	22.31	3.12	25.43	1.00	30.00	PASS
	1740.00	22.20	3.12	25.32	1.00	30.00	PASS
	1752.60	21.19	3.12	24.31	1.00	30.00	PASS
HSDPA Subtest 2	1712.40	20.91	3.12	24.03	1.00	30.00	PASS
	1740.00	22.33	3.12	25.45	1.00	30.00	PASS
	1752.60	22.20	3.12	25.32	1.00	30.00	PASS
HSDPA Subtest 3	1712.40	20.93	3.12	24.05	1.00	30.00	PASS
	1740.00	21.22	3.12	24.34	1.00	30.00	PASS
	1752.60	22.35	3.12	25.47	1.00	30.00	PASS
HSDPA Subtest 4	1712.40	22.12	3.12	25.24	1.00	30.00	PASS
	1740.00	21.15	3.12	24.27	1.00	30.00	PASS
	1752.60	20.74	3.12	23.86	1.00	30.00	PASS
HSUPA Subtest 1	1712.40	21.62	3.12	24.74	1.00	30.00	PASS
	1740.00	22.26	3.12	25.38	1.00	30.00	PASS
	1752.60	21.79	3.12	24.91	1.00	30.00	PASS
HSUPA Subtest 2	1712.40	22.49	3.12	25.61	1.00	30.00	PASS
	1740.00	21.66	3.12	24.78	1.00	30.00	PASS
	1752.60	21.67	3.12	24.79	1.00	30.00	PASS
HSUPA Subtest 3	1712.40	22.33	3.12	25.45	1.00	30.00	PASS
	1740.00	21.87	3.12	24.99	1.00	30.00	PASS
	1752.60	22.53	3.12	25.65	1.00	30.00	PASS
HSUPA Subtest 4	1712.40	21.75	3.12	24.87	1.00	30.00	PASS
	1740.00	21.64	3.12	24.76	1.00	30.00	PASS
	1752.60	22.37	3.12	25.49	1.00	30.00	PASS
HSUPA Subtest 5	1712.40	21.82	3.12	24.94	1.00	30.00	PASS
	1740.00	22.46	3.12	25.58	1.00	30.00	PASS
	1752.60	21.73	3.12	24.85	1.00	30.00	PASS



Radiated Power (ERP) for WCDMA Band 5							
Mode	Frequency (MHz)	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit(W)	ERP Limit (dBm)	Conclusion
WCDMA	826.40	23.84	0.64	22.33	7.00	38.45	PASS
	836.40	23.88	0.64	22.37	7.00	38.45	PASS
	846.60	23.79	0.64	22.28	7.00	38.45	PASS
HSDPA Subtest 1	826.40	22.62	0.64	21.11	7.00	38.45	PASS
	836.40	22.35	0.64	20.84	7.00	38.45	PASS
	846.60	21.48	0.64	19.97	7.00	38.45	PASS
HSDPA Subtest 2	826.40	21.18	0.64	19.67	7.00	38.45	PASS
	836.40	22.79	0.64	21.28	7.00	38.45	PASS
	846.60	22.67	0.64	21.16	7.00	38.45	PASS
HSDPA Subtest 3	826.40	21.56	0.64	20.05	7.00	38.45	PASS
	836.40	21.51	0.64	20.00	7.00	38.45	PASS
	846.60	22.64	0.64	21.13	7.00	38.45	PASS
HSDPA Subtest 4	826.40	22.38	0.64	20.87	7.00	38.45	PASS
	836.40	21.41	0.64	19.90	7.00	38.45	PASS
	846.60	21.21	0.64	19.70	7.00	38.45	PASS
HSUPA Subtest 1	826.40	21.87	0.64	20.36	7.00	38.45	PASS
	836.40	22.56	0.64	21.05	7.00	38.45	PASS
	846.60	22.20	0.64	20.69	7.00	38.45	PASS
HSUPA Subtest 2	826.40	22.70	0.64	21.19	7.00	38.45	PASS
	836.40	22.04	0.64	20.53	7.00	38.45	PASS
	846.60	22.01	0.64	20.50	7.00	38.45	PASS
HSUPA Subtest 3	826.40	22.69	0.64	21.18	7.00	38.45	PASS
	836.40	22.19	0.64	20.68	7.00	38.45	PASS
	846.60	22.77	0.64	21.26	7.00	38.45	PASS
HSUPA Subtest 4	826.40	22.11	0.64	20.60	7.00	38.45	PASS
	836.40	21.92	0.64	20.41	7.00	38.45	PASS
	846.60	22.53	0.64	21.02	7.00	38.45	PASS
HSUPA Subtest 5	826.40	22.04	0.64	20.53	7.00	38.45	PASS
	836.40	22.69	0.64	21.18	7.00	38.45	PASS
	846.60	22.00	0.64	20.49	7.00	38.45	PASS