

S

T

S

L

A

B



RADIO TEST REPORT

Report No.: STS2305096W05

Issued for

Buddi Limited

Talbot House, 17 Church Street, Rickmansworth, WD3 1DE,
Hertfordshire, UK

Product Name:	Smart Beacon V2.2
Brand:	Buddi Limited
Model Number:	T7-BUD-A-TEEU-B-2.2
Series Model(s):	3450006
FCC ID:	ZDLSB2
Test Standard:	47 CFR Part 2, 22, 24, 27

Any reproduction of this document must be done in full. No single part of this document may be reproduced without permission from STS, all test data presented in this report is only applicable to presented test sample.

Shenzhen STS Test Services Co., Ltd.
A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ,
Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
TEL: +86-755 3688 6288 FAX: +86-755 3688 6277 E-mail:sts@stsapp.com





TEST RESULT CERTIFICATION


Applicant's Name: Buddi Limited
 Address: Talbot House, 17 Church Street, Rickmansworth, WD3 1DE, Hertfordshire, UK
 Manufacturer's Name: Buddi Limited
 Address: Talbot House, 17 Church Street, Rickmansworth, WD3 1DE, Hertfordshire, UK

Product Description


Product Name: Smart Beacon V2.2
 Brand.....: Buddi Limited
 Model Number.....: T7-BUD-A-TEEU-B-2.2
 Series Model(s): 3450006
 Test Standards: 47 CFR Part 2, 22, 24, 27
 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.
 This report shall not be reproduced except in full, without the written approval of STS, this document may be altered or revised by STS, personal only, and shall be noted in the revision of the document..

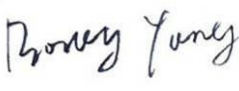
Date of Test.....:
 Date of receipt of test item.....: 15 May 2023
 Date (s) of performance of tests.: 15 May 2023 ~ 27June 2023
 Date of Issue: 27 June 2023
 Test Result: Pass

Testing Engineer : 

 (Chris Chen)

Technical Manager : 

 (Sean she)

Authorized Signatory : 

 (Bovey Yang)





Table of Contents	Page
1 INTRODUCTION	7
1.1 TEST FACTORY	7
1.2 MEASUREMENT UNCERTAINTY	7
2 PRODUCT INFORMATION	8
3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	11
4 MEASUREMENT INSTRUMENTS	13
5 TEST ITEMS	14
5.1 CONDUCTED OUTPUT POWER&TRANSMITTER RADIATED POWER	14
5.2 PEAK TO AVERAGE RATIO	33
5.3 OCCUPIED BANDWIDTH	34
5.4 FREQUENCY STABILITY	35
5.5 SPURIOUS EMISSIONS AT ANTENNA TERMINALS	42
5.6 BAND EDGE	43
5.7 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT	45
APPENDIX-PHOTOS OF TEST SETUP	69



Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	27 June 2023	STS2305096W05	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	ERP < 7 Watt	PASS
	24.232(c)	B2	EIRP < 2Watt	
	27.50(c)	B12	ERP < 3 Watt	
Peak-to-Average Ratio	22.913(d)	B5	< 13 dB	PASS
	24.232(d)	B2		
	27.50	B12		
Occupied Bandwidth	2.1049	/	Reporting Only	PASS
Frequency Stability	2.1055	/	< 2.5 ppm	PASS
	22.355	B5		
	24.235	B2		
	27.54	B12		
Spurious Emission at Antenna Terminals	2.1051	/	< 43+10log10(P[Watts])	PASS
	22.917	B5		
	24.238(a)	B2		
	27.53(g)	B12		
Band Edge	2.1051	/	Please refer to standard	PASS
	22.917	B5		
	24.238(a)	B2		
	27.53(g)	B12		



Field Strength of Spurious Radiation	2.1053	/	$< 43+10\log_{10}(P[\text{Watts}])$	PASS
	22.917	B5		
	24.238(a)	B2		
	27.53(g)	B12		





1 INTRODUCTION

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong 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	$\pm 1.197\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.896\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 3.84\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 3.94\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 4.59\text{dB}$
6	All emissions, radiated >6G	$\pm 5.22\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.14\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.54\text{dB}$

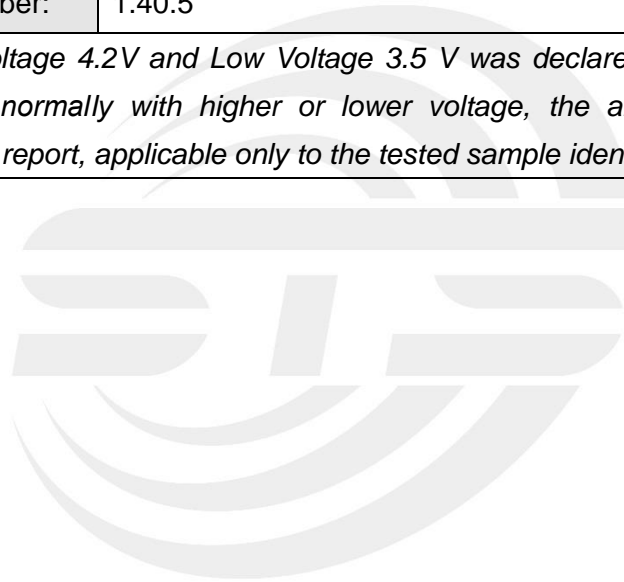


2 PRODUCT INFORMATION

Product Name	Smart Beacon V2.2
Brand	Buddi Limited
Model Number	T7-BUD-A-TEEU-B-2.2
Series Model(s)	3450006
Model Difference	The difference only in the model name.
Tx Frequency:	GPRS/EDGE: 850: 824 MHz ~ 849MHz 1900: 1850 MHz ~ 1910MHz WCDMA: Band V: 824 MHz ~ 849 MHz Band II: 1850 MHz ~ 1910 MHz LTE: Band 2:1850~1910MHz Band 5:824~849MHz Band 12:699~716MHz
Rx Frequency:	GPRS/EDGE: 850: 869 MHz ~ 894 MHz 1900: 1930 MHz ~ 1990MHz WCDMA: Band V: 869 MHz ~ 894 MHz Band II: 1930 MHz ~ 1990 MHz LTE: Band 2:1930~1990MHz Band 5:869~894MHz Band 12:729~746MHz
Max RF Output Power:	GPRS850(1-Slot):31.51dBm, GPRS1900(1-Slot):29.69dBm GPRS850(2-Slot):31.41dBm, GPRS1900(2-Slot):29.58dBm GPRS850(3-Slot):30.98dBm, GPRS1900(3-Slot):29.3dBm GPRS850(4-Slot):29.67dBm, GPRS1900(4-Slot):28.27dBm EDGE 850(1-Slot):26.88dBm, EDGE 1900(1-Slot):26.72dBm EDGE 850(2-Slot):26.66dBm, EDGE 1900(2-Slot):26.25dBm EDGE 850(3-Slot):26.01dBm, EDGE 1900(3-Slot):25.32dBm EDGE 850(4-Slot):24.38dBm, EDGE 1900(4-Slot):24.01dBm WCDMA Band II:23.2dBm,WCDMA Band V:23.62dBm, LTE B2: 22.57dBm, LTE B5: 24.41dBm, LTE B12: 19.44dBm
Modulation Characteristics:	GMSK for GPRS; GMSK and 8PSK for EDGE WCDMA: QPSK; HSDPA:QPSK/16QAM LTE: QPSK /16QAM
SIM Card:	Only support single SIM Card.
Antenna:	SMD Antenna
Antenna gain:	GSM850/WCDMA B5/LTE B5: 1dBi;



	GSM1900/WCDMA B2/LTE B2: 2.5dBi; LTE B12: 0.5dBi
Battery parameter:	Rated Voltage: 3.7V Charge Limit Voltage: 4.2V Capacity: 3100mAh
Adapter:	Input: 100 ~ 240VAC, 47~63hz, 0.4A Output: DC 5V 2.4A
GPRS/EDGE Class:	Multi-Class12
Extreme Vol. Limits:	DC 3.5V~ DC 4.2V(Normal: DC 3.7V)
Extreme Temp. Tolerance:	-30°C to +50°C
Hardware version number:	V2.2
Software version number:	1.40.5
<i>** Note: The High Voltage 4.2V and Low Voltage 3.5 V 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.</i>	





2.1 EMISSION DESIGNATOR

Mode	Emission Designator (99%OBW)	
GPRS850	248KGXW	
EGPRS850	243KG7W	
GPRS1900	246KGXW	
EGPRS1900	247KG7W	
Mode	Emission Designator (99%OBW)	
WCDMA Band2	4M14F9W	
WCDMA Band5	4M14F9W	
LTE Band 2	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M11G7D	1M10W7D
3	2M71G7D	2M70W7D
5	4M52G7D	4M52W7D
10	8M98G7D	N/A
15	13M5G7D	N/A
20	17M9G7D	N/A
LTE Band 5	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M70G7D	2M71W7D
5	4M53G7D	4M52W7D
10	8M97G7D	N/A
LTE Band 12	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M70G7D	2M70W7D
5	4M52G7D	4M54W7D
10	9M00G7D	N/A



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 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



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
	5	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
Peak&Avera Ratio	2	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v			v	v	v			v	v	v
	12	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
	5	v	v	v	v			v	v			v	v	v	v
	12	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
	5	v	v	v	v			v	v			v	v		v
	12	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
	5	v	v	v	v			v	v	v		v	v	v	v
	12	v	v	v	v			v	v	v		v	v	v	v
Frequency Stability	2				v			v				v		v	
	5				v			v				v		v	
	12				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
	5	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
Radiated Spurious Emission	2	v	v	v	v	v	v	v		v			v	v	v
	5	v	v	v	v			v		v			v	v	v
	12	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	2023.03.03	2024.03.02
Wireless Communications Test Set	R&S	CMW 500	117239	2023.03.01	2024.02.29
Pre-Amplifier(0.1M-3GHz)	EM	EM330	060665	2023.02.28	2024.02.27
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2022.09.29	2023.09.28
Positioning Controller	MF	MF-7802	MF-780208587	N/A	N/A
Signal Analyzer	R&S	FSV 40-N	101823	2022.09.29	2023.09.28
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	2022.09.30	2024.09.29
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2021.10.11	2023.10.10
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	2023.03.03	2024.03.02
Wireless Communications Test Set	R&S	CMW 500	131428	2023.03.01	2024.02.29
Signal Analyzer	Agilent	N9020A	MY52440124	2023.03.01	2024.02.29
RF Automatic Test System	Maiwei	MW200-SFCB	N/A	N/A	N/A
Temperature & Humidity Test Chamber	Safety test	AG80L	171200018	2023.03.01	2024.02.29
Programmable Power Supply	Agilent	E3642A	MY40002025	2022.09.29	2023.09.28
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:

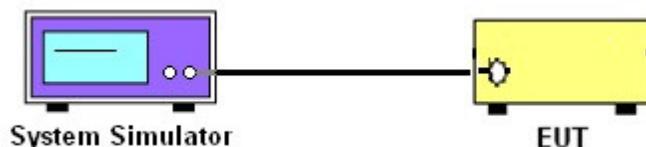
a) $\text{ERP} = \text{EIRP} - 2.15$, where ERP and EIRP are expressed in consistent units.

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
GPRS (GMSK,1-Slot)	824.2	31.51	1.00	30.36	7.00	38.45	PASS
	836.6	31.28	1.00	30.13	7.00	38.45	PASS
	848.8	31.26	1.00	30.11	7.00	38.45	PASS
GPRS (GMSK,2-Slot)	824.2	31.41	1.00	30.26	7.00	38.45	PASS
	836.6	31.15	1.00	30.00	7.00	38.45	PASS
	848.8	31.13	1.00	29.98	7.00	38.45	PASS
GPRS (GMSK,3-Slot)	824.2	30.98	1.00	29.83	7.00	38.45	PASS
	836.6	30.82	1.00	29.67	7.00	38.45	PASS
	848.8	30.87	1.00	29.72	7.00	38.45	PASS
GPRS (GMSK,4-Slot)	824.2	29.4	1.00	28.25	7.00	38.45	PASS
	836.6	29.44	1.00	28.29	7.00	38.45	PASS
	848.8	29.67	1.00	28.52	7.00	38.45	PASS
EGPRS (8PSK,1-Slot)	824.2	26.74	1.00	25.59	7.00	38.45	PASS
	836.6	26.41	1.00	25.26	7.00	38.45	PASS
	848.8	26.88	1.00	25.73	7.00	38.45	PASS
EGPRS (8PSK,2-Slot)	824.2	26.05	1.00	24.90	7.00	38.45	PASS
	836.6	26.11	1.00	24.96	7.00	38.45	PASS
	848.8	26.66	1.00	25.51	7.00	38.45	PASS
EGPRS (8PSK,3-Slot)	824.2	24.93	1.00	23.78	7.00	38.45	PASS
	836.6	25.17	1.00	24.02	7.00	38.45	PASS
	848.8	26.01	1.00	24.86	7.00	38.45	PASS
EGPRS (8PSK,4-Slot)	824.2	23.5	1.00	22.35	7.00	38.45	PASS
	836.6	23.57	1.00	22.42	7.00	38.45	PASS
	848.8	24.38	1.00	23.23	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
GPRS (GMSK,1-Slot)	1850.2	29.69	2.50	32.19	2.00	33.01	PASS
	1880.0	29.43	2.50	31.93	2.00	33.01	PASS
	1909.8	29.06	2.50	31.56	2.00	33.01	PASS
GPRS (GMSK,2-Slot)	1850.2	29.58	2.50	32.08	2.00	33.01	PASS
	1880.0	29.31	2.50	31.81	2.00	33.01	PASS
	1909.8	28.99	2.50	31.49	2.00	33.01	PASS
GPRS (GMSK,3-Slot)	1850.2	29.3	2.50	31.80	2.00	33.01	PASS
	1880.0	29.07	2.50	31.57	2.00	33.01	PASS
	1909.8	28.76	2.50	31.26	2.00	33.01	PASS
GPRS (GMSK,4-Slot)	1850.2	28.27	2.50	30.77	2.00	33.01	PASS
	1880.0	27.93	2.50	30.43	2.00	33.01	PASS
	1909.8	28.27	2.50	30.77	2.00	33.01	PASS
EGPRS (8PSK,1-Slot)	1850.2	25.90	2.50	28.40	2.00	33.01	PASS
	1880.0	26.45	2.50	28.95	2.00	33.01	PASS
	1909.8	26.72	2.50	29.22	2.00	33.01	PASS
EGPRS (8PSK,2-Slot)	1850.2	26.25	2.50	28.75	2.00	33.01	PASS
	1880.0	25.76	2.50	28.26	2.00	33.01	PASS
	1909.8	26.24	2.50	28.74	2.00	33.01	PASS
EGPRS (8PSK,3-Slot)	1850.2	25.32	2.50	27.82	2.00	33.01	PASS
	1880.0	25.24	2.50	27.74	2.00	33.01	PASS
	1909.8	25.10	2.50	27.60	2.00	33.01	PASS
EGPRS (8PSK,4-Slot)	1850.2	24.01	2.50	26.51	2.00	33.01	PASS
	1880.0	23.62	2.50	26.12	2.00	33.01	PASS
	1909.8	23.96	2.50	26.46	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	23.20	2.50	25.70	2.00	33.01	PASS
	1880.00	23.00	2.50	25.50	2.00	33.01	PASS
	1907.60	22.92	2.50	25.42	2.00	33.01	PASS
HSDPA Subtest 1	1852.40	20.1	2.50	22.60	2.00	33.01	PASS
	1880.00	21.46	2.50	23.96	2.00	33.01	PASS
	1907.60	20.71	2.50	23.21	2.00	33.01	PASS
HSDPA Subtest 2	1852.40	20.92	2.50	23.42	2.00	33.01	PASS
	1880.00	21.96	2.50	24.46	2.00	33.01	PASS
	1907.60	21.61	2.50	24.11	2.00	33.01	PASS
HSDPA Subtest 3	1852.40	20.71	2.50	23.21	2.00	33.01	PASS
	1880.00	20.76	2.50	23.26	2.00	33.01	PASS
	1907.60	21.75	2.50	24.25	2.00	33.01	PASS
HSDPA Subtest 4	1852.40	21.73	2.50	24.23	2.00	33.01	PASS
	1880.00	20.68	2.50	23.18	2.00	33.01	PASS
	1907.60	20.69	2.50	23.19	2.00	33.01	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	23.47	1.00	22.32	7.00	38.45	PASS
	836.40	23.62	1.00	22.47	7.00	38.45	PASS
	846.60	23.48	1.00	22.33	7.00	38.45	PASS
HSDPA Subtest 1	826.40	22.36	1.00	21.21	7.00	38.45	PASS
	836.40	22.49	1.00	21.34	7.00	38.45	PASS
	846.60	21.55	1.00	20.40	7.00	38.45	PASS
HSDPA Subtest 2	826.40	21.45	1.00	20.30	7.00	38.45	PASS
	836.40	22.60	1.00	21.45	7.00	38.45	PASS
	846.60	22.46	1.00	21.31	7.00	38.45	PASS
HSDPA Subtest 3	826.40	21.19	1.00	20.04	7.00	38.45	PASS
	836.40	21.44	1.00	20.29	7.00	38.45	PASS
	846.60	22.56	1.00	21.41	7.00	38.45	PASS
HSDPA Subtest 4	826.40	22.38	1.00	21.23	7.00	38.45	PASS
	836.40	21.03	1.00	19.88	7.00	38.45	PASS
	846.60	21.38	1.00	20.23	7.00	38.45	PASS





Radiated Power (EIRP) for LTE Band 2 /1.4M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	EIRP (dBm)	EIRP Limit(W)	EIRP Limit(dBm)	Verdict
1.4	Lowest	1	0	QPSK	21.76	2.5	24.26	2.00	33.01	PASS
		1	2		21.71	2.5	24.21	2.00	33.01	PASS
		1	5		21.79	2.5	24.29	2.00	33.01	PASS
		3	0		21.96	2.5	24.46	2.00	33.01	PASS
		3	1		21.86	2.5	24.36	2.00	33.01	PASS
		3	2		21.84	2.5	24.34	2.00	33.01	PASS
		6	0	20.8	2.5	23.30	2.00	33.01	PASS	
		1	0	16QAM	20.63	2.5	23.13	2.00	33.01	PASS
		1	2		20.77	2.5	23.27	2.00	33.01	PASS
		1	5		20.58	2.5	23.08	2.00	33.01	PASS
		3	0		20.67	2.5	23.17	2.00	33.01	PASS
		3	1		20.67	2.5	23.17	2.00	33.01	PASS
		3	2		20.62	2.5	23.12	2.00	33.01	PASS
		6	0	19.56	2.5	22.06	2.00	33.01	PASS	
	Middle	QPSK	1	0	21.98	2.5	24.48	2.00	33.01	PASS
			1	2	21.96	2.5	24.46	2.00	33.01	PASS
			1	5	21.92	2.5	24.42	2.00	33.01	PASS
			3	0	21.93	2.5	24.43	2.00	33.01	PASS
			3	1	21.91	2.5	24.41	2.00	33.01	PASS
			3	2	21.79	2.5	24.29	2.00	33.01	PASS
		6	0	20.9	2.5	23.40	2.00	33.01	PASS	
		16QAM	1	0	21.12	2.5	23.62	2.00	33.01	PASS
			1	2	21.09	2.5	23.59	2.00	33.01	PASS
			1	5	21.2	2.5	23.70	2.00	33.01	PASS
			3	0	20.86	2.5	23.36	2.00	33.01	PASS
			3	1	20.61	2.5	23.11	2.00	33.01	PASS
			3	2	20.86	2.5	23.36	2.00	33.01	PASS
		6	0	19.78	2.5	22.28	2.00	33.01	PASS	
	Highest	QPSK	1	0	21.79	2.5	24.29	2.00	33.01	PASS
			1	2	21.84	2.5	24.34	2.00	33.01	PASS
			1	5	21.85	2.5	24.35	2.00	33.01	PASS
			3	0	21.91	2.5	24.41	2.00	33.01	PASS
			3	1	21.85	2.5	24.35	2.00	33.01	PASS
			3	2	21.79	2.5	24.29	2.00	33.01	PASS
		6	0	20.83	2.5	23.33	2.00	33.01	PASS	
		16QAM	1	0	20.59	2.5	23.09	2.00	33.01	PASS
			1	2	20.57	2.5	23.07	2.00	33.01	PASS
			1	5	20.51	2.5	23.01	2.00	33.01	PASS
			3	0	20.8	2.5	23.30	2.00	33.01	PASS
			3	1	20.76	2.5	23.26	2.00	33.01	PASS
			3	2	20.67	2.5	23.17	2.00	33.01	PASS
			6	0	19.86	2.5	22.36	2.00	33.01	PASS



Radiated Power (EIRP) for LTE Band 2 /3M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	EIRP (dBm)	EIRP Limit(W)	EIRP Limit(dBm)	Verdict
3	Lowest	1	0	QPSK	21.93	2.5	24.43	2.00	33.01	PASS
		1	7		21.87	2.5	24.37	2.00	33.01	PASS
		1	14		22.02	2.5	24.52	2.00	33.01	PASS
		8	0		21.16	2.5	23.66	2.00	33.01	PASS
		8	4		21.12	2.5	23.62	2.00	33.01	PASS
		8	7		21.03	2.5	23.53	2.00	33.01	PASS
		15	0		21.07	2.5	23.57	2.00	33.01	PASS
		1	0	16QAM	20.8	2.5	23.30	2.00	33.01	PASS
		1	7		20.78	2.5	23.28	2.00	33.01	PASS
		1	14		20.85	2.5	23.35	2.00	33.01	PASS
		8	0		19.92	2.5	22.42	2.00	33.01	PASS
		8	4		19.9	2.5	22.40	2.00	33.01	PASS
		8	7		19.81	2.5	22.31	2.00	33.01	PASS
		15	0		19.82	2.5	22.32	2.00	33.01	PASS
		Middle	QPSK	1	0	21.63	2.5	24.13	2.00	33.01
	1			7	21.75	2.5	24.25	2.00	33.01	PASS
	1			14	21.57	2.5	24.07	2.00	33.01	PASS
	8			0	21.06	2.5	23.56	2.00	33.01	PASS
	8			4	20.97	2.5	23.47	2.00	33.01	PASS
	8			7	20.89	2.5	23.39	2.00	33.01	PASS
	15			0	20.89	2.5	23.39	2.00	33.01	PASS
	16QAM		1	0	20.56	2.5	23.06	2.00	33.01	PASS
			1	7	20.6	2.5	23.10	2.00	33.01	PASS
			1	14	20.89	2.5	23.39	2.00	33.01	PASS
			8	0	19.79	2.5	22.29	2.00	33.01	PASS
			8	4	19.71	2.5	22.21	2.00	33.01	PASS
			8	7	19.8	2.5	22.30	2.00	33.01	PASS
			15	0	19.76	2.5	22.26	2.00	33.01	PASS
			Highest	QPSK	1	0	22.13	2.5	24.63	2.00
	1	7			22.06	2.5	24.56	2.00	33.01	PASS
	1	14			21.71	2.5	24.21	2.00	33.01	PASS
	8	0			20.98	2.5	23.48	2.00	33.01	PASS
	8	4			20.79	2.5	23.29	2.00	33.01	PASS
	8	7			20.77	2.5	23.27	2.00	33.01	PASS
	15	0			20.88	2.5	23.38	2.00	33.01	PASS
	16QAM	1		0	21.44	2.5	23.94	2.00	33.01	PASS
1		7		21.02	2.5	23.52	2.00	33.01	PASS	
1		14		20.61	2.5	23.11	2.00	33.01	PASS	
8		0		19.8	2.5	22.30	2.00	33.01	PASS	
8		4		19.62	2.5	22.12	2.00	33.01	PASS	
8		7		19.57	2.5	22.07	2.00	33.01	PASS	
15		0		19.75	2.5	22.25	2.00	33.01	PASS	



Radiated Power (EIRP) for LTE Band 2 /5M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	EIRP (dBm)	EIRP Limit(W)	EIRP Limit(dBm)	Verdict
5	Lowest	1	0	QPSK	21.91	2.5	24.41	2.00	33.01	PASS
		1	12		21.78	2.5	24.28	2.00	33.01	PASS
		1	24		21.99	2.5	24.49	2.00	33.01	PASS
		12	0		21.03	2.5	23.53	2.00	33.01	PASS
		12	6		21	2.5	23.50	2.00	33.01	PASS
		12	11		21.07	2.5	23.57	2.00	33.01	PASS
		25	0		21.06	2.5	23.56	2.00	33.01	PASS
		1	0	16QAM	20.6	2.5	23.10	2.00	33.01	PASS
		1	12		20.69	2.5	23.19	2.00	33.01	PASS
		1	24		20.66	2.5	23.16	2.00	33.01	PASS
		12	0		19.91	2.5	22.41	2.00	33.01	PASS
		12	6		19.99	2.5	22.49	2.00	33.01	PASS
		12	11		19.96	2.5	22.46	2.00	33.01	PASS
		25	0		19.99	2.5	22.49	2.00	33.01	PASS
		Middle	QPSK	1	0	21.52	2.5	24.02	2.00	33.01
	1			12	21.93	2.5	24.43	2.00	33.01	PASS
	1			24	21.72	2.5	24.22	2.00	33.01	PASS
	12			0	20.8	2.5	23.30	2.00	33.01	PASS
	12			6	20.85	2.5	23.35	2.00	33.01	PASS
	12			11	20.81	2.5	23.31	2.00	33.01	PASS
	25			0	20.85	2.5	23.35	2.00	33.01	PASS
	16QAM		1	0	20.45	2.5	22.95	2.00	33.01	PASS
			1	12	20.95	2.5	23.45	2.00	33.01	PASS
			1	24	20.65	2.5	23.15	2.00	33.01	PASS
			12	0	19.68	2.5	22.18	2.00	33.01	PASS
			12	6	19.67	2.5	22.17	2.00	33.01	PASS
			12	11	19.69	2.5	22.19	2.00	33.01	PASS
			25	0	19.57	2.5	22.07	2.00	33.01	PASS
			Highest	QPSK	1	0	22.03	2.5	24.53	2.00
	1	12			21.88	2.5	24.38	2.00	33.01	PASS
	1	24			21.54	2.5	24.04	2.00	33.01	PASS
	12	0			20.87	2.5	23.37	2.00	33.01	PASS
	12	6			20.82	2.5	23.32	2.00	33.01	PASS
	12	11			20.6	2.5	23.10	2.00	33.01	PASS
	25	0			20.85	2.5	23.35	2.00	33.01	PASS
	16QAM	1		0	20.66	2.5	23.16	2.00	33.01	PASS
		1		12	20.52	2.5	23.02	2.00	33.01	PASS
		1		24	20.03	2.5	22.53	2.00	33.01	PASS
		12		0	19.89	2.5	22.39	2.00	33.01	PASS
		12		6	19.7	2.5	22.20	2.00	33.01	PASS
		12		11	19.45	2.5	21.95	2.00	33.01	PASS
		25		0	19.56	2.5	22.06	2.00	33.01	PASS



Radiated Power (EIRP) for LTE Band 2 /10M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	EIRP (dBm)	EIRP Limit(W)	EIRP Limit(dBm)	Verdict
10	Lowest	1	0	QPSK	21.82	2.5	24.32	2.00	33.01	PASS
		1	24		22.54	2.5	25.04	2.00	33.01	PASS
		1	49		22.00	2.5	24.50	2.00	33.01	PASS
		25	0		20.78	2.5	23.28	2.00	33.01	PASS
		25	12		20.85	2.5	23.35	2.00	33.01	PASS
		25	24		21.06	2.5	23.56	2.00	33.01	PASS
		50	0		20.73	2.5	23.23	2.00	33.01	PASS
	Middle	1	0	QPSK	21.85	2.5	24.35	2.00	33.01	PASS
		1	24		21.89	2.5	24.39	2.00	33.01	PASS
		1	49		21.35	2.5	23.85	2.00	33.01	PASS
		25	0		20.59	2.5	23.09	2.00	33.01	PASS
		25	12		20.48	2.5	22.98	2.00	33.01	PASS
		25	24		20.70	2.5	23.20	2.00	33.01	PASS
		50	0		20.55	2.5	23.05	2.00	33.01	PASS
	Highest	1	0	QPSK	21.63	2.5	24.13	2.00	33.01	PASS
		1	24		22.06	2.5	24.56	2.00	33.01	PASS
		1	49		21.37	2.5	23.87	2.00	33.01	PASS
		25	0		20.64	2.5	23.14	2.00	33.01	PASS
		25	12		20.97	2.5	23.47	2.00	33.01	PASS
		25	24		20.64	2.5	23.14	2.00	33.01	PASS
		50	0		20.85	2.5	23.35	2.00	33.01	PASS





Radiated Power (EIRP) for LTE Band 2 /15M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	EIRP (dBm)	EIRP Limit(W)	EIRP Limit(dBm)	Verdict
15	Lowest	1	0	QPSK	22.01	2.5	24.51	2.00	33.01	PASS
		1	37		22.49	2.5	24.99	2.00	33.01	PASS
		1	74		22.25	2.5	24.75	2.00	33.01	PASS
		36	0		21.01	2.5	23.51	2.00	33.01	PASS
		36	18		21.27	2.5	23.77	2.00	33.01	PASS
		36	39		21.1	2.5	23.60	2.00	33.01	PASS
		75	0		21.02	2.5	23.52	2.00	33.01	PASS
	Middle	1	0	QPSK	21.83	2.5	24.33	2.00	33.01	PASS
		1	37		22.02	2.5	24.52	2.00	33.01	PASS
		1	74		21.53	2.5	24.03	2.00	33.01	PASS
		36	0		20.78	2.5	23.28	2.00	33.01	PASS
		36	18		20.59	2.5	23.09	2.00	33.01	PASS
		36	39		20.65	2.5	23.15	2.00	33.01	PASS
		75	0		20.82	2.5	23.32	2.00	33.01	PASS
	Highest	1	0	QPSK	21.93	2.5	24.43	2.00	33.01	PASS
		1	37		22.13	2.5	24.63	2.00	33.01	PASS
		1	74		21.59	2.5	24.09	2.00	33.01	PASS
		36	0		21.01	2.5	23.51	2.00	33.01	PASS
		36	18		21.02	2.5	23.52	2.00	33.01	PASS
		36	39		20.88	2.5	23.38	2.00	33.01	PASS
		75	0		20.84	2.5	23.34	2.00	33.01	PASS





Radiated Power (EIRP) for LTE Band 2 /20M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	EIRP (dBm)	EIRP Limit(W)	EIRP Limit(dBm)	Verdict
20	Lowest	1	0	QPSK	21.44	2.5	23.94	2.00	33.01	PASS
		1	49		22.57	2.5	25.07	2.00	33.01	PASS
		1	99		21.73	2.5	24.23	2.00	33.01	PASS
		50	0		20.95	2.5	23.45	2.00	33.01	PASS
		50	24		21.15	2.5	23.65	2.00	33.01	PASS
		50	49		21.07	2.5	23.57	2.00	33.01	PASS
		100	0		20.96	2.5	23.46	2.00	33.01	PASS
	Middle	1	0	QPSK	21.9	2.5	24.40	2.00	33.01	PASS
		1	49		22.13	2.5	24.63	2.00	33.01	PASS
		1	99		21.71	2.5	24.21	2.00	33.01	PASS
		50	0		20.75	2.5	23.25	2.00	33.01	PASS
		50	24		20.6	2.5	23.10	2.00	33.01	PASS
		50	49		20.64	2.5	23.14	2.00	33.01	PASS
		100	0		20.76	2.5	23.26	2.00	33.01	PASS
	Highest	1	0	QPSK	21.66	2.5	24.16	2.00	33.01	PASS
		1	49		22.2	2.5	24.70	2.00	33.01	PASS
		1	99		21.38	2.5	23.88	2.00	33.01	PASS
		50	0		20.92	2.5	23.42	2.00	33.01	PASS
		50	24		20.91	2.5	23.41	2.00	33.01	PASS
		50	49		20.86	2.5	23.36	2.00	33.01	PASS
		100	0		20.84	2.5	23.34	2.00	33.01	PASS





Radiated Power (ERP) for LTE Band 5 /1.4M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit(W)	ERP Limit(dBm)	Verdict
1.4	Lowest	1	0	QPSK	22.91	1	21.76	7.00	38.45	PASS
		1	2		23.98	1	22.83	7.00	38.45	PASS
		1	5		23.9	1	22.75	7.00	38.45	PASS
		3	0		24.03	1	22.88	7.00	38.45	PASS
		3	1		24	1	22.85	7.00	38.45	PASS
		3	2		24.07	1	22.92	7.00	38.45	PASS
		6	0	23.09	1	21.94	7.00	38.45	PASS	
		1	0	16QAM	23.02	1	21.87	7.00	38.45	PASS
		1	2		22.99	1	21.84	7.00	38.45	PASS
		1	5		23.04	1	21.89	7.00	38.45	PASS
		3	0		22.99	1	21.84	7.00	38.45	PASS
		3	1		22.95	1	21.80	7.00	38.45	PASS
		3	2		22.87	1	21.72	7.00	38.45	PASS
		6	0	22.1	1	20.95	7.00	38.45	PASS	
	Middle	QPSK	1	0	24.15	1	23.00	7.00	38.45	PASS
			1	2	24.17	1	23.02	7.00	38.45	PASS
			1	5	24.13	1	22.98	7.00	38.45	PASS
			3	0	24.07	1	22.92	7.00	38.45	PASS
			3	1	24.11	1	22.96	7.00	38.45	PASS
			3	2	24.03	1	22.88	7.00	38.45	PASS
		6	0	23.19	1	22.04	7.00	38.45	PASS	
		16QAM	1	0	22.86	1	21.71	7.00	38.45	PASS
			1	2	23.14	1	21.99	7.00	38.45	PASS
			1	5	23.02	1	21.87	7.00	38.45	PASS
			3	0	23.22	1	22.07	7.00	38.45	PASS
			3	1	23.27	1	22.12	7.00	38.45	PASS
			3	2	23.18	1	22.03	7.00	38.45	PASS
		6	0	22.14	1	20.99	7.00	38.45	PASS	
	Highest	QPSK	1	0	24.06	1	22.91	7.00	38.45	PASS
			1	2	24.2	1	23.05	7.00	38.45	PASS
			1	5	24.13	1	22.98	7.00	38.45	PASS
			3	0	23.89	1	22.74	7.00	38.45	PASS
			3	1	23.96	1	22.81	7.00	38.45	PASS
			3	2	23.86	1	22.71	7.00	38.45	PASS
		6	0	22.85	1	21.70	7.00	38.45	PASS	
		16QAM	1	0	23.02	1	21.87	7.00	38.45	PASS
			1	2	22.99	1	21.84	7.00	38.45	PASS
			1	5	22.97	1	21.82	7.00	38.45	PASS
			3	0	22.72	1	21.57	7.00	38.45	PASS
			3	1	22.86	1	21.71	7.00	38.45	PASS
			3	2	22.85	1	21.70	7.00	38.45	PASS
			6	0	21.63	1	20.48	7.00	38.45	PASS



Radiated Power (ERP) for LTE Band 5 /3M											
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit(W)	ERP Limit(dBm)	Verdict	
3	Lowest	1	0	QPSK	24.06	1	22.91	7.00	38.45	PASS	
		1	7		24.11	1	22.96	7.00	38.45	PASS	
		1	14		23.88	1	22.73	7.00	38.45	PASS	
		8	0		23.11	1	21.96	7.00	38.45	PASS	
		8	4		23.15	1	22.00	7.00	38.45	PASS	
		8	7		23.04	1	21.89	7.00	38.45	PASS	
		15	0	23.07	1	21.92	7.00	38.45	PASS		
		1	0	16QAM	23.61	1	22.46	7.00	38.45	PASS	
		1	7		23.68	1	22.53	7.00	38.45	PASS	
		1	14		23.57	1	22.42	7.00	38.45	PASS	
		8	0		22.38	1	21.23	7.00	38.45	PASS	
		8	4		22.33	1	21.18	7.00	38.45	PASS	
		8	7		22.32	1	21.17	7.00	38.45	PASS	
		15	0	22.08	1	20.93	7.00	38.45	PASS		
		Middle	QPSK	1	0	23.84	1	22.69	7.00	38.45	PASS
	1			7	24.1	1	22.95	7.00	38.45	PASS	
	1			14	24.06	1	22.91	7.00	38.45	PASS	
	8			0	23.15	1	22.00	7.00	38.45	PASS	
	8			4	23.08	1	21.93	7.00	38.45	PASS	
	8			7	23.04	1	21.89	7.00	38.45	PASS	
	15		0	23.07	1	21.92	7.00	38.45	PASS		
	16QAM		1	0	22.94	1	21.79	7.00	38.45	PASS	
			1	7	22.83	1	21.68	7.00	38.45	PASS	
			1	14	23.01	1	21.86	7.00	38.45	PASS	
			8	0	22.16	1	21.01	7.00	38.45	PASS	
			8	4	22.08	1	20.93	7.00	38.45	PASS	
			8	7	22.16	1	21.01	7.00	38.45	PASS	
			15	0	22.1	1	20.95	7.00	38.45	PASS	
			Highest	QPSK	1	0	23.98	1	22.83	7.00	38.45
		1			7	24.37	1	23.22	7.00	38.45	PASS
	1	14			24.1	1	22.95	7.00	38.45	PASS	
	8	0			22.92	1	21.77	7.00	38.45	PASS	
	8	4			22.96	1	21.81	7.00	38.45	PASS	
	8	7			22.93	1	21.78	7.00	38.45	PASS	
	15	0		22.89	1	21.74	7.00	38.45	PASS		
	16QAM	1		0	22.92	1	21.77	7.00	38.45	PASS	
1		7		22.9	1	21.75	7.00	38.45	PASS		
1		14		22.9	1	21.75	7.00	38.45	PASS		
8		0		22.06	1	20.91	7.00	38.45	PASS		
8		4		22.15	1	21.00	7.00	38.45	PASS		
8		7		22.09	1	20.94	7.00	38.45	PASS		
15		0		22.19	1	21.04	7.00	38.45	PASS		



Radiated Power (ERP) for LTE Band 5 /5M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit(W)	ERP Limit(dBm)	Verdict
5	Lowest	1	0	QPSK	24.01	1	22.86	7.00	38.45	PASS
		1	12		24.34	1	23.19	7.00	38.45	PASS
		1	24		23.87	1	22.72	7.00	38.45	PASS
		12	0		22.83	1	21.68	7.00	38.45	PASS
		12	6		22.89	1	21.74	7.00	38.45	PASS
		12	11		23.05	1	21.90	7.00	38.45	PASS
		25	0		22.92	1	21.77	7.00	38.45	PASS
		1	0	16QAM	23.24	1	22.09	7.00	38.45	PASS
		1	12		23.29	1	22.14	7.00	38.45	PASS
		1	24		23.25	1	22.10	7.00	38.45	PASS
		12	0		21.71	1	20.56	7.00	38.45	PASS
		12	6		21.69	1	20.54	7.00	38.45	PASS
		12	11		21.75	1	20.60	7.00	38.45	PASS
		25	0		21.87	1	20.72	7.00	38.45	PASS
		Middle	QPSK	1	0	23.54	1	22.39	7.00	38.45
	1			12	23.87	1	22.72	7.00	38.45	PASS
	1			24	23.67	1	22.52	7.00	38.45	PASS
	12			0	23.02	1	21.87	7.00	38.45	PASS
	12			6	23.03	1	21.88	7.00	38.45	PASS
	12			11	22.94	1	21.79	7.00	38.45	PASS
	25			0	22.99	1	21.84	7.00	38.45	PASS
	16QAM		1	0	22.7	1	21.55	7.00	38.45	PASS
			1	12	22.88	1	21.73	7.00	38.45	PASS
			1	24	22.68	1	21.53	7.00	38.45	PASS
			12	0	21.61	1	20.46	7.00	38.45	PASS
			12	6	21.63	1	20.48	7.00	38.45	PASS
			12	11	21.61	1	20.46	7.00	38.45	PASS
			25	0	21.8	1	20.65	7.00	38.45	PASS
			Highest	QPSK	1	0	23.77	1	22.62	7.00
	1	12			23.83	1	22.68	7.00	38.45	PASS
	1	24			23.72	1	22.57	7.00	38.45	PASS
	12	0			22.91	1	21.76	7.00	38.45	PASS
	12	6			22.96	1	21.81	7.00	38.45	PASS
	12	11			22.93	1	21.78	7.00	38.45	PASS
	25	0			22.84	1	21.69	7.00	38.45	PASS
	16QAM	1		0	23.16	1	22.01	7.00	38.45	PASS
1		12		23.18	1	22.03	7.00	38.45	PASS	
1		24		23.13	1	21.98	7.00	38.45	PASS	
12		0		21.94	1	20.79	7.00	38.45	PASS	
12		6		21.93	1	20.78	7.00	38.45	PASS	
12		11		21.86	1	20.71	7.00	38.45	PASS	
25		0		21.72	1	20.57	7.00	38.45	PASS	



Radiated Power (ERP) for LTE Band 5 /10M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit(W)	ERP Limit(dBm)	Verdict
10	Lowest	1	0	QPSK	23.99	1	22.84	7.00	38.45	PASS
		1	24		24.09	1	22.94	7.00	38.45	PASS
		1	49		23.91	1	22.76	7.00	38.45	PASS
		25	0		22.9	1	21.75	7.00	38.45	PASS
		25	12		23.08	1	21.93	7.00	38.45	PASS
		25	24		22.92	1	21.77	7.00	38.45	PASS
		50	0		23.04	1	21.89	7.00	38.45	PASS
	Middle	1	0	QPSK	23.94	1	22.79	7.00	38.45	PASS
		1	24		24.12	1	22.97	7.00	38.45	PASS
		1	49		23.85	1	22.70	7.00	38.45	PASS
		25	0		22.99	1	21.84	7.00	38.45	PASS
		25	12		23.12	1	21.97	7.00	38.45	PASS
		25	24		22.99	1	21.84	7.00	38.45	PASS
		50	0		23.05	1	21.90	7.00	38.45	PASS
	Highest	1	0	QPSK	23.99	1	22.84	7.00	38.45	PASS
		1	24		24.41	1	23.26	7.00	38.45	PASS
		1	49		23.89	1	22.74	7.00	38.45	PASS
		25	0		22.99	1	21.84	7.00	38.45	PASS
		25	12		22.94	1	21.79	7.00	38.45	PASS
		25	24		22.9	1	21.75	7.00	38.45	PASS
		50	0		22.97	1	21.82	7.00	38.45	PASS





Radiated Power (ERP) for LTE Band 12 /1.4M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit(W)	ERP Limit(dBm)	Verdict
1.4	Lowest	1	0	QPSK	17.74	0.5	16.09	3.00	34.77	PASS
		1	2		18.07	0.5	16.42	3.00	34.77	PASS
		1	5		17.7	0.5	16.05	3.00	34.77	PASS
		3	0		17.53	0.5	15.88	3.00	34.77	PASS
		3	1		17.53	0.5	15.88	3.00	34.77	PASS
		3	2		17.68	0.5	16.03	3.00	34.77	PASS
		6	0		16.51	0.5	14.86	3.00	34.77	PASS
		1	0	16QAM	16.79	0.5	15.14	3.00	34.77	PASS
		1	2		16.73	0.5	15.08	3.00	34.77	PASS
		1	5		16.99	0.5	15.34	3.00	34.77	PASS
		3	0		16.83	0.5	15.18	3.00	34.77	PASS
		3	1		16.89	0.5	15.24	3.00	34.77	PASS
		3	2		16.83	0.5	15.18	3.00	34.77	PASS
		6	0		15.78	0.5	14.13	3.00	34.77	PASS
	Middle	1	0	QPSK	18.05	0.5	16.40	3.00	34.77	PASS
		1	2		18.08	0.5	16.43	3.00	34.77	PASS
		1	5		18.15	0.5	16.50	3.00	34.77	PASS
		3	0		18.1	0.5	16.45	3.00	34.77	PASS
		3	1		18.13	0.5	16.48	3.00	34.77	PASS
		3	2		18.14	0.5	16.49	3.00	34.77	PASS
		6	0		17.16	0.5	15.51	3.00	34.77	PASS
		1	0	16QAM	17.01	0.5	15.36	3.00	34.77	PASS
		1	2		17.29	0.5	15.64	3.00	34.77	PASS
		1	5		17.21	0.5	15.56	3.00	34.77	PASS
		3	0		17.59	0.5	15.94	3.00	34.77	PASS
		3	1		17.69	0.5	16.04	3.00	34.77	PASS
		3	2		17.52	0.5	15.87	3.00	34.77	PASS
		6	0		16.34	0.5	14.69	3.00	34.77	PASS
	Highest	1	0	QPSK	18.89	0.5	17.24	3.00	34.77	PASS
		1	2		18.95	0.5	17.30	3.00	34.77	PASS
		1	5		18.87	0.5	17.22	3.00	34.77	PASS
		3	0		19.03	0.5	17.38	3.00	34.77	PASS
		3	1		18.9	0.5	17.25	3.00	34.77	PASS
		3	2		18.92	0.5	17.27	3.00	34.77	PASS
		6	0		18.01	0.5	16.36	3.00	34.77	PASS
		1	0	16QAM	18.5	0.5	16.85	3.00	34.77	PASS
1		2	18.11		0.5	16.46	3.00	34.77	PASS	
1		5	17.93		0.5	16.28	3.00	34.77	PASS	
3		0	18.38		0.5	16.73	3.00	34.77	PASS	
3		1	18.43		0.5	16.78	3.00	34.77	PASS	
3		2	18.04		0.5	16.39	3.00	34.77	PASS	
6		0	17.27		0.5	15.62	3.00	34.77	PASS	



Radiated Power (ERP) for LTE Band 12 /3M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit(W)	ERP Limit(dBm)	Verdict
3	Lowest	1	0	QPSK	17.48	0.5	15.83	3.00	34.77	PASS
		1	7		17.74	0.5	16.09	3.00	34.77	PASS
		1	14		17.39	0.5	15.74	3.00	34.77	PASS
		8	0		16.44	0.5	14.79	3.00	34.77	PASS
		8	4		16.53	0.5	14.88	3.00	34.77	PASS
		8	7		16.4	0.5	14.75	3.00	34.77	PASS
		15	0		16.29	0.5	14.64	3.00	34.77	PASS
		1	0	16QAM	17.04	0.5	15.39	3.00	34.77	PASS
		1	7		17.65	0.5	16.00	3.00	34.77	PASS
		1	14		17.55	0.5	15.90	3.00	34.77	PASS
		8	0		15.2	0.5	13.55	3.00	34.77	PASS
		8	4		15.74	0.5	14.09	3.00	34.77	PASS
		8	7		15.7	0.5	14.05	3.00	34.77	PASS
		15	0		15.26	0.5	13.61	3.00	34.77	PASS
		Middle	1	0	QPSK	17.57	0.5	15.92	3.00	34.77
	1		7	18.12		0.5	16.47	3.00	34.77	PASS
	1		14	18.01		0.5	16.36	3.00	34.77	PASS
	8		0	17.25		0.5	15.60	3.00	34.77	PASS
	8		4	17.11		0.5	15.46	3.00	34.77	PASS
	8		7	17.26		0.5	15.61	3.00	34.77	PASS
	15		0	17.14		0.5	15.49	3.00	34.77	PASS
	1		0	16QAM	16.65	0.5	15.00	3.00	34.77	PASS
	1		7		17.08	0.5	15.43	3.00	34.77	PASS
	1		14		17	0.5	15.35	3.00	34.77	PASS
	8		0		15.93	0.5	14.28	3.00	34.77	PASS
	8		4		16.13	0.5	14.48	3.00	34.77	PASS
	8		7		16.16	0.5	14.51	3.00	34.77	PASS
	15		0		16.18	0.5	14.53	3.00	34.77	PASS
	Highest		1	0	QPSK	19.16	0.5	17.51	3.00	34.77
		1	7	18.9		0.5	17.25	3.00	34.77	PASS
		1	14	18.81		0.5	17.16	3.00	34.77	PASS
		8	0	18.07		0.5	16.42	3.00	34.77	PASS
		8	4	17.93		0.5	16.28	3.00	34.77	PASS
		8	7	17.82		0.5	16.17	3.00	34.77	PASS
		15	0	17.96		0.5	16.31	3.00	34.77	PASS
		1	0	16QAM	18.02	0.5	16.37	3.00	34.77	PASS
1		7	17.7		0.5	16.05	3.00	34.77	PASS	
1		14	17.49		0.5	15.84	3.00	34.77	PASS	
8		0	17.25		0.5	15.60	3.00	34.77	PASS	
8		4	17.09		0.5	15.44	3.00	34.77	PASS	
8		7	16.71		0.5	15.06	3.00	34.77	PASS	
15		0	17.21		0.5	15.56	3.00	34.77	PASS	



Radiated Power (ERP) for LTE Band 12 /5M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit(W)	ERP Limit(dBm)	Verdict
5	Lowest	1	0	QPSK	17.24	0.5	15.59	3.00	34.77	PASS
		1	12		17.77	0.5	16.12	3.00	34.77	PASS
		1	24		17.39	0.5	15.74	3.00	34.77	PASS
		12	0		16.27	0.5	14.62	3.00	34.77	PASS
		12	6		16.35	0.5	14.70	3.00	34.77	PASS
		12	11		16.58	0.5	14.93	3.00	34.77	PASS
		25	0	16.24	0.5	14.59	3.00	34.77	PASS	
		1	0	16QAM	16.64	0.5	14.99	3.00	34.77	PASS
		1	12		16.61	0.5	14.96	3.00	34.77	PASS
		1	24		16.71	0.5	15.06	3.00	34.77	PASS
		12	0		15.13	0.5	13.48	3.00	34.77	PASS
		12	6		15.38	0.5	13.73	3.00	34.77	PASS
		12	11		15.52	0.5	13.87	3.00	34.77	PASS
		25	0	15.33	0.5	13.68	3.00	34.77	PASS	
		Middle	1	0	QPSK	17.18	0.5	15.53	3.00	34.77
	1		12	18.02		0.5	16.37	3.00	34.77	PASS
	1		24	18		0.5	16.35	3.00	34.77	PASS
	12		0	16.9		0.5	15.25	3.00	34.77	PASS
	12		6	17.02		0.5	15.37	3.00	34.77	PASS
	12		11	17.1		0.5	15.45	3.00	34.77	PASS
	25		0	17.02	0.5	15.37	3.00	34.77	PASS	
	1		0	16QAM	16.42	0.5	14.77	3.00	34.77	PASS
	1		12		16.44	0.5	14.79	3.00	34.77	PASS
	1		24		16.85	0.5	15.20	3.00	34.77	PASS
	12		0		15.55	0.5	13.90	3.00	34.77	PASS
	12		6		15.76	0.5	14.11	3.00	34.77	PASS
	12		11		15.72	0.5	14.07	3.00	34.77	PASS
	25		0	15.88	0.5	14.23	3.00	34.77	PASS	
	Highest		1	0	QPSK	18.11	0.5	16.46	3.00	34.77
		1	12	19.24		0.5	17.59	3.00	34.77	PASS
		1	24	18.31		0.5	16.66	3.00	34.77	PASS
		12	0	17.63		0.5	15.98	3.00	34.77	PASS
		12	6	17.94		0.5	16.29	3.00	34.77	PASS
		12	11	17.55		0.5	15.90	3.00	34.77	PASS
		25	0	17.47	0.5	15.82	3.00	34.77	PASS	
		1	0	16QAM	17.55	0.5	15.90	3.00	34.77	PASS
1		12	18.23		0.5	16.58	3.00	34.77	PASS	
1		24	17.01		0.5	15.36	3.00	34.77	PASS	
12		0	16.73		0.5	15.08	3.00	34.77	PASS	
12		6	16.94		0.5	15.29	3.00	34.77	PASS	
12		11	16.64		0.5	14.99	3.00	34.77	PASS	
25		0	16.71	0.5	15.06	3.00	34.77	PASS		



Radiated Power (ERP) for LTE Band 12 /10M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain (dBi)	ERP (dBm)	ERP Limit(W)	ERP Limit(dBm)	Verdict
10	Lowest	1	0	QPSK	17.13	0.5	15.48	3.00	34.77	PASS
		1	24		17.46	0.5	15.81	3.00	34.77	PASS
		1	49		17.87	0.5	16.22	3.00	34.77	PASS
		25	0		16.32	0.5	14.67	3.00	34.77	PASS
		25	12		16.17	0.5	14.52	3.00	34.77	PASS
		25	24		16.65	0.5	15.00	3.00	34.77	PASS
		50	0		16.35	0.5	14.70	3.00	34.77	PASS
	Middle	1	0	QPSK	17.42	0.5	15.77	3.00	34.77	PASS
		1	24		17.92	0.5	16.27	3.00	34.77	PASS
		1	49		18.56	0.5	16.91	3.00	34.77	PASS
		25	0		16.79	0.5	15.14	3.00	34.77	PASS
		25	12		16.96	0.5	15.31	3.00	34.77	PASS
		25	24		17.21	0.5	15.56	3.00	34.77	PASS
		50	0		16.88	0.5	15.23	3.00	34.77	PASS
	Highest	1	0	QPSK	17.90	0.5	16.25	3.00	34.77	PASS
		1	24		19.44	0.5	17.79	3.00	34.77	PASS
		1	49		18.60	0.5	16.95	3.00	34.77	PASS
		25	0		17.06	0.5	15.41	3.00	34.77	PASS
		25	12		17.49	0.5	15.84	3.00	34.77	PASS
		25	24		17.63	0.5	15.98	3.00	34.77	PASS
		50	0		17.40	0.5	15.75	3.00	34.77	PASS



5.2 PEAK TO AVERAGE RATIO

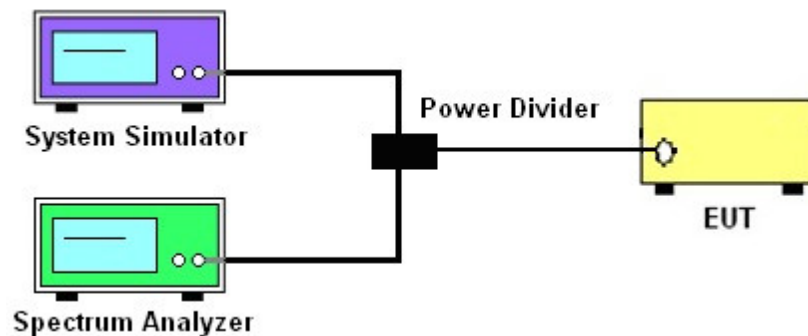
TEST OVERVIEW

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 “STS2305096W05_Appendix GSM” , “STS2305096W05_Appendix WCDMA” and “STS2305096W05_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.

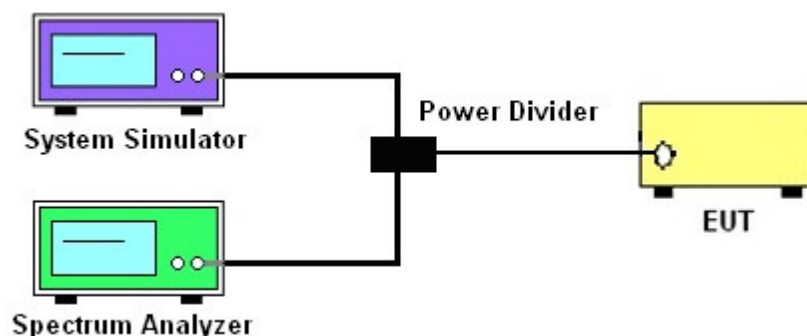
The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) 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 \geq 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 “STS2305096W05_Appendix GSM” , “STS2305096W05_Appendix WCDMA” and “STS2305096W05_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 $+50^{\circ}\text{C}$ 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 $\pm 0.00025\%$ (± 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

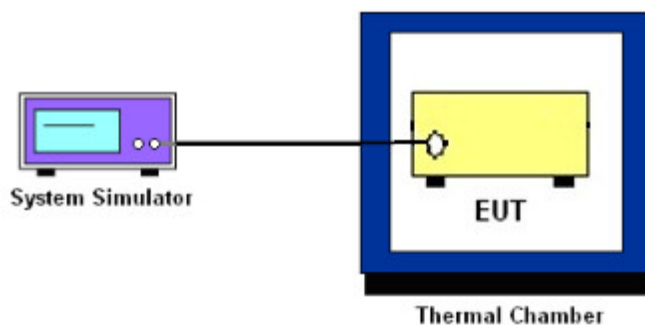
Temperature Variation

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 $25\pm 5^{\circ}\text{C}$ 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

GPRS 850 /836.6MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	22.82	0.027	2.5ppm	PASS
40		21.08	0.025		
30		34.08	0.041		
20		29.12	0.035		
10		34.70	0.041		
0		22.30	0.027		
-10		23.33	0.028		
-20		20.77	0.025		
-30		17.60	0.021		
20		Maximum Voltage	25.96		
20	BEP	28.61	0.034		

EGPRS 850 /836.6MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	27.50	0.033	2.5ppm	PASS
40		14.65	0.018		
30		13.48	0.016		
20		34.67	0.041		
10		35.95	0.043		
0		30.28	0.036		
-10		13.38	0.016		
-20		19.12	0.023		
-30		22.68	0.027		
20		Maximum Voltage	14.06		
20	BEP	14.46	0.017		



GPRS 1900 / 1880MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	18.07	0.010	Within Authorized Band	PASS
40		12.78	0.007		
30		13.31	0.007		
20		17.52	0.009		
10		30.89	0.016		
0		12.68	0.007		
-10		30.76	0.016		
-20		31.11	0.017		
-30		27.07	0.014		
20		Maximum Voltage	22.70		
20	BEP	14.70	0.008		

EGPRS 1900 / 1880MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	19.21	0.010	Within Authorized Band	PASS
40		33.70	0.018		
30		27.89	0.015		
20		13.04	0.007		
10		27.84	0.015		
0		20.75	0.011		
-10		27.12	0.014		
-20		33.74	0.018		
-30		14.89	0.008		
20		Maximum Voltage	20.78		
20	BEP	12.50	0.007		



UMTS Band 2 /1880MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	16.88	0.009	Within Authorized Band	PASS
40		17.80	0.009		
30		36.02	0.019		
20		17.63	0.009		
10		31.98	0.017		
0		29.24	0.016		
-10		34.59	0.018		
-20		11.94	0.006		
-30		34.71	0.018		
20		Maximum Voltage	21.02		
20	BEP	15.20	0.008		

HSDPA Band 2 /1880MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	16.41	0.009	Within Authorized Band	PASS
40		18.53	0.010		
30		23.65	0.013		
20		13.93	0.007		
10		36.09	0.019		
0		34.70	0.018		
-10		14.75	0.008		
-20		29.48	0.016		
-30		28.81	0.015		
20		Maximum Voltage	11.61		
20	BEP	16.74	0.009		

UMTS Band 5 / 836.4MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	20.11	0.024	2.5ppm	PASS
40		25.24	0.030		
30		17.86	0.021		
20		29.72	0.036		
10		31.83	0.038		
0		11.69	0.014		
-10		26.14	0.031		
-20		32.96	0.039		
-30		16.65	0.020		
20		Maximum Voltage	29.40		
20	BEP	27.55	0.033		



HSDPA Band 5 / 836.4MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)		(ppm)		
50	Normal Voltage	23.38	0.028	2.5ppm	PASS
40		33.00	0.039		
30		35.73	0.043		
20		33.61	0.040		
10		22.95	0.027		
0		26.34	0.031		
-10		14.84	0.018		
-20		32.05	0.038		
-30		20.04	0.024		
20		Maximum Voltage	29.78		
20	BEP	32.68	0.039		

LTE Band 2 (QPSK) / 1880MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	26.51	0.014	2.5ppm	PASS
40		25.32	0.013		
30		15.89	0.008		
20		34.29	0.018		
10		13.95	0.007		
0		17.18	0.009		
-10		19.62	0.010		
-20		16.46	0.009		
-30		22.58	0.012		
20		Maximum Voltage	29.38		
20	BEP	27.57	0.015		



LTE Band 2 (QPSK) / 1880MHz / BW20M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	19.72	0.010	2.5ppm	PASS
40		23.75	0.013		
30		21.23	0.011		
20		28.61	0.015		
10		14.31	0.008		
0		22.29	0.012		
-10		14.19	0.008		
-20		35.77	0.019		
-30		25.52	0.014		
20		Maximum Voltage	31.14		
20	BEP	24.84	0.013		

LTE Band 5 (QPSK) / 836.5MHz / BW5M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	13.10	0.018	2.5ppm	PASS
40		15.87	0.022		
30		31.72	0.045		
20		29.17	0.041		
10		31.53	0.044		
0		35.44	0.050		
-10		20.69	0.003		
-20		21.45	0.030		
-30		30.28	0.043		
20		Maximum Voltage	24.55		
20	BEP	23.61	0.033		

LTE Band 5 (QPSK) / 836.5MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	30.60	0.043	2.5ppm	PASS
40		34.11	0.048		
30		14.74	0.021		
20		23.96	0.034		
10		21.96	0.031		
0		18.41	0.026		
-10		26.12	0.004		
-20		28.96	0.041		
-30		16.97	0.024		
20		Maximum Voltage	32.05		
20	BEP	18.19	0.026		



LTE Band 12 (QPSK) / 707.5MHz / BW5M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	29.26	0.041	2.5ppm	PASS
40		26.23	0.037		
30		33.19	0.047		
20		18.40	0.026		
10		18.82	0.027		
0		13.22	0.019		
-10		33.65	0.005		
-20		14.18	0.020		
-30		18.96	0.027		
20		Maximum Voltage	28.98		
20	BEP	28.43	0.040		

LTE Band 12 (QPSK) / 707.5MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	27.81	0.039	2.5ppm	PASS
40		29.09	0.041		
30		14.37	0.020		
20		25.13	0.035		
10		25.92	0.037		
0		11.73	0.017		
-10		30.85	0.004		
-20		26.00	0.037		
-30		24.78	0.035		
20		Maximum Voltage	29.34		
20	BEP	21.53	0.030		

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:

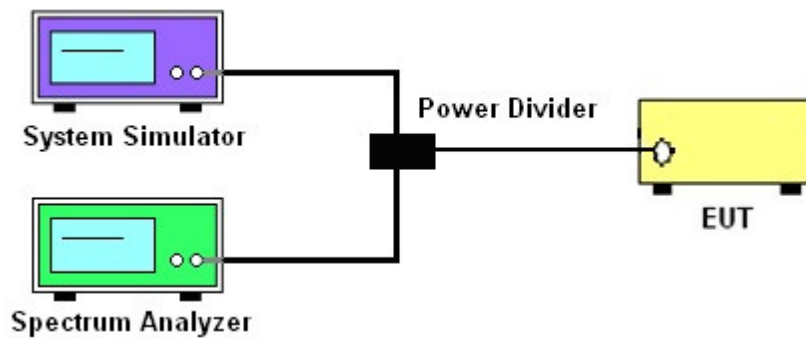
The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $55 + 10 \log (P)$ dB.

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 $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13\text{dBm}$.

TEST SETUP



TEST RESULT

Note: The test data please reference to attachment “STS2305096W05_Appendix GSM” , “STS2305096W05_Appendix WCDMA” and “STS2305096W05_Appendix LTE”.



5.6 BAND EDGE

TEST OVERVIEW

1. §22.917(a)

For operations in the 824 – 849 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ 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 $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ 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 $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ 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 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against 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 $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ 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.

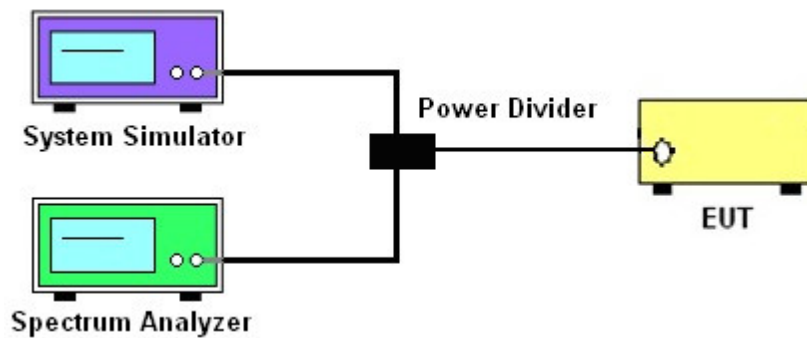
7. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

$$\begin{aligned}
 &= P(W) - [43 + 10\log(P)] \text{ (dB)} \\
 &= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)} \\
 &= -13\text{dBm}.
 \end{aligned}$$

Band 7:

$$\begin{aligned}
 &= P(W) - [55 + 10\log(P)] \text{ (dB)} \\
 &= [30 + 10\log(P)] \text{ (dBm)} - [55 + 10\log(P)] \text{ (dB)} \\
 &= -25\text{dBm}.
 \end{aligned}$$

TEST SETUP



TEST RESULT

Note: The test data please reference to attachment “STS2305096W05_Appendix GSM” , “STS2305096W05_Appendix WCDMA” and “STS2305096W05_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 signals operating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized horn antennas. All measurements are performed as peak measurements while the EUT is operating at maximum power and at the appropriate frequencies.

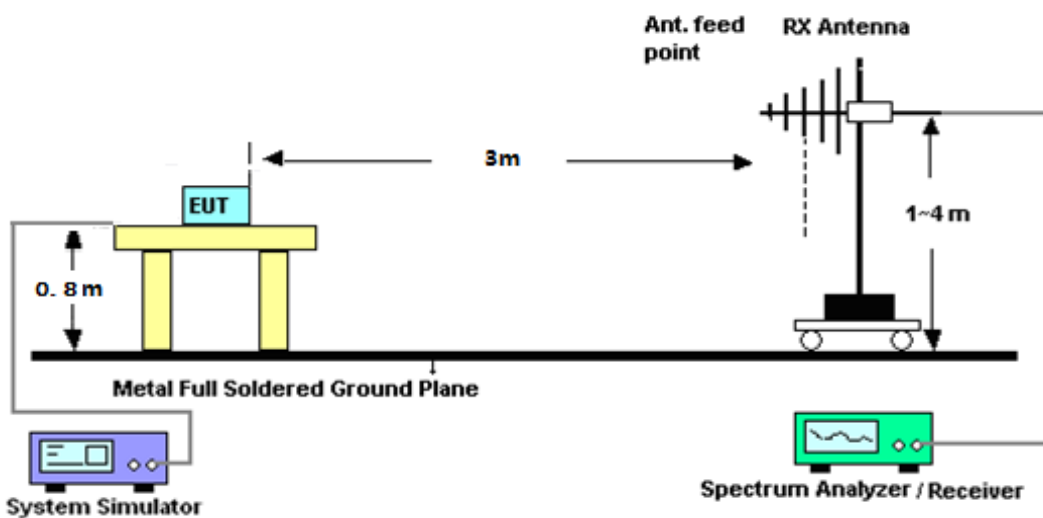
It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

TEST PROCEDURE

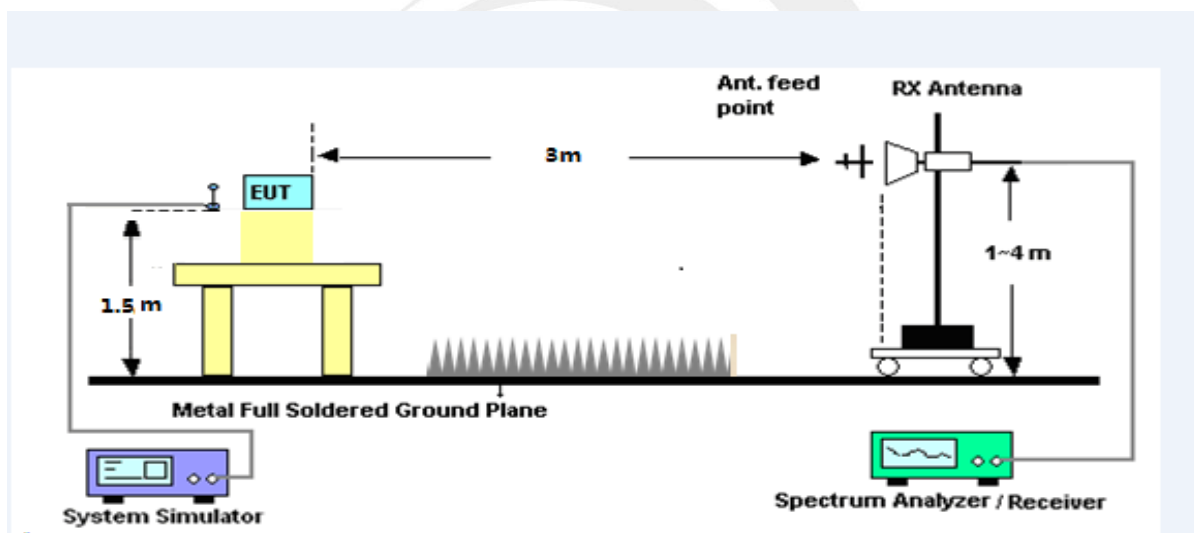
1. The testing FCC KDB 971168 D01 Section 5.8 and ANSI C63.26-2015-Section 5.5.
2. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
3. VBW $\geq 3 \times$ RBW
4. Span = 1.5 times the OBW
5. No. of sweep points $> 2 \times$ span/RBW
6. Detector = Peak
7. Trace mode = max hold
8. 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.
 $P_{Mea} = S.G \text{ Level} + \text{Ant-Cable loss}$; $\text{Margin} = P_{Mea} - \text{Limit}$.

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 frequency 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.

GPRS 850: (30-9000)MHz							
The Worst Test Results Channel 128/824.2 MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1648.36	-41.49	9.40	4.75	-36.84	-13.00	-23.84	H
2472.22	-39.86	10.60	8.39	-37.65	-13.00	-24.65	H
3296.84	-31.19	12.00	11.79	-30.98	-13.00	-17.98	H
1648.36	-44.64	9.40	4.75	-39.99	-13.00	-26.99	V
2472.22	-43.95	10.60	8.39	-41.74	-13.00	-28.74	V
3296.84	-43.42	12.00	11.79	-43.21	-13.00	-30.21	V
The Worst Test Results Channel 190/836.6 MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1672.95	-41.59	9.50	4.76	-36.85	-13.00	-23.85	H
2509.88	-39.75	10.70	8.40	-37.45	-13.00	-24.45	H
3346.01	-31.02	12.20	11.80	-30.62	-13.00	-17.62	H
1672.95	-44.61	9.40	4.75	-39.96	-13.00	-26.96	V
2509.88	-45.14	10.60	8.39	-42.93	-13.00	-29.93	V
3346.01	-42.54	12.20	11.82	-42.16	-13.00	-29.16	V
The Worst Test Results Channel 251/848.8 MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1697.30	-40.90	9.60	4.77	-36.07	-13.00	-23.07	H
2546.31	-39.47	10.80	8.50	-37.17	-13.00	-24.17	H
3395.31	-31.09	12.50	11.90	-30.49	-13.00	-17.49	H
1697.30	-43.21	9.60	4.77	-38.38	-13.00	-25.38	V
2546.31	-45.08	10.80	8.50	-42.78	-13.00	-29.78	V
3395.31	-42.59	12.50	11.90	-41.99	-13.00	-28.99	V



EGPRS 850: (30-9000)MHz							
The Worst Test Results Channel 128/824.2 MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1648.37	-41.19	9.40	4.75	-36.54	-13.00	-23.54	H
2472.34	-40.27	10.60	8.39	-38.06	-13.00	-25.06	H
3296.71	-32.06	12.00	11.79	-31.85	-13.00	-18.85	H
1648.37	-43.81	9.40	4.75	-39.16	-13.00	-26.16	V
2472.34	-44.95	10.60	8.39	-42.74	-13.00	-29.74	V
3296.71	-42.61	12.00	11.79	-42.40	-13.00	-29.40	V
The Worst Test Results Channel 190/836.6 MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1672.87	-40.66	9.50	4.76	-35.92	-13.00	-22.92	H
2509.83	-39.65	10.70	8.40	-37.35	-13.00	-24.35	H
3346.26	-32.26	12.20	11.80	-31.86	-13.00	-18.86	H
1672.87	-44.34	9.40	4.75	-39.69	-13.00	-26.69	V
2509.83	-45.27	10.60	8.39	-43.06	-13.00	-30.06	V
3346.26	-43.68	12.20	11.82	-43.30	-13.00	-30.30	V
The Worst Test Results Channel 251/848.8 MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1697.42	-40.58	9.60	4.77	-35.75	-13.00	-22.75	H
2546.09	-40.35	10.80	8.50	-38.05	-13.00	-25.05	H
3395.13	-31.83	12.50	11.90	-31.23	-13.00	-18.23	H
1697.42	-43.44	9.60	4.77	-38.61	-13.00	-25.61	V
2546.09	-44.99	10.80	8.50	-42.69	-13.00	-29.69	V
3395.13	-43.92	12.50	11.90	-43.32	-13.00	-30.32	V



GPRS1900: (30-20000)MHz							
The Worst Test Results for Channel 512/1850.2MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3700.16	-34.36	12.60	12.93	-34.69	-13.00	-21.69	H
5550.45	-34.00	13.10	17.11	-38.01	-13.00	-25.01	H
7400.52	-32.49	11.50	22.20	-43.19	-13.00	-30.19	H
3700.16	-34.75	12.60	12.93	-35.08	-13.00	-22.08	V
5550.45	-34.96	13.10	17.11	-38.97	-13.00	-25.97	V
7400.52	-32.79	11.50	22.20	-43.49	-13.00	-30.49	V
The Worst Test Results for Channel 661/1880.0MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3759.97	-33.95	12.60	12.93	-34.28	-13.00	-21.28	H
5640.15	-35.09	13.10	17.11	-39.10	-13.00	-26.10	H
7519.99	-33.50	11.50	22.20	-44.20	-13.00	-31.20	H
3759.97	-35.44	12.60	12.93	-35.77	-13.00	-22.77	V
5640.15	-34.90	13.10	17.11	-38.91	-13.00	-25.91	V
7519.99	-31.82	11.50	22.20	-42.52	-13.00	-29.52	V
The Worst Test Results for Channel 810/1909.8MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3819.48	-34.92	12.60	12.93	-35.25	-13.00	-22.25	H
5729.19	-34.69	13.10	17.11	-38.70	-13.00	-25.70	H
7639.32	-33.59	11.50	22.20	-44.29	-13.00	-31.29	H
3819.48	-35.72	12.60	12.93	-36.05	-13.00	-23.05	V
5729.19	-34.85	13.10	17.11	-38.86	-13.00	-25.86	V
7639.32	-32.35	11.50	22.20	-43.05	-13.00	-30.05	V



EGPRS 1900: (30-20000)MHz							
The Worst Test Results for Channel 512/1850.2MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3700.35	-34.13	12.60	12.93	-34.46	-13.00	-21.46	H
5550.25	-35.38	13.10	17.11	-39.39	-13.00	-26.39	H
7400.69	-33.20	11.50	22.20	-43.90	-13.00	-30.90	H
3700.35	-35.58	12.60	12.93	-35.91	-13.00	-22.91	V
5550.25	-34.30	13.10	17.11	-38.31	-13.00	-25.31	V
7400.69	-31.89	11.50	22.20	-42.59	-13.00	-29.59	V
The Worst Test Results for Channel 661/1880.0MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3759.93	-34.22	12.60	12.93	-34.55	-13.00	-21.55	H
5639.97	-35.44	13.10	17.11	-39.45	-13.00	-26.45	H
7519.82	-32.70	11.50	22.20	-43.40	-13.00	-30.40	H
3759.93	-35.15	12.60	12.93	-35.48	-13.00	-22.48	V
5639.97	-33.83	13.10	17.11	-37.84	-13.00	-24.84	V
7519.82	-32.20	11.50	22.20	-42.90	-13.00	-29.90	V
The Worst Test Results for Channel 810/1909.8MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3819.65	-33.60	12.60	12.93	-33.93	-13.00	-20.93	H
5729.03	-35.00	13.10	17.11	-39.01	-13.00	-26.01	H
7638.94	-32.41	11.50	22.20	-43.11	-13.00	-30.11	H
3819.65	-34.87	12.60	12.93	-35.20	-13.00	-22.20	V
5729.03	-33.79	13.10	17.11	-37.80	-13.00	-24.80	V
7638.94	-32.33	11.50	22.20	-43.03	-13.00	-30.03	V



WCDMA Band 2: (30-20000)MHz							
The Worst Test Results for Channel 9262/1852.4MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3704.15	-33.51	12.60	12.93	-33.84	-13.00	-20.84	H
5557.48	-34.28	13.10	17.11	-38.29	-13.00	-25.29	H
7409.67	-33.12	11.50	22.20	-43.82	-13.00	-30.82	H
3704.15	-35.77	12.60	12.93	-36.10	-13.00	-23.10	V
5557.48	-34.60	13.10	17.11	-38.61	-13.00	-25.61	V
7409.67	-32.12	11.50	22.20	-42.82	-13.00	-29.82	V
The Worst Test Results for Channel 9400/1880MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3760.11	-33.76	12.60	12.93	-34.09	-13.00	-21.09	H
5640.22	-35.18	13.10	17.11	-39.19	-13.00	-26.19	H
7519.91	-33.31	11.50	22.20	-44.01	-13.00	-31.01	H
3760.11	-35.56	12.60	12.93	-35.89	-13.00	-22.89	V
5640.22	-34.20	13.10	17.11	-38.21	-13.00	-25.21	V
7519.91	-31.83	11.50	22.20	-42.53	-13.00	-29.53	V
The Worst Test Results for Channel 9538/1907.6MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3815.53	-33.89	12.60	12.93	-34.22	-13.00	-21.22	H
5722.53	-35.26	13.10	17.11	-39.27	-13.00	-26.27	H
7630.46	-33.55	11.50	22.20	-44.25	-13.00	-31.25	H
3815.53	-34.88	12.60	12.93	-35.21	-13.00	-22.21	V
5722.53	-34.77	13.10	17.11	-38.78	-13.00	-25.78	V
7630.46	-32.08	11.50	22.20	-42.78	-13.00	-29.78	V



HSDPA Band 2: (30-20000)MHz							
The Worst Test Results for Channel 9262/1852.4MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3704.41	-33.75	12.60	12.93	-34.08	-13.00	-21.08	H
5557.59	-34.46	13.10	17.11	-38.47	-13.00	-25.47	H
7409.72	-32.61	11.50	22.20	-43.31	-13.00	-30.31	H
3704.41	-35.33	12.60	12.93	-35.66	-13.00	-22.66	V
5557.59	-34.10	13.10	17.11	-38.11	-13.00	-25.11	V
7409.72	-32.68	11.50	22.20	-43.38	-13.00	-30.38	V
The Worst Test Results for Channel 9400/1880MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3759.95	-34.06	12.60	12.93	-34.39	-13.00	-21.39	H
5640.21	-34.79	13.10	17.11	-38.80	-13.00	-25.80	H
7520.29	-32.85	11.50	22.20	-43.55	-13.00	-30.55	H
3759.95	-35.02	12.60	12.93	-35.35	-13.00	-22.35	V
5640.21	-34.38	13.10	17.11	-38.39	-13.00	-25.39	V
7520.29	-31.83	11.50	22.20	-42.53	-13.00	-29.53	V
The Worst Test Results for Channel 9538/1907.6MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
3815.65	-34.52	12.60	12.93	-34.85	-13.00	-21.85	H
5722.53	-35.05	13.10	17.11	-39.06	-13.00	-26.06	H
7630.06	-32.50	11.50	22.20	-43.20	-13.00	-30.20	H
3815.65	-34.95	12.60	12.93	-35.28	-13.00	-22.28	V
5722.53	-35.04	13.10	17.11	-39.05	-13.00	-26.05	V
7630.06	-32.24	11.50	22.20	-42.94	-13.00	-29.94	V



WCDMA Band 5: (30-9000)MHz							
The most testresults channel 4132/826.4MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1652.71	-40.18	9.40	4.75	-35.53	-13.00	-22.53	H
2479.14	-40.60	10.60	8.39	-38.39	-13.00	-25.39	H
3305.91	-32.32	12.00	11.79	-32.11	-13.00	-19.11	H
1652.71	-44.02	9.40	4.75	-39.37	-13.00	-26.37	V
2479.14	-45.22	10.60	8.39	-43.01	-13.00	-30.01	V
3305.91	-43.09	12.00	11.79	-42.88	-13.00	-29.88	V
The Worst Test Results Channel 4182/836.4MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1672.73	-40.53	9.40	4.75	-35.88	-13.00	-22.88	H
2509.33	-40.46	10.60	8.39	-38.25	-13.00	-25.25	H
3345.78	-32.20	12.00	11.79	-31.99	-13.00	-18.99	H
1672.73	-44.30	9.40	4.75	-39.65	-13.00	-26.65	V
2509.33	-45.33	10.60	8.39	-43.12	-13.00	-30.12	V
3345.78	-43.69	12.00	11.79	-43.48	-13.00	-30.48	V
The Worst Test Results Channel 4233/846.6MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1693.25	-40.85	9.40	4.75	-36.20	-13.00	-23.20	H
2539.64	-40.26	10.60	8.39	-38.05	-13.00	-25.05	H
3386.25	-31.74	12.00	11.79	-31.53	-13.00	-18.53	H
1693.25	-43.15	9.40	4.75	-38.50	-13.00	-25.50	V
2539.64	-45.15	10.60	8.39	-42.94	-13.00	-29.94	V
3386.25	-42.78	12.00	11.79	-42.57	-13.00	-29.57	V



HSDPA Band 5: (30-9000)MHz							
The most testresults channel 4132/826.4MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1652.59	-40.64	9.40	4.75	-35.99	-13.00	-22.99	H
2479.02	-40.43	10.60	8.39	-38.22	-13.00	-25.22	H
3305.94	-31.39	12.00	11.79	-31.18	-13.00	-18.18	H
1652.59	-43.40	9.40	4.75	-38.75	-13.00	-25.75	V
2479.02	-43.98	10.60	8.39	-41.77	-13.00	-28.77	V
3305.94	-42.68	12.00	11.79	-42.47	-13.00	-29.47	V
The Worst Test Results Channel 4182/836.4MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1672.64	-40.94	9.40	4.75	-36.29	-13.00	-23.29	H
2509.26	-39.63	10.60	8.39	-37.42	-13.00	-24.42	H
3345.54	-31.79	12.00	11.79	-31.58	-13.00	-18.58	H
1672.64	-44.56	9.40	4.75	-39.91	-13.00	-26.91	V
2509.26	-44.09	10.60	8.39	-41.88	-13.00	-28.88	V
3345.54	-43.13	12.00	11.79	-42.92	-13.00	-29.92	V
The Worst Test Results Channel 4233/846.6MHz							
Frequency(MHz)	S	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
	G.Lev (dBm)			(dBm)	(dBm)	(dBm)	
1693.55	-40.51	9.40	4.75	-35.86	-13.00	-22.86	H
2539.92	-39.68	10.60	8.39	-37.47	-13.00	-24.47	H
3386.43	-32.17	12.00	11.79	-31.96	-13.00	-18.96	H
1693.55	-43.55	9.40	4.75	-38.90	-13.00	-25.90	V
2539.92	-44.73	10.60	8.39	-42.52	-13.00	-29.52	V
3386.43	-42.88	12.00	11.79	-42.67	-13.00	-29.67	V



LTE Band 2 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3701.26	-34.25	12.60	12.93	-34.58	-13.00	-21.58	H
5552.04	-34.48	13.10	17.11	-38.49	-13.00	-25.49	H
7402.62	-32.68	11.50	22.20	-43.38	-13.00	-30.38	H
3701.26	-35.50	12.60	12.93	-35.83	-13.00	-22.83	V
5552.04	-34.45	13.10	17.11	-38.46	-13.00	-25.46	V
7402.62	-32.82	11.50	22.20	-43.52	-13.00	-30.52	V
LTE Band 2 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3759.79	-34.59	12.60	12.93	-34.92	-13.00	-21.92	H
5640.09	-35.34	13.10	17.11	-39.35	-13.00	-26.35	H
7520.12	-33.58	11.50	22.20	-44.28	-13.00	-31.28	H
3759.79	-35.70	12.60	12.93	-36.03	-13.00	-23.03	V
5640.09	-34.66	13.10	17.11	-38.67	-13.00	-25.67	V
7520.12	-32.39	11.50	22.20	-43.09	-13.00	-30.09	V
LTE Band 2 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3818.60	-33.80	12.60	12.93	-34.13	-13.00	-21.13	H
5727.54	-34.96	13.10	17.11	-38.97	-13.00	-25.97	H
7636.80	-33.34	11.50	22.20	-44.04	-13.00	-31.04	H
3818.60	-35.53	12.60	12.93	-35.86	-13.00	-22.86	V
5727.54	-34.29	13.10	17.11	-38.30	-13.00	-25.30	V
7636.80	-33.21	11.50	22.20	-43.91	-13.00	-30.91	V



LTE Band 2 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3702.95	-33.83	12.60	12.93	-34.16	-13.00	-21.16	H
5554.19	-35.41	13.10	17.11	-39.42	-13.00	-26.42	H
7405.86	-33.43	11.50	22.20	-44.13	-13.00	-31.13	H
3702.95	-35.36	12.60	12.93	-35.69	-13.00	-22.69	V
5554.19	-35.06	13.10	17.11	-39.07	-13.00	-26.07	V
7405.86	-33.02	11.50	22.20	-43.72	-13.00	-30.72	V
LTE Band 2 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3759.78	-33.54	12.60	12.93	-33.87	-13.00	-20.87	H
5640.07	-34.71	13.10	17.11	-38.72	-13.00	-25.72	H
7520.02	-32.73	11.50	22.20	-43.43	-13.00	-30.43	H
3759.78	-35.42	12.60	12.93	-35.75	-13.00	-22.75	V
5640.07	-33.90	13.10	17.11	-37.91	-13.00	-24.91	V
7520.02	-32.56	11.50	22.20	-43.26	-13.00	-30.26	V
LTE Band 2 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3816.95	-33.98	12.60	12.93	-34.31	-13.00	-21.31	H
5725.41	-35.16	13.10	17.11	-39.17	-13.00	-26.17	H
7633.99	-32.89	11.50	22.20	-43.59	-13.00	-30.59	H
3816.95	-35.27	12.60	12.93	-35.60	-13.00	-22.60	V
5725.41	-34.24	13.10	17.11	-38.25	-13.00	-25.25	V
7633.99	-33.09	11.50	22.20	-43.79	-13.00	-30.79	V



LTE Band 2 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3705.21	-34.01	12.60	12.93	-34.34	-13.00	-21.34	H
5557.47	-34.16	13.10	17.11	-38.17	-13.00	-25.17	H
7409.85	-32.88	11.50	22.20	-43.58	-13.00	-30.58	H
3705.21	-35.32	12.60	12.93	-35.65	-13.00	-22.65	V
5557.47	-35.06	13.10	17.11	-39.07	-13.00	-26.07	V
7409.85	-32.06	11.50	22.20	-42.76	-13.00	-29.76	V
LTE Band 2 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3760.19	-33.58	12.60	12.93	-33.91	-13.00	-20.91	H
5640.17	-35.12	13.10	17.11	-39.13	-13.00	-26.13	H
7519.99	-32.68	11.50	22.20	-43.38	-13.00	-30.38	H
3760.19	-35.75	12.60	12.93	-36.08	-13.00	-23.08	V
5640.17	-33.91	13.10	17.11	-37.92	-13.00	-24.92	V
7519.99	-32.70	11.50	22.20	-43.40	-13.00	-30.40	V
LTE Band 2 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3815.33	-34.76	12.60	12.93	-35.09	-13.00	-22.09	H
5722.17	-34.84	13.10	17.11	-38.85	-13.00	-25.85	H
7630.30	-32.30	11.50	22.20	-43.00	-13.00	-30.00	H
3815.33	-35.90	12.60	12.93	-36.23	-13.00	-23.23	V
5722.17	-34.90	13.10	17.11	-38.91	-13.00	-25.91	V
7630.30	-32.27	11.50	22.20	-42.97	-13.00	-29.97	V



LTE Band 2 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3710.03	-33.96	12.60	12.93	-34.29	-13.00	-21.29	H
5565.40	-35.42	13.10	17.11	-39.43	-13.00	-26.43	H
7420.02	-33.48	11.50	22.20	-44.18	-13.00	-31.18	H
3710.03	-35.08	12.60	12.93	-35.41	-13.00	-22.41	V
5565.40	-35.03	13.10	17.11	-39.04	-13.00	-26.04	V
7420.02	-32.70	11.50	22.20	-43.40	-13.00	-30.40	V
LTE Band 2 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3760.02	-34.89	12.60	12.93	-35.22	-13.00	-22.22	H
5639.89	-34.60	13.10	17.11	-38.61	-13.00	-25.61	H
7519.80	-32.84	11.50	22.20	-43.54	-13.00	-30.54	H
3760.02	-34.89	12.60	12.93	-35.22	-13.00	-22.22	V
5639.89	-34.87	13.10	17.11	-38.88	-13.00	-25.88	V
7519.80	-32.48	11.50	22.20	-43.18	-13.00	-30.18	V
LTE Band 2 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3810.35	-33.45	12.60	12.93	-33.78	-13.00	-20.78	H
5714.80	-34.15	13.10	17.11	-38.16	-13.00	-25.16	H
7620.09	-33.43	11.50	22.20	-44.13	-13.00	-31.13	H
3810.35	-35.67	12.60	12.93	-36.00	-13.00	-23.00	V
5714.80	-34.57	13.10	17.11	-38.58	-13.00	-25.58	V
7620.09	-32.95	11.50	22.20	-43.65	-13.00	-30.65	V



LTE Band 2 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3715.11	-34.21	12.60	12.93	-34.54	-13.00	-21.54	H
5572.23	-35.44	13.10	17.11	-39.45	-13.00	-26.45	H
7430.48	-32.21	11.50	22.20	-42.91	-13.00	-29.91	H
3715.11	-35.21	12.60	12.93	-35.54	-13.00	-22.54	V
5572.23	-34.33	13.10	17.11	-38.34	-13.00	-25.34	V
7430.48	-31.93	11.50	22.20	-42.63	-13.00	-29.63	V
LTE Band 2 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3760.00	-33.81	12.60	12.93	-34.14	-13.00	-21.14	H
5640.15	-34.70	13.10	17.11	-38.71	-13.00	-25.71	H
7520.14	-32.57	11.50	22.20	-43.27	-13.00	-30.27	H
3760.00	-34.87	12.60	12.93	-35.20	-13.00	-22.20	V
5640.15	-34.80	13.10	17.11	-38.81	-13.00	-25.81	V
7520.14	-31.86	11.50	22.20	-42.56	-13.00	-29.56	V
LTE Band 2 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3804.83	-34.35	12.60	12.93	-34.68	-13.00	-21.68	H
5707.50	-35.31	13.10	17.11	-39.32	-13.00	-26.32	H
7610.33	-33.33	11.50	22.20	-44.03	-13.00	-31.03	H
3804.83	-35.99	12.60	12.93	-36.32	-13.00	-23.32	V
5707.50	-35.06	13.10	17.11	-39.07	-13.00	-26.07	V
7610.33	-33.18	11.50	22.20	-43.88	-13.00	-30.88	V



LTE Band 2 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3720.35	-33.61	12.60	12.93	-33.94	-13.00	-20.94	H
5580.30	-34.34	13.10	17.11	-38.35	-13.00	-25.35	H
7440.06	-32.25	11.50	22.20	-42.95	-13.00	-29.95	H
3720.35	-35.51	12.60	12.93	-35.84	-13.00	-22.84	V
5580.30	-34.80	13.10	17.11	-38.81	-13.00	-25.81	V
7440.06	-32.92	11.50	22.20	-43.62	-13.00	-30.62	V
LTE Band 2 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3760.06	-33.76	12.60	12.93	-34.09	-13.00	-21.09	H
5639.86	-35.40	13.10	17.11	-39.41	-13.00	-26.41	H
7519.81	-32.83	11.50	22.20	-43.53	-13.00	-30.53	H
3760.06	-34.86	12.60	12.93	-35.19	-13.00	-22.19	V
5639.86	-34.61	13.10	17.11	-38.62	-13.00	-25.62	V
7519.81	-32.15	11.50	22.20	-42.85	-13.00	-29.85	V
LTE Band 2 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
3799.89	-34.49	12.60	12.93	-34.82	-13.00	-21.82	H
5699.93	-35.34	13.10	17.11	-39.35	-13.00	-26.35	H
7599.75	-32.34	11.50	22.20	-43.04	-13.00	-30.04	H
3799.89	-35.16	12.60	12.93	-35.49	-13.00	-22.49	V
5699.93	-35.13	13.10	17.11	-39.14	-13.00	-26.14	V
7599.75	-32.80	11.50	22.20	-43.50	-13.00	-30.50	V



LTE Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1648.71	-34.64	9.56	9.72	-34.80	-13.00	-21.80	H
2473.64	-34.07	10.50	10.86	-34.43	-13.00	-21.43	H
3298.67	-33.63	12.78	11.57	-32.42	-13.00	-19.42	H
1648.71	-35.46	9.56	9.72	-35.62	-13.00	-22.62	V
2473.64	-34.94	10.50	10.86	-35.30	-13.00	-22.30	V
3298.67	-33.10	12.78	11.57	-31.89	-13.00	-18.89	V
LTE Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1672.81	-33.95	9.56	9.72	-34.11	-13.00	-21.11	H
2509.11	-34.38	10.50	10.86	-34.74	-13.00	-21.74	H
3345.54	-32.20	12.78	11.57	-30.99	-13.00	-17.99	H
1672.81	-34.98	9.56	9.72	-35.14	-13.00	-22.14	V
2509.11	-35.17	10.50	10.86	-35.53	-13.00	-22.53	V
3345.54	-32.28	12.78	11.57	-31.07	-13.00	-18.07	V
LTE Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1696.04	-34.43	9.56	9.72	-34.59	-13.00	-21.59	H
2544.59	-34.09	10.50	10.86	-34.45	-13.00	-21.45	H
3392.70	-33.60	12.78	11.57	-32.39	-13.00	-19.39	H
1696.04	-35.52	9.56	9.72	-35.68	-13.00	-22.68	V
2544.59	-34.23	10.50	10.86	-34.59	-13.00	-21.59	V
3392.70	-32.09	12.78	11.57	-30.88	-13.00	-17.88	V



LTE Band 5 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1650.34	-34.58	9.56	9.72	-34.74	-13.00	-21.74	H
2476.09	-35.22	10.50	10.86	-35.58	-13.00	-22.58	H
3301.49	-32.26	12.78	11.57	-31.05	-13.00	-18.05	H
1650.34	-35.63	9.56	9.72	-35.79	-13.00	-22.79	V
2476.09	-34.68	10.50	10.86	-35.04	-13.00	-22.04	V
3301.49	-33.20	12.78	11.57	-31.99	-13.00	-18.99	V
LTE Band 5 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1672.55	-34.27	9.56	9.72	-34.43	-13.00	-21.43	H
2508.98	-33.99	10.50	10.86	-34.35	-13.00	-21.35	H
3345.65	-32.36	12.78	11.57	-31.15	-13.00	-18.15	H
1672.55	-35.41	9.56	9.72	-35.57	-13.00	-22.57	V
2508.98	-34.69	10.50	10.86	-35.05	-13.00	-22.05	V
3345.65	-32.96	12.78	11.57	-31.75	-13.00	-18.75	V
LTE Band 5 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1694.55	-33.73	9.56	9.72	-33.89	-13.00	-20.89	H
2541.83	-34.32	10.50	10.86	-34.68	-13.00	-21.68	H
3389.21	-33.20	12.78	11.57	-31.99	-13.00	-18.99	H
1694.55	-34.63	9.56	9.72	-34.79	-13.00	-21.79	V
2541.83	-33.91	10.50	10.86	-34.27	-13.00	-21.27	V
3389.21	-32.27	12.78	11.57	-31.06	-13.00	-18.06	V



LTE Band 5 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1652.54	-34.21	9.56	9.72	-34.37	-13.00	-21.37	H
2478.60	-34.11	10.50	10.86	-34.47	-13.00	-21.47	H
3305.61	-32.50	12.78	11.57	-31.29	-13.00	-18.29	H
1652.54	-34.89	9.56	9.72	-35.05	-13.00	-22.05	V
2478.60	-34.22	10.50	10.86	-34.58	-13.00	-21.58	V
3305.61	-32.69	12.78	11.57	-31.48	-13.00	-18.48	V
LTE Band 5 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1672.44	-34.92	9.56	9.72	-35.08	-13.00	-22.08	H
2508.65	-35.18	10.50	10.86	-35.54	-13.00	-22.54	H
3345.18	-32.98	12.78	11.57	-31.77	-13.00	-18.77	H
1672.44	-35.21	9.56	9.72	-35.37	-13.00	-22.37	V
2508.65	-34.56	10.50	10.86	-34.92	-13.00	-21.92	V
3345.18	-32.47	12.78	11.57	-31.26	-13.00	-18.26	V
LTE Band 5 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1692.11	-34.74	9.56	9.72	-34.90	-13.00	-21.90	H
2538.94	-35.38	10.50	10.86	-35.74	-13.00	-22.74	H
3385.57	-32.51	12.78	11.57	-31.30	-13.00	-18.30	H
1692.11	-35.69	9.56	9.72	-35.85	-13.00	-22.85	V
2538.94	-33.87	10.50	10.86	-34.23	-13.00	-21.23	V
3385.57	-32.93	12.78	11.57	-31.72	-13.00	-18.72	V



LTE Band 5 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1657.60	-34.20	9.56	9.72	-34.36	-13.00	-21.36	H
2486.25	-34.50	10.50	10.86	-34.86	-13.00	-21.86	H
3315.24	-32.36	12.78	11.57	-31.15	-13.00	-18.15	H
1657.60	-35.26	9.56	9.72	-35.42	-13.00	-22.42	V
2486.25	-34.55	10.50	10.86	-34.91	-13.00	-21.91	V
3315.24	-32.06	12.78	11.57	-30.85	-13.00	-17.85	V
LTE Band 5 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1672.58	-33.96	9.56	9.72	-34.12	-13.00	-21.12	H
2508.88	-35.17	10.50	10.86	-35.53	-13.00	-22.53	H
3345.05	-32.98	12.78	11.57	-31.77	-13.00	-18.77	H
1672.58	-35.42	9.56	9.72	-35.58	-13.00	-22.58	V
2508.88	-35.14	10.50	10.86	-35.50	-13.00	-22.50	V
3345.05	-33.08	12.78	11.57	-31.87	-13.00	-18.87	V
LTE Band 5 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1687.48	-34.87	9.56	9.72	-35.03	-13.00	-22.03	H
2531.61	-34.01	10.50	10.86	-34.37	-13.00	-21.37	H
3375.84	-33.34	12.78	11.57	-32.13	-13.00	-19.13	H
1687.48	-35.70	9.56	9.72	-35.86	-13.00	-22.86	V
2531.61	-35.02	10.50	10.86	-35.38	-13.00	-22.38	V
3375.84	-32.92	12.78	11.57	-31.71	-13.00	-18.71	V



LTE Band 12 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1399.38	-34.09	8.17	9.34	-35.26	-13.00	-22.26	H
2099.03	-35.12	9.53	10.42	-36.01	-13.00	-23.01	H
2798.48	-32.72	11.27	11.12	-32.57	-13.00	-19.57	H
1399.38	-34.73	8.17	9.34	-35.90	-13.00	-22.90	V
2099.03	-34.06	9.53	10.42	-34.95	-13.00	-21.95	V
2798.48	-32.33	11.27	11.12	-32.18	-13.00	-19.18	V
LTE Band 12 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1414.53	-33.89	8.17	9.34	-35.06	-13.00	-22.06	H
2122.27	-35.44	9.53	10.42	-36.33	-13.00	-23.33	H
2829.64	-32.36	11.27	11.12	-32.21	-13.00	-19.21	H
1414.53	-35.90	8.17	9.34	-37.07	-13.00	-24.07	V
2122.27	-33.88	9.53	10.42	-34.77	-13.00	-21.77	V
2829.64	-32.31	11.27	11.12	-32.16	-13.00	-19.16	V
LTE Band 12 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1430.13	-34.19	8.17	9.34	-35.36	-13.00	-22.36	H
2145.55	-35.47	9.53	10.42	-36.36	-13.00	-23.36	H
2860.92	-33.06	11.27	11.12	-32.91	-13.00	-19.91	H
1430.13	-35.61	8.17	9.34	-36.78	-13.00	-23.78	V
2145.55	-34.46	9.53	10.42	-35.35	-13.00	-22.35	V
2860.92	-32.03	11.27	11.12	-31.88	-13.00	-18.88	V



LTE Band 12 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1400.81	-34.68	8.17	9.34	-35.85	-13.00	-22.85	H
2101.34	-34.65	9.53	10.42	-35.54	-13.00	-22.54	H
2801.72	-33.56	11.27	11.12	-33.41	-13.00	-20.41	H
1400.81	-34.85	8.17	9.34	-36.02	-13.00	-23.02	V
2101.34	-34.99	9.53	10.42	-35.88	-13.00	-22.88	V
2801.72	-32.44	11.27	11.12	-32.29	-13.00	-19.29	V
LTE Band 12 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1414.56	-34.31	8.17	9.34	-35.48	-13.00	-22.48	H
2122.35	-35.29	9.53	10.42	-36.18	-13.00	-23.18	H
2829.86	-33.65	11.27	11.12	-33.50	-13.00	-20.50	H
1414.56	-34.96	8.17	9.34	-36.13	-13.00	-23.13	V
2122.35	-34.67	9.53	10.42	-35.56	-13.00	-22.56	V
2829.86	-31.91	11.27	11.12	-31.76	-13.00	-18.76	V
LTE Band 12 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1428.61	-33.55	8.17	9.34	-34.72	-13.00	-21.72	H
2143.05	-35.48	9.53	10.42	-36.37	-13.00	-23.37	H
2858.00	-32.48	11.27	11.12	-32.33	-13.00	-19.33	H
1428.61	-35.92	8.17	9.34	-37.09	-13.00	-24.09	V
2143.05	-33.77	9.53	10.42	-34.66	-13.00	-21.66	V
2858.00	-32.63	11.27	11.12	-32.48	-13.00	-19.48	V



LTE Band 12 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1402.73	-33.66	8.17	9.34	-34.83	-13.00	-21.83	H
2104.16	-34.90	9.53	10.42	-35.79	-13.00	-22.79	H
2805.90	-32.37	11.27	11.12	-32.22	-13.00	-19.22	H
1402.73	-35.14	8.17	9.34	-36.31	-13.00	-23.31	V
2104.16	-33.85	9.53	10.42	-34.74	-13.00	-21.74	V
2805.90	-33.08	11.27	11.12	-32.93	-13.00	-19.93	V
LTE Band 12 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1414.65	-34.79	8.17	9.34	-35.96	-13.00	-22.96	H
2122.15	-34.29	9.53	10.42	-35.18	-13.00	-22.18	H
2829.57	-32.93	11.27	11.12	-32.78	-13.00	-19.78	H
1414.65	-34.81	8.17	9.34	-35.98	-13.00	-22.98	V
2122.15	-33.85	9.53	10.42	-34.74	-13.00	-21.74	V
2829.57	-33.12	11.27	11.12	-32.97	-13.00	-19.97	V
LTE Band 12 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1426.66	-34.59	8.17	9.34	-35.76	-13.00	-22.76	H
2140.24	-34.05	9.53	10.42	-34.94	-13.00	-21.94	H
2853.93	-32.87	11.27	11.12	-32.72	-13.00	-19.72	H
1426.66	-34.64	8.17	9.34	-35.81	-13.00	-22.81	V
2140.24	-34.37	9.53	10.42	-35.26	-13.00	-22.26	V
2853.93	-32.67	11.27	11.12	-32.52	-13.00	-19.52	V



LTE Band 12 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1407.61	-34.33	8.17	9.34	-35.50	-13.00	-22.50	H
2111.62	-35.34	9.53	10.42	-36.23	-13.00	-23.23	H
2815.91	-33.30	11.27	11.12	-33.15	-13.00	-20.15	H
1407.61	-34.78	8.17	9.34	-35.95	-13.00	-22.95	V
2111.62	-33.86	9.53	10.42	-34.75	-13.00	-21.75	V
2815.91	-32.62	11.27	11.12	-32.47	-13.00	-19.47	V
LTE Band 12 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1414.57	-33.95	8.17	9.34	-35.12	-13.00	-22.12	H
2122.33	-35.41	9.53	10.42	-36.30	-13.00	-23.30	H
2829.64	-32.80	11.27	11.12	-32.65	-13.00	-19.65	H
1414.57	-34.86	8.17	9.34	-36.03	-13.00	-23.03	V
2122.33	-34.65	9.53	10.42	-35.54	-13.00	-22.54	V
2829.64	-32.41	11.27	11.12	-32.26	-13.00	-19.26	V
LTE Band 12 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dBm)	
1421.80	-34.02	8.17	9.34	-35.19	-13.00	-22.19	H
2132.88	-35.40	9.53	10.42	-36.29	-13.00	-23.29	H
2843.66	-32.79	11.27	11.12	-32.64	-13.00	-19.64	H
1421.80	-35.65	8.17	9.34	-36.82	-13.00	-23.82	V
2132.88	-34.69	9.53	10.42	-35.58	-13.00	-22.58	V
2843.66	-33.12	11.27	11.12	-32.97	-13.00	-19.97	V



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*****

