



**CFR 47 FCC PART 22 H  
CFR 47 FCC PART 24 E  
CFR 47 FCC PART 27**

**TEST REPORT**

*For*

**LTE MODULE**

**MODEL NUMBER: EG25-G**

**FCC ID: 2A46G-EG25-G**

**REPORT NUMBER: 4790792905-2-RF-2**

**ISSUE DATE: May 8, 2023**

*Prepared for*

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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V0	05/08/2023	Initial Issue	

Note:

1. This test report is only published to and used by the applicant, and it is not for evidence purpose in China.
2. The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 22 H >< CFR 47 FCC PART 24 E> > < CFR 47 FCC PART 27 > < when <Accuracy Method> decision rule is applied.
3. This test report includes radiated test results and conducted power test results due to the change of GSM/WCDMA/LTE antenna from the original model (FCC ID: 2A46G-EG25-G).



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# 1. ATTESTATION OF TEST RESULTS

## Applicant Information

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## Manufacturer Information

Company Name: Guangzhou Xaircraft Technology CO.,LTD  
Address: Block C, No.115, Gaopu Road, Tianhe District, GuangzhouCity, Guangdong, P.R.China

## EUT Information

EUT Name: LTE MODULE  
Model: EG25-G  
Sample Received Date: April 5, 2023  
Sample Status: Normal  
Sample ID: 5938560  
Date of Tested: April 5, 2023~ May 5, 2023

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 22 H	PASS
CFR 47 FCC PART 24 E	PASS
CFR 47 FCC PART 27	PASS

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## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.26-2015, 971168 D01 Power Meas License Digital Systems v03r01, 971168 D02 Misc Rev Approv License Devices v02r01, 412172 D01 v01r01 Determining ERP and EIRP, CFR 47 FCC Part 2, Part 22 H, Part 24 E, Part 27.

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p><b>A2LA (Certificate No.: 4102.01)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p><b>FCC (FCC Designation No.: CN1187)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p><b>ISED (Company No.: 21320)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.</p> <p><b>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011</p>
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Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.



## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognize national standards.

### 4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Conduction emission	3.62 dB
Radiated Emission (Included Fundamental Emission) (9 kHz ~ 30 MHz)	2.2 dB
Radiated Emission (Included Fundamental Emission) (30 MHz ~ 1 GHz)	4.00 dB
Radiated Emission (Included Fundamental Emission) (1 GHz to 40 GHz)	5.78 dB (1 GHz-18 GHz)
	5.23dB (18 GHz-26 GHz)
	5.64 dB (26 GHz-40 GHz)
Bandwidth	1.1 %

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k=2.



## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

EUT Name	LTE MODULE
Model Name	EG25-G
Supply Voltage	DC 5.8 V

### 5.2. TEST CHANNEL CONFIGURATION

Band	Mode	Low	Middle	High
GSM850	GRPS/EGPRS	128	190	251
		824.2 MHz	836.6 MHz	848.8 MHz
GSM1900	GRPS/EGPRS	512	661	810
		1850.2 MHz	1880.0 MHz	1909.8 MHz
WCDMA Band 2	HSDPA/HSUPA	9262	9400	9538
		1852.4 MHz	1880.0 MHz	1907.6 MHz
WCDMA Band 4	HSDPA/HSUPA	1312	1413	1513
		1712.4 MHz	1732.6 MHz	1752.6 MHz



### 5.3. MAXIMUM AVERAGE OUTPUT POWER

<b>GSM 850</b>						
Part 22H						
ERP Limit(W)	7					
Antenna Gain (dBi)	1.2					
Mode	Ch	Freq(MHz)	Conducted Average	ERP	99% OBW	Emission
			power (dBm)			
GRPS(GMSK)	190	836.6	<b>31.55</b>	1.15	0.245	245KGXW
EGPRS(8PSK)	251	848.8	25.72	0.30	0.245	245KG7W

<b>GSM 1900</b>						
Part 24						
EIRP Limit(W)	2					
Antenna Gain (dBi)	2.7					
Mode	Ch	Freq(MHz)	Conducted Average	EIRP	99% OBW	Emission
			power (dBm)			
GRPS(GMSK)	512	1850.2	<b>29.45</b>	1.64	0.243	243KGXW
EGPRS(8PSK)	512	1850.2	25.96	0.73	0.246	246KG7W

<b>WCDMA Band2</b>						
Part 24						
EIRP Limit(W)	2					
Antenna Gain (dBi)	2.7					
Mode	Ch	Freq(MHz)	Conducted Average	EIRP	99% OBW	Emission
			power (dBm)			
Rel99	9400	1907.6	<b>21.80</b>	0.28	4.137	4M14F9W
HSDPA	9400	1907.6	21.01	0.23	4.144	4M14F9W
HSUPA	9400	1907.6	20.63	0.22	4.132	4M13F9W

<b>WCDMA Band4</b>						
Part 27						
EIRP Limit(W)	1					
Antenna Gain (dBi)	2.8					
Mode	Ch	Freq(MHz)	Conducted Average	EIRP	99% OBW	Emission
			power (dBm)			
Rel99	1513	1752.6	<b>22.74</b>	0.36	4.131	4M13F9W
HSDPA	1513	1752.6	21.79	0.29	4.140	4M14F9W
HSUPA	1513	1752.6	21.52	0.27	4.130	4M13F9W

**Note: Bold font is the Max. power for each band.**





#### 5.4. WORST-CASE CONFIGURATION AND MODE

The radiated spurious emissions measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT was investigated in three orthogonal orientations X, Y and Z. It was determined that X orientation was the worst-case orientation.

Radiated spurious emissions were investigated below 30 MHz, 30 MHz - 1 GHz and above 1 GHz. There were no emissions found on below 1GHz and above 18 GHz, the emissions between 1 GHz – 18 GHz were tested the highest transmitting power channel and the worse configuration.

For GSM850/1900, GPRS worst results are shown in test report. For WCDMA, HSDPA worst results are shown in test report.

The EUT have three kinds of antenna and have the same antenna type, only the worst-case antenna data record in this report.



### 5.5. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Model	Antenna Type	Remark
1	030374F4GA	FPC	MAIN Antenna
2	030374F4GA	FPC	DIV Antenna
Antenna	Band	Antenna Type	MAX Antenna Gain (dBi)
1	GSM850	FPC	1.2
1	GSM1900	FPC	0.5
1	WCDMA Band 2	FPC	0.5
1	WCDMA Band 4	FPC	2.5

Antenna	Model	Antenna Type	Remark
1	030383F4GA	FPC	MAIN Antenna
2	030383F4GA	FPC	DIV Antenna
Antenna	Band	Antenna Type	MAX Antenna Gain (dBi)
1	GSM850	FPC	0.3
1	GSM1900	FPC	2.7
1	WCDMA Band 2	FPC	2.7
1	WCDMA Band 4	FPC	2.7

Antenna	Model	Antenna Type	Remark
1	030359F4GA	FPC	MAIN Antenna
2	030359F4GA	FPC	DIV Antenna
Antenna	Band	Antenna Type	MAX Antenna Gain (dBi)
1	GSM850	FPC	1.2
1	GSM1900	FPC	2.5
1	WCDMA Band 2	FPC	2.5
1	WCDMA Band 4	FPC	2.8

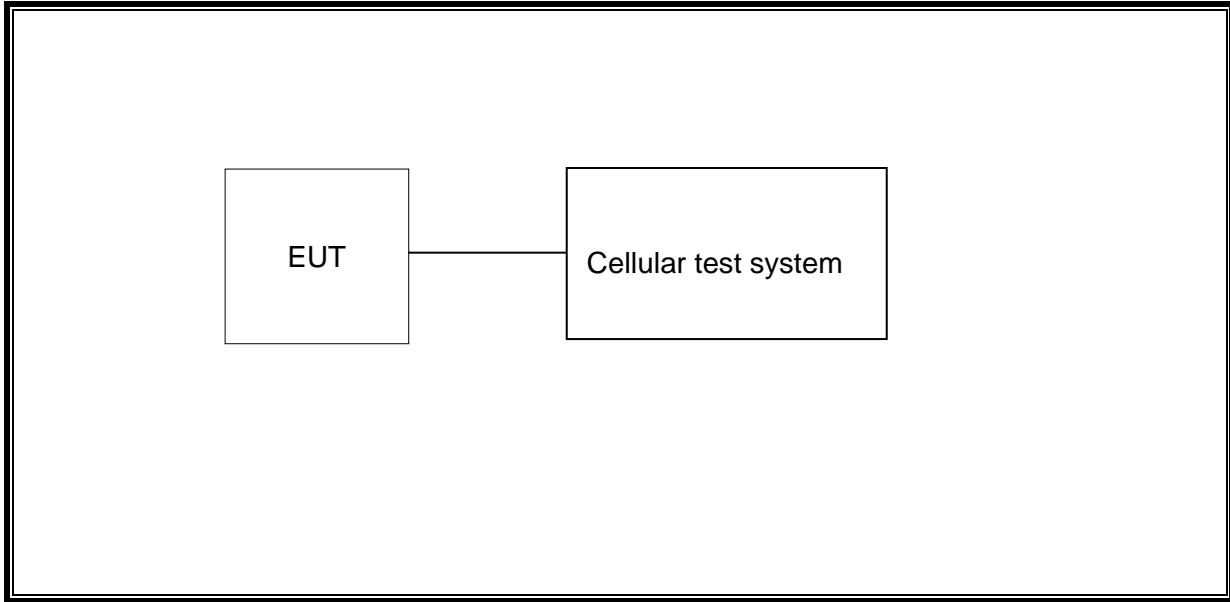


Band	Transmit and Receive Mode	Description
GSM850	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
GSM1900	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
WCDMA Band 2	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
WCDMA Band 4	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

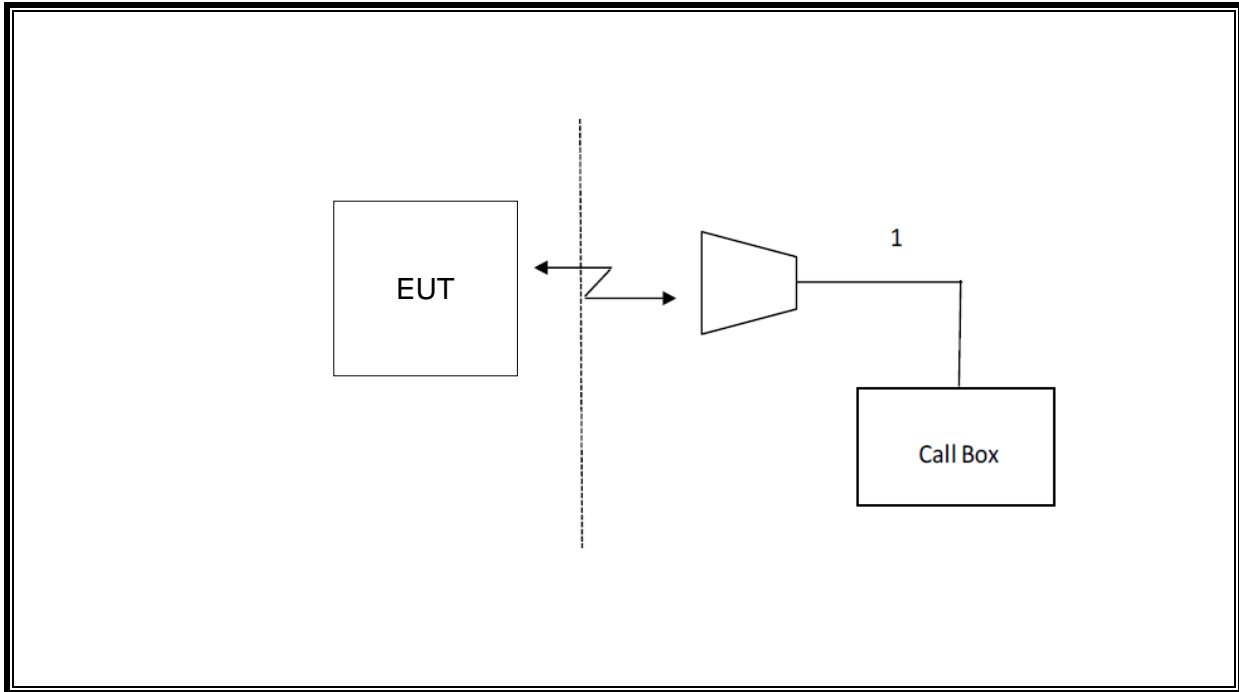
Note: The value of the antenna gain was declared by customer.

### 5.6. DESCRIPTION OF TEST SETUP

Conducted



Radiated



**6. MEASURING INSTRUMENT AND SOFTWARE USED**

Antenna Terminal Test						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	Spectrum Analyzer	R&S	FSV40	S422060001	Oct.17, 2022	Oct.16, 2023
<input checked="" type="checkbox"/>	Wideband Radio Communication Tester	R&S	CMW500	155523	Oct.17, 2022	Oct.16, 2023
<input checked="" type="checkbox"/>	DC Power Supply	Array	3662A	A1512015	Oct.17, 2022	Oct.16, 2023
Software						
Used	Description	Manufacturer	Name	Version		
<input checked="" type="checkbox"/>	Tonsend Cellular Test System	Tonsend	JS1120 RF Auto Test System	3.1.46		
Radiated Test						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Oct.17, 2022	Oct.16, 2023
<input checked="" type="checkbox"/>	Hybrid Log Periodic Antenna	TDK	HLP-3003C	130959	Aug.02, 2021	Aug.01, 2024
<input checked="" type="checkbox"/>	Preamplifier	HP	8447D	2944A09099	Oct.17, 2022	Oct.16, 2023
<input checked="" type="checkbox"/>	EMI Measurement Receiver	R&S	ESR26	101377	Oct.17, 2022	Oct.16, 2023
<input checked="" type="checkbox"/>	Horn Antenna	TDK	HRN-0118	130940	July 20, 2021	July 19, 2024
<input checked="" type="checkbox"/>	Horn Antenna	Schwarzbeck	BBHA9170	697	July 20, 2021	July 19, 2024
<input checked="" type="checkbox"/>	Preamplifier	TDK	PA-02-0118	TRS-305-00067	Oct.17, 2022	Oct.16, 2023
<input checked="" type="checkbox"/>	Preamplifier	TDK	PA-02-2	TRS-307-00003	Oct.17, 2022	Oct.16, 2023
<input checked="" type="checkbox"/>	Loop antenna	Schwarzbeck	1519B	00008	Dec.14, 2021	Dec.13, 2024
<input checked="" type="checkbox"/>	High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	\	\
Software						
Used	Description	Manufacturer	Name	Version		
<input checked="" type="checkbox"/>	Test Software for Radiated disturbance	Farad	EZ-EMC	Ver. UL-3A1		



## 7. ANTENNA TERMINAL TEST RESULTS

### 7.1. EFFECTIVE (ISOTROPIC) RADIATED POWER OF TRANSMITTER

#### RULE PART(S)

FCC: §2.1046, §22.913, §24.232, §27.50

#### LIMITS

22.913(a) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(c) Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

27.50(c) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

27.50(d) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watts EIRP.

27.50(h) Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13 dB.

#### TEST PROCEDURE

Refer to ANSI C63.26:2015 and KDB 971168 D01 Section 5.6

$ERP/ EIRP = P_{Meas} + GT - LC$

where:

ERP or EIRP = effective or equivalent isotropically radiated power, respectively (expressed in the same units as  $P_{Meas}$ , typically dBW or dBm);

$P_{Meas}$  = measured transmitter output power or PSD, in dBm or dBW;

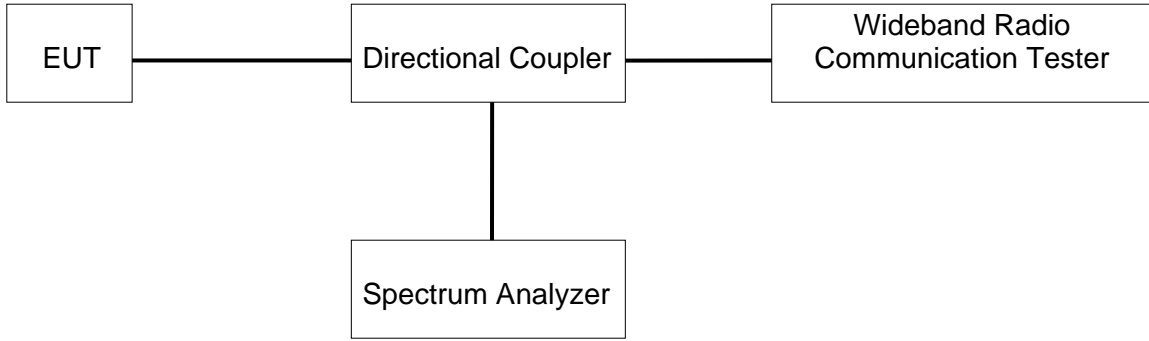
GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB

The transmitter has a maximum radiated ERP / EIRP output powers as follows:



**TEST SETUP**



**TEST ENVIRONMENT**

Temperature	23.1°C	Relative Humidity	63.8%
Atmosphere Pressure	101kPa	Test Voltage	DC 5.8 V

**RESULTS**

**GSM 850**

<b>GSM 850</b>			<b>Conducted Power(dBm)</b>		
Bandwidth	Band		Channel	Channel	Channel
			128	190	251
0.2M	GPRS850	TestSlot 1	31.38	<b>31.55</b>	31.37
		TestSlot 2	30.86	30.94	31
		TestSlot 3	29.22	29.47	29.41
		TestSlot 4	27.8	28.01	28.3
	EGPRS850	TestSlot 1	25.36	25.46	<b>25.72</b>
		TestSlot 2	24.14	24.25	24.53
		TestSlot 3	22.53	22.62	22.88
		TestSlot 4	21.33	21.4	21.76

**GSM 1900**

<b>GSM 1900</b>			<b>Conducted Power(dBm)</b>		
Bandwidth	Band		Channel	Channel	Channel
			512	661	810
0.2M	GPRS1900	TestSlot 1	<b>29.45</b>	29.39	29.11
		TestSlot 2	28.01	28.12	28.28
		TestSlot 3	26.19	26.31	26.43
		TestSlot 4	24.79	25.23	25.03
	EGPRS1900	TestSlot 1	<b>25.96</b>	25.94	25.78
		TestSlot 2	25.06	25.11	24.91
		TestSlot 3	23.55	23.64	23.56
		TestSlot 4	22.32	22.35	22.32

**WCDMA**

Band 2		Average Power (dBm)		
		9262CH	9400CH	9538CH
WCDMA	12.2kbps RMC	21.72	<b>21.8</b>	21.48
	64kbps RMC	21.59	21.61	21.32
	144kbps RMC	21.59	21.61	21.35
	384kbps RMC	21.62	21.66	21.31
HSDPA	Subtest 1	20.62	20.8	20.54
	Subtest 2	20.55	20.87	20.6
	Subtest 3	20.55	20.98	20.68
	Subtest 4	20.63	<b>21.01</b>	20.7
HSUPA	Subtest 1	19.84	20.59	19.85
	Subtest 2	19.94	20.57	19.83
	Subtest 3	20.02	20.56	20.05
	Subtest 4	19.99	20.61	19.84
	Subtest 5	20.75	<b>20.63</b>	20.58





Band 4		Average Power (dBm)		
		1312CH	1413CH	1513CH
WCDMA	12.2kbps RMC	22.66	22.59	<b>22.74</b>
	64kbps RMC	22.55	22.46	22.55
	144kbps RMC	22.5	22.39	22.64
	384kbps RMC	22.52	22.43	22.62
HSDPA	Subtest 1	21.69	21.64	<b>21.79</b>
	Subtest 2	21.76	21.65	21.70
	Subtest 3	21.76	21.65	21.83
	Subtest 4	21.76	21.64	21.82
HSUPA	Subtest 1	20.98	21.2	21.14
	Subtest 2	21.2	21.17	21.42
	Subtest 3	21.12	20.97	21.12
	Subtest 4	21.27	21.13	21.12
	Subtest 5	<b>21.52</b>	21.48	21.43



## 8. RADIATED SPURIOUS EMISSIONS

### RULE PART(S)

FCC: §2.1053, §22.917, §24.238, §27.53, §90,

### LIMIT

Part §22.917(a), §24.238(a), §27.53(h)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

#### RSS-132 section 5.5

Mobile and base station equipment shall comply with the limits in (i) and (ii) below.

(i) In the first 1.0 MHz band immediately outside and adjacent to each of the sub-bands specified in Section 5.1, the power of emissions per any 1% of the occupied bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least  $43 + 10 \log_{10} p$  (watts).

(ii) After the first 1.0 MHz immediately outside and adjacent to each of the sub-bands, the power of emissions in any 100 kHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least  $43 + 10 \log_{10} p$  (watts). If the measurement is performed using 1% of the occupied bandwidth, power integration over 100 kHz is required.

#### RSS-133 section 6.5.1

Equipment shall comply with the limits in (i) and (ii) below.

(i) In the 1.0 MHz bands immediately outside and adjacent to the equipment's operating frequency block, the emission power per any 1% of the emission bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least  $43 + 10 \log_{10} p$  (watts).

(ii) After the first 1.0 MHz, the emission power in any 1 MHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least  $43 + 10 \log_{10} p$  (watts). If the measurement is performed using 1% of the emission bandwidth, power integration over 1.0 MHz is required.

#### RSS-139 section 6.6

(i) In the first 1.0 MHz bands immediately outside and adjacent to the equipment's smallest operating frequency block,<sup>2</sup> which can contain the equipment's occupied bandwidth, the emission power per any 1% of the emission bandwidth shall be attenuated below the transmitter output power P (in dBW) by at least  $43 + 10 \log_{10} p$  (watts) dB.

(ii) After the first 1.0 MHz outside the equipment's smallest operating frequency block, which can contain the equipment's occupied bandwidth, the emission power in any 1 MHz bandwidth shall be attenuated below the transmitter output power P (in dBW) by at least  $43 + 10 \log_{10} p$  (watts) dB.

## TEST PROCEDURE

According to the C 63.26-2015 section 5.5.2.2.3

Below 1GHz test procedure as below:

For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80 cm above the reference ground plane. Radiated measurements shall be made with the measurement antenna positioned in both horizontal and vertical polarization. The measurement antenna shall be varied from 1 m to 4 m in height above the reference ground in a search for the relative positioning that produces the maximum radiated signal level (i.e., field strength or received power). When orienting the measurement antenna in vertical polarization, the minimum height of the lowest element of the antenna shall clear the site reference ground plane by at least 25 cm.

Above 1GHz test procedure as below:

For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table or support at a nominal height of 1.5 m above the ground plane. Radiated measurements shall be made with the measurement antenna positioned in both horizontal and vertical polarization. The height scan of the measurement antenna shall be varied from 1 m to 4 m in a search for the relative positioning that produces the maximum radiated signal level (i.e., field strength or received power). When using the direct field strength method and the EUT is manipulated through three different orientations, then the scan height range of the measurement antenna is limited to 2.5 m, or 0.5 m above the top of the EUT, whichever is higher.

### **Radiated Power Measurement Calculation According to ANSI C63.26-2015**

- a)  $E$  (dB $\mu$ V/m) = Measured amplitude level (dB $\mu$ V) + Cable Loss (dB) + Antenna Factor (dB/m).
- b)  $E$  (dB $\mu$ V/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m).
- c)  $E$  (dB $\mu$ V/m) = EIRP (dBm) -  $20\log(D)$  + 104.8; where  $D$  is the measurement distance (in the far field region) in m.
- d)  $EIRP$  (dBm) =  $E$  (dB $\mu$ V/m) +  $20\log(D)$  - 104.8; where  $D$  is the measurement distance (in the far field region) in m.

So, from d)

The measuring distance is usually at 3m, then  $20 \cdot \log(3) = 9.5424$

Then,  $EIRP$  (dBm) =  $E$  (dB $\mu$ V/m) + 9.5424 - 104.8 =  $E$  (dB $\mu$ V/m) - 95.2576

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)  
= -13dBm.

$$EIRP[dBm] = E[dB\mu V/m] - 95.2$$

$$E[dB\mu V/m] = 95.2 + EIRP[dBm]$$

$$E[dB\mu V/m] = 82.20$$

NOTE 1: Radiated spurious emissions were investigated below 30 MHz, 30 MHz – 1 GHz and above 1 GHz. There were no emissions found on below 30 MHz and 30 MHz – 1 GHz.

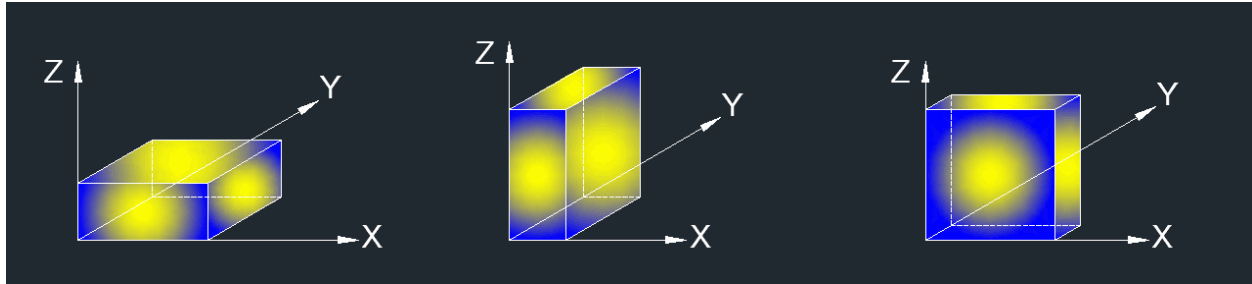
Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open area test site.

Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

NOTE 2: Please refer to section 5.4 for bandwidth and RB setting about LTE bands.

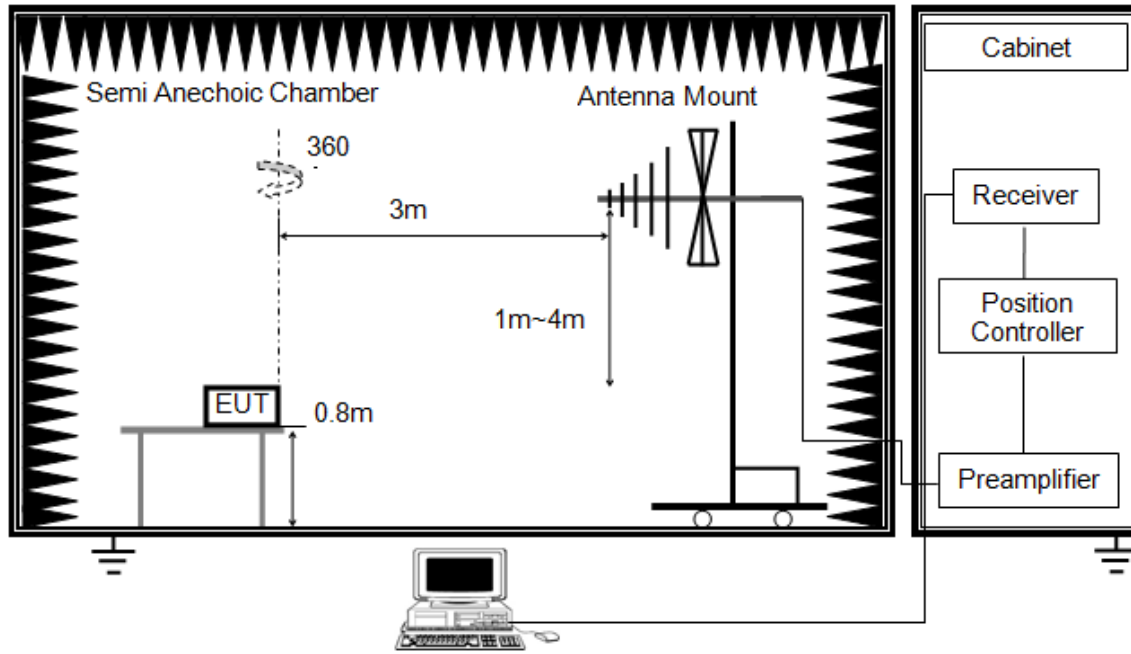
NOTE 3: All the test modes have been tested, only the worst data record in the report.

Note 4: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.  
X axis, Y axis, Z axis positions:

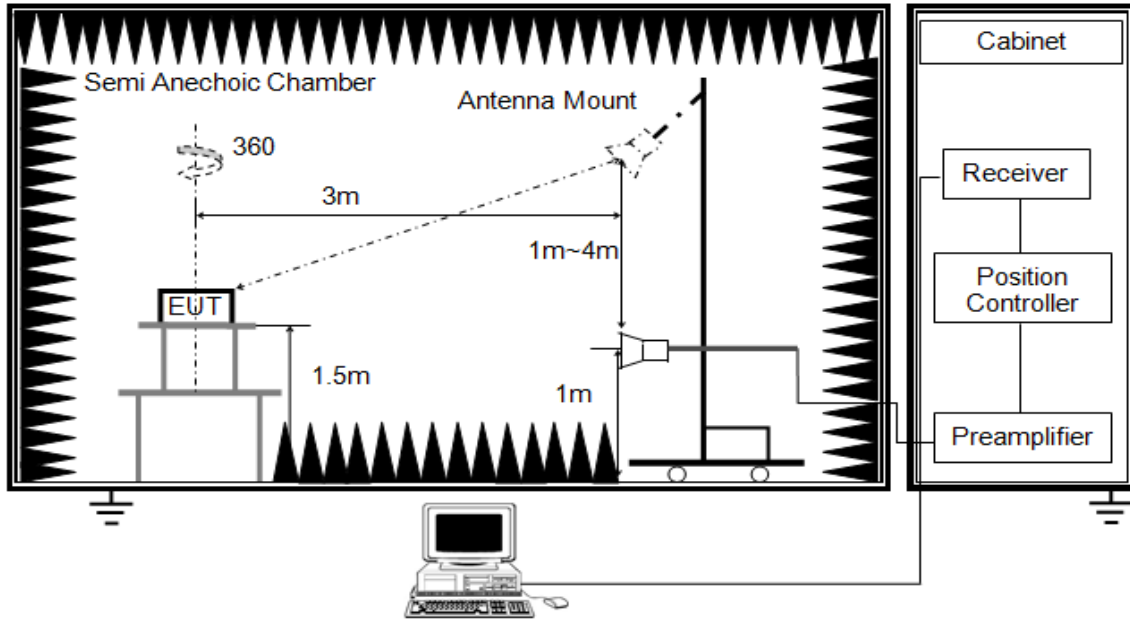


**TEST SETUP**

Test Setup for Below 1 GHz



Test Setup for Above 1 GHz



**TEST ENVIRONMENT**

Temperature	24.3°C	Relative Humidity	61%
Atmosphere Pressure	101kPa	Test Voltage	DC 5.8 V

**RESULTS**

GSM 850

GPRS- Low Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1648.000	58.56	-12.22	46.34	82.25	-35.91	peak
2	2467.000	63.13	-8.66	54.47	82.25	-27.78	peak
3	4996.000	47.73	-0.17	47.56	82.25	-34.69	peak
4	5500.000	47.50	0.42	47.92	82.25	-34.33	peak
5	6004.000	45.90	1.87	47.77	82.25	-34.48	peak
6	7498.000	42.89	5.69	48.58	82.25	-33.67	peak

GPRS- Low Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2467.000	50.60	-8.66	41.94	82.25	-40.31	peak
2	4996.000	47.16	-0.17	46.99	82.25	-35.26	peak
3	6004.000	44.14	1.87	46.01	82.25	-36.24	peak
4	7003.000	40.21	6.19	46.40	82.25	-35.85	peak
5	7498.000	41.80	5.69	47.49	82.25	-34.76	peak
6	9064.000	37.77	9.76	47.53	82.25	-34.72	peak



## GPRS- Mid Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2503.000	56.50	-8.48	48.02	82.25	-34.23	peak
2	4996.000	48.03	-0.17	47.86	82.25	-34.39	peak
3	5500.000	47.87	0.42	48.29	82.25	-33.96	peak
4	6004.000	45.34	1.87	47.21	82.25	-35.04	peak
5	6751.000	43.97	4.96	48.93	82.25	-33.32	peak
6	7498.000	41.62	5.69	47.31	82.25	-34.94	peak

## GPRS- Mid Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1756.000	52.94	-11.87	41.07	82.25	-41.18	peak
2	2494.000	49.57	-8.52	41.05	82.25	-41.20	peak
3	4996.000	48.34	-0.17	48.17	82.25	-34.08	peak
4	6004.000	44.55	1.87	46.42	82.25	-35.83	peak
5	7498.000	42.07	5.69	47.76	82.25	-34.49	peak
6	10000.000	38.21	11.16	49.37	82.25	-32.88	peak

## GPRS- High Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1693.000	55.55	-12.08	43.47	82.25	-38.78	peak
2	4996.000	47.17	-0.17	47.00	82.25	-35.25	peak
3	5500.000	47.49	0.42	47.91	82.25	-34.34	peak
4	6004.000	44.31	1.87	46.18	82.25	-36.07	peak
5	7498.000	42.74	5.69	48.43	82.25	-33.82	peak
6	8506.000	40.18	6.28	46.46	82.25	-35.79	peak

## GPRS- High Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1765.000	50.83	-11.83	39.00	82.25	-43.25	peak
2	2494.000	48.61	-8.52	40.09	82.25	-42.16	peak
3	4996.000	48.33	-0.17	48.16	82.25	-34.09	peak
4	6004.000	44.50	1.87	46.37	82.25	-35.88	peak
5	7498.000	42.01	5.69	47.70	82.25	-34.55	peak
6	9064.000	36.54	9.76	46.30	82.25	-35.95	peak

**GSM 1900**

## GPRS- Low Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3690.000	56.03	-5.33	50.70	82.25	-31.55	peak
2	5550.000	51.84	0.56	52.40	82.25	-29.85	peak
3	7500.000	42.05	5.69	47.74	82.25	-34.51	peak
4	11820.000	34.63	16.38	51.01	82.25	-31.24	peak
5	14055.000	32.89	20.47	53.36	82.25	-28.89	peak
6	17970.000	28.48	24.15	52.63	82.25	-29.62	peak

## GPRS- Low Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3690.000	58.16	-5.33	52.83	82.25	-29.42	peak
2	5550.000	51.88	0.56	52.44	82.25	-29.81	peak
3	10005.000	37.60	11.17	48.77	82.25	-33.48	peak
4	11790.000	34.71	16.30	51.01	82.25	-31.24	peak
5	13965.000	32.06	20.64	52.70	82.25	-29.55	peak
6	17955.000	28.43	24.06	52.49	82.25	-29.76	peak

## GPRS- Mid Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3750.000	53.34	-5.17	48.17	82.25	-34.08	peak
2	5490.000	47.45	0.41	47.86	82.25	-34.39	peak
3	7500.000	42.82	5.69	48.51	82.25	-33.74	peak
4	11355.000	35.91	15.09	51.00	82.25	-31.25	peak
5	13920.000	32.46	20.54	53.00	82.25	-29.25	peak
6	17955.000	29.67	24.06	53.73	82.25	-28.52	peak

## GPRS- Mid Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3750.000	53.57	-5.17	48.40	82.25	-33.85	peak
2	5640.000	48.75	0.82	49.57	82.25	-32.68	peak
3	7500.000	41.65	5.69	47.34	82.25	-34.91	peak
4	11520.000	35.67	15.63	51.30	82.25	-30.95	peak
5	14115.000	32.34	20.22	52.56	82.25	-29.69	peak
6	18000.000	28.47	24.35	52.82	82.25	-29.43	peak



GPRS- High Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3810.000	51.85	-5.00	46.85	82.25	-35.40	peak
2	5730.000	48.64	1.07	49.71	82.25	-32.54	peak
3	7500.000	42.14	5.69	47.83	82.25	-34.42	peak
4	11895.000	34.90	16.57	51.47	82.25	-30.78	peak
5	13605.000	32.91	19.91	52.82	82.25	-29.43	peak
6	17970.000	28.26	24.15	52.41	82.25	-29.84	peak

GPRS- High Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3810.000	53.34	-5.00	48.34	82.25	-33.91	peak
2	5730.000	49.41	1.07	50.48	82.25	-31.77	peak
3	7500.000	42.74	5.69	48.43	82.25	-33.82	peak
4	11880.000	34.93	16.53	51.46	82.25	-30.79	peak
5	13920.000	32.05	20.54	52.59	82.25	-29.66	peak
6	17970.000	28.08	24.15	52.23	82.25	-30.02	peak





**WCDMA Band 2**

HSDPA- Low Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4995.000	47.65	-0.17	47.48	82.25	-34.77	peak
2	5550.000	51.00	0.56	51.56	82.25	-30.69	peak
3	7410.000	43.66	5.78	49.44	82.25	-32.81	peak
4	9255.000	39.67	9.85	49.52	82.25	-32.73	peak
5	13515.000	33.60	19.72	53.32	82.25	-28.93	peak
6	17970.000	30.16	24.15	54.31	82.25	-27.94	peak

HSDPA- Low Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5550.000	51.84	0.56	52.40	82.25	-29.85	peak
2	7410.000	44.67	5.78	50.45	82.25	-31.80	peak
3	9255.000	40.69	9.85	50.54	82.25	-31.71	peak
4	11115.000	38.25	14.30	52.55	82.25	-29.70	peak
5	13590.000	32.91	19.88	52.79	82.25	-29.46	peak
6	18000.000	27.91	24.35	52.26	82.25	-29.99	peak

HSDPA- Mid Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5640.000	52.98	0.82	53.80	82.25	-28.45	peak
2	7515.000	46.40	5.69	52.09	82.25	-30.16	peak
3	9405.000	39.87	9.91	49.78	82.25	-32.47	peak
4	11880.000	34.63	16.53	51.16	82.25	-31.09	peak
5	13545.000	33.34	19.78	53.12	82.25	-29.13	peak
6	17940.000	28.57	23.97	52.54	82.25	-29.71	peak

HSDPA- Mid Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5640.000	55.96	0.82	56.78	82.25	-25.47	peak
2	7515.000	47.14	5.69	52.83	82.25	-29.42	peak
3	9405.000	42.66	9.91	52.57	82.25	-29.68	peak
4	11280.000	39.59	14.85	54.44	82.25	-27.81	peak
5	15030.000	38.56	16.50	55.06	82.25	-27.19	peak
6	17955.000	28.65	24.06	52.71	82.25	-29.54	peak



HSDPA- High Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5715.000	53.40	1.04	54.44	82.25	-27.81	peak
2	7620.000	49.62	5.68	55.30	82.25	-26.95	peak
3	9525.000	40.69	10.01	50.70	82.25	-31.55	peak
4	13875.000	32.17	20.46	52.63	82.25	-29.62	peak
5	15255.000	36.55	16.13	52.68	82.25	-29.57	peak
6	18000.000	28.90	24.35	53.25	82.25	-29.00	peak

HSDPA- High Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5715.000	53.53	1.04	54.57	82.25	-27.68	peak
2	7635.000	49.05	5.68	54.73	82.25	-27.52	peak
3	9525.000	43.33	10.01	53.34	82.25	-28.91	peak
4	13590.000	32.13	19.88	52.01	82.25	-30.24	peak
5	15255.000	41.52	16.13	57.65	82.25	-24.60	peak
6	18000.000	28.63	24.35	52.98	82.25	-29.27	peak



**WCDMA Band 4**

HSDPA- Low Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4995.000	48.13	-0.17	47.96	82.25	-34.29	peak
2	5130.000	55.25	0.00	55.25	82.25	-27.00	peak
3	7500.000	42.69	5.69	48.38	82.25	-33.87	peak
4	11760.000	35.02	16.23	51.25	82.25	-31.00	peak
5	13590.000	34.17	19.88	54.05	82.25	-28.20	peak
6	18000.000	28.36	24.35	52.71	82.25	-29.54	peak

HSDPA- Low Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4995.000	48.94	-0.17	48.77	82.25	-33.48	peak
2	7500.000	41.25	5.69	46.94	82.25	-35.31	peak
3	10275.000	39.35	11.66	51.01	82.25	-31.24	peak
4	11805.000	34.79	16.34	51.13	82.25	-31.12	peak
5	14235.000	31.34	19.71	51.05	82.25	-31.20	peak
6	17955.000	29.52	24.06	53.58	82.25	-28.67	peak

HSDPA- Mid Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4995.000	48.02	-0.17	47.85	82.25	-34.40	peak
2	5190.000	51.77	0.07	51.84	82.25	-30.41	peak
3	7500.000	42.11	5.69	47.80	82.25	-34.45	peak
4	11850.000	35.71	16.46	52.17	82.25	-30.08	peak
5	13905.000	32.39	20.52	52.91	82.25	-29.34	peak
6	18000.000	28.08	24.35	52.43	82.25	-29.82	peak

HSDPA- Mid Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5190.000	51.35	0.07	51.42	82.25	-30.83	peak
2	7500.000	42.75	5.69	48.44	82.25	-33.81	peak
3	10395.000	38.03	11.89	49.92	82.25	-32.33	peak
4	11820.000	34.54	16.38	50.92	82.25	-31.33	peak
5	13455.000	32.54	19.52	52.06	82.25	-30.19	peak
6	17940.000	28.58	23.97	52.55	82.25	-29.70	peak



HSDPA- High Channel- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5250.000	54.60	0.13	54.73	82.25	-27.52	peak
2	7500.000	42.30	5.69	47.99	82.25	-34.26	peak
3	10515.000	37.80	12.14	49.94	82.25	-32.31	peak
4	11670.000	34.97	16.01	50.98	82.25	-31.27	peak
5	13920.000	32.36	20.54	52.90	82.25	-29.35	peak
6	17610.000	31.68	21.84	53.52	82.25	-28.73	peak

HSDPA- High Channel- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5250.000	56.34	0.13	56.47	82.25	-25.78	peak
2	7005.000	44.76	6.20	50.96	82.25	-31.29	peak
3	10515.000	42.66	12.14	54.80	82.25	-27.45	peak
4	13815.000	32.68	20.33	53.01	82.25	-29.24	peak
5	15780.000	34.64	15.70	50.34	82.25	-31.91	peak
6	17985.000	28.30	24.25	52.55	82.25	-29.70	peak

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**END OF REPORT**