

# FCC RADIO TEST REPORT

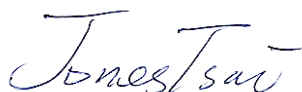
FCC ID : 2AJN7-TP00109A  
Equipment : Notebook Computer  
Brand Name : Lenovo  
Model Name : TP00109A  
Applicant : LC Future Center Limited Taiwan Branch  
7F., No. 780, Bei'an Rd., Zhongshan Dist.,  
Taipei City 104, Taiwan (R.O.C.)  
Manufacturer : LC Future Center Limited Taiwan Branch  
7F., No. 780, Bei'an Rd., Zhongshan Dist.,  
Taipei City 104, Taiwan (R.O.C.)  
Standard : 47 CFR Part 2, 22(H), 24(E), 27(L)

Equipment: Fibocom L860-GL and Intel 9560D2W tested inside of Lenovo Notebook.

The product was received on Mar. 13, 2019 and testing was started from Mar. 23, 2019 and completed on Mar. 28, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Jones Tsai

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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## History of this test report

Report No.	Version	Description	Issued Date
FG931312A	01	Initial issue of report	May 03, 2019

## Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
	§22.913 (a)(2)	Effective Radiated Power		
	§24.232 (c)	Equivalent Isotropic Radiated Power		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power		
4.4	§2.1053 §22.917 (a) §24.238 (a) §27.53 (h)	Field Strength of Spurious Radiation	Pass	Under limit 29.60 dB at 7011.000 MHz

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Wii Chang**

**Report Producer: Maggie Chiang**

# 1 General Description

## 1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Notebook Computer
Brand Name	Lenovo
Model Name	TP00109A
FCC ID	2AJN7-TP00109A
Sample 1	EUT with Amphenol Antenna
Sample 2	EUT with SPEEDWIRE Antenna
EUT supports Radios application	WCDMA/HSPA/LTE/GNSS WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 Bluetooth BR/EDR/LE
EUT Stage	Production Unit

**Remark:**

1. The above EUT's information was declared by manufacturer.
2. Equipment: Fibocom L860-GL and Intel 9560D2W tested inside of Lenovo Notebook.
3. All test items were performed with Sample 2.

Antenna Information				
WWAN				3G&LTE (dBi)
Antenna 1	Manufacturer	Amphenol	Peak gain	1.12
	Part number	LXA113-16-000-C	Type	PIFA
Antenna 2	Manufacturer	SPEEDWIRE	Peak gain	1.63
	Part number	F.0G.ZV-0009-001-00	Type	PIFA

## 1.2 Product Specification subjective to this standard

Standards-related Product Specification	
<b>Tx Frequency</b>	<b>WCDMA:</b> Band V: 826.4 MHz ~ 846.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz Band IV: 1712.4 MHz ~ 1752.6 MHz
<b>Rx Frequency</b>	<b>WCDMA:</b> Band V: 871.4 MHz ~ 891.6 MHz Band II: 1932.4 MHz ~ 1987.6 MHz Band IV: 2112.4 MHz ~ 2152.6 MHz
<b>Maximum Output Power to Antenna</b>	<b>WCDMA:</b> Band V: 23.48 dBm Band II: 23.27 dBm Band IV: 23.68 dBm
<b>Type of Modulation</b>	WCDMA: BPSK (Uplink) HSDPA: 64QAM (Downlink) HSUPA: QPSK (Uplink)

## 1.3 Modification of EUT

No modifications are made to the EUT during all test items.

## 1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)
Test Site No.	<b>Sporton Site No.</b> TH05-HY
Test Engineer	Lemon Su
Temperature	23°C
Relative Humidity	58%

**Note:** The test site complies with ANSI C63.4 2014 requirement.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)
Test Site No.	<b>Sporton Site No.</b> 03CH12-HY
Test Engineer	Jack Cheng, Lance Chiang, and Chuan Chu
Temperature	23~24°C
Relative Humidity	63~66%

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No. TW1190 and TW0007

## 1.5 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ 47 CFR Part 2, 22(H), 24(E), 27(L)
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

**Remark:** All test items were verified and recorded according to the standards and without any deviation during the test.

## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for WCDMA Band V.
2. 30 MHz to 18000 MHz for WCDMA Band IV.
3. 30 MHz to 19100 MHz for WCDMA Band II.

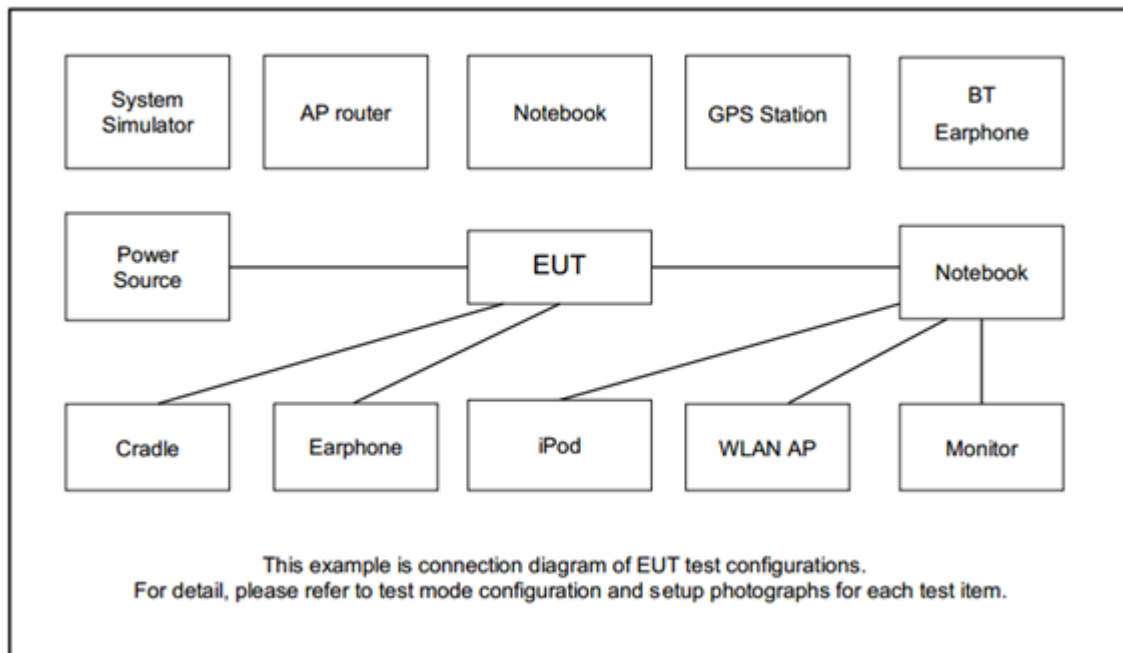
All modes and data rates and positions were investigated.

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

Test Modes		
Band	Radiated TCs	Conducted TCs
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band IV	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link

**Remark:** All the radiated test cases were performed with Adapter 3.

### 2.2 Connection Diagram of Test System





## 2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	Earphone	Zyia	N/A	N/A	Unshielded, 1.2 m	N/A

## 2.4 Frequency List of Low/Middle/High Channels

Frequency List				
Band	Channel/Frequency(MHz)	Lowest	Middle	Highest
WCDMA Band V	Channel	4132	4182	4233
	Frequency	826.4	836.4	846.6
WCDMA Band II	Channel	9262	9400	9538
	Frequency	1852.4	1880.0	1907.6
WCDMA Band IV	Channel	1312	1413	1513
	Frequency	1712.4	1732.6	1752.6

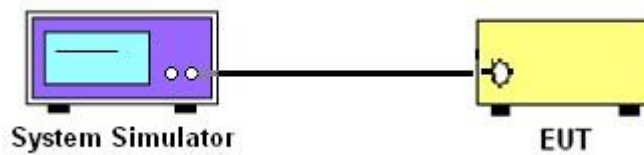
### 3 Conducted Test Result

#### 3.1 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.1 Test Setup

##### 3.1.2 Conducted Output Power



##### 3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

## 3.2 Conducted Output Power and ERP/EIRP

### 3.2.1 Description of the Conducted Output Power and ERP/EIRP

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.

The ERP of mobile transmitters must not exceed 7 Watts for WCDMA Band V.

The EIRP of mobile transmitters must not exceed 2 Watts for WCDMA Band II.

The EIRP of mobile transmitters must not exceed 1 Watts for WCDMA Band IV.

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$ ,  $ERP = EIRP - 2.15$ , where

$P_T$  = transmitter output power in dBm

$G_T$  = gain of the transmitting antenna in dBi

$L_C$  = signal attenuation in the connecting cable between the transmitter and antenna in dB

### 3.2.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

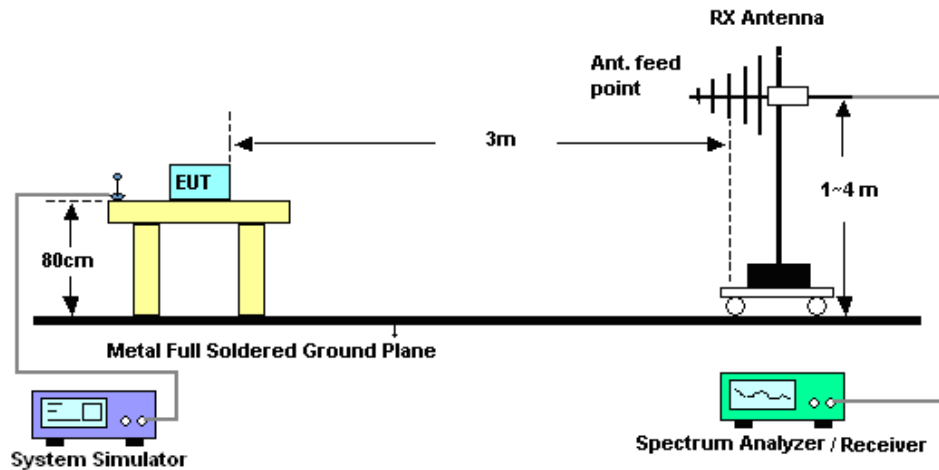
## 4 Radiated Test Items

### 4.1 Measuring Instruments

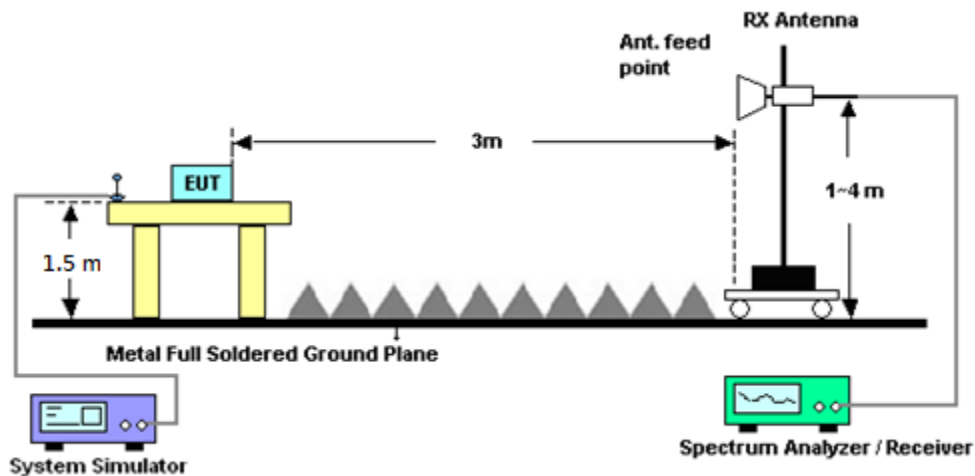
See list of measuring instruments of this test report.

### 4.2 Test Setup

For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



### 4.3 Test Result of Radiated Test

Please refer to Appendix B.

## 4.4 Field Strength of Spurious Radiation Measurement

### 4.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

### 4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a rotatable wooden table 0.8 meters for frequency below 1GHz and 1.5 meter for frequency above 1GHz above the ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10.  $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11.  $ERP \text{ (dBm)} = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
13. The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)



## 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LTE Base Station	Anritsu	MT8820C	6201432821	-	Oct. 14, 2018	Mar. 28, 2019	Oct. 13, 2019	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 07, 2019	Mar. 23, 2019~ Mar. 28, 2019	Jan. 06, 2020	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800N 1D01N-06	37059&01	30MHz~1GHz	Oct. 13, 2018	Mar. 23, 2019~ Mar. 28, 2019	Oct. 12, 2019	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 19, 2018	Mar. 23, 2019~ Mar. 28, 2019	Oct. 18, 2019	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	May 21, 2018	Mar. 23, 2019~ Mar. 28, 2019	May 20, 2019	Radiation (03CH12-HY)
Preamplifier	Jet-Power	JPA0118-55-30 3K	171000180005 4002	1GHz~18GHz	Apr. 17, 2018	Mar. 23, 2019~ Mar. 28, 2019	Apr. 16, 2019	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 06, 2018	Mar. 23, 2019~ Mar. 28, 2019	Dec. 05, 2019	Radiation (03CH12-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Dec. 26, 2018	Mar. 23, 2019~ Mar. 28, 2019	Dec. 25, 2019	Radiation (03CH12-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	May 21, 2018	Mar. 23, 2019~ Mar. 28, 2019	May 20, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WLK4-1000-15 30-6000-40SS	SN11	1 GHz Low pass	Sep. 16, 2018	Mar. 23, 2019~ Mar. 28, 2019	Sep. 15, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-1080- 1200-1500-60S S	SN2	1.2G High Pass	Sep. 16, 2018	Mar. 23, 2019~ Mar. 28, 2019	Sep. 15, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700- 3000-18000-60 ST	SN3	3GHz High Pass	Jul. 05, 2018	Mar. 23, 2019~ Mar. 28, 2019	Jul. 04, 2019	Radiation (03CH12-HY)
Filter	Woken	WHKX8-5272.5 -6750-18000-4 0ST	SN2	6.75G High pass	Sep. 17, 2018	Mar. 23, 2019~ Mar. 28, 2019	Sep. 16, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30M-18G	Mar. 13, 2019	Mar. 23, 2019~ Mar. 28, 2019	Mar. 12, 2020	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Oct. 16, 2018	Mar. 23, 2019~ Mar. 28, 2019	Oct. 15, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30M~40GHz	Oct. 16, 2018	Mar. 23, 2019~ Mar. 28, 2019	Oct. 15, 2019	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Mar. 23, 2019~ Mar. 28, 2019	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Mar. 23, 2019~ Mar. 28, 2019	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Mar. 23, 2019~ Mar. 28, 2019	N/A	Radiation (03CH12-HY)

## 6 Uncertainty of Evaluation

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.36
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.70
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.98
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## Appendix A. Test Results of Conducted Test

### Conducted Output Power(Average power)

Conducted Power (*Unit: dBm)						
Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4182	4233	9262	9400	9538
Frequency	826.4	836.4	846.6	1852.4	1880	1907.6
RMC 12.2K	23.42	23.46	23.48	23.27	23.27	23.19
HSDPA Subtest-1	23.12	23.11	23.01	23.07	23.09	22.98
HSDPA Subtest-2	22.11	22.08	22.07	23.06	23.04	23.01
HSDPA Subtest-3	21.59	21.62	21.53	22.40	22.36	22.34
HSDPA Subtest-4	21.35	21.36	21.33	22.34	22.26	22.28
HSUPA Subtest-1	22.06	22.07	22.05	22.99	22.99	22.98
HSUPA Subtest-2	19.85	20.00	20.03	20.81	20.96	20.51
HSUPA Subtest-3	20.58	20.89	20.92	21.58	21.80	21.83
HSUPA Subtest-4	20.12	20.11	20.08	21.11	21.01	21.05
HSUPA Subtest-5	22.10	22.00	22.01	23.01	22.98	22.95

Conducted Power (*Unit: dBm)			
Band	WCDMA Band IV		
Channel	1312	1413	1513
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	23.60	23.55	23.68
HSDPA Subtest-1	23.06	23.03	23.12
HSDPA Subtest-2	23.08	23.05	23.02
HSDPA Subtest-3	22.58	22.57	22.49
HSDPA Subtest-4	22.25	22.36	22.27
HSUPA Subtest-1	22.98	23.00	22.95
HSUPA Subtest-2	19.79	20.00	20.01
HSUPA Subtest-3	20.53	20.85	20.92
HSUPA Subtest-4	20.10	20.09	20.05
HSUPA Subtest-5	22.09	21.99	21.99



**Appendix B. Test Results of ERP/EIRP and Radiated Test****ERP/EIRP**

Channel	Mode	Conducted		ERP	
		Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	WCDMA Band V	23.42	0.2198	19.44	0.0879
Middle	RMC 12.2Kbps	23.46	0.2218	19.48	0.0887
Highest	GT - LC = -1.83 dB	23.48	0.2228	19.50	0.0891
Limit	ERP < 7W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	WCDMA Band II	23.27	0.2123	23.08	0.2032
Middle	RMC 12.2Kbps	23.27	0.2123	23.08	0.2032
Highest	GT - LC = -0.19 dB	23.19	0.2084	23.00	0.1995
Limit	EIRP < 2W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	WCDMA Band IV	23.60	0.2291	24.86	0.3062
Middle	RMC 12.2Kbps	23.55	0.2265	24.81	0.3027
Highest	(GT - LC = 1.26 dB)	23.68	0.2333	24.94	0.3119
Limit	EIRP < 1W	Result		PASS	

**Radiated Spurious Emission****WCDMA 850**

WCDMA 850									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-51.76	-13	-38.76	-61.86	-57.35	0.92	8.66	H
	2480	-52.36	-13	-39.36	-66.67	-59.74	1.15	10.67	H
	3304	-55.05	-13	-42.05	-70.67	-63.60	1.32	12.03	H
									H
	1648	-56.32	-13	-43.32	-65.88	-61.91	0.92	8.66	V
	2480	-55.02	-13	-42.02	-69.51	-62.40	1.15	10.67	V
	3304	-54.44	-13	-41.44	-70.53	-62.99	1.32	12.03	V
									V
Middle	1672	-51.04	-13	-38.04	-39.04	-56.72	0.93	8.75	H
	2512	-53.74	-13	-40.74	-41.74	-61.15	1.15	10.71	H
	3344	-54.10	-13	-41.10	-42.1	-62.74	1.33	12.13	H
									H
	1672	-56.47	-13	-43.47	-65.99	-62.15	0.93	8.75	V
	2512	-53.63	-13	-40.63	-68.1	-61.04	1.15	10.71	V
	3344	-53.87	-13	-40.87	-69.86	-62.51	1.33	12.13	V
									V
Highest	1696	-50.35	-13	-37.35	-60.6	-56.11	0.94	8.84	H
	2536	-55.80	-13	-42.80	-70.08	-63.23	1.16	10.74	H
	3384	-54.58	-13	-41.58	-70.03	-63.31	1.34	12.22	H
									H
	1696	-54.66	-13	-41.66	-64.17	-60.42	0.94	8.84	V
	2536	-55.21	-13	-42.21	-69.62	-62.64	1.16	10.74	V
	3384	-54.05	-13	-41.05	-69.94	-62.78	1.34	12.22	V
									V

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**WCDMA 1900**

WCDMA 1900									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3707	-50.70	-13	-37.70	-68.8	-61.91	1.41	12.62	H
	5555	-47.11	-13	-34.11	-70.11	-58.67	1.74	13.30	H
	7410	-42.89	-13	-29.89	-69.71	-52.19	1.94	11.24	H
									H
	3707	-50.39	-13	-37.39	-68.63	-61.60	1.41	12.62	V
	5555	-47.03	-13	-34.03	-69.55	-58.59	1.74	13.30	V
	7410	-43.07	-13	-30.07	-69.75	-52.37	1.94	11.24	V
									V
Middle	3763	-50.65	-13	-37.65	-69.01	-61.88	1.43	12.66	H
	5640	-47.18	-13	-34.18	-70.21	-58.75	1.73	13.30	H
	7520	-43.05	-13	-30.05	-69.41	-52.16	1.99	11.10	H
									H
	3763	-50.38	-13	-37.38	-68.87	-61.61	1.43	12.66	V
	5640	-47.58	-13	-34.58	-70.21	-59.15	1.73	13.30	V
	7520	-43.04	-13	-30.04	-69.36	-52.15	1.99	11.10	V
									V
Highest	3812	-50.43	-13	-37.43	-68.91	-61.68	1.44	12.69	H
	5722	-46.71	-13	-33.71	-70.17	-58.28	1.73	13.30	H
	7627	-43.34	-13	-30.34	-69.4	-52.46	2.01	11.13	H
									H
	3812	-50.39	-13	-37.39	-69.14	-61.64	1.44	12.69	V
	5722	-46.56	-13	-33.56	-69.38	-58.13	1.73	13.30	V
	7627	-43.30	-13	-30.30	-69.27	-52.42	2.01	11.13	V
									V

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**WCDMA 1700**

WCDMA 1700									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3424.8	-53.65	-13	-40.65	-69.99	-64.62	1.35	12.32	H
	5137.2	-48.45	-13	-35.45	-70.15	-59.60	1.65	12.79	H
	6849.6	-44.05	-13	-31.05	-69.5	-54.42	1.74	12.11	H
									H
	3424.8	-52.55	-13	-39.55	-69.3	-63.52	1.35	12.32	V
	5137.2	-48.58	-13	-35.58	-70.03	-59.73	1.65	12.79	V
	6849.6	-44.25	-13	-31.25	-69.29	-54.62	1.74	12.11	V
									V
Middle	3462	-53.66	-13	-40.66	-70.32	-64.72	1.35	12.41	H
	5198	-48.12	-13	-35.12	-69.85	-59.34	1.66	12.88	H
	6930	-43.77	-13	-30.77	-69.66	-54.04	1.73	12.00	H
									H
	3462	-53.11	-13	-40.11	-70.15	-64.17	1.35	12.41	V
	5198	-48.39	-13	-35.39	-69.96	-59.61	1.66	12.88	V
	6930	-44.53	-13	-31.53	-69.96	-54.80	1.73	12.00	V
									V
Highest	3504	-53.24	-13	-40.24	-70.19	-64.38	1.36	12.50	H
	5261	-47.78	-13	-34.78	-69.74	-59.07	1.68	12.97	H
	7011	-42.60	-13	-29.60	-68.89	-52.76	1.73	11.88	H
									H
	3504	-52.27	-13	-39.27	-69.58	-63.41	1.36	12.50	V
	5261	-48.39	-13	-35.39	-70.07	-59.68	1.68	12.97	V
	7011	-44.07	-13	-31.07	-69.88	-54.23	1.73	11.88	V
									V

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.