



RF MPE REPORT

Report No.: 20241017G21838X-W3

Product Name: LTE Wireless Data Module

Model No.: SIM6600-eM2

FCC ID: 2AJYU-8MH0012

Applicant: SIMCom Wireless Solutions Limited

Address: Building 3, No. 289, Linhong Road, Changning District, Shanghai,
P.R.China

Dates of Testing: 10/30/2024 - 11/14/2024

Issued by: CCIC Southern Testing Co., Ltd.

Lab Location: Electronic Testing Building, No.43, Shahe Road, Xili Street,
Nanshan District, Shenzhen, Guangdong, China.

Tel: 86-755-26627338 **E-Mail:** manager@ccic-set.com

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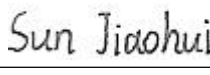


Test Report

Product.....: LTE Wireless Data Module
Trade Name: SIMCom
Applicant.....: SIMCom Wireless Solutions Limited
Applicant Address.....: Building 3, No. 289, Linhong Road, Changning District,
Shanghai, P.R.China
Manufacturer.....: SIMCom Wireless Solutions Limited
Manufacturer Address.....: Building 3, No. 289, Linhong Road, Changning District,
Shanghai, P.R.China
Test Standards.....: 47 CFR Part 2.1091
Test Result.....: Pass

Tested by:  2024.11.14

Chuiwang Zhang, Test Engineer

Reviewed by.....:  2024.11.14

Sun Jiaohui, Senior Engineer

Approved by.....:  2024.11.14

Chris You, Manager



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Change History		
Issue	Date	Reason for change
1.0	2024.11.14	First edition



1. GENERAL INFORMATION

1.1. EUT Description

Product Name	LTE Wireless Data Module	
Model No.	SIM6600-eM2	
EUT supports	WCDMA Band 2/4/5	
Radios application	LTE Band 2/4/5/7/12/13/17/25/26/41/66/71	
Frequency Range (UL)	WCDMA 850: 824MHz~849MHz WCDMA 1700: 1710MHz~1755MHz WCDMA 1900: 1850MHz~1910MHz	
	LTE Band 2: 1850MHz~1910MHz LTE Band 4: 1710MHz~1755MHz LTE Band 5: 824MHz~849MHz LTE Band 7: 2500MHz~2570MHz LTE Band 12: 699MHz~716MHz LTE Band 13: 777MHz~787MHz LTE Band 17: 704MHz~716MHz LTE Band 25: 1850MHz~1915MHz LTE Band 26(Part 90): 814MHz~824MHz LTE Band 26(Part 22): 824MHz~849MHz LTE Band 41: 2496MHz~2690MHz LTE Band 66: 1710MHz~1780MHz LTE Band 71: 663MHz~698MHz	
Bandwidth	WCDMA B2/4/5:	5MHz
	LTE Band 2/4/25/66:	1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
	LTE Band 5/12:	1.4MHz/3MHz/5MHz/10MHz
	LTE Band 13/17:	5MHz/10MHz
	LTE Band 26(Part90):	1.4MHz/3MHz/5MHz/10MHz
	LTE Band 26(Part22):	1.4MHz/3MHz/5MHz/10MHz/15MHz
	LTE Band 7/41/71:	5MHz/10MHz/15MHz/20MHz
Modulation Type	WCDMA	WCDMA: QPSK(Uplink) HSDPA: QPSK(Uplink) HSUPA: QPSK(Uplink)
	LTE	QPSK/16QAM/64QAM(downlink only)
Antenna gain	WCDMA 850: 0.64dBi WCDMA 1700: 3.12dBi WCDMA 1900: 1.87Bi	



	LTE Band 2/25: 1.87dBi LTE Band 4/66: 3.12dBi LTE Band 5: 0.64dBi LTE Band 7/41: 2.90dBi LTE Band 12/17: 0.95dBi	LTE Band 13: 2.23dBi LTE Band 26(Part 22): 0.64dBi LTE Band 26(Part 90): 0.91dBi LTE Band 71: -0.48dBi
Antenna Type	External Antenna	

Note 1: The information of antenna gain and cable loss is provided by the manufacturer and our lab is not responsible for the accuracy of the antenna gain and cable loss information.

1.2. EUT Description

EUT has been tested according to the following standards.

No.	Identity	Document Title
1	47 CFR Part 1	Practice and Procedure
2	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
3	KDB 447498 D01 General RF Exposure Guidance v06	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
4	OET Bulletin 65 Edition 97-01	Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

1.3. Laboratory Facilities

FCC-Registration No.: CN1283

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until Jun. 30th, 2025.

ISED Registration: 11185A

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A on Aug. 04, 2016, valid time is until Jun. 30th, 2025.

CAB number: CN0064

A2LA Code: 5721.01

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025. The accreditation certificate number is 5721.01.

1.4. Laboratory Location

Company Name:	CCIC Southern Testing Co., Ltd.
Address:	Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China

2. Technical Requirements Specification in CFR Title 47 Part 2.1091

2.1. Exposure Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Table 1 to § 1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	< 6
3.0-30	1824/f	4.89/f	*(900/f ²)	< 6
30-300	61.4	0.163	1.0	< 6
300-1500	/	/	f/300	< 6
1500-100,000	/	/	5	< 6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	< 30
1.34-30	824/f	2.19/f	*(180/f ²)	< 30
30-300	27.5	0.073	0.2	< 30
300-1500	/	/	f/1500	< 30
1500-100,000	/	/	1.0	< 30
Note: f = frequency in MHz. * = Plane-wave equivalent power density.				

2.2. Predication of MPE limit at a given distance

Refer to formulas on page 19 of OET Bulletin 65, Edition 97-01.

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna (appropriate units, e.g., cm)

2.3. Evaluation Results

Worst-Case mode Conducted Output Power Results for WWAN

Band	Frequency (MHz)	Maximum Output power(dBm)	Max Tune up power (dBm)	Max Tune up power (mW)
WCDMA 850	826.4	24.26	24 ± 1	316.23
WCDMA 1700	1752.6	24.32	24 ± 1	316.23
WCDMA 1900	1852.4	24.06	24 ± 1	316.23
LTE Band 2	1851.5	23.67	23 ± 1	251.19
LTE Band 4	1732.5	23.64	23 ± 1	251.19
LTE Band 5	824.7	23.74	23 ± 1	251.19
LTE Band 7	2502.5	23.12	23 ± 1	251.19
LTE Band 12	699.7	23.61	23 ± 1	251.19
LTE Band 13	779.5	23.64	23 ± 1	251.19
LTE Band 17	710.0	23.02	23 ± 1	251.19
LTE Band 25	1860.0	23.24	23 ± 1	251.19
LTE Band 26(Part 90)	819.0	23.41	23 ± 1	251.19
LTE Band 26(Part 22)	836.5	23.48	23 ± 1	251.19
LTE Band 41	2593.0	23.54	23 ± 1	251.19
LTE Band 66	1715.0	23.58	23 ± 1	251.19
LTE Band 71	665.5	23.68	23 ± 1	251.19

Calculation results: Worst-Case mode

Band	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm ²)	Power Density (mW/cm ²)	Ratio
WCDMA 850	0.64	1.16	20	0.073	0.55	0.132
WCDMA 1700	3.12	2.05	20	0.129	1.00	0.129
WCDMA 1900	1.87	1.54	20	0.097	1.00	0.097
LTE Band 2	1.87	1.54	20	0.077	1.00	0.077
LTE Band 4	3.12	2.05	20	0.103	1.00	0.103
LTE Band 5	0.64	1.16	20	0.058	0.55	0.105
LTE Band 7	2.90	1.95	20	0.097	1.00	0.097
LTE Band 12	0.95	1.24	20	0.062	0.47	0.133
LTE Band 13	2.23	1.67	20	0.084	0.52	0.161
LTE Band 17	0.95	1.24	20	0.062	0.47	0.131
LTE Band 25	1.87	1.54	20	0.077	1.00	0.077
LTE Band 26 (Part 90)	0.91	1.23	20	0.062	0.55	0.113
LTE Band 26 (Part 22)	0.64	1.16	20	0.058	0.56	0.104
LTE Band 41	2.90	1.95	20	0.097	1.00	0.097
LTE Band 66	3.12	2.05	20	0.103	1.00	0.103
LTE Band 71	-0.48	0.90	20	0.045	0.44	0.101

2.4. Conclusion

According to the KDB 447498 D01 General RF Exposure Guidance v06 section 7.2 determine the device is exclusion from SAR test.

**** END OF REPORT ****