MPE TEST REPORT

Applicant	:	SIMCom Wireless Solutions Limited
Address of Applicant	:	SIMCom Headquarters Building, Building 3, No.289 Linhong Road, Changning District, Shanghai,China
Product Name	:	SIMCom LTE Cat 1 Module
Brand Name	:	SIMCom
Model Name	:	SIM7500V
Sample Acquisition Method	:	Sent by Client
Sample No.	:	E24010061-01#01
FCC ID	:	2AJYU-8PYA00D
Standard	:	FCC Part 2.1091 KDB 447498 D01 General RF Exposure Guidance v06
Date of Receipt	:	2024-01-19
Date of Test	:	2024-01-23 ~ 2024-02-21
Date of Issue	:	2024-02-21

Remark:

This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

Prepared by: Erik. Yang (Erik Yang) Reviewed by: Jennifer zhou (Jennifer Zhou) Approved by: Echo Mu (Authorized signatory: Echo Mu)

MPE TEST REPORT

Contents

1 General Information

1.1 Testing Laboratory

Company Name	ICAS Testing Technology Service (Shanghai) Co., Ltd.
Address	No.1298, Pingan Road, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

1.2 Environmental conditions

Temperature (°C)	18-25
Humidity (%RH)	40-65
Barometric Pressure (mbar)	960-1060
Ambient noise & Reflection（W/kg）	< 0.012

1.3 Details of Application

Applicant Company Name	SIMCom Wireless Solutions Limited
Address	SIMCom Headquarters Building, Building 3, No.289 Linhong Road, Changning District, Shanghai,China
Contact Person	Yongsheng Li
Telephone	+86 21 3252 3134
Email	yongsheng.li@simcom.com
Manufacturer Company Name	SIMCom Wireless Solutions Limited
Address	SIMCom Headquarters Building, Building 3, No.289 Linhong Road, Changning District, Shanghai,China
Factory Company Name	SIMCom Wireless Solutions Limited
Address	SIMCom Headquarters Building, Building 3, No.289 Linhong Road, Changning District, Shanghai,China

1.4 Details of EUT

Product Name	SIMCom LTE Cat 1 Module		
Brand Name	SIMCom		
Test Model Name	SIM7500V		
FCC ID	2AJYU-8PYA00D		
Mode of Operation	LTE FDD Band 4/13		
Frequency Range	Band	Tx (MHz)	Rx (MHz)
	LTE FDD Band 4	1710 ~ 1755	2110 ~ 2155
	LTE FDD Band 13	777 ~ 787	746 ~ 756
Modulation Type	QPSK/16QAM		

Antenna Type	External Antenna
Antenna Gain	LTE FDD Band 4: 5.0 dBi LTE FDD Band 13: 4.0 dBi
Extreme Temperature Range	-20℃~ +55℃
Hardware version	SIM7500V_V1.3
Software version	V2.01

2 Maximum Permissible Exposure (MPE)

2.1 Limits

According to FCC Part 1.1307, systems operating under the provisions of this section shall be operated in a manner the ensures that the public is not exposed to radio frequency energy level in excess of the commission's guidelines.

TABLE 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)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	$*900/f^2$	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) 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
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

2.2 Assessment methods

Calculation Formula from FCC OET 65:

$$S = \frac{\mathrm{P} * \mathrm{G}}{4 * \pi * R^2}$$

Where:

S = Power Density (mW/cm2)

P = Input Power of the Antenna (mW)

G = Antenna Gain Relative to an Isotropic Antenna

R = Distance from the Antenna to the Point of Investigation (cm)

2.3 Test Result

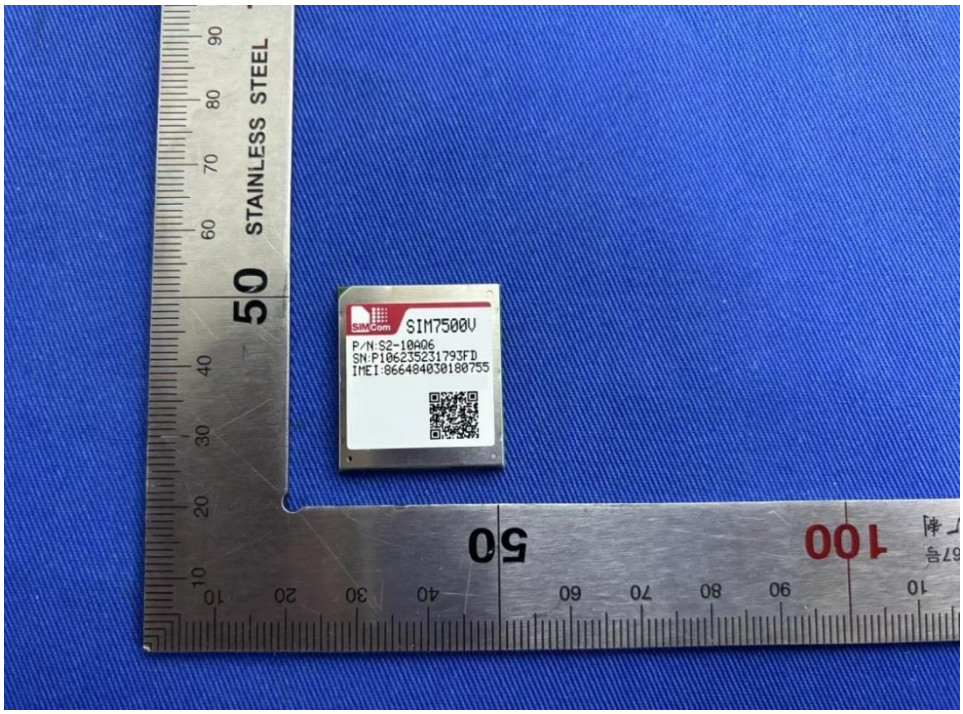
Operation Mode	Frequency Range (MHz)	Max Conducted Power (dBm)	Antenna Gain (dBi)	Max EIRP (mW)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
LTE FDD Band 4	1710 ~ 1755	24.00	5.00	794.33	0.158	1.00
LTE FDD Band 13	*777 ~ 787*	24.50	4.00	707.95	0.141	0.52

2.4 Conclusion

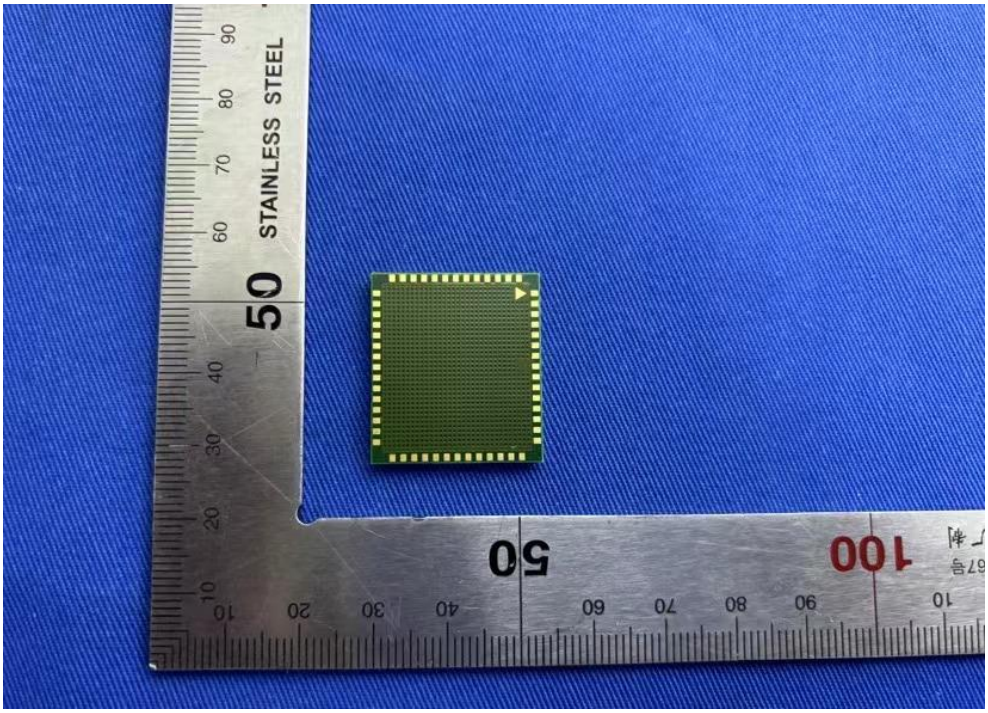
The Power Density at the position which is 20 cm far from the EUT is smaller than the General Population/Uncontrolled Exposure limit.

3 Appendixes

3.1 Sample Photograph



Front of the sample



Rear of the sample

End of the report