



MPE Report

Report No.:STS2603008H01

Issued for

Wuxi Sunning Technology Co., Ltd.

No.52, Zone C, Huigu Pioneer Park, Huishan Economic
Development Zone, Wuxi City, Jiangsu, China

Product Name: LTE Module

Brand Name: agenew

Model Name: H1503BQ

Series Model(s): N/A

FCC ID: 2BVA8-H1503BQ

Test Standard: FCC 47CFR §2.1091

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the ShenZhen STS Test Services Co., Ltd.

**TEST REPORT**

Applicant's Name.....: Wuxi Sunning Technology Co., Ltd.
Address: No.52, Zone C, Huigu Pioneer Park, Huishan Economic
Development Zone, Wuxi City, Jiangsu, China
Manufacturer's Name.....: Wuxi Sunning Technology Co., Ltd.
Address: No.52, Zone C, Huigu Pioneer Park, Huishan Economic
Development Zone, Wuxi City, Jiangsu, China

Product Description

Product Name.....: LTE Module
Brand Name: agenew
Model Name: H1503BQ
Series Model(s).....: N/A
Test Standards: FCC 47CFR §2.1091
447498 D01 Interim General RF Exposure Guidance v06

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Date of Test

Date of receipt of test item.....: 02 Mar. 2026
Date (s) of performance of tests.....: 02 Mar. 2026 ~ 23 Mar. 2026
Date of Issue.....: 23 Mar. 2026
Test Result.....: **Pass**

Testing Engineer :

(Aaron Bu)

Technical Manager :

(Skylar Li)

Authorized Signatory :

(Bovey Yang)





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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	23 Mar. 2026	STS2603008H01	ALL	Initial Issue



1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	LTE Module	
Brand Name	agenew	
Model Name	H1503BQ	
Series Model(s)	N/A	
Model Difference	N/A	
Product Description	The EUT is LTE Module	
	Operation Frequency:	BT/BLE: 2402 – 2480 MHz 2.4G WLAN: 802.11b/g/n (20MHz): 2412~2462MHz 802.11n (40MHz):2422~2452MHz 5.2G RLAN: IEEE 802.11a/ n(HT20)/ac(VHT20): 5.180GHz-5.240GHz IEEE 802.11n(HT40)/ac(VHT40): 5.190GHz-5.230GHz IEEE 802.11ac(VHT80) : 5.210GHz 5.3G RLAN: IEEE 802.11a/ n(HT20)/ac(VHT20): 5.260GHz-5.320GHz IEEE 802.11 n(HT40)/ac(VHT40): 5.270GHz-5.310GHz IEEE 802.11ac(VHT80): 5.290GHz 5.6G RLAN: IEEE 802.11a/ n(HT20)/ac(VHT20): 5.500GHz-5.700GHz IEEE 802.11 n(HT40)/ac(VHT40): 5.510GHz-5.670GHz IEEE 802.11ac(VHT80): 5.530GHz-5.610GHz 5.8G RLAN: IEEE 802.11a/ n(HT20)/ac(VHT20): 5.745GHz-5.825GHz IEEE 802.11a/ n(HT40)/ac(VHT40): 5.755GHz-5.795GHz IEEE 802.11ac(VHT80): 5.775GHz TX: GSM850: 824-849 MHz GSM1900: 1850-1910 MHz WCDMA B2: 1850-1910 MHz WCDMA B5: 824-849 MHz WCDMA B4: 1710-1755 MHz LTE Band 2: 1850~1910MHz LTE Band 4: 1710~1755MHz LTE Band 5: 824~849MHz LTE Band 7: 2500~2570MHz LTE Band 12: 699~716MHz LTE Band 13: 777~787MHz LTE Band 17: 704-716 MHz LTE Band 25: 1850~1915MHz LTE Band 26 Part 90: 814~824MHz LTE Band 26 Part 22: 824-849 MHz LTE Band 41: 2496-2690MHz LTE Band 66: 1710~1780MHz LTE Band 71: 663-698 MHz



		RX: GSM850: 869-894 MHz GSM1900: 1930-1990 MHz WCDMA B2: 1930-1990 MHz WCDMA B5: 869-894 MHz WCDMA B4: 2110-2155 MHz LTE Band 2:1930 ~1990MHz LTE Band 4:2110~2155MHz LTE Band 5:869~894MHz LTE Band 7:2620~2690MHz LTE Band 12:729~746MHz LTE Band 13:746~756MHz LTE Band 17: 734-746 MHz LTE Band 25:1930~1995MHz LTE Band 26 Part 90:859~869MHz LTE Band 26 Part 22:869-894MHz LTE Band 41: 2496-2690MHz LTE Band 66:2110~2200MHz LTE Band 71: 617-652 MHz
	Modulation Type:	BT BR(1Mbps): GFSK BT EDR(2Mbps): $\pi/4$ -DQPSK BT EDR(3Mbps): 8DPSK BLE: GFSK 2.4G WLAN: 802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 5G RLAN: 802.11a(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11ac(OFDM):BPSK,QPSK,16-QAM,64-QAM,256-QAM
	Antenna gain:	BT/BLE/2.4G WLAN: 0.5dBi 5G RLAN: 1.2dBi GSM 850: -1.0dBi GSM 1900: 0.8dBi WCDMA B2: 0.8 dBi WCDMA B4: 0.8 dBi WCDMA B5: -1.1 dBi LTE B2: 0.8 dBi LTE B4: 0.8 dBi LTE B5: -1.1 dBi LTE B7: 1.2 dBi LTE B12: -2.1 dBi LTE B13: -1.4 dBi LTE B17: -2.1 dBi LTE B25: 0.8 dBi LTE B26:-1.1 dBi LTE B41 1.2 dBi LTE B66: 0.2 dBi LTE B71:-2.5 dBi
	Antenna Designation:	Spring
Power Rating	Input: 3.5~4.4V	



Adapter	N/A
Battery	N/A
Hardware Version	H1503BQ V00
Software Version	H1503BQ_V1.00

1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai 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



2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio-frequency (RF) radiation as specified in 1.1307 (b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
3.0-30	1842/f	4.89/f	*(900/f ²)
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1.34-30	824/f	2.19/f	*(180f ²)
1500 – 100000	--	--	1.0

F= Frequency in MHz

Friss Formula

Friss Transmission Formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = Distance between observation point and the center of radiator in cm

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.



2.3 TEST RESULT

Tune up

RF Function	Frequency (MHz)	Separation distance (cm)	Max AVG Power (dBm)	Turn Up Power (dBm)	Max Tune Up Power (dBm)	ANT Gain (dBi)	Max EIRP (dBm)	Max EIRP (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Ratio	Result
GSM 850	824	20	32.71	32±1	33.00	-1	32.00	1584.893	0.315	0.5493333	0.9097	Pass
GPRS 850	824	20	32.90	32±1	33.00	-1	32.00	1584.893	0.315	0.5493333	0.9097	Pass
GSM 1900	1850	20	29.99	30±1	31.00	0.8	31.80	1513.561	0.301	1	0.3011	Pass
GPRS 1900	1850	20	30.04	30±1	31.00	0.8	31.80	1513.561	0.301	1	0.3011	Pass
WCDMA Band 2	1850	20	25.00	25±1	26.00	0.8	26.80	478.630	0.095	1	0.0952	Pass
WCDMA Band 4	1710	20	25.00	25±1	26.00	0.8	26.80	478.630	0.095	1	0.0952	Pass
WCDMA Band 5	824	20	25.00	25±1	26.00	-1.1	24.90	309.030	0.061	0.5493333	0.1119	Pass
LTE Band 2	1850	20	25.00	25±1	26.00	0.8	26.80	478.630	0.095	1	0.0952	Pass
LTE Band 4	1710	20	25.00	25±1	26.00	0.8	26.80	478.630	0.095	1	0.0952	Pass
LTE Band 5	824	20	25.00	25±1	26.00	-1.1	24.90	309.030	0.061	0.5493333	0.1119	Pass
LTE Band 7	2500	20	25.00	25±1	26.00	1.2	27.20	524.807	0.104	1	0.1044	Pass
LTE Band 12	699	20	25.00	25±1	26.00	-2.1	23.90	245.471	0.049	0.466	0.1048	Pass
LTE Band 13	777	20	25.00	25±1	26.00	-1.4	24.60	288.403	0.057	0.518	0.1108	Pass
LTE Band 17	704	20	25.00	25±1	26.00	-2.1	23.90	245.471	0.049	0.4693333	0.1041	Pass
LTE Band 25	1850	20	25.00	25±1	26.00	0.8	26.80	478.630	0.095	1	0.0952	Pass
LTE Band 26	814	20	25.00	25±1	26.00	-1.1	24.90	309.030	0.061	0.5426667	0.1133	Pass
LTE Band 41	2496	20	25.00	25±1	26.00	1.2	27.20	524.807	0.104	1	0.1044	Pass
LTE Band 66	1710	20	25.00	25±1	26.00	0.2	26.20	416.869	0.083	1	0.0829	Pass
LTE Band 71	663	20	25.00	25±1	26.00	-2.5	23.50	223.872	0.045	0.442	0.1008	Pass
BT	2441	20	4.36	4±1	5.00	0.5	5.50	3.548	0.0007	1	0.0007	Pass
BLE	2440	20	2.13	2±1	3.00	0.5	3.50	2.239	0.0004	1	0.0004	Pass
2.4G WLAN	2437	20	17.92	17±1	18.00	0.5	18.50	70.795	0.0141	1	0.0141	Pass
5G RLAN	5500	20	13.93	13±1	14.00	1.2	15.20	33.113	0.0066	1	0.0066	Pass



Multiple transmission:

2.4G WLAN+5G RLAN =0.0141+0.0066=0.021 < 1

2.4G WLAN+5G RLAN+GPRS 850 =0.0141+0.0066+0.9097=0.9304 < 1

Note: 1. The Maximum power is less than the limit, complies with the exemption requirements.

2. The Bluetooth and WLAN can't simultaneous transmission at the same time.

3. ERP = EIRP - 2.15

※※※※※END OF THE REPORT※※※※※