

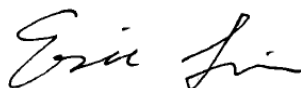
1 Cover Page

RF Exposure Evaluation Report

Application No.: KSCR2205000710AT
FCC ID: 2AD6I-A200G4B
Applicant: Hillstone Networks Corp.
Address of Applicant: 5201 Great America Pkwy, suite 420, Santa Clara, CA 95054
Manufacturer: Hillstone Networks Co., Ltd.
Address of Manufacturer: NO. 181 Jingrun Road, High-Tech Zone, Suzhou
Factory: X-SPEED INFORMATION TECHNOLOGY CO.,LTD
Address of Factory: 4th Floor, Building 2,Xinyu Electronic Industrial Park,No.69, Zhaishan,Houshan Village, High-tech Zone,Fuzhou,Fujian ,China
Equipment Under Test (EUT):
EUT Name: Firewall Appliance
Model No.: SG-6000-A200G4B-IN, SG-6000-A200G4B
Standard(s) : FCC Rules 47 CFR §2.1091
 KDB 447498 D04 interim General RF Exposure Guidance v01
Date of Receipt: 2022-05-12
Date of Test: 2022-06-21 to 2022-06-21
Date of Issue: 2022-06-22

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.



Eric Lin
Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2022-06-22		Original

Authorized for issue by:			
		<i>Damon Zhou</i>	
		<u>Damon_Zhou /Project Engineer</u>	
		<i>Eric Lin</i>	
		<u>Eric Lin/Reviewer</u>	



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3 General Information

3.1 General Description of E.U.T.

Power supply:	DC 12V by adapter Adapter Model:EA1019HVRS-120 AC Input:100-240Vac,0.8A,50-60Hz DC Output:12.0Vdc,2.0A 24.0W
---------------	---

3.2 Details of E.U.T.

2G

Serial Number:	6324916223000543
Firmware version:	SG-6000-A200
Sample Type:	Fixed production
Support Network:	GPRS, EGPRS
Operation Frequency Band:	GSM850/GSM1900
Modulation Type:	GMSK for GPRS/EGPRS; 8PSK for EGPRS
GPRS Class:	12
EGPRS Class:	12
Antenna Type:	Dipole Antenna
Antenna Gain:	GSM850:-0.30dBi(Provided by the manufacturer) PCS1900:-2.26dBi(Provided by the manufacturer)
Extreme temp. Tolerance:	0°C to +45°C
IMEI:	869374040656190



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3G

Serial Number:	6324916223000543
Firmware version:	SG-6000-A200
Sample Type:	Fixed production
Operation Frequency Band:	UMTS B2,B5
Modulation Type:	QPSK,BPSK
Antenna Type:	Dipole Antenna
Antenna Gain:	B2:-2.26dBi(Provided by the manufacturer) B5:-0.30dBi(Provided by the manufacturer)
Extreme temp. Tolerance:	0°C to +45°C
HSDPA UE Category:	14
HSUPA UE Category:	6
IMEI:	869374040656190

4G

Serial Number:	6324916223000543
Firmware version:	SG-6000-A200
Sample Type:	Fixed production
LTE Operation Frequency Band:	LTE Band 2,5,7,40
Modulation Type:	QPSK, 16QAM
Antenna Type:	Dipole Antenna
Antenna Gain:	B2: -2.25dBi(Provided by the manufacturer) B5: -0.30dBi(Provided by the manufacturer) B7: -2.22dBi(Provided by the manufacturer) B40: 0.84dBi(Provided by the manufacturer)
Extreme temp. Tolerance:	0°C to +45°C
IMEI:	869374040656190



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3.3 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).



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3.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• **CNAS (No. CNAS L4354)**

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• **A2LA (Certificate No. 2541.01)**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• **FCC (Designation Number: CN1172)**

Compliance Certification Services Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• **ISED (CAB Identifier: CN0072)**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development (ISED) Canada as an accredited testing laboratory. CAB Identifier: CN0072.

• **VCCI (Member No.: 1938)**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.



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4 FCC Radiofrequency radiation exposure limits

4.1 FCC Radiofrequency radiation exposure limits:

According to §1.1310, the limit for general population/uncontrolled exposures

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
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: Limit for GSM 850 is 0.55mW/cm², GSM 1900 is 1mW/cm², WCDMA B2 is 1mW/cm², WCDMA B5 is 0.55mW/cm², LTE B2 is 1mW/cm², LTE B5 is 0.55mW/cm², LTE B7 is 1mW/cm², LTE B40 is 1mW/cm².



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5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR220500071001, KSCR220500071002, KSCR220500071003.

Band Information	The Max Power (dBm)	The Max Power (mW)
GSM 850	28.62	727.78
GSM 1900	26.54	450.82
WCDMA Band 2	21.26	133.66
WCDMA Band 5	22.05	160.32
LTE Band 2	21.20	131.83
LTE Band 5	22.70	186.21
LTE Band 7	24.74	297.85
LTE Band 40	22.68	185.35



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5.2 MPE Calculation

According to the formula $S=P/4\pi R^2$, we can calculate S which is MPE.

Note:

- 1) P (mW)
- 2) R = distance to the center of radiation of antenna (in meter) = 20cm

Band Information	Antenna Gain (dBi)	Gain in Linear Scale G	Operation Distance R(cm)	Tune-up conducted power(dBm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
GSM 850	-0.3	0.93	20	29	0.147	0.55	Pass
GSM 1900	-2.26	0.59	20	27	0.059	1	Pass
WCDMA Band 2	-2.26	0.59	20	22	0.019	1	Pass
WCDMA Band 5	-0.3	0.93	20	23	0.037	0.55	Pass
LTE Band 2	-2.25	0.60	20	22	0.019	1	Pass
LTE Band 5	-0.3	0.93	20	23	0.037	0.55	Pass
LTE Band 7	-2.22	0.60	20	25	0.038	1	Pass
LTE Band 40	0.84	0.91	20	23	0.048	1	Pass

So the device is exclusion from SAR test.

--End of the Report--



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