TEST REPORT

Application No.:	SZCR2504001359MO
Applicant:	Shenzhen Favalon Technology Co., Ltd
Address of Applicant:	8th Floor, Building 2, Huaqiaocheng Chuangxiang Building, Beizhan Community, Minzhi Street, Longhua District, Shenzhen,China
Manufacturer:	Shenzhen Favalon Technology Co., Ltd
Address of Manufacturer:	8th Floor, Building 2, Huaqiaocheng Chuangxiang Building, Beizhan Community, Minzhi Street, Longhua District, Shenzhen,China
EUT Description:	5G Module
Model No.:	AN762S-GL
Trade Mark:	Favalon
FCC ID:	2A8RBAN762SGL
Standards:	FCC 47 CFR Part 2.1091 FCC KDB 447498 D01 v06
Date of Receipt:	2025/04/08
Date of Issue:	2025/05/27
Test Result:	**PASS***

* In the configuration tested, the EUT complied with the standards specified above.

Keny Xu
EMC Laboratory Manager

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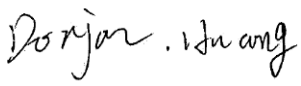
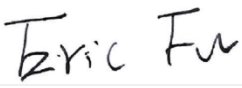
Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2025/05/27		Original

Authorized for issue by:				
				
		Donjon Huang/Project Engineer		
				
		Eric Fu/Reviewer		

2 Contents

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3 General Information

3.1 General Description of EUT

EUT Description:	5G Module			
Model No.:	AN762S-GL			
Trade Mark:	Favalon			
Hardware Version:	V1.0			
Software Version:	84100.2000.00.01.05.01			
Power Supply:	DC4V			
Antenna Type:	☒ External, ☐ Integrated			
HPUE Power Class:	Class 2: NR Band n41; NR Band n77; NR Band n78			
Antenna Gain:	GSM850:	1.6dBi;	GSM1900:	1.9dBi;
	WCDMA Band II:	1.9dBi;	WCDMA Band IV:	1.1dBi;
	WCDMA Band V:	1.6dBi;		
	LTE Band 2:	0.7dBi;	LTE Band 4:	2.3dBi;
	LTE Band 5:	1.3dBi;	LTE Band 7:	1dBi;
	LTE Band 12:	1.4dBi;	LTE Band 13:	1.4dBi;
	LTE Band 14:	1.4dBi;	LTE Band 17:	1.4dBi;
	LTE Band 25:	1.9dBi;	LTE Band 26:	1dBi;
	LTE Band 38:	0.6dBi;	LTE Band 41:	1.2dBi;
	LTE Band 42:	-2.69dBi;	LTE Band 48:	-2.78dBi;
	LTE Band 66:	1.9dBi;	LTE Band 71:	0.9dBi;
	LTE CA_38C:	0.6dBi;	LTE CA_42C:	-2.69dBi;
	LTE CA_48C:	-2.78dBi;	LTE CA_66C:	1.9dBi;
	NR Band n2:	0.7dBi,	NR Band n5:	1.3dBi,
	NR Band n7:	1dBi,	NR Band n12:	1.3dBi,
	NR Band n14:	1.4dBi,	NR Band n25:	1.3dBi,
	NR Band n38:	1.1dBi,	NR Band n41:	1.1dBi,
	NR Band n48:	-2.78dBi,	NR Band n66:	1.1dBi,
	NR Band n71:	1.3dBi,	NR Band n77:	0.6dBi,
	NR Band n78:	0.6dBi,		
	Bluetooth:	0.85dBi		
	WIFI 2.4G:	0.85dBi(Ant1); 0.85dBi(Ant2)		
	5G WIFI(U-NII-1):	-0.66dBi(Ant1); -0.66dBi(Ant2);		

	5G WIFI(U-NII-2A):	-0.51dBi(Ant1); -0.51dBi(Ant2);
	5G WIFI(U-NII-2C):	0.42dBi(Ant1); 0.42dBi(Ant2);
	5G WIFI(U-NII-3):	-0.06dBi(Ant1); -0.06dBi(Ant2);
	6E WIFI(UNII-5):	0.61dBi(Ant1); 0.61dBi(Ant2)
	6E WIFI(UNII-6):	0.55dBi(Ant1); 0.55dBi(Ant2)
	6E WIFI(UNII-7):	0.69dBi(Ant1); 0.69dBi(Ant2)
	6E WIFI(UNII-8):	1.06dBi(Ant1); 1.06dBi(Ant2)
	ENDC: DC_2A_n77A, DC_5A_n77A,DC_7A_n77A,DC_12A_n77A,DC_13A_n77A, DC_14A_n77A,DC_25A_n77A,DC_26A_n77A,DC_41A_n77A, DC_66A_n77A;DC_2A_n78A,DC_4A_n78A,DC_5A_n78A,DC_7A_n78A, DC_12A_n78A,DC_38A_n78A,DC_41A_n78A,DC_71A_n78A	
	Note: The antenna gain are derived from the gain information report provided by the manufacturer.	
Remark: As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.		

3.2 Test Location

All tests were performed at:
SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch
No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.
Tel: +86 755 2601 2053 Fax: +86 755 2671 0594
No tests were sub-contracted.

3.3 Test Facility

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

• A2LA (Certificate No. 3816.01)
SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)
The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336
SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.
Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada
SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.
CAB identifier: CN0006.
IC#: 4620C.

4 RF Exposure Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f2)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	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/f2)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
*=Plane-wave equivalent power density
RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

Friis Formula

Friis transmission formula: $Pd = (Pout*G)/(4* Pi * R^2)$

Where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

Pd id the limit of MPE, 1 mW/cm2. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually

4.1.3 EUT RF Exposure Evaluation

Output Power Into Antenna & RF Exposure Evaluation Distance:
This confirmed that the device comply with MPE limit.

Operating Band	Frequency (MHz)	Antenna Gain (dBi)	Max Conducted Power (dBm)	EIRP(ERP) (dBm)	EIRP(ERP) Limit (dBm)	Power Density at R = 20 cm (mW/cm2)	Limit (mW/cm2)	Gain according to EIRP(ERP) (dBi)	Gain according to Pd (dBi)	Max Gain Allowed (dBi)	conclusion
GSM850	824.2	1.60	33.00	32.45	38.45	0.0691	0.5495	7.60	10.60	7.60	Pass
GSM1900	1850.2	1.90	30.00	31.90	33.01	0.0371	1.0000	3.01	16.20	3.01	Pass
WCDMA B2	1852.4	1.9	25.00	26.90	33.01	0.0974	1.0000	8.01	12.01	8.01	Pass
WCDMA B4	1712.4	1.1	25.00	26.10	30.00	0.0810	1.0000	5.00	12.01	5.00	Pass
WCDMA B5	828.4	1.6	25.00	24.45	38.45	0.0909	0.5523	15.60	9.43	9.43	Pass
LTE Band 2	1850.7	0.70	25.00	25.70	33.01	0.0739	1.0000	8.01	12.01	8.01	Pass
LTE Band 4	1710.7	2.30	25.00	27.30	30.00	0.1068	1.0000	5.00	12.01	5.00	Pass
LTE Band 5	824.7	1.30	25.00	24.15	38.45	0.0849	0.5498	15.60	9.41	9.41	Pass
LTE Band 7	2502.5	1.00	25.00	26.00	33.01	0.0792	1.0000	8.01	12.01	8.01	Pass
LTE Band 12	699.7	1.40	25.00	24.25	34.77	0.0868	0.4665	11.92	8.70	8.70	Pass
LTE Band 13	779.5	1.40	25.00	24.25	34.77	0.0868	0.5197	11.92	9.16	9.16	Pass
LTE Band 14	790.5	1.40	25.00	24.25	34.77	0.0868	0.5270	11.92	9.23	9.23	Pass
LTE Band 17	706.5	1.40	25.00	24.25	34.77	0.0868	0.4710	11.92	8.74	8.74	Pass
LTE Band 25	1852.5	1.90	25.00	26.90	33.01	0.0974	1.0000	8.01	12.01	8.01	Pass
LTE Band 26 (814-824)	817.0	1.00	25.00	23.85	NA	0.0792	0.5447	NA	9.37	9.37	Pass
LTE Band 26 (824-849)	824.7	1.00	25.00	23.85	38.45	0.0792	0.5498	15.60	9.41	9.41	Pass
LTE Band 41	2498.5	1.20	25.00	26.20	33.01	0.0829	1.0000	8.01	12.01	8.01	Pass
LTE/CA Band 42	3552.0	-2.78	25.00	22.22	30.00	0.0332	1.0000	5.00	12.01	5.00	Pass
LTE/CA Band 42	3452.5	-2.69	25.00	22.31	23.00	0.0339	1.0000	-2.00	12.01	-2.00	Pass
LTE/CA Band 48	3552.5	-2.78	25.00	22.22	23.00	0.0332	1.0000	-2.00	12.01	-2.00	Pass
LTE/CA Band 66	1710.7	1.90	25.00	26.90	30.00	0.0974	1.0000	5.00	12.01	5.00	Pass
LTE Band 71	665.5	0.90	25.00	23.75	34.77	0.0774	0.4437	11.92	8.48	8.48	Pass
LTE/CA Band 38	2572.5	0.60	25.00	25.60	33.01	0.0722	1.0000	8.01	12.01	8.01	Pass
NR Band n2	1852.5	0.70	25.00	25.70	33.00	0.0739	1.0000	8.00	12.01	8.00	Pass
NR Band n5	826.5	1.30	25.00	24.15	38.45	0.0849	0.5510	15.60	9.42	9.42	Pass
NR Band n7	2502.5	1.00	25.00	26.00	33.00	0.0792	1.0000	8.00	12.01	8.00	Pass
NR Band n12	701.5	1.30	25.00	24.15	34.77	0.0849	0.4677	11.92	8.71	8.71	Pass
NR Band n14	790.5	1.40	25.00	24.25	34.77	0.0868	0.5270	11.92	9.23	9.23	Pass
NR Band n25	1852.5	1.30	25.00	26.30	33.00	0.0849	1.0000	8.00	12.01	8.00	Pass
NR Band n38	2575.0	1.10	25.00	26.10	33.00	0.0810	1.0000	8.00	12.01	8.00	Pass
NR Band n41	2501.5	1.10	26.00	27.10	33.00	0.1020	1.0000	7.00	11.01	7.00	Pass
NR Band n48	3555.0	-2.78	25.00	22.22	23.00	0.0332	1.0000	-2.00	12.01	-2.00	Pass
NR Band n66	1712.5	1.10	24.00	25.10	30.00	0.0644	1.0000	6.00	13.01	6.00	Pass
NR Band n71	665.5	1.30	24.00	23.15	34.77	0.0674	0.4437	12.92	9.48	9.48	Pass

Operating Band	Frequency (MHz)	Antenna Gain (dBi)	MIMO Directional gain	Max Conducted Power (dBm)	EIRP(ERP) (dBm)	EIRP(ERP) Limit (dBm)	Power Density at R = 20 cm (mW/cm2)	Limit (mW/cm2)	Gain according to EIRP(ERP) (dBi)	Gain according to Pd (dBi)	Max Gain Allowed (dBi)	conclusion
NR Band n77 (3450-3550)	3455.0	0.60	N/A	26.00	26.60	30.00	0.0909	1.0000	4.00	11.01	4.00	Pass
NR Band n77 (3700-3980)	3707.5	0.60	N/A	26.00	26.60	30.00	0.0909	1.0000	4.00	11.01	4.00	Pass
NR Band n78 (3450-3550)	3455.0	0.60	N/A	26.00	26.60	30.00	0.0909	1.0000	4.00	11.01	4.00	Pass
NR Band n78 (3700-3800)	3705.0	0.60	N/A	26.00	26.60	30.00	0.0909	1.0000	4.00	11.01	4.00	Pass
Bluetooth	2402.0	0.85	N/A	13.00	13.85	30.00	0.0048	1.0000	17.00	24.01	17.00	Pass
2.4Gwifi	2412.0	0.85	0.85	18.00	18.85	30.00	0.0153	1.0000	12.00	19.01	12.00	Pass
5Gwifi	5180.0	-0.66	-0.66	15.00	14.34	30.00	0.0054	1.0000	15.00	22.01	15.00	Pass
6E WIFI	5955.0	1.06	1.06	12.00	13.06	24.00	0.0040	1.0000	12.00	25.01	12.00	Pass

Remark: Frame-average power=Burst power+ Division Factors(-9.19)

Due to the EUT support NR ENDC and CA

$$\sum_{i=1}^{n} \frac{S_{E_i}(duty\,factor)}{MPE_{E_i}} < 1$$

Both LTE and NR/LTE band can transmit simultaneously, the formula of the calculated the MPE is:

NOTE The corresponding MEs must be expressed in terms of power density in the above summation
Therefore, the worst-case(DC_41A_n78A) situation is 0.8290+0.0909=0.9199,which is less than “1”, this confirmed that the device comply with MPE limit.

4.1.4 Exposure calculations for multiple sources

In order to ensure compliance with the MPE for a controlled environment, the sum of the ratios of the power density to the corresponding MPE should not exceed unity. That is

$$\sum_{i=1}^{n} \frac{S_i}{MPE_i} \leq 1$$

The product also has multiple transmitters The Simultaneous Transmission Possibilities are as below:

Simultaneous Tx Combination	Configuration
1	WWAN +WIFI 6E+ WiFi 5G +BT
2	WWAN+ WIFI 6E + WiFi 2.4G + WiFi 5G

No.	Mode	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)	Result Ratio	Total Ratio	Limit	Result
1	LTE Band 12	0.0868	0.4665	0.1861	0.2003	1.0000	Pass
	WIFI 6E	0.004	1	0.0040			
	WiFi 5G	0.0054	1	0.0054			
	Bluetooth	0.0048	1	0.0048			
2	LTE Band 12	0.0868	0.4665	0.1861	0.2108	1.0000	Pass
	WIFI 6E	0.004	1	0.0040			
	WiFi 2.4G	0.0153	1	0.0153			
	WiFi 5G	0.0054	1	0.0054			

Remark: This WWAN Band was recalculated on worst Band.

---End of Report---