



FCC RF EXPOSURE REPORT

For

wifi module

MODEL NUMBER: Sense F2

FCC ID: 2AXGW-SENSEF2

REPORT NUMBER: 4789589280.1-4

ISSUE DATE: August 28, 2020

Prepared for

**Shenzhen Sugr Technology Co.,LTD
3002,No.36,Liuxian3rdRoad,BaoanDistrict,Shenzhen 518000 China**

Prepared by

**UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch
Building 10, Innovation Technology Park, No. 1, Li Bin Road,
Song Shan Lake Hi-Tech Development Zone, Dongguan, People's Republic of China
Tel: +86 769-22038881
Fax: +86 769 33244054
Website: www.ul.com**



TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	3
2. TEST METHODOLOGY	3
3. FACILITIES AND ACCREDITATION	4
4. REQUIREMENT	5



1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Shenzhen Sugr Technology Co.,LTD
Address: 3002,No.36,Liuxian3rdRoad,BaoanDistrict,Shenzhen 518000
China

Manufacturer Information

Company Name: Shenzhen Sugr Technology Co.,LTD.
Address: 3002,No.36,Liuxian3rdRoad,BaoanDistrict,Shenzhen 518000
China

EUT Information

EUT Name: wifi module
Model: Sense F2
Sample Received Date: August 11, 2020
Sample Status: Normal
Sample ID: 3243395
Date of Tested: August 11~25, 2020

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	PASS
KDB-447498 D01 V06	

Prepared By:

Kebo Zhang
Project Engineer

Checked By:

Shawn Wen
Laboratory Leader

Approved By:

Stephen Guo
Laboratory Manager



2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules ISED(Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with Industry Canada. The Company Number is 21320. VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011
---------------------------	--

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.



4. REQUIREMENT

LIMIT

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
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/150	30
1500-100,000	--	--	1.0	30
Note 1: f = frequency in MHz, * means Plane-wave equivalent power density				
Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.				
Note 3: The limit value 1.0mW/cm ² is available for this EUT.				

MPE CALCULATION METHOD

$$S = PG / (4\pi R^2)$$

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

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

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

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



CALCULATED RESULTS

Radio Frequency Radiation Exposure Evaluation

BLE (Worst case)				
Operating Mode	Max. Tune up Power	Max. Antenna Gain	Power density	Limit
	(dBm)	(dBi)	(mW/ cm ²)	
GFSK	8	5.53	0.00448	1

WIFI 2.4G (Worst case)				
Operating Mode	Max. Tune up Power	Max. Antenna Gain	Power density	Limit
	(dBm)	(dBi)	(mW/ cm ²)	
802.11b	19	5.53	0.05646	1

WIFI5G (Worst case)				
Operating Mode	Max. Tune up Power	Max. Antenna Gain	Power density	Limit
	(dBm)	(dBi)	(mW/ cm ²)	
802.11a	15	8.1	0.04062	1

Note:

1. The calculated distance is 20cm.
 2. BLE&WLAN 2.4G & WLAN 5G can't transmit simultaneously.
- Therefor the maximum calculations of above situations are less than the "1" limit.

END OF REPORT