

TEST REPORT

Product Name : Base Station
Model Number : SBS0A
IC : 32919-ABF
HVIN : SBS0A Matter_V0.2

Prepared for : X-Sense Innovations Co., Ltd.
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1. TEST RESULT CERTIFICATION

Applicant : X-Sense Innovations Co., Ltd.
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Manufacturer : X-Sense Electronics Co., Ltd.
Address : Room 402, Building 4, No. 9, Jinshagang 1st Road, Shixia Village, Dalang Town, Dongguan City, 523750 Guangdong, P.R. CHINA
Factory : X-Sense Electronics Co., Ltd.
Address : Room 402, Building 4, No. 9, Jinshagang 1st Road, Shixia Village, Dalang Town, Dongguan City, 523750 Guangdong, P.R. CHINA
EUT : Base Station
Model Name : SBS0A
Trademark : X-SENSE

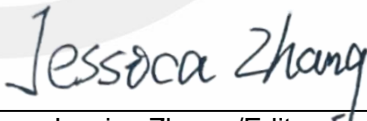
Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2020) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : July 14, 2026 to August 31, 2026

Prepared by : 
Jessica Zhang /Editor

Reviewer : 
Warren Deng /Supervisor

Approve & Authorized Signer :  
Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	ENS2511120038W01502R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Base Station
Model Number:	SBS0A (Note: The product is available in two colors, black and white. The two versions differ only in color and are identical in all other respects.)
Sample:	1#
Data Rate:	BLE: 1Mbps for GFSK modulation 2.4G WIFI: 802.11b 802.11g 802.11n(20MHz channel bandwidth) 802.11n(40MHz channel bandwidth) 802.11ax(20MHz channel bandwidth) 5G WIFI: 802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: MCS0-MCS15 802.11ac: MCS0-MCS9 802.11ax: MCS0-MCS11 LORA:FSK modulation
Modulation:	BLE: GFSK 2.4G WIFI: DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n; 5G WIFI: OFDM with BPSK/QPSK/16QAM/64QAM for 802.11a/n OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11ac OFDM with BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM for 802.11ax LORA: FSK modulation
Operating Frequency Range(s) :	2402-2480MHz for BLE; 2412-2462MHz for 2.4G WIFI 912.375MHz for LORA UNII-1: 5150MHz-5250MHz Band 5180-5240MHz for 802.11a/n(HT20)/ac(VHT20)/ax(HE20); 5190-5230MHz for 802.11n(HT40); UNII-2A: 5250MHz-5350MHz Band 5260-5320MHz for 802.11a/n(HT20)/ac(VHT20)/ax(HE20); 5270-5310MHz for 802.11n(HT40); UNII-2C: 5470MHz-5725MHz Band 5500-5700MHz for 802.11a/n(HT20)/ac(VHT20)/ax(HE20); 5510-5670MHz for 802.11n(HT40); UNII-3 with 5725MHz-5850MHz Band 5745-5825MHz for 802.11a/n(HT20)/ac(VHT20)/ax(HE20);

	5755-5795MHz for 802.11n(HT40);
Number of Channels:	40 channels for BLE; 11 channels for 2.4G WIFI
Transmit Power Max:	11.31 dBm (0.013521 W) for WiFi 2.4G; 4.34 dBm(0.002716 W) for BLE; UNII-1 Band: 9.42 dBm(0.008750 mW) UNII-2A Band: 9.54 dBm(0.008995 mW) UNII-2C Band: 6.62 dBm(0.004592 mW) UNII-3 Band: 7.37 dBm(0.005458 mW)
Antenna Gain:	3.62 dBi for BT&2.4G WIFI 5G WIFI: UNII-1: 3.07 dBi UNII-2A: 1.93 dBi UNII-2C: 3.43 dBi UNII-3: 2.80 dBi 0.75 dBi for SRD
Power supply:	Adapter: Input: 100-240V~, 0.2A MAX. Output: 5.0V $\overline{=}$ 1.0A
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of 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)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

P_d = Power density in mW/cm²

P_{out} =output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π =3.1416

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

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

4. Measurement Result

gain:	3.62	FCC MPE						
Mode	Frequency (MHz)	Output Power(dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)
BLE GFSK 1M	2402	3.45	7.07	7±1	8	6.31	0.002889	1
	2441	4.34	7.96	7±1	8	6.31	0.002889	1
	2480	3.97	7.59	7±1	8	6.31	0.002889	1
BLE GFSK 2M	2402	3.53	7.15	7±1	8	6.31	0.002889	1
	2441	4.33	7.95	7±1	8	6.31	0.002889	1
	2480	3.93	7.55	7±1	8	6.31	0.002889	1

gain:	3.62	FCC MPE						
Mode	Frequency (MHz)	Output Power(dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)
802.11b	2412	15.69	19.31	19±1	20	100.00	0.045786	1
	2437	16.37	19.99	19±1	20	100.00	0.045786	1
	2462	16.66	20.28	20±1	21	125.89	0.057641	1
802.11g	2412	15.37	18.99	18±1	19	79.43	0.036369	1
	2437	15.8	19.42	19±1	20	100.00	0.045786	1
	2462	15.68	19.3	19±1	20	100.00	0.045786	1
802.11n20	2412	14.27	17.89	17±1	18	63.10	0.028889	1
	2437	14.8	18.42	18±1	19	79.43	0.036369	1
	2462	14.91	18.53	18±1	19	79.43	0.036369	1
802.11n40	2422	13.76	17.38	17±1	18	63.10	0.028889	1
	2437	13.91	17.53	17±1	18	63.10	0.028889	1
	2452	13.95	17.57	17±1	18	63.10	0.028889	1
802.11ax20	2412	14.11	17.73	17±1	18	63.10	0.028889	1
	2437	14.5	18.12	18±1	19	79.43	0.036369	1
	2462	14.57	18.19	18±1	19	79.43	0.036369	1

gain:	5G WIFI: UNII-1: 3.07 dBi UNII-2A: 1.93 dBi UNII-2C: 3.43 dBi UNII-3: 2.80 dBi	MPE							
Mode	Frequency (MHz)	Output Power (dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
802.11a	5180	8.37	11.44	11±1	12	15.85	0.003153	1	Pass
	5200	8.76	11.83	11±1	12	15.85	0.003153	1	Pass
	5240	9.42	12.49	12±1	13	19.95	0.003969	1	Pass
	5260	9.17	11.1	11±1	12	15.85	0.003153	1	Pass
	5280	9.54	11.47	11±1	12	15.85	0.003153	1	Pass
	5320	9.09	11.02	11±1	12	15.85	0.003153	1	Pass
	5500	6.62	10.05	10±1	11	12.59	0.002505	1	Pass
	5580	5.6	9.03	9±1	10	10.00	0.001989	1	Pass
	5700	5.93	9.36	9±1	10	10.00	0.001989	1	Pass
	5745	4.31	7.11	7±1	8	6.31	0.001255	1	Pass
	5785	2.04	4.84	4±1	5	3.16	0.000629	1	Pass
	5825	2.64	5.44	5±1	6	3.98	0.000792	1	Pass
802.11n(HT20)	5180	8.17	11.24	11±1	12	15.85	0.003153	1	Pass
	5200	8.64	11.71	11±1	12	15.85	0.003153	1	Pass
	5240	9.07	12.14	12±1	13	19.95	0.003969	1	Pass
	5260	8.83	10.76	10±1	11	12.59	0.002505	1	Pass
	5280	8.74	10.67	10±1	11	12.59	0.002505	1	Pass
	5320	8.70	10.63	10±1	11	12.59	0.002505	1	Pass
	5500	6.42	9.85	9±1	10	10.00	0.001989	1	Pass

	5580	5.33	8.76	8±1	9	7.94	0.001580	1	Pass
	5700	5.75	9.18	9±1	10	10.00	0.001989	1	Pass
	5745	4.11	6.91	6±1	7	5.01	0.000997	1	Pass
	5785	1.94	4.74	4±1	5	3.16	0.000629	1	Pass
	5825	2.48	5.28	5±1	6	3.98	0.000792	1	Pass
802.11n(HT40)	5190	7.22	10.29	10±1	11	12.59	0.002505	1	Pass
	5230	8.13	11.2	11±1	12	15.85	0.003153	1	Pass
	5270	8.11	10.04	10±1	11	12.59	0.002505	1	Pass
	5310	7.89	9.82	9±1	10	10.00	0.001989	1	Pass
	5510	5.32	8.75	8±1	9	7.94	0.001580	1	Pass
	5550	4.63	8.06	8±1	9	7.94	0.001580	1	Pass
	5670	4.54	7.34	7±1	8	6.31	0.001255	1	Pass
	5755	2.93	5.73	5±1	6	3.98	0.000792	1	Pass
802.11ac(VHT20)	5180	8.16	11.23	11±1	12	15.85	0.003153	1	Pass
	5200	8.66	11.73	11±1	12	15.85	0.003153	1	Pass
	5240	9.13	12.2	12±1	13	19.95	0.003969	1	Pass
	5260	8.82	10.75	10±1	11	12.59	0.002505	1	Pass
	5280	8.51	10.44	10±1	11	12.59	0.002505	1	Pass
	5320	8.24	10.17	10±1	11	12.59	0.002505	1	Pass
	5500	6.43	9.86	9±1	10	10.00	0.001989	1	Pass
	5580	5.36	8.79	8±1	9	7.94	0.001580	1	Pass
	5700	6.14	9.57	9±1	10	10.00	0.001989	1	Pass
	5745	4.53	7.33	7±1	8	6.31	0.001255	1	Pass
	5785	2.66	5.46	5±1	6	3.98	0.000792	1	Pass
	5825	2.7	5.5	5±1	6	3.98	0.000792	1	Pass

802.11ax(HE 20)	5180	8.07	11.14	11±1	12	15.85	0.003153	1	Pass
	5200	8.48	11.55	11±1	12	15.85	0.003153	1	Pass
	5240	9.06	12.13	12±1	13	19.95	0.003969	1	Pass
	5260	8.36	10.29	10±1	11	12.59	0.002505	1	Pass
	5280	8.56	10.49	10±1	11	12.59	0.002505	1	Pass
	5320	8.42	10.35	10±1	11	12.59	0.002505	1	Pass
	5500	6.43	9.86	9±1	10	10.00	0.001989	1	Pass
	5580	5.39	8.82	8±1	9	7.94	0.001580	1	Pass
	5700	5.96	9.39	9±1	10	10.00	0.001989	1	Pass
	5745	4.42	7.22	7±1	8	6.31	0.001255	1	Pass
	5785	7.37	10.17	10±1	11	12.59	0.002505	1	Pass
	5825	7.07	9.87	9±1	10	10.00	0.001989	1	Pass

According to ANSI C63.10-2020

9.5 Equations to calculate EIRP

Calculate the EIRP from the radiated field strength in the far field using Equation (22):

$$\text{EIRP} = E + 20\log(d) - 104.7 \quad (22)$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E is the field strength of the emission at the measurement distance, in dBμV/m

d is the measurement distance, in m

912.375MHzMHz SRD

FCC MPE

Gain(dBi)	0.75	Gain(num)	1					
Channel Freq. (MHz)	Max Field Strength (dBuV/m)	peak output power (dBm)	Tune upPower (dBm)	Max tune up power(dBm)	Max tune up power(mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
912.375	95.32	0.91	0±1	1	1.25892541	0.00361122	1	PASS

According to KDB 447498, no stand-alone required for antenna, and no simultaneous SAR measurement

*** End of Report ***

