

RF EXPOSURE Test Report

Product: SmartDrive Media Screen

Trade Mark: N/A

Model Number: SG25-NBT

FCC ID: 2BVQ8-SG25NBT

Prepared for

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Prepared by

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TEST RESULT CERTIFICATION

Applicant's Name..... : Shenzhen Yizhi Changlian Technology Co., Ltd.
Room 205A, 2nd Floor, Liangji Building, Donghuan 1st Road,
Address : Fukang Community, Longhua Street, Longhua District,
Shenzhen
Manufacturer's Name : Shenzhen Yizhi Changlian Technology Co., Ltd.
Room 205A, 2nd Floor, Liangji Building, Donghuan 1st Road,
Address : Fukang Community, Longhua Street, Longhua District,
Shenzhen

Product description

Product name : SmartDrive Media Screen

Model Number : SG25-NBT

Standards : FCC CFR 47 PART 1 , 1.1310

Test procedure..... : KDB 447498 D01 General RF Exposure Guidance v06

This device described above has been tested by Shenzhen HongBiao Certification& Testing Co., Ltd and the test results show that the equipment under test (EUT) is in compliance with the EMC requirements. And it is applicable only to the tested sample identified in the report.

Date of Test..... :

Date (s) of performance of tests..... : Jan. 20, 2026~Apr. 22, 2026

Test Result..... : **Pass**

Testing Engineer :

Zoe Su

(Z o e S u)

Technical Manager :

Gary Lu

(G a r y L u)

Authorized Signatory :

Leo Su

(L e o S u)

[illegible]

1 General Description

1.1 Description of EUT

Product name:	SmartDrive Media Screen
Model name:	SG25-NBT
Series Model:	SG25-CCC, SG25-CIC, SG25-EVO, SG25-Q5H, SG25-Q5L, SG25-Q7, SG25-MQB, SG25-4X, SG25-5X, SG25-4.0, SG25-3X, SG25-LEX, SG25-LEX-V, SG25-LRB, SG25-LRH, SG25-VOL, SG25-PND
Different of series model:	The circuitry and modules are identical across all models; only the appearance, model numbers, and the shapes of the accessories, cables, and connectors differ.
Operation frequency:	BLE: 2402-2480MHz BR&EDR: 2402-2480MHz 2.4GHz WIFI: 802.11b/g/n20: 2412-2462MHz 802.11n40: 2422-2452MHz 5GHz WIFI: 5745-5825MHz
Modulation type:	BLE: GFSK BR&EDR: GFSK, $\pi/4$ -DQPSK, 8DPSK 2.4GHz WIFI: IEEE 802.11b: DSSS (DBPSK, DQPSK, CCK) IEEE 802.11g/n (HT20/HT40): OFDM (64QAM, 16QAM, QPSK, BPSK) 5GHz WIFI: 802.11a/n/ac: OFDM(BPSK,QPSK,16QAM,64QAM,256QAM)
Bit Rate of transmitter:	BLE: 1 Mbps, 2Mbps BR&EDR: 1 Mbps, 2Mbps, 3Mbps 2.4GHz WIFI: 802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n(20MHz) use 800 ns GI: 65.0/58.5/52.0/39.0/26.0/19.5/13.0/6.5 Mbps (MCS0~MCS7) 802.11n(40MHz) use 800 ns GI: 13.5/27/40.5/54/81/108/121.5/135Mbps (MCS0~MCS7) 5GHz WIFI: 802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n (20MHz): MCS0-7, up to 150Mbps 802.11n (40MHz): MCS0-7, up to 300Mbps 802.11ac (20MHz): MCS0-8, up to 86.7Mbps 802.11ac (40MHz): MCS0-9, up to 200Mbps
Antenna type:	External Antenna
Antenna gain:	BLE: 3.55dBi BR&EDR: 3.55dBi 2.4GHz WIFI: 1.48dBi

	5GHz WIFI: 6.04dBi
Max. output power:	BLE: 3.27dBm BR&EDR: 0.95dBm 2.4GHz WIFI: 16.92dBm 5GHz WIFI: 17.16dBm
Hardware version:	V1.0
Software version:	V1.0
Battery:	N/A
Power supply:	DC 12V from battery
Adapter information:	N/A

1.2 Test Mode

Pretest Test Mode	Description of Mode
1	TX
2	/
3	/

1.3 Test Setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.4 Ancillary Equipment

Equipment	Model	S/N	Manufacturer
/	/	/	/

2 Test Facilities and Accreditations

2.1 Test Laboratory

Test Site	Shenzhen HongBiao Certification& Testing Co., Ltd
Test Site Location	Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen, China
Telephone:	(86-755) 2998 9321
Fax:	(86-755) 2998 5110
FCC Registration No.:	CN1341
A2LA Certificate No.:	6765.01

2.2 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C~35°C
Relative Humidity:	20%~75%
Air Pressure:	98kPa~101kPa

2.3 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

The data and results quoted in this document are true and accurate values, and uncertainties are not involved in the calculations.

In addition, components and mass production processes that are similar to testing equipment may introduce additional deviations, and the manufacturer is solely responsible for the continued compliance of the equipment.

Measurement Frequency Range	U, (dB)	Note
RF frequency	2×10^{-5}	
RF power, conducted	± 0.57 dB	
Temperature	± 1 degree	
Humidity	± 5 %	

2.4 Test Software

Software name	Manufacturer	Model	Version
RF Test System	MWRF	MTS 8310	V2.0.0.0

3 List of Test Equipment

RF							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	HB-E041	MXG Anaio Signal Generator	Agilent	N5181A	MY47070421	2025-05-07	2026-05-06
2	HB-E042	WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW500	132108	2025-05-08	2026-05-07
3	HB-E043	MXG Anaio Signal Generator	Agilent	N5182A	US46240335	2025-05-08	2026-05-07
4	HB-E044	Signal & spectrum Analyzer	R&S	FSV3044	101264	2025-05-07	2026-05-06
5	HB-E045	RF Control Box	Noyetec	NY100-R FCB	N/A	2025-05-08	2026-05-07
6	HB-E058	Thermometer Clock Humidity Monitor	N/A	HTC-1S	N/A	2025-05-09	2026-05-08

Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

4 RF Exposure

4.1 Standalone SAR test exclusion considerations

4.1.1. Limit

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).

Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			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/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

MPE Calculation Method

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 = 3.1415926

R = distance between observation point and center of the radiator in cm (20cm)

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.

4.1.2. Test Result

BLE:

Operation Frequency: 2402-2480MHz

Antenna Type: External Antenna

Power density limited: 1mW/ cm²

BR&EDR:

Operation Frequency: 2402-2480MHz

Antenna Type: External Antenna;

Power density limited: 1mW/ cm²

2.4GHz WIFI:

Operation Frequency:

802.11b/g/n20: 2412-2462MHz

802.11n40: 2422-2452MHz

Antenna Type: External Antenna

Power density limited: 1mW/ cm²

5GHz WIFI:

Operation Frequency: 5745-5825MHz

Antenna Type: External Antenna

R=20cm

mW=10^{^(dBm/10)}

BLE: Antenna gain Numeric=10^{^(dBi/10)}= 10^{^(3.55/10)}=2.26

BR&EDR: Antenna gain Numeric=10^{^(dBi/10)}= 10^{^(3.55/10)}=2.26

2.4GHz WIFI: Antenna gain Numeric=10^{^(dBi/10)}= 10^{^(1.48/10)}=1.41

5GHz WIFI: Antenna gain Numeric=10^{^(dBi/10)}= 10^{^(6.04/10)}=4.02

BLE(Worst):

Chann el Freq. (MHz)	modulation	conduct ed power	Tune-u p power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain			
				(dBm)	(dBm)	(mW)	(dBi)	Nu meric	(mW/cm ²)
2440	GFSK(2M)	3.27	3±1	4	2.512	3.55	2.26	0.0011	1

BR&EDR(Worst):

Chann el Freq. (MHz)	modulation	conduct ed power	Tune-u p power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain			
				(dBm)	(mW)	(dBi)	Nu meric		
2441	8DPSK	0.95	0±1	1	1.259	3.55	2.26	0.0006	1

2.4GHz WIFI(Worst):

Channel Freq. (MHz)	modulation	conducted power	Tune-up power	Max		Antenna		Evaluation result at 20cm	Power density Limits
		(dBm)	(dBm)	tune-up power		Gain		Power density (mW/cm²)	(mW/cm²)
				(dBm)	(mW)	(dBi)	Numeric		
2462	802.11g	16.92	17±1	18	63.096	1.48	1.41	0.0176	1

5GHz WIFI(Worst):

Freque ncy (MHz)	Modulation	condu cted power	Tune-u p power	Max		Antenna		Evaluatio n result at 20cm	Power density Limits
		(dBm)	(dBm)	tune-up power		Gain		Power density (mW/cm²)	(mW/cm²)
				(dBm)	(mW)	(dBi)	Num eric		
5795	802.11 ac40	17.16	16±1	17	50.119	1.48	6.04	0.0602	1

Simultaneous transmit:

NO	Configurations	Maximum MPE Value				Limits (mW/cm ²)
		BLE (mW/cm ²)	BR&EDR (mW/cm ²)	2.4GHz WIFI (mW/cm ²)	Transmit simultaneously	
1	BLE + BR&EDR + 2.4GHz WIFI	0.0011	0.0006	0.0176	0.0193	1

NO	Configurations	Maximum MPE Value				Limits (mW/cm ²)
		BLE (mW/cm ²)	BR&EDR (mW/cm ²)	5GHz WIFI (mW/cm ²)	Transmit simultaneously	
1	BLE + BR&EDR + 5GHz WIFI	0.0011	0.0006	0.0602	0.0619	1

Note:

According to KDB 447498 D01 General RF Exposure Guidance v06, At the transmit simultaneously calculation method is as follows:

Transmit simultaneously MPE = Σ of MPE ratios

MPE ratios = Field strengths or power density / MPE limit at the test frequency

For the max result: $0.0619 \leq 1.0$ SAR, No SAR is required.

***** END OF REPORT *****