Shenzhen Xiangboyi Technology Co. Ltd

Antenna Specification

Customer	SunBoBoDigital Co.Ltd
M/N	**E90A12SANT**
Project NO	XBY210643

Date：2023/7/18

Shenzhen Xiangboyi Technology Co. Ltd
Tel: (+86)0755-29369912 Fax: (+86)0755-61624200
R & D Center: 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.
Production Base: 5 / F, building B, Huazhi chuanggu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

Sample paste

Customer confirmation			
Engineer	**PM**	**Quality**	**Approval**

Supplier confirmation			
ME	**RF**	**Examine**	**Approval**

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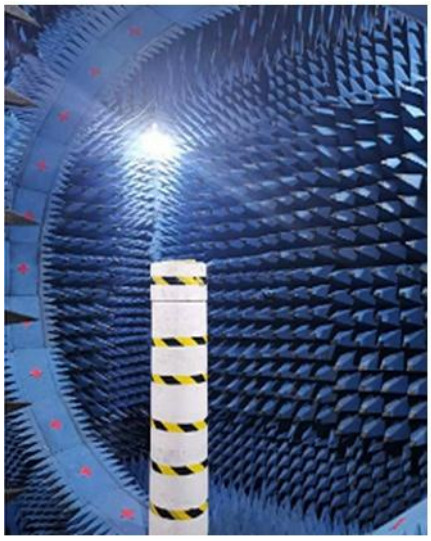
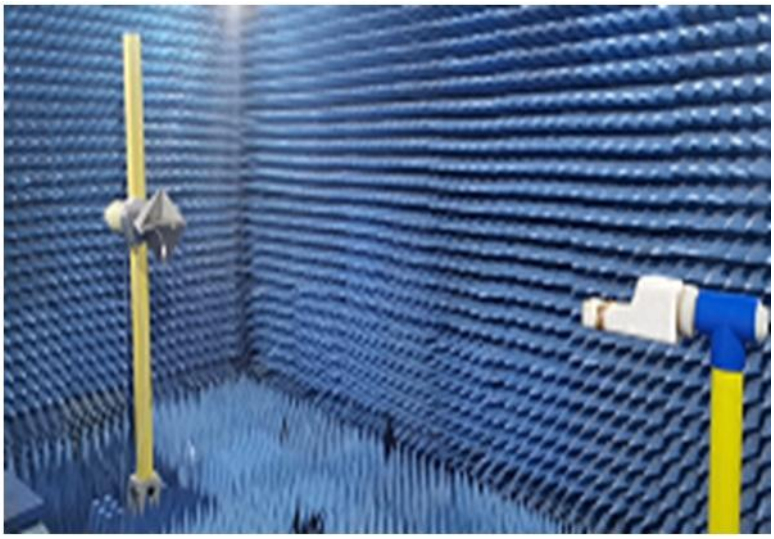
1 Test System and Equipment

	Test items	equipment
1：S parameter	1. Return loss 2. VSWR	Network analyzer: A338/A333/HP8753D
2：Active test	1. Transmitting power 2. Receiving sensitivity	Comprehensive test instrument: Agilent 8960/ CMW500
3： Radiation mode and gain	1. Radiation mode 2. Gain	1. Shielding room：7x4x3 m (ETS-3D) 2. Network analyzer：HP 8753D





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2 Product Description

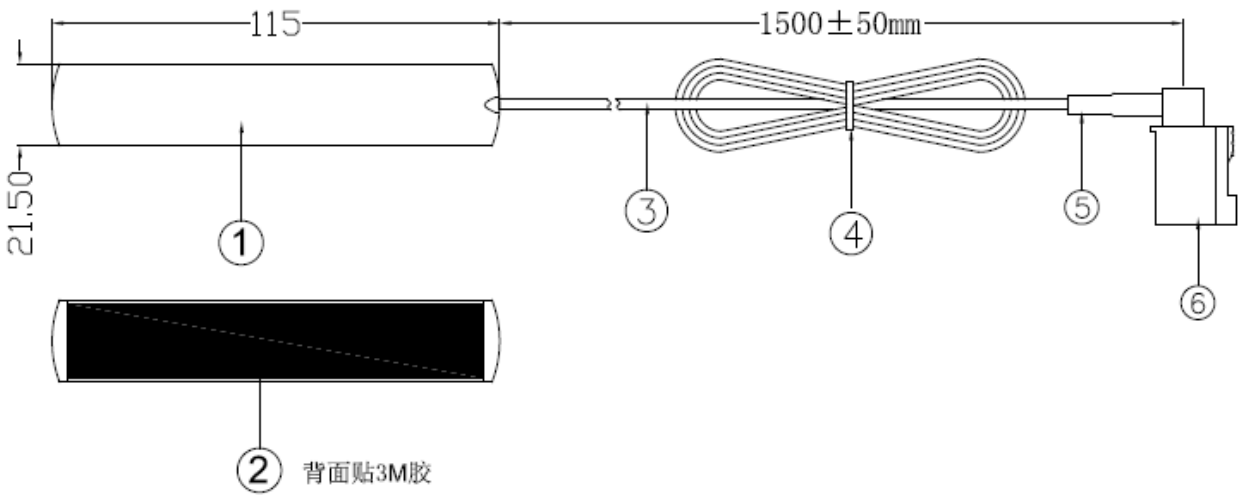
Technical requirements	Technical index	Remarks
Band	WIFI:5G	
Range Of Frequency	5180-5850Mhz	
VSWR	5180-5850Mhz<2.0	Center Frequency
Impendance	50Ω	
Polarization	Linear polarization	
operating temperature	-32℃ / +55℃	
storage temperature	-55℃ / +85℃	
Salt Fog	24h(24h alterning wet & dry)	
RoHS Compliant	yes	

3 Device Description

The whole machine photo

Not available

Antenna photo



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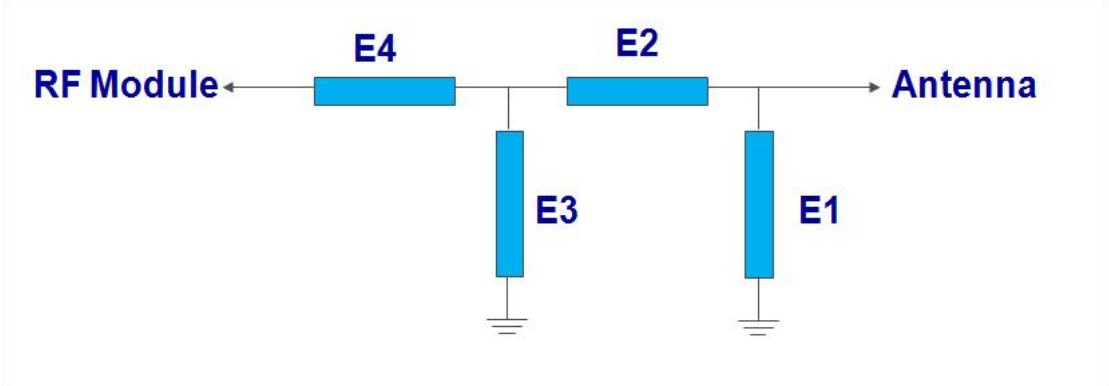
4 Matching Circuits



Element	Value	Vender
E1(0402)	NA	
E2(0402)	0Ω	
E3(0402)	NA	
E4(0402)	0Ω	

Original match unchanged.

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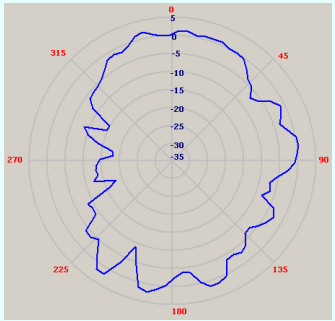
- **Radiation Patterns – 5150 MHz**

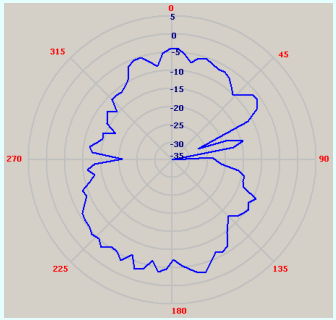
horizontal

xy-plane



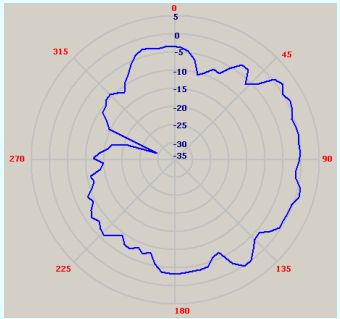
Pol.	Peak	avg.
h	+2.1	-2.4

yz-plane



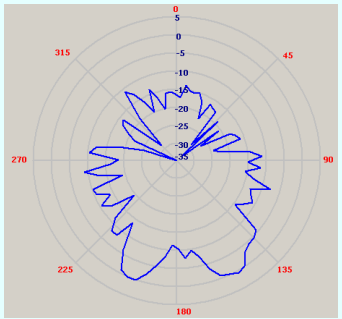
Pol.	peak	avg.
h	-2.6	-7.7

xz-plane

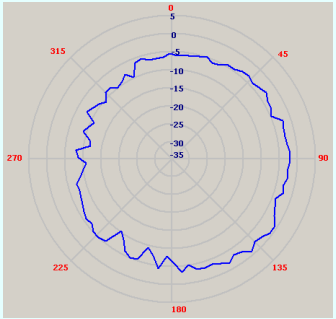


Pol.	peak	avg.
h	+1.3	-4.0

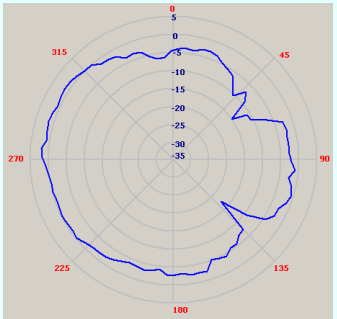
vertical



Pol.	peak	avg.
v	+0.4	-8.5



Pol.	peak	avg.
v	-0.8	-5.0

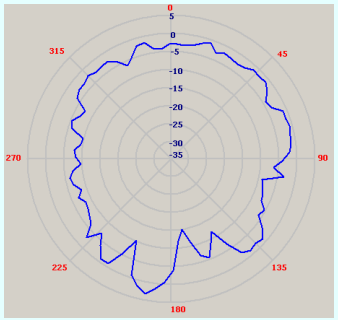


Pol.	peak	avg.
v	+1.7	-2.4

- **Radiation Patterns – 5500 MHz**

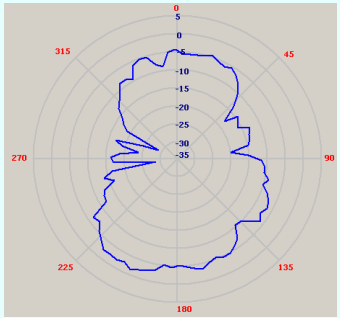
horizontal

xy-plane



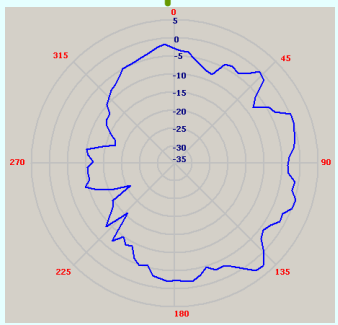
Pol.	Peak	avg.
h	+3.1	-3.6

yz-plane



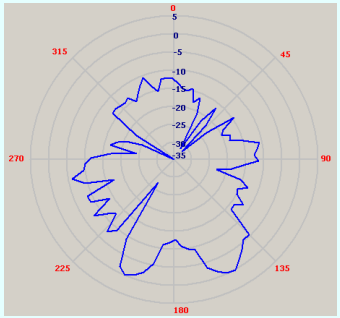
Pol.	peak	avg.
h	-1.6	-7.3

xz-plane

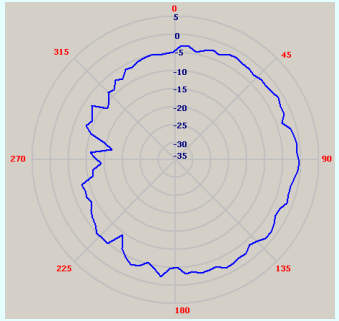


Pol.	peak	avg.
h	+2.6	-4.0

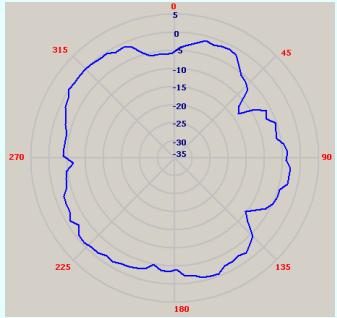
vertical



Pol.	peak	avg.
v	-0.1	-8.9



Pol.	peak	avg.
v	-0.6	-4.1

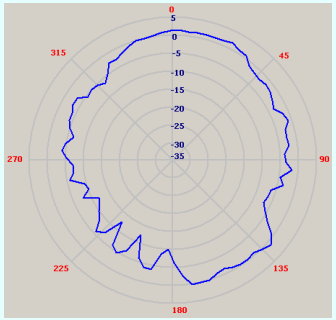


Pol.	peak	avg.
v	-0.1	-3.1

- **Radiation Patterns – 5850 MHz**

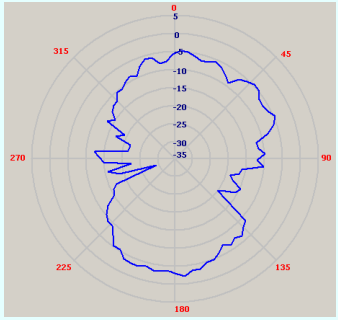
horizontal

xy-plane



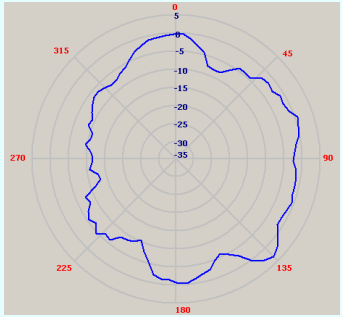
Pol.	Peak	avg.
h	+1.5	-2.5

yz-plane



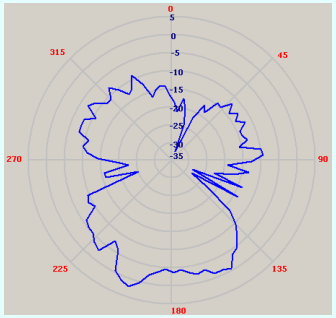
Pol.	peak	avg.
h	-2.3	-7.7

xz-plane

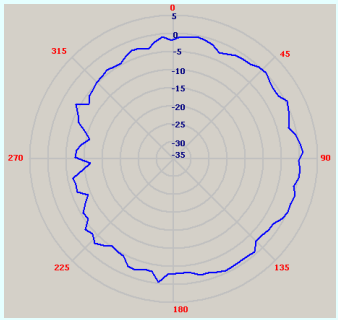


Pol.	peak	avg.
h	+3.1	-3.2

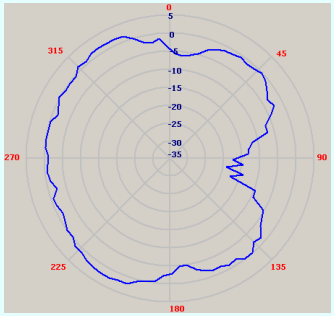
vertical



Pol.	peak	avg.
v	+2.1	-7.2



Pol.	peak	avg.
v	+0.9	-2.5

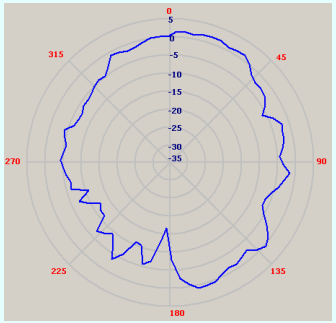


Pol.	peak	avg.
v	+2.2	-1.5

- **Radiation Patterns – 5925 MHz**

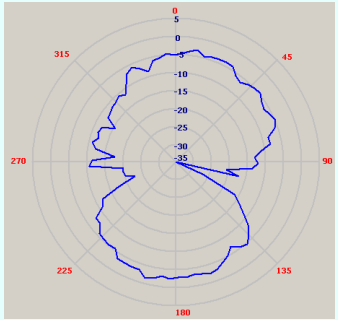
horizontal

xy-plane



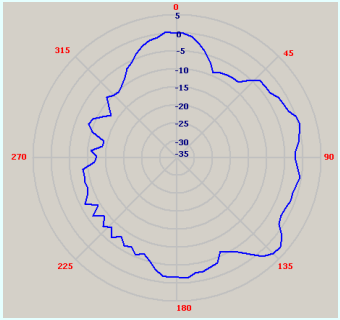
Pol.	Peak	avg.
h	+1.5	-2.8

yz-plane



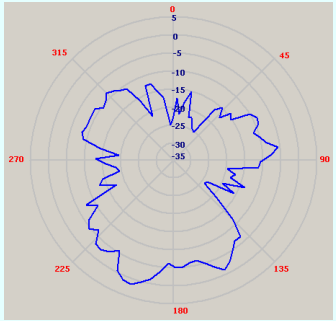
Pol.	peak	avg.
h	-1.6	-6.6

xz-plane

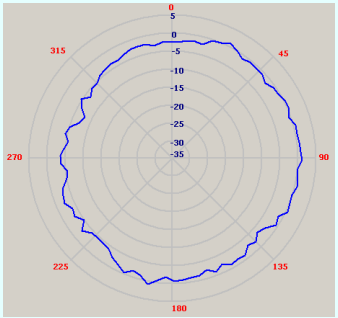


Pol.	peak	avg.
h	+2.9	-3.5

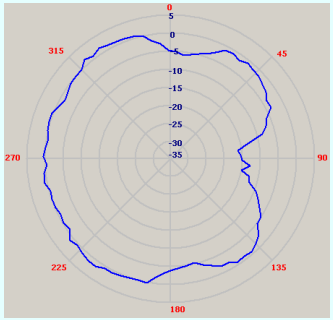
vertical



Pol.	peak	avg.
v	+1.3	-7.6



Pol.	peak	avg.
v	+1.0	-1.9



Pol.	peak	avg.
v	+1.4	-1.7

- **Antenna Gain Table**

Frequency (MHz)	Peak gain (dBi)
5150	+2.1
5500	+3.1
5850	+3.1
5925	+2.9