

Shenzhen Xiangboyi Technology Co. Ltd

Antenna Specification

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

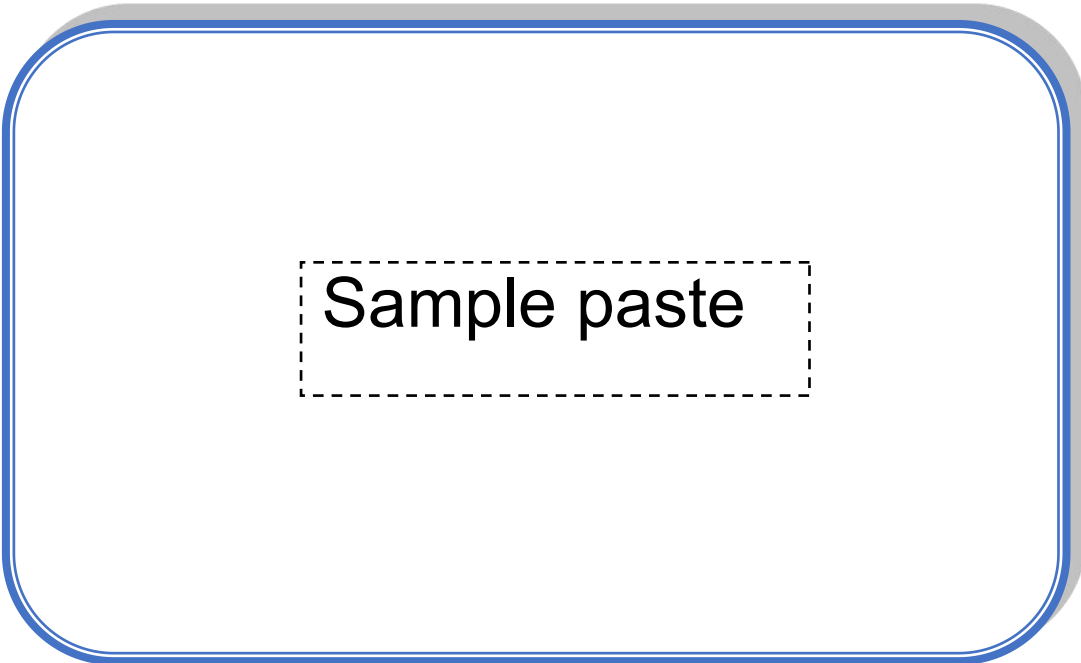
Shenzhen Xiangboyi Technology Co. Ltd

Date: 2023/7/18

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Sample paste

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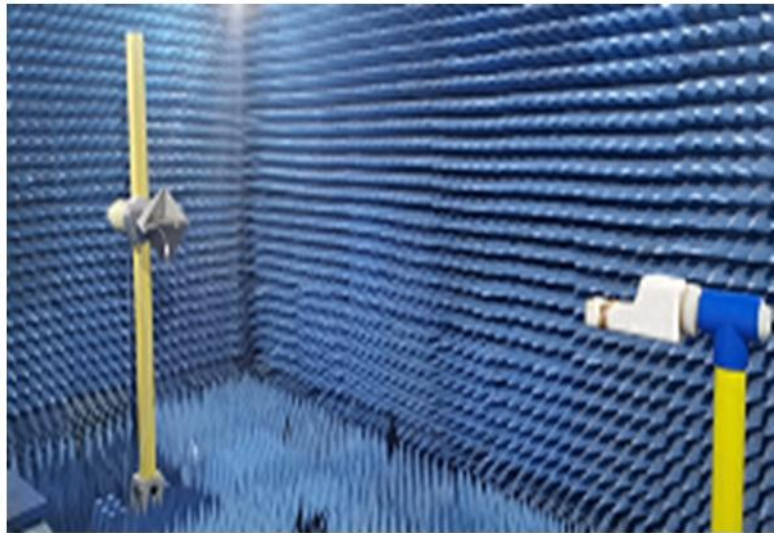
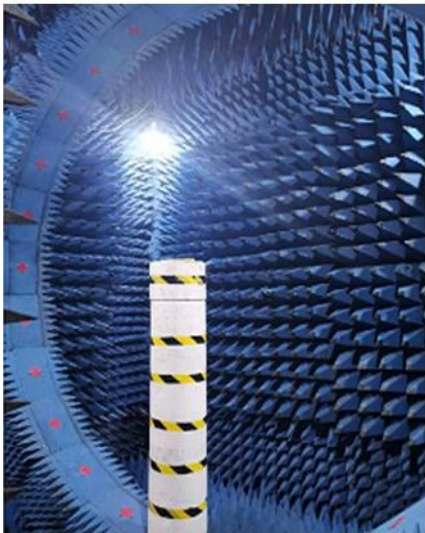
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1 Test System and Equipment

	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:2.4G/5G BT:2.4G	
Range Of Frequency	2400-2500Mhz; 5180-5850Mhz	
VSWR	2400-2500Mhz<2.0 5180-5850Mhz<2.0	Center Frequency
Impedance	50Ω	
Polarization	Linear polarization	
operating temperature	-32℃ / +55℃	
storage temperature	-55℃ / +85℃	
Salt Fog	24h(24h alternating wet & dry)	
RoHS Compliant	yes	

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3 Device Description

The whole machine photo

Not available

Antenna photo



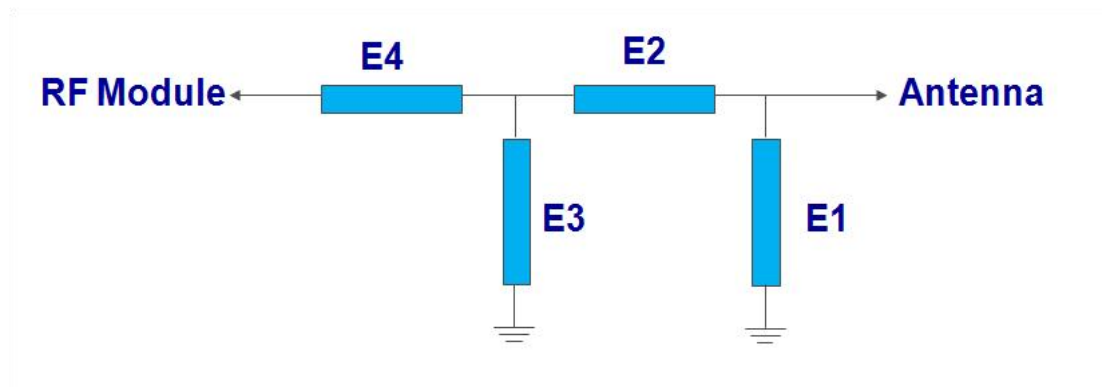
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4 Matching Circuits



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

Original match unchanged.

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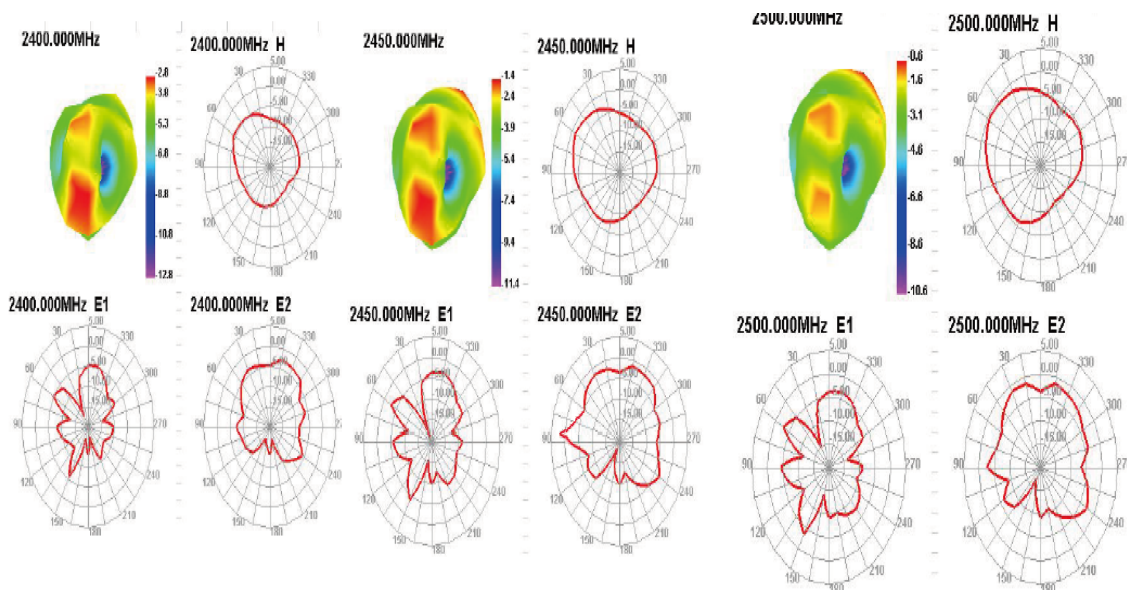
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5 Test Data

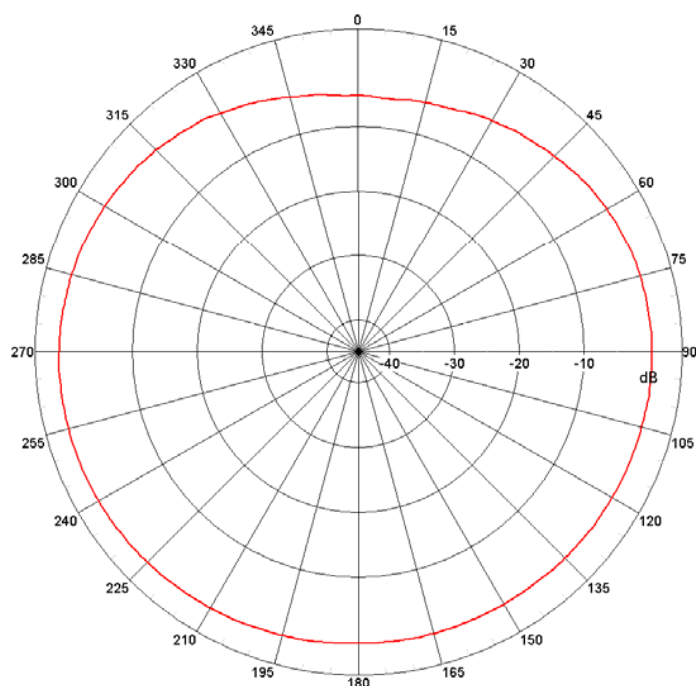
Passive Test For WIFI2.4

Freq (MHz)	Effi (%)	Gain (dBi)
2400	15.98	-2.84
2410	16.08	-1.74
2420	17.29	-1.94
2430	15.24	-2.01
2440	16.11	-1.43
2450	18.36	1.00
2460	15.19	-1.56
2470	16.24	-1.19
2480	17.81	-0.82
2490	15.26	-0.73
2500	16.92	-0.63

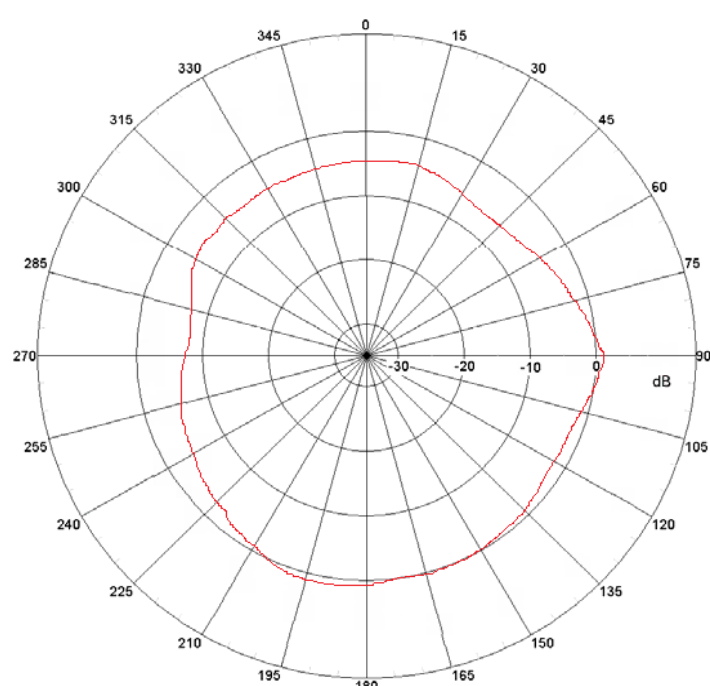


Frequency(MHz)	5150	5208	5325	5383	5441	5500	5675	5791	5850
Gain(dBi)	0	2.00	-1.15	-0.30	-1.89	-1.67	-1.3	2.00	-2.17

Plot Peak Gain(H+V)= 0 dBi;
Plot AvgGain(H+V)=-0.50dBi @5150MHz



Plot Peak Gain(H+V)= 2.00 dBi;
Plot AvgGain(H+V)=1.73dBi @5208MHz



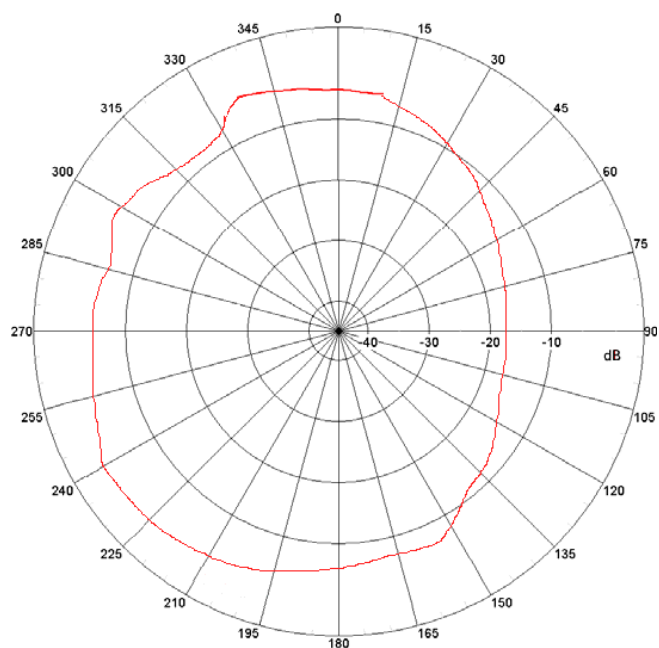
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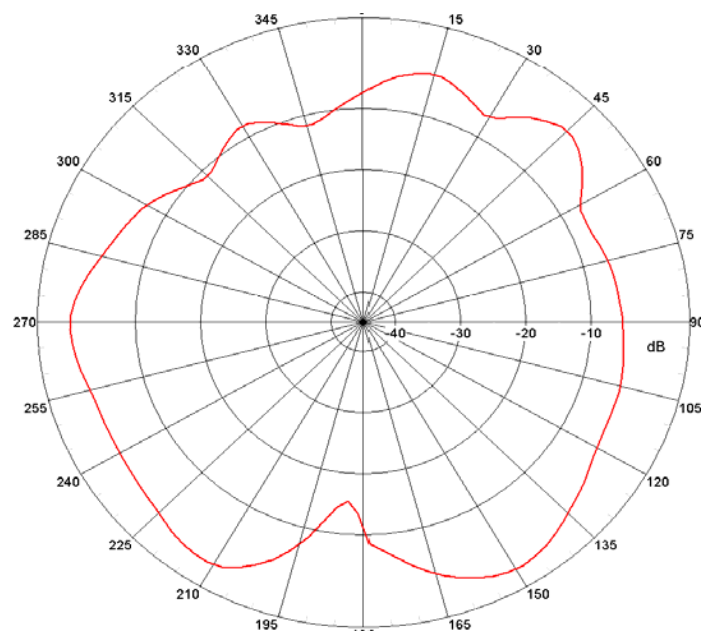
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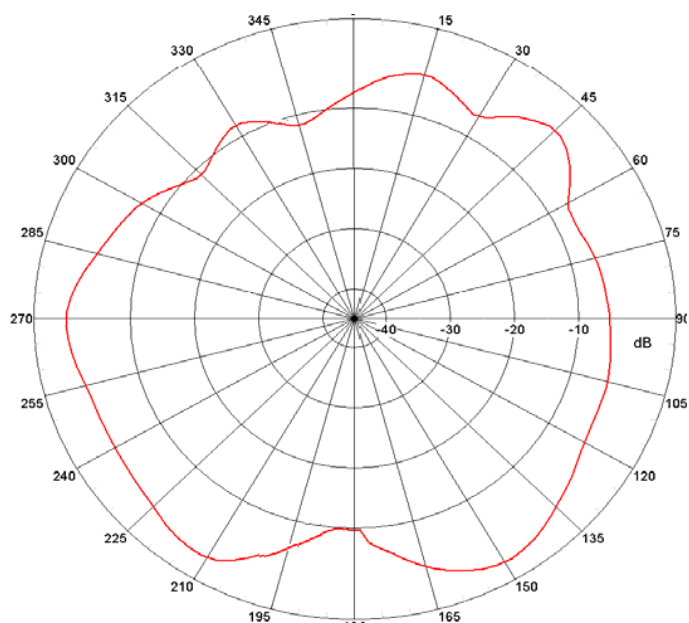
Plot Peak Gain(H+V)= -1.15 dBi;
Plot AvgGain(H+V)=-1.14dBi @5325MHz



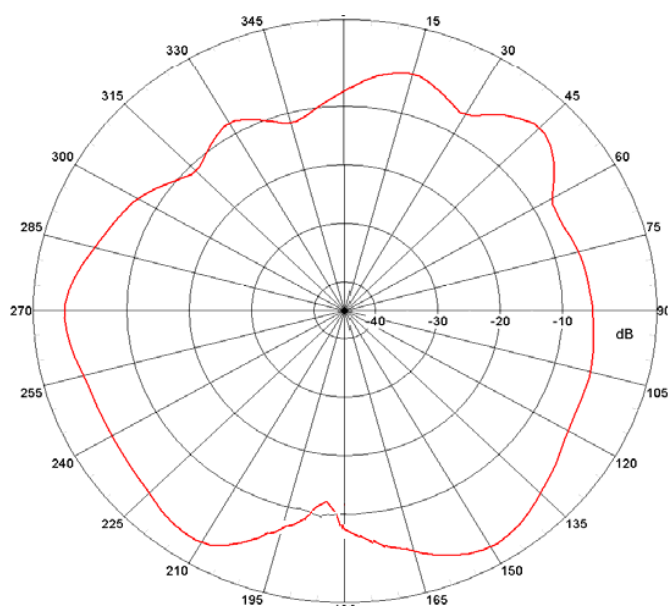
Plot Peak Gain(H+V)=-0.30 dBi;
Plot AvgGain(H+V)=-0.90dBi @5383MHz



Plot Peak Gain(H+V)=-1.89 dBi;
Plot AvgGain(H+V)=-2.54dBi @5441MHz



Plot Peak Gain(H+V)=-1.67 dBi;
Plot AvgGain(H+V)=-2.68dBi @5500MHz



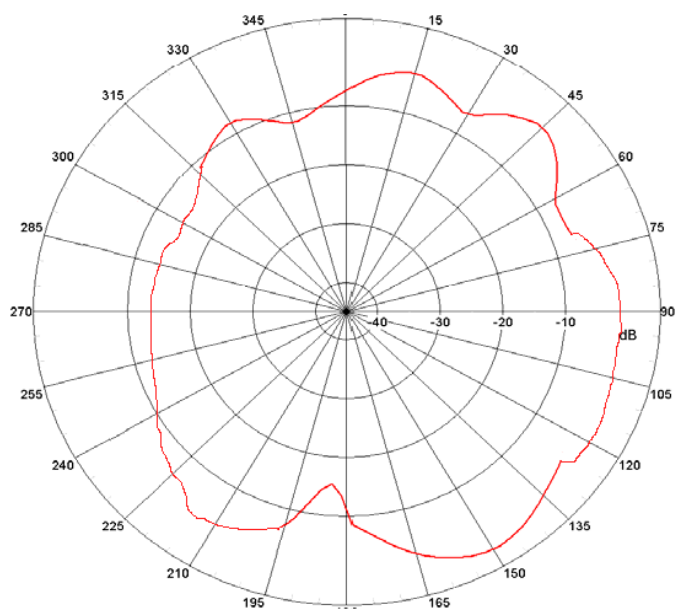
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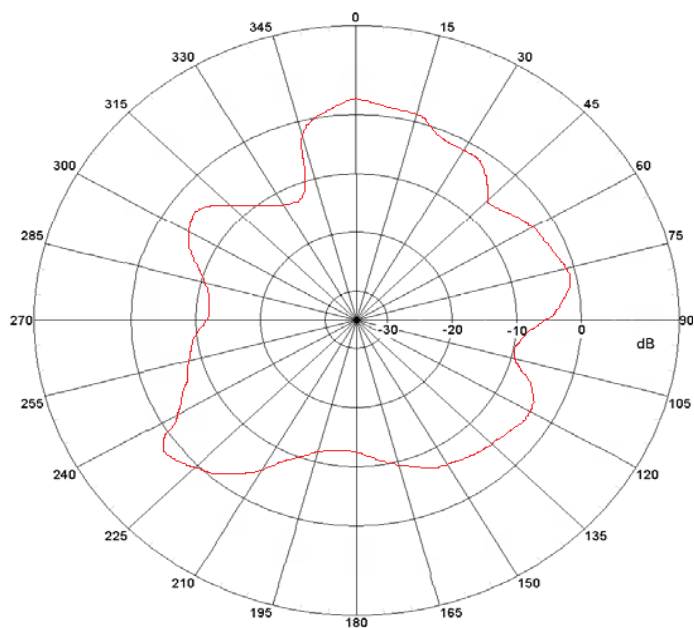
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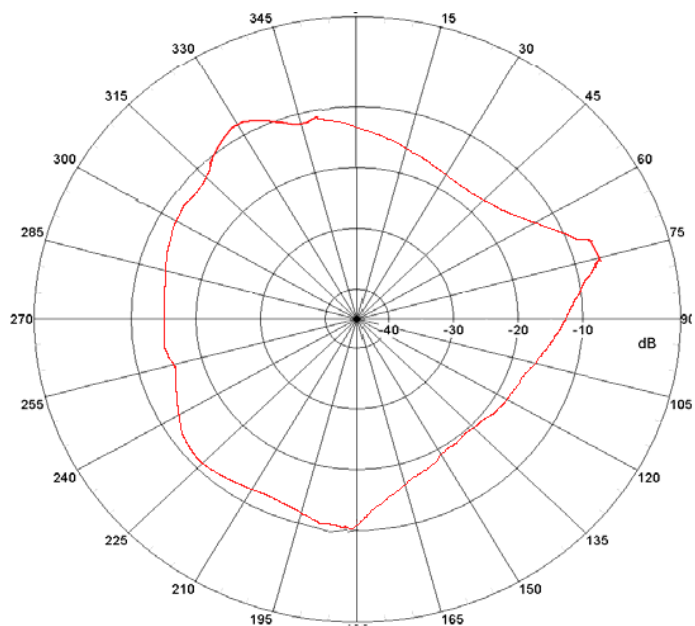
Plot Peak Gain(H+V)=-1.3 dBi;
Plot AvgGain(H+V)=-2.70dBi @5675MHz)



Plot Peak Gain(H+V)=2.00 dBi;
Plot AvgGain(H+V)=1.38dBi @5791MHz)



Plot Peak Gain(H+V)=-2.17 dBi;
Plot AvgGain(H+V)=-3.32dBi @5850MHz)



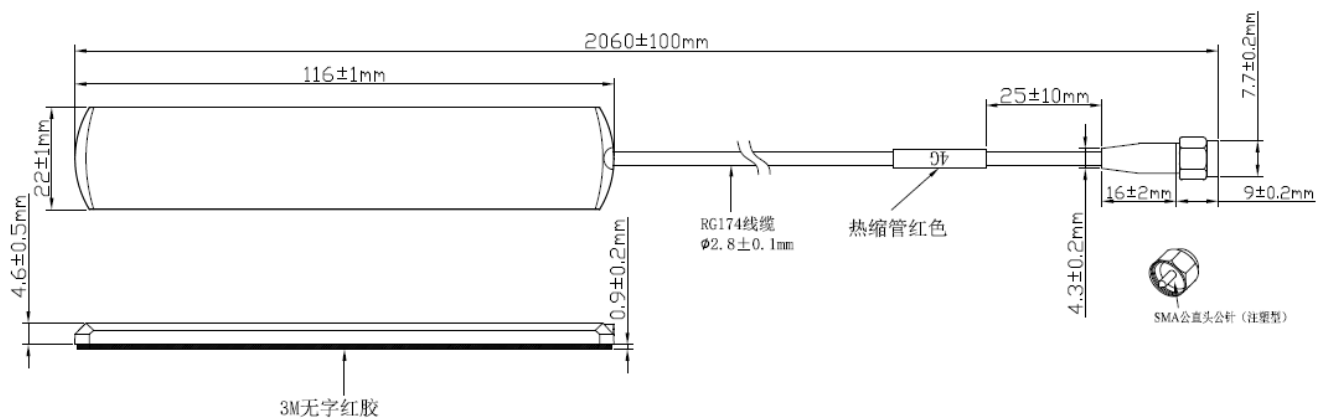
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6 Engineering Drawing



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