

GPS® 東莞市亨松電子科技有限公司

Dongguan Hengxin Electronic Technology Co., Ltd.

customer	
name	2.4G/5.8G Antenna
P/N :	HX-T03-FAKRA1500
customer P/N:	
DATE:	2020. 02. 13

地址：東莞市沙田鎮楊公洲楊和路75號

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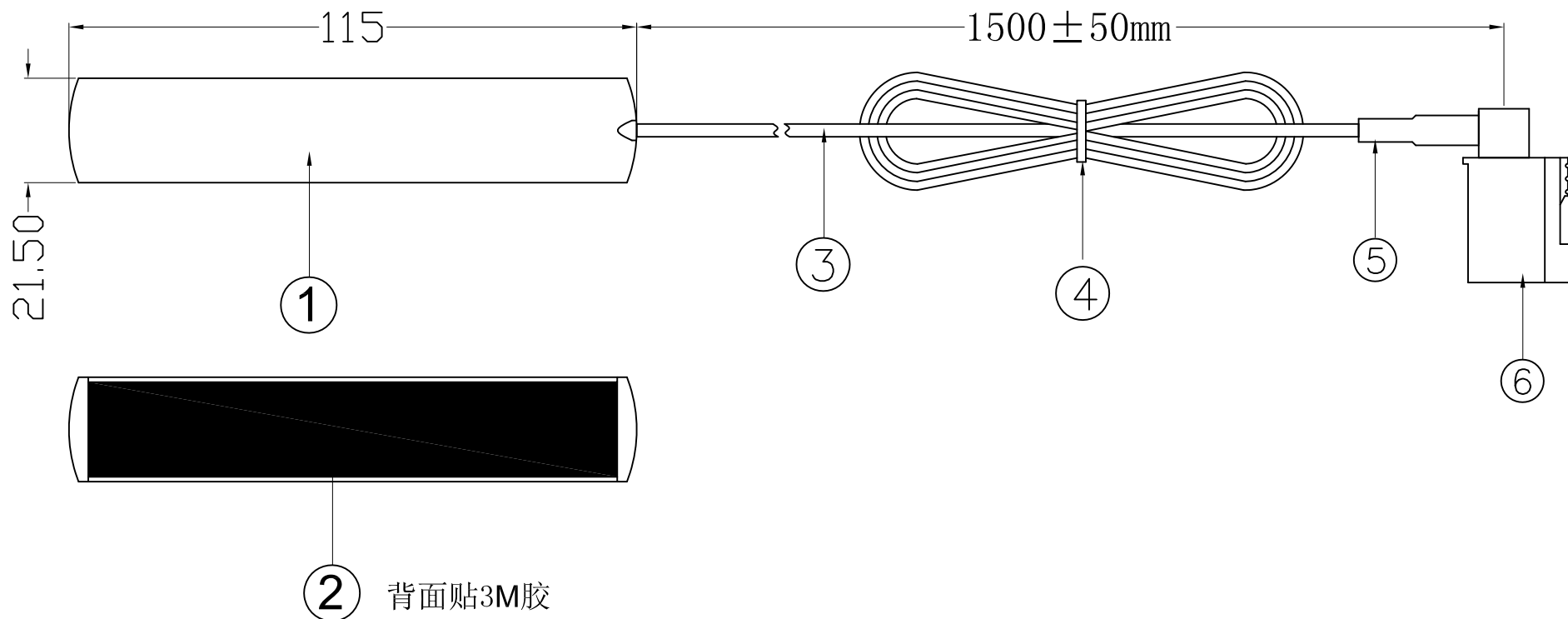
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RoHS
Compatible

序号	日期	原因	确认人
B			
C			
D			



6	HX-FAKRA-09	FAKRA Male M	Brass	90°Right Angle	1
5	HX-RSTG-01	Heat Shrink Tube	PVC	ø8*20.0mm	1
4	HX-Bundle-01	Bundle	PET	L=100mm	1
3	HX-RG-174	Coaxial Cable	RG174	L=1500mm	1
2	HX-3M-01	Tape	3M	RED L115*W21.5*1.0T	1
1	HX-SJ11521-01	Plastic Body	ABS	Black	1
No.	Part Number	Name	Material	Finished	Q'ty

东莞市亨松电子科技有限公司

PART NAME: 2.4G Antenna

PART NO.: HX-T03-FAKRA1500 .W01 DATE: 2017-06-17

APPROVED BY	CHECKED BY	DESIGNED BY		Tolerance
		张雅军	UNITS: mm	X.X ±0.50
			SCALE: 1/1	X.XX±0.15
			REVISION:A	X° ±3°

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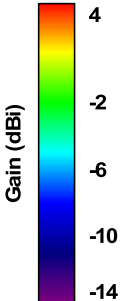
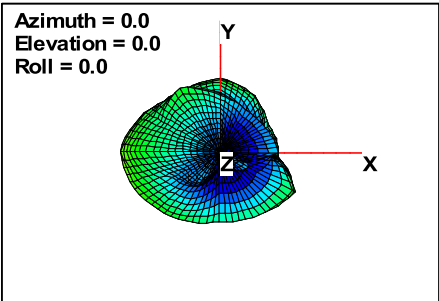
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1. Reliability Testing

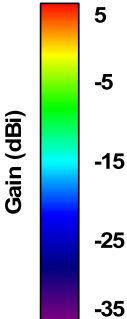
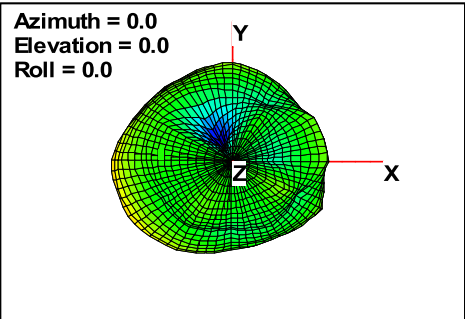
Test Item	Procedure	Requirement
1. Visual inspection and Dimension Check	Applicable methods using x5 magnification	follow specification
2. Rapid Changing of Temperature	-40°C (30minutes) to 90°C (30minutes); 24 cycles	After 2 hours recovery: 1. no visible damage 2. Freq. Tol.: < ±5%
3. Damp Heat	24 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. Freq. Tol. : < ±5%
4. Endurance	24 hours at 90°C	After 2 hours recovery: 1. no visible damage 2. Freq Tol.: < ±5%

Total	Point Value	Ant. Port	In Tot. Rad. P	Peak EIRP	Directivity (Efficiency (ρ	Efficiency (Gain (dBi)
	Frequency (MHz)					
	2400	0	-3.21025	1.55244	5.76269	-3.21025 36.7502 1.86244
	2450	0	-4.05822	1.6651	6.72331	-4.05822 36.2806 1.8651
	2500	0	-1.79753	3.7692	6.56674	-2.79753 78.9102 1.9701

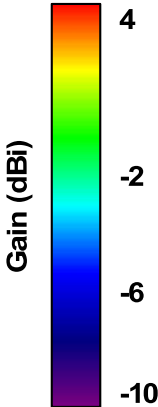
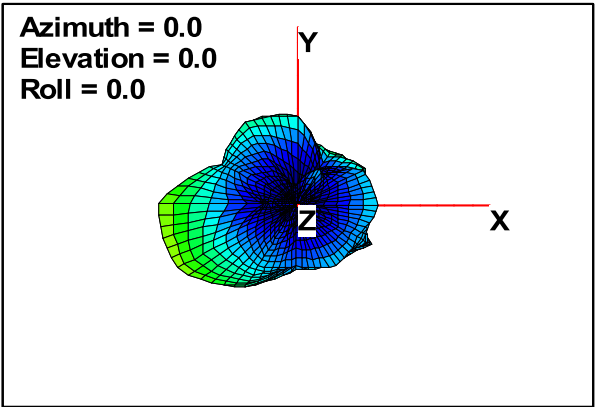
2.4G



2.45G

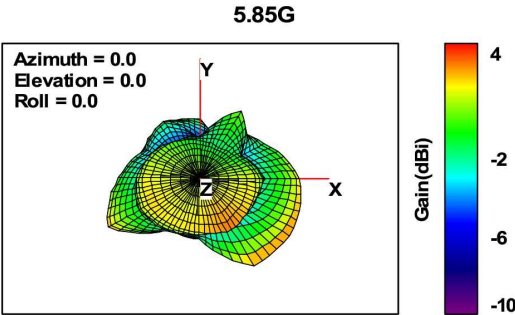


2.5G



Total Point Value Ant. Port In Tot. Rad. Peak EIRP Directivity (dBi) Efficiency (d Efficiency (%) Gain (dBi)
Frequency (MHz)

5850 0 -1.3441 3.24529 4.58942 -1.34413 73.3815 2.24529



Test Result : & Peak Gain

Frequency Range(MHZ)	2400	2450	2500	5850	
Gain (dBi)	1.86244	1.8651	1.9701	2.24529	

4. Antenna Radiation Pattern

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

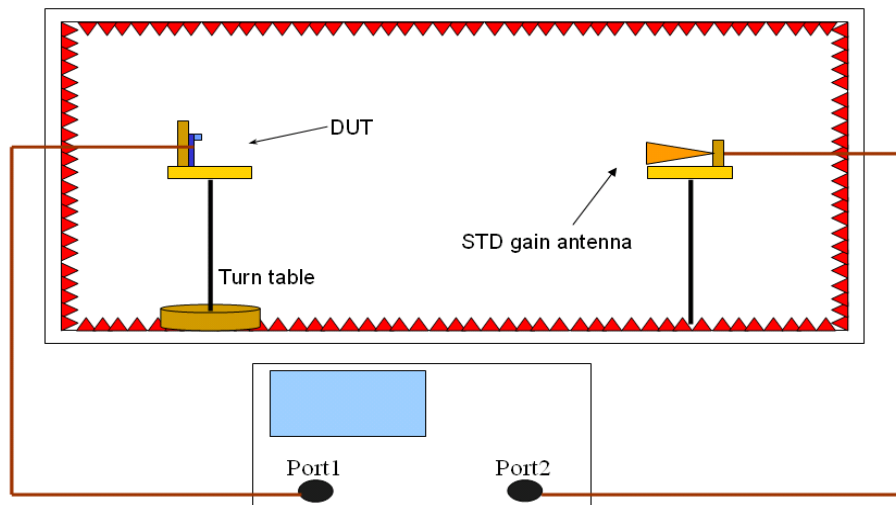
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

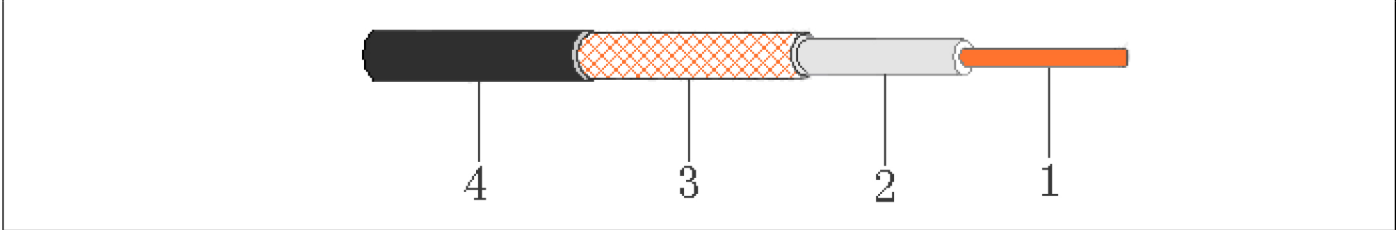
Double Ridged Horn Antenna



产品技术数据 Technical data of product

电缆名称 Name of cable	实芯聚乙烯绝缘同轴电缆 Solid polyethylene insulated coaxial cables		
电缆型号 Type of cable	RG174	执行标准 Standard	MIL-C-17

一、产品结构图 Structure diagram of product



二、产品规格尺寸 Size of product

序号 No.	项目 Item	结构 Structure	材质 Material	颜色 Color
1	内导体 Inner conductor	7/0.16 mm	裸铜丝 Bare copper	黄色 Yellow
2	绝缘层 Insulation	1.52mm	聚乙烯 PE	白色 White
3	编织 Wire braid	80*0.12mm	铜包编 CCA	黄色 Yellow
4	外护层 Jacket	2.80 mm	聚氯乙烯 PVC	黑色 Black
5	标志 Making	RG 174 ROHS		

三、产品物理电气性能 Electrical physical and properties of product

项目 Item		单位 Unit	典型值 Value
电容 Capacitance		pF/m	100 ± 5
阻抗 Impedance		Ω	50 ± 2
速率 Velocity ratio		%	66
弯曲半径 Bent radius		mm	14
最大工作电压 Max voltage		VMS	1500
最大工作频率 Max Frequency		MHz	3000
温度范围 Temperature scope		℃	-20 ~ +80
20℃时最大衰减 Attenuation constant at 20℃（Max.）	200MHz	dB/100m	45
	400MHz	dB/100m	64
	900MHz	dB/100m	96
	1800MHz	dB/100m	147
	2000MHz	dB/100m	168
	2500MHz	dB/100m	198
	3000MHz	dB/100m	332