



WHA YU INDUSTRIAL CO., LTD.(HEAD OFFICE)
 DONGGUAN AEON TECH CO.,LTD.(CHINA)
 SUZHOU AEON TECH CO.,LTD.(CHINA)
 AEON TECH (SHANGHAI) CO.,LTD(CHINA)
 DONGGUAN PARNER TECH CO.,LTD.(CHINA)



SPECIFICATION FOR APPROVAL

CUSTOMER: 泰博科技

PART NAME: RF Antenna Assembly

PART NO:

REVISION:

W. Y. P/NO: C1947-510001-A(SRF20171105)

REV:X1

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
APPROVED BY :		
DATE :	2017. 8. 7	

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RF Antenna Assembly

Specification

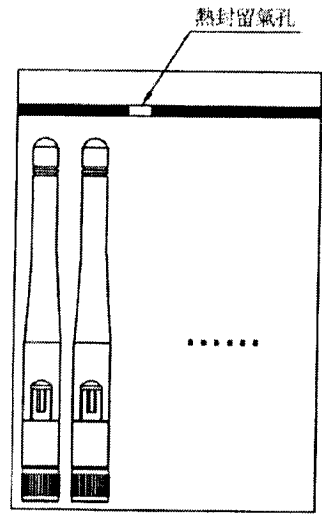
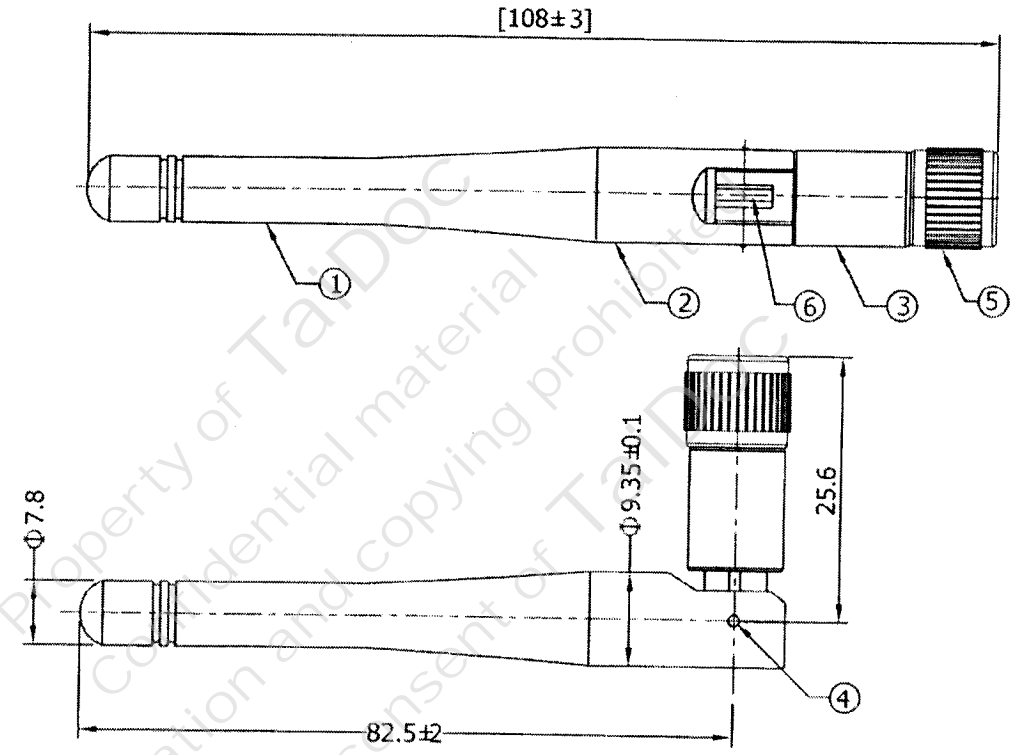
1. Electrical Properties :

- 1.1 Frequency Range..... 2.4GHz ~ 2.5GHz
- 1.2 Impedance 50Ω Nominal
- 1.3 VSWR 1.92 :1Max.
- 1.4 Return Loss..... -10 dB Max.
- 1.5 Radiation Omni-directional
- 1.6 Gain(peak)..... 2dBi
- 1.7 Polarization..... Linear; Vertical
- 1.8 Admitted Power..... 1W
- 1.9 Cable..... RG-178 Coaxial Cable
- 1.10 Connector..... SMA Plug Reverse

2. Physical Properties :

- 2.1 Antenna Body..... TPE
- 2.2 Antenna Base..... PC
- 2.3 Antenna Base..... PC+PBT
- 2.4 Operating Temp. -10°C ~ +60°C
- 2.5 Storage Temp. -10°C ~ +70°C
- 2.6 Color Black

REV	DATE	DESCRIPTION
X1	08/04-2017	New Issue



Packing : 20 pcs/bag

NO	DESCRIPTION	QTY	REMARK
6	Cable	RG-178 Cable, Brown,	1
5	Connector	SMA Straight Plug Reverse	1
4	Rivet	POM;Color:Black	1
3	Antenna Base	(CD-348) PC+PBT;Color:Black	2
2	Antenna Base	(CD-373) PC;Color:Black	1
1	Antenna Body	(CD-379) TPE;Color:Black	1

XX.	±5.0	APPROVED	2
X.	±3.0	CHECKED	3
.X	±1.0		
.XX	±0.2		
.XXX	±0.1	DRAWING	2

CUSTOMER:		泰博科技	
PART NO :			
PART NAME:		RF Antenna Assembly	
W.Y P/NO :		C1947-510001-A	
REV	UNIT	FILE :	SRF20171105
X1	mm	SHEET :	1/1

CUSTOMER'S SINGATURE

M.gear Wha Yu Group

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2.4~2.5GHz

2dBi

Test Data	2017/05/08
Test Member	Benson

+ • **3 Antenna Introduction**

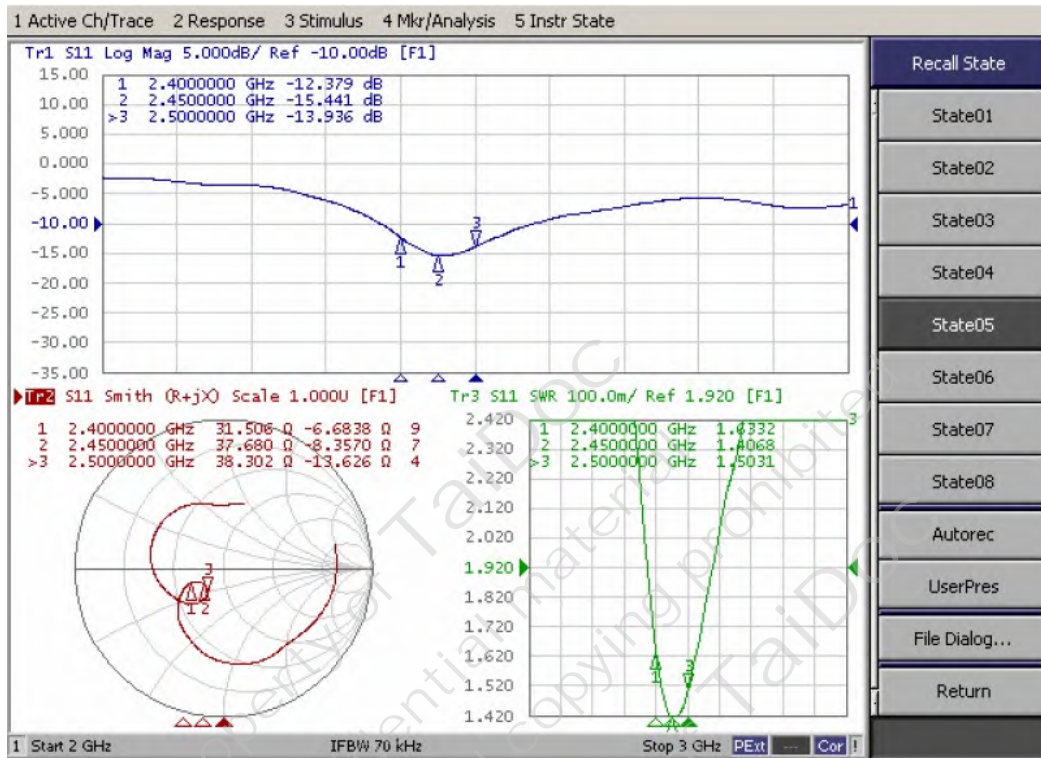
3 3



3

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二、 S-parameter test result S11 test result

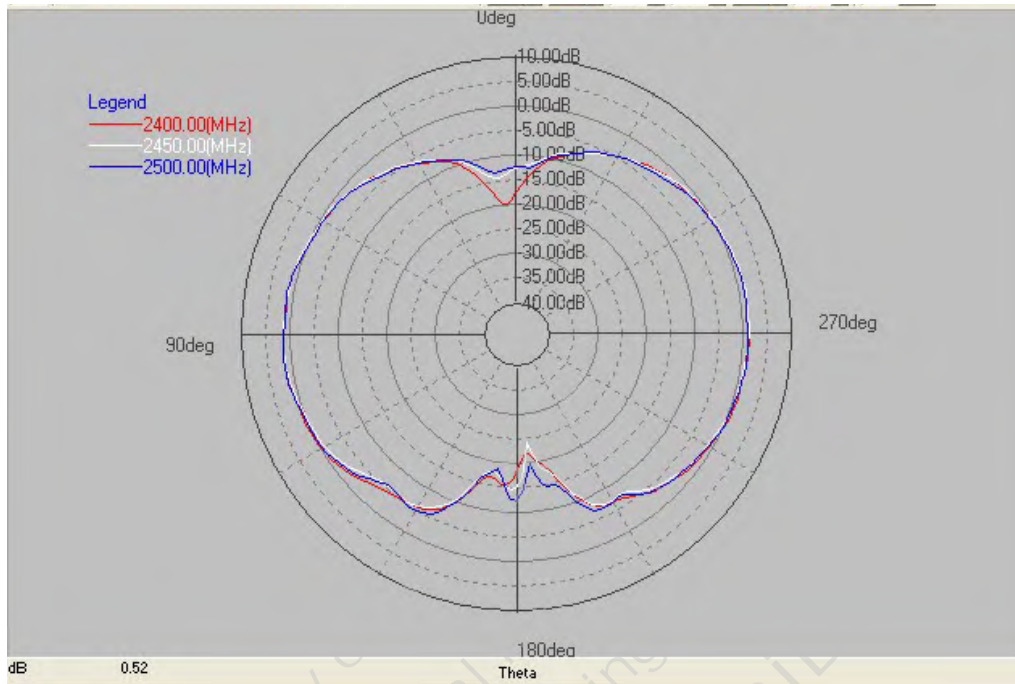


三、 Radiation Pattern Measurement

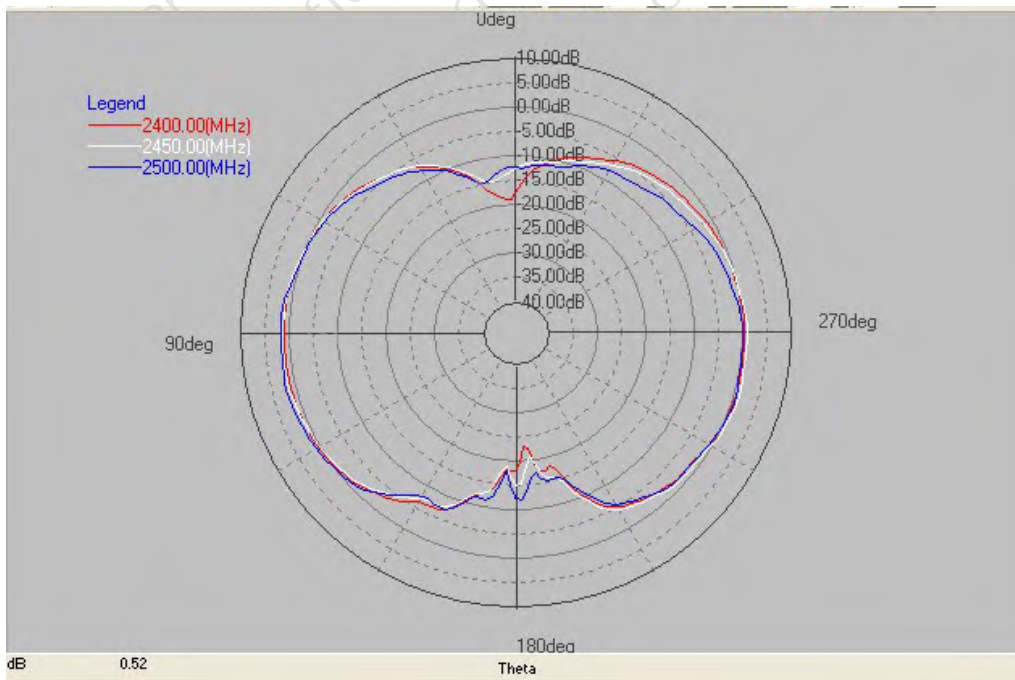


	XY	YZ	XZ
0°	Right	Up	Up
90°	Back	Back	Right
180°	Left	Down	Down
270°	Front	Front	Left

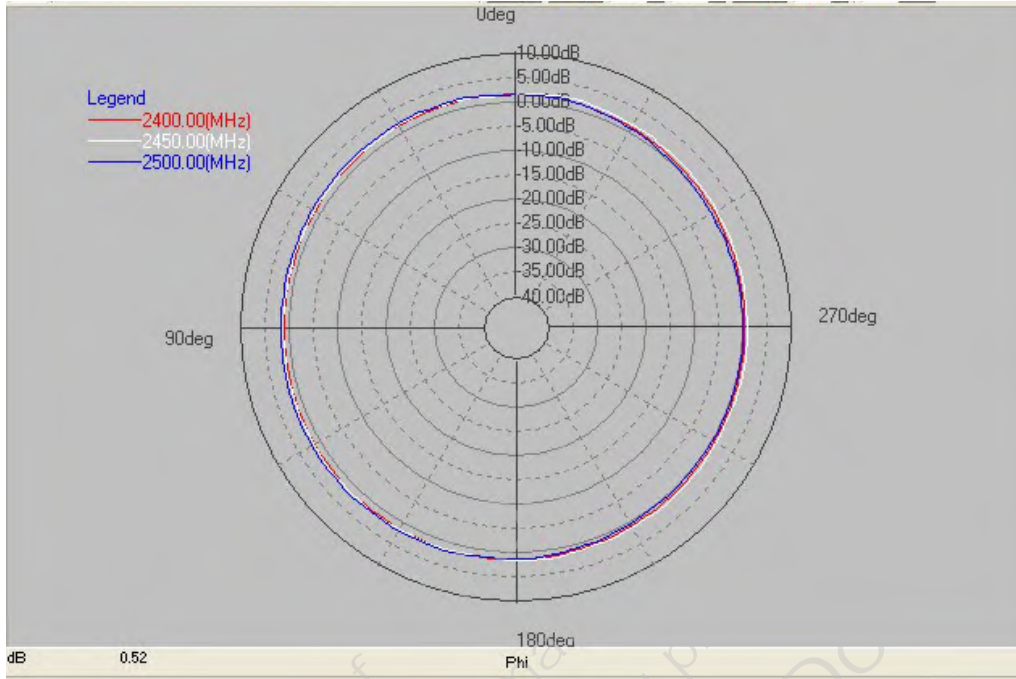
Antenna
X-Z lane (E-total)



Y-Z Plane (E-total)



X-Y Plane (E-total)



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四、Test Value

4-1 Return Loss

	Antenna (dB)
2.40 GHz	-12.379
2.45 GHz	-15.441
2.50 GHz	-13.936

4-2 Peak Gain

	Gain (dBi)	Efficiency (%)
2.40GHz	1.53	70.13
2.45GHz	1.75	72.08
2.50GHz	2.00	77.28

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型号 Type	RG178/50	料号 P/N	SY178/50-020(Brown)	
结构图 Structure drawing				
结构特性 Structure characteristics				
结构 Structure	项目 Item	标准值 Standard value		
①内导体 Inner conductor	材料 Material	镀银铜包钢线 Silverplated copper clad steel wire		
	组成:总根数/单根外径(mm) Makeup:total / O.D. of every wire(mm)	7/0.102		
	(绞合)标称外径(mm) (Intertwist)NOM.O.D.(mm)	0.306±0.02		
②绝缘层 Insulation	材料 Material	聚全氟乙丙烯 FEP		
	颜色 Color	透明 Clarity		
	标称外径(mm) NOM.O.D.(mm)	0.86±0.05		
③外导体 Outer conductor	材料 Material	镀银铜线 Silverplated copper wire		
	组成:总根数/单根外径(mm) Makeup:total / O.D. of every wire(mm)	3/0.1		
	标称外径(mm) NOM.O.D.(mm)	1.3±0.05		
	覆盖率(%) Coverage ratio(%)	≥90		
④护套层 Jacket	材料 Material	聚全氟乙丙烯 FEP		
	颜色 Color	棕 Brown		
	标称外径(mm) NOM.O.D.(mm)	1.78±0.05		
电性能特性 Electrical characteristics				
项目 Item	标准值 Standard value	项目 Item	频率 Frequency	标准值 Standard value 单位 Unit:dB/m
电容(pF/m) Capacitance(pF/m)	96	衰减 Attenuation	0.1GHz	≤0.52
速率(%) Velocity(%)	70		0.4GHz	≤1.2
阻抗(Ω) Impedance(Ω)	50±2		1GHz	≤1.7
驻波比 Standing wave ratio	≤1.3@0~6GHz		2GHz	≤2.42
最大工作电压(V) Max.operating voltage(V)	1000		3GHz	≤3.08
最大工作频率(GHz) Max.operating frequency(GHz)	3		4GHz	≤3.63
			5GHz	≤4.15
			6GHz	≤4.8
可靠性 Dependability				
项目 Item	单位 Unit	标准值 Standard value		
最小弯曲半径(一次) Min.bending radius static	mm	10		
最小弯曲半径(重复) Min.bending radius repeated	mm	—		
工作温度范围 Operating temperature	℃	-55~+150		



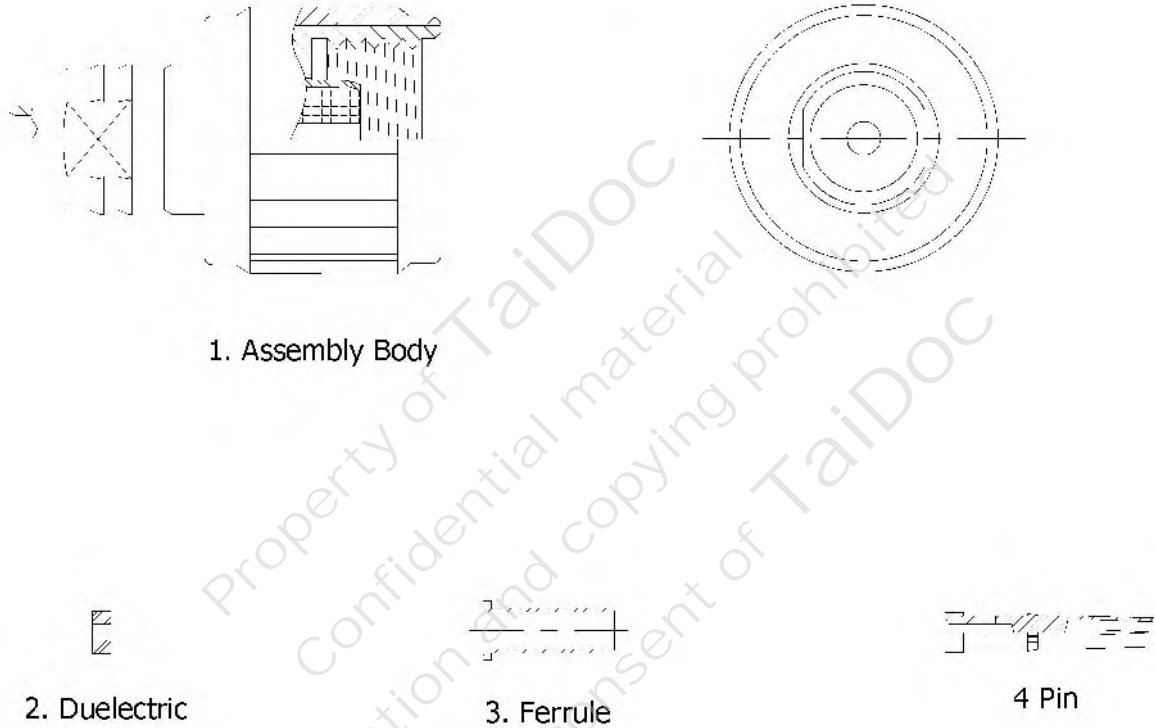
華裕實業股份有限公司

WHA YU INDUSTRIAL CO., LTD

Connector 材質證明書

華裕料號 Whyu P/N	100-2001265-BZ	產品名稱 Product Name	SMA Straight Plug Reverse For RG-178
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結構圖面



材質成份

表面處理

1	Body	Brass	Cu	Pb	Fe	Fe+Sn	Zn		POM Black	
2	Dielectric	Teflon	PTFE							N/A
3	Ferrule	Brass	Cu	Pb	Fe	Fe+Sn	Zn		Plated Nickel >80 μ "	
4	Pin	Brass	Cu	Pb	Fe	Fe+Sn	Zn		Plated Gold 5 μ "	

Remark :

請蓋公司章



SGS Test Report

Product : RF Antenna Assembly

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1	Cable	RG-178	SHAEC1704267104	P.13~18
			SHAEC1703852401	P.19~29
			SHAEC1700904116	P.30~43
			ECL01J004573	P.44~51
2	Connector	PTFE	CANEC1623891804	P.52~65
		POM	CANML1625837801	P.66~71
		Brass	SHAEC1712140703	P.72~76
		鍍鎳	SCL01J005424001	P.77~82
		鍍金	SHAEC1616788108	P.83~88
3	Antenna Body	TPE	CE/2016/B4474	P.89~95
		INK:Black	CANEC1622326603	P.125~132
4	Antenna Base	PC	KA/2017/40750	P.96~111
		INK:Black	CANEC1622326603	P.125~132
5	Antenna Base	PC+PBT	CE/2016/90461	P.112~118
		INK:Black	CANEC1622326603	P.125~132
6	Rivet	POM	CANML1625837801	P.119~124
		INK:Black	CANEC1622326603	P.125~132
7	Ground Tube	Brass	SHAEC1712140703	P.133~137
		Plated Tin	SCL01J000483002E	P.138~142

Result for RoHS :PASS