APPROVAL SHEET

Dipole ANTENNA
802.11 ac/b/g/n Series
2.4/5.x GHz Dual Band Working Frequency
Halogens Free Product
P/N: RFDPA171320EMLB301

Customer：光寶科技股份有限公司
Customer ‘s Part No.：
Approval No.：
Issue Date：

*Contents in this sheet are subject to change without prior notice.

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Version	Date	Description	Author
V01	2015 Dec.	New Release	HWCHAN
V02	2020 Sep.	增加 Sponge	SHLEE

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4 ~ 2.5 / 5.15 ~ 5.895 GHz (Note-1)
Gain	2.4 ~ 2.5 GHz ：3.14 dBi 5.15 ~ 5.895 GHz：5.00 dBi
Return Loss	-10dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω

*Note 1. Central Frequency should be defined after customers' application approval.

MATERIAL TABLE

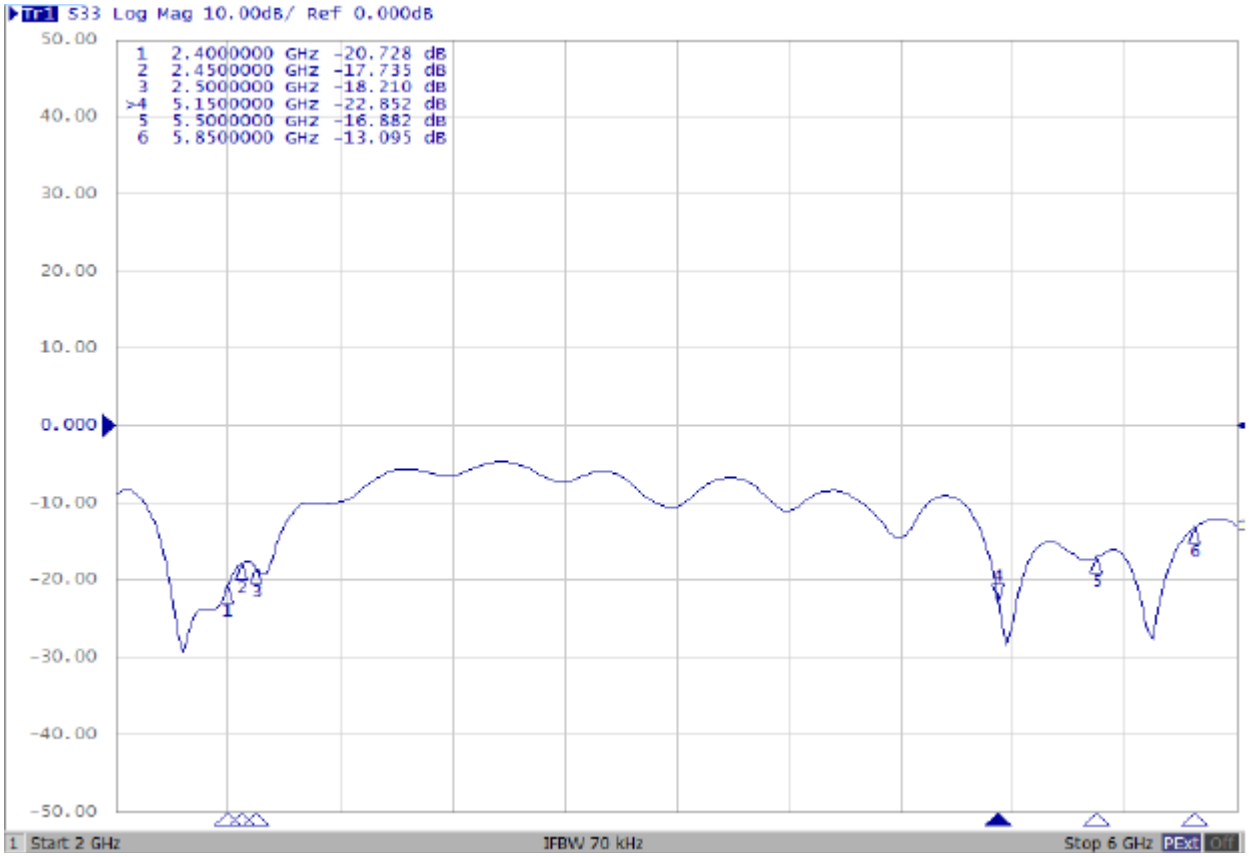
Items	Description
Cable	Coaxial Cable Ø1.13 (Black)
Antenna Cover	TPEE
Antenna Base	PC/PBT
Connector	IPEX四代
Color	Black
Brass Tube	Brass
Heat Shrink Tube	Black
Sponge	Black

ORDERING RULE

RF	DPA	1713	20	E	M	L	B	3	01
Type Code	**Product Code**	**Dipole Dimension (Unit: mm)**	**Cable Length (unit: cm)**	**Connector Brand**	**Type of Connector**	**Application**	**Project status**	**Wire Diameter**	**Project**
Walsin RF Device	DPA: Dipole Antenna	Per 2 digits of length, width e.g.: 1713 Length 172mm, Width ϕ 13mm	2 digits for cable length e.g.: 20 Cable Length:20cm	A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U:MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5 GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T:LTE band W: WCDMA band	B: MP T:During Test X: Pile Run	0:None 1:∅0.81 3:∅1.13 6:RG316 7:∅1.37 8:RG178	01~99 series number

■ELECTRICAL CHARACTERISTICS

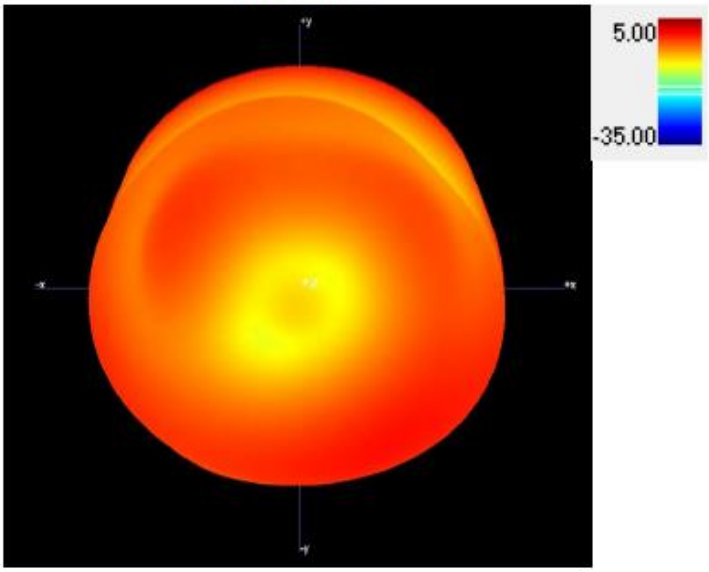
Return Loss

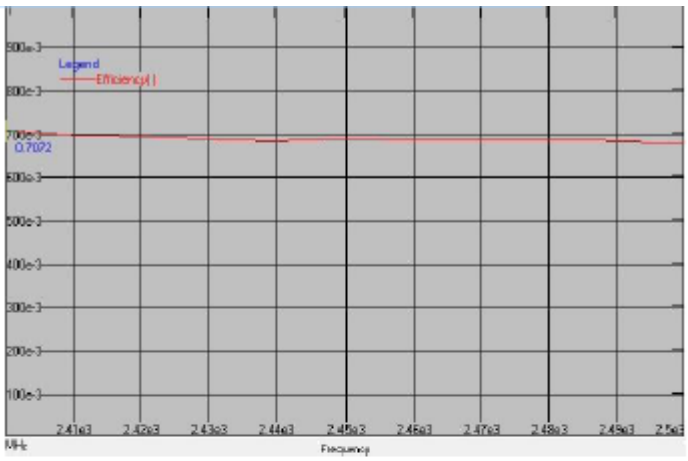


Antenna Efficiency & Peak Gain

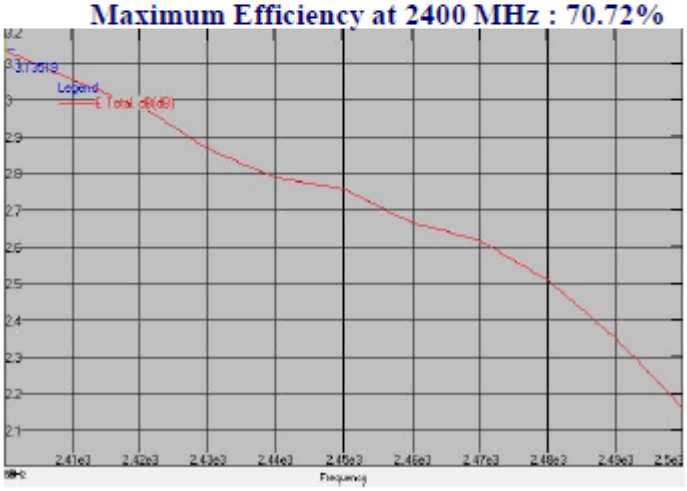
2GHz

2450 MHz





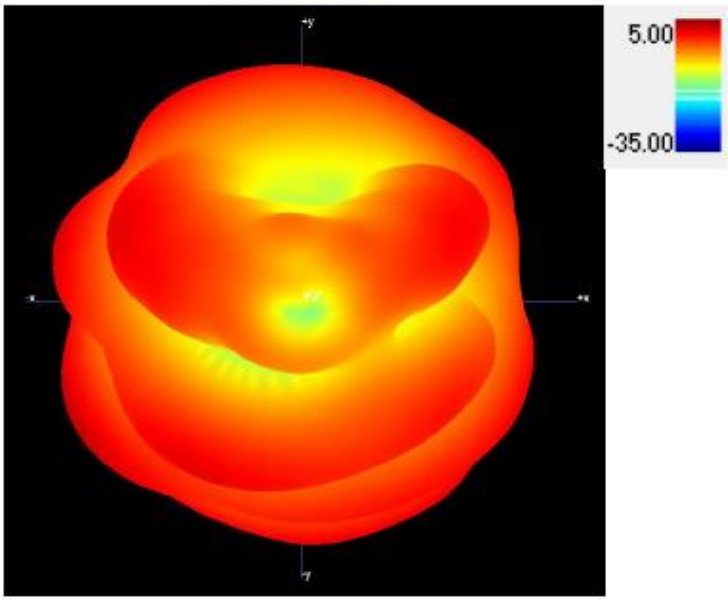
Maximum Efficiency at 2400 MHz : 70.72%

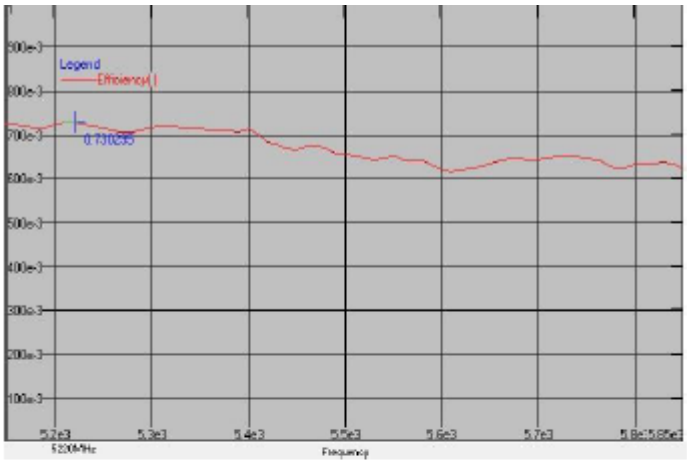


Maximum Peak Gain at 2400 MHz : 3.14 dBi

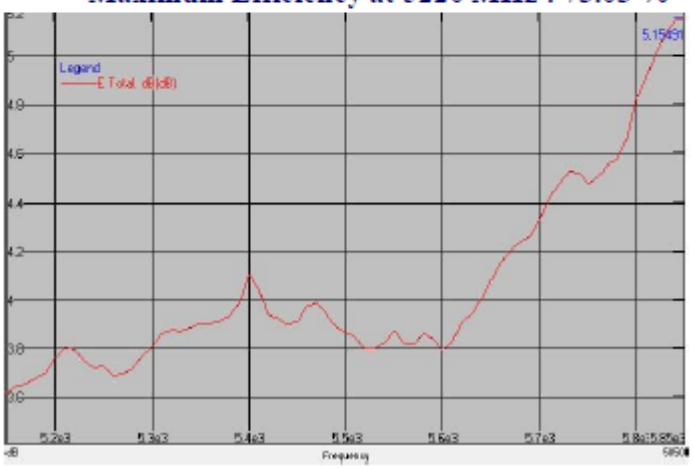
5GHz

5500 MHz





Maximum Efficiency at 5220 MHz : 73.03 %



Maximum Peak Gain at 5850 MHz : 5.15 dBi

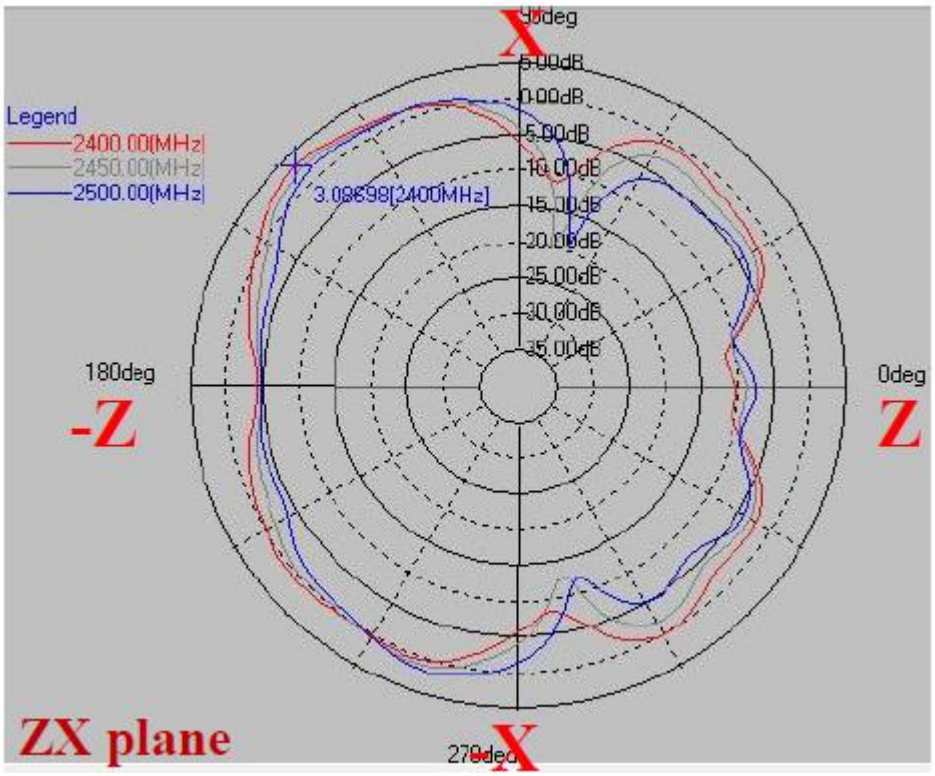
RADIATION PATTERN

2400~2500 MHz

X-Z Plane

Phi=0.00deg

Gain . dB

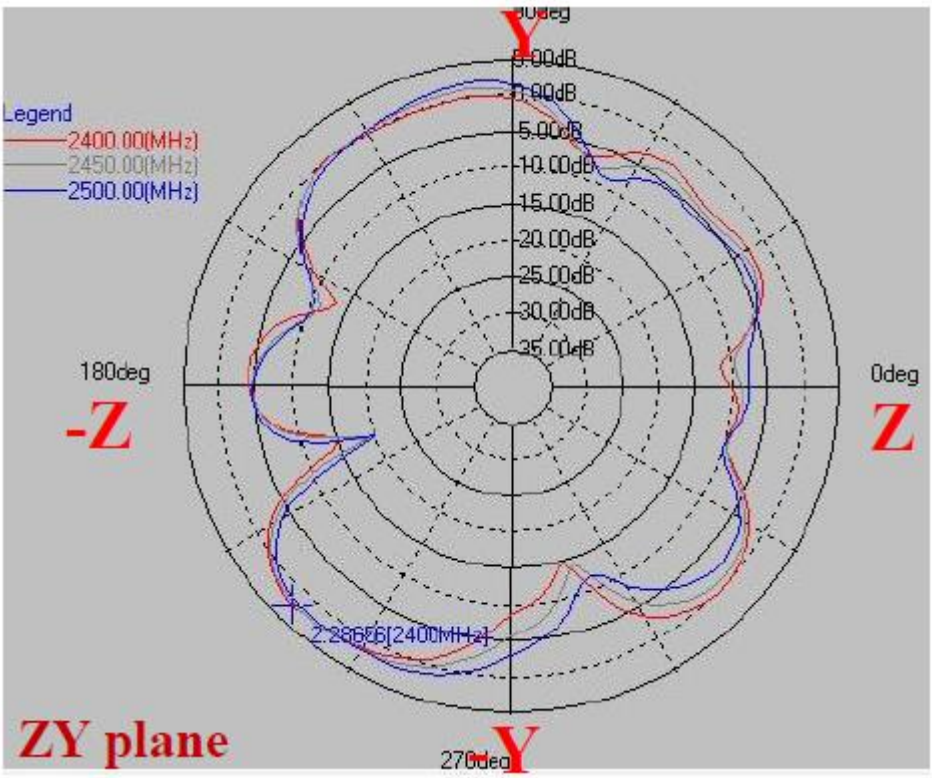


	ZX Plane	
Frequency [MHz]	Max Value (dB)	Average (dB)
2400	3.14	-1.48
2450	2.24	-2.22
2500	1.52	-2.70

Y-Z Plane

Phi=90.00deg

Gain . dB

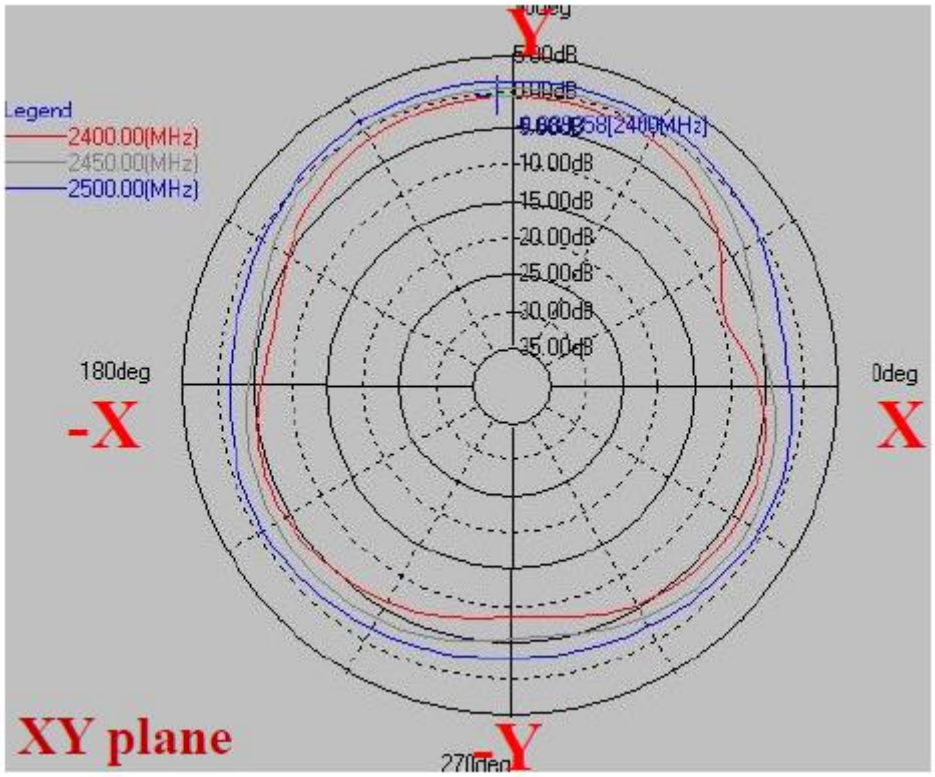


	ZY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
2400	2.29	-2.65
2450	2.17	-2.63
2500	1.84	-2.60

X-Y Plane

Theta=90.00deg

Gain . dB



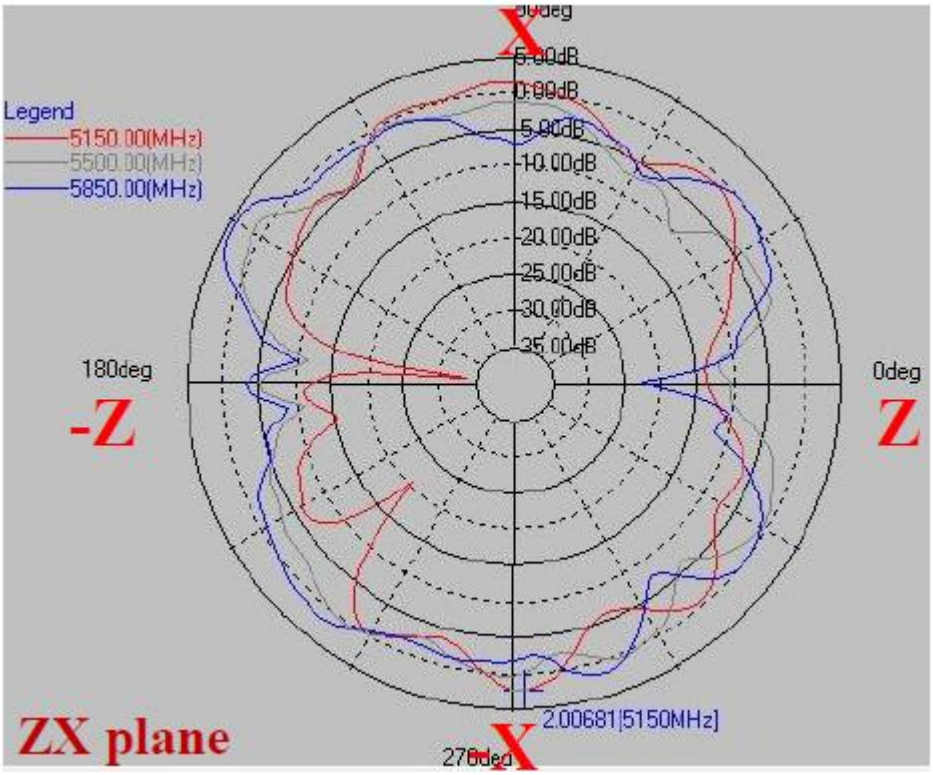
	XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
2400	-0.69	-4.05
2450	0.37	-2.23
2500	1.30	-0.62

5150~5895 MHz

X-Z Plane

Phi=0.00deg

Gain . dB

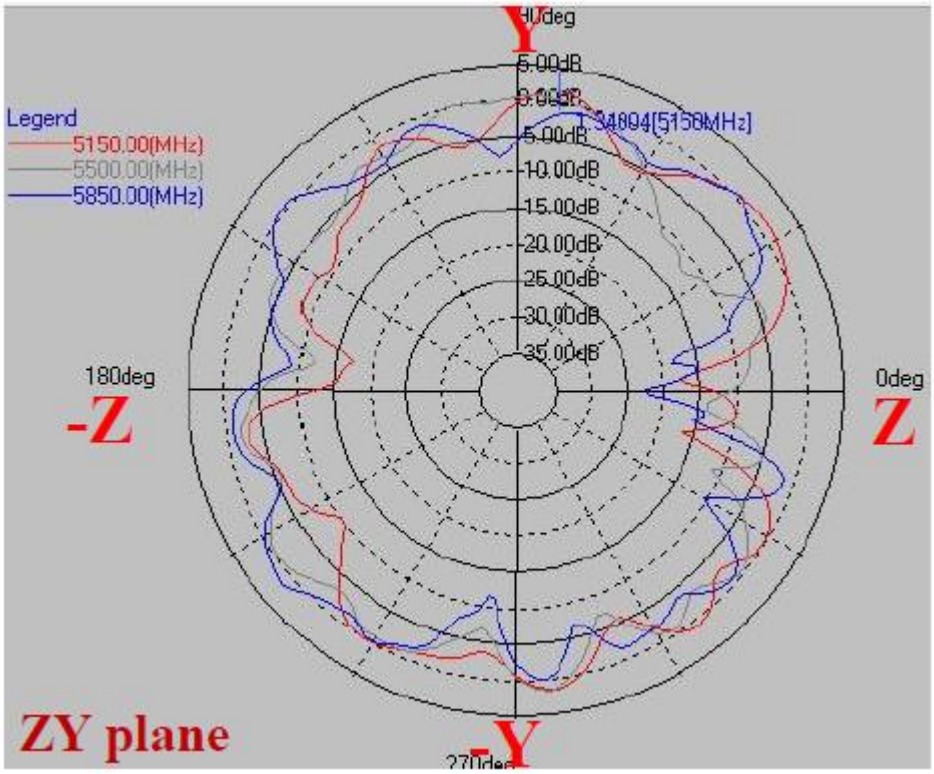


	ZX plane	
Frequency [MHz]	Max Value [dB]	Average [dB]
5150	2.01	-3.35
5500	1.37	-2.68
5850	5	-1.72
5895	5	-1.72

Y-Z Plane

Phi=90.00deg

Gain . dB

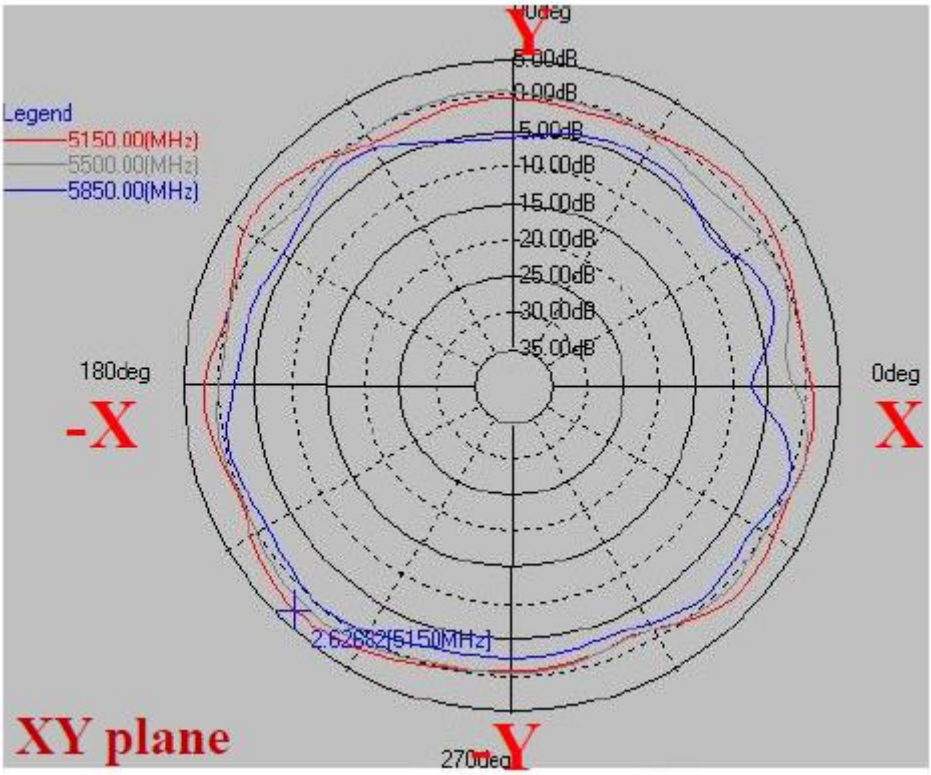


ZY plane		
Frequency [MHz]	Max Value [dB]	Average [dB]
5150	1.34	-2.82
5500	1.29	-3.21
5850	1.51	-2.8
5895	1.51	-2.8

X-Y Plane

Theta=90.00deg

Gain . dB



XY plane		
Frequency [MHz]	Max Value [dB]	Average [dB]
5150	2.63	0.64
5500	1.46	-0.21
5850	-0.03	-2.59
5895	-0.03	-2.59

Cable Specification

江苏源达线缆科技有限公司

JIANGSU YUANDA OF CABLE TECHNOLOGY CO., LTD.

中国江苏省建湖县航空路 5 号
Aviation Road No. 5 Jianhu ,Jiangsu, China

1. 适用范围:
   Scope
   本规格书制定了 50Ω FEP 绝缘射频电缆 YD113 系列的结构和电气特性.
   This specification covers the construction and the electrical properties of YD113 series of 50Ω FEP Insulation Coaxial Cable.
2. 结构/Construction: 单位/Unit:mm

项目/Item		详细资料/Details
导体/Conductor	材料/Material	镀银铜线/Silver-coated Copper Wire
	构成(根/mm) Composition(No./mm)	7/0.080
	标称直径/NOM.O.D	0. 24±0.03
绝缘层 /Insulation	材料/Material	聚全氟乙丙烯（自然色）/FEP(Natural)
	标称绝缘厚度/Nom.Thick.（mm）	0.23
	标称外径/NOM.O.D	0.70±0.03
屏蔽层/Shield	材料/Material	镀锡铜线/Tinned annealed copper wire
	构成/Composition	16*4/0.05
	编织密度/Coverage（%）	90±5
	标称外径/NOM.O.D	0.92±0.03
护套/Jacket	材料/Material	聚全氟乙丙烯/FEP
	标称护套厚度/ Nom.Thick（mm）	0.10
	标称外径/Nom.O.D（mm）	1.13±0.05
	颜色/Color	按与客户确认的颜色/According to corresponding have approved by the suppliers and customers

3. 电气特性(20℃时)/Electrical Properties(at 20℃)

项目/Item	单位/Unit	详细资料/Details
导体电阻/Conductor Resistance	Ω/km	Max.581
绝缘电阻/Insulation Resistance	MΩ.km	Min.200
耐压强度/Dielectric Strength	V(AC)/min	1000
静电容/Capacitance	pF/m	105
特性阻抗/Characteristic Impedance	Ω	50±2.0

江苏源达线缆科技有限公司

JIANGSU YUANDA OF CABLE TECHNOLOGY CO.,LTD.

中国江苏省建湖县航空路 5 号
Aviation Road No. 5 Jianhu ,Jiangsu, China

衰减/Attenuation	dB/m	1GHz	2.20
		2GHz	3.10
		3GHz	3.90
		4GHz	4.50
		5GHz	5.00
		6GHz	5.50
驻波比/Standing wave(0-6GHz)	/	≤1.35	

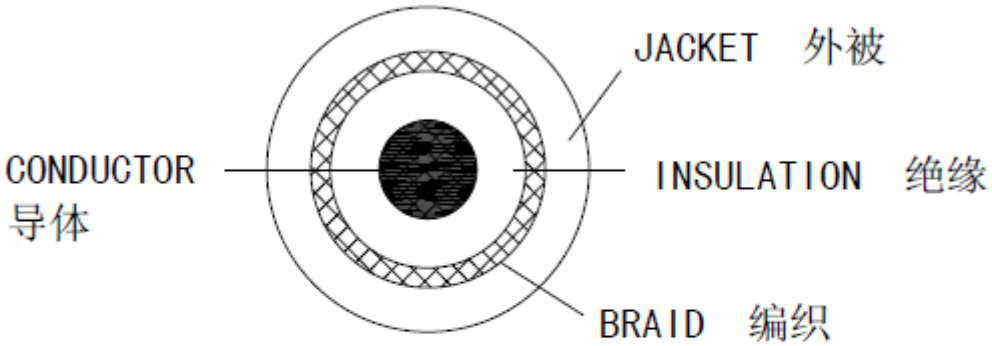
4.可靠性 Dependability

项目 Item	单位 Unit	标准值 Standard value
最小弯曲半径（一次）Min.bending static	mm	4.2
工作温度范围 Operating temperature	℃	-55 to +200

5. 包装 Packing

标准单位包装长度为 1000 米/盘，每盘最多允许 5 个接头，接头最短长度 20 米，在搬运过程中不能损坏包装.

Standard unit length of finished cable shall be 1000m on reel, frequency of joint max.5/reel, the mini length is 20m. The finished cable shall be packed not be damaged during transportation



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本产品有时不适合车载用途的情况也有,所以使用前请先和本公司业务部门进行商谈.

This product is not suitable for automobile application in some cases.Please contact with our sales department before you use this product.

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规格书完

End of specification