

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.

Contents

Item	Description	Page
1.	Antenna Specification	<u> </u> 3
2.	Mechanical Specification	<u> </u> 4~5
3.	Test Report	<u> </u> 6~15
4.	Connector Specification	<u> </u> 16~17
5.	Cable Specification	<u> </u> 18~19

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

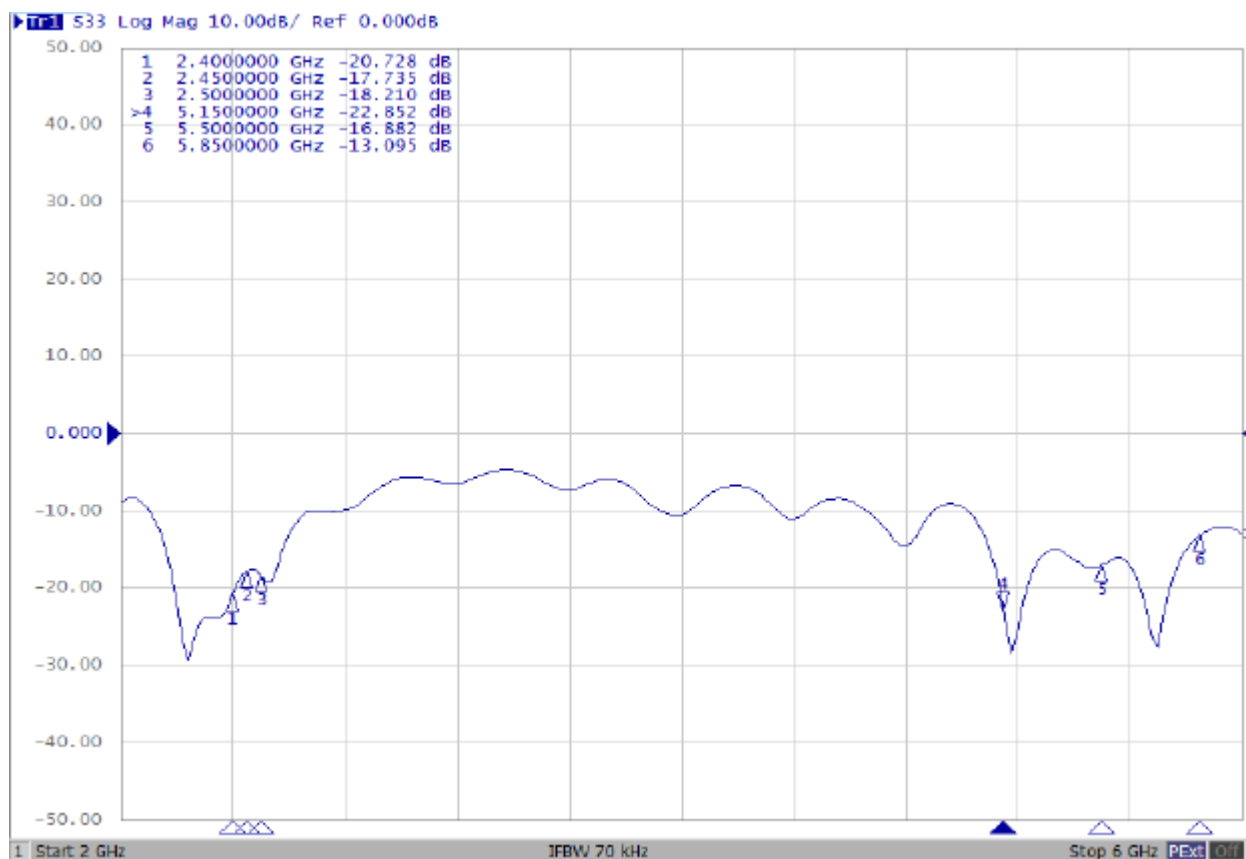
Items	Description
Cable	Coaxial Cable Ø1.13 (Black)
Antenna Cover	TPEE
Antenna Base	PC/PBT
Connector	IPEX四代
Color	Black
Brass Tube	Brass
Heat Shrink Tube	Black
Sponge	Black

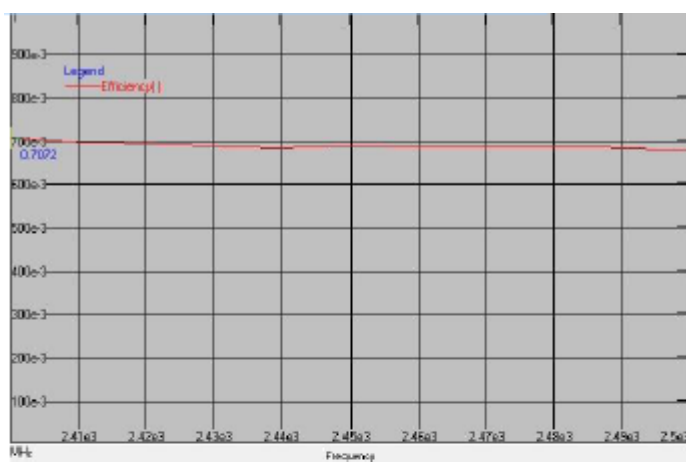
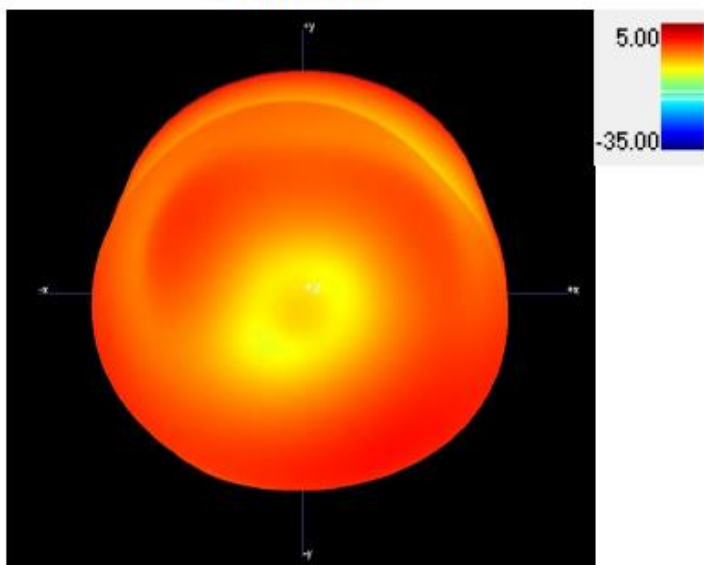
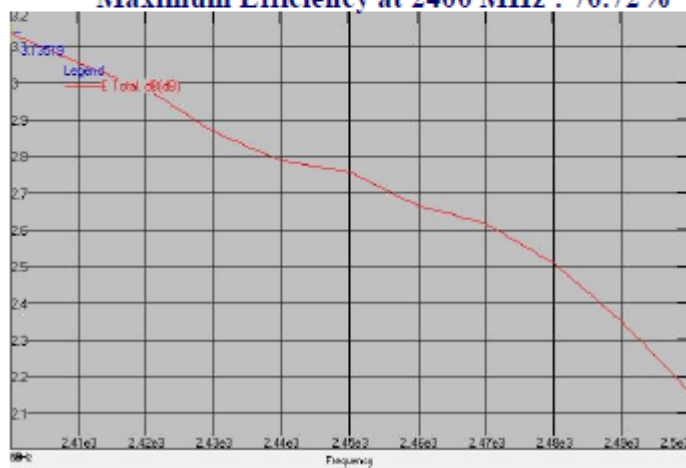
ORDERING RULE

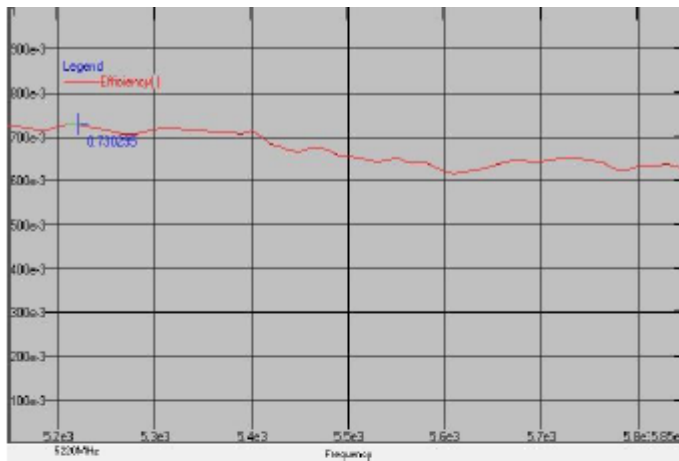
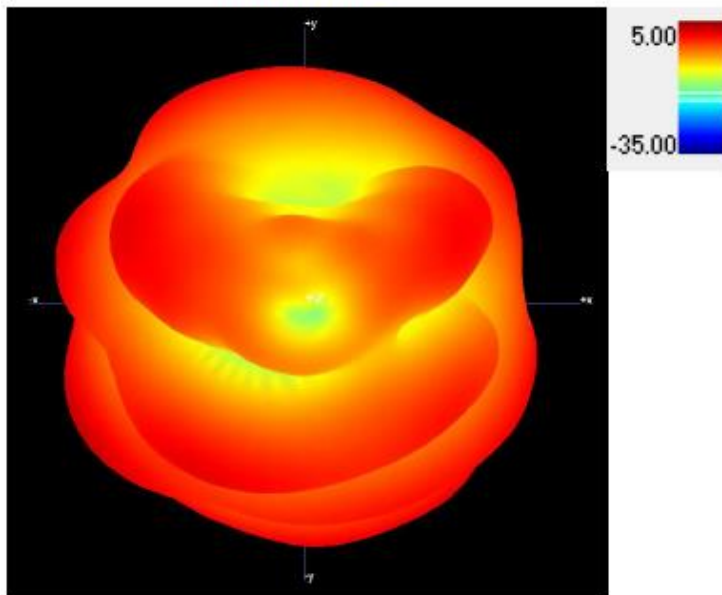
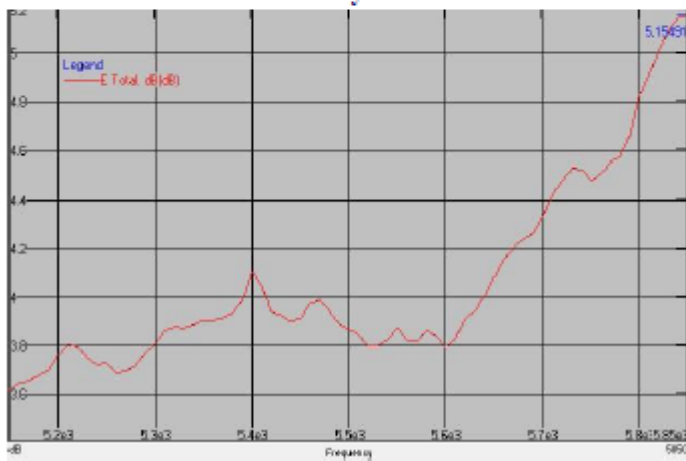
RF	DPA	1713	20	E	M	L	B	3	01
Type Code	Product Code	Dipole Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	DPA: Dipole Antenna	Per 2 digits of length, width e.g.: 1713 Length 172mm, Width ϕ 13mm	2 digits for 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: ϕ 0.81 3: ϕ 1.13 6: RG316 7: ϕ 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**

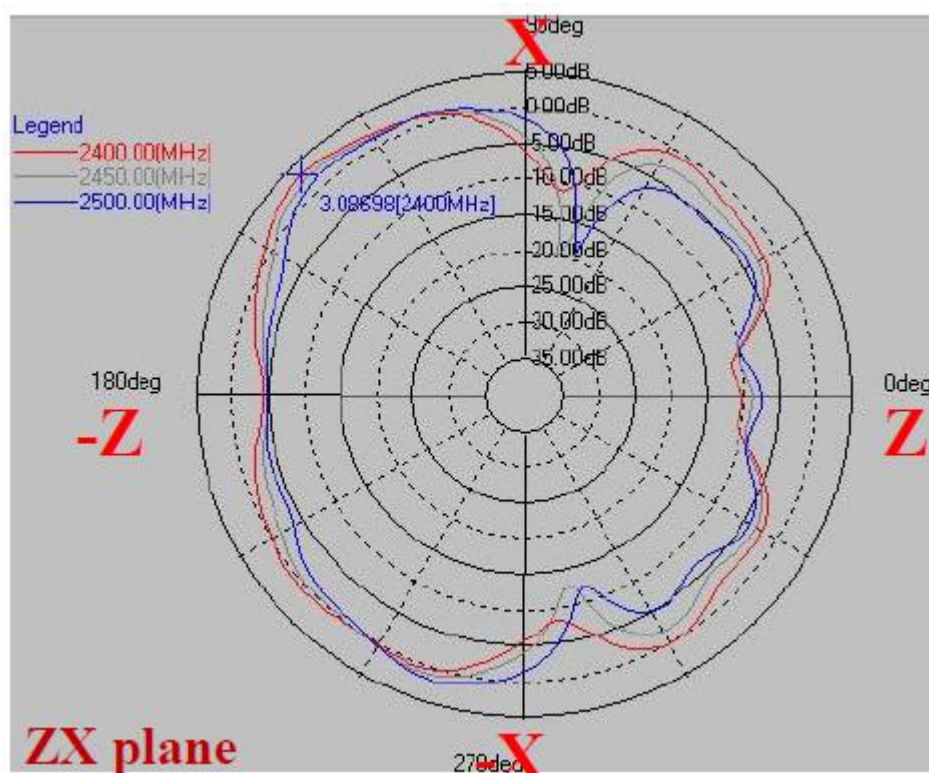
RADIATION PATTERN

2400~2500 MHz

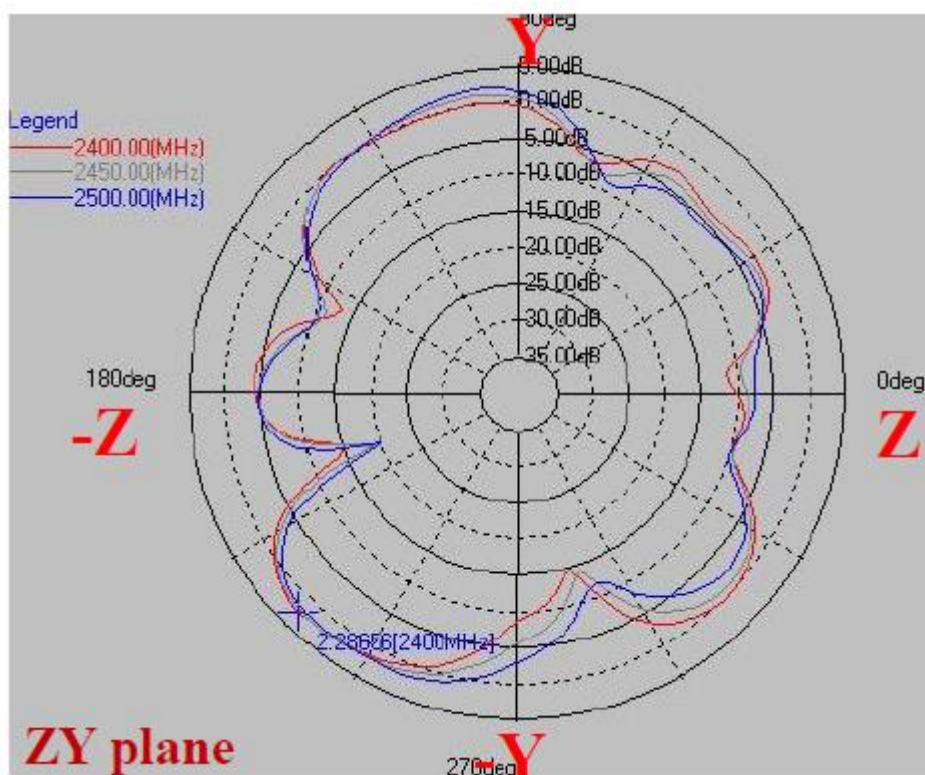
X-Z Plane

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

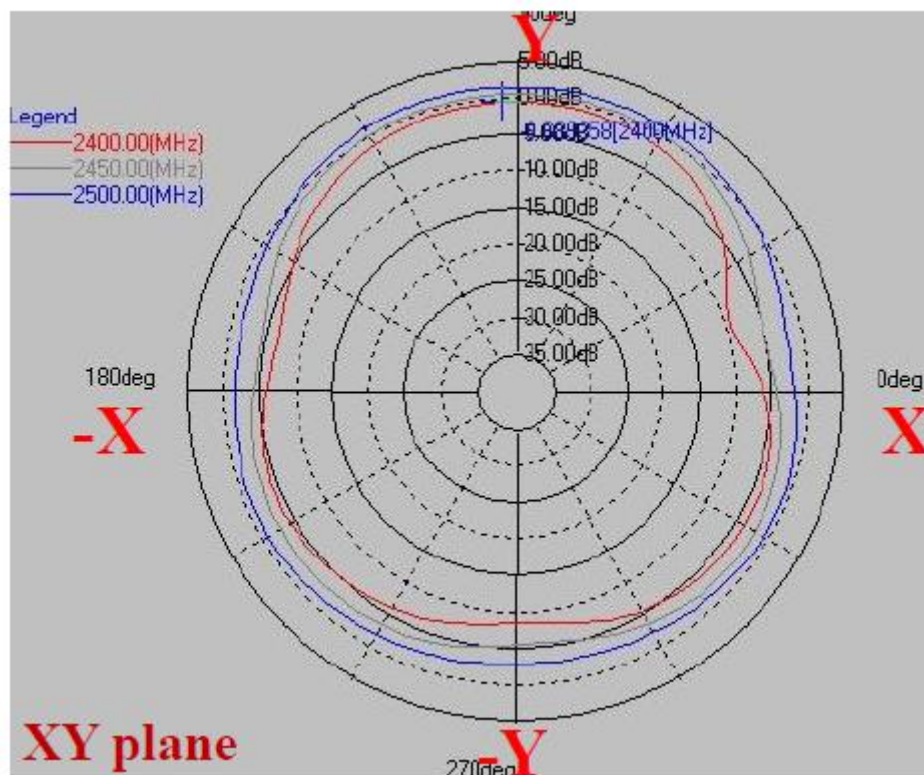
Y-Z Plane**Phi=90.00deg****Gain . dB**

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

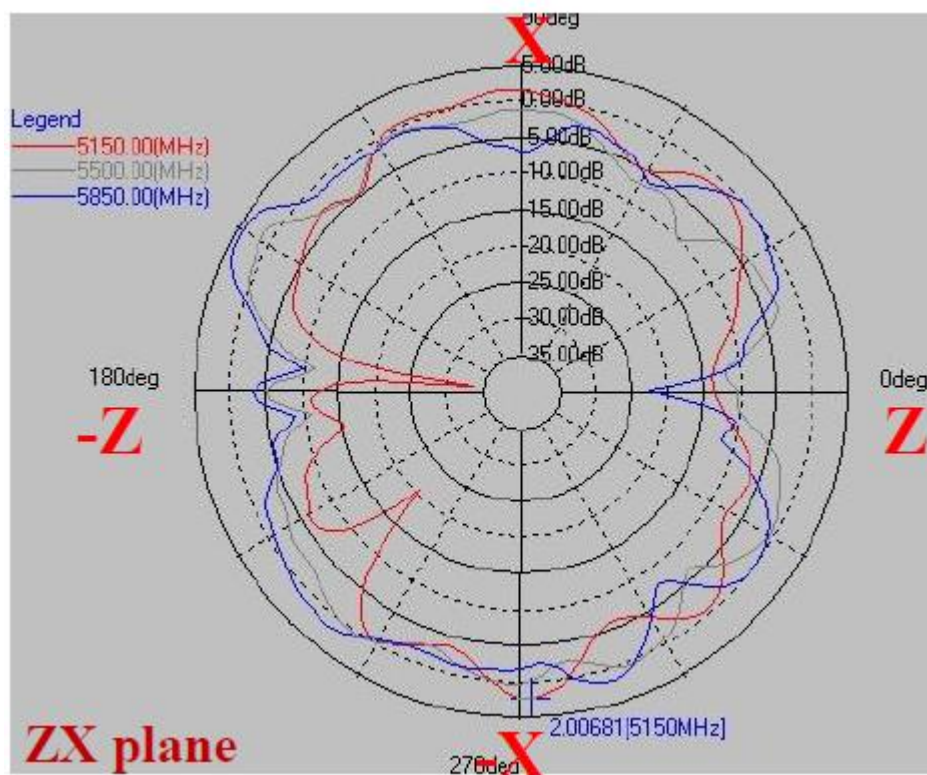
X-Y Plane

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

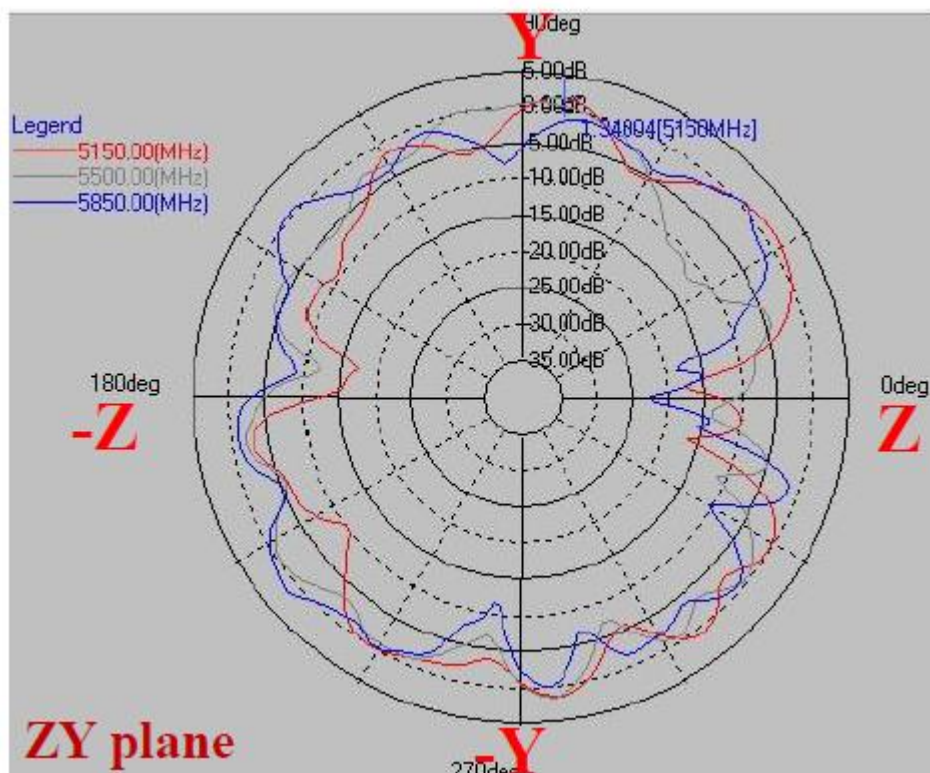
5150~5895 MHz
X-Z Plane
Phi=0.00deg
Gain . dB


	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

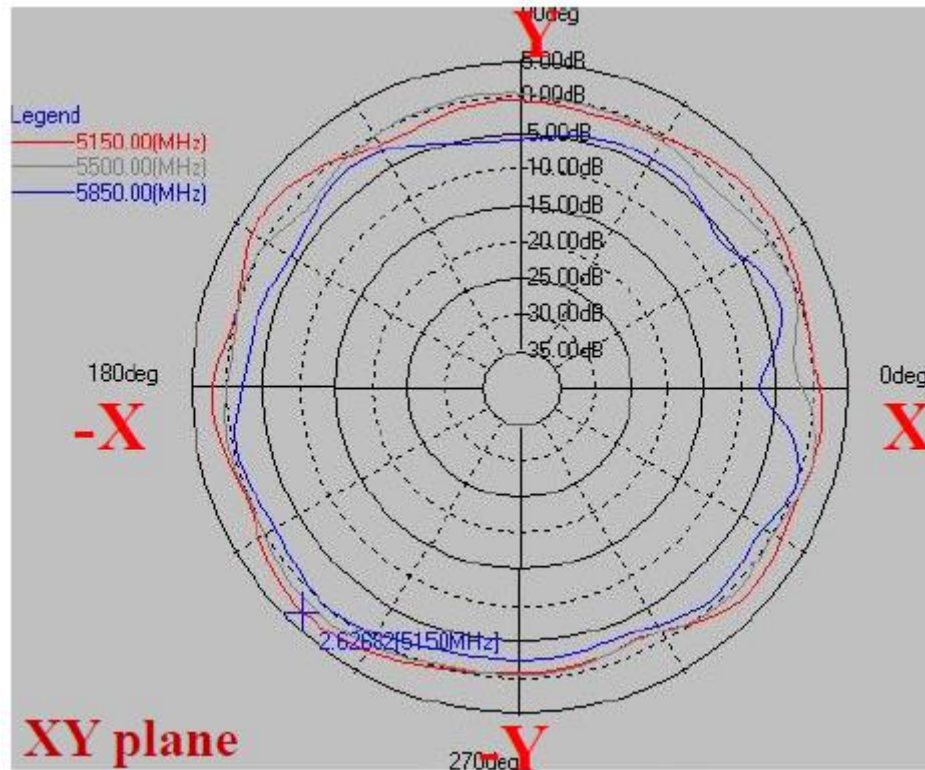


ZY plane		
Frequency [MHz]	Max Value [dB]	Average [dB]
5150	1.34	-2.82
5500	1.29	-3.21
5850	1.51	-2.8
5895	1.51	-2.8

X-Y Plane

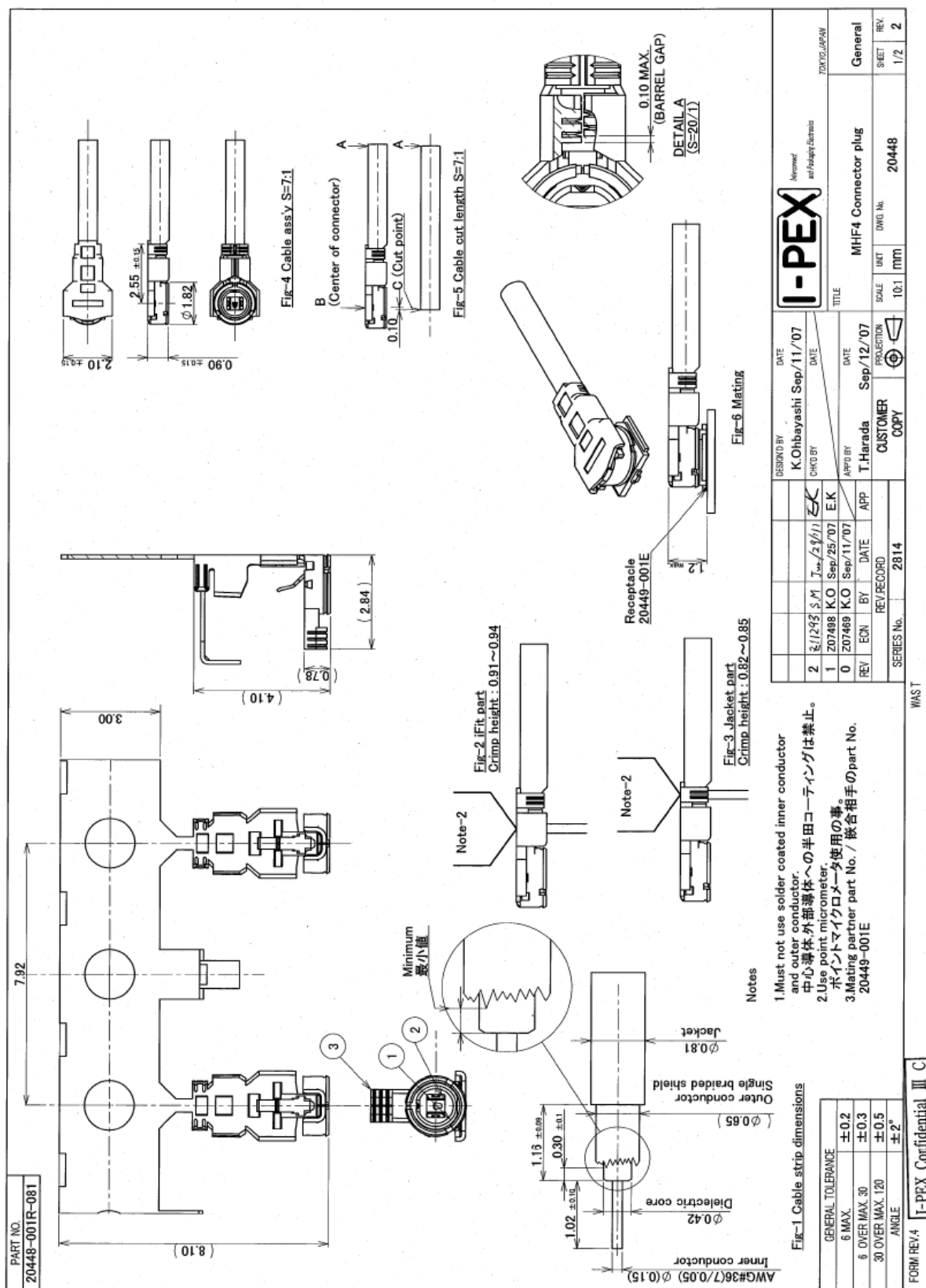
Theta=90.00deg

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

Connector Specification



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)
	标称直径/NOM. O. D
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)
	标称外径/NOM. O. D
屏蔽层/Shield	材料/Material 镀锡铜线/Tinned annealed copper wire
	构成/Composition
	编织密度/Coverage (%)
	标称外径/NOM. O. D
护套/Jacket	材料/Material 聚全氟乙丙烯/FEP
	标称护套厚度 / Nom. Thick (mm)
	标称外径/Nom. O. D (mm)
	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	

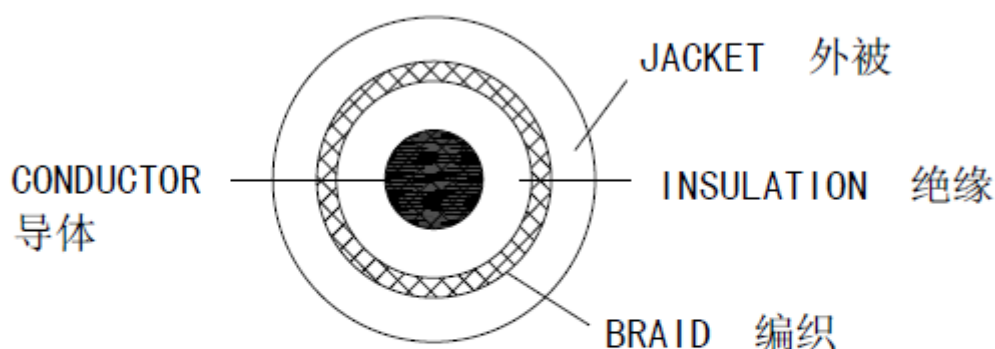
4. 可靠性 Dependability

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



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.

规格书完

End of specification