

SPECIFICATION FOR APPROVAL

CUSTOMER :	贝尔
CUSTOMER MODEL NO :	G-1426G-D
NOKIA PRODUCT P/N :	
PRODUCT P/N :	
XUNDA PRODUCT P/N :	XD2C-C040B5D-30A
PRODUCT TYPE :	2.4/5.8GHZ
REVISION:	V0.1
DATE:	2024-10-16

XUNDA TECHNOLOGY			CUSTOMER APPROVED		
PREPARED BY	CHECKED BY	APPROVED BY	PREPARED BY	CHECKED BY	APPROVED BY
Huanghuixin	Zhangxun	Duanwei			

Version Information

Date	Revision	Comment	Author
2024-10-16	0.1	Initial released	Huanghuixin

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1. Product Summary

- 1.1. XD2C-C040B5D-30A is a 2.4-2.5/5.15-5.85GHz Dual-band antenna antenna designed with patented technology. It can be easily integrated into the machine. It has high efficiency and good performance, and easy to assemble for mass production.
- 1.2. XD2C-C040B5D-30A is an ideal solution for wireless network equipment, such as access points, routers, and gateways.
- 1.3. XD2C-C040B5D-30A are RoHS compliant.

2. Features Specification

- 2.1. IEEE 802.11ac and 802.11 a/b/g/n standards
- 2.2. High efficiency
- 2.3. Quick integration

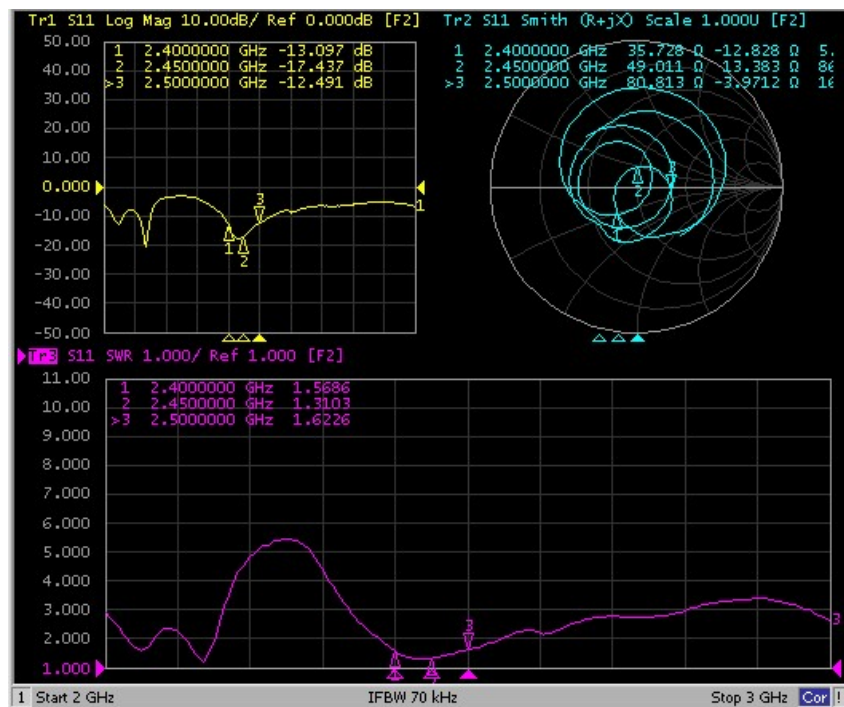
3. Overall performance

Items	Specification
Frequency Range	2.4-2.5GHz 5.15-5.85 GHz
Feed Impedance	50 Ω
Gain	5 $\pm$ 0.5 dBi@2.4-2.5GHz 5 $\pm$ 0.5 dBi@5.15-5.85GHz
VSWR	≤ 2.0
Admitted Power	10W
Polarization	Linear, Vertical
Connector Type	RF Cable
Antenna Base	FR4
Operating Temp	-20°C ~ +65°C
Operating Relative Humidity	5%RH ~ 95%RH
Storage Temp	-30°C ~ +75°C
Storage Relative Humidity	5%RH ~ 95%RH

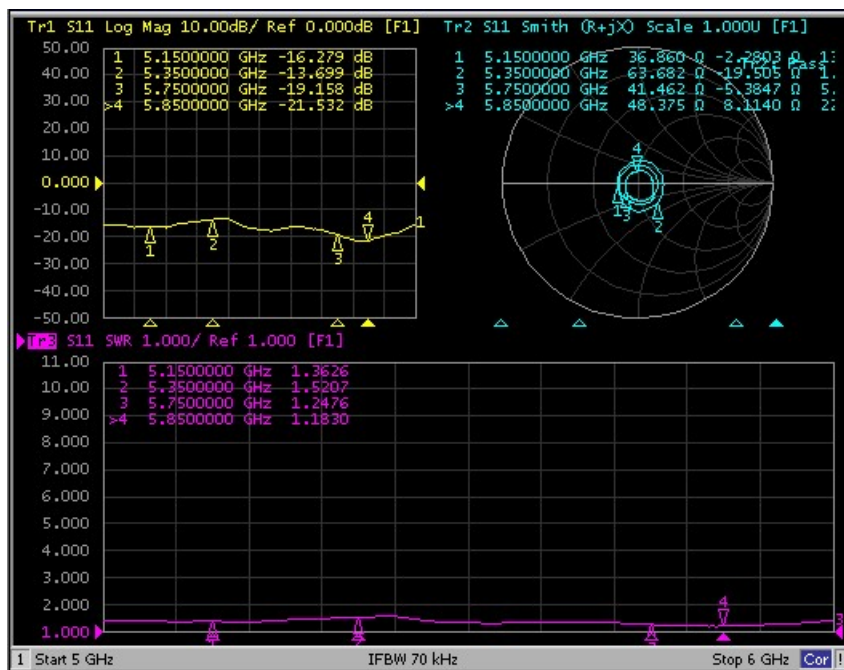
4. Product Characteristics

4.1. Return Loss

2.4-2.5GHz

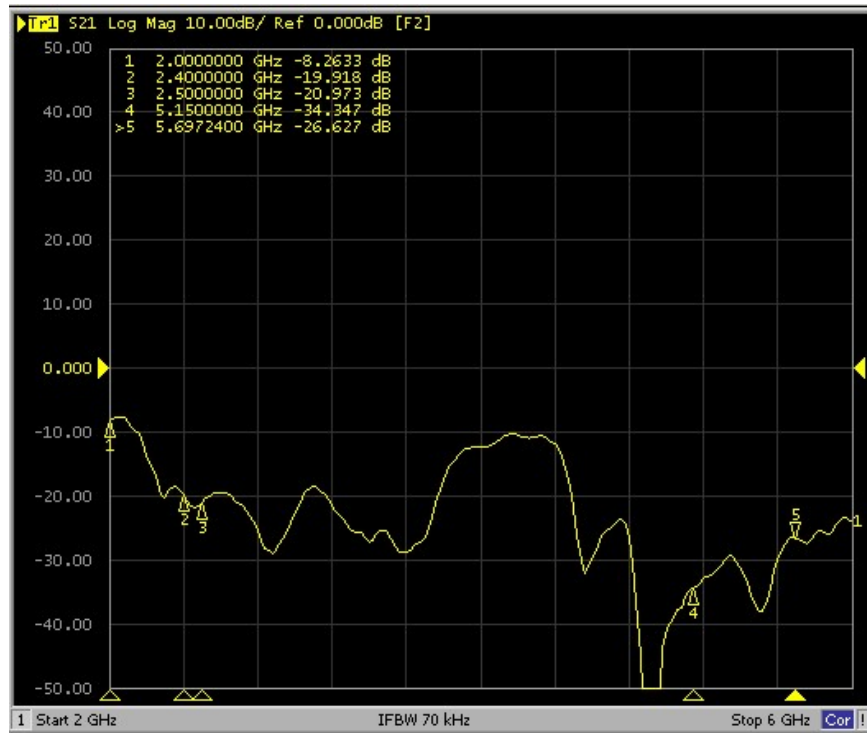


5.15-5.85GHz



4.2. Isolation

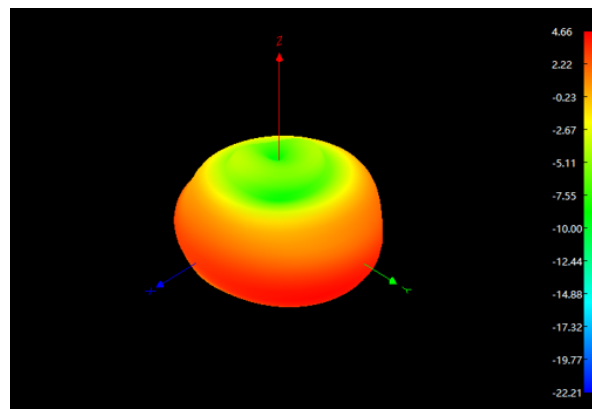
2.4-2.5GHz&5.15-5.85GHz



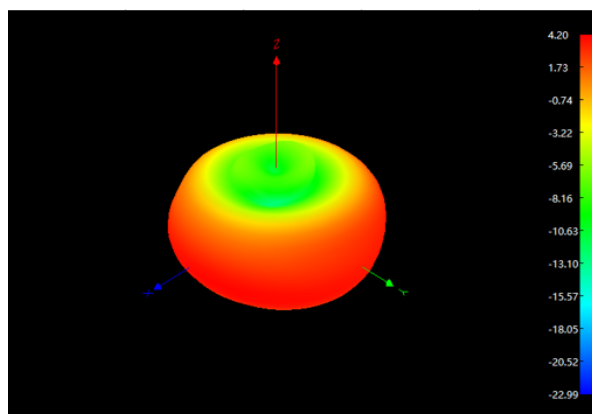
4.3. Radiation Pattern

3D&2D Radiation Pattern

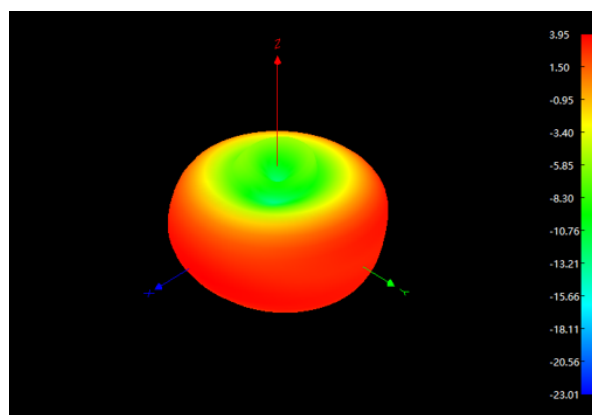
频点	增益 (dBi)	效率
2.40GHz	4.66	71.69%
2.45GHz	4.20	72.47%
2.50GHz	3.95	73.58%
5.15 GHz	5.66	72.26%
5.55 GHz	5.48	75.31%
5.85 GHz	5.87	75.06%



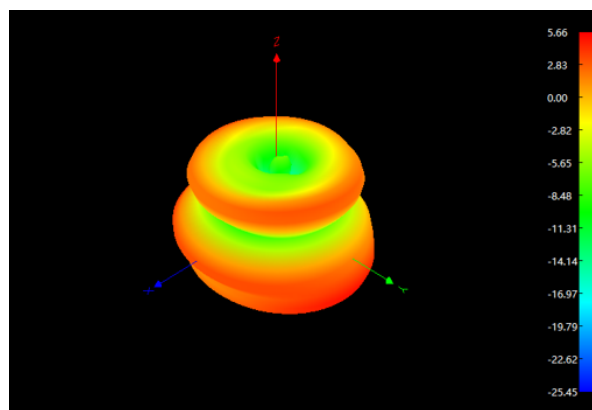
2.4GHz WIFI 3D 图及最大增益



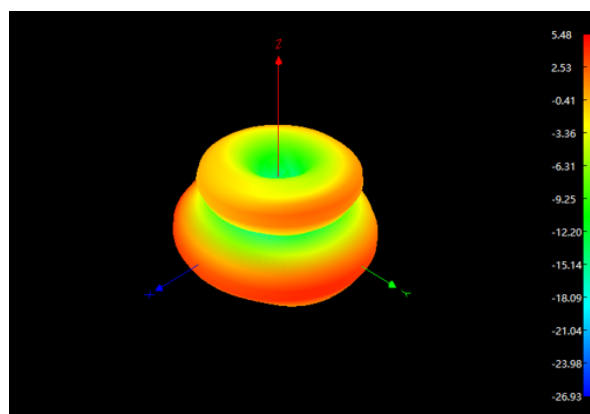
2.45GHz WIFI 3D 图及最大增益



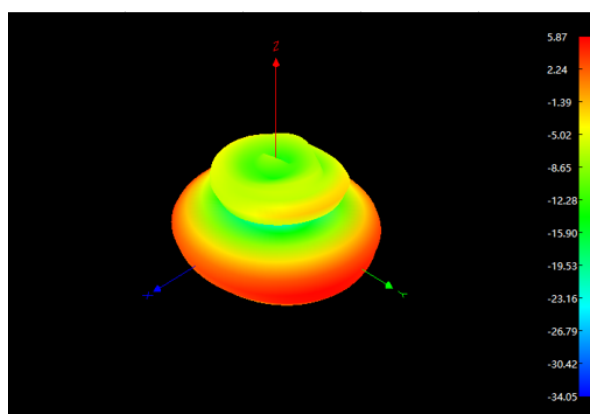
2.5GHz WIFI 3D 图及最大增益



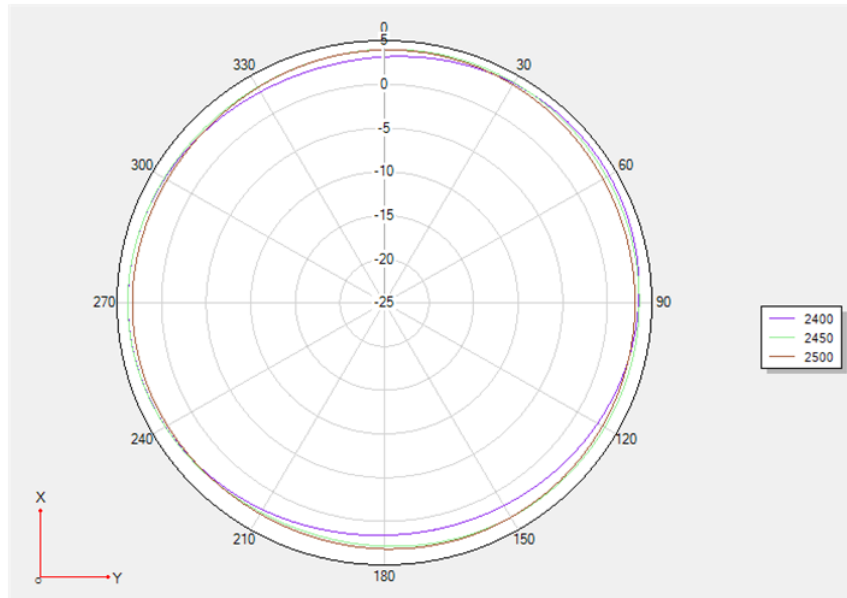
5.15GHz WIFI 3D 图及最大增益



5.55GHz WIFI 3D 图及最大增益



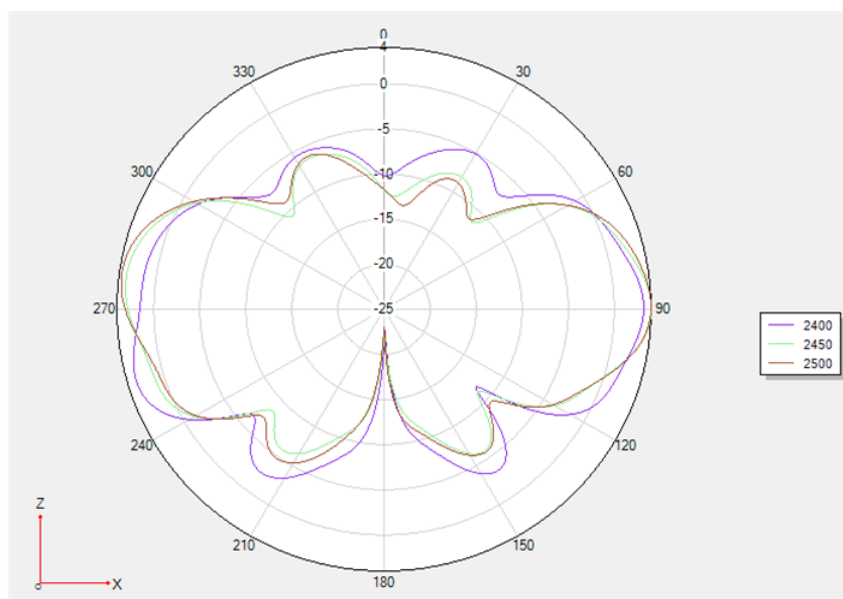
5.85GHz WIFI 3D 图及最大增益



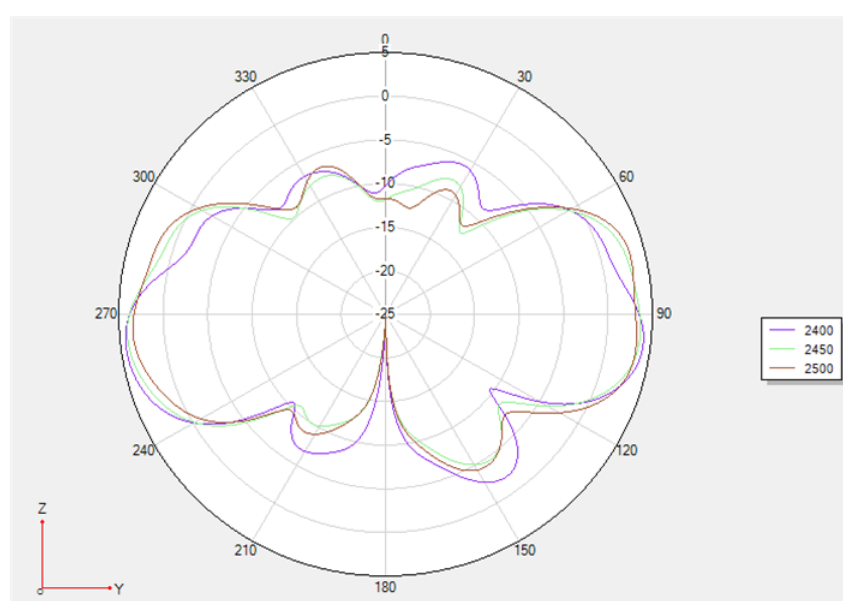
2400MHz\2450MHz\2500MHz XOY(H Face) Gain Icon

高中低三个频点方向图 XOY(H Face)增益表

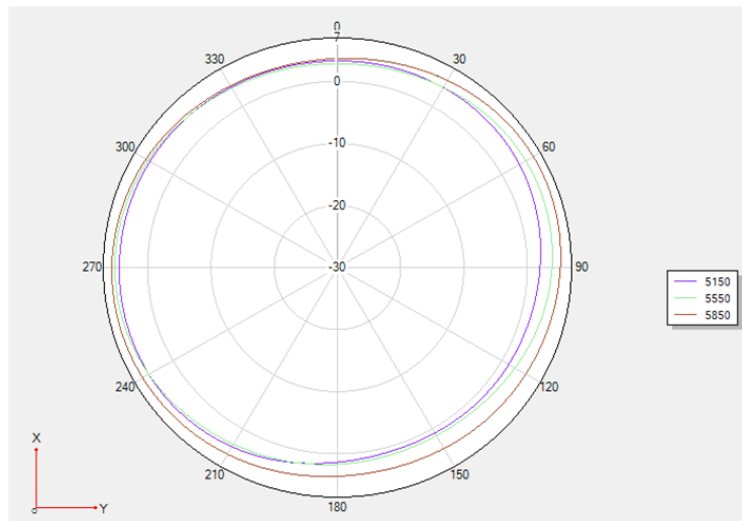
Frequency / MHz	Max Gain(dBi)	Min Gain(dBi)	Average Gain(dBi)	Pattern Ripple(dB)
2400	4.12	1.55	3.03	2.57
2450	4.08	2.68	3.12	1.40
2500	3.95	2.93	3.25	1.02
5150	4.59	0.70	2.94	3.89
5550	5.24	1.20	3.76	4.04
5850	5.77	3.44	4.15	2.33



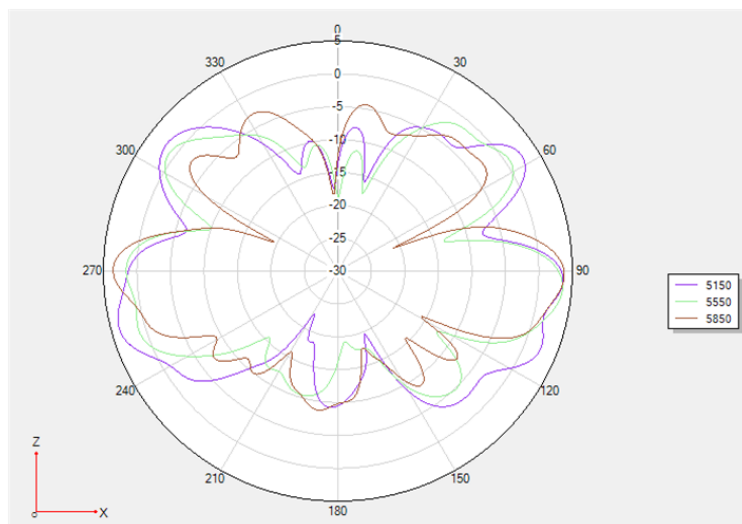
2400MHz\2450MHz\2500MHz XOZ(E1 Face) Gain Icon



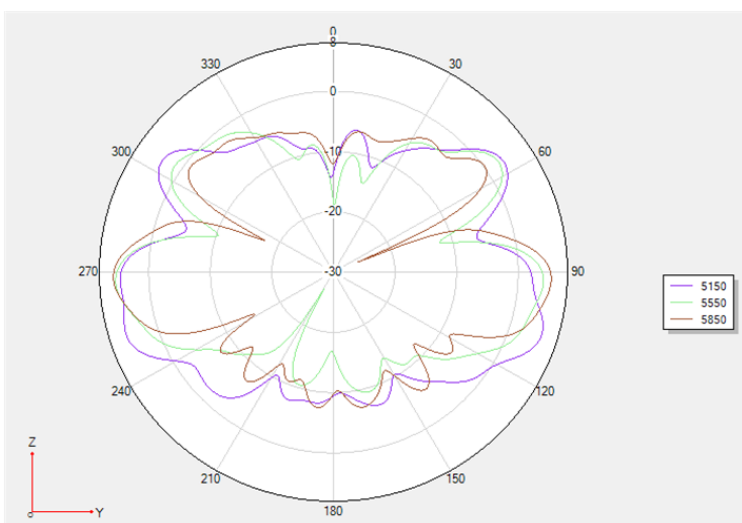
2400MHz\2450MHz\2500MHz YOZ(E2 Face) Gain Icon



5150MHz\5550MHz\5850MHz XOY(H Face) Gain Icon

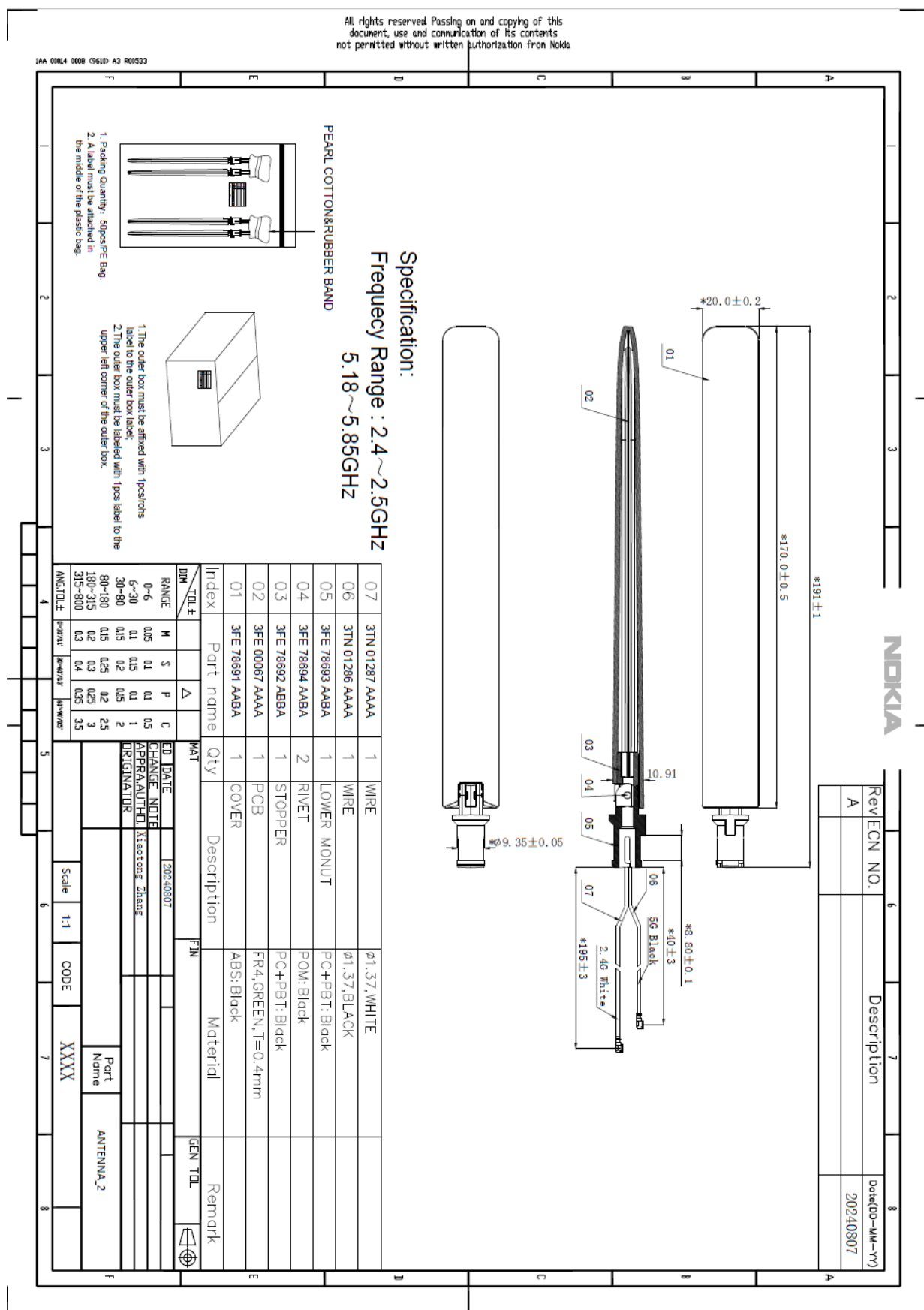


5150MHz\5550MHz\5850MHz XOZ (E1Face) Gain Icon



5150MHz\5550MHz\5850MHz YOZ (E2Face) Gain Icon

5. Product Drawing



6. 6.Optional Cable Data Sheet

RG 细微射频同轴电缆		RF-1.37/50 Ω		
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	镀银铜线 Silver plated copper wire		
	(绞合)标称外径 (mm) (Intertwist)NO M.O.D.(mm)	0.306±0.02		
②绝缘层 Insulation	材料 Material	聚全氟乙丙烯 FEP / 聚乙烯 PE		
	标称外径(mm) NOM.O.D.(mm)	0.9±0.03		
③外导体 Outer conductor	材料 Material	镀锡铜线 Tinned copper wire		
	标称外径(mm) NOM.O.D.(mm)	1.13±0.05		
	覆盖率(%) Coverage ratio(%)	90±5		
④护套层 Jacket	材料 Material	聚全氟乙丙烯 FEP / 聚乙烯 PE		
	颜色 Color	黑 Black/白White		
	标称外径(mm) NOM.O.D.(mm)	1.37±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

电容(pF/m) Capacitance (pF/m)	96	衰减 Attenuation	1GHz	≤1.7
速率(%) Velocity(%)	70		2GHz	≤2.5
阻抗(Ω) Impedance(Ω)	50±2		3GHz	≤3
驻波比 Standing wave ratio	≤1.3@0~6GHz		4GHz	≤3.5
最大工作电压 (V)	1000		5GHz	≤4
最大工作频率(GHz)	6		6GHz	≤4.5
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		mm	4	
最小弯曲半径(重复) Min.bending radius		mm	—	
工作温度范围 Operating temperature		℃	FEP/PE -55~+200	
使用提示 Use tips				
存储环境 Storage environment		温度：30℃以下；湿度：20%~65%		
最佳保存周期 The best save cycle		2 个月；2 个月以上作业性下降，如上锡效果变差,但电性能不受影响。夏季高温高湿环境开剥后需尽快流转		
加工温度 Processing temperature		260℃的极限情况下，可短时间承受；300℃以上分子通常带有的等端基会分解；400℃以上发生显著的热分解		
铁氟龙收缩 Teflon Shrink		固有材料特性。绝缘：0.2mm 以下；护套：0.3mm 以下		
护套窜动 Jacket traverse		加工长度（护套残留长度）低于 5cm 易发生		