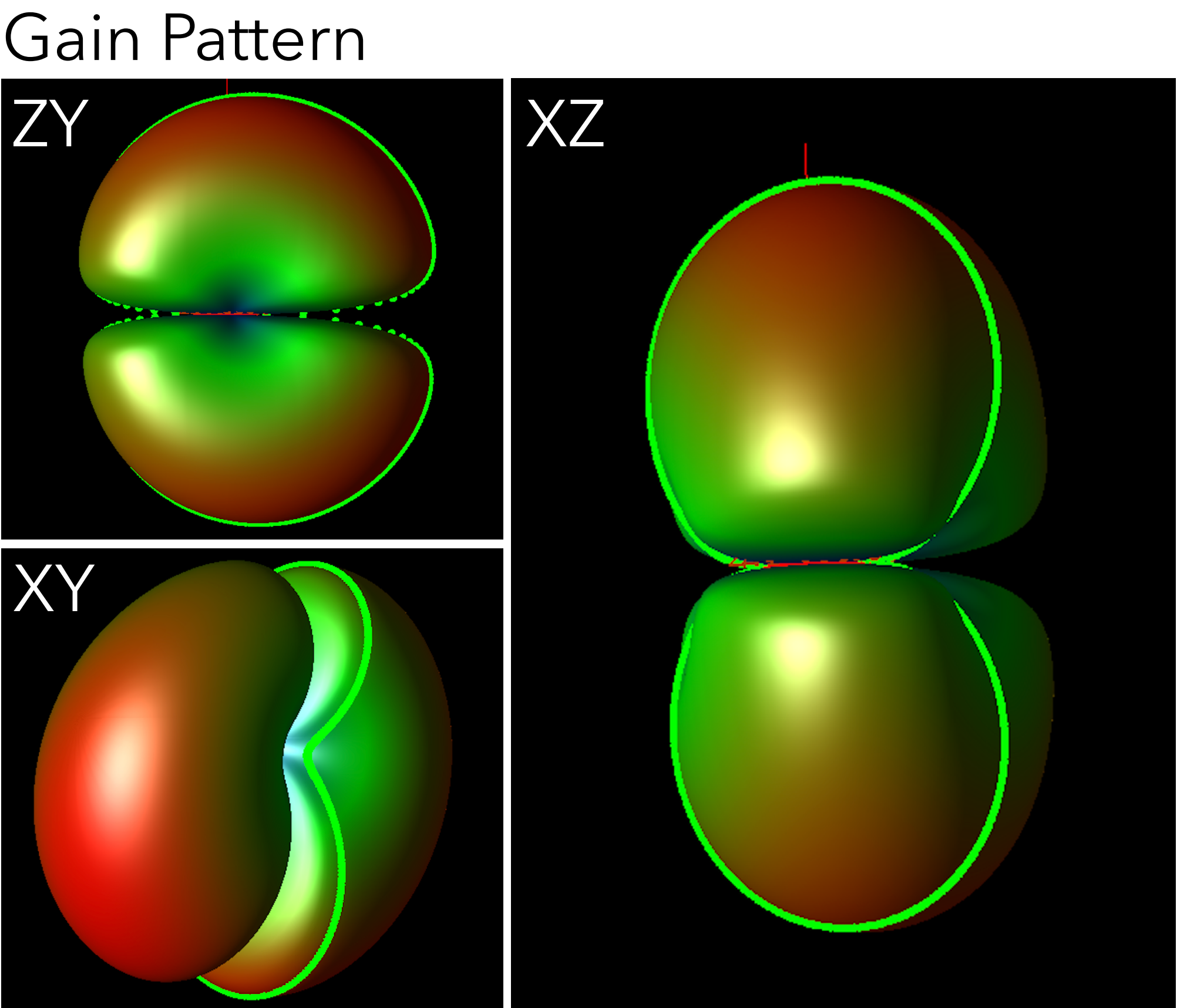
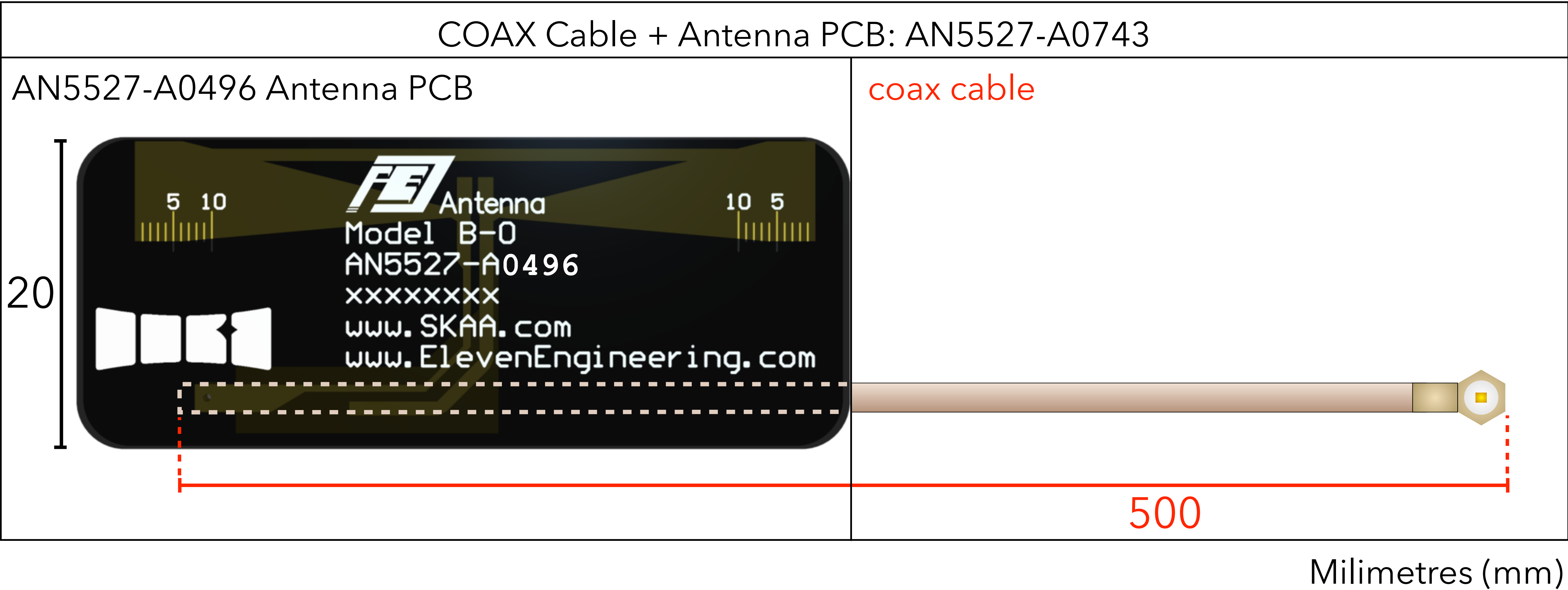


Technical Specification Summary

Antenna Version	B-0
Type	Discrete Dipole
Targeted Frequencies	2.403.5 - 2.477.3 GHz
Predicted Peak Directivity	3.26 dBi
Predicted Peak Gain	2.30 dBi
Efficiency	75%



- Notes:
- 1. XY plane slice is not accurately depicted. The plane slice is actually a conical slice 15° off the XY plane
 - 2. Measurements are in the absolute scale of the E-field



AN5527-A0743

PCB Layer Breakdown

Top Silk Print
Top Solder Mask
Top Copper Route (1 oz)
FR-4
Bottom Copper Route (1 oz)
Bottom Solder Mask
Bottom Silk Print

1.0 mm

Boards Shall conform to IPC-6012, Class 2
RoHS Compliant
2-Layer
SMOBC
Immersion Lead free HASL



As indicated in RF1810057 承认书 Data Sheet



Cable Specification

As indicated in RF1810057 承认书 Data Sheet

1. 产品描述

product description

1.1 本产品是 Teflon 绝缘系列柔软同轴电缆线，适用于微波设备、无线通信设备系统和设备。

This product is soft Teflon insulation series coaxial cable. Is suitable for the microwave equipment, wireless communication systems and equipment.

产品特征：极好的柔软性，低驻波比，良好的屏蔽性能，精确的相位匹配。

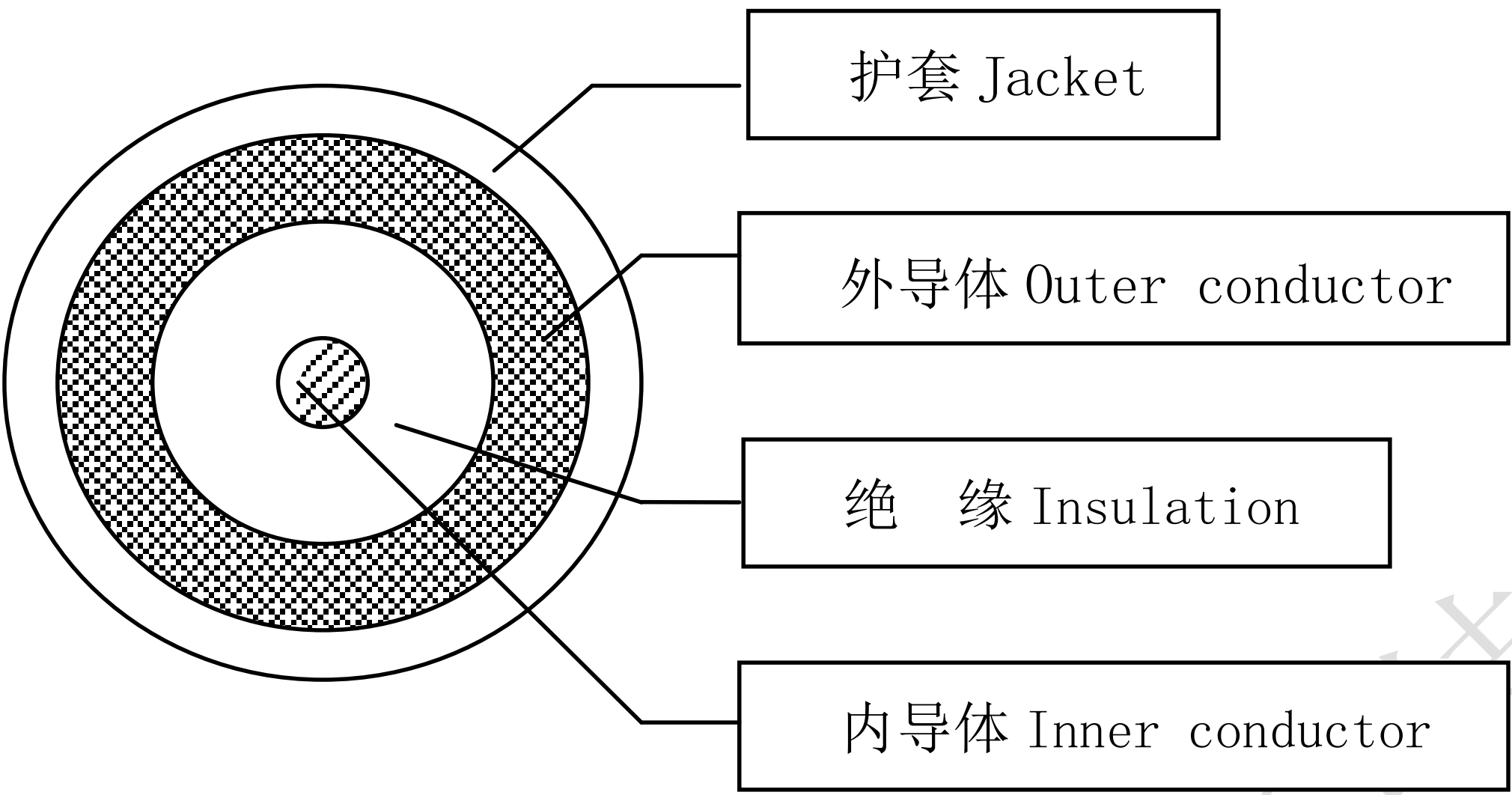
Product features：Excellent flexi-ability, good V.S.W.R, good shielding performance.

2. 电缆详细资料及结构图：

Cable with data and structure diagram:

2.1 结构图：

1structure diagram



2.2 电缆规格：

Specification of cable:

项 目 Item		单位 NO	材质及尺寸 Materials and size
内导体 Inner conductor	材 质 Material	/	镀银铜线 Silver plated copper wire
	构成 Composition	mm	7/0.102±0.003
	外 径 OD	mm	Φ0.30
绝 缘 Insulation	材 质 Material	/	Teflon FEP(200 度 聚全氟乙烯-丙烯树脂) Teflon FEP(200 degrees of fluorinated ethylene propylene resin)
	厚度 Thickness	mm	0.30
	外 径 OD	mm	Φ0.90±0.05
	颜色 Color	/	透明色 transparent color
外导体 Outer conductor	材 质 Material	/	镀锡铜线 Tinned copper wire
	形 式 Form	/	编 织 Weave
	密度 Density	%	92%(22 目(Mesh); 48 编(Coding 3*16/0.10))
	外 径 OD	mm	Φ1.80 ±0.05

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AN5527-A0743 MODEL B-0 ANTENNA DATA SHEET

Cable Specification

As indicated in RF1810057 承认书 Data Sheet

海联通科技 RG178/P-TC 规格书 第 3 页 共 7 页

护套 Jacket	材 质 Material	/	Teflon FEP (200 度聚全氟乙烯-丙烯树脂) Teflon FEP (200 degrees of fluorinated ethylene propylene resin)
	厚度 Thickness	mm	0.25
	外 径 OD	mm	$\Phi 1.80 \pm 0.05$
	护套颜色 color of sheath	/	透明色或棕透明色 (也可按客户要求加工) ransparent color or brown transparent color (Can also be processed according to customer requirements)

3. 电缆特性

The cable properties

3.1 电气性能

Electrical properties

测试项目 test project	标准要求 Standard value		备注 Note
额定温度/电压 Rated temperature / voltage	$-55^{\circ}\text{C} \sim +200^{\circ}\text{C} / 30\text{V}$		/
绝缘电阻 Insulation resistance	$3000\text{M}\Omega \cdot \text{Km}$		电阻测试仪 Resistance tester
导体电阻 Conductor resistance	$345\Omega / \text{Km } 20^{\circ}\text{C}$		/
耐 压 Pressure	2KV		耐压测试仪 Withstand voltage tester
绝 缘 Insulation	未老化前 Unaged	抗拉强度 Tensile Strength	2500 PSI MIN. ($1.76\text{Kg}/\text{mm}^2$)
		延伸率 Elongation	200% MIN
	老化后 Aged	抗拉强度 Tensile Strength	2500 PSI*75% (168HRS*232 $^{\circ}\text{C}$)
		延伸率 Elongation	200% MIN*75% (168HRS*232 $^{\circ}\text{C}$)
护 套 Jacket	未老化前 Unaged	抗拉强度 Tensile Strength	2500 PSI MIN. ($1.76\text{Kg}/\text{mm}^2$)
		延伸率 Elongation	200% MIN
	老化后 Aged	抗拉强度 Tensile Strength	2500 PSI*75% (168HRS*232 $^{\circ}\text{C}$)
		延伸率 Elongation	200% MIN*75% (168HRS*232 $^{\circ}\text{C}$)
特性阻抗 characteristic impedance	$50 \pm 2\Omega$		网析分析仪、TRK 测试仪 Analysis of network analyzer The TRK tester
电容 Capacitance	95.8 PF/M		数字电容仪 Digital capacitance meter
传输速率	69. 5%		网析分析仪

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090324



Cable Specification

As indicated in RF1810057 承认书 Data Sheet

海联通科技 RG178/P-TC 规格书 第 4 页 共 7 页

Velocity	Analysis of network analyzer	
传输延迟 Propagation Delay	4. 8ns/m	/
屏蔽率减 Shielding attenuation	100dB	/
弯曲半径 Bending radius	<9mm	/
阻燃性 (UL) Flame retardant	passed	VW-1 提供材料报告 VW-1 provides material report
屏蔽衰减 (dB/m) Attenuation (dB/m)	测试频率 test frequency	衰减 Attenuation
	0. 1GHz	0. 46
	0. 4GHz	0. 95
	1GHz	1. 48
	2GHz	2. 65
	3GHz	3. 28
	4GHz	3. 54
	5GHz	4. 30
	6GHz	4. 80
驻波比 VSWR	0. 3—3GHz	≤1. 30
	3—6GHz	≤1. 35

4. 包装要求
- Packaging requirements
- 4.1 包装长度: 500 米
- Package length:500 meters
- 包装方式: 轴,
- The way of packing: Volume
- 最短线长度: ≥50 米
- The stub length: ≥50 meters
- 4.2 包装标识:标准或按客户要求.
- Packaging and labeling: standard or according to customer requirements.

5. Material Safety Data Sheet (物质安全资料表)

- 物品与厂商资料
- 物品名称: 同轴高频线
- 物品编号: RG178 TC 系列
- 成分辨识资料
- 纯物质:
- 中英文名称: 氟树脂 Teflon/镀银线 Silver Plated Copper/镀锡铜线 Tinned Plated Copper 同义名称: FEP/SC/
- 化学文摘社登记号码 (CAS No.):
- 危害物质成分 (成分百分比) :
- 混合物: 8108mg/Km

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