东莞市天技实业有限公司

承　认　书

SPECIFICATION FOR APPROVAL

Customer: C-DATA

PROJECT:

PARTNUMBER: 1.34.1000-167

DESCRIPTION: 5GHz--5dBi--L=150mm(Φ1.37black)--IPEX

MODEL: TJ029-02168-01

DATE: 2023-6-8

VER: X1

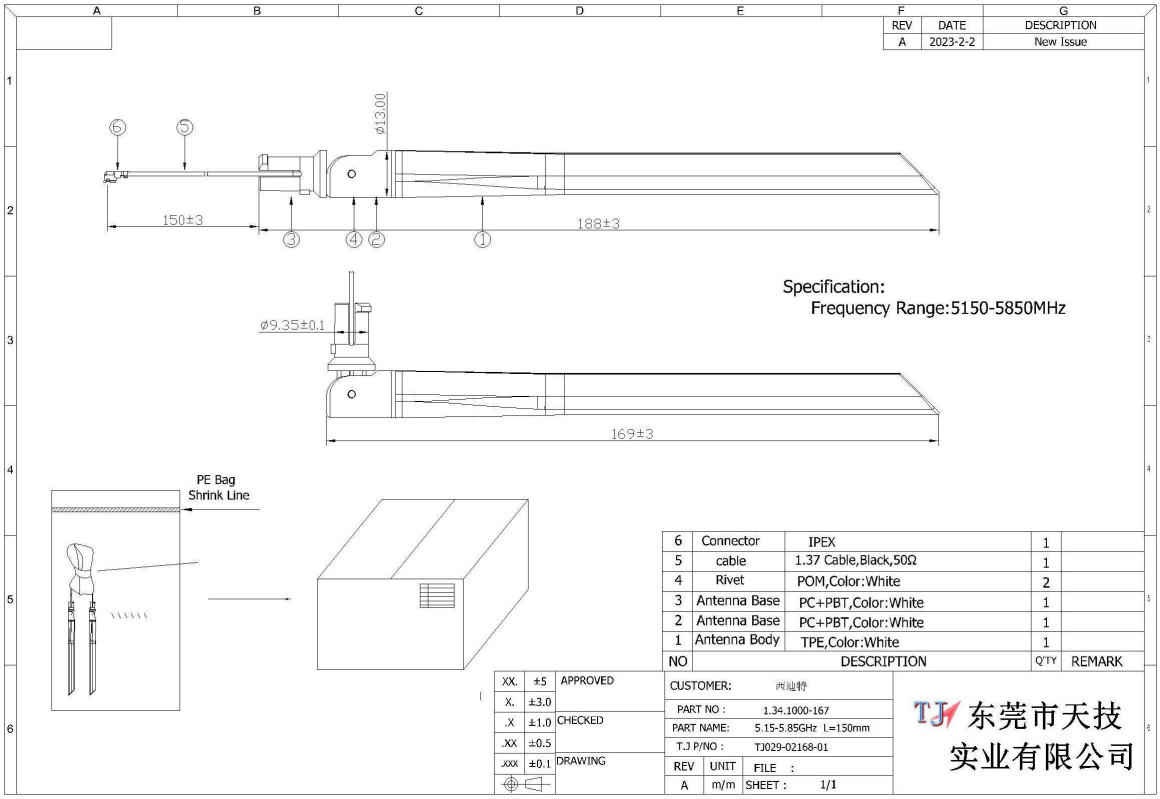
	MANUFACTURE SIGNATURE	CUSTOMER SIGNATURE
CHECKED BAY:	CLL	
AUDITOR BAY:	/	
APPROVED BAY	JBM	
DATE:	2023-6-8	

DongguanTianjiIndustrial Co., Ltd
Address: No.12 ZhuangyuanbiStreet, Matigang Village, DalingshanTown, DongguanCity

1. Specificationtable

主要技术指标		Main technical specifications	
频率范围 (MHz)	5150~5850	Frequency Range (MHz)	5150~5850
特性阻抗(Ω)	50	Impedance(Ω)	50
增益(dBi)	5	Peak Gain(dBi)	5
输出电压驻波比	Max 2.0	VSWR	Max 2.0
最大功率	2W	Admitted Power	2W
极化方式	垂直极化	Polarization	Linear Vertical
方向性	全向	Radiation	Omni-directional
连接方式	端子	Connector Type	IPEX
物理性能		Physical Properties	
天线線材	1.37 黑色	Antenna cable	1.37Black Cable
工作温度	-40℃~+60℃	Operating Temp	-40℃~+60℃
保存温度	-40℃~+60℃	Storage Temp	-40℃~+60℃

2. Drawing



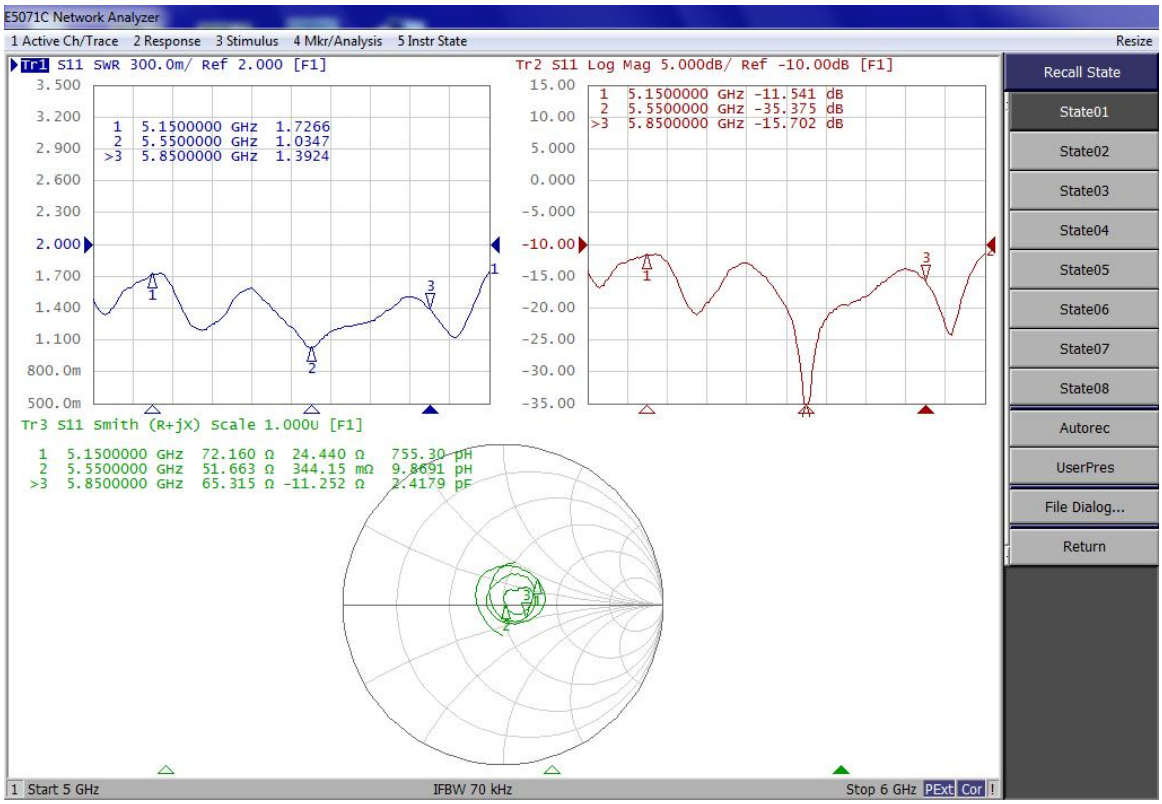
Sampletesting report

No.	Item	Standard	N01	N02	N03	N04	N05
1	CNR	MAX 2.0	1.52	1.48	1.61	1.45	1.52
2	Size 1(mm)	150±3	150	150	152	151	151
3	Size 2(mm)	9.35±0.1	9.35	9.35	9.36	9.36	9.35
4	Size 3(mm)	169±2	169	170	169	170	170

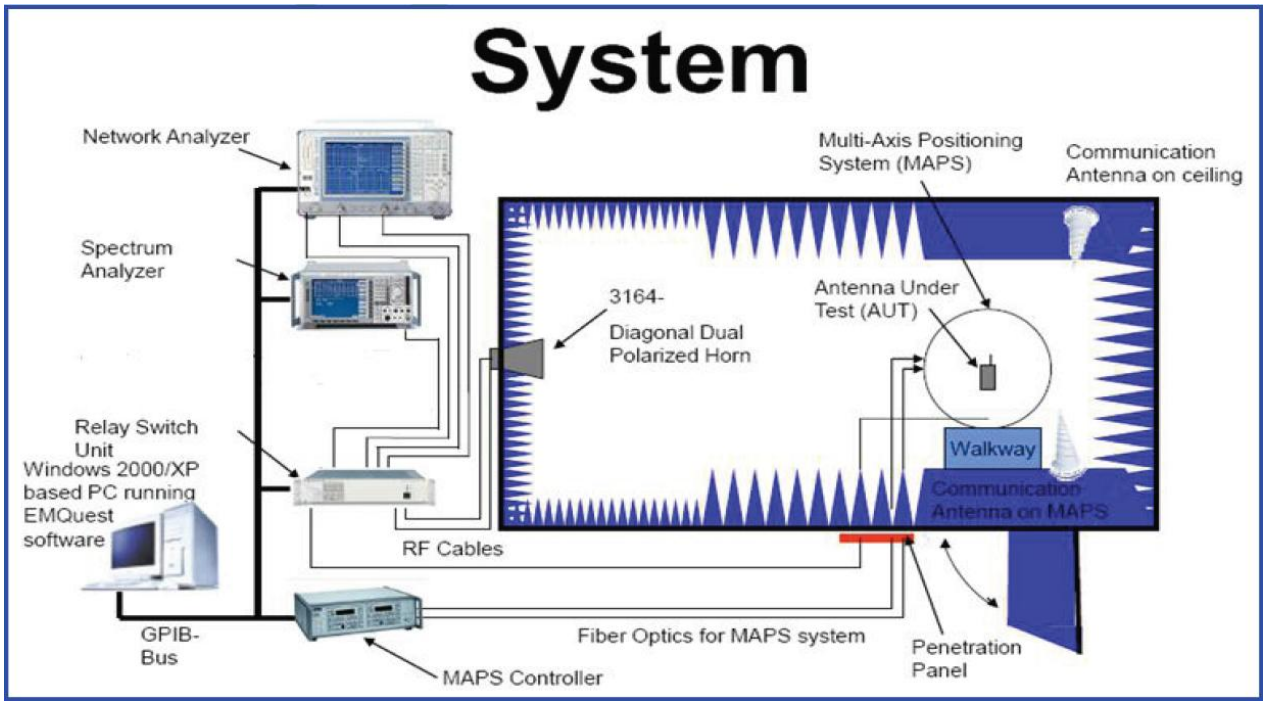
3. 电测报告 Product Characteristics

Agilent E5071C Network Analyzer	

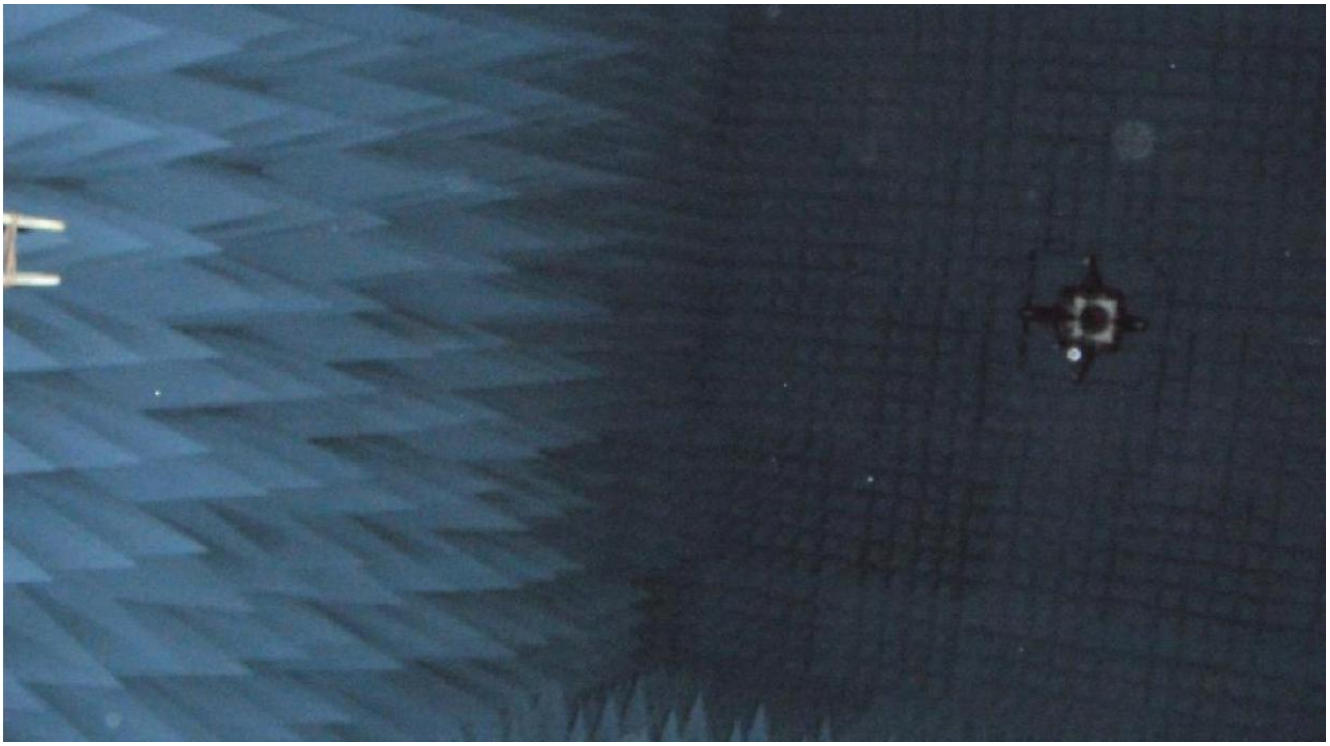
Return Loss



Test principle block diagram:

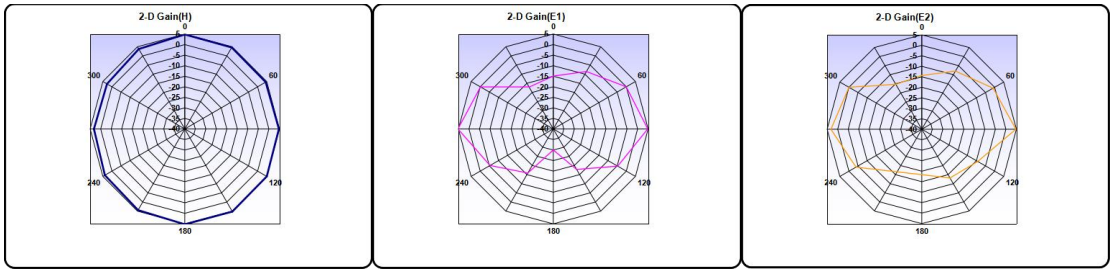


Internal imageof thedarkroom:

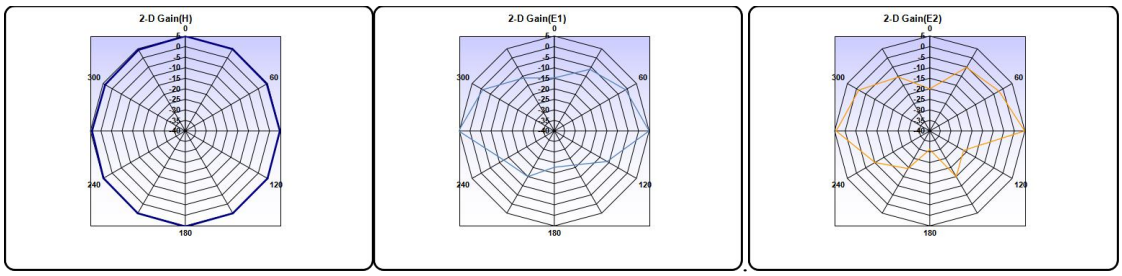


Radiation Pattern

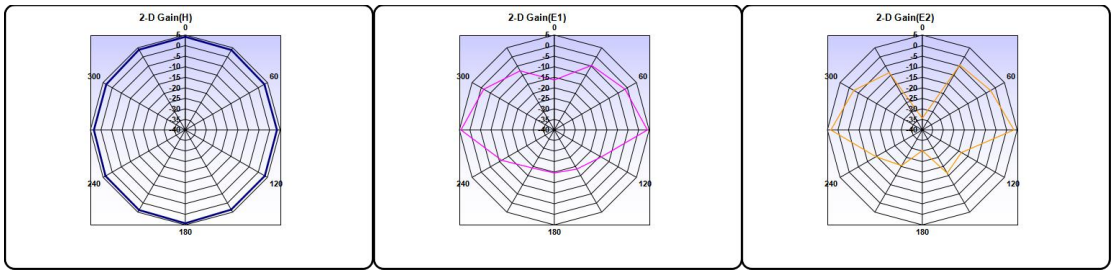
5.15GHz



5.55GHz



5.85.GHz



Summary

Return loss (dB)

	5150MHz	5550MHz	5850MHz
Return loss(dB)	-11.54	-35.37	-15.70

1. 适用范围:
Scope
本规格书制定了 RF113 50Ω FEP 绝缘射频电缆的结构和电气特性.
This specification covers the construction and the celec trical properties of RF113 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	镀锡铜线/Tinned plated Copper
	构成(根/mm)/Composition(No./mm)	7/0.08±0.003
	标称直径/NOM.O.D	0.24±0.01
绝缘层/Insulation	材料/Material	聚全氟乙丙烯/FEP
	标称外径/NOM.O.D	0.7±0.03
	颜色/Color	Natural
编织层/Braid Shield	材料/Material	镀锡铜线 Tinned copper
	构成/Composition	16/4/0.05±0.003
	标称直径/NOM.O.D	0.92±0.03
护套/Jacket	材料/Material	聚全氟乙丙烯/FEP
	标称外径/NOM.O.D	1.13±0.05
	颜色/Color	/

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

项目/Item	单位/Unit	详细资料/Details	
电容/Capacitance	pF/m	98	
特性阻抗/Conductor Resistance	Ω	50±3.0	
耐压强度/Dielectric Strength	A.C V/1min	1000	
最大工作频率/Max.oper. frequency	MHz	6000	
伸长率/ elongation	%	200%	
抗拉强度/Tensile strength	kgf/mm²	1.76	
工作温度范围/Operating Temp.	℃	-55to200	
衰减/Attenuation	/	频率/Frequency(MHz)	dB/1m
		1000	≤2.2
		2000	≤3.1
		3000	≤3.9
		4000	≤4.5
		5000	≤5.0
		6000	≤5.5
驻波比/Standing wave(0-6GHz)	/	≤1.5	