

Product

Specification for Approval

Customer Name: Customer

Hangzhou Hikvision Digital Technology Co.,Ltd

Supplier: Supplier

Kenbotong Technology Co., Ltd

Customer part number: Customer P/N

100402226

Project Name: Production Name

Project Model: Production Number

TQX-071427HK22-L

Supplier Signature (Supplier Confirmation Seal)		
Engineer Engineer	Verified by	Approved by
Zivix	Chen Zhenyu	Feng Zhilong

Customer Confirmation Seal (Customer Signature)		
Engineer Engineer	Verified by	Approved by
specific date	specific date	specific date

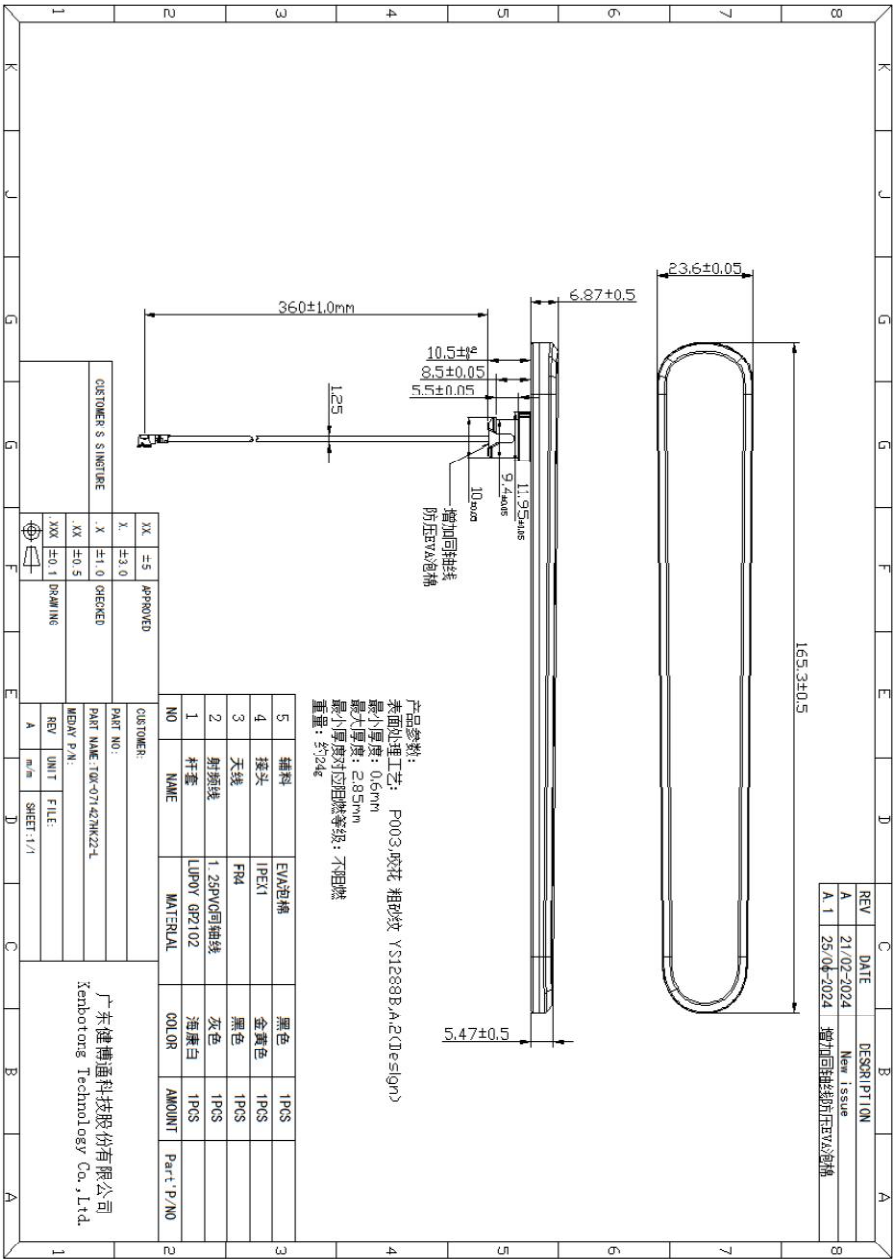
Change Resume Description Record

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1 Antenna structure drawing (mm)



2 Physical image of antenna

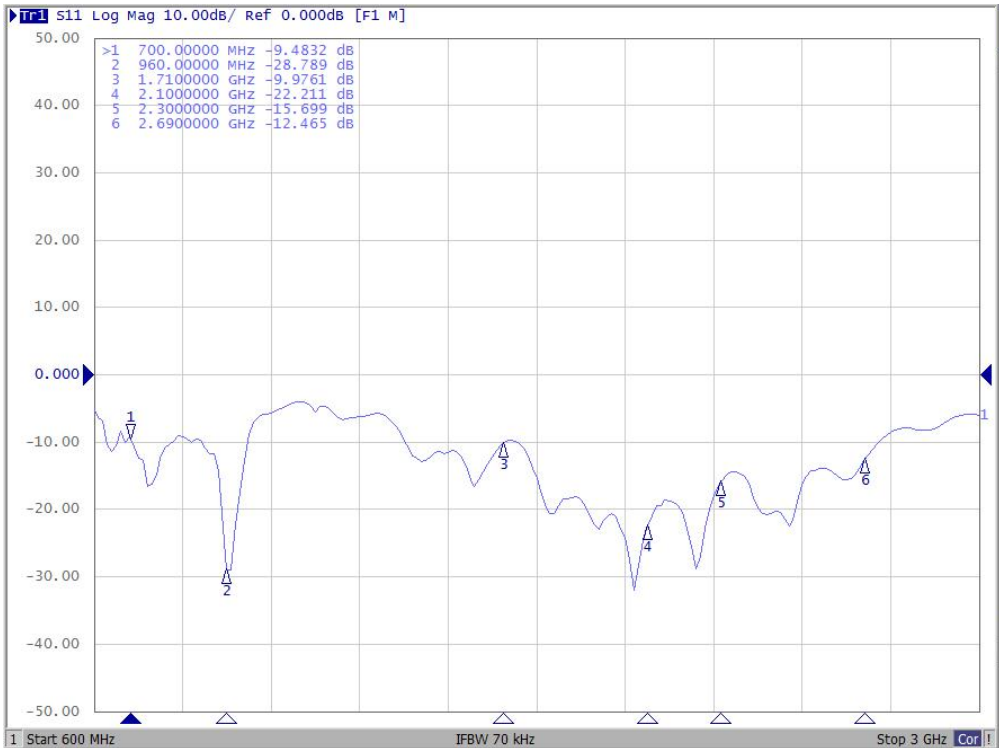
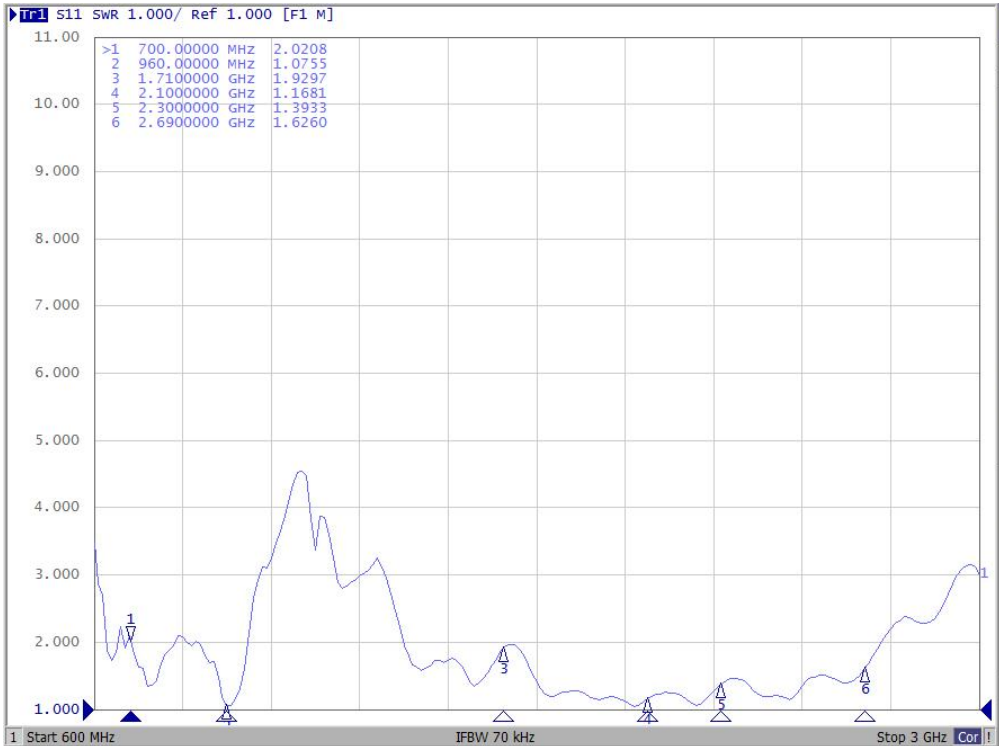


3 Antenna Physical Properties Table

Electrical parameters	
Antenna form (Antenna)	External rubber stick omnidirectional antenna
Working frequency	700-960/1700-2700
Voltage Standing Wave Ratio (VSWR)	≤2.5
Feed impedance	50Ω
Radiation Parameters	
Gain (Gain)	-0.09-3.68
Antenna efficiency	40.64-64.42
Polarization method	linear polarization
Axial Ratio	/
Radiation pattern	Omnidirectional
Mechanical Parameters	
Cable material	PVC
Antenna Interface	IPEX-1
Antenna dimensions (Overall dimensions)	165.3*23.6
Weight	About 24g
Glue model	Customized adhesive
Detection Parameters	
IP rating (Ingress Protection rating)	IP67
Air tightness standard	50Kpa/10S no leakage (full inspection)
Environment Parameters	
Operation Temperature	-45-75℃
Storage Temperature (Storing Temp)	-45-75℃

4 Antenna performance testing

1 Standing Wave Ratio&Return Loss



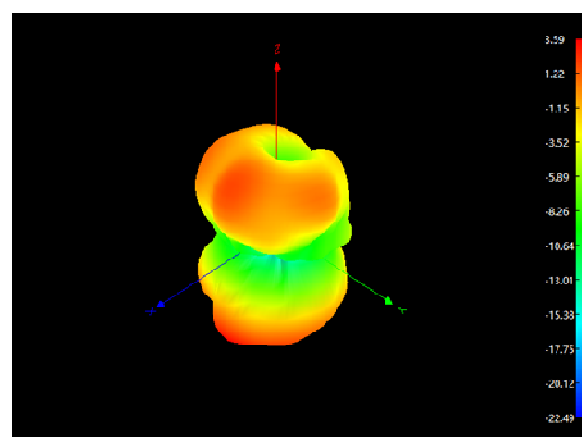
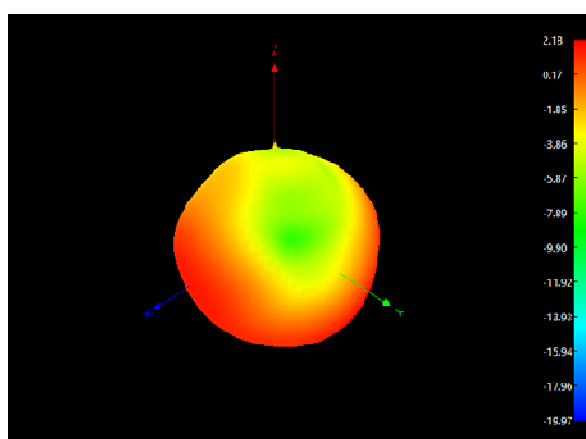
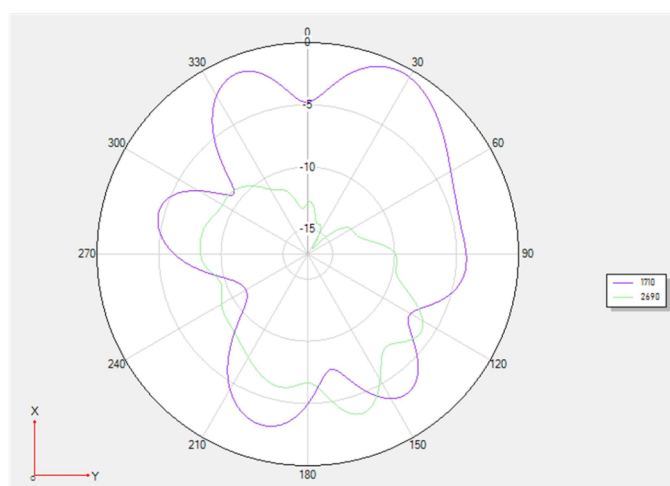
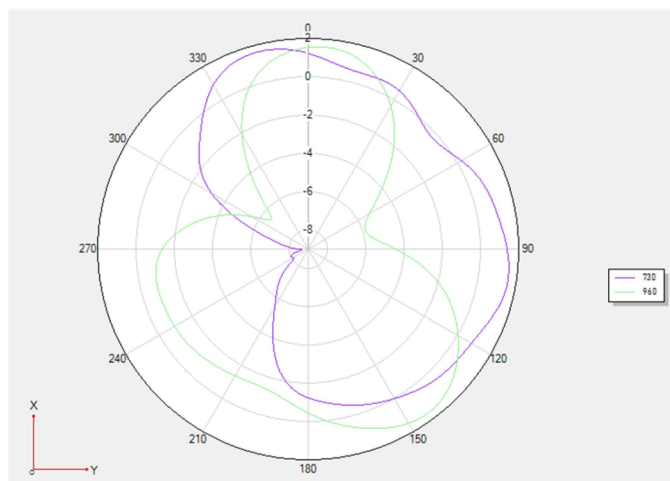
2 efficiency

Frequency/MHz	Gain/dB	Efficiency/%	Frequency/MHz	Gain/dB	Efficiency/%	Frequency/MHz	Gain/dB	Efficiency/%
700	3.26	55.75	1720	2.64	49.89	2010	1.98	47.32
710	2.97	54.36	1730	2.31	49.32	2020	2.1	49.55
720	3.1	50.12	1740	2.21	47.1	2030	1.75	47.21
730	2.69	48.53	1750	2.02	47.64	2040	1.6	46.45
740	2.75	50.12	1760	2.35	49.66	2050	1.38	43.25
750	1.75	46.03	1770	1.99	49.77	2060	1.64	48.98
760	1.87	47.21	1780	2.35	51.29	2070	2	50.7
770	1.43	50.23	1790	2.04	50.82	2080	2.02	54.7
780	1.53	53.09	1800	2.74	53.83	2090	1.9	50.7
790	1.08	51.4	1810	2.4	52.12	2100	1.67	53.7
800	-0.09	52.6	1820	2.86	52.72	2110	1.54	49.66
810	0.47	54.33	1830	2.85	51.64	2120	1.28	50.7
820	0.91	56.62	1840	3.35	54.45	2130	1.31	47.32
830	1.4	58.21	1850	3.22	54.33	2140	1.64	52.48
840	1.99	62.37	1860	3.45	54.7	2150	1.53	48.19
850	1.77	64.42	1870	3.32	55.59	2160	1.41	48.19
860	1.58	61.94	1880	3.48	56.1	2170	1.28	46.77
870	0.68	57.02	1890	3.46	57.02	2180	1.45	50.35
880	0.46	52.48	1900	3.39	57.54	2190	1.39	49.32
890	0.27	50.58	1910	3.24	59.29	2200	1.38	49.43
900	0.42	50	1920	2.86	57.54	2210	1.7	50.58
910	0.9	51.64	1930	2.76	58.08	2220	1.84	51.64
920	1.3	53.58	1940	2.61	56.75	2230	1.84	51.52
930	1.76	56.36	1950	2.82	58.61	2240	1.42	50.23
940	1.68	58.08	1960	2.68	54.95	2250	1.29	51.17
950	2.06	58.08	1970	2.54	53.58	2260	0.98	50.47
960	2.18	56.36	1980	2.54	53.46	2270	1.03	50.58
1700	2.8	50.58	1990	2.39	52.24	2280	0.54	49.77
1710	2.65	51.52	2000	2.2	49.09	2290	0.64	48.87

Frequency/MHz	Gain/dB	Efficiency/%	Frequency/MHz	Gain/dB	Efficiency/%			
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Hz				Hz						
2300	0.23	49.77		2590	1.9	42.46				
2310	0.46	48.87		2600	2.49	46.56				
2320	0.26	49.66		2610	2.3	44.36				
2330	0.77	49.43		2620	2.33	44.16				
2340	0.75	50.35		2630	2.5	45.08				
2350	1.05	47.21		2640	2.44	49.2				
2360	0.96	47.1		2650	2.66	47.86				
2370	1.68	47.97		2660	2.22	46.77				
2380	1.51	48.75		2670	3.68	45.19				
2390	1.9	46.34		2680	3.68	45.6				
2400	1.63	47.86		2690	3.59	43.75				
2410	2.09	47.75		2700	3.14	40.64				
2420	1.71	48.42								
2430	2.09	46.56								
2440	2	48.98								
2450	2.22	48.42								
2460	2.12	49.2								
2470	2.19	48.87								
2480	2.21	49.77								
2490	2.12	48.87								
2500	2.26	48.31								
2510	2.19	48.87								
2520	2.21	48.53								
2530	1.79	47.75								
2540	2.25	46.67								
2550	1.91	46.45								
2560	2.27	46.34								
2570	1.84	45.5								
2580	2.3	44.26								

3 direction diagram



5 Cable specifications

产 品 规 格 书
Product specification

物料编码: 811303001/02

Material code:

产品名称: 同轴线缆

Product name: coaxial cable

产品型号: RF1.25 双锡-PVC 灰

规 格: 7/0.08TC

Specifications: 7/0.08TC

⋮

版本号 version number	修订日期 Revision date	修订内容 revised contents	修订人 Revised	发行日期 date of issue
A	2020-03-01	新 增 new increase		2023-11-23
B				
C				
D				
E				
F				
制 作 Preparation		审 核 auditor	批 准 approver	
罗显伟		曾小全		

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。

1.2 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:

structure diagram



导体 绝缘 包带 编织 护套

2.2 电缆规格:



Specification of cable:

项 目 Item		单位 NO	材质及尺寸 Materials and size
①内导体 Inner conductor	材 质 Material	/	镀锡铜线 Tinned copper wire
	构 成 Composition	mm	7/0.08±0.02
	外 径 OD	mm	Φ 0.24
②绝 缘 Insulation	材 质 Material	/	Teflon FEP (200 度 聚全氟乙烯-丙烯树脂) Teflon FEP (200 degrees of <u>fluorinated ethylene propylene resin</u>)
	厚 度 Thickness	mm	0.21
	外 径 OD	mm	Φ 0.68±0.03
	颜 色 Color	/	透明色 transparent color
③包带 Tape	材料/Material	/	铜箔
	外 径.O.D	mm	Φ 0.73
④外导体 Outer conductor	材 质 Material	/	镀锡铜线 Tinned copper wire
	形 式 Form	/	编 织 16*4*0.05 Weave
	密 度 Density	%	93%(25 目 (Mesh); 64 编 (Coding 16*4/0.05mm))
	外 径 OD	mm	Φ 0.95±0.05
⑤护 套 Jacket	材 质 Material	/	PVC (聚氯乙 烯) PVC (polyviryl chloride)
	厚 度 Thickness	mm	0.125
	外 径	mm	Φ 1.25±0.05



	OD		灰/黑(也可按客户要求加工) Gray or black (Can also be processed according to customer requirements)
	护套颜色 color of sheath	/	

3. 电缆特性

The cable properties

3.1 电气性能

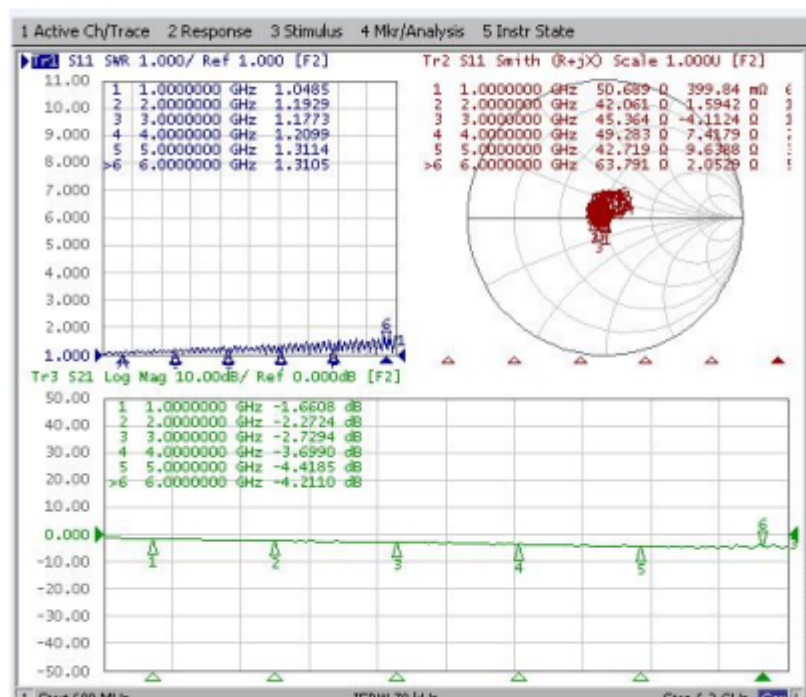


Electrical properties

测试项目 test project	标准要求 Standard value		备注 Note
额定温度/电压 Rated temperature / voltage	-15℃~+75℃ / 30V		/
绝缘电阻 Insulation resistance	3000MΩ.Km		电阻测试仪 Resistance tester
导体电阻 Conductor resistance	482Ω/Km 20℃		/
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. (1.76Kg/mm ²)
		延伸率 Elongation	200% MIN
	老化后 Aged	抗拉强度 Tensile Strength	2500 PSI*75% (168HRS*232℃)
		延伸率 Elongation	200% MIN*75% (168HRS*232℃)
护 套 Jacket	未老化前 Unaged	抗拉强度 Tensile Strength	2500 PSI MIN. (1.76Kg/mm ²)
		延伸率 Elongation	200% MIN
	老化后 Aged	抗拉强度 Tensile Strength	2500 PSI*75% (168HRS*232℃)
		延伸率 Elongation	200% MIN*75% (168HRS*232℃)
特性阻抗 characteristic impedance	50±2Ω		网析分析仪、TRK 测试仪 Analysis of network analyzer The TRK tester
电 容 Capacitance	96±3 PF/M		数字电容仪 Digital capacitance meter
传输速率 Velocity	69%		网析分析仪 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	<7mm		/
阻燃性 (UL)	passed		VW-1 提供材料报告

Flame retardant			VW-1 provides material report
屏蔽衰减 (dB/0.1m) Attenuation (dB/0.1m)	测试频率 test frequency	衰减 Attenuation	海平面 20℃测试 Sea level to 20 DEG C test
	1GHz	0.45	
	2GHz	0.55	
	3GHz	0.75	
	4GHz	0.9	
	5GHz	1.25	
驻波比 VSWR	0.3—3GHz	≤1.30	
	3—6GHz	≤1.55	

测试数据:



6 Interface specifications

