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RF Feeder System

KINGSIGNAL TECHNOLOGY CO., LTD



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Kingsignal Technology Co., Ltd of China, is a leader in the development, production and distribution of cables. Its experienced staff, modern facilities and commitment to customer service and support make Kingsignal your preferred source.

Kingsignal cable products serve a wide range of markets, including mobile communications, high speed digital data transmission, commercial and military aviation, long range radar systems, precision test cables and related markets – all requiring high quality, consistent and dependable performance.

Kingsignal cable products are produced in a wide range of configurations to best serve customers needs. Dielectric insulations include solid and precision foamed polyethylene and PTFE-Teflon®, featuring low dissipation loss factors and a high velocity of propagation, needed for low attenuation and small size.

Configurations include semi-rigid, semi-flexible, MIL-C-17 coaxial cables, 75 and 50-ohm impedance braided products, corrugated cables and combinations thereof.

Kingsignal's manufacturing and R&D capabilities are World Class and utilize the latest equipment and techniques in order to meet and exceed their customer's demanding requirements. Their Engineering staff is eager to work with and assist customers in order to provide the best solution for their RF transmission needs. Recent examples of Kingsignal programs were state of the art cables for the first generation Chinese AWACS aircraft and for the Shenzhou series spacecraft.

Kingsignal engineers are respected and active members of international standards making organizations. In 2007, Kingsignal technical experts played a major role in an IEC Standards Seminar, held on behalf of the cable industry of

China, and generated five international standards for various semi-flexible cable designs, which were approved and listed.

Kingsignal continues to pursue and obtain the qualifications and certifications needed to verify its leadership position in the cable market. Just a few of these approvals include:

- ISO9001-2008 Quality Management System Certification
- ISO14001 Environmental Management System Certification
- GJB9001A:2001 CNAS Certification (China National Accreditation Service for Conformity Assessment
- UL Certification, granted by CCIC (China Certification & Inspection Group Shenzhen Company, Ltd)

Kingsignal's capabilities have been recognized in many regions of the world with exports including such geographical regions as Europe, the United States, Middle East, Southeast Asia and other areas which require high performance, high quality cables. The list is growing, as more companies become familiar with Kingsignal's advanced capabilities and reliable distribution.

Kingsignal's modern facilities, highly trained, experienced and motivated staff have helped the company rapidly expand its position in the cable market. Management's commitment to continuous improvement along with its already established capabilities allow Kingsignal to provide customers with the product quality, technology, high value and dependable supply chain that they require for their own success. Allow Kingsignal to help your company obtain the best cable you can purchase on a reliable and dependable basis.

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Adaptors	18

Jumper Cable Series

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Accessories for Antenna Feeder

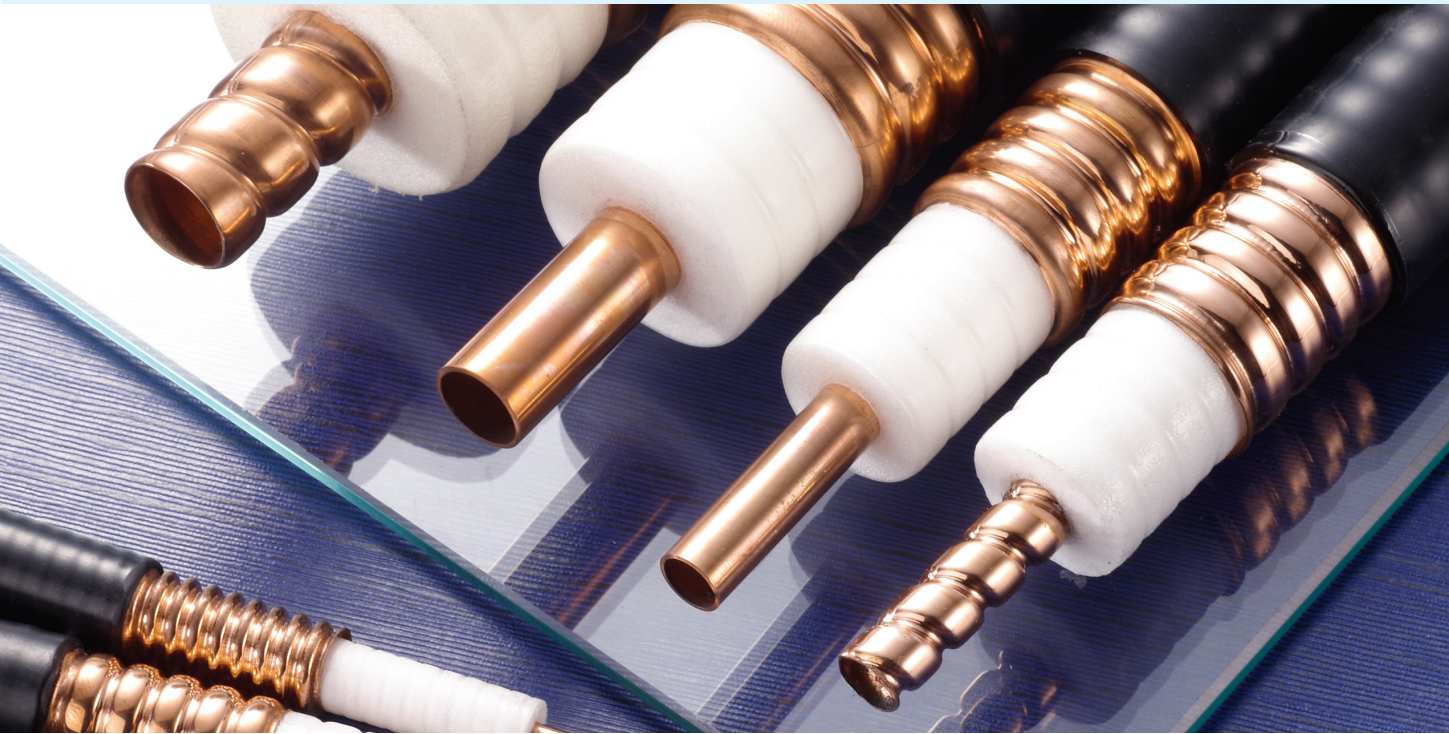
Clamping Kits	24
Grounding Kits	26
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RF Feeder System

Feeder Cable Series

Feeder Cables

Feeder cables have a broad use, such as land mobile and cellular radio, earth station antenna jumper cables, jumpers for equipments room and antenna connection, military data links, VLF AM and FM radio broadcast systems, point to point terrestrial microwave and so on. The complete ranges of feeder cable made by Kingsignal have excellent electrical performances and low in VSWR, easy to install and maintain.



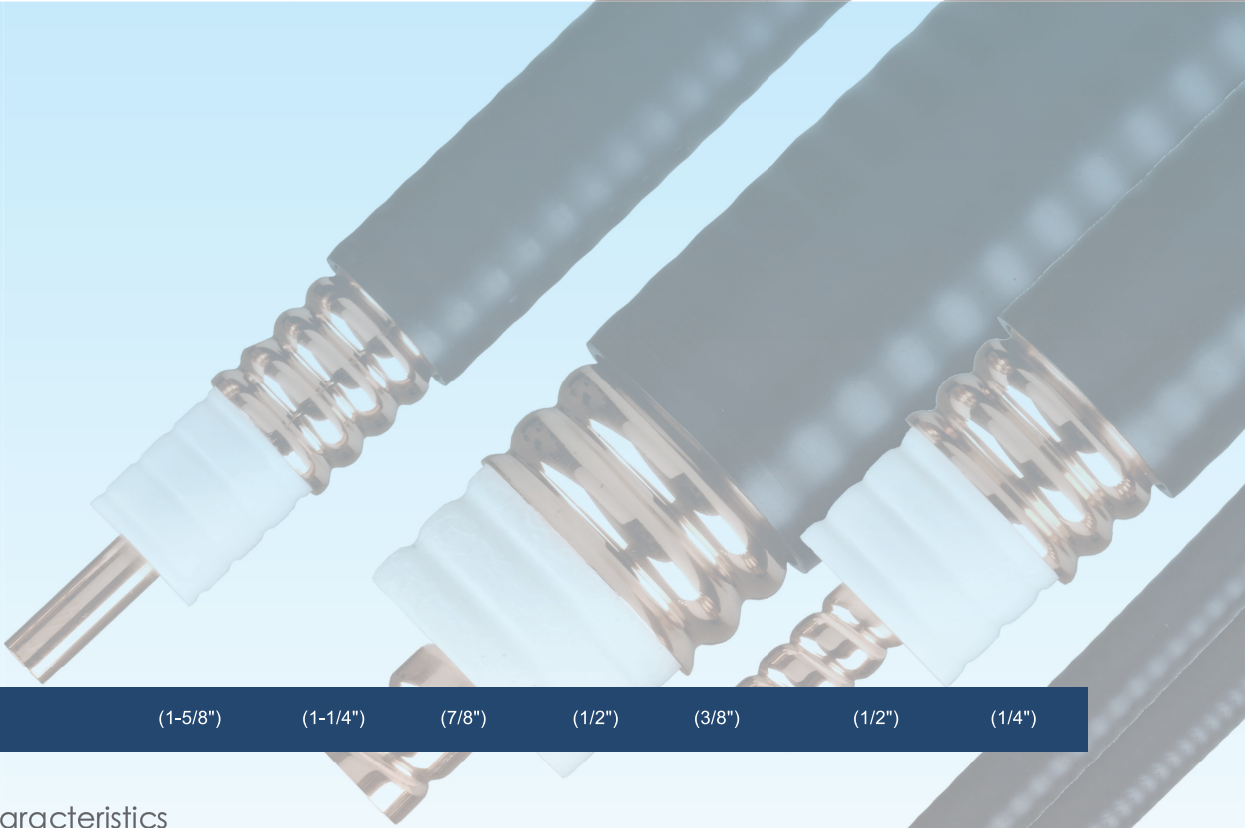
	(1-5/8")	(1-1/4")	(7/8")	(1/2")	(3/8")	(1/2")	(1/4")
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Physical Dimensions

Inner Conductor	Material	Hellical Cu-tube	Smooth Cu-tube		CCA or Cu wire		
	Diameter（mm）	17.30	13.10	9.05	4.80	3.15	1.91
Dielectirc	Material	Physical Foam Polyethylene					
	Diameter（mm）	44.00	33.30	22.70	12.20	8.20	4.70
Outer Conductor	Material	Annular corrugated Cu-tape			Hellical Cu-tube		
	Diameter（mm）	46.50	35.80	24.90	13.80	9.50	12.20
Jacket	Material	PE or LSZH PE Jacket					
	Thickness（mm）	1.75	1.80	1.55	1.00	0.85	0.70
	Diameter（mm）	50.00	39.40	27.50	15.80	11.20	13.60

Mechanical Characteristics

Minimum Bending Radius（mm）	Single Bending	300.00	200.00	120.00	70.00	50.00	25.00	25.00
	10 Repeated Bending	600.00	380.00	250.00	125.00	95.00	30.00	30.00
	Mobile Application	——	——	500.00	350.00	300.00	200.00	200.00
Max.Pulling Strength（N）		3650.00	5900.00	1480.00	1100.00	800.00	800.00	680.00



	(1-5/8")	(1-1/4")	(7/8")	(1/2")	(3/8")	(1/2")	(1/4")
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Electrical Characteristics

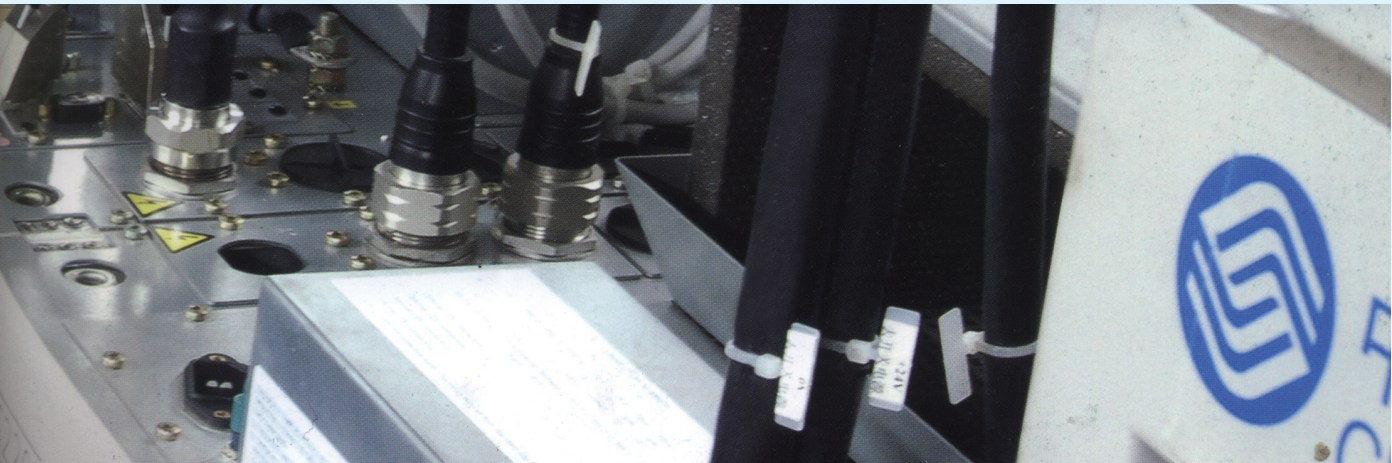
Capacitance (PF/m)		76		76		76		76		82		80	
Impedance (Ω)						50						50	
Velocity Ratio (%)						88						81	
Attenuation (db/100m)	150MHz	0.83	1.03	1.52	2.70	4.26		3.85		6.50			
	200MHz	0.98	1.20	1.78	3.15	4.92		4.65		8.00			
	450MHz	1.55	1.89	2.74	4.80	7.56		7.20		12.20			
	800MHz	2.12	2.60	3.80	6.51	10.50		9.86		16.70			
	900MHz	2.28	2.80	4.08	6.92	11.05		10.56		17.50			
	1000MHz	2.45	2.92	4.31	7.30	11.60		11.15		18.60			
	1500MHz	3.15	3.75	5.45	9.20	14.60		13.80		23.40			
	1800MHz	3.50	4.15	6.30	10.10	16.05		15.55		25.70			
	2000MHz	3.75	4.43	6.46	10.70	17.19		16.40		26.90			
	2400MHz	4.18	4.93	7.43	12.08	19.21		18.10		30.50			
	2500MHz	4.30	5.08	7.10	12.15	17.12		18.50		30.60			
	3000MHz	—	5.69	8.40	13.42	22.24		20.90		33.50			
Avg.Power Rating (Ambient Temperature 40 ℃, Inner Conductor80 ℃)	100MHz	12.50	9.56	6.15	2.83	1.72		3.03		1.23			
	200MHz	8.81	6.82	4.35	2.02	1.15		2.11		0.86			
	450MHz	5.50	4.23	2.72	1.25	0.82		1.37		0.57			
	800MHz	3.91	3.05	1.98	0.90	0.65		1.00		0.42			
	900MHz	3.73	2.85	1.87	0.87	0.59		0.94		0.39			
	1000MHz	3.45	2.71	1.74	0.82	0.51		0.88		0.37			
	1500MHz	2.61	2.13	1.38	0.64	0.40		0.70		0.30			
	1800MHz	2.30	1.90	1.20	0.58	0.37		0.63		0.27			
	2000MHz	2.23	1.75	1.11	0.55	0.34		0.59		0.26			
	2500MHz	1.90	1.54	1.01	0.48	0.32		0.52		0.23			
3000MHz	—	1.37	0.89	0.43	0.27		0.48		0.21				
RF Peak Voltage (KV)		5.70	4.53	3.00	2.00	1.25		1.13		0.80			
RF Peak Power (KW)		315.00	205.00	91.00	40.00	15.60		19.00		6.40			
Cut-off Frequency (GHz)		3.00	4.00	6.00	8.80	13.50		10.20		20.40			
elding Effectiveness(>10MHz)		>120											
Insulation Resistance (M·km)		≥5000											
(VSWR)	0.05-3GHz	—			≤1.15								
	0-2GHz	≤1.15			—								
	800-900MHz	≤1.10											

RF Feeder System

RF Coaxial Connector Series

7/16 Type Coaxial Connectors

The 7/16 type Connector has a thread joining structure. Its Characteristics are large power and capacity, low voltage standing wave ratio, high performance of third-order intermodulation and good air tightness. It can be used in the system of broadcast and television antenna, jumper connecting and microwave communication system.



Technical Characteristics

Item	Technical Standards
Temp. Scope	-40~+85℃
Relative Humidity	≤95%
Atmospheric Pressure	70~106Kpa
Characteristic Impedance	50Ω
Frequency Range	DC~7.5GHz
Working Voltage	2700V
Withstanding Voltage	≥4000V
Insulation Resistance	≥10000MΩ
Contact Resistance	—
Outer Conductor	≤0.2 MΩ
Inner Conductor	≤0.4 MΩ
Voltage Standing Wave Ratio	—
Straight	≤1.10(≤2.2GHz)
Right Angle	≤1.15(≤2.2GHz)
3rd Order Intermodulation at 2*20w	≤-150dBc
Insertion Loss	≤0.08dB(2.2GHz)
Durability(mating)	≥500 (cycles)



Material & Plating

Name	Materials	Electroplate
Outer Conductor	Brass	Silver or CuSnZn Plated
Contact Pin	Brass	Gold or Silver Plated
Socket	Beryllium or Tin Bronze	Gold or Silver Plated
Elastic Contact	Beryllium or Tin Bronze	Silver or CuSnZn Plated
Insulator	PTFE	—
Fastener	Brass or Metal Alloy	Nickel Plated
O-ring Sealing	Silicone Rubber	—

Application Standard

GB/T113.4 IEC60169-4 DIN47223