



## A Single Source Solution Provider To Keep You Connected





www.kanhhacables.com



© (0) 0141-2330427, (W) 0141-2460902



## FROM THE DESK OF THE CHAIRMAN

It gives me immense pleasure to share with you the realization of a dream that we have been nurturing for the past couple of years and that now stands firm on a solid foundation of professional acumen and dedication - Kanhha Cables Pvt. Ltd.

A leading Radio Frequency Cable manufacturer, Kanhha Cable Pvt. Ltd. has emerged as one of the best organisations in the Industry in both India, as well as in South East Asia. Our technology presently caters to the widest spectrum of the domestic telecom industry, is being continuously upgraded with the support of ultra modern machinery and an industrious workforce. Our motto henceforth, is to emerge as one of the fastest growing RF cable manufacturers on both the Indian and Global landscape.

I hereby wish the best for my team and sincerely look forward to service our clients/customers to the best of our capacity.

Regards

**R.S Gemini** 

CHAIRMAN



# **CONTENTS**

About Kanhha Cables
Our Strengths
Environment Satety
Industry Prospects
Manufacturing Facility
Products & Solutions



## ŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮŮ

## **ABOUT KANHHA CABLES**





Kanhha Cables Pvt. Ltd. Is a flagship company of Gemini Group of industries Jaipur India. The founder of the company Mr. R. S. Gemini who is managing director & a well-known industrialist & a renowned social worker. Kanhha Cables is an India-based Quality Management System (QMS) Certified having ISO 9001; 2015, ISO 14001:2015, ISO 45001:2018 and well established and pioneer cable manufacturer Company formed under the Companies Act and approved manufacturer with Indian standards for all types of Radio Frequency Cables, RF Connectors, RF Jumper, RF Accessories LT Cables & Conductors. We have been successfully catering the requirement of various sectors like Railways, Power Sectors, Telecommunication Sectors, Mining Sectors, Industrial Users of Government, Semi-Government utilities and also Private Sectors, etc. Of the global market with the most modern plant & machinery and testing equipment to meet the ever-increasing demand for Quality Cables.

We are manufacturer and supplier of High-Performance Quality Cables Including Radio Frequency Cables, RF Connectors, RF Jumper, RF Accessories LT PVC/XLPE Power & Control Cables, Railway Signaling and Railway Power Cable. Aerial Bunched cables, Mining, Instrumentation, Domestic Wires & Cables, AAAC, AAC & ACSR Conductors for Overhead Transmission. Supplied to various circles of the economy viz. Power and Electricity, Railways, Thermal Power Projects, Hydro Power Projects, Refinery Projects, Mining Industries, Tel-Communications, and various other Government or Public Sector undertakings.

Besides catering the Customers in PAN India market, Kanhha Cables has firmly positioned itself in with its footprint in various Power Sectors, State Electricity Bord & Indian Railways. In past 17 years, Kanhha Cables had supplied underground Power Control Cable, XLPE/PVC Cables, AB Cables. Bare conductors including ACSR/ AAAC with a satisfactory performance in field.





## 們們們們們們們們們們

## **OUR STRENGTHS**





Kanhha Cables, with its experience in the field of cables, also has a strong footprint in the field of Telecom solutions, with high quality RF Cables, Jumper Cables, Connectors, Accessories and Power Cables. We act as a link from the Antenna, down to the Base Station Controller. We guarantee excellent electrical & mechanical characteristics for outdoor installations. With world class manufacturing facilities & strict quality assurance, we guarantee a reliable and consistent performance. We are committed to serving customers to their satisfaction.

- Comprehensive range of products
- Experienced & professional management team
- Advanced manufacturing technology with large scale production capacity
- Robust quality control system





## **ENVIRONMENT SAFETY**







## Compliance with laws and regulations

kanhha cables conforms to all environmental, safety and health requirements as stipulated by statutory law, and also sets strict internal standards which are subject to regular review, updating and improvement.

## Prevention through technical development

kanhha cables prevents environmental pollution through the accumulated expertise of its workforce and technical development.

## A healthy respect for the environment and human beings

kanhha cables places the highest priority on the environment as a major element in the development, design, production, servicing as well as disposal of the waste. It establishes a specific set of objectives, regularly reviews and evaluates corporate progress towards achieving them; and publishes the results to be available to the authorities.

### A Clean Technology

- 50% of the plant is classified as Green Belt
- Development of environment friendly products
- Reduction of energy use
- Zero pollution

## Creating a Safe Workplace

 Implementation of regular safety inspections



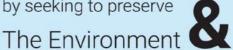
## "kanhha Cables

Focuses on Being a Leader in

## **Environment Safety**

And Health Management,

by seeking to preserve



Maintain a Balance Between





# 888888888888

## **INDUSTRY PROSPECTS**





## Where do Kanhha products find their optimum use?

#### **Telecom**

The telecommunication industry has been showing exponential growth in India and the surrounding economies. Kanhha Cables feels proud, to enable this growth and be part of this revolution, by partnering with leading telecom players, in setting up their far reaching networks. Kanhha Cables RF products help connecting people all across the globe.





## **Manufacturing Facility And Technology**

## **Quality Assurance**

At Kanhha Cables, quality is not just a product centric vision but an Omni-organizational vision. With a firm belief that quality begins and ends with people, the management has inculcated a quality culture in the very thought process of the organization.

- Internal & External Inspection
- Final Product Testing
- In-Process Inspection and Testing
- Incoming Raw Material Testing
- Vendor Evaluation

## **Quality at Every Step**

At Kanhha Cables our philosophy on quality is simple — meet or exceed our client's expectations through continuous quality improvement and by building our work right the first time.

#### Certificates

Kanhha cables recognizes that the disciplines of quality, health, safety and environmental management are an integral part of its management function. the company views these as a primary responsibility and to be the key to good business in adopting appropriate quality, health, safety and environmental standards.

company puts its vision to be customer's first choice in both local & foreign markets, which leads to produce cables and execute projects with the best quality standards and conforming to international standards & customers' requirements.

## **Quality Policy**

- Background
- Scope
- Policy
- Quality Objectives

## Laboratory

- Measurement Test
- Dimension Test

## Machinery

- Plant and Machinery
- Medium Voltage Cable Production Process
- Work Shop



**PRODUCTS & SOLUTIONS** 

# trtrtrtr

## RF FEEDER CABLES





## RF FEEDER CABLE 1/2" **SUPER FLEX**



Attenuation values typical at 20°C ambient temperature and Average power at 40°C ambient temperature with Inner conductor temperature at 100°C

Mechanical Characteristics								
Inner Conductor	Copper clad aluminium wire	3.55 mm						
Dia over Dielectric	Foamed PE	9.0 mm						
Dia over outer conductor	Corrugated copper tube	12.1 mm						
Diameter over outer jacket	PE	13.4 mm						
Cable weight	PE	170 Kg/Km						
Tensile strength		1000 N						
Bending moment		3 Nm						
Flat plate crush strength		15 N/mm						
Min.bending radius single		15 mm						
Min.bending radius repeated		30 mm						
No.of bends, minimum (typical)		20(50)						
Recommended hanger spacing		0.8 m						
Installation temperature		-40°C~+60°C						
Operating temperature		-55°C~+85°C						
Storage temperature		-70°C~+85°C						

Electrical Characteristics		
Impedance	50±1 Ω	
Relative Velocity of propagation	81%	
Capacitance (1KHz)	80 pF/m	
Maximum operating frequency	10.2 GHz	
Cut-of frequency	13 GHz	
Peak power	19 KW	
Inner conductor DC-Resistance	≤2.8 Ω/Km	
Outer conductor DC-Resistance	≤3.8 Ω/Km	
Inductance	0.200 µH/m	
DC breakdown voltage	2500 V	
Jacket spark voltage (rms)	5000 V	
Return loss (800~1000) MHz	≥26 dB	VSWR ≤ 1.1
Return loss (1700~2200) MHz	≥24 dB	VSWR ≤ 1.13
Insulation resistance	≥10 GΩKm	
Passive intermodulation	≥160 dBc	

Attenuation & Average Power												
Frequency(MHz)	100	450	800	900	1000	1800	1900	1900	2200	2300	2500	2700
Attenuation typical (dB/100m)		6.8	9.3	9.9	10.5	14.6	15	15.87	16.3	16.73	17.6	18.4
Average power (KW)	2.6	1.23	0.91	0.85	0.81	0.58	0.58	0.54	0.53	0.52	0.49	0.47

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.



# RF FEEDER CABLE 1/2". FLEX



Attenuation values typical at 20°C ambient temperature and Average power at 40°C ambient temperature with Inner conductor temperature at 100°C

Mechanical Charac	teristics	
Inner Conductor	Copper clad aluminium wire	4.8mm
Dia over Dielectric	Foamed PE	12.0 mm
Dia over outer conductor	Corrugated copper tube	13.7mm
Diameter over outer jacket	PE	16 mm
Cable weight	PE	210 Kg/Km
Tensile strength		1200 N
Bending moment		5 Nm
Flat plate crush strength		20 N/mm
Min.bending radius single		70 mm
Min.bending radius repeated		120 mm
No.of bends, minimum(typical)		15(50)
Recommended hanger spacing		0.8m
Installation temperature		-40°C~+60°C
Operating temperature		-55°C~+85°C
Storage temperature		-70°C-+85°C

	Electrical Characteristics		
	Impedance	50410	
	Relative Velocity of propagation	88%	
	Capacitance (1KHz)	76 pFim	
	Maximum operating frequency	8.8 GHz	
1	Cut-of frequency	10 GHz	
	Peak power	40 KW	
	Inner conductor DC-Resistance	≤1.65 Ω/Km	
	Outer conductor DC-Resistance	≤2.60 Ω/Km	
	Inductance	0.190 pH/m	
	DC breakdown voltage	4000 v	
	Jacket spark voltage (rms)	8000 V	
	Return loss (800~1000) MHz	≥26 dB	VSWR ≤ 1.1
	Return loss (1700~2200) MHz	≥24 dB	VSWR ≤ 1.13
	Insulation resistance	≥10 GΩKm	
	Passive intermodulation	≥160 dBc	

Attenuation & Average Power												
Frequency(MHz)	100	450	800	900	1000	1800	1900	2100	2200	2300	2500	2700
Attenuation typical (dB/100m)	2.1	4.6	6.3	6.7	7.2	9.9	10.3	10.9	11.2	11.47	12	12.6
Average power (KW)	3.92	1.76	1.28	1.19	1.12	0.81	0.78	0.74	0.72	0.70	0.66	0.63

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.



# RF FEEDER CABLE 7/8". SUPER FLEX



Attenuation values typical at 20°C ambient temperature and Average power at 40°C ambient temperature with Inner conductor temperature at 100°C

Mechanical Charac	teristics	
Inner Conductor	Corrugated Copper tube	9.35mm
Dia over Dielectric	Foamed PE	22.5 mm
Dia over outer conductor	Corrugated copper tube	24.5 mm
Diameter over outer jacket	PE	27.5 mm
Cable weight	PE	386 Kg/Km
Tensile strength		2000 N
Bending moment		9 Nm
Flat plate crush strength		14 N/mm
Min. bending radius single		90 mm
Min. bending radius repeated		125 mm
No. of bends, minimum (typical)		20(50)
Recommended hanger spacing		1 m
Installation temperature		-40°C~+60°C
Operating temperature		-55°C~+85°C
Storage temperature		-70°C~+85°C

Electrical Characteristic	s	
Impedance	50±1 Ω	
Relative Velocity of propagation	88%	
Capacitance (1KHz)	78 pF/m	
Maximum operating frequency	5 GHz	
Cut-of frequency	5.3 GHz	
Peak power	99.5 KW	
Inner conductor DC-Resistance	≤3 Ω/Km	
Outer conductor DC-Resistance	≤1.4 Ω/Km	
Inductance	0.195 µH/m	
DC breakdown voltage	6000 V	
Jacket spark voltage (rms)	8000 V	
Return loss (800~1000) MHz	≥26 dB	VSWR ≤ 1.1
Return loss (1700~2200) MHz	≥24 dB	VSWR ≤ 1.13
Insulation resistance	≥10 GΩKm	
Passive intermodulation	≥160 dBc	

Attenuation & Average Power												
Frequency(MHz)	100	450	800	900	1000	1800	1900	2100	2200	2300	2500	2700
Attenuation typical (dB/100m)	1.23	2.72	3.70	3.95	4.18	5.80	5.98	6.33	6.50	6.50	6.99	7.31
Average power (KW)	7.05	3.18	2.34	2.20	2.08	1.49	1.45	1.37	1.33	1.33	1.25	1.20

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.





# RF FEEDER CABLE 7/8" LOW LOSS

KCPL-7/8"-RFQL

Attenuation values typical at 20°C ambient temperature and Average power at 40°C ambient temperature with Inner conductor temperature at 100°C

Mechanical Characteristics								
Inner Conductor	Copper tube	9.3 mm						
Dia over Dielectric	Foamed PE	22.4 mm						
Dia over outer conductor	Corrugated copper tube	24.9 mm						
Diameter over outer jacket	PE/FR	27.7 mm						
Cable weight	PE/FR	460/540 Kg/Km						
Tensile strength		2000 N						
Bending moment		9 Nm						
Flat plate crush strength		14 N/mm						
Min. bending radius single		120 mm						
Min. bending radius repeated		240 mm						
No. of bends, minimum (typical)		15(50)						
Recommended hanger spacing		1.0 m						
Installation temperature		-40°C~+60°C						
Operating temperature		-55°C~+85°C						

Electrical Characteristics		
Impedance	50±1 Ω	
Relative Velocity of propagation	87 %	
Capacitance (1KHz)	76.5 pF/m	
Maximum operating frequency	5 GHz	
Cut-of frequency	5.2 GHz	
Peak power	90 KW	
Inner conductor DC-Resistance	≤1.7 Ω/Km	
Outer conductor DC-Resistance	≤1.17 Ω/Km	
Return loss (800~1000) MHz	≥26 dB	VSWR ≤ 1.1
Return loss (1700~2200) MHz	≥24 dB	VSWR ≤ 1.13
Insulation resistance	≥10 GΩKm	
Screening Attenuation	≥120 dB	
Passive intermodulation	≥160 dBc	

Attenuation & Average Power										
Frequency(MHz)	100	450	800	900	1000	1800	1900	2200	2500	2700
Attenuation typical (dB/100m)	1.11	2.4	3.32	3.54	3.75	5.19	5.35	5.81	6.25	6.53

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.







Attenuation values typical at 20°C ambient temperature and Average power at 40°C ambient temperature with Inner conductor temperature at 100°C

Mechanical Charact	teristics	
Inner Conductor	Copper tube	9.3 mm
Dia over Dielectric	Foamed PE	22.5 mm
Dia over outer conductor	Corrugated copper tube	24.9 mm
Diameter over outer jacket	PE	27.5 mm
Cable weight	PE	424 Kg/Km
Tensile strength		2000 N
Bending moment		18 Nm
Flat plate crush strength		14 N/mm
Min. bending radius single		120 mm
Min. bending radius repeated		240 mm
No. of bends, minimum (typical)		15(50)
Recommended hanger spacing		1 m
Installation temperature		-40°C~+60°C
Operating temperature		-55°C~+85°C
Storage temperature		-70°C~+85°C

Electrical Characteristic	s	
Impedance	50±1 Ω	i.
Relative Velocity of propagation	87%	
Capacitance (1KHz)	76.5 pF/m	
Maximum operating frequency	5 GHz	
Cut-of frequency	5.2 GHz	
Peak power	90 KW	
Inner conductor DC-Resistance	≤1.92 Ω/Km	
Outer conductor DC-Resistance	≤1.4 Ω/Km	
Inductance	0.191 µH/m	
DC breakdown voltage	4000 V	
Jacket spark voltage (rms)	8000 V	
Return loss (800~1000) MHz	≥26 dB	VSWR ≤ 1.1
Return loss (1700~2200) MHz	≥24 dB	VSWR ≤ 1.13
Insulation resistance	≥10 GΩKm	
Passive intermodulation	≥160 dBc	

Attenuation & Average Power												
Frequency(MHz)	100	450	800	900	1000	1800	1900	2100	2200	2300	2500	2700
Attenuation typical (dB/100m)	1.11	2.44	3.32	3.54	3.75	5.19	5.35	5.66	6.81	5.96	6.25	6.53
Average power (KW)	9.17	3.96	2.82	2.62	2.46	1.70	1.64	1.55	1.50	1.46	1.38	1.38

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.



## RF FEEDER CABLE 7/8" **FLEX FR**



Attenuation values typical at 20°C ambient temperature and Average power at 40°C ambient temperature with Inner conductor temperature at 100°C

#### Features of FR jacket compound

- Voltage rating up to 2 KV
- Environmentally friendly
- Good tear strength and fluid resistance
- Low smoke, low corrosivity and low toxicity
- Highly flame retardant (UL VW-1 and IEEE 383 flame test rating)

Mechanical Characteristics								
Inner Conductor	Copper tube	9,1mm						
Dia over Dielectric	Foamed PE	22.5 mm						
Dia over outer conductor	Corrugated copper tube	24.5 mm						
Diameter over outer jacket	PE	27.5 mm						
Cable weight	PE	470t Kg/Km						
Tensile strength		2000 N						
Bending moment		18 Nm						
Flat plate crush strength		14 N/mm						
Min. bending radius single		120 mm						
Min. bending radius repeated		240 mm						
No. of bends, minimum (typical)		15(50)						
Recommended hanger spacing		1.0 m						
Installation temperature		-40°C~+60°C						
Operating temperature		-55°C~+85°C						
Storage temperature		-70°C~+85°C						

Electrical Characteristic	S	
Impedance	50±1Ω	
Relative Velocity of propagation	87%	
Capacitance (1KHz)	76.5 pF/m	
Maximum operating frequency	5 GHz	
Cut-of frequency	5.2GHz	
Peak power	90KW	
Inner conductor DC-Resistance	≤2.0 Ω/Km	
Outer conductor DC-Resistance	≤1.4 Q/Km	
Inductance	0.191 μH/m	
DC breakdown voltage	6000 V	
Jacket spark voltage (rms)	8000 V	
Return loss (800~1000) MHz	≥26 dB	VSWR ≤ 1.1
Return loss (1700~2200) MHz	≥24 dB	VSWR ≤ 1.13
Insulation resistance	≥10 GΩKm	
Passive intermodulation	≥160 dBc	

Attenuation & Average Power												
Frequency(MHz)	100	450	800	900	1000	1800	1900	2100	2200	2300	2500	2700
Attenuation typical (dB/100m)	1.2	2.6	3.6	3.8	4	5.6	5.8	6.14	6.3	6.47	6.8	7.1
Average power (KW)	9.1	3.96	2.82	2.62	2.46	1.70	1.64	1.55	1.50	1.46	1.38	1.31

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.



# RF FEEDER CABLE 7/8". FLEX ALUMINIUM



Attenuation values typical at 20°C ambient temperature and Average power at 40°C ambient temperature with Inner conductor temperature at 100°C

Mechanical Charact	teristics	
Inner Conductor	Copper tube	9.1 mm
Dia over Dielectric	Foamed PE	22.5 mm
Dia over outer conductor	Corrugated aluminium tube	24.8 mm
Diameter over outer jacket	PE	27.5 mm
Cable weight	PE	344 Kg/Km
Tensile strength		1470 N
Bending moment		13.5 Nm
Flat plate crush strength		11 N/mm
Min. bending radius single		100 mm
Min. bending radius repeated		250 mm
No. of bends, minimum (typical)		15(30)
Recommended hanger spacing		1.0 m
Installation temperature		-40°C~+60°C
Operating temperature		-55°C~+85°C
Storage temperature		-70°C~+85°C

Electrical Characteristic	s	
Impedance	50±1 Ω	
Relative Velocity of propagation	88%	
Capacitance (1KHz)	76 pF/m	
Maximum operating frequency	5 GHz	
Cut-of frequency	5.3 GHz	
Peak power	90 KW	
Inner conductor DC-Resistance	≤2.0 Ω/Km	
Outer conductor DC-Resistance	≤1.2 Ω/Km	
Inductance	0.190 µH/m	
DC breakdown voltage	6000 V	
Jacket spark voltage (rms)	8000 V	
Return loss (800~1000) MHz	≥26 dB	VSWR ≤ 1.1
Return loss (1700~2200) MHz	≥24 dB	VSWR ≤ 1.13
Insulation resistance	≥10 GΩKm	
Passive intermodulation	≥160 dBc	

Attenuation & Ave	erage Pov	ver										
Frequency(MHz)	100	450	800	900	1000	1800	1900	2100	2200	2300	2500	2700
Attenuation typical (dB/100m)	1.24	2.76	3.79	4.05	4.05	6	6.2	6.57	6.75	6.92	7.27	7.6
Average power (KW)	6.3	2.83	2.03	1.92	1.92	1.29	1.27	1.20	1.17	1.14	1.08	1.04

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.



# RF FEEDER CABLE 1/2" SUPER FLEX ALUMINIUM

KCPL-1/2"-RFJA

Attenuation values typical at 20°C ambient temperature and Average power at 40°C ambient temperature with Inner conductor temperature at 100°C

Mechanical Characteristics										
Inner Conductor	Copper clad aluminium wire	3.55 mm								
Dia over Dielectric	Foamed PE	9.0 mm								
Dia over outer conductor	Corrugated aluminium tube	12.35 mm								
Diameter over outer jacket	PE	13.5 mm								
Cable weight	PE	139 Kg/Km								
Tensile strength		800 N								
Bending moment		3 Nm								
Flat plate crush strength		15 N/mm								
Min.bending radius single		15 mm								
Min.bending radius repeated		30 mm								
No.of bends, minimum (typical)		20(50)								
Recommended hanger spacing		0.8 m								
Installation temperature		-40°C~+60°C								
Operating temperature		-55°C~+85°C								
Storage temperature		-70°C~+85°C								

Electrical Characteristics		
Impedance	50±1 Ω	
Relative Velocity of propagation	82%	
Capacitance (1KHz)	80 pF/m	
Maximum operating frequency	10.2 GHz	
Cut-of frequency	13.0 GHz	
Peak power	19 KW	
Inner conductor DC-Resistance	≤2.8 Ω/Km	
Outer conductor DC-Resistance	≤3.1 Ω/Km	
Inductance	0.200 μH/m	
DC breakdown voltage	2500 V	
Jacket spark voltage (rms)	5000 V	
Return loss (800~1000) MHz	≥26 dB	VSWR ≤ 1.1
Return loss (1700~2200) MHz	≥24 dB	VSWR ≤ 1.13
Insulation resistance	≥10 GΩKm	
Passive intermodulation	≥160 dBc	

Attenuation & Average Power												
Frequency(MHz)	100	450	800	900	1000	1800	1900	2100	2200	2300	2500	2700
Attenuation typical (dB/100m)	3.42	7.39	9.96	10.6	11.2	15.28	15.72	16.6	17	17.4	18.2	19
Average power (KW)	2.46	1.14	0.84	0.79	0.75	0.55	0.53	0.50	0.49	0.48	0.46	0.44

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.



# RF FEEDER CABLE 1/2" FLEX ALUMINIUM



Attenuation values typical at 20°C ambient temperature and Average power at 40°C ambient temperature with Inner conductor temperature at 100°C

Mechanical Characteristics		
Inner Conductor	Copper clad aluminium wire	4.80 mm
Dia over Dielectric	Foamed PE	12.0 mm
Dia over outer conductor	Corrugated aluminium tube	14.1 mm
Diameter over outer jacket	PE	16 mm
Cable weight	PE.	179 Kg/Km
Tensile strength		1000 N
Bending moment		4.5 Nm
Flat plate crush strength		9 N/mm
Min. bending radius single		70 mm
Min. bending radius repeated		120 mm
No. of bends, minimum (typical)		15(50)
Recommended hanger spacing		0.8m
Installation temperature		-40°C~+60°C
Operating temperature		-55°C~+85°C
Storage temperature		-70°C-+85°C

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.





## RF FEEDER 7/8" LEAKY CABLE

KCPL-7/8"-RCA

## Specifications

Mechanical Characteristics		
Inner Conductor OD	Smooth Copper tube	9.50 mm+/- 0.2mm
Diameter Over Outer jacket	LSZH Polyolefin/PE	27.7 mm
Outer Conductor	Copper Foil	
Jacket Color	Black	
Dielectric	Foam PE	
Cable weight		0.42Kg/m+/- 0.02kg/m
Tensile strength		215Kg/2100N
Operating temperature		-30°C~+80°C

Electrical Characteristics					
Impedance	50±2 Ω				
Relative Velocity of propagation	89%				
Operating Frequency Band	75MHz to 2700 MHz				
Peak power	91.0 KW				
Polarization	Vertical/Horizontal				
Inner Conductor DC-Resistance (Max)	≤1.69 Ω/Km				
Outer Conductor DC-Resistance (Max)	≤3.5 Ω/Km				
Jacket spark Test voltage (rms)	8000 V				
Insulation resistance	≥10000 MΩKm				

## **Attenuation & Average Power**

Frequency	Attenuation (Db/100m)	Coupling Loss 50%	Coupling Loss 95%
150 MHz	1.42	59	61
400 MHz	2.55	61	65
450 MHz	2.60	61	64
700 MHz	3.34	67	77
900 MHz	4.15	60	65

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.



**PRODUCTS & SOLUTIONS** 



## RF CONNECTORS









## **N CONNECTORS**

RF connector is an electrical connector designed to work at radio frequencies in the multi-megahertz range. RF connectors are typically used with RF cables and are designed to maintain the shielding that the RF design offers. Straight and Right Angle connectors a vailable in N type and Din type for various sizes

Model Type	KC 158 CNM	KC 158 CNF	KC 114 CNM	KC 114 CNF	KC 078 CNM	KC 078 CNF	KC 012 CNM	KC 012 CNF
Connector Size	1 5/8" Male	1 5/8" Female	1 1/4" Male	1 1/4" Female	7/8' Male	7/8' Female	1/2" Male	1/2" Female
VSWR	≤1.1 (0~2.2GHz)	≤1.1 (0~2.2GHz)	≤1.1 (0~2.2GHz)	≤1.1 (0~2.2GHz)	≤1.1 (0~3GHz)	≤1.1 (0~3GHz)	≤1.1 (0~3GHz)	≤1.1 (0~3GHz)
Suitable Cables	KCPL 15/8"	KCPL 15/8*	KCPL 11/4"	KCPL 11/4*	KCPL 7/8"	KCPL 7/8*	KCPL 1/2"	KCPL 1/2"
Packing	1Pc in box	1Pc in box	1Pc in box	1Pc in box	1Pc in box	1Pc in box	1Pc in box	1Pc in box

### SPECIFICATION FOR N CONNECTORS

Impedance	50 Ω
Frequency	DC-11GHz
Insertion Loss	≤0.05dB
Center Contact Resistance	≤1mΩ
Outer Contact Resistance	≤0.25mΩ
Insultation resistance	≥5000ΜΩ
Withstanding Voltage AC (v/min)	≥2500V
Power Handling	1000W@10GHz 700W@24GHz
RF Leakage	128dB@1GHz
Intermodulation (3rd order)	≤-160dBc@2x20W
Retention for all female Connectors	≥0.56 N

Interface			
According to	IEC 60169-16, MIL-PRF-39012, CECC22210		

Environmental Data	a (
Temperature Range	-40~+850C
Relative Moisture	90%~95%, Temprature: 40±20C
Water Proof	IP67
Corrosion	MIL-STD-202, Meth.101,Cond.B
Vibration	MIL-STD-202, Meth.204,Cond.B
Damp Heat	MIL-STD-202, Meth.213,Cond.I
Climate Test	MIL-STD-202, Meth.106

Mating cycles	min. 500
Coupling torque (recommended)	0.7 Nm to 1.1 Nm
Proof torque	max. 1.7 Nm

Material Plating				
Connector Part	Material	Plating		
Shell	Brass	Alloy		
Center Contact	Brass	Silver		
Back Nut	Brass	Alloy		
Clamp	Brass	Alloy		
Sealing	Silicone rubber			
Insulator	PTFE (orTPX)			

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.





## DIN (7/16") CONNECTORS

RF connector is an electrical connector designed to work at radio frequencies in the multi-megahertz range. RF connectors are typically used with RF cables and are designed to maintain the shielding that the RF design offers. Straight and Right Angle connectors available in N type and Din type for various sizes

Model Type	KC158 CDM	KC 158 CDF	KC 114 CDM	KC 114 CDF	KC 078 CDM	KC 078 CDF	KC 012 CDM	KC 012 CDF
Connector Size	15/8" Male	15/8" Female	11/4" Male	11/4" Female	7/8' Male	7/8' Female	1/2" Male	1/2" Female
VSWR	≤1.1 (0~2.2GHz)	≤1.1 (0~2.2GHz)	≤1.1 (0~2.2GHz)	≤1.1 (0~2.2GHz)	≤1.1 (0~3GHz)	≤1.1 (0~3GHz)	≤1.1 (0~3GHz)	≤1.1 (0~3GHz)
Suitable Cables	KCPL 5/8"	KCPL 5/8"	KCPL 1/4*	KCPL 1/4"	KCPL 7/8"	KCPL 7/8"	KCPL 1/2*	KCPL 1/2"
Packing	1Pc in box	1Pc in box	1Pc in box	1Pc in box	1Pc in box	1Pc in box	1Pc in box	1Pc in box

#### SPECIFICATION FOR N CONNECTORS

ELECTRICAL DATA				
Impedance	50 Ω			
Frequency	DC-8.3GHz			
Insertion Loss	≤0.05dB			
Center Contact Resistance	≤0.4mΩ			
Outer Contact Resistance	≤1.5mΩ			
Insultation resistance	≥10000ΜΩ			
Withstanding Voltage AC (v/min)	≥4000V			
Power Handling	1800W@1GHz 800W@4GHz			
RF Leakage	128dB@1GHz			
Intermodulation (3rd order)	≤-160dBc@2x20W			
Retention for all female Connectors	6~18N			

Interface	terface	
According to	IEC 60169-4, VG 95250, EN 122190, DIN 47223	

Environmental Data		
Temperature Range	~40~+850C	
Relative Moisture	90%~95%, Temprature: 40±20C	
Water Proof	IP67	
Rapid Change of Temperature	DIN EN 122190, Clause 4.6.7	
Corrosion	DIN EN 122190, Clause 4.6.10	
Vibration	DIN EN 122190, Clause 4.6.3	
Damp Heat	DIN EN 122190, Clause 4.6.6	
Climate Test	DIN EN 122190, Clause 4.6.5(55/ 155/56)	

Mechanical Data		
Mating cycles	min. 500	
Coupling torque (recommended)	25Nm to 30Nm	
Proof torque	max. 35Nm	

Material Plating		
Connector Part	Material	Plating
Shell	Brass	Alloy
Center Contact	Brass	Silver
Back Nut	Brass	Alloy
Clamp	Brass	Alloy
Sealing	Silicone rubber	
Insulator	PTFE (orTPX)	

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.



**PRODUCTS & SOLUTIONS** 



## **JUMPER CABLES**





## **RF JUMPER STRAIGHT (1/2"S)**

D-CLASS LSF2-50 SureFlex® Jumper with interface types 1-2 DIN Male and 1-2 DIN Female, variable lengthQuick View

Jumper Type	DIN(M)-DIN(M)	DIN(M)-DIN(F)	DIN(M)-N(M)	DIN(M)-N(F)	N(M)-N(M)	N(M)-N(F)	DIN(F)-N(M)	DIN(F)-N(F)
Model	KC12JDMDM	KC12JDMDF	KC12JDMNM	KC12JDMNF	KC12JNMNM	KC12JNMNF	KC12JDFNM	KC12JDFNF

ELECTRICAL DATA	
Impedance	50±1
Frequency	DC-2.2GHz
Relative Velocity of Propagation	81%
Return Loss	≤-28 dB 800 − 1000 MHz ≤-26 dB 1700-2200 MHz
Insertion Loss	≤0.10dB/m (cable) +0.1 dB (2 connectors) 900MHz≤0.15dB/m (cable) +0.1 dB (2 connectors) 1800MHz≤0.16 dB/m (cable) +0.1dB (2 connectors) 2200 MHz
Peak Power Rating	16 KW
DC breakdown Voltage	2500 V
Power Handling(at 20°C, Sea Level,VSWR 1.0)	800W@1 GHz 500W@2 GHz
Insulation Resistance	≥ 10 GΩ-Km
Intermodulation (3rd order)	≤ -117 dBm
Intermodulation Test Method	Two +43 dBm Carriers

Environmental Data		
Temperature Range	-40~+850C	
Relative Moisture	90%~95%, Temprature: 40±20C	
Water Proof	IP67	
Rapid Change of Temperature	DIN EN 122190, Clause 4.6.7	
Corrosion	DIN EN 122190, Clause 4.6.10	
Vibration	DIN EN 122190, Clause 4.6.3	
Damp Heat	DIN EN 122190, Clause 4.6.6	
Climate Test	DIN EN 122190, Clause 4.6.5(55/ 155/56)	

Mechanical Data		
Mating cycles	min. 500	
Coupling torque (recommended)	25Nm to 30Nm	
Proof torque	max. 35Nm	

Material Plating			
Connector Part	Material	Plating	
Shell	Brass	Alloy	
Center Contact	Brass	Silver	
Back Nut	Brass	Alloy	
Clamp	Brass	Alloy	
Sealing	Silicone rubber		
Insulator	PTFE (orTPX)		

Interface		
According to	IEC 60169-4, VG 95250, EN 122190, DIN 47223	

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.





## RF JUMPER RIGHT ANGLED (1/2"S)

KC12JDMDMR

D-CLASS LSF 1-2 SureFlex® Jumper with interface types 1-2 Male Right Angle and NEX10 Male, variable length

Jumper Type	DIN(M)-DIN(M)RA	DIN(F)-DIN(M)RA	N(M)-DIN(M)RA
Model	KC12JDMDMR	KC12JDFDMR	KC12JNMDMR

ELECTRICAL DATA	
Impedance	50±1 Ω
Frequency	DC-2.2GHz
Relative Velocity of Propagation	81%
Return Loss	≤-28 dB 800 − 1000 MHz ≤-26 dB 1700-2200 MHz
Insertion Loss	≤0.10dB/m (cable) +0.1 dB (2 connectors) 900MHz≤0.15dB/m (cable) +0.1 dB (2 connectors) 1800MHz≤0.16 dB/m (cable) +0.1dB (2 connectors) 2200 MHz
Peak Power Rating	16 KW
DC breakdown Voltage	2500 V
Power Handling (at 20°C, Sea Level,VSWR 1.0)	800W@1 GHz 500W@2 GHz
Insulation Resistance	≥ 10 GΩ-Km
Intermodulation (3rd order)	≤ -117 dBm
Intermodulation Test Method	Two +43 dBm Carriers

Standard Conditions	
For attenuation, VSWR 1.0 , ambient temperature 20 °C	
For Average Power, VSWR 1.0 , ambient temperature 40 $^{\circ}\mathrm{C}$	
Inner conductor temperature 100 °C, no solar loading	

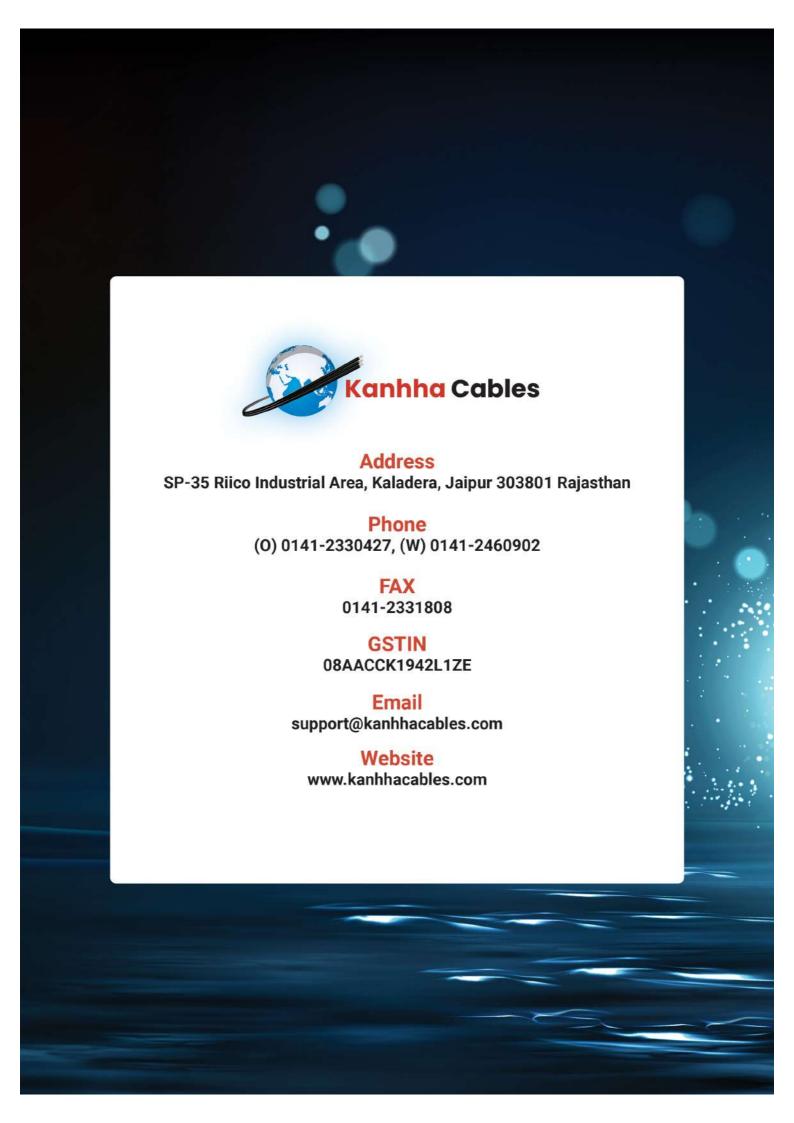
Environmental Data		
Operation temperature	-45°C ~ 85°C	
Vibration	MIL-STD-202, Meth:204,Cond.B	
Shock	MIL-STD-202, Meth.213,Cond.B	
Corrosion	MIL-STD-202, Meth.101	
Degree of Protection (mated pair)	IP67	
RoHS	Compliant	

Mechanical Data		
Cable	Inner conductor Dielectric Outer conductor Jacket option	Copper clad aluminium wire Highly foamed polyethylene Spiral corrugated copper tube PE/FRNC
Connector	Center contact Insulator Outer contact Gasket	Brass/Silver-plated PTFE Brass/Alloy-Plated Silicone Rubber

Mechanical Data		
Min. bending radius, single	25 mm	
Min. bending radius, repeated	35 mm	

Interface	
According to	IEC 60169-4, VG 95250, EN 122190, DIN 47223 (DIN 7/16) IEC 60169-16, MIL-PRF-39012,CECC22210 (N)

<sup>\*</sup> The Specification sheet is only for reference and is subjected to change without notice.



## **Our Plant**



Kanhha Cables Pvt. Ltd.