



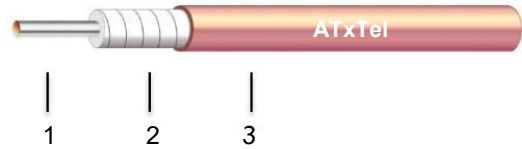
Product Selection Guide

Bulk RF Cable

K Series

Features

- Semi-rigid cable
- Excellent temperature phase stability
- Ultra-low loss
- Mechanical phase stability
- Amplitude stability
- Excellent shielding performance
- Low passive intermodulation (PIM)
- Low VSWR



Construction	Materials
1. Center Conductor	Silvered Copper
2. Dielectric	Low Density PTFE
3. Outer Conductor	Ternary Alloy Plated Seamless Annealed Bare Copper Tube

Model	Outer Diameter (mm)	Frequency (GHz)	Impedance (Ohms)	Velocity	Shielding Effectiveness (dB)	Withstand Voltage (V, DC)	Attenuation(dB/100m, Typical Value @25°C & VSWR=1.0)			
							12.4GHz	18GHz	26.5GHz	40GHz
K086	2.18	40	50	81%	165	500	196.9	238.9	292.4	363.4
K141	3.58	26.5	50	81%	165	1000	112.5	136.9	168.1	

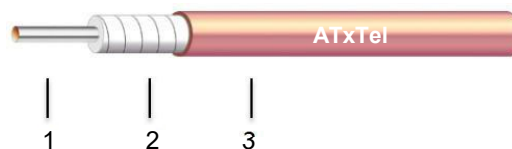
Product Specifications



Model: K086

Ultra-low Loss

Semi-rigid Cable



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Silvered Copper	0.59
2. Dielectric	Low Density PTFE	1.68
3. Outer Conductor	Ternary Alloy Plated Seamless Annealed Bare Copper Tube	2.18

Electrical Specifications

Cable Impedance	50 Ω
Velocity	81%
Shielding Effectiveness	>165 dB
Voltage Withstanding	500 V DC
Operating Frequency	DC-40 GHz

Mechanical & Environmental Specifications

Weight	21 g/m
Bend Radius	7 mm
Temperature Range	-55 ~ +250 °C

Attenuation (Typical Value @ 25°C & Sea Level)

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	475	0.30
1000	259	0.55
3000	148	0.95
6000	104	1.36
8500	87	1.62
12400	72	1.97
18000	59	2.39
26500	48	2.92
40000	39	3.63

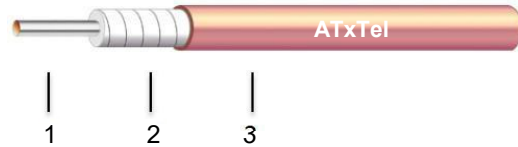
Product Specifications



Model: K141

Ultra-low Loss

Semi-rigid Cable



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Silvered Copper	1.05
2. Dielectric	Low Density PTFE	3.00
3. Outer Conductor	Ternary Alloy Plated Seamless Annealed Bare Copper Tube	3.58

Electrical Specifications

Cable Impedance	50 Ω
Velocity	81%
Shielding Effectiveness	>165 dB
Voltage Withstanding	1000 V DC
Operating Frequency	DC-26.5 GHz

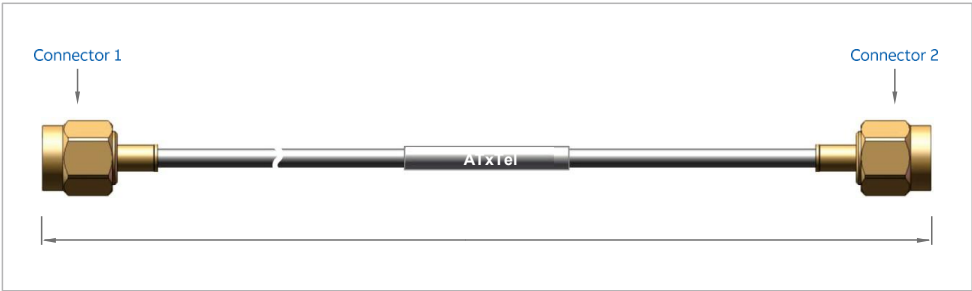
Mechanical & Environmental Specifications

Weight	45 g/m
Bend Radius	13.5 mm
Temperature Range	-55 ~ +250 $^{\circ}\text{C}$

Attenuation (Typical Value @ 25 $^{\circ}\text{C}$ & Sea Level)

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	1073	0.17
1000	584	0.31
3000	334	0.54
6000	234	0.77
8500	195	0.92
12400	160	1.13
18000	132	1.37
26500	107	1.68

Matching Cables	Matching Connectors											
	SSMP	SMP	SSMA	1.0	1.85	2.4	2.92	3.5	SMA	N	TNC	7/16
K086							●	●	●	●	●	
K141							●	●	●	●	●	



Part Number

ATX-LM-CBL- K086 - 29 M 29 M - 1 M - K J

Cable Model

K086
K141

Connector Model

NM → N Male	NF → N Female
SM → SMA Male	SF → SMA Female
35M → 3.5mm Male	SPM → SMP Male
29M → 2.92mm Male	BM → BNC Male
24M → 2.4mm Male	TM → TNC Male
18M → 1.85mm Male	DM → 7/16 Male
10M → 1.0mm male	SPRAF → SMP Female Right Angle
25M → SSMA male	SRAM → SMA Male Right Angle
25PM → SSMP male	

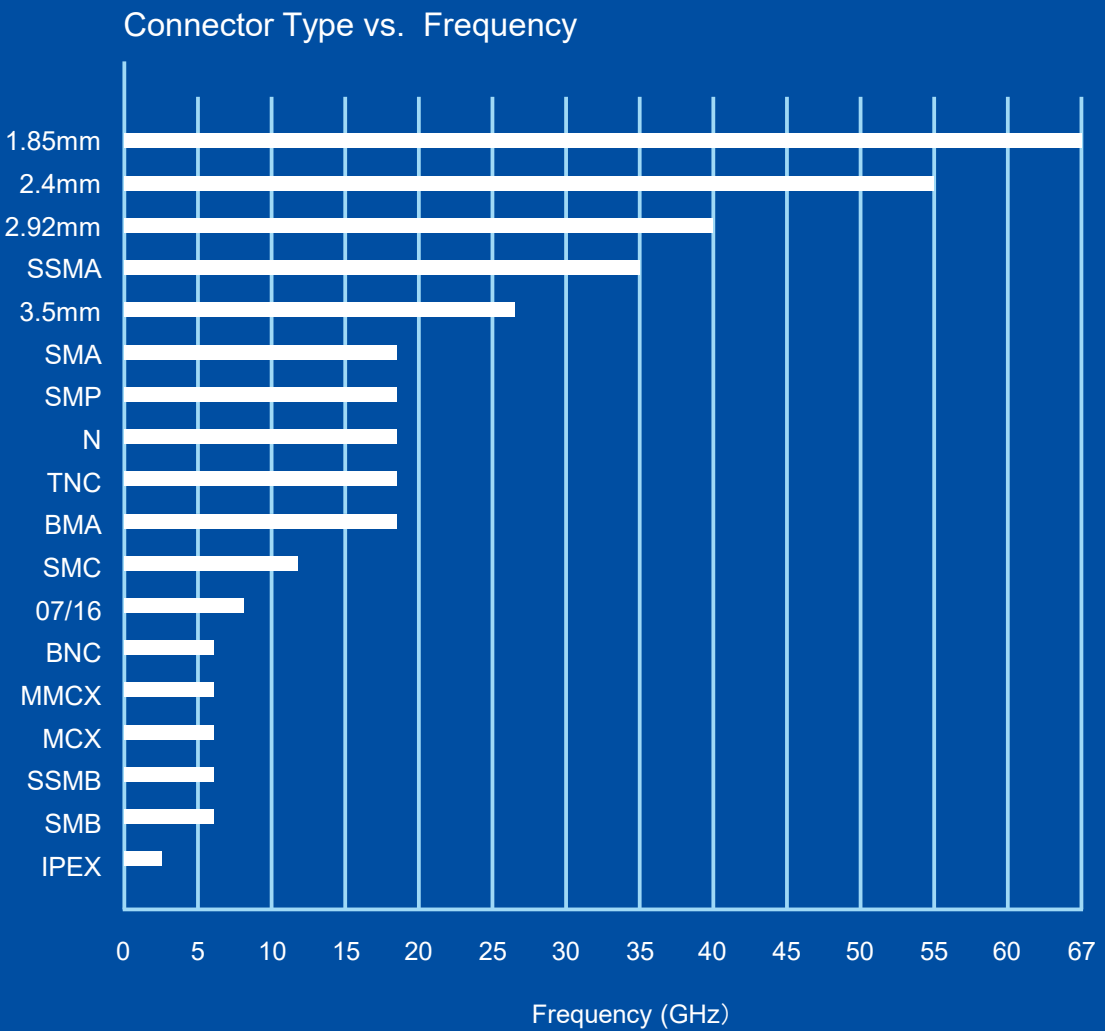
Length

1M=1Meter

Blank - No Armor
KJ - With Armor

Note: Different connector types and cable assembly lengths are available. In the continuous effort to improve our products, ATxTel reserves the right to make changes without notice.

Reference



Frequently used information

Insulation Material Characteristics

Material	Dielectric constant	Capacitance	Temperature(°C)
PTFE	2.07	95.9	-75 to +250
Polyethylene	2.3	101.1	-65 to +80
Foam Polyethylene	1.29-1.64	75.72 - 85.38	-65 to +100
Polyvinylchloride	3.0-8.0	115.47 - 188.56	-50 to +105
Polyamide	3.5-4.6	124.72 - 254.73	-60 to +120
Silicone Rubber	2.1-3.5	99.61 - 124.72	-70 to +250
Ethylene Propylene	2.24	99.8	-40 to +105
FEP	2.1	96.6	-70 to +200
Low Density PTFE	1.38-1.73	78.3 - 87.7	-75 to +250
Foam FEP	1.45	80.3	-75 to +200
Polyimide	3.0-3.5	115.5 - 124.7	-75 to +300
PFA	2.1	96.6	-75 to +260
ETFE	2.6	107.5	-75 to +150
ECTFE	2.5	105.4	-65 to +150
PVDF	7.8	186.2	-75 to +125
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Cable outer jacket material working temperature

Material Name	Working temperature (°C)
PTFE	-75 to +250
FEP	-70 to +200
Silicone Rubber	-70 to +200
ETFE	-65 to +150
Nylon	-40 to +105
PUR	-55 to +85
PVC	-50 to +85
PE	-65 to +80
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—	—



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