HIGH PERFORMANCE

Coaxial Cables & Connectors

High Frequency, Low Loss,
Phase and Amplitude Stable
Flexible Cables

Gigatronix

www.gigatronix.com

Contents

KF085

Flexible and Phase Stable Coaxial Cable

MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (0.51mm)
Dielectric	Low Density PTFE (1.60mm)
First Shield	Silver Plated Copper Tape (1.79mm)
Second Shield	Silver Plated Copper (2.16mm)
Jacket	Blue FEP (2.80mm)

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 40 GHz
Velocity of Propagation	70%
Voltage Withstanding	1500V RMS Maximum

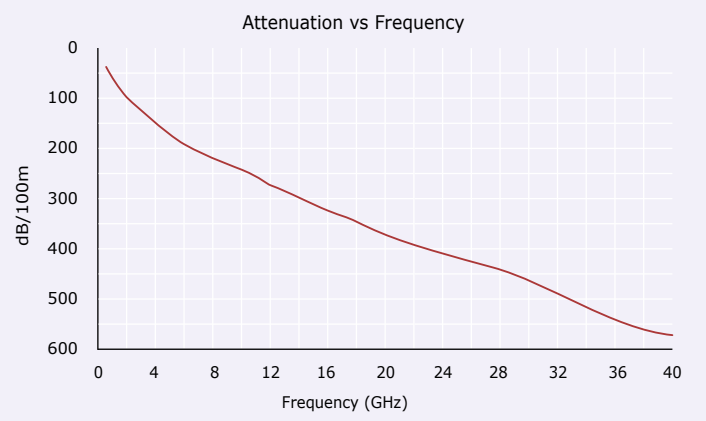
MECHANICAL & ENVIRONMENTAL SPECIFICATION

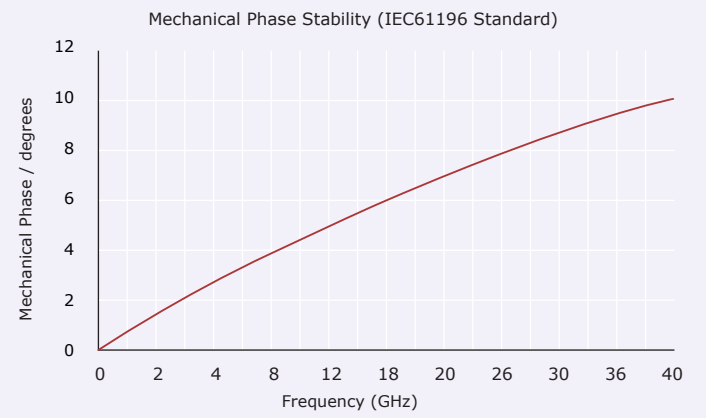
Bending Radius (static)	14mm
Bending Radius (flexing)	27.9mm
Weight	22 gms/m
RoHS Compiant	Yes
Temperature Range	-55 to +125 degrees C

KF085

Flexible and Phase Stable Coaxial Cable

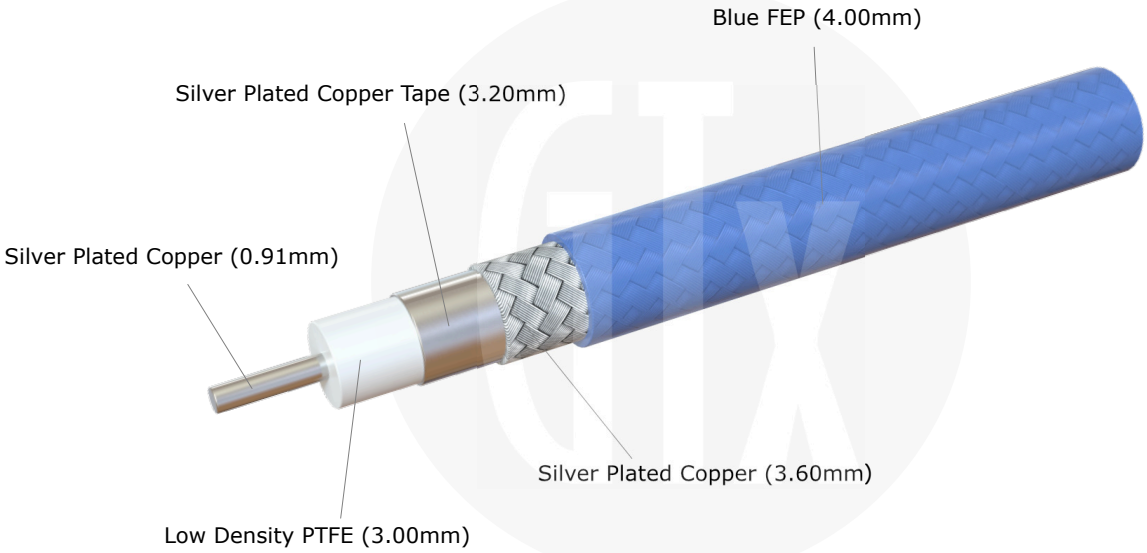
FREQUENCY	ATTENUATION (per 100m)	AVERAGE POWER (kW)
300 MHz	37.0 dB	0.187
1000 MHz	69.3 dB	0.12
2000 MHz	100.3 dB	0.069
6000 MHz	183.7 dB	0.05
8000 MHz	216.4 dB	0.04
10000 MHz	246.1 dB	0.028
12,000 MHz	273.7 dB	0.025
16,000 MHz	324.4 dB	0.021
18,000 MHz	348.2 dB	0.024
26,500 MHz	440.8 dB	0.019
40,000 MHz	570.87 dB	0.012





KF141

Flexible and Phase Stable Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (0.91mm)
Dielectric	Low Density PTFE (3.00mm)
First Shield	Silver Plated Copper Tape (3.20mm)
Second Shield	Silver Plated Copper (3.60mm)
Jacket	Blue FEP (4.00mm)

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 26.5 GHz
Velocity of Propagation	70%
Voltage Withstanding	2000V RMS Maximum

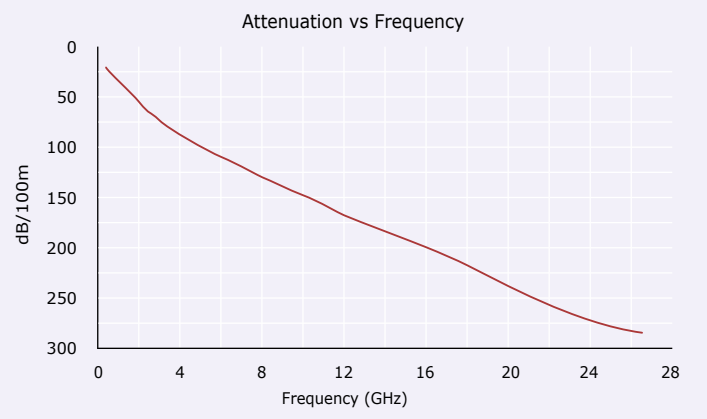
MECHANICAL & ENVIRONMENTAL SPECIFICATION

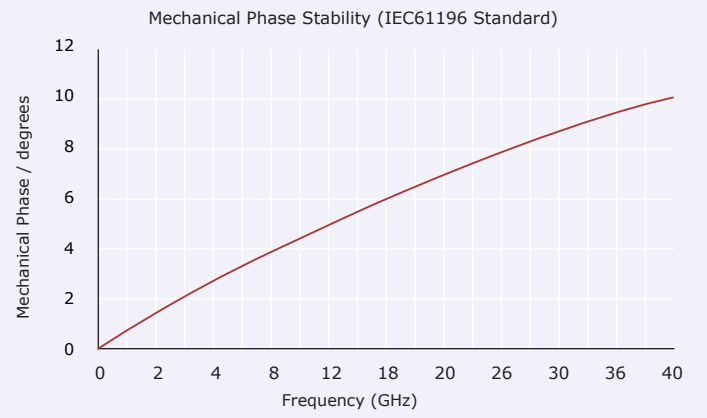
Bending Radius (static)	20mm
Bending Radius (flexing)	40mm
Weight	37 gms/m
RoHS Compiant	Yes
Temperature Range	-55 to +125 degrees C

KF141

Flexible and Phase Stable Coaxial Cable

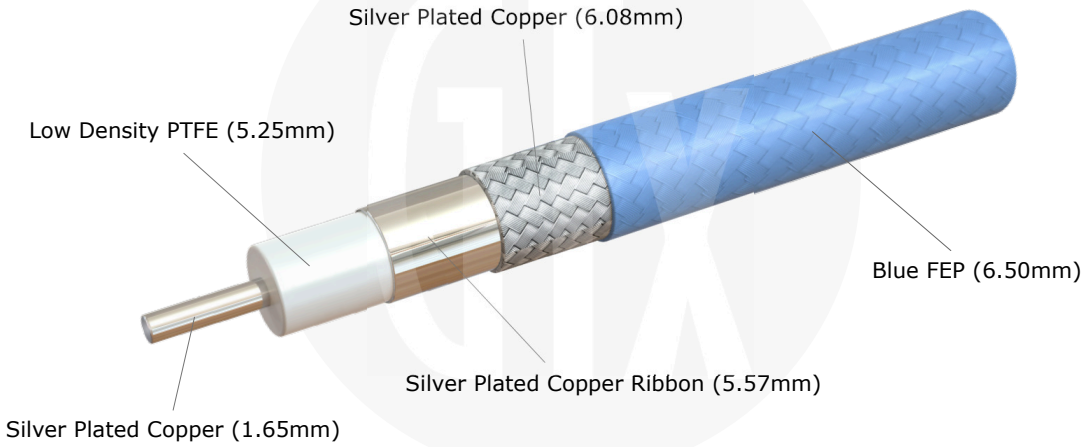
FREQUENCY	ATTENUATION (per 100m)	AVERAGE POWER (kW)
300 MHz	19.9 dB	0.512
1000 MHz	38.2 dB	0.267
2000 MHz	56.3 dB	0.181
3000 MHz	71.1 dB	0.143
6000 MHz	107.5 dB	0.095
8000 MHz	128.3 dB	0.079
10,000 MHz	147.6 dB	0.069
12,000 MHz	165.8 dB	0.061
16,000 MHz	199.9 dB	0.051
18,000 MHz	216.1 dB	0.047
26,500 MHz	280.5 dB	0.036





KF240

Flexible and Phase Stable Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (1.65mm)
Dielectric	Low Density PTFE (5.25mm)
First Shield	Silver Plated Copper Ribbon (5.57mm)
Second Shield	Silver Plated Copper (6.08mm)
Jacket	Blue FEP (6.50mm)

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	18 GHz
Capacitance	95 pF/m
Velocity of Propagation	70%
Voltage Withstanding	2000V RMS Maximum
Shielding Effectiveness	> -90dB

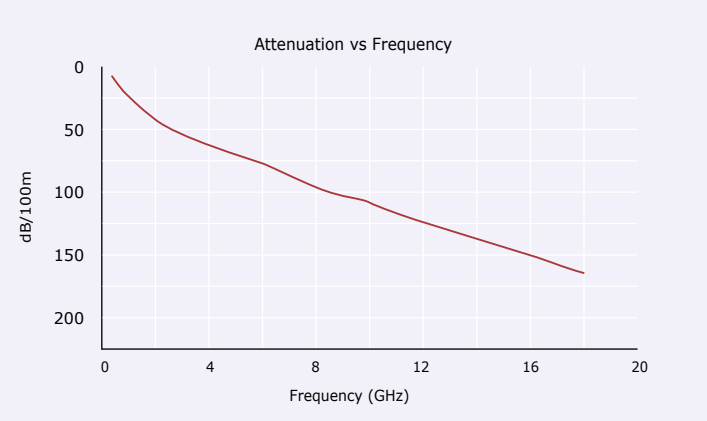
MECHANICAL & ENVIRONMENTAL SPECIFICATION

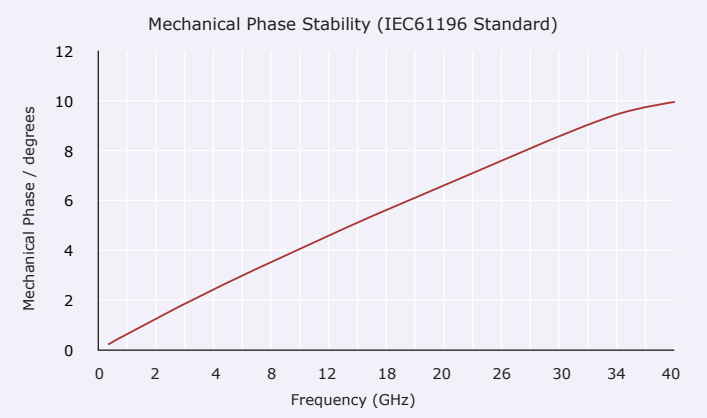
Bending Radius (static)	33mm
Bending Radius (flexing)	65mm
Weight	142 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +125 degrees C

KF240

Flexible and Phase Stable Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)	AVERAGE POWER (kW)
300 MHz	13.1 dB	1.177
1000 MHz	25.6 dB	0.610
2000 MHz	38.7 dB	0.399
6000 MHz	77.1 dB	0.205
8,000 MHz	93.1 dB	0.166
10,000 MHz	108.4 dB	0.143
12,000 MHz	122.7 dB	0.126
16,000 MHz	150.5 dB	0.103
18,000 MHz	163.3 dB	0.095





KF141HP

Low Loss, Phase and Amplitude Stable Coaxial Cable

MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (0.72mm)
Dielectric	Low Density PTFE (2.21mm)
First Shield	Silver Plated Copper Tape (2.40mm)
Separation Layer	PTFE Coated Aluminium Foil (2.80mm)
Outer Conductor	Silver Plated Copper Braid (3.15mm)
Jacket	FEP (3.60mm)

ELECTRICAL SPECIFICATION

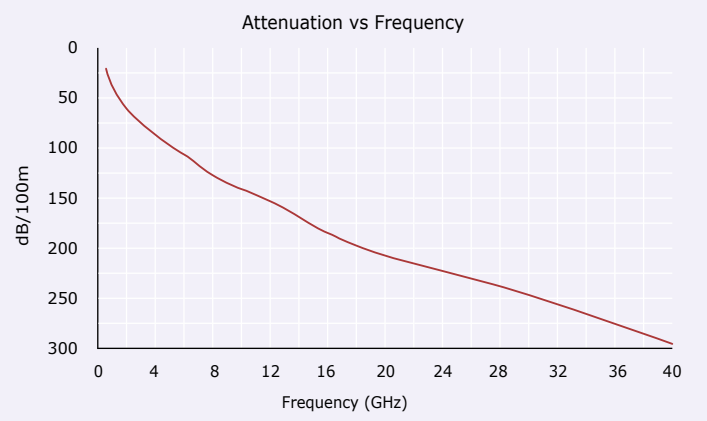
Impedance	50 Ohms
Max. Frequency	DC to 50 GHz
Velocity of Propagation	76%
Voltage Withstanding	500V RMS Maximum

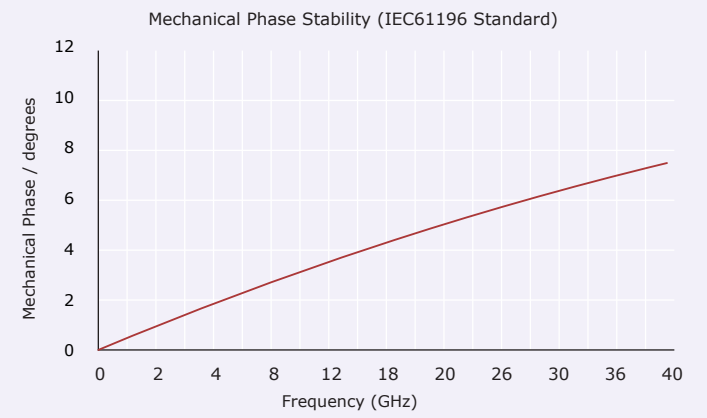
MECHANICAL & ENVIRONMENTAL SPECIFICATION

Bending Radius (static)	18mm
Bending Radius (flexing)	36mm
Weight	34 gms/m
RoHS Compiant	Yes
Temperature Range	-55 to +165 degrees C

KF141HP Low Loss, Phase and Amplitude Stable Coaxial Cable

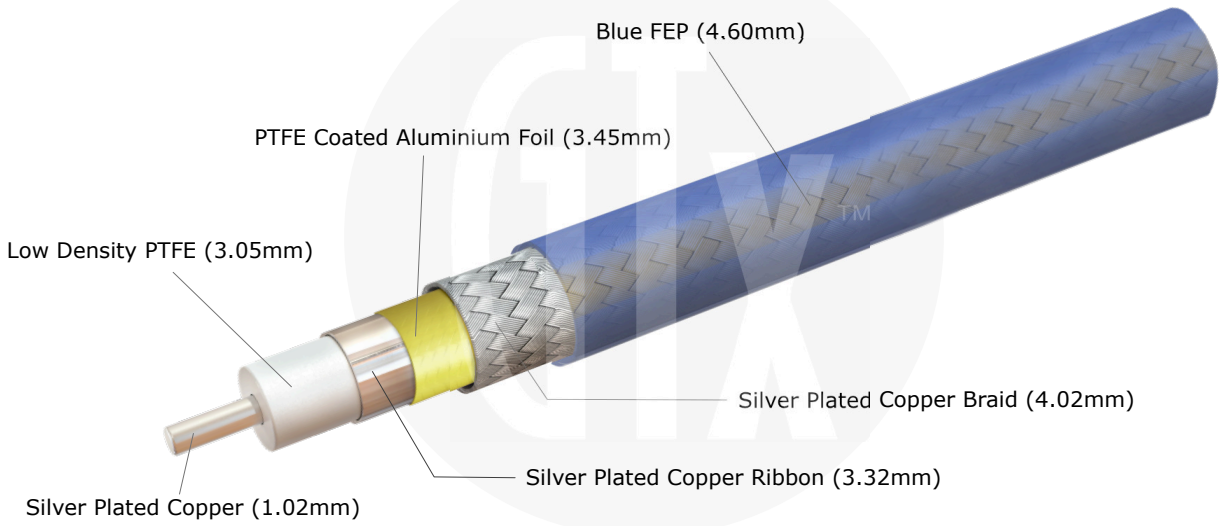
FREQUENCY	ATTENUATION (per 100m)	AVERAGE POWER (kW)
300 MHz	23.9 dB	0.75
1000 MHz	43.8 dB	0.409
2000 MHz	62.2 dB	0.288
6000 MHz	108.8 dB	0.165
8000 MHz	126.1 dB	0.142
10000 MHz	141.5 dB	0.127
12,000 MHz	155.4 dB	0.115
16,000 MHz	180.43 dB	0.106
18,000 MHz	191.8 dB	0.093
26,500 MHz	234.8 dB	0.076
40,000 MHz	291.7 dB	0.061





KF181HP

Low Loss, Phase and Amplitude Stable Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (1.02mm)
Dielectric	Low Density PTFE (3.05mm)
First Shield	Silver Plated Copper Ribbon (3.32mm)
Separation Layer	PTFE Coated Aluminium Foil (3.45mm)
Second Shield	Silver Plated Copper Braid (4.02mm)
Jacket	Blue FEP (4.60mm)

ELECTRICAL SPECIFICATION

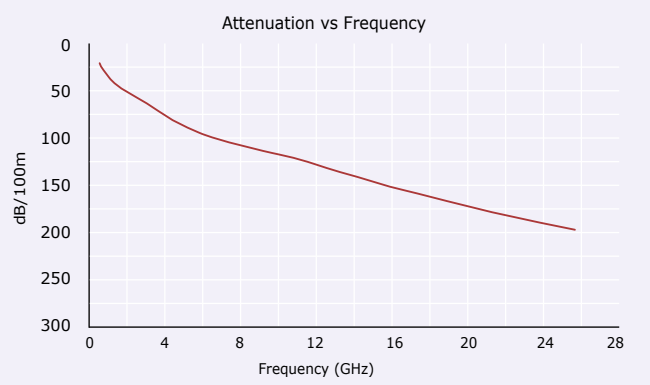
Impedance	50 Ohms
Max. Frequency	26.5 GHz
Velocity of Propagation	76%
Voltage Withstanding	1000V RMS Maximum
Shielding Effectiveness	> -100dB

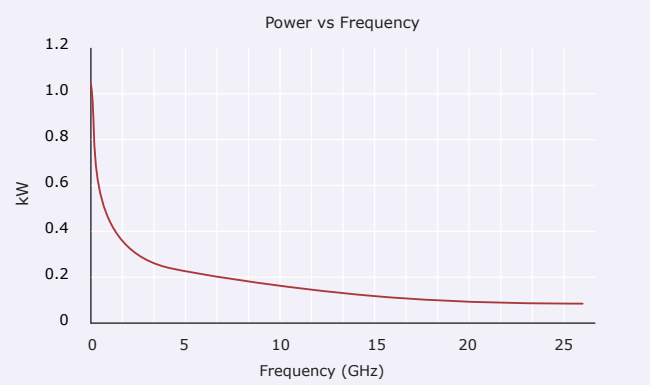
MECHANICAL & ENVIRONMENTAL SPECIFICATION

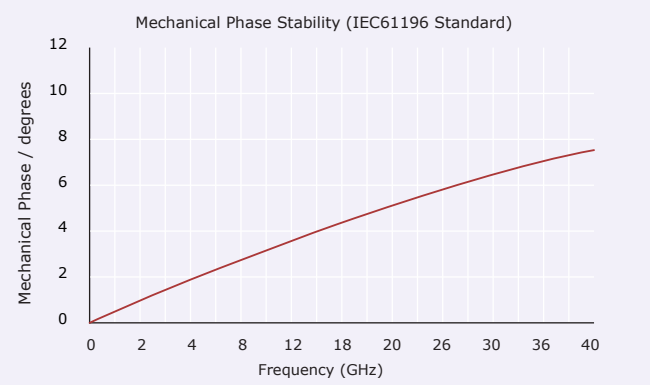
Bending Radius (static)	18.4mm
Bending Radius (flexing)	46.0mm
Weight	50 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +200 degrees C

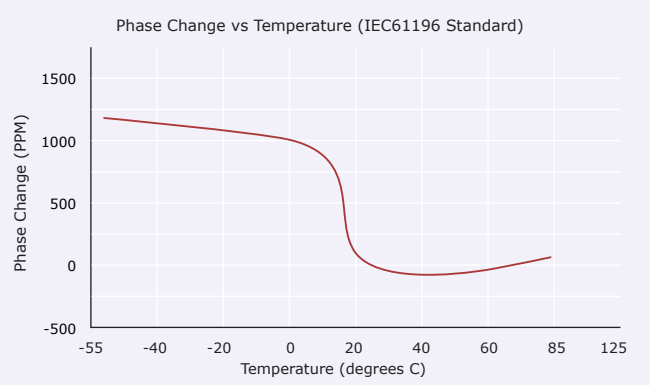
KF181HP Low Loss, Phase and Amplitude Stable Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)	AVERAGE POWER (kW)
300 MHz	19.20 dB	1.047
1000 MHz	35.40 dB	0.569
2000 MHz	50.39 dB	0.364
6000 MHz	88.80 dB	0.227
8000 MHz	103.20 dB	0.195
10,000 MHz	116.00 dB	0.174
12,000 MHz	127.70 dB	0.158
16,000 MHz	148.70 dB	0.135
18,000 MHz	158.30 dB	0.127
26,500 MHz	194.90 dB	0.103



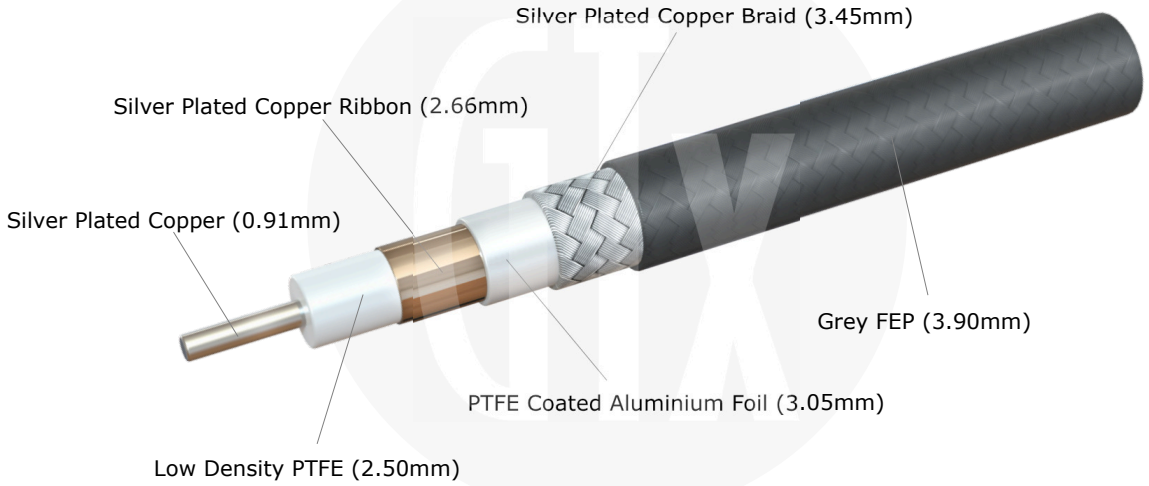






KF141UHP

Ultra Low Loss, Phase Stable Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (0.91mm)
Dielectric	Low Density PTFE (2.50mm)
First Shield	Silver Plated Copper Ribbon (2.66mm)
Separation Layer	PTFE Coated Aluminium Foil (3.05mm)
Second Shield	Silver Plated Copper Braid (3.45mm)
Jacket	Grey FEP (3.90mm)

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	40 GHz
Capacitance	80.65 pF/m
Velocity of Propagation	81%
Voltage Withstanding	1000V RMS Maximum

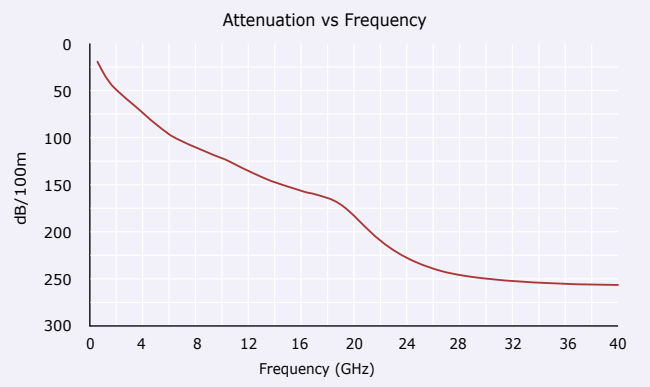
MECHANICAL & ENVIRONMENTAL SPECIFICATION

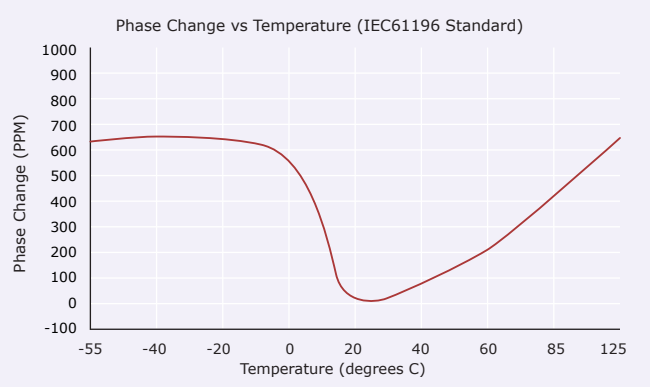
Bending Radius (static)	18mm
Bending Radius (flexing)	36mm
Weight	34 gms/m
RoHS Compiant	Yes
Temperature Range	-55 to +125 degrees C

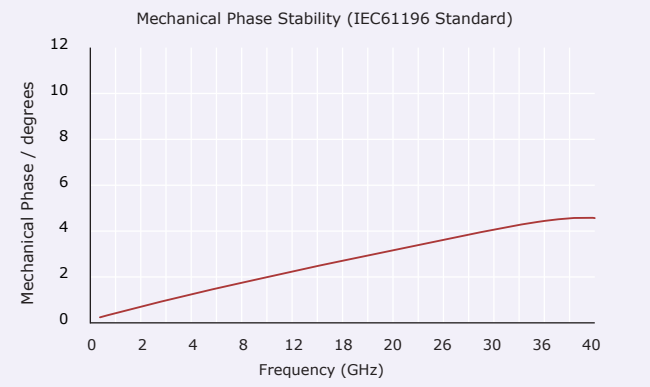
KF141UHP

Ultra Low Loss, Phase Stable Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)	AVERAGE POWER (kW)
300 MHz	20.4 dB	0.94
500 MHz	26.4 dB	0.73
1000 MHz	37.5 dB	0.51
3000 MHz	65.6 dB	0.29
6000 MHz	93.8 dB	0.20
10,000 MHz	122.3 dB	0.16
12,400 MHz	136.9 dB	0.14
16,000 MHz	156.6 dB	0.12
18,000 MHz	166.7 dB	0.12
26,500 MHz	240.8 dB	0.09
40,000 MHz	255.7 dB	0.08

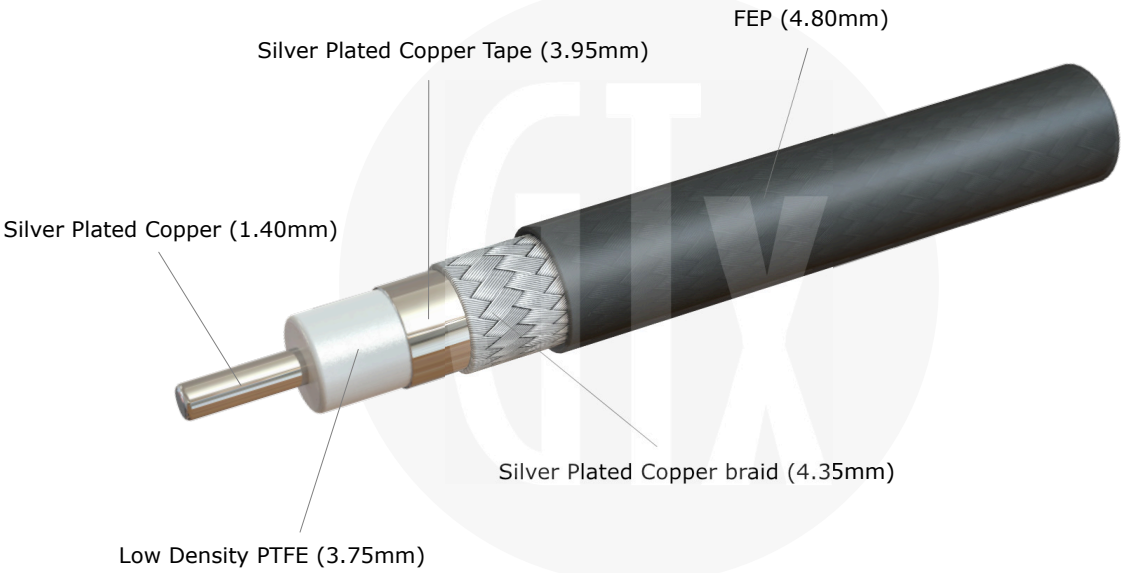






KF189UHP

Ultra Low Loss, Phase Stable Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (1.40mm)
Dielectric	Low Density PTFE (3.75mm)
First Shield	Silver Plated Copper Tape (3.95mm)
Second Shield	Silver Plated Copper Braid (4.35mm)
Jacket	FEP (4.80mm)

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 26.5 GHz
Velocity of Propagation	83%
Voltage Withstanding	1200V RMS Maximum

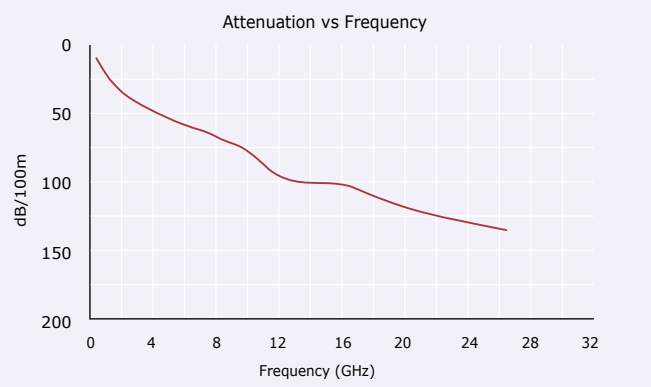
MECHANICAL & ENVIRONMENTAL SPECIFICATION

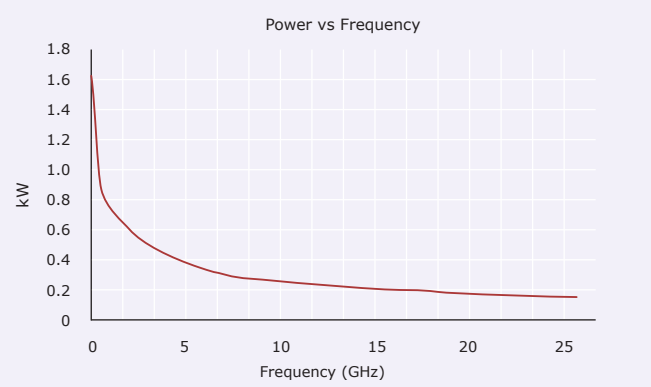
Bending Radius (static)	24mm
Bending Radius (flexing)	48mm
Weight	57 gms/m
RoHS Compiant	Yes
Temperature Range	-55 to +165 degrees C

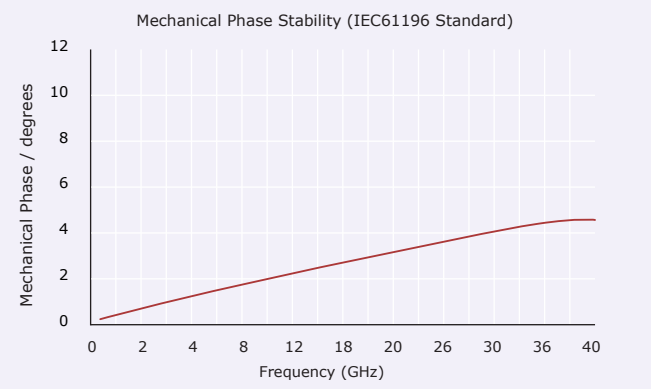
KF189UHP

Ultra Low Loss, Phase Stable Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)	AVERAGE POWER (kW)
300 MHz	12.9 dB	1.609
1000 MHz	23.67 dB	0.872
2000 MHz	33.7 dB	0.612
6000 MHz	59.54 dB	0.347
8000 MHz	69.22 dB	0.298
10000 MHz	77.86 dB	0.265
12,000 MHz	87.26 dB	0.236
16,000 MHz	99.96 dB	0.206
18,000 MHz	106.48 dB	0.194
26,500 MHz	131.24 dB	0.157

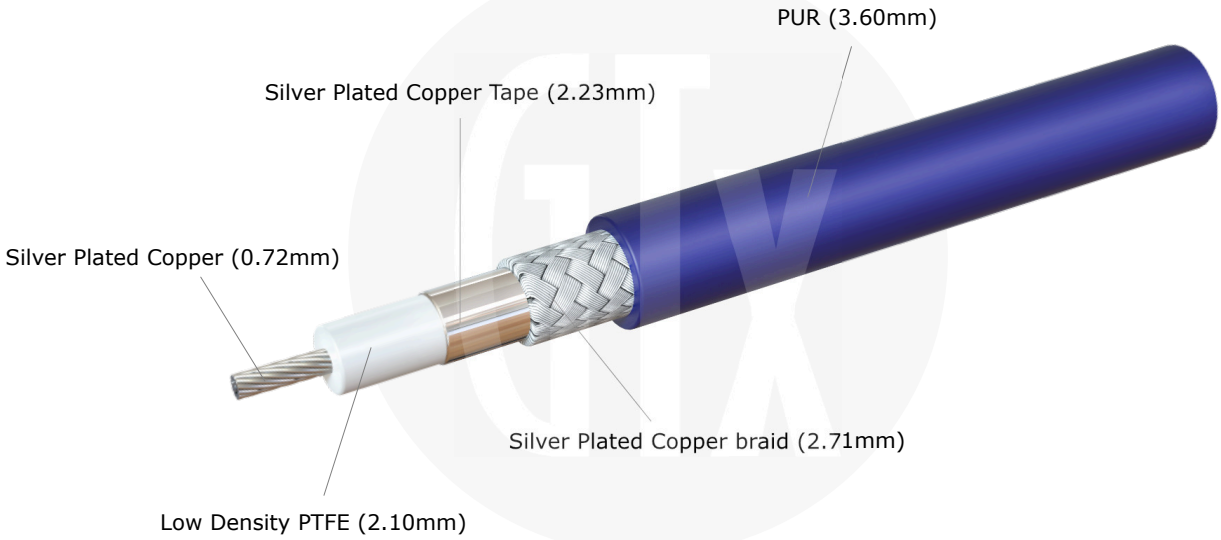






KF141UF

Low Loss, Ultra Flexible Phase Stable Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (0.72mm)
Dielectric	Low Density PTFE (2.10mm)
First Shield	Silver Plated Copper Tape (2.23mm)
Second Shield	Silver Plated Copper Braid (2.71mm)
Jacket	PUR (3.60mm)

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 40 GHz
Velocity of Propagation	76%
Voltage Withstanding	500V RMS Maximum

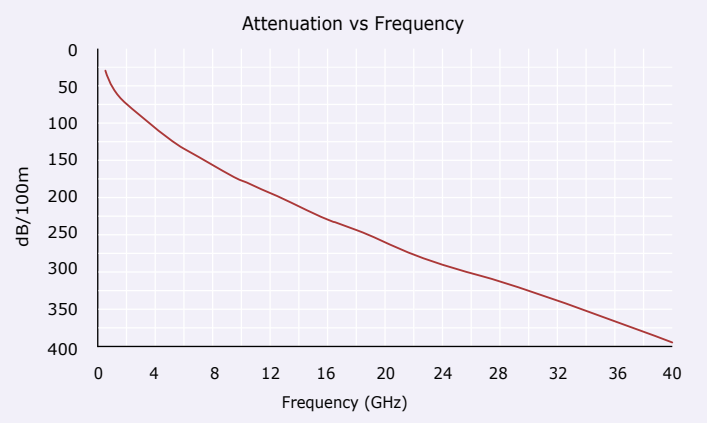
MECHANICAL & ENVIRONMENTAL SPECIFICATION

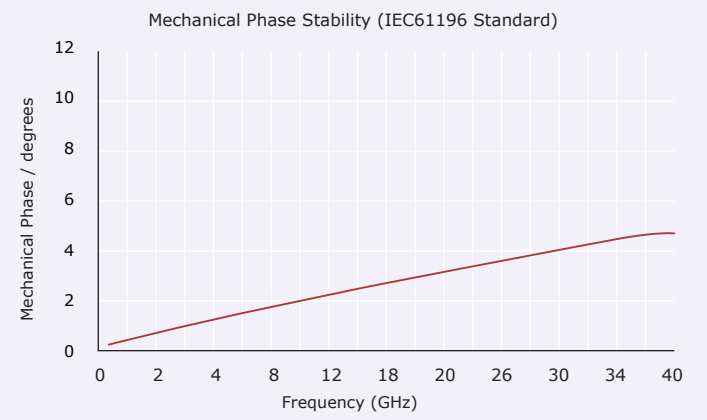
Bending Radius (static)	14mm
Bending Radius (flexing)	36mm
Weight	30 gms/m
RoHS Compiant	Yes
Temperature Range	-55 to +85 degrees C

KF141UF

Low Loss, Ultra Flexible Phase Stable Coaxial Cable

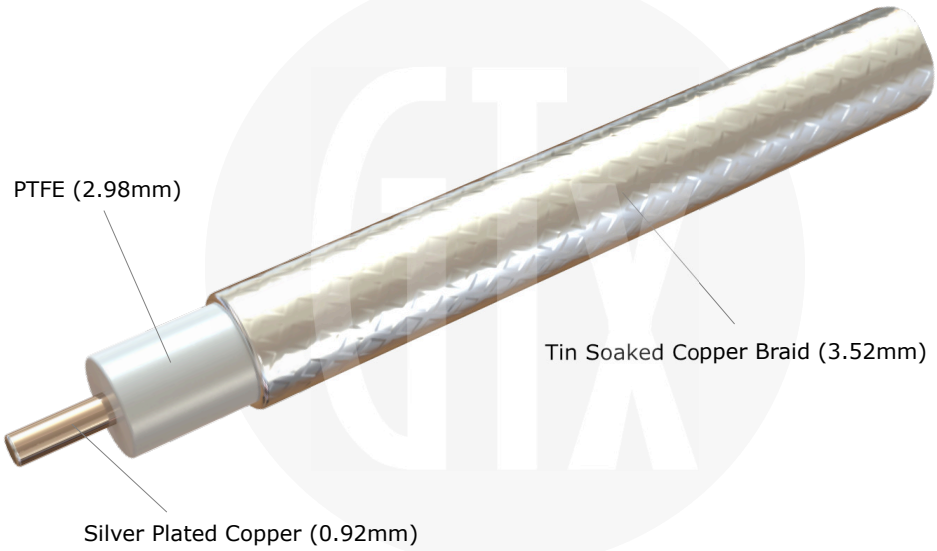
FREQUENCY	ATTENUATION (per 100m)	AVERAGE POWER (kW)
300 MHz	27.96 dB	0.22
1000 MHz	51.86 dB	0.12
2000 MHz	74.4 dB	0.067
6000 MHz	133.45 dB	0.046
8000 MHz	156.03 dB	0.039
10000 MHz	176.3 dB	0.035
12,000 MHz	195.0 dB	0.031
16,000 MHz	229.1 dB	0.027
18,000 MHz	244.88 dB	0.025
26,500 MHz	305.54 dB	0.02
40,000 MHz	388.8 dB	0.016





RG402C

Conformable Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (0.92mm)
Dielectric	PTFE (2.98mm)
Outer Conductor	Tin Soaked Copper Braid (3.52mm)
Jacket	N/A

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 34 GHz
Capacitance	95.1 pF/m
Voltage Withstanding	1900V RMS Maximum
Velocity Of Propagation	70%

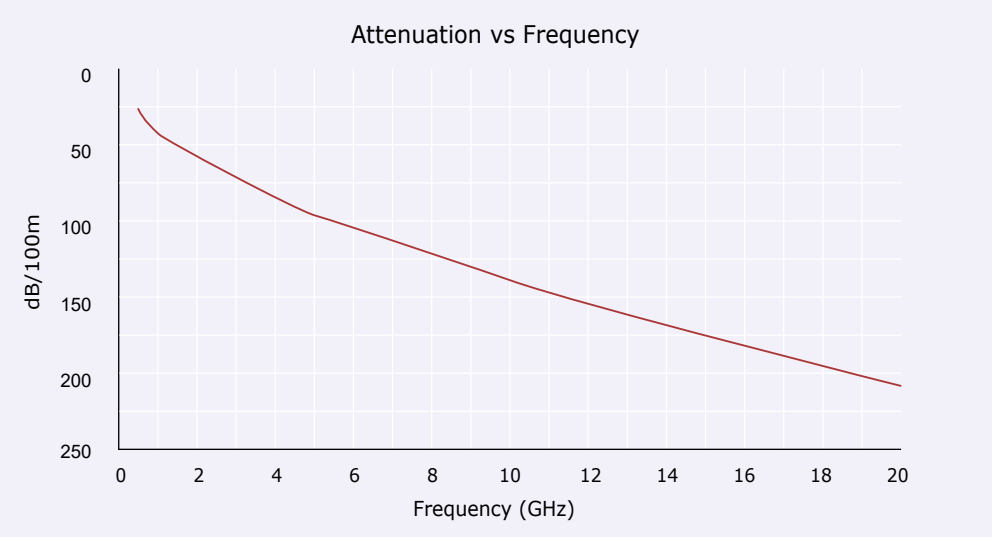
MECHANICAL & ENVIRONMENTAL SPECIFICATION

Bending Radius (static)	8mm
Weight	40 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +125 degrees C

RG402C

Conformable Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)
0.5 GHz	26.0 dB
1 GHz	39.0 dB
5 GHz	92.0 dB
10 GHz	138.0 dB
20 GHz	210.0 dB



RG405C

Conformable Coaxial Cable

MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper Clad Steel (0.51mm)
Dielectric	PTFE (1.66mm)
Outer Conductor	Tin Soaked Copper Braid (2.10mm)
Jacket	N/A

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 61 GHz
Capacitance	95 pF/m
Voltage Withstanding	1500V RMS Maximum
Velocity Of Propagation	69.5%

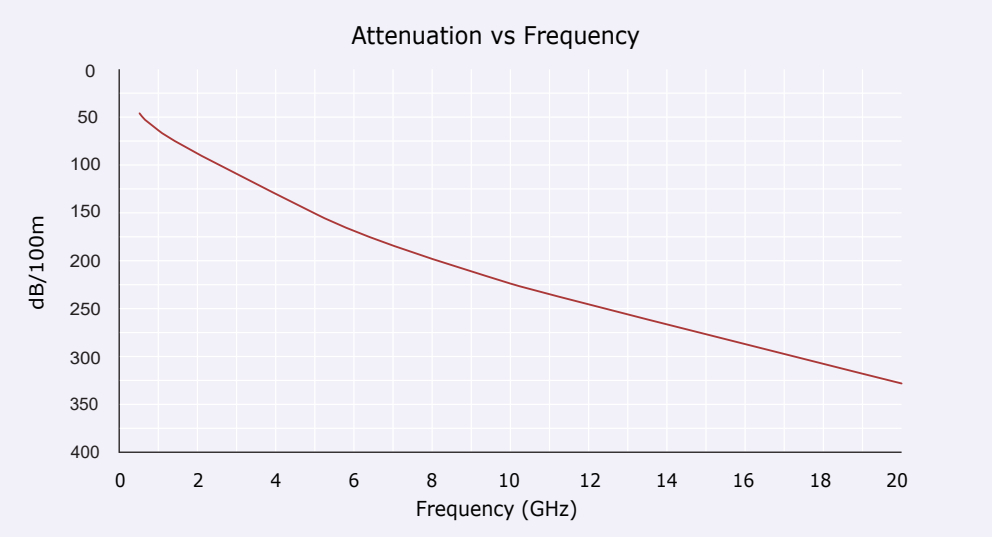
MECHANICAL & ENVIRONMENTAL SPECIFICATION

Bending Radius (static)	6mm
Weight	17 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +125 degrees C

RG405C

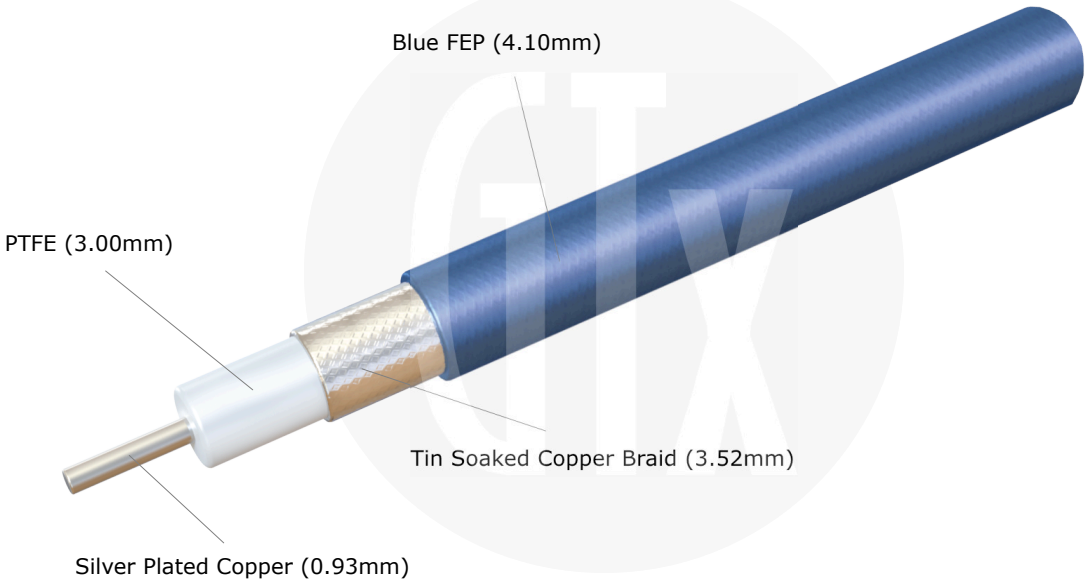
Conformable Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)
0.5 GHz	45.0 dB
1 GHz	64.0 dB
5 GHz	151.0 dB
10 GHz	222.0 dB
20 GHz	329.0 dB



RG402CFEP

Conformable FEP Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (0.93mm)
Dielectric	PTFE (3.00mm)
Outer Conductor	Tin Soaked Copper Braid (3.52mm)
Jacket	Blue FEP (4.10mm)

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 34 GHz
Capacitance	95.1 pF/m
Velocity Of Propagation	70%

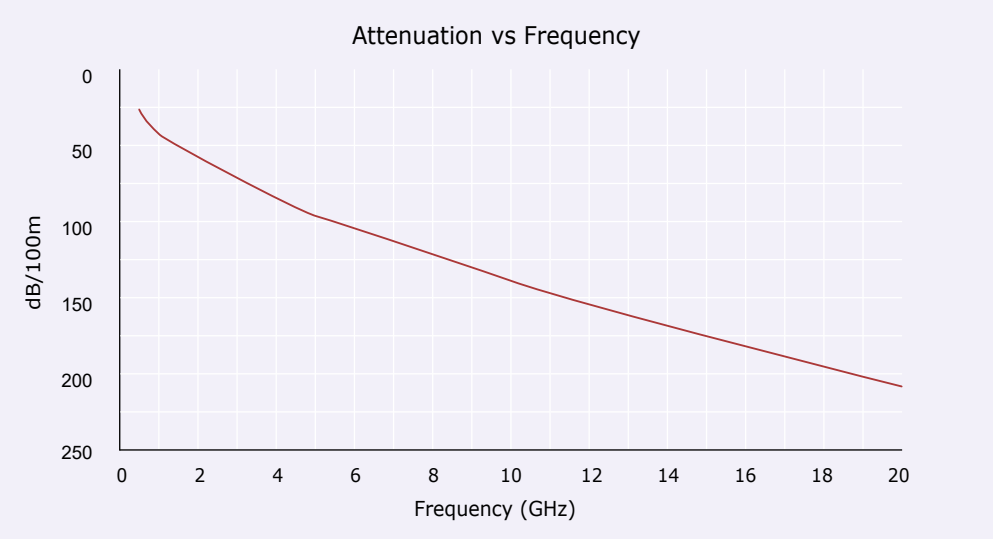
MECHANICAL & ENVIRONMENTAL SPECIFICATION

Bending Radius (static)	10.25mm
Weight	40 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +125 degrees C

RG402CFEP

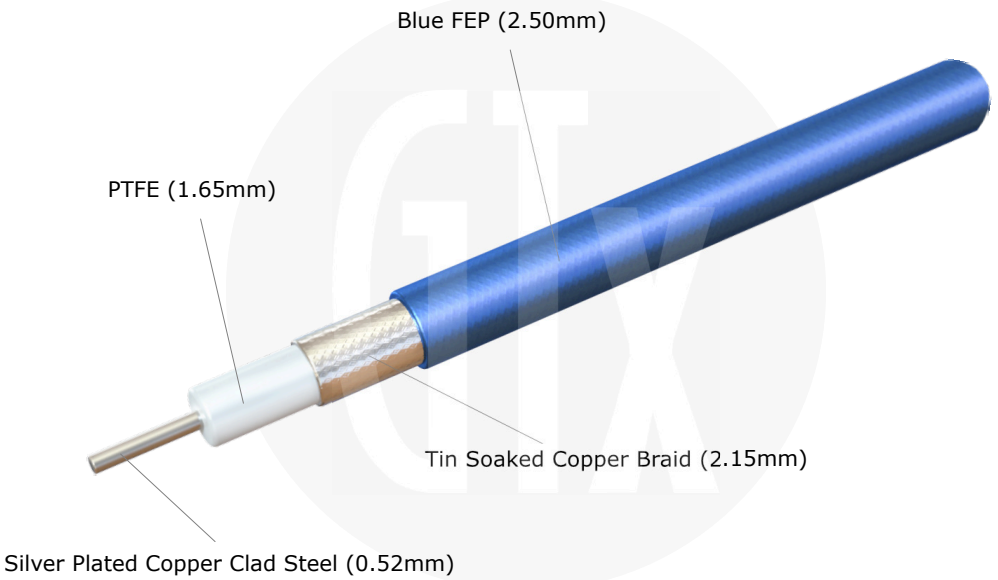
Conformable FEP Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)
0.5 GHz	26.0 dB
1 GHz	39.0 dB
5 GHz	92.0 dB
10 GHz	138.0 dB
20 GHz	210.0 dB



RG405CFEP

Conformable FEP Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper Clad Steel (0.52mm)
Dielectric	PTFE (1.65mm)
Outer Conductor	Tin Soaked Copper Braid (2.15mm)
Jacket	Blue FEP (2.50mm)

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 61 GHz
Capacitance	95 pF/m
Voltage Withstanding	1500V RMS Maximum
Velocity Of Propagation	70%

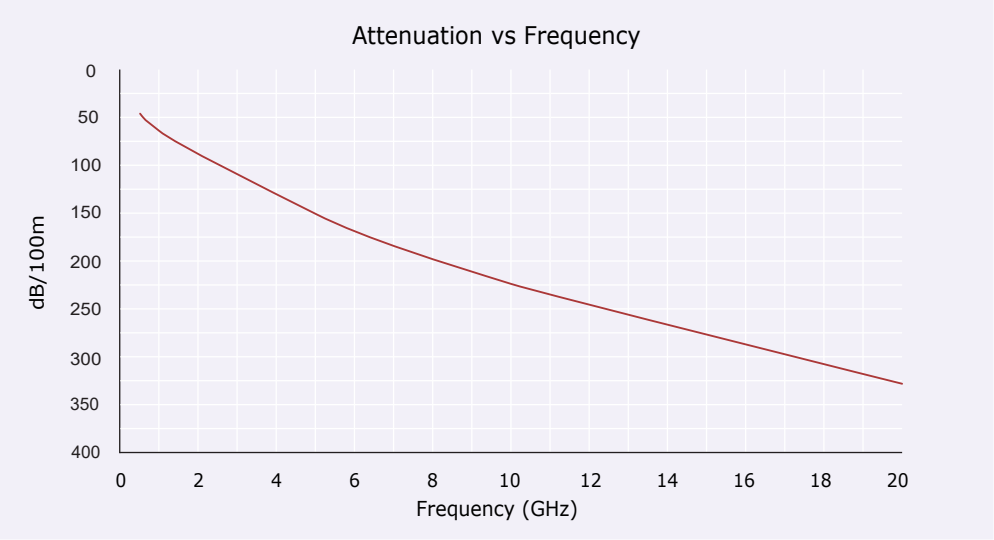
MECHANICAL & ENVIRONMENTAL SPECIFICATION

Bending Radius (static)	6mm
Weight	17 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +125 degrees C

RG405CFEP

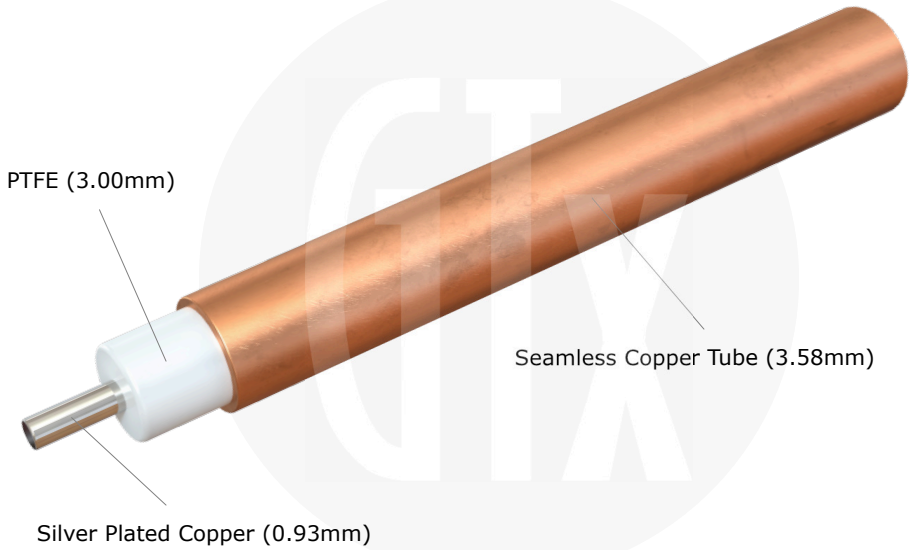
Conformable FEP Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)
0.5 GHz	45.0 dB
1 GHz	64.0 dB
3 GHz	134.0 dB
5 GHz	151.0 dB
10 GHz	222.0 dB
20 GHz	329.0 dB



SR141C

Semi Rigid Coaxial Cable



MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (0.93mm)
Dielectric	PTFE (3.00mm)
Outer Conductor	Seamless Copper Tube (3.58mm)
Jacket	N/A

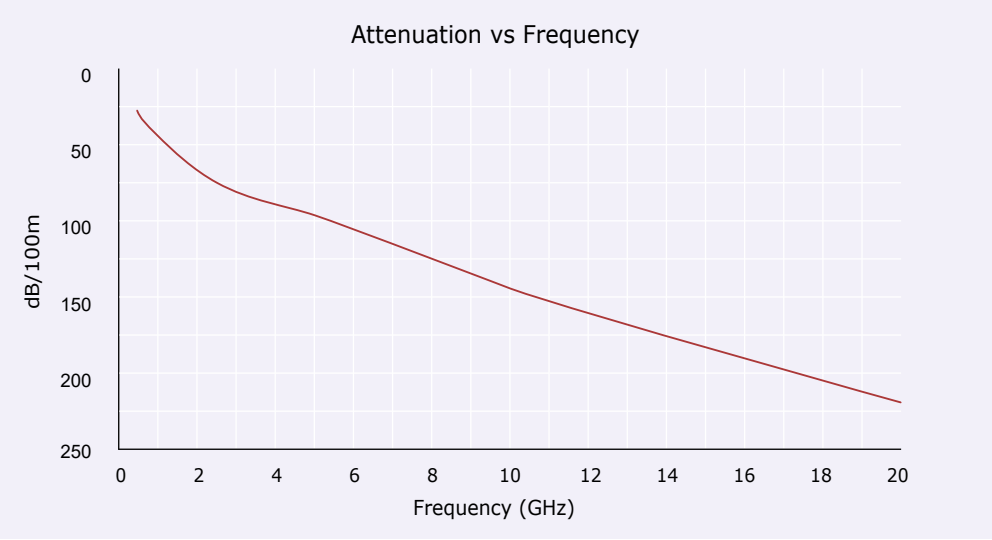
ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 34 GHz
Capacitance	95.1 pF/m
Voltage Withstanding	5000V RMS Maximum
Velocity Of Propagation	69.5%

MECHANICAL & ENVIRONMENTAL SPECIFICATION

Bending Radius (static)	12.5mm
Weight	50 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +125 degrees C

FREQUENCY	ATTENUATION (per 100m)
0.5 GHz	27.3 dB
1 GHz	41.0 dB
3 GHz	75.6 dB
5 GHz	95.6 dB
10 GHz	144.0 dB
20 GHz	219.0 dB



SR141CT

Semi Rigid Coaxial Cable

MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper (0.93mm)
Dielectric	PTFE (3.00mm)
Outer Conductor	Tin Plated Seamless Copper Tube (3.58mm)
Jacket	N/A

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 34 GHz
Capacitance	95.1 pF/m
Voltage Withstanding	5000V RMS Maximum
Velocity Of Propagation	69.5%

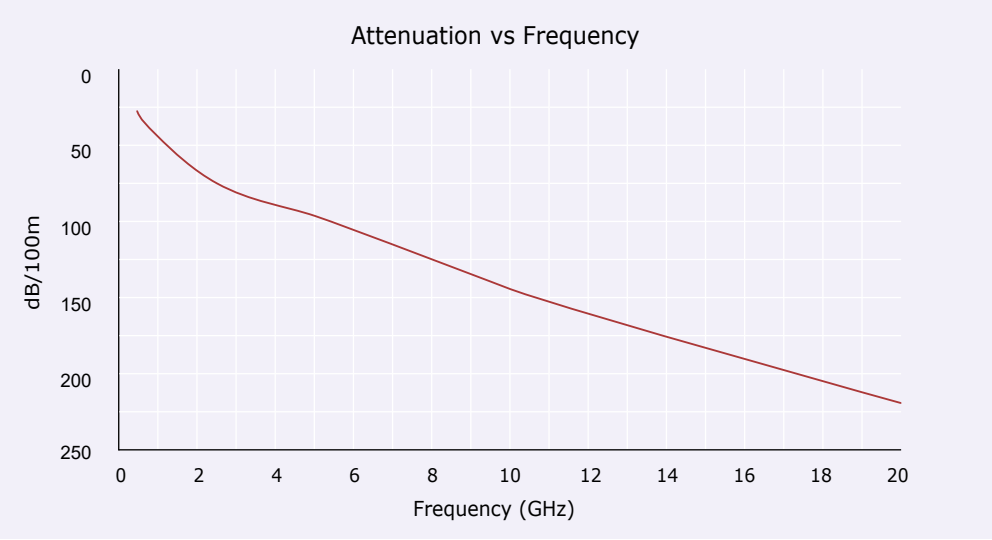
MECHANICAL & ENVIRONMENTAL SPECIFICATION

Bending Radius (static)	12.5mm
Weight	50 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +125 degrees C

SR141CT

Semi Rigid Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)
0.5 GHz	27.0 dB
1 GHz	41.0 dB
3 GHz	76.0 dB
5 GHz	96.0 dB
10 GHz	144.0 dB
20 GHz	219.0 dB



SR085C

Semi Rigid Coaxial Cable

MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper Clad Steel (0.51mm)
Dielectric	PTFE (1.71mm)
Outer Conductor	Seamless Copper Tube (2.20mm)
Jacket	N/A

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 61 GHz
Capacitance	95.1 pF/m
Voltage Withstanding	5000V RMS Maximum
Velocity Of Propagation	69.5%

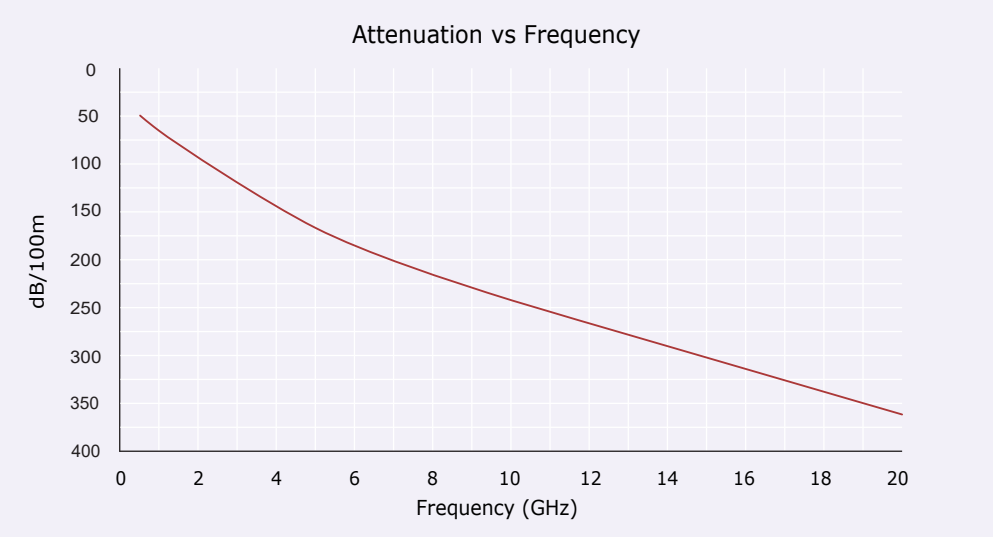
MECHANICAL & ENVIRONMENTAL SPECIFICATION

Bending Radius (static)	7.63mm
Weight	25 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +125 degrees C

SR085C

Semi Rigid Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)
0.5 GHz	49.5 dB
1 GHz	70.4 dB
5 GHz	166.1 dB
10 GHz	243.1 dB
20 GHz	361.9 dB



SR085CT

Semi Rigid Coaxial Cable

MATERIAL SPECIFICATION

Inner Conductor	Silver Plated Copper Clad Steel (0.51mm)
Dielectric	PTFE (1.68mm)
Outer Conductor	Tin Plated Seamless Copper Tube (2.20mm)
Jacket	N/A

ELECTRICAL SPECIFICATION

Impedance	50 Ohms
Max. Frequency	DC to 61 GHz
Capacitance	95.1 pF/m
Voltage Withstanding	3500V RMS Maximum
Velocity Of Propagation	69.5%

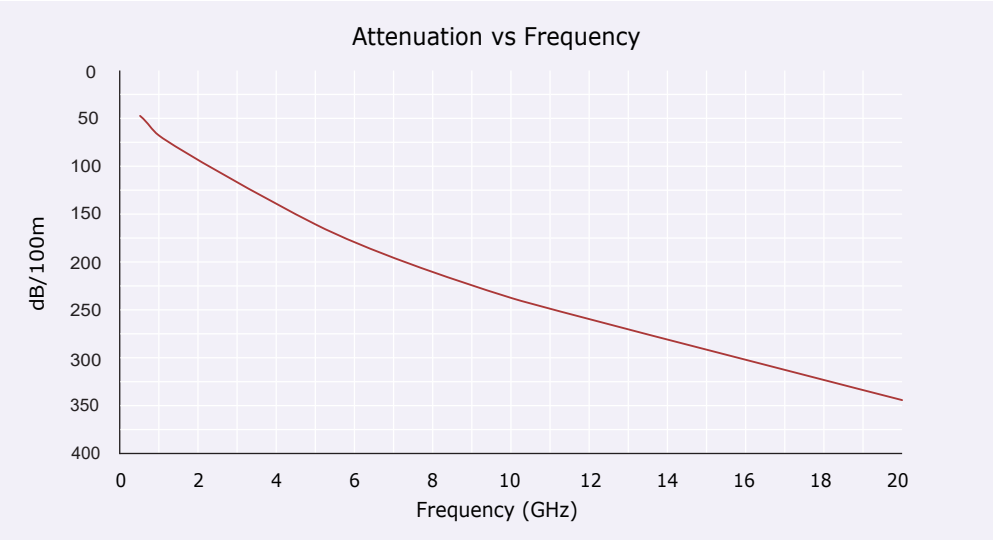
MECHANICAL & ENVIRONMENTAL SPECIFICATION

Bending Radius (static)	7.63mm
Weight	20 gms/m
RoHS Compliant	Yes
Temperature Range	-55 to +125 degrees C

SR085CT

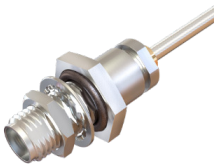
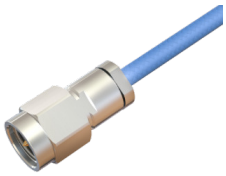
Semi Rigid Coaxial Cable

FREQUENCY	ATTENUATION (per 100m)
0.5 GHz	47 dB
1 GHz	67 dB
5 GHz	159 dB
10 GHz	233 dB
20 GHz	345 dB



Connector Cross Reference

2.92 CONNECTORS


Cable Types
KF085, KF141HP, KF141UHP ,KF141UF
SR085C, SR085CT, SR141C, SR141CT
RG402C, RG402CFEP, RG405C, RG405CFEP

BNC CONNECTORS


Cable Types
SR085C, SR085CT, SR141C, SR141CT
RG402C, RG402CFEP, RG405C, RG405CFEP

MCX CONNECTORS



Cable Types
SR085C, SR085CT, SR141C, SR141CT
RG402C, RG402CFEP, RG405C, RG405CFEP

Connector Cross Reference

MMCX CONNECTORS

Cable Types
SR085C, SR085CT
RG405C, RG405CFEP

SMA CONNECTORS





Cable Types
KF085, KF141, KF141HP, KF141UHP ,KF141UF, KF181HP, KF189UHP, KF240
SR085C, SR085CT, SR141C, SR141CT
RG402C, RG402CFEP, RG405C, RG405CFEP

SMP CONNECTORS


Cable Types
SR085C, SR085CT
RG405C, RG405CFEP

Connector Cross Reference

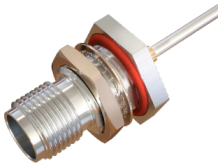
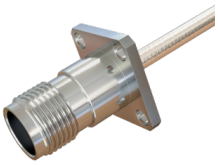
N TYPE CONNECTORS





Cable Types
KF141, KF141UHP ,KF141UF, KF181HP, KF189UHP, KF240
SR085C, SR085CT, SR141C, SR141CT
RG402C, RG402CFEP, RG405C, RG405CFEP

TNC CONNECTORS

Cable Types
SR085C, SR085CT, SR141C, SR141CT
RG402C, RG402CFEP, RG405C, RG405CFEP

Innovation and Quality in Connectivity Solutions

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