



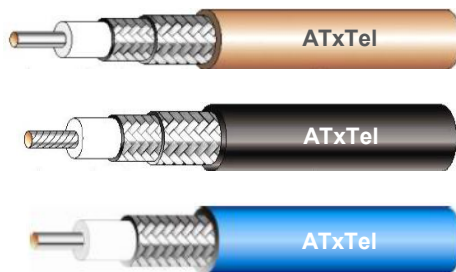
Product Selection Guide

Bulk RF Cable

RG Series

Features

- Low loss
- Excellent shielding performance
- Excellent durability
- Low passive intermodulation (PIM)
- Light weight



Model	Outer Diameter (mm)	Operating Frequency (GHz)	Impedance (Ohms)	Velocity	Operating Voltage (Vrms)	Capacitance (pF/m)	Attenuation(dB/m, Typical Value @25°C & VSWR=1.0)					
							100MHz	400MHz	1GHz	3GHz	6GHz	10GHz
RG142	4.95	6	50	70%	1400	96.45	0.13	0.28	0.45	0.83	1.30	
RG214	10.80	6	50	66%	3700	101.05	0.07	0.14	0.24	0.47		
RG223	5.30	12.4	50	66%	1400	101.05	0.13	0.27	0.44	0.82	1.27	
RG316	2.50	6	50	70%	900	96.5		0.58	0.90	1.70	2.87	
RG316D	2.90	6	50	70%	1200	96.5		0.58	0.90	1.70	2.95	
RG400	4.95	12.4	50	70%	1400	105	0.15	0.30	0.48	0.88	1.36	
RG402FEP	4.15	18	50	70%	1900	95			0.39	0.84		1.38
RG402SR	3.58	34	50	70%	1900	95.1			0.38	0.72		1.37
RG405FEP	2.65	18	50	70%	1500	95			0.78	1.35		2.25
RG405SR	2.20	61	50	70%		95.1			0.64	1.26		2.22

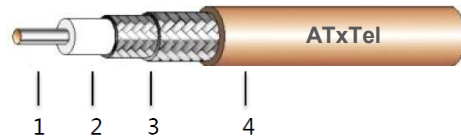
Product Specifications



Model: RG142

Flexible Coaxial Cable

Applied Standard MIL-C-17



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	0.93
2. Dielectric	PTFE	3.00
3. Outer Conductor	Double Silver Plated Copper Braid	3.95
4. Jacket	FEP	4.95

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	96.45 pF/m
Velocity	70%
Voltage Withstanding	5000 Vrms
Working Voltage	1400 Vrms
Operating Frequency	DC-12.4 GHz max

Mechanical & Environmental Specifications

Bend Radius	25 mm
Temperature Range	-55 ~ +200 $^{\circ}\text{C}$
RoHS Compliance	Compliant

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

Frequency (MHz)	Attenuation (dB/m)
100	0.13
400	0.28
1000	0.45
3000	0.83
5000	1.15
6000	1.30

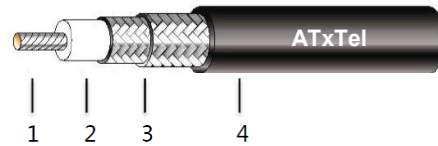
Product Specifications



Model: RG214

Flexible Coaxial Cable

Applied Standard MIL-C-17



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	7/0.752
2. Dielectric	Low Density Polyethylene	7.24
3. Outer Conductor	Double Silver Plated Copper Braid	8.40
4. Jacket	Black PVC	10.80

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	101.05 pF/m
Velocity	66%
Voltage Withstanding	5000 Vrms
Working Voltage	3700 Vrms
Operating Frequency	DC-6 GHz max

Mechanical & Environmental Specifications

Bend Radius	40 mm
Temperature Range	-25 ~ +70 °C
RoHS Compliance	Compliant

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

Frequency (MHz)	Attenuation (dB/m)
100	0.07
400	0.14
1000	0.24
3000	0.47
5000	0.65

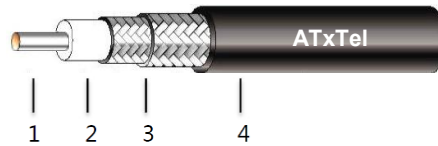
Product Specifications



Model: RG223

Flexible Coaxial Cable

Applied Standard MIL-C-17



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	0.90
2. Dielectric	Polyethylene	2.95
3. Outer Conductor	Double Silver Copper Braid	3.95
4. Jacket	Black PVC	5.30

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	101.05 pF/m
Velocity	66%
Voltage Withstanding	5000 Vrms
Working Voltage	1400 Vrms
Operating Frequency	DC-12.4 GHz max

Mechanical & Environmental Specifications

Weight	60 g/m
Bend Radius	25 mm
Temperature Range	-25 ~ +70 °C
RoHS Compliance	Compliant

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

Frequency (MHz)	Attenuation (dB/m)
100	0.13
400	0.27
1000	0.44
3000	0.82
5000	1.10
6000	1.27

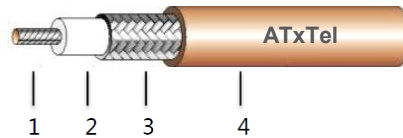
Product Specifications



Model: RG316

Flexible Coaxial Cable

Applied Standard MIL-C-17



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	0.51 (7/0.17)
2. Dielectric	PTFE	1.51
3. Outer Conductor	Silver Plated Copper Braid	1.95
4. Jacket	FEP	2.50

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	96.5 pF/m
Velocity	70%
Voltage Withstanding	2000 Vrms
Working Voltage	900 Vrms
Operating Frequency	DC-6 GHz max

Mechanical & Environmental Specifications

Bend Radius	13 mm
Temperature Range	-55 ~ +200 °C
RoHS Compliance	Compliant

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

Frequency (MHz)	Attenuation (dB/m)
100	0.29
400	0.58
1000	0.90
3000	1.70
6000	2.87

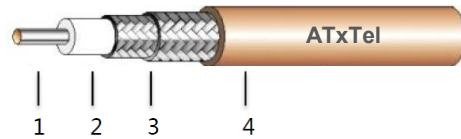
Product Specifications



Model: RG316D

Flexible Coaxial Cable

Applied Standard MIL-C-17



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	0.51 (7/0.17)
2. Dielectric	PTFE	1.52
3. Outer Conductor	Double Silver Plated Copper Braid	2.40
4. Jacket	FEP	2.90

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	96.5 pF/m
Velocity	70%
Voltage Withstanding	2000 Vrms
Working Voltage	1200 Vrms
Operating Frequency	DC-6 GHz max

Mechanical & Environmental Specifications

Bend Radius	15 mm
Temperature Range	-55 ~ +200 $^{\circ}\text{C}$
RoHS Compliance	Compliant

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

Frequency (MHz)	Attenuation (dB/m)
50	0.29
400	0.58
1000	0.90
3000	1.70
4000	2.15
6000	2.95

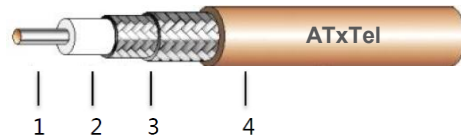
Product Specifications



Model: RG400

Flexible Coaxial Cable

Applied Standard MIL-C-17



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	19/0.203
2. Dielectric	PTFE	3.00
3. Outer Conductor	Double Silver Plated Copper Braid	3.95
4. Jacket	FEP	4.95

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	105 pF/m
Velocity	70%
Voltage Withstanding	5000 Vrms
Working Voltage	1400 Vrms
Operating Frequency	DC-12.4 GHz max

Mechanical & Environmental Specifications

Bend Radius	25 mm
Temperature Range	-55 ~ +200 $^{\circ}\text{C}$
RoHS Compliance	Compliant

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

Frequency (MHz)	Attenuation (dB/m)
100	0.15
400	0.30
1000	0.48
3000	0.88
5000	1.20
6000	1.36

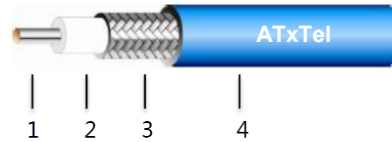
Product Specifications



Model: RG402FEP

(SR141-50-FEP)

Flexible Coaxial Cable



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	0.93
2. Dielectric	PTFE	3.00
3. Outer Conductor	Silver Plated Copper Braid	3.52
4. Jacket	FEP	4.15

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	95 pF/m
Velocity	70%
Voltage Withstanding	5000 Vrms
Working Voltage	1900 Vrms
Operating Frequency	DC-18 GHz max

Mechanical & Environmental Specifications

Bend Radius	41.5 mm
Temperature Range	-55 ~ +200 $^{\circ}\text{C}$
RoHS Compliance	Compliant

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

Frequency (MHz)	Attenuation (dB/m)
500	0.26
1000	0.39
3000	0.84
5000	0.92
10000	1.38

Product Specifications



Model: RG402SR

(SR141-50)

Flexible Coaxial Cable



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	0.93
2. Dielectric	PTFE	3.00
3. Outer Conductor	Tin/Tri-metal Plated Tube	3.58

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	95.1 pF/m
Velocity	70%
Voltage Withstanding	5000 Vrms
Working Voltage	1900 Vrms
Operating Frequency	DC-34 GHz max

Mechanical & Environmental Specifications

Bend Radius	12.5 mm
Temperature Range	-55 ~ +125 $^{\circ}\text{C}$

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

Frequency (MHz)	Attenuation (dB/m)
500	0.26
1000	0.38
3000	0.72
5000	0.91
10000	1.37
20000	2.09

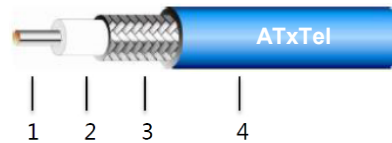
Product Specifications



Model: RG405FEP

(SF086-50-FEP)

Flexible Coaxial Cable



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	0.52
2. Dielectric	PTFE	1.65
3. Outer Conductor	Silver Plated Copper Braid	2.15
4. Jacket	FEP	2.65

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	95 pF/m
Velocity	70%
Voltage Withstanding	5000 Vrms
Working Voltage	1500 Vrms
Operating Frequency	DC-18 GHz max

Mechanical & Environmental Specifications

Bend Radius	26.5 mm
Temperature Range	-55 ~ +200 $^{\circ}\text{C}$
RoHS Compliance	Compliant

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

Frequency (MHz)	Attenuation (dB/m)
500	0.55
1000	0.78
3000	1.35
5000	1.55
10000	2.25

Product Specifications



Model: RG405SR

(SF086-50)

Flexible Coaxial Cable



Construction	Materials	Outer Diameter (mm)
1. Inner Conductor	Silvered Copper Wire	0.51
2. Dielectric	PTFE	1.68
3. Outer Conductor	Tin/Tri-metal Plated Tube	2.20

Electrical Specifications

Cable Impedance	50 Ω
Capacitance	95.1 pF/m
Velocity	70%
Voltage Withstanding	3500 Vrms
Working Voltage	1500 Vrms
Operating Frequency	DC-61 GHz max

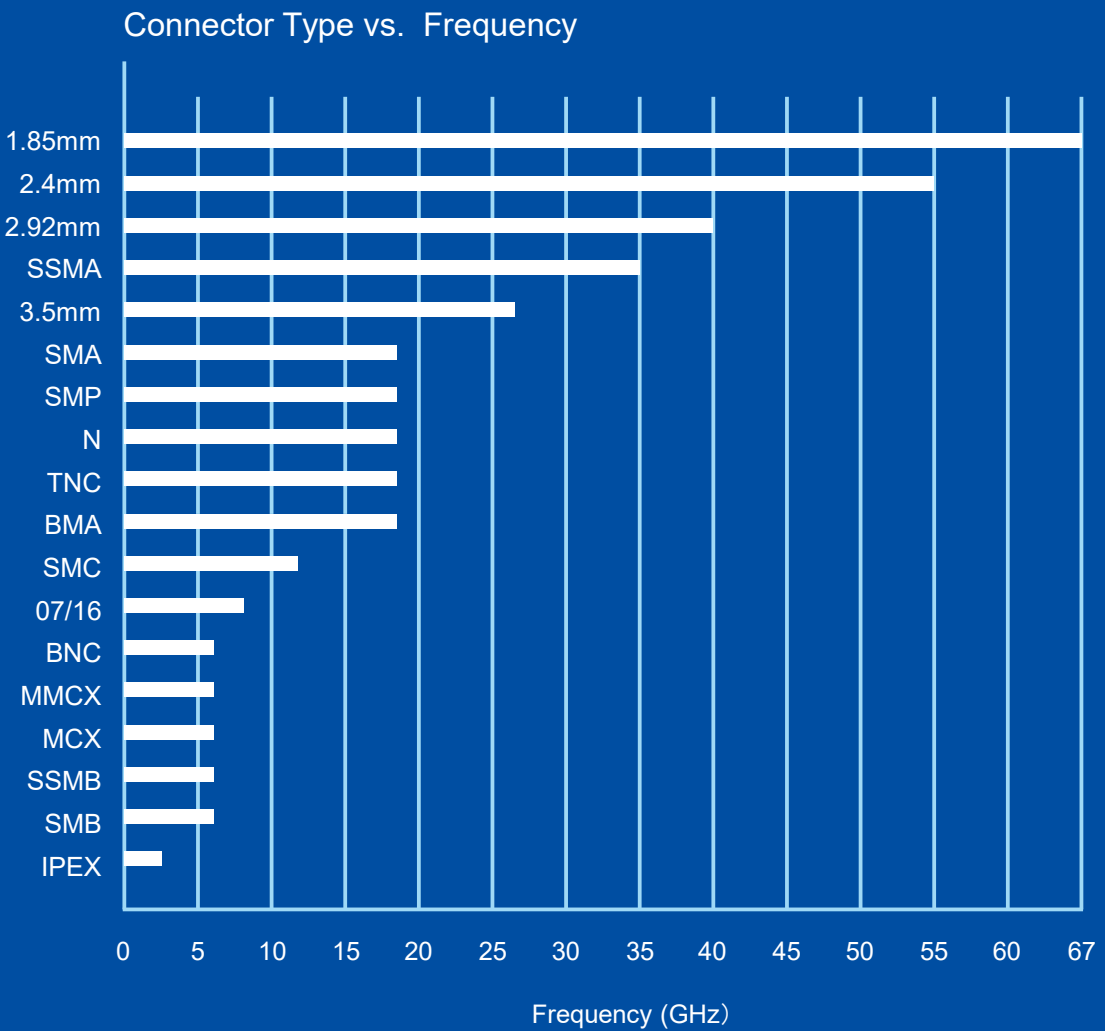
Mechanical & Environmental Specifications

Bend Radius	7.63 mm
Temperature Range	-55 ~ +125 $^{\circ}\text{C}$

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

Frequency (MHz)	Attenuation (dB/m)
500	0.45
1000	0.64
3000	1.26
5000	1.51
10000	2.22
20000	3.59

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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