



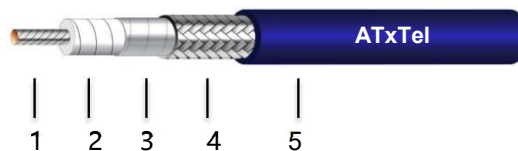
Product Selection Guide

Bulk RF Cable

U Series

Features

- Ultra flexible
- Excellent temperature phase stability
- Excellent shielding performance
- Resistant to harsh environments
- Amplitude stability
- Good power handling capability



Construction	Materials
1. Center Conductor	Stranded Silvered Copper
2. Dielectric	Low Density PTFE
3. Inner Shield	Silvered Copper Tape Wrapping
4. Outer Shield	Braided Silvered Copper Wire
5. Jacket	Purple PUR

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
U360	3.60	40	50	76%	90	500	198.7	244.9	305.5	388.8
U500	5.00	26.5	50	76%	90	1000	157.9	198	252.1	
U600	5.90	26.5	50	76%	90	1700	109.2	134.3	167.2	
U800	8.00	18	50	76%	90	1700	80	101.9		

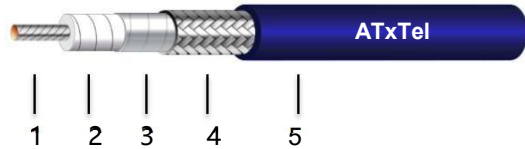
Product Specifications



Model: U360

Low Loss

Ultra Flexible Cable



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Stranded Silvered Copper	0.72
2. Dielectric	Low Density PTFE	2.05
3. Inner Shield	Silvered Copper Tape Wrapping	2.22
4. Outer Shield	Braided Silvered Copper Wire	2.66
5. Jacket	Purple PUR	3.60

Electrical Specifications

Cable Impedance	50 Ω
Velocity	76%
Shielding Effectiveness	>90 dB
Voltage Withstanding	500 V DC
Operating Frequency	DC-40 GHz

Mechanical & Environmental Specifications

Weight	27 g/m
Bend Radius, static	18 mm
Bend Radius, dynamic	36 mm
Temperature Range	-55 ~ +85 $^{\circ}\text{C}$

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

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	221	0.28
1000	119	0.52
3000	67	0.92
6000	46	1.33
8500	38	1.61
12400	31	1.99
18000	25	2.45
26500	20	3.06
40000	16	3.89

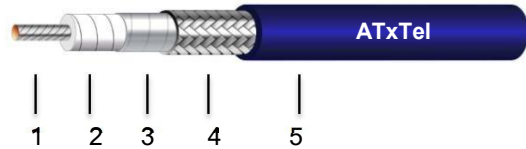
Product Specifications



Model: U500

Low Loss

Ultra Flexible Cable



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Stranded Silvered Copper	1.02
2. Dielectric	Low Density PTFE	3.00
3. Inner Shield	Silvered Copper Tape Wrapping	3.20
4. Outer Shield	Braided Silvered Copper Wire	3.78
5. Jacket	Purple PUR	5.00

Electrical Specifications

Cable Impedance	50 Ω
Velocity	76%
Shielding Effectiveness	>90 dB
Voltage Withstanding	1000 V DC
Operating Frequency	DC-26.5 GHz

Mechanical & Environmental Specifications

Weight	51 g/m
Bend Radius, static	25 mm
Bend Radius, dynamic	50 mm
Temperature Range	-55 ~ +85 °C

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

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	280	0.20
1000	149	0.39
3000	82	0.70
6000	56	1.03
8500	45	1.26
12400	36	1.58
18000	29	1.98
26500	23	2.52

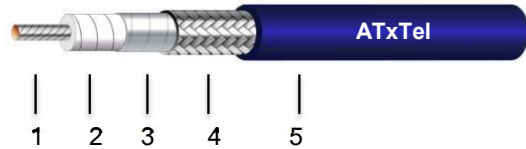
Product Specifications



Model: U600

Low Loss

Ultra Flexible Cable



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Stranded Silvered Copper	1.44
2. Dielectric	Low Density PTFE	4.15
3. Inner Shield	Silvered Copper Tape Wrapping	4.35
4. Outer Shield	Braided Silvered Copper Wire	4.80
5. Jacket	Purple PUR	6.00

Electrical Specifications

Cable Impedance	50 Ω
Velocity	76%
Shielding Effectiveness	>90 dB
Voltage Withstanding	1700 V DC
Operating Frequency	DC-26.5 GHz

Mechanical & Environmental Specifications

Weight	72 g/m
Bend Radius, static	30 mm
Bend Radius, dynamic	60 mm
Temperature Range	-55 ~ +85 $^{\circ}\text{C}$

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

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	324	0.16
1000	175	0.29
3000	99	0.51
6000	68	0.74
8500	57	0.89
12400	46	1.09
18000	37	1.34
26500	30	1.67

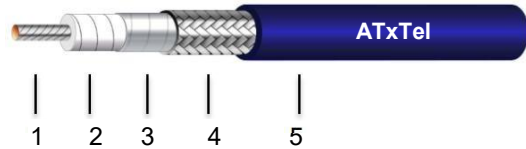
Product Specifications



Model: U800

Low Loss

Ultra Flexible Cable



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Stranded Silvered Copper	1.88
2. Dielectric	Low Density PTFE	5.50
3. Inner Shield	Silvered Copper Tape Wrapping	5.74
4. Outer Shield	Braided Silvered Copper Wire	6.31
5. Jacket	Purple PUR	8.00

Electrical Specifications

Cable Impedance	50 Ω
Velocity	76%
Shielding Effectiveness	>90 dB
Voltage Withstanding	1700 V DC
Operating Frequency	DC-18 GHz

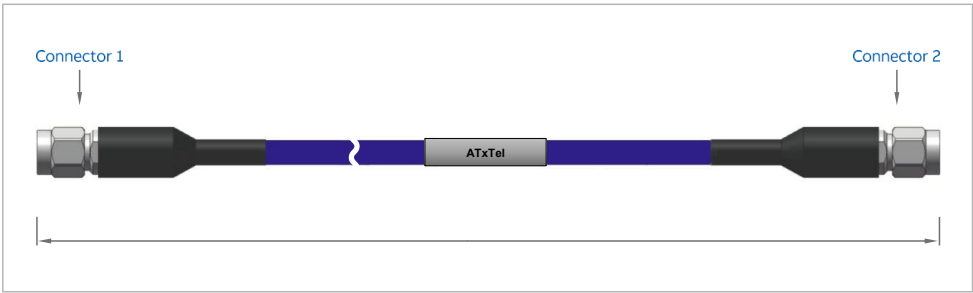
Mechanical & Environmental Specifications

Weight	116 g/m
Bend Radius, static	40 mm
Bend Radius, dynamic	80 mm
Temperature Range	-55 ~ +85 $^{\circ}\text{C}$

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

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	625	0.10
1000	327	0.18
3000	176	0.34
6000	117	0.51
8500	94	0.63
12400	74	0.80
18000	58	1.02

Matching Cables	Matching Connectors											
	SSMP	SMP	SSMA	1.0	1.85	2.4	2.92	3.5	SMA	N	TNC	7/16
U360	●	●	●			●	●	●	●	●	●	
U500								●	●	●	●	
U600								●	●	●	●	
U800									●	●	●	



Part Number

ATX-LM-CBL- U360 - 29 M 29 M - 1 M - K J

Cable Model

U360
U500
U600
U800

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
2SPM → SSMP male	

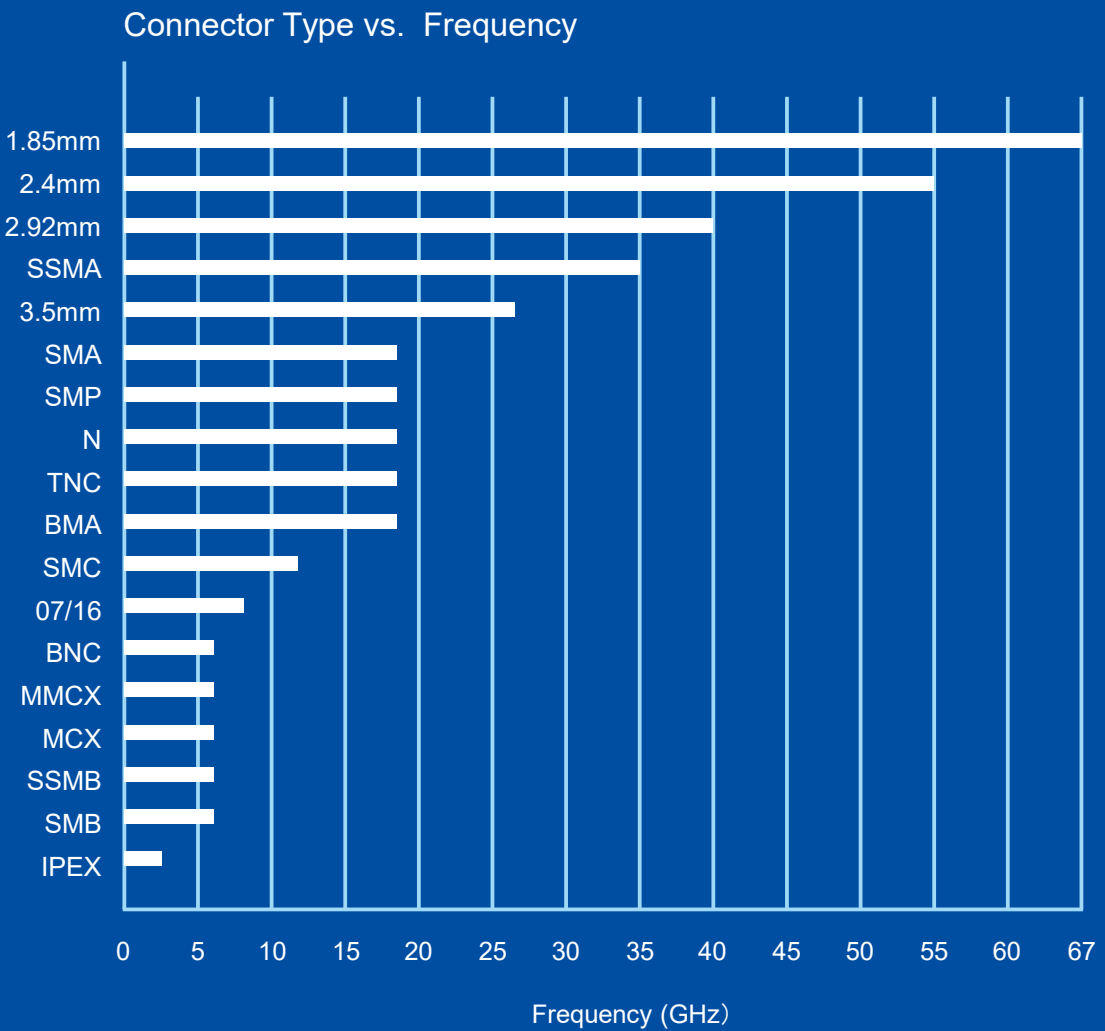
Length

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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