



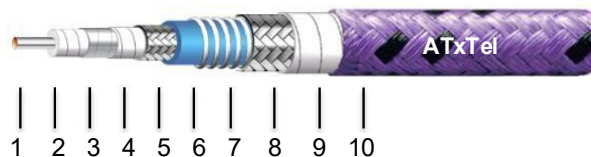
Product Selection Guide

Bulk RF Cable

PA Series

Features

- Resistant to bend and jitter
- Anti-twist and anti-stretch
- Excellent shielding performance
- Ultra-low loss
- Mechanical phase stability
- Amplitude stability
- Low passive intermodulation (PIM)
- Low VSWR



Construction	Materials
1. Center Conductor	Silvered Copper
2. Dielectric	Low Density PTFE
3. Inner Shield	Silvered Copper Tape Wrapping
4. Middle Layer	Low Density PTFE
5. Outer Shield	Braided Silvered Copper Wire
6. Jacket	Blue FEP
7-10. Armor	Compound Material

Model	Outer Diameter (mm)	Frequency (GHz)	Impedance (Ohms)	Velocity	Amplitude Stability (dB)	Phase Stability	Attenuation(dB/100m, Typical Value @25°C & VSWR=1.0)				
							18GHz	26.5GHz	40GHz	50GHz	67GHz
PA67	4.70	67	50	81%	±0.05	±5°	287.06	354	444.01	502.86	593.24
PA50	6.10	50	50	81%	±0.05	±5°	191.82	234.8	291.75	328.5	
PA40	7.00	40	50	81%	±0.05	±5°	173.3	212.3	264.1		
PA26	7.55	26.5	50	82%	±0.05	±7°	127.4	158.77			

Product Specifications

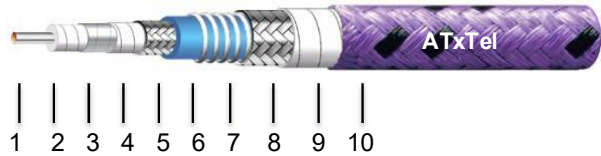


Model: PA67

Amplitude Stable

Phase Stable

Integrated Armor



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Silvered Copper	0.50
2. Dielectric	Low Density PTFE	1.38
3. Inner Shield	Silvered Copper Tape Wrapping	1.54
4. Middle Layer	Low Density PTFE	1.82
5. Outer Shield	Braided Silvered Copper Wire	2.17
6. Jacket	Blue FEP	2.40
7-10. Armor	Compound Material	4.80

Electrical Specifications

Cable Impedance	50 Ω
Velocity	81%
Shielding Effectiveness	>90 dB
Voltage Withstanding	500 V DC
Operating Frequency	DC-67 GHz
Amplitude Stability vs Flexure	< ± 0.05 dB
Mechanical Phase Stability	< $\pm 5^\circ$

Mechanical & Environmental Specifications

Bending Times	100,000 Times
Bend Radius, static	30 mm
Bend Radius, dynamic	50 mm
Temperature Range	-55 ~ +125 $^\circ\text{C}$

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

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	179	0.35
1000	97	0.64
3000	55	1.12
6000	39	1.60
8500	32	1.93
12400	26	2.35
18000	22	2.87
26500	17	3.54
40000	14	4.44
50000	12	5.03
67000	10	5.93

Product Specifications

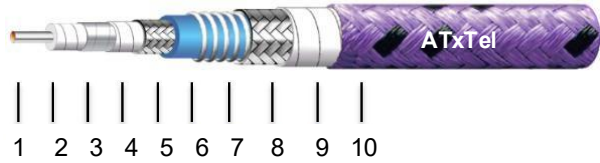


Model: PA50

Amplitude Stable

Phase Stable

Integrated Armor



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Silvered Copper	0.72
2. Dielectric	Low Density PTFE	2.10
3. Inner Shield	Silvered Copper Tape Wrapping	2.25
4. Middle Layer	Low Density PTFE	2.55
5. Outer Shield	Braided Silvered Copper Wire	3.01
6. Jacket	Blue FEP	3.60
7-10. Armor	Compound Material	6.10

Electrical Specifications

Cable Impedance	50 Ω
Velocity	76%
Shielding Effectiveness	>90 dB
Voltage Withstanding	500 V DC
Operating Frequency	DC-50 GHz
Amplitude Stability vs Flexure	< ± 0.05 dB
Mechanical Phase Stability	< $\pm 5^\circ$

Mechanical & Environmental Specifications

Bending Times	100,000 Times
Bend Radius, static	30 mm
Bend Radius, dynamic	60 mm
Temperature Range	-55 ~ +125 $^\circ\text{C}$

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

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	928	0.26
1000	506	0.48
3000	290	0.84
6000	204	1.19
8500	170	1.43
12400	140	1.73
18000	116	2.10
26500	95	2.57
40000	76	3.19
50000	68	3.59

Product Specifications

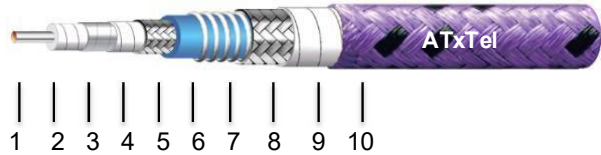


Model: PA40

Amplitude Stable

Phase Stable

Integrated Armor



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Silvered Copper	1.02
2. Dielectric	Low Density PTFE	2.80
3. Inner Shield	Silvered Copper Tape Wrapping	2.95
4. Middle Layer	Low Density PTFE	3.20
5. Outer Shield	Braided Silvered Copper Wire	3.62
6. Jacket	Blue FEP	4.20
7-10. Armor	Compound Material	6.70

Electrical Specifications

Cable Impedance	50 Ω
Velocity	81%
Shielding Effectiveness	>90 dB
Voltage Withstanding	500 V DC
Operating Frequency	DC-40 GHz
Amplitude Stability vs Flexure	< ± 0.05 dB
Mechanical Phase Stability	< $\pm 5^\circ$

Mechanical & Environmental Specifications

Bending Times	100,000 Times
Bend Radius, static	40 mm
Bend Radius, dynamic	70 mm
Temperature Range	-55 ~ +125 $^\circ\text{C}$

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

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	1040	0.22
1000	567	0.41
3000	325	0.71
6000	228	1.01
8500	190	1.21
12400	157	1.47
18000	129	1.78
26500	105	2.18
40000	85	2.71

Product Specifications

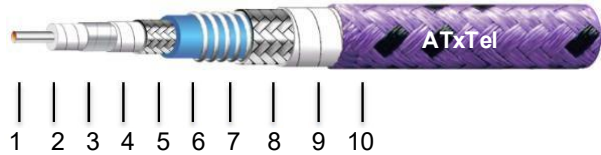


Model: PA26

Amplitude Stable

Phase Stable

Integrated Armor



Construction	Materials	Outer Diameter (mm)
1. Center Conductor	Silvered Copper	1.44
2. Dielectric	Low Density PTFE	3.80
3. Inner Shield	Silvered Copper Tape Wrapping	4.00
4. Middle Layer	Low Density PTFE	4.32
5. Outer Shield	Braided Silvered Copper Wire	4.63
6. Jacket	Blue FEP	5.05
7-10. Armor	Compound Material	7.55

Electrical Specifications

Cable Impedance	50 Ω
Velocity	82%
Shielding Effectiveness	>90 dB
Voltage Withstanding	2000 V DC
Operating Frequency	DC-26.5 GHz
Amplitude Stability vs Flexure	$\leq \pm 0.05$ dB
Mechanical Phase Stability	$\leq \pm 7^\circ$

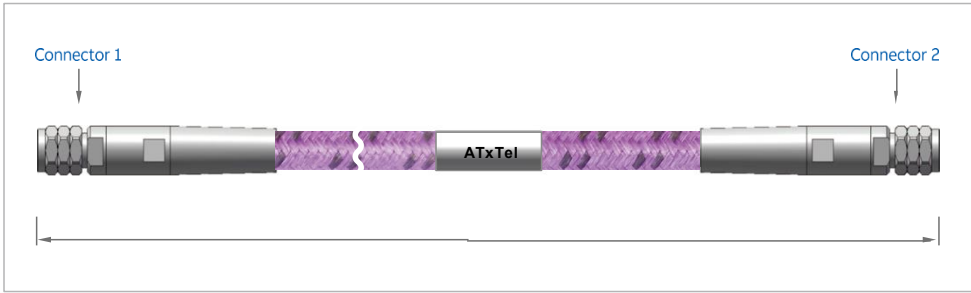
Mechanical & Environmental Specifications

Bending Times	600,000 Times
Bend Radius, static	50 mm
Bend Radius, dynamic	80 mm
Temperature Range	-55 ~ +125 $^\circ\text{C}$

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

Frequency (MHz)	Power (W)	Attenuation (dB/m)
300	1040	0.15
1000	567	0.27
3000	325	0.48
6000	228	0.70
8500	190	0.84
12400	157	1.04
18000	129	1.27
26500	105	1.59

Matching Cables	Matching Connectors											
	SSMP	SMP	SSMA	1.0	1.85	2.4	2.92	3.5	SMA	N	TNC	7/16
PA67					●	●	●	●	●	●		
PA50						●	●	●	●	●		
PA40							●	●	●	●		
PA26								●	●	●	●	

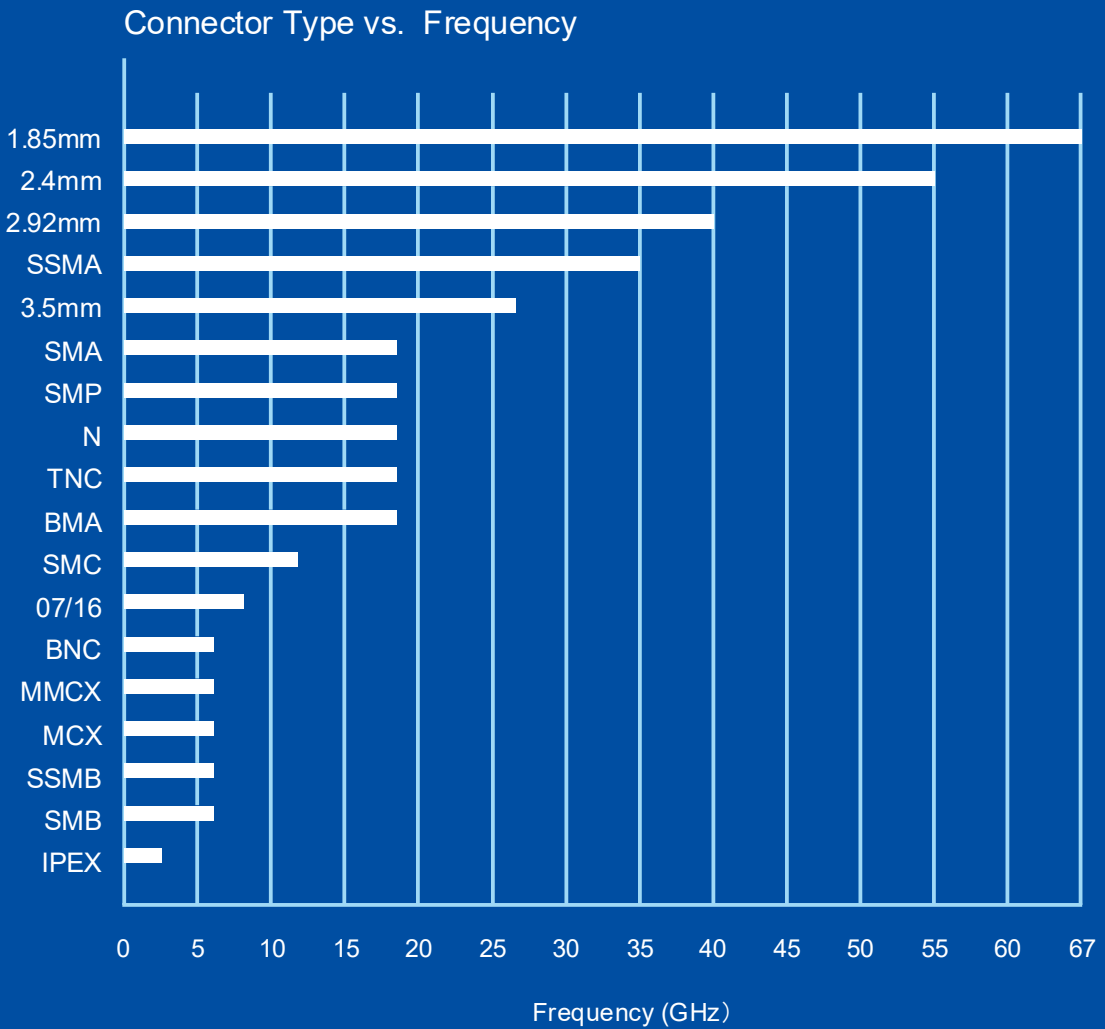


Part Number

ATX-LM-CBL- PA67 - 29 M 29 M - 1 M - K J			
Cable Model	Connector Model		Length 1M=1Meter
	PA67	NM → N Male	
	PA50	SM → SMA Male	
	PA40	35M → 3.5mm Male	
	PA26	29M → 2.92mm Male	
Blank - No Armor KJ - With Armor			
Connector Model			
NM → N Male			
SM → SMA Male			
35M → 3.5mm Male			
29M → 2.92mm Male			
24M → 2.4mm Male			
18M → 1.85mm Male			
10M → 1.0mm male			
25M → SSMA male			
25PM → SSMP male			
INF → N Female			
SF → SMA Female			
SPM → SMP Male			
BM → BNC Male			
TM → TNC Male			
DM → 7/16 Male			
SPRAF → SMP Female Right Angle			
SRAM → SMA Male Right Angle			

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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