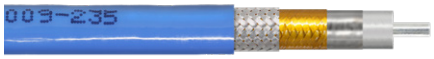
Selection Guide: 50 Ohm Coax Cable

Series 962 Coax Cables

50 Ohm Low Loss



BLUMARK RF COAX CABLES

Series 962 BluMark RF 50 Ohm Coax Cables are available in seven size categories: 047, 086, 160, 200, 235, 300 and 450. These low attenuation cables are suitable for aerospace applications and test equipment. Jacket options include FEP and radiation-resistant space-grade ETFE. Triple-shielded high performance cables have expanded PTFE dielectric core for low loss up to 40 GHz.

- Low attenuation
- FEP and ETFE jackets
- Low Phase Change cables
- Seven size categories
- Compatible with standard RF/ Microwave connectors

047

70 GHz
FEP Jacket
Tape + Braid Shield
.056 (1.4) Diameter
962-029-047
Page 29

086

40 GHz
FEP Jacket
Tape + Braid Shield
.104 (2.6) Diameter
962-010-405
Page 24

40 GHz
ETFE Jacket
Tape + Braid Shield
.097 (2.5) Diameter
962-010-405TZ
Page 24

160

40 GHz
FEP Jacket
Triple Shield
.161 (4.1) Diameter
962-009-160
Page 19

18 GHz
FEP Jacket
Tape + Braid Shield
.163 (4.1) Diameter
962-010-402
Page 25

18 GHz
ETFE Jacket
Tape + Braid Shield
.163 (4.1) Diameter
962-010-402TZ
Page 25

18 GHz
ETFE Jacket
Triple Shield
.145 (3.7 Diameter
962-016-160
Page 30

40 GHz
Low Phase Change
FEP Jacket
.157 (4.0) Diameter
962-011-402
Page 26

40 GHz
Low Phase Change
ETFE Jacket
.157 (4.0) Diameter
962-017-402
Page 31

200

26.5 GHz
FEP Jacket
Triple Shield
.204 (5.2) Diameter
962-009-200
Page 20

26.5 GHz
ETFE Jacket
Triple Shield
.187 (4.7) Diameter
962-012-200
Page 27

235

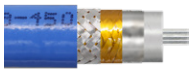
18 GHz
FEP Jacket
Triple Shield
.235 (6.0) Diameter
962-009-235
Page 21

18 GHz
ETFE Jacket
Triple Shield
.205 (5.2) Diameter
962-012-235
Page 28

300

18 GHz
FEP Jacket
Triple Shield
.310 (7.9) Diameter
962-009-300
Page 22

450



10 GHz
FEP Jacket
Triple Shield
.448 (6.0) Diameter
962-009-450
Page 23

Selection Guide

GLENAIR BLUMARK RF 50 OHM LOW LOSS COAX CABLE

Size Category	Part Number	Cable Type	Cable O.D. in	Cable O.D. mm	Conductor Dia. in	Conductor Dia. mm	Shield Construction	Jacket	GHz	Dielectric	Page
047	962-029-047	Flexible	.056	1.4	.011	0.29	Tape + Braid	FEP	70	FEP	29
086	962-010-405	Flexible	.104	2.6	.020	0.51	Tape + Braid	FEP	40	PTFE	24
	962-010-405TZ	Flexible	.097	2.5	.020	0.51	Tape + Braid	ETFE	40	PTFE	24
160	962-009-160	High Performance Flexible	.161	4.1	.036	0.91	Tape + Foil + Braid	FEP	40	e-PTFE	19
	962-010-402	Flexible	.163	4.1	.037	0.94	Tape + Braid	FEP	18	PTFE	25
	962-010-402TZ	Flexible	.163	4.1	.037	0.94	Tape + Braid	ETFE	18	PTFE	25
	962-011-402	Low Phase Change Flexible	.157	4.0	.041	1.04	Tape + PTFE + Braid	FEP	40	LPCF	26
	962-016-160	High Performance Flexible	.145	3.7	.036	0.91	Tape + Foil + Braid	ETFE	18	e-PTFE	30
	962-017-402	Low Phase Change Flexible	.157	4.0	.041	1.04	Tape + PTFE + Braid	ETFE	40	LPCF	31
200	962-009-200	High Performance Flexible	.204	5.2	.051	1.30	Tape + Foil + Braid	FEP	26.5	e-PTFE	20
	962-012-200	Flexible	.187	4.7	.051	1.30	Tape + Foil + Braid	ETFE	26.5	e-PTFE	27
235	962-009-235	High Performance Flexible	.235	6.0	.057	1.45	Tape + Foil + Braid	FEP	18	e-PTFE	21
	962-012-235	High Performance Flexible	.205	5.2	.057	1.45	Tape + Foil + Braid	ETFE	18	e-PTFE	28
300	962-009-300	High Performance Flexible	.310	7.9	.089	2.26	Tape + Foil + Braid	FEP	18	e-PTFE	22
450	962-009-450	High Performance Flexible	.448	11.4	.133	3.38	Tape + Foil + Braid	FEP	10	e-PTFE	23

JACKET ABBREVIATIONS

e-PTFE	expanded PTFE
ETFE	ethylene tetrafluoroethylene
FEP	fluorinated ethylene propylene
LPCF	low phase change fluoropolymer
PTFE	polytetrafluoroethylene

962-009-160
50 Ohm Low Loss Coax Cable

- 40 GHz
- Tape+Foil+Braid Shields
- e-PTFE Dielectric
- FEP Jacket
- .161" Diameter
- .036" Conductor

BLUMARK COAX CABLES RF™

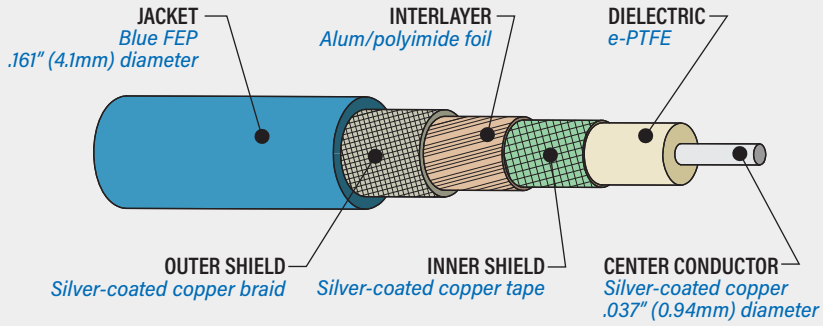
50 ohm. Low loss. Triple shield. 40 GHz.
962-009-160 coax cable has expanded PTFE dielectric for low attenuation at microwave frequencies. Abrasion resistant and flexible FEP jacket. Three metallic layers for greater than 90 dB of shielding effectiveness: SPC (silver-plated copper) tape inner shield, aluminum/polyimide foil interlayer, and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- 40 GHz
- -55 to +165 °C
- FEP jacket, e-PTFE dielectric
- >95 dB shield effectiveness
- Low attenuation

PART NUMBER

962-009-160 *Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.036	0.91
Dielectric	.104	2.6
Inner Shield	.110	2.8
Interlayer	.118	3.0
Outer Shield	.135	3.4
Jacket	.161	4.1
Min. Bend Radius	.787	20.0

OPERATING TEMPERATURE

-55 to +165 °C

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	78%
Capacitance (pf/ft)	26
Shielding Effectiveness (dB)	>95
Delay (ns/ft)	1.31
Max. Operating Frequency (GHz)	40

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.075
1 GHz	.107
3 GHz	.190
5 GHz	.250
10 GHz	.365
12 GHz	.404
18 GHz	.508
26.5 GHz	.633
30 GHz	.681
40 GHz	.804

962-009-200
50 Ohm Low Loss Coax Cable

- 26.5 GHz
- Tape+Foil+Braid Shields
- e-PTFE Dielectric
- FEP Jacket
- .204" Diameter
- .051" Conductor

COAX CABLE

BLUMARK COAX CABLES RF

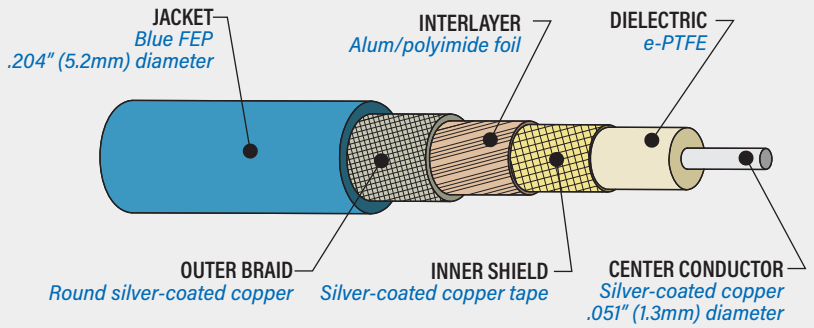
50 ohm. Low loss. Triple shield. 962-009-200 coax cable has expanded PTFE dielectric for low attenuation at microwave frequencies. Abrasion resistant and flexible FEP jacket. Three metallic layers for greater than 90 dB of shielding effectiveness: flat SPC (silver-plated copper) tape inner shield, aluminum/polyimide foil interlayer, and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- 26.5 GHz
- -55 to +165 °C
- FEP jacket, e-PTFE dielectric
- >90 dB shield effectiveness
- Tape/foil/braid shield layers
- Low attenuation

PART NUMBER

962-009-200 *Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.051	1.30
Dielectric	.135	3.4
Inner Shield	.149	3.8
Interlayer	.157	4.0
Outer Shield	.173	4.4
Jacket	.204	5.2
Min. Bend Radius	.984	25.0

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	80
Capacitance (pf/ft)	25
Shielding Effectiveness (dB)	>90
Delay (ns/ft)	1.27
Max. Operating Frequency (GHz)	26.5

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.053
1 GHz	.075
3 GHz	.132
5 GHz	.172
10 GHz	.249
12 GHz	.274
18 GHz	.342
26.5 GHz	.423

OPERATING TEMPERATURE

-55 to +165 °C

962-009-235
50 Ohm Low Loss Coax Cable

- 26.5 GHz
- Tape+Foil+Braid Shields
- e-PTFE Dielectric
- FEP Jacket
- .235" Diameter
- .057" Conductor

BLUMARK RF COAX CABLES

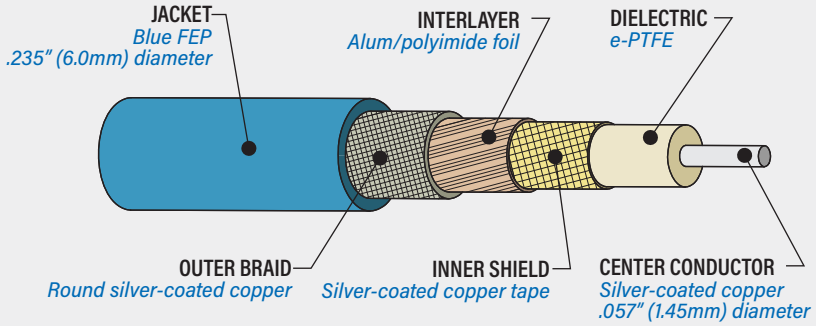
50 ohm. Low loss. Triple shield. 962-009-235 coax cable has expanded PTFE dielectric for low attenuation at microwave frequencies. Abrasion resistant and flexible FEP jacket. Three metallic layers for greater than 90 dB of shielding effectiveness: flat SPC (silver-plated copper) flat tape inner shield, aluminum/polyimide foil interlayer, and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- -55 to +165 °C
- FEP jacket, e-PTFE dielectric
- >90 dB shield effectiveness
- Tape/foil/braid shield layers
- Low attenuation
- Lightweight, flexible

PART NUMBER

962-009-235 *Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.057	1.45
Dielectric	.160	4.1
Inner Shield	.170	4.3
Interlayer	.175	4.4
Outer Shield	.191	4.9
Jacket	.235	6.0
Min. Bend Radius	1.181	30.0

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	80
Capacitance (pf/ft)	25
Shielding Effectiveness (dB)	>90
Delay (ns/ft)	1.27
Max. Operating Frequency (GHz)	18

OPERATING TEMPERATURE

-55 to +165 °C

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.047
1 GHz	.067
3 GHz	.119
5 GHz	.155
10 GHz	.225
12 GHz	.248
18 GHz	.310
26.5 GHz	.384

962-009-300
50 Ohm Low Loss Coax Cable

- 18 GHz
- Tape+Foil+Braid Shields
- e-PTFE Dielectric
- FEP Jacket
- .310" Diameter
- .089" Conductor

COAX CABLE

BLUMARK RF COAX CABLES

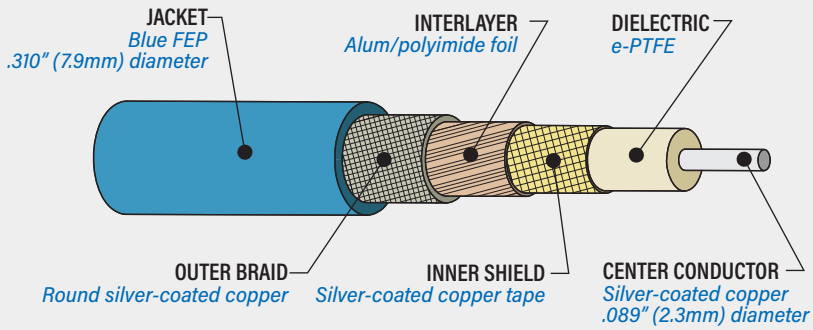
50 ohm. Low loss. Triple shield. 962-009-300 coax cable has expanded PTFE dielectric for low attenuation at microwave frequencies. Abrasion resistant and flexible FEP jacket. Three metallic layers for greater than 90 dB of shielding effectiveness: flat SPC (silver-plated copper) tape inner shield, aluminum/polyimide foil interlayer, and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- -55 to +165 °C
- FEP jacket, e-PTFE dielectric
- >90 dB shield effectiveness
- Tape/foil/braid shield layers
- Low attenuation
- Lightweight, flexible

PART NUMBER

962-009-300 *Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.089	2.3
Dielectric	.250	6.4
Inner Shield	.258	6.6
Interlayer	.264	6.7
Outer Shield	.284	8.5
Jacket	.310	7.6
Min. Bend Radius	1.181	30.0

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	80
Capacitance (pf/ft)	25
Shielding Effectiveness (dB)	>90
Delay (ns/ft)	1.27
Max. Operating Frequency (GHz)	18

OPERATING TEMPERATURE

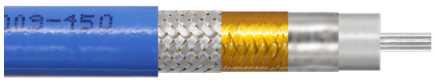
-55 to +165 °C

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.036
1 GHz	.051
3 GHz	.089
5 GHz	.116
10 GHz	.167
12 GHz	.183
18 GHz	.228

962-009-450
50 Ohm Low Loss Coax Cable

- 10 GHz
- Tape+Foil+Braid Shields
- e-PTFE Dielectric
- FEP Jacket
- .448" Diameter
- .133" Stranded Conductor



BLUMARK COAX CABLES RF™

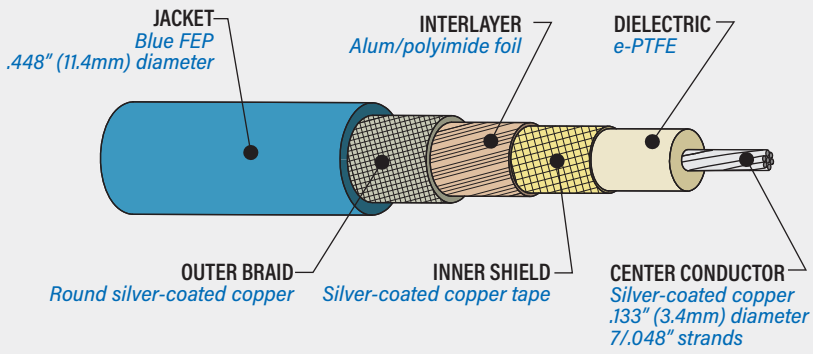
50 ohm. Low loss. Triple shield. 962-009-450 coax cable has expanded PTFE dielectric for low attenuation at microwave frequencies. Abrasion resistant and flexible FEP jacket. Three metallic layers for greater than 90 dB of shielding effectiveness: flat SPC (silver-plated copper) tape inner shield, aluminum/polyimide foil interlayer, and round SPC braid outer shield. Stranded SPC center conductor.

- 50 ohm
- -55 to +165 °C
- FEP jacket, e-PTFE dielectric
- >90 dB shield effectiveness
- Tape/foil/braid shield layers
- Low attenuation

PART NUMBER

962-009-450 *Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.133	3.4
Dielectric	.360	9.1
Inner Shield	.372	9.4
Interlayer	.378	9.6
Outer Shield	.393	10.0
Jacket	.448	11.4
Min. Bend Radius	1.574	40.0

ELECTRICAL SPECIFICATIONS

Impedance	50
Velocity of Propagation	80
Capacitance (pf/ft)	24
Shielding Effectiveness (dB)	>90
Delay (ns/ft)	1.27
Max. Operating Frequency (GHz)	10

OPERATING TEMPERATURE

-55 to +165 °C

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.029
1 GHz	.042
3 GHz	.075
5 GHz	.098
10 GHz	.144

962-010-405
50 Ohm Low Loss Coax Cable

- 40 GHz
- Tape+Braid Shields
- PTFE Dielectric
- FEP or ETFE Jacket
- .097" or .104" Diameter
- .020" Conductor

BLUMARK COAX CABLES RF

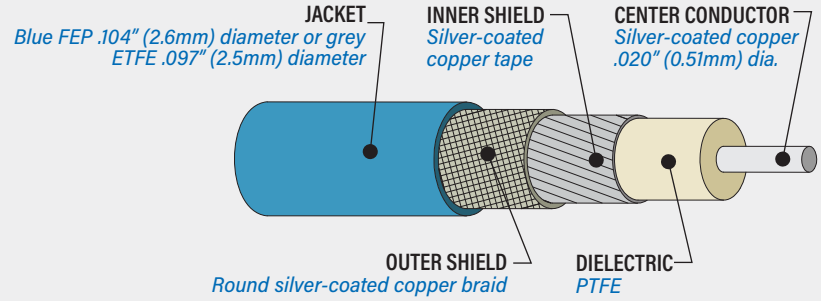
50 ohm. Double shield. Low loss. 962-010-405 coax cable is a flexible alternative to RG405 semi-rigid cable. Abrasion resistant blue FEP jacket or radiation resistant space -grade grey ETFE jacket. Two shield layers: flat SPC (silver-plated copper) tape wrap inner shield and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- FEP jacket: -55 to +165 °C
- ETFE jacket: -55 to +155 °C
- >90 dB shield effectiveness
- Double shield: braid over tape wrap
- Flexible equivalent to RG405

PART NUMBER

Cable Outer Jacket	Part Number	
FEP, Blue	962-010-405	*Order in one foot increments*
ETFE, Grey	962-010-405TZ	*Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.020	0.51
Dielectric	.064	1.6
Inner Shield	.071	1.8
Outer Shield	.086	2.2
FEP Jacket	.104	2.6
ETFE Jacket	.097	2.5
Min. Bend Radius	.236	6.0

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	70%
Capacitance (pf/ft)	28.9
Shielding Effectiveness (dB)	>90
Delay (ns/ft)	1.43
Max. Operating Frequency (GHz)	40

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.162
0.8 GHz	.207
1 GHz	.233
3 GHz	.419
6 GHz	.614
8 GHz	.721
10 GHz	.819
15 GHz	1.036
18 GHz	1.154
20 GHz	1.229
26.5 GHz	1.456
30 GHz	1.571
35 GHz	1.728
40 GHz	1.878

OPERATING TEMPERATURE

FEP Jacket	-55 to +165 °C
ETFE Jacket	-55 to +155 °C

962-010-402
50 Ohm Low Loss Coax Cable

- 18 GHz
- Tape+Braid Shields
- PTFE Dielectric
- FEP or ETFE Jacket
- .163" Diameter
- .037" Conductor

BLUMARK COAX CABLES RF™

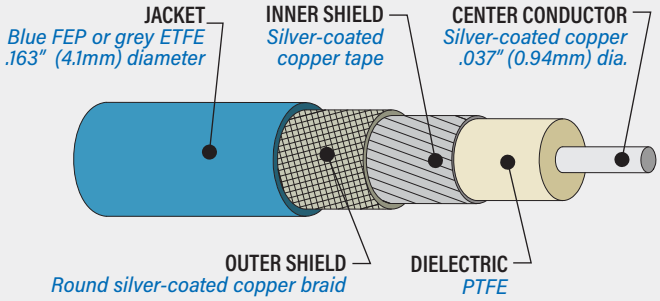
50 ohm. Double shield. Low loss. 962-010-402 coax cable has abrasion resistant FEP jacket or radiation-resistant space-grade ETFE jacket. Two shield layers: flat SPC (silver-plated copper) tape wrap inner shield and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- FEP jacket: -55 to +165 °C
- ETFE jacket: -55 to +155 °C
- >90 dB shield effectiveness
- Double shield: braid over tape wrap
- Flexible replacement for RG402

PART NUMBER

Cable Outer Jacket	Part Number	
FEP, Blue	962-010-402	*Order in one foot increments*
ETFE, Grey	962-010-402TZ	*Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.037	0.94
Dielectric	.117	3.0
Inner Shield	.126	3.2
Outer Shield	.142	3.6
Jacket	.163	4.1
Min. Bend Radius	.394	10.0

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.092
0.8 GHz	.119
1 GHz	.134
3 GHz	.248
6 GHz	.372
8 GHz	.442
10 GHz	.507
15 GHz	.654
18 GHz	.735

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	70%
Capacitance (pf/ft)	28.9
Shielding Effectiveness (dB)	>90
Delay (ns/ft)	1.43
Max. Operating Frequency (GHz)	18

OPERATING TEMPERATURE

FEP Jacket	-55 to +165 °C
ETFE Jacket	-55 to +155 °C

962-011-402
50 Ohm Low Phase Change Coax Cable

- 40 GHz
- Tape+Braid Shields
- LPCF Dielectric
- FEP Jacket
- .157" Diameter
- .041" Conductor

BLUMARK COAX CABLES RF

50 ohm. Phase stable. Double shield.
962-011-402 coax cable has LPCF dielectric to minimize phase shift caused by temperature change. Less than 250 ppm/°C phase change from -40 to +60 °C. Abrasion resistant, flexible FEP jacket. Two metallic layers for greater than 90 dB of shielding effectiveness: SPC (silver-plated copper) tape wrap inner shield, and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- Low phase change vs. temperature
- 40 GHz
- -55 to +165 °C
- FEP jacket
- LPCF dielectric
- 90 dB shield effectiveness
- Foil/braid shield layers
- Low attenuation

LPCF DIELECTRIC

Temperature changes can cause phase shift in coax cables with PTFE dielectric cores. ***Low Phase Change Fluoropolymer*** (***LPCF***) cables replace the PTFE core with a fluoropolymer material yielding improved phase stability over a wide temperature range.

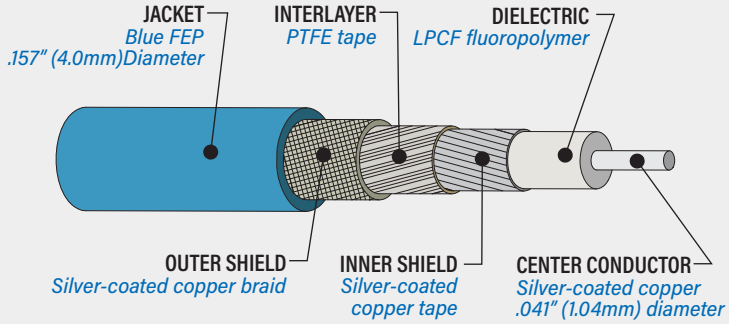
OPERATING TEMPERATURE

-55 to +165 °C

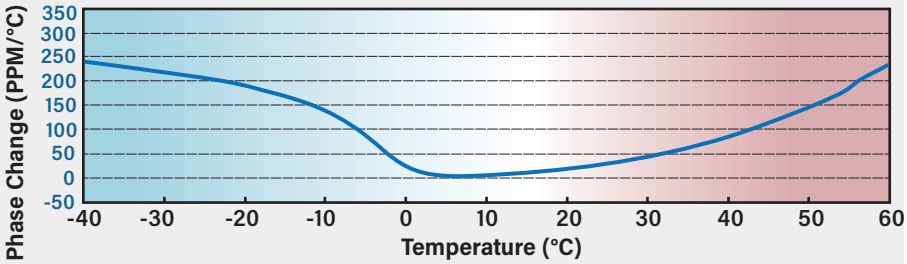
PART NUMBER

962-011-402 *Order in one foot increments*

CONSTRUCTION



PHASE CHANGE



DIMENSIONS

	in	mm
Center Conductor	.041	1.04
Dielectric	.108	2.7
Inner Shield (SPC tape)	.116	2.9
PTFE Interlayer	.118	3.0
Outer Shield (Braid)	.138	3.5
Overall Diameter	.157	4.0
Min. Bend Radius	1.574	40.0

ATTENUATION

	Attenuation (dB/ft)
0.3 GHz	.055
1 GHz	.103
2 GHz	.147
4 GHz	.213
6 GHz	.265
8 GHz	.310
10 GHz	.351
12 GHz	.389
14 GHz	.424
16 GHz	.457
18 GHz	.489
26.5 GHz	.612
40 GHz	.780

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	82%
Shielding Effectiveness (dB)	90
Max. Operating Frequency (GHz)	40

962-012-200
50 Ohm Low Loss Coax Cable

- 26.5 GHz
- Tape+Foil+ Braid Shields
- e-PTFE Dielectric
- ETFE Jacket
- .187" Diameter
- .051" Conductor

BLUMARK COAX CABLES RF

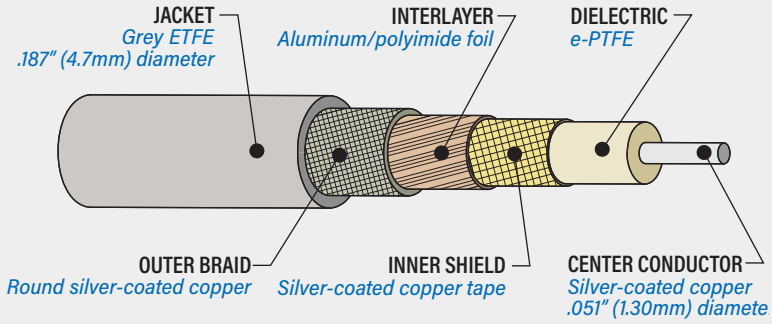
50 ohm. Low loss. Triple shield. Lightweight 962-012 coax cable has radiation resistant space-grade ETFE jacket. Expanded PTFE dielectric for low attenuation at microwave frequencies. Three metallic layers for greater than 90 dB of shielding effectiveness: flat SPC (silver-plated copper) tape inner shield, aluminum/polyimide foil interlayer, and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- -55 to +150 °C
- ETFE jacket, ePTFE dielectric
- >90 dB shield effectiveness
- Tape/foil/braid shield layers
- Low attenuation

PART NUMBER

962-012-200 *Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.051	1.30
Dielectric	.135	3.4
Inner Shield	.149	3.8
Interlayer	.157	4.0
Outer Shield	.173	4.4
Jacket	.187	4.7
Min. Bend Radius	.984	25.0

ELECTRICAL SPECIFICATIONS

Impedance	50
Velocity of Propagation	80
Capacitance (pf/ft)	25
Shielding Effectiveness (dB)	>90
Delay (ns/ft)	1.27
Max. Operating Frequency (GHz)	26.5

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.053
1 GHz	.075
6 GHz	.190
12 GHz	.274
18 GHz	.342
26.5 GHz	.423

OPERATING TEMPERATURE

-55 to +150 °C

962-012-235
50 Ohm Low Loss Coax Cable

- 18 GHz
- Tape+Foil+ Braid Shields
- e-PTFE Dielectric
- ETFE Jacket
- .205" Diameter
- .057" Conductor

BLUMARK RF COAX CABLES

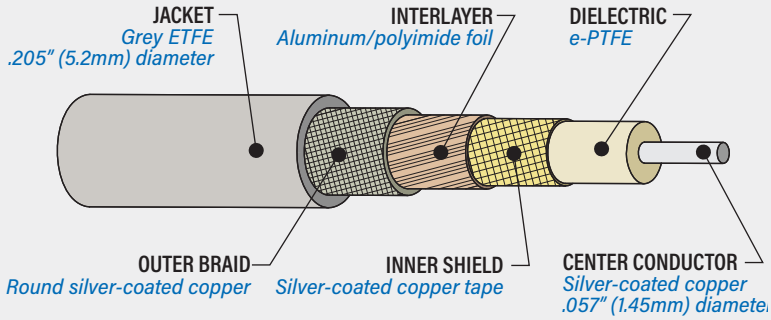
50 ohm. Low loss. Triple shield. Lightweight 962-012 coax cable has radiation-resistant space-grade ETFE jacket. Expanded PTFE dielectric for low attenuation at microwave frequencies. Three metallic layers for greater than 90 dB of shielding effectiveness: flat SPC (silver-plated copper) tape inner shield, aluminum/polyimide foil interlayer, and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- -55 to +150 °C
- ETFE jacket, ePTFE dielectric
- >90 dB shield effectiveness
- Tape/foil/braid shield layers
- Low attenuation
- Lightweight, flexible

PART NUMBER

962-012-235	*Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.057	1.44
Dielectric	.160	4.1
Inner Shield	.170	4.3
Interlayer	.175	4.4
Outer Shield	.191	4.9
Jacket	.205	5.2
Min. Bend Radius	1.181	30.0

ELECTRICAL SPECIFICATIONS

Impedance	50
Velocity of Propagation	80
Capacitance (pf/ft)	25
Shielding Effectiveness (dB)	>90
Delay (ns/ft)	1.27
Max. Operating Frequency (GHz)	18

ATTENUATION

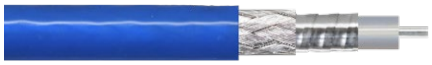
	Attenuation (dB/ft)
0.5 GHz	.047
1 GHz	.067
6 GHz	.171
12 GHz	.248
18 GHz	.310

OPERATING TEMPERATURE

-55 to +150 °C

962-029-047
50 Ohm Low Loss Coax Cable

- 70 GHz
- Tape + Braid Shields
- FEP Dielectric
- .056" Diameter
- Silver-Plated Copper Conductor



BLUMARK RF COAX CABLES

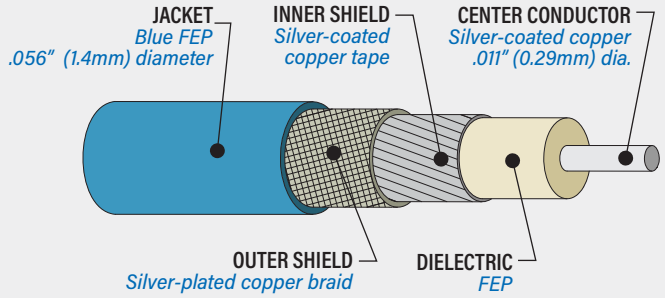
50 ohm. Double shield. Low loss. 962-029 coax cable has abrasion resistant FEP jacket. Two shield layers: flat SPC (silver-plated copper) tape wrap inner shield and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- -65 to +165 °C
- .056" (1.4) diameter
- >90 dB shield effectiveness
- Double shield: braid over tape wrap

PART NUMBER

962-029-047 *Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.0113	0.29
Dielectric	.036	0.9
Outer Shield	.046	1.2
Min. Bend Radius	.2	5.1

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	70
Capacitance (pf/ft)	29
Shielding Effectiveness (dB)	>90
Max. Operating Frequency (GHz)	70

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.28
1 GHz	.39
5 GHz	.90
10 GHz	1.30
18 GHz	1.80
26.5 GHz	2.26

OPERATING TEMPERATURE

-65 to +165 °C

962-016-160
50 Ohm Low Loss Coax Cable

- 18 GHz
- Tape+Foil+Braid Shields
- e-PTFE Dielectric
- ETFE Jacket
- .145" Diameter
- .036" Conductor

BLUMARK RF COAX CABLES

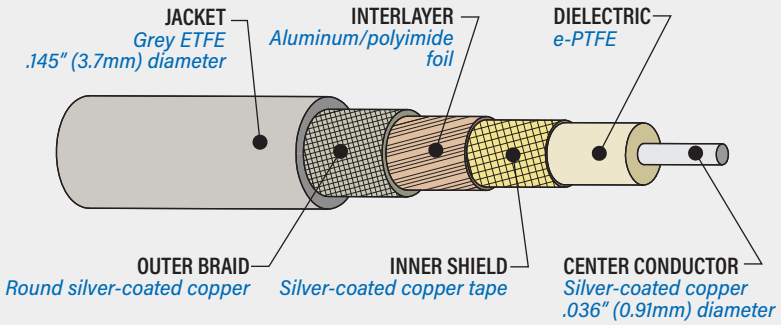
50 ohm. Low loss. Triple shield. Lightweight 962-016-160 coax cable has radiation-resistant space-grade ETFE jacket. Expanded PTFE dielectric for low attenuation at microwave frequencies. Three metallic shield layers: SPC (silver-plated copper) tape inner shield, aluminum/polyimide foil interlayer, and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- -55 to +165 °C
- ETFE jacket, ePTFE dielectric
- >90 dB shield effectiveness
- Braid/foil/braid shield layers
- Low attenuation

PART NUMBER

962-016-160 *Order in one foot increments*

CONSTRUCTION



DIMENSIONS

	in	mm
Center Conductor	.036	0.91
Dielectric	.104	2.6
Inner Shield	.110	2.8
Interlayer	.118	3.0
Outer Shield	.135	3.4
Jacket	.145	3.7
Min. Bend Radius	.787	20.0

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	78%
Capacitance (pf/ft)	26
Shielding Effectiveness (dB)	>95
Delay (ns/ft)	1.30
Max. Operating Frequency (GHz)	18

ATTENUATION

	Attenuation (dB/ft)
0.5 GHz	.075
1 GHz	.107
3 GHz	.190
5 GHz	.250
10 GHz	.365
12 GHz	.404
18 GHz	.508

OPERATING TEMPERATURE

-55 to +165 °C

962-017-402
50 Ohm Low Phase Change Coax Cable

- 40 GHz
- Tape+Braid Shields
- LPCF Dielectric
- ETFE Jacket
- .157" Diameter
- .041" SPC Conductor

BLUMARK COAX CABLES RF™

50 ohm. Phase stable. Double shield. 962-017-402 coax cable has LPCF dielectric to minimize phase shift caused by temperature change. Less than 250 ppm/°C phase change from -40 to +60 °C. Radiation-resistant space-grade ETFE jacket. Two metallic layers for greater than 90 dB of shielding effectiveness: SPC (silver-plated copper) tape inner shield, and round SPC braid outer shield. Solid SPC center conductor.

- 50 ohm
- Low phase change vs. temperature
- -55 to +165 °C
- ETFE jacket
- LPCF dielectric
- 90 dB shield effectiveness
- Two shield layers
- Low attenuation

LPCF DIELECTRIC

Temperature changes can cause phase shift in coax cables with PTFE dielectric cores. ***Low Phase Change Fluoropolymer*** (***LPCF***) cables replace the PTFE core with a fluoropolymer material yielding improved phase stability over a wide temperature range.

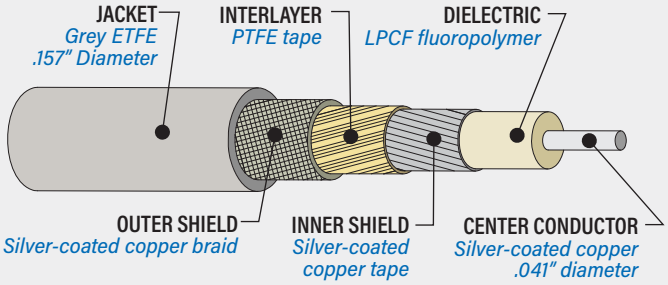
OPERATING TEMPERATURE

-55 to +165 °C

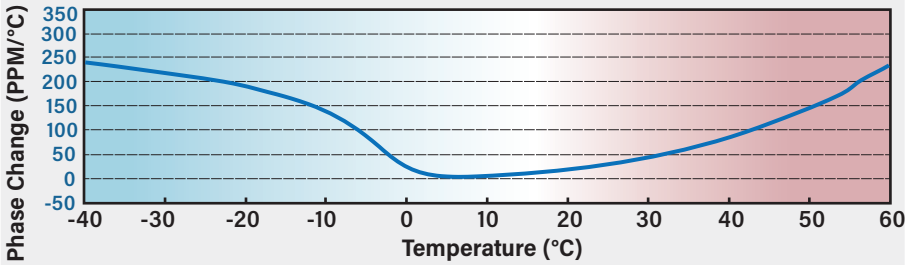
PART NUMBER

962-017-402 *Order in one foot increments*

CONSTRUCTION



PHASE CHANGE



DIMENSIONS

	in	mm
Center Conductor	.041	1.0
Dielectric	.109	2.8
Inner Foil Shield	.116	2.9
PTFE Interlayer	.125	3.2
Outer Braid Shield	.141	3.6
Jacket	.157	4.0
Min. Bend Radius	.945	24.0

ELECTRICAL SPECIFICATIONS

Impedance (ohms)	50
Velocity of Propagation	82%
Capacitance (pF/ft)	24.8
Shielding Effectiveness (dB)	90
Delay (ns/ft)	1.24
Max. Operating Frequency (GHz)	40

ATTENUATION

	dB/ft
0.5 GHz	.072
1 GHz	.101
2 GHz	.147
4 GHz	.213
6 GHz	.265
8 GHz	.311
10 GHz	.351
12 GHz	.387
14 GHz	.424
16 GHz	.457
18 GHz	.488
20 GHz	.520
26.5 GHz	.610
30 GHZ	.658
40 GHz	.780