

PRECISION RF & MICROWAVE SOLUTIONS

Phase Stable Coaxial Cable Assemblies

High-performance cable solutions engineered for ultra-low insertion loss, superior phase stability vs. flexure, and broad bandwidth coverage from DC up to 110 GHz.

📌 QUICK NAVIGATION GUIDE (CLICK BOOKMARKS TO JUMP)

- DC - 110 GHz**
Ultra-mmWave
- DC - 61 GHz**
mmWave / 5G
- DC - 34 GHz**
K / Ka Band
- DC - 18 GHz**
Broad-Spectrum

PART NUMBER BREAKDOWN

HOW TO IDENTIFY PRODUCT SPECS

PS760LS-18G-F

Field	Code Example	Meaning & Decoding Rule
PS	Product Series	Phase S table Coaxial Cable
760	Outer Diameter (OD)	Value ÷ 100 = Cable OD (mm) e.g., 160=1.6mm 760=7.6mm 1200=12.0mm
L	Performance Class	L : Low Loss Performance Class
S	Conductor Type	S : Stranded Conductor (Omit for Solid Conductor)
18G	Max Frequency	Max Operating Frequency (e.g., 18G = Up to 18 GHz)
F	Jacket Material	F : FEP P : PUR (High-Wear) B : Bare/Armored

TECHNICAL SPECIFICATION

Document No: SPEC-PS160L-110G-BF
Product: PS160L-110G-BF RF Cable



PS160L-110G-BF

110 GHz Micro-Porous LD-PTFE Low Loss Phase Stable Coaxial Cable

Frequency: DC to 110 GHz	Dielectric: LD-PTFE
Velocity: 76% Nom.	Phase Stab.: ±0.2 °/GHz
Outer Dia.: 1.60 mm	Temp Range: -55 to +165 °C

1. STRUCTURE & MECHANICAL DATA

Layer	Material	O.D. (mm)	Parameter	Specification Value
Center Conductor	Silver Plated Copper (1/0.30)	0.30	Static Min. Bend Radius	8.0 mm
Dielectric	LD-PTFE	0.92	Dynamic Min. Bend Radius	16.0 mm
Inner Shield	Helical Ag Copper Strip	1.05	Weight	0.006 kg/m
Outer Shield	Silver Plated Copper Braid	1.25	Operating Temperature	-55 °C to +165 °C
Jacket	Blue FEP	1.60		

2. ELECTRICAL SPECIFICATIONS

Impedance	50 Ω	Capacitance	89 pF/m
Velocity of Propagation	76%	Max Operating Frequency	110 GHz
Shielding Effectiveness	> 90 dB	Dielectric Withstanding Voltage	500 V DC
Phase Change vs Bending	±0.2 °/GHz	Phase Change vs Temperature	≤ 1500 PPM (-45~+85°C)

3. ATTENUATION & POWER HANDLING (@ 25°C SEA LEVEL)

$$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz \mid K1 = 3.557846, K2 = 0.001221$$

Freq. (MHz)	Atten. (dB/100m)	Power (W @ 40°C)	Freq. (MHz)	Atten. (dB/100m)	Power (W @ 40°C)
300	61.99	150	18000	499.31	19
500	80.17	116	26500	611.53	15
1000	113.73	82	40000	760.41	12
3000	198.53	47	50000	856.61	11
6000	282.92	33	67000	1002.73	9
12000	404.39	23	110000	1314.31	7

PS180-100G

100 GHz Micro-Miniature Phase Stable Coaxial Cable

The PS180-100G is a micro-miniature flexible coaxial cable featuring a 1.80 mm outer diameter, Solid-PTFE dielectric, and triple-shielded construction. Designed for mmWave and sub-THz interconnect applications up to 100 GHz, it provides low loss, stable phase behavior vs. bending, and excellent screening effectiveness.



- Max Operating Frequency: 100 GHz
- Solid PTFE Insulation Dielectric
- Phase Change vs. Bending: $\pm 0.3^\circ/\text{GHz}$
- Nominal Outer Diameter: 1.80 mm
- Triple Shielding Construction (>90 dB Effectiveness)
- Direct Replacement for HUBER+SUHNER Minibend-047

STRUCTURE & PHYSICAL DIMENSIONS

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.29	0.29
Insulation	Solid-PTFE	-	0.95
Inner Shield	Silver Plated Copper Strip	-	1.10
Interlayer	High Temperature Aluminium Foil	-	1.23
Outer Shield	Alloy Wire Braid	-	1.43
Jacket	Green FEP	-	1.80

MECHANICAL CHARACTERISTICS

Min. Bend Radius (Static)	20.0 mm
Min. Bend Radius (Dynamic)	40.0 mm
Weight	0.047 kg/m
Operating Temperature	-55 to +125 °C

ELECTRICAL CHARACTERISTICS

Impedance	50 Ohm
Velocity of Propagation	70%
Capacitance	94 pF/m
Screening Effectiveness	> 90 dB
Dielectric Voltage	500 V DC

ATTENUATION & POWER HANDLING

Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/m] $K1 = 0.03613110$, $K2 = 0.00001221$

Frequency (MHz)	Nom. Attenuation (dB/m @ 25°C)	Max Power Handling (W @ 40°C)
500	0.81	100
1000	1.15	70
3000	2.02	40
6000	2.87	28
10000	3.74	22
16000	4.77	17
18000	5.07	16
26500	6.21	13
40000	7.71	11
67000	10.17	8
100000	12.65	6

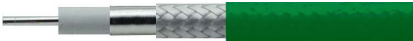
CROSS REFERENCE GUIDE

Primary Model	Equivalent Industry Reference	Compatibility Type
PS180-100G	HUBER+SUHNER Minibend-047	Direct Drop-In Equivalent

PS260-40G

40 GHz Phase Stable Coaxial Cable

The PS260-40G is a 2.60 mm outer diameter flexible phase-stable coaxial cable engineered for high-frequency RF systems up to 40 GHz. Built with Solid-PTFE insulation and a triple-shielded outer jacket structure, it delivers excellent mechanical stability, reliable electrical performance, and robust shielding effectiveness.



- Max Operating Frequency: 40 GHz
 - Solid PTFE Dielectric Insulation
 - Phase Stability vs. Bending: $\pm 0.3^\circ/\text{GHz}$
- Nominal Outer Diameter: 2.60 mm
 - Triple Shielding Construction (>90 dB Effectiveness)
 - Direct Replacement for HUBER+SUHNER Minibend-086

STRUCTURE & PHYSICAL DIMENSIONS

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.51	0.51
Insulation	Solid-PTFE	-	1.68
Inner Shield	Silver Plated Copper Strip	-	1.88
Interlayer	High Temperature Aluminium Foil	-	2.00
Outer Shield	Alloy Wire Braid	-	2.20
Jacket	Green FEP	-	2.60

MECHANICAL CHARACTERISTICS

Min. Bend Radius (Static)	20.0 mm
Min. Bend Radius (Dynamic)	40.0 mm
Weight	0.019 kg/m
Operating Temperature	-55 to +125 °C

ELECTRICAL CHARACTERISTICS

Impedance	50 Ohm
Velocity of Propagation	70%
Capacitance	94 pF/m
Screening Effectiveness	> 90 dB
Dielectric Voltage	500 V DC

ATTENUATION & POWER HANDLING

Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/100m] $K1 = 2.242868142$, $K2 = 0.003937$

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
500	52.12	258
1000	74.86	180
3000	134.66	100
6000	197.35	68
10000	263.66	51
12000	292.94	46
16000	346.69	39
18000	371.78	36
26500	469.44	29
30000	506.59	27
40000	606.05	22

CROSS REFERENCE GUIDE

Primary Model	Equivalent Industry Reference	Compatibility Type
PS260-40G	HUBER+SUHNER Minibend-086	Direct Drop-In Equivalent

PS360L-40G-GF

3.60mm Flexible 40GHz Low Loss Phase Stable Coaxial Cable (Gray FEP)



Max Frequency: 40 GHz
Inner Shield: SPC Strip Tape

Velocity of Prop.: 83%
Jacket: Gray FEP (3.60mm)

1. Physical & Construction Specifications

Construction Layer	Material	Construction (mm)	Diameter (mm)
1. Inner Conductor	Silver Plated Copper (SPC)	1 / 0.91	0.91
2. Dielectric Insulation	Low Density PTFE (LD-PTFE)	-	2.50
3. Inner Shield	Silver Plated Copper Strip (Helical Tape)	-	2.66
4. Outer Shield	Silver Plated Copper Wire Braid	-	3.11
5. Outer Jacket	Gray Fluorinated Ethylene Propylene (FEP)	-	3.60

2. Electrical Performance Specifications

Impedance	50 Ω	Capacitance	80 pF/m
Max Operating Frequency	40 GHz	Velocity of Propagation	83 %
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	1000 V DC
Phase Stability vs Bending	±0.3 °/GHz	Phase Stability vs Temp (-45~+85°C)	≤ 750 PPM

3. Mechanical & Environmental Specifications

Min. Bending Radius (Static)	16.0 mm	Operating Temperature Range	-55 °C to +165 °C
Min. Bending Radius (Dynamic)	36.0 mm	Weight	0.032 kg/m

4. High-Frequency Attenuation & Power Handling

Attenuation Formula: IL (dB/100m) = 0.986836837 * sqrt(F_MHz) + 0.000547893 * F_MHz (@ 25°C)		
Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
500	26.40	725
1000	37.50	510
3000	65.65	292
4000	76.10	252
6000	93.81	204
8000	108.91	176
10000	122.35	156
12400	136.94	140
18000	166.67	115
26500	204.79	93
40000	255.69	75

Series Note: PS360L-40G-GF is designed with an SPC Strip inner shield for superior mmWave attenuation performance up to 40GHz. For sub-18GHz optimized applications, refer to sister model **PS360L-40G-BF** (Blue FEP / Foil Shield).

PS420LS-31G-F

Flexible Low Loss Phase Stable RF Cable (31 GHz)



- **Frequency Range:** DC to 31 GHz
- **Inner Conductor:** 19 / 0.204 mm Stranded Silver Copper
- **Dielectric:** Low Density PTFE (77% VP)
- **Phase Stability:** ± 0.3 °/GHz under bending
- **Protective Jacket:** High Temp Aqua FEP (-55~+165°C)

1. MECHANICAL & STRUCTURAL SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	19 / 0.204 mm (Stranded)	1.02 mm
Insulation	LD-PTFE	Low Density Dielectric	3.00 mm
Inner Shield	Flat Silver Plated Copper Tape	100% Coverage Wrapping	3.20 mm
Outer Shield	Round Silver Plated Copper Braid	High Shielding Braiding	3.65 mm
Outer Jacket	Aqua FEP	High Temp Fluoropolymer	4.20 mm

2. PHYSICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Static Bending Radius	15.00 mm	Cable Weight	0.048 kg/m
Min. Dynamic Bending Radius	42.00 mm	Operating Temp Range	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Impedance	50 Ω	Max Operating Frequency	31 GHz
Velocity of Propagation	77%	Screening Effectiveness	> 90 dB
Capacitance	88 pF/m	Dielectric Withstanding Voltage	1500 V @ DC
Phase Stability vs. Bending	± 0.3 °/GHz	Phase Stability vs. Temp (-45~+85°C)	≤ 1500 PPM

4. ATTENUATION & POWER HANDLING CHART (@25°C & SEA LEVEL)

Insertion Loss Calculation: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$
Constants: $K1 = 0.941656209$ | $K2 = 0.001712613$

Frequency (MHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W)
500	0.22	21.91	
1000	0.31	31.48	598
2400	0.50	50.21	375
3000	0.57	56.70	332
6000	0.83	83.27	226
8000	0.98	97.89	192
10000	1.11	111.29	169
12400	1.26	126.15	149
18000	1.57	157.19	120
20000	1.67	167.38	112
26500	1.99	198.88	98

PS500L-31G-F

Low Loss Phase Stable RF Coaxial Cable (31 GHz)



- **Frequency Range:** DC to 31 GHz
- **Inner Conductor:** 1/1.29 mm Solid Silver Copper
- **Dielectric:** Low Density PTFE (77% VP)
- **Phase Stability:** ± 0.2 °/GHz under bending
- **Protective Jacket:** High Temp Aqua FEP (-55~+165°C)

1. MECHANICAL & STRUCTURAL SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 1.29 mm (Solid)	1.29 mm
Insulation	LD-PTFE	Low Density Dielectric	3.80 mm
Inner Shield	Flat Silver Plated Copper Tape	100% Coverage Wrapping	4.00 mm
Outer Shield	Round Silver Plated Copper Braid	High Shielding Braiding	4.40 mm
Outer Jacket	Aqua FEP	High Temp Fluoropolymer	5.00 mm

2. PHYSICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Static Bending Radius	18.40 mm	Cable Weight	0.068 kg/m
Min. Dynamic Bending Radius	50.00 mm	Operating Temp Range	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Impedance	50 Ω	Max Operating Frequency	31 GHz
Velocity of Propagation	77%	Screening Effectiveness	> 90 dB
Capacitance	88 pF/m	Dielectric Withstanding Voltage	2000 V @ DC
Phase Stability vs. Bending	± 0.2 °/GHz	Phase Stability vs. Temp (-45~+85°C)	≤ 1500 PPM

4. ATTENUATION & POWER HANDLING CHART (@25°C & SEA LEVEL)

Insertion Loss Calculation: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$
Constants: $K1 = 0.749173771$ | $K2 = 0.001179495$

Frequency (MHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W)
500	0.17	17.34	
1000	0.25	24.87	833
2400	0.40	39.53	524
3000	0.45	44.57	465
6000	0.65	65.11	318
8000	0.76	76.44	271
10000	0.87	86.71	239
12400	0.98	98.05	211
18000	1.22	121.74	170
20000	1.30	129.54	160
26500	1.53	153.21	135

PS540L-25G-F

Low Loss Phase Stable RF Coaxial Cable (25 GHz)



- **Frequency Range:** DC to 25 GHz
- **Inner Conductor:** 1/1.45 mm Solid Silver Copper
- **Dielectric:** Low Density PTFE (77% VP)
- **Phase Stability:** ± 0.2 °/GHz under bending
- **Protective Jacket:** High Temp Aqua FEP (-55~+165°C)
- **Direct Cross Ref:** UFA210A Equivalent

1. MECHANICAL & STRUCTURAL SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 1.45 mm (Solid)	1.45 mm
Insulation	LD-PTFE	Low Density Dielectric	4.30 mm
Inner Shield	Flat Silver Plated Copper Tape	100% Coverage Wrapping	4.50 mm
Outer Shield	Round Silver Plated Copper Braid	High Shielding Braiding	4.95 mm
Outer Jacket	Aqua FEP	High Temp Fluoropolymer	5.40 mm

2. PHYSICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Static Bending Radius	25.00 mm	Cable Weight	0.076 kg/m
Min. Dynamic Bending Radius	50.00 mm	Operating Temp Range	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Impedance	50 Ω	Max Operating Frequency	25 GHz
Velocity of Propagation	77%	Screening Effectiveness	> 90 dB
Capacitance	87 pF/m	Dielectric Withstanding Voltage	2500 V @ DC
Phase Stability vs. Bending	± 0.2 °/GHz	Phase Stability vs. Temp (-45~+85°C)	≤ 1500 PPM

4. ATTENUATION & POWER HANDLING CHART (@25°C & SEA LEVEL)

Insertion Loss Calculation: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$	
Constants: $K1 = 0.795435$ $K2 = 0.001179$	

Frequency (MHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W)
500	0.18	18.38	
1000	0.26	26.33	1001
2400	0.42	41.80	631
3000	0.47	47.11	560
6000	0.69	68.69	384
8000	0.81	80.58	327
10000	0.91	91.34	289
12400	1.03	103.20	256
15000	1.15	115.11	229
18000	1.28	127.95	206
20000	1.36	136.08	194

PS540LS-25G-F

Low Loss Phase Stable RF Coaxial Cable (25 GHz)



- **Frequency Range:** DC to 25 GHz
- **Impedance:** 50 $\Omega \pm 1 \Omega$
- **Dielectric:** Low Density PTFE (77% VP)
- **Phase Stability:** ± 0.2 °/GHz under bending
- **Protective Jacket:** High Temp Aqua FEP (-55~+165°C)
- **Direct Cross Ref:** UFA210B Equivalent

1. MECHANICAL & STRUCTURAL SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	19 / 0.29 mm	1.45 mm
Insulation	LD-PTFE	Low Density Dielectric	4.25 mm
Inner Shield	Flat Silver Plated Copper Tape	100% Coverage Wrapping	4.45 mm
Outer Shield	Round Silver Plated Copper Braid	High Shielding Braiding	4.90 mm
Outer Jacket	Aqua FEP	High Temp Fluoropolymer	5.40 mm

2. PHYSICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Static Bending Radius	21.60 mm	Cable Weight	0.072 kg/m
Min. Dynamic Bending Radius	43.20 mm	Operating Temp Range	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Impedance	50 Ω	Max Operating Frequency	25 GHz
Velocity of Propagation	77%	Screening Effectiveness	> 90 dB
Capacitance	87 pF/m	Dielectric Withstanding Voltage	2500 V @ DC
Phase Stability vs. Bending	± 0.2 °/GHz	Phase Stability vs. Temp (-45~+85°C)	≤ 1500 PPM

4. ATTENUATION & POWER HANDLING CHART (@25°C & SEA LEVEL)

Insertion Loss Calculation: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$	
Constants: $K1 = 0.795435$ $K2 = 0.001179$	

Frequency (MHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W)
500	0.18	18.38	
1000	0.26	26.33	1001
2400	0.42	41.80	631
3000	0.47	47.11	560
6000	0.69	68.69	384
8000	0.81	80.58	327
10000	0.91	91.34	289
12400	1.03	103.20	256
15000	1.15	115.11	229
18000	1.28	127.95	206
20000	1.36	136.08	194

PS560L-18G-F

High Frequency Low Loss Phase Stable Coaxial Cable

- Operation Frequency: DC to 18 GHz
- Compact 5.60 mm Outer Diameter
- Low Density PTFE (LD-PTFE) Dielectric for Ultra-Low Loss
- Triple Shielding Structure (Eff. > 90 dB)
- High Temperature FEP Outer Sheath (-55°C to +200°C)



STRUCTURE & PHYSICAL CONSTRUCTION

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 1.40	1.40
Insulation (Dielectric)	LD-PTFE	-	3.80
Inner Shield	Silver Plated Copper Strip	-	4.00
Interlayer	High Temperature Aluminium Foil	-	4.15
Outer Shield	Silver Plated Copper Wire	-	4.80
Jacket	FEP	-	5.60

ELECTRICAL & MECHANICAL CHARACTERISTICS

Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	78%	Max Operating Frequency	18 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	2000 V DC
Phase Change vs Bending	±0.2 °/GHz	Phase Change vs Temp. (-45~+85°C)	≤ 1500 PPM
Min Bend Radius (Static)	25.00 mm	Min Bend Radius (Dynamic)	50.00 mm
Weight	0.075 kg/m	Operating Temperature	-55°C to +200°C

ATTENUATION & POWER HANDLING PERFORMANCE

IL Formula = K1 * sqrt(F_MHz) + K2 * F_MHz [dB/100m] | K1 = 0.785000, K2 = 0.000850

Frequency (MHz)	Nominal Attenuation (dB/100m @ 25°C & Sea Level)	Max Power Handling (W @ 40°C & Sea Level)
300	13.85	1,520
500	17.98	1,180
1000	25.68	820
2000	36.82	570
3000	45.55	460
6000	65.93	315
8000	77.03	270
10000	87.00	238
12400	97.98	210
16000	112.92	182
18000	120.68	170

PS600LS-25G-P

Low Loss Phase Stable RF Coaxial Cable (25 GHz)



- **Frequency Range:** DC to 25 GHz
- **Impedance:** 50 $\Omega \pm 1 \Omega$
- **Dielectric:** Low Density PTFE (77% VP)
- **Phase Stability:** ± 0.2 °/GHz under bending
- **Protective Jacket:** Flexible Aqua PUR
- **Direct Cross Ref:** SUCOFLEX 126E Equivalent

1. MECHANICAL & STRUCTURAL SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	19 / 0.29 mm	1.45 mm
Insulation	LD-PTFE	Low Density Dielectric	4.25 mm
Inner Shield	Flat Silver Plated Copper Tape	100% Coverage Wrapping	4.45 mm
Outer Shield	Round Silver Plated Copper Braid	High Shielding Braiding	4.90 mm
Outer Jacket	Aqua PUR	Polyurethane Outer Layer	6.00 mm

2. PHYSICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Static Bending Radius	21.50 mm	Cable Weight	0.072 kg/m
Min. Dynamic Bending Radius	43.00 mm	Operating Temp Range	-55 °C to +85 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Impedance	50 Ω	Max Operating Frequency	25 GHz
Velocity of Propagation	77%	Screening Effectiveness	> 90 dB
Capacitance	87 pF/m	Dielectric Withstanding Voltage	2500 V @ DC
Phase Stability vs. Bending	± 0.2 °/GHz	Phase Stability vs. Temp (-45~+85°C)	≤ 1500 PPM

4. ATTENUATION & POWER HANDLING CHART (@25°C & SEA LEVEL)

Insertion Loss Calculation: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$	
Constants: $K1 = 0.795435$ $K2 = 0.001179$	

Frequency (MHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W)
500	0.18	18.38	
1000	0.26	26.33	1001
2400	0.42	41.80	631
3000	0.47	47.11	560
6000	0.69	68.69	384
8000	0.81	80.58	327
10000	0.91	91.34	289
12400	1.03	103.20	256
18000	1.28	127.95	206
20000	1.36	136.08	194

PS635L-18G-F

High Frequency Low Loss Phase Stable Coaxial Cable

- Operation Frequency: DC to 18 GHz
- Low Density PTFE (LD-PTFE) Dielectric for Ultra-Low Loss
- Triple Shielding Structure (Eff. > 90 dB)
- Phase Stability vs. Bending: ±0.2 °/GHz
- High Temperature FEP Outer Sheath (-55°C to +200°C)



STRUCTURE & PHYSICAL CONSTRUCTION

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 1.57	1.57
Insulation (Dielectric)	LD-PTFE	-	4.70
Inner Shield	Silver Plated Copper Strip	-	4.90
Interlayer	High Temperature Aluminium Foil	-	5.04
Outer Shield	Silver Plated Copper Wire	-	5.55
Jacket	Light Blue FEP	-	6.35

ELECTRICAL & MECHANICAL CHARACTERISTICS

Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	78%	Max Operating Frequency	18 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	2500 V DC
Phase Change vs Bending	±0.2 °/GHz	Phase Change vs Temp. (-45~+85°C)	≤ 1500 PPM
Min Bend Radius (Static)	30.00 mm	Min Bend Radius (Dynamic)	60.00 mm
Weight	0.092 kg/m	Operating Temperature	-55°C to +200°C

ATTENUATION & POWER HANDLING PERFORMANCE

IL Formula = K1 * sqrt(F_MHz) + K2 * F_MHz [dB/100m] K1 = 0.6923158, K2 = 0.000760
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Frequency (MHz)	Nominal Attenuation (dB/100m @ 25°C & Sea Level)	Max Power Handling (W @ 40°C & Sea Level)
300	12.22	1,850
500	15.86	1,425
1000	22.66	998
2000	32.48	696
3000	40.19	562
6000	58.19	388
8000	68.00	332
10000	76.83	293
12400	86.53	261
16000	99.71	226
18000	106.56	211

PS760L-18G-AF

18GHz Phase-Stable Low-Loss Coaxial Cable

Document No: SPEC-PS760L-18G-AF



Key Features & Applications:

- **Low-Density PTFE (LD-PTFE)** dielectric for reduced attenuation and phase stability.
- **Double Shielding Structure:** Silver-plated copper strip + silver-plated copper braid.
- **Superior Phase Stability:** $\leq \pm 0.3^\circ/\text{GHz}$ over flexure.
- **High Temperature Range:** -55°C to $+165^\circ\text{C}$ with Aqua FEP jacket.
- Ideal for radar, test & measurement, and aerospace interconnect systems.

Cross Reference: Direct equivalent replacement for Astrolabe 32051.

1. CONSTRUCTION SPECIFICATIONS

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 2.06	2.06
Insulation	LD-PTFE	-	6.05
Inner Shield	Silver Plated Copper Strip	-	6.25
Outer Shield	Silver Plated Copper Wire Braid	-	6.85
Jacket	Aqua FEP	-	7.60

2. ELECTRICAL CHARACTERISTICS

Impedance	50 Ω	Max Operating Frequency	18 GHz
Velocity of Propagation	77%	Screening Effectiveness	> 90 dB
Capacitance	87 pF/m	Withstanding Voltage	3000 V DC
Phase Change vs. Bending	$\pm 0.3^\circ/\text{GHz}$	Phase Change vs. Temp ($-45\sim+85^\circ\text{C}$)	≤ 1500 PPM

3. MECHANICAL & ENVIRONMENTAL DATA

Min. Static Bending Radius	38.00 mm	Weight	0.135 kg/m
Min. Dynamic Bending Radius	76.00 mm	Operating Temp. Range	-55 to $+165^\circ\text{C}$

4. ATTENUATION & POWER HANDLING (@ 25°C & SEA LEVEL)

Attenuation Formula: $IL = K1 * \text{sqrt}(F_MHz) + K2 * F_MHz$ (dB/100m) | $K1 = 0.4736052$, $K2 = 0.001186495$

Frequency (MHz)	Attenuation (dB/100m)	Power Handling (W @ 40°C)
500	11.18	2756
1000	16.16	1907
3000	29.50	1045
4000	34.70	888
6000	43.80	704
8000	51.85	594
10000	59.23	520
12000	66.12	466
14000	72.65	424
16000	78.89	391
18000	84.90	363

PS760L-18G-P (PUR)

High Frequency Low Loss Phase Stable Coaxial Cable

- Operation Frequency: DC to 18 GHz
- Low Density PTFE (LD-PTFE) Dielectric for Ultra-Low Loss
- Triple Shielding Structure (Eff. > 90 dB)
- Phase Stability vs. Bending: ±0.2 °/GHz
- High-Durability Rugged Blue PUR Outer Sheath



STRUCTURE & PHYSICAL CONSTRUCTION

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 2.10	2.10
Insulation (Dielectric)	LD-PTFE	-	6.10
Inner Shield	Silver Plated Copper Strip	-	6.42
Interlayer	High Temperature Aluminium Foil	-	6.54
Outer Shield	Silver Plated Copper Wire	-	7.05
Jacket	Blue PUR	-	8.20

ELECTRICAL & MECHANICAL CHARACTERISTICS

Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	78%	Max Operating Frequency	18 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	3000 V DC
Phase Change vs Bending	±0.2 °/GHz	Phase Change vs Temp. (-45~+85°C)	≤ 1500 PPM
Min Bend Radius (Static)	38.00 mm	Min Bend Radius (Dynamic)	76.00 mm
Weight	0.127 kg/m	Operating Temperature	-55°C to +200°C

ATTENUATION & POWER HANDLING PERFORMANCE

IL Formula = K1 * sqrt(F_MHz) + K2 * F_MHz [dB/100m] | K1 = 0.5382111, K2 = 0.000591

Frequency (MHz)	Nominal Attenuation (dB/100m @ 25°C & Sea Level)	Max Power Handling (W @ 40°C & Sea Level)
300	9.50	2,908
500	12.33	2,240
1000	17.61	1,569
2000	25.25	1,094
3000	31.25	884
6000	45.24	611
8000	52.87	523
10000	59.73	462
12400	67.26	411
16000	77.53	356
18000	82.85	333

PS930L-12.4G

High Frequency Low Loss Phase Stable Coaxial Cable

- Operation Frequency: DC to 12.4 GHz
- Low Density PTFE (LD-PTFE) Dielectric for Ultra-Low Loss
- Triple Shielding Structure (Eff. > 90 dB)
- Phase Stability vs. Bending: ± 0.2 °/GHz
- Wide Operating Temperature Range: -55°C to +200°C



STRUCTURE & PHYSICAL CONSTRUCTION

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 2.44	2.44
Insulation (Dielectric)	LD-PTFE	-	7.30
Inner Shield	Silver Plated Copper Strip	-	7.54
Interlayer	High Temperature Aluminium Foil	-	7.67
Outer Shield	Silver Plated Copper Wire	-	8.19
Jacket	Light Blue FEP	-	9.30

ELECTRICAL & MECHANICAL CHARACTERISTICS

Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	76%	Max Operating Frequency	12.4 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	3500 V DC
Phase Change vs Bending	± 0.2 °/GHz	Phase Change vs Temp. (-45~+85°C)	≤ 1500 PPM
Min Bend Radius (Static)	47.00 mm	Min Bend Radius (Dynamic)	94.00 mm
Weight	0.194 kg/m	Operating Temperature	-55°C to +200°C

ATTENUATION & POWER HANDLING PERFORMANCE

IL Formula = $K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/100m] | $K1 = 0.44608$, $K2 = 0.0006$

Frequency (MHz)	Nominal Attenuation (dB/100m @ 25°C & Sea Level)	Max Power Handling (W @ 40°C & Sea Level)
100	4.52	5,985
300	7.91	3,422
500	10.27	2,633
1000	14.71	1,840
2000	21.15	1,279
3000	26.23	1,031
6000	38.15	709
8000	44.70	605
10000	50.61	535
12000	56.07	483
12400	57.11	474

PS1200L-10G

High Frequency Low Loss Phase Stable Coaxial Cable

- Operation Frequency: DC to 10 GHz
- Low Density PTFE (LD-PTFE) Dielectric for Ultra-Low Loss
- Triple Shielding Structure (Eff. > 90 dB)
- Phase Stability vs. Bending: ± 0.2 °/GHz
- Wide Operating Temperature Range: -55°C to +200°C



STRUCTURE & PHYSICAL CONSTRUCTION

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	7 / 1.17	3.50
Insulation (Dielectric)	LD-PTFE	-	10.00
Inner Shield	Silver Plated Copper Strip	-	10.32
Interlayer	High Temperature Aluminium Foil	-	10.45
Outer Shield	Silver Plated Copper Wire	-	11.02
Jacket	Light Blue FEP	-	12.00

ELECTRICAL & MECHANICAL CHARACTERISTICS

Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	76%	Max Operating Frequency	10 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	4000 V DC
Phase Change vs Bending	± 0.2 °/GHz	Phase Change vs Temp. (-45~+85°C)	≤ 1500 PPM
Min Bend Radius (Static)	60.00 mm	Min Bend Radius (Dynamic)	120.00 mm
Weight	0.300 kg/m	Operating Temperature	-55°C to +200°C

ATTENUATION & POWER HANDLING PERFORMANCE

IL Formula = $K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/100m] $K1 = 0.39168, K2 = 0.0006$

Frequency (MHz)	Nominal Attenuation (dB/100m @ 25°C & Sea Level)	Max Power Handling (W @ 40°C & Sea Level)
100	3.98	8,457
300	6.96	4,829
500	9.06	3,713
1000	12.99	2,590
2000	18.72	1,797
2500	21.08	1,595
3000	23.25	1,446
6000	33.94	991
8000	39.83	844
9000	42.56	790
10000	45.17	745

PS1500L-8G

High Frequency Low Loss Phase Stable Coaxial Cable

- Operation Frequency: DC to 8 GHz
- Low Density PTFE (LD-PTFE) Dielectric for Ultra-Low Loss
- Triple Shielding Structure (Eff. > 90 dB)
- Phase Stability vs. Bending: ±0.2 °/GHz
- Wide Operating Temperature Range: -55°C to +200°C



STRUCTURE & PHYSICAL CONSTRUCTION

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	19 / 0.88	4.40
Insulation (Dielectric)	LD-PTFE	-	12.90
Inner Shield	Silver Plated Copper Strip	-	13.22
Interlayer	High Temperature Aluminium Foil	-	13.35
Outer Shield	Silver Plated Copper Wire	-	13.85
Jacket	Light Blue FEP	-	15.00

ELECTRICAL & MECHANICAL CHARACTERISTICS

Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	76%	Max Operating Frequency	8 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	5000 V DC
Phase Change vs Bending	±0.2 °/GHz	Phase Change vs Temp. (-45~+85°C)	≤ 1500 PPM
Min Bend Radius (Static)	60.00 mm	Min Bend Radius (Dynamic)	120.00 mm
Weight	0.432 kg/m	Operating Temperature	-55°C to +200°C

ATTENUATION & POWER HANDLING PERFORMANCE

IL Formula = K1 * sqrt(F_MHz) + K2 * F_MHz [dB/100m] K1 = 0.304208, K2 = 0.000591

Frequency (MHz)	Nominal Attenuation (dB/100m @ 25°C & Sea Level)	Max Power Handling (W @ 40°C & Sea Level)
100	3.10	13,440
200	4.42	9,429
300	5.45	7,653
500	7.10	5,872
900	9.66	4,316
1000	10.21	4,082
1500	12.67	3,290
2000	14.79	2,819
3000	18.44	2,261
6000	27.11	1,537
8000	31.94	1,305

PSE760L-18G-F

High Frequency Low Loss Phase Stable Coaxial Cable

- Operation Frequency: DC to 18 GHz
- Low Density PTFE (LD-PTFE) Dielectric for Ultra-Low Loss
- Triple Shielding Structure (Eff. > 90 dB)
- Phase Stability vs. Bending: ±0.2 °/GHz
- High Temperature FEP Outer Sheath (-55°C to +200°C)



STRUCTURE & PHYSICAL CONSTRUCTION

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 2.10	2.10
Insulation (Dielectric)	LD-PTFE	-	6.10
Inner Shield	Silver Plated Copper Strip	-	6.42
Interlayer	High Temperature Aluminium Foil	-	6.54
Outer Shield	Silver Plated Copper Wire	-	7.05
Jacket	Light Blue FEP	-	7.60

ELECTRICAL & MECHANICAL CHARACTERISTICS

Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	78%	Max Operating Frequency	18 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	3000 V DC
Phase Change vs Bending	±0.2 °/GHz	Phase Change vs Temp. (-45~+85°C)	≤ 1500 PPM
Min Bend Radius (Static)	38.00 mm	Min Bend Radius (Dynamic)	76.00 mm
Weight	0.127 kg/m	Operating Temperature	-55°C to +200°C

ATTENUATION & POWER HANDLING PERFORMANCE

IL Formula = K1 * sqrt(F_MHz) + K2 * F_MHz [dB/100m] K1 = 0.5382111, K2 = 0.000591
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Frequency (MHz)	Nominal Attenuation (dB/100m @ 25°C & Sea Level)	Max Power Handling (W @ 40°C & Sea Level)
300	9.50	2,908
500	12.33	2,240
1000	17.61	1,569
2000	25.25	1,094
3000	31.25	884
6000	45.24	611
8000	52.87	523
10000	59.73	462
12400	67.26	411
16000	77.53	356
18000	82.85	333

PS150L-110G-F

110GHz High-Frequency Low-Loss Phase Stable Coaxial Cable

PS150L-110G-F is an ultra-fine 1.50mm coaxial cable engineered for ultra-wideband millimeter-wave applications requiring phase stability up to 110 GHz.

- Dielectric:** Expanded Low-Density PTFE (LD-PTFE) with 80% VP
- Shielding:** Dual silver-plated copper strip & wire braid (>90 dB effectiveness)
- Phase Stability:** ± 0.3 °/GHz vs bending
- Jacket:** High-temperature Gray FEP (-55°C to +165°C)
- Form Factor:** Ultra-miniature 1.50 mm O.D. with 8.0 mm static bend radius

Structure Diagram



1. STRUCTURAL SPECIFICATIONS

Layer	Material	Construction	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 0.30 mm	0.30
Dielectric	Low-Density PTFE (LD-PTFE)	Solid Expanded	0.85
Inner Shield	Silver Plated Copper Strip	Helical Wrap	1.00
Outer Shield	Silver Plated Copper Wire	Braid	1.20
Jacket	Gray FEP	Extruded	1.50

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bending Radius (Static)	8.0 mm	Weight	0.006 kg/m
Min. Bending Radius (Dynamic)	15.0 mm	Operating Temp. Range	-55°C to +165°C

3. ELECTRICAL PERFORMANCE

Impedance	50 Ω	Max Operating Frequency	110 GHz
Velocity of Propagation	80%	Screening Effectiveness	> 90 dB
Capacitance	84 pF/m	Dielectric Withstanding Voltage	300 V DC
Phase Stability vs Bending	± 0.3 °/GHz	Phase Stability vs Temp. (-45~+85°C)	≤ 750 PPM

4. ATTENUATION & POWER HANDLING (@ 25°C SEA LEVEL)

Insertion Loss Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 3.557846$, $K2 = 0.000576$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max. Power Handling (W @ 40°C)
500	79.84	105
1000	113.08	74
3000	196.60	43
6000	279.05	30
8000	322.83	26
10000	361.54	23
18000	487.70	17
26500	594.44	14
40000	734.61	11
50000	824.36	10
67000	959.52	9
110000	1243.36	7

RF COAXIAL CABLE TECHNICAL DATASHEET

PS220L-67G-F

67GHz High-Frequency Low-Loss Phase Stable Coaxial Cable

PS220L-67G-F is engineered for high-density, space-restricted microwave and mmWave applications requiring phase stability under dynamic bending up to 67 GHz.

- Dielectric:** Expanded Low-Density PTFE (LD-PTFE) with 81% VP
- Shielding:** Dual silver-plated copper strip & wire braid (>90 dB effectiveness)
- Phase Stability:** ±0.3 °/GHz vs bending
- Jacket:** High-temperature Gray FEP (-55°C to +165°C)
- Form Factor:** Ultra-compact 2.20 mm O.D. with 8.8 mm static bend radius

Structure Diagram



1. STRUCTURAL SPECIFICATIONS

Layer	Material	Construction	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 0.51 mm	0.51
Dielectric	Low-Density PTFE (LD-PTFE)	Solid Expanded	1.38
Inner Shield	Silver Plated Copper Strip	Helical Wrap	1.58
Outer Shield	Silver Plated Copper Wire	Braid	1.90
Jacket	Gray FEP	Extruded	2.20

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bending Radius (Static)	8.8 mm	Weight	0.016 kg/m
Min. Bending Radius (Dynamic)	22.0 mm	Operating Temp. Range	-55°C to +165°C

3. ELECTRICAL PERFORMANCE

Impedance	50 Ω	Max Operating Frequency	67 GHz
Velocity of Propagation	81%	Screening Effectiveness	> 90 dB
Capacitance	80 pF/m	Dielectric Withstanding Voltage	500 V DC
Phase Stability vs Bending	±0.3 °/GHz	Phase Stability vs Temp. (-45~+85°C)	≤ 750 PPM

4. ATTENUATION & POWER HANDLING (@ 25°C SEA LEVEL)

Insertion Loss Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.975832, K2 = 0.001221$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max. Power Handling (W @ 40°C)
1000	63.70	97
2000	90.80	68
3000	111.88	55
6000	160.37	39
8000	186.49	33
10000	209.79	29
18000	287.06	22
26500	354.00	17
40000	444.01	14
50000	502.86	12
67000	593.24	10

PS230L-67G-BF

67GHz Low Loss Phase Stable Coaxial Cable

Key Features & Overview

- Max Frequency:** DC to 67 GHz millimeter-wave performance.
- Velocity of Propagation:** 76% (LD-PTFE Dielectric).
- Phase Stability:** ±0.2 °/GHz vs Bending.
- Miniature Design:** 2.30 mm nominal outer diameter.
- Shielding Efficiency:** >90 dB (Strip + Braid Dual Shield).

Optimized for ultra-high-frequency broadband test assemblies, 1.85mm connector interconnects, and radar subsystems demanding tight bend radius and low loss.



Structural Properties

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.51	0.51
Insulation	LD-PTFE	-	1.55
Inner Shield	Silver Plated Copper Strip	-	1.70
Outer Shield	Silver Plated Copper Wire Braid	-	2.01
Jacket	Blue FEP	-	2.30

Electrical Characteristics

Impedance	50 Ohm	Velocity of Propagation	76%
Max Operating Frequency	67 GHz	Capacitance	88 pF/m
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	800 V DC
Phase Change vs Bending	±0.2 °/GHz	Phase Change vs Temp (-45~+85°C)	≤ 1500 PPM

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m)
Constants: K1 = 2.177342, K2 = 0.001221

Mechanical & Environmental Properties

Min. Static Bending Radius	11.0 mm	Min. Dynamic Bending Radius	23.0 mm
Weight	0.016 kg/m	Operating Temperature	-55°C to +165°C

Attenuation & Power Handling (@ 25°C Sea Level)

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
300	38.08	179
500	49.30	138
1000	70.07	97
3000	122.92	55
6000	175.98	39
8000	204.52	33
10000	229.94	30
12400	257.60	26
18000	314.10	22
26500	386.80	18
40000	484.31	14
50000	547.92	12
67000	645.40	11

Replaceable Type Cross-Reference: Direct equivalent to [HUBER+SUHNER](#) SUCOFLEX 100 series ultra-flexible mmWave cable assemblies.

PS230L-67G-F

Phase Stable Coaxial Cable Technical Datasheet



Key Performance Features

- Ultra-high frequency operation up to 67 GHz (mmWave band).
- Low loss performance with LD-PTFE dielectric technology (77% VP).
- Excellent phase stability vs. bending ($\pm 0.2^\circ/\text{GHz}$).
- Dual-shield structure delivering high screening effectiveness (>90 dB).
- Compact 2.30mm outer diameter for high-density interconnect environments.

1. CABLE CONSTRUCTION & DIMENSIONS

Construction Layer	Material Selection	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.53 mm	0.53
Insulation	Low Density PTFE (LD-PTFE)	—	1.50
Inner Shield	Silver Plated Copper Strip	—	1.66
Outer Shield	Silver Plated Copper Wire	—	1.98
Jacket	Aqua FEP	—	2.30

2. ELECTRICAL PARAMETERS

Impedance	50 Ω
Capacitance	88 pF/m
Velocity of Prop.	77%
Max Operating Freq.	67 GHz
Screening Effect.	>90 dB
Withstanding Volts	500 V DC
Phase vs Bending	$\pm 0.2^\circ/\text{GHz}$
Phase vs Temp.	≤ 1500 PPM

3. MECHANICAL & ENVIRONMENTAL

Static Min. Bend Radius	11.00 mm
Dynamic Min. Bend Radius	23.00 mm
Weight	0.017 kg/m
Operating Temp. Range	-55 ~ +165 $^\circ\text{C}$

Insertion Loss (IL) Formula:
$$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz \quad (K1 = 2.177342, K2 = 0.001211)$$

4. ATTENUATION & POWER HANDLING PERFORMANCE MATRIX

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
500	49.29	651
1000	70.06	458
2400	109.57	293
3000	122.89	261
6000	175.92	182
8000	204.44	157
10000	229.84	140
12400	257.47	125
18000	313.92	102
26500	386.54	83
40000	483.91	66

RF COAXIAL CABLE TECHNICAL DATASHEET

PS260L-67G-F

67GHz High-Frequency Low-Loss Phase Stable Coaxial Cable

PS260L-67G-F is engineered for high-density microwave and millimeter-wave applications requiring reliable phase stability under dynamic bending and temperature variations up to 67 GHz.

- Dielectric:** Expanded Low-Density PTFE (LD-PTFE) with 82% VP
- Shielding:** Dual silver-plated copper strip & wire braid (>90 dB effectiveness)
- Phase Stability:** ±0.3 °/GHz vs bending
- Jacket:** Durable, high-temperature Gray FEP (-55°C to +165°C)
- Outer Diameter:** Compact 2.60 mm O.D.



1. STRUCTURAL SPECIFICATIONS

Layer	Material	Construction	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 0.60 mm	0.60
Dielectric	Low-Density PTFE (LD-PTFE)	Solid Expanded	1.68
Inner Shield	Silver Plated Copper Strip	Helical Wrap	1.88
Outer Shield	Silver Plated Copper Wire	Braid	2.20
Jacket	Gray FEP	Extruded	2.60

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bending Radius (Static)	10.4 mm	Weight	0.022 kg/m
Min. Bending Radius (Dynamic)	26.0 mm	Operating Temp. Range	-55°C to +165°C

3. ELECTRICAL PERFORMANCE

Impedance	50 Ω	Max Operating Frequency	67 GHz
Velocity of Propagation	82%	Screening Effectiveness	> 90 dB
Capacitance	80 pF/m	Dielectric Withstanding Voltage	800 V DC
Phase Stability vs Bending	±0.3 °/GHz	Phase Stability vs Temp. (-45~+85°C)	≤ 750 PPM

4. ATTENUATION & POWER HANDLING (@ 25°C SEA LEVEL)

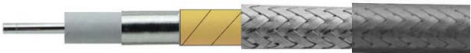
Insertion Loss Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.618060297$, $K2 = 0.000557259$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max. Power Handling (W @ 40°C)
1000	51.72	230
2000	73.48	162
4000	104.56	114
6000	128.68	92
8000	149.18	80
10000	167.38	71
18000	227.12	52
26500	278.17	43
40000	345.90	34
50000	389.67	31
67000	456.16	26

PS265L-50G

50 GHz Phase Stable Low Loss Coaxial Cable

The PS265L-50G is a flexible, high-frequency coaxial cable with a nominal 2.65 mm outer diameter, constructed with low-density PTFE insulation and a triple-shielded outer structure. It delivers low attenuation, superior phase stability versus bending, and excellent screening effectiveness across RF applications up to 50 GHz.



- Max Operating Frequency: 50 GHz
- Low Density PTFE (LD-PTFE) Dielectric
- Phase Stability vs. Bending: ± 0.3 °/GHz
- Nominal Outer Diameter: 2.65 mm
- Triple Shielding Construction (>100 dB Effectiveness)
- Direct Replacement for Minibend-086L (32024)

STRUCTURE & PHYSICAL DIMENSIONS

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.56	0.56
Insulation	LD-PTFE	-	1.70
Inner Shield	Silver Plated Copper Strip	-	1.85
Interlayer	High Temperature Aluminium Foil	-	1.98
Outer Shield	Alloy Wire Braid	-	2.24
Jacket	FEP	-	2.65

MECHANICAL CHARACTERISTICS

Min. Bend Radius (Static)	6.00 mm
Min. Bend Radius (Dynamic)	15.00 mm
Weight	0.016 kg/m
Operating Temperature	-55 to +125 °C

ELECTRICAL CHARACTERISTICS

Impedance	50 Ohm
Velocity of Propagation	76%
Capacitance	87 pF/m
Screening Effectiveness	> 100 dB
Dielectric Voltage	500 V DC

ATTENUATION & POWER HANDLING

Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/100m] $K1 = 1.942426242$, $K2 = 0.001196918$
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Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
500	44.03	314
1000	62.62	221
3000	109.98	126
6000	157.64	88
10000	206.21	67
12000	227.15	61
16000	264.85	52
18000	282.15	49
26500	347.92	40
30000	372.35	37
40000	436.36	32

CROSS REFERENCE GUIDE

Primary Model	Equivalent Industry Reference	Compatibility Type
PS265L-50G	HUBER+SUHNER Minibend-086L (32024)	Direct Drop-In Equivalent

PS310L-55G-F

55GHz High-Frequency Low-Loss Phase Stable Coaxial Cable

PS310L-55G-F is engineered for high-density microwave and mmWave applications requiring rigorous phase stability under dynamic bending and temperature variations up to 55 GHz.

- Dielectric:** Expanded Low-Density PTFE (LD-PTFE) with 82% VP
- Shielding:** Dual silver-plated copper tape & wire braid (>90 dB effectiveness)
- Phase Stability:** ±0.3 °/GHz vs bending
- Jacket:** Durable, high-temperature Gray FEP (-55°C to +165°C)
- Drop-in Replacement:** Compatible with Gore CXN3500 standards



1. STRUCTURAL SPECIFICATIONS

Layer	Material	Construction	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 0.72 mm	0.72
Dielectric	Low-Density PTFE (LD-PTFE)	Solid Expanded	2.00
Inner Shield	Silver Plated Copper Tape	Helical Wrap	2.20
Outer Shield	Silver Plated Copper Wire	Braid	2.52
Jacket	Gray FEP	Extruded	3.10

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bending Radius (Static)	15.0 mm	Weight	0.027 kg/m
Min. Bending Radius (Dynamic)	31.0 mm	Operating Temp. Range	-55°C to +165°C

3. ELECTRICAL PERFORMANCE

Impedance	50 ± 1 Ω	Max Operating Frequency	55 GHz
Velocity of Propagation	82%	Screening Effectiveness	> 90 dB
Capacitance	80 pF/m	Dielectric Withstanding Voltage	1000 V DC
Phase Stability vs Bending	±0.3 °/GHz	Phase Stability vs Temp. (-45~+85°C)	≤ 750 PPM

4. ATTENUATION & POWER HANDLING (@ 25°C SEA LEVEL)

Insertion Loss Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.45847, K2 = 0.00068$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max. Power Handling (W @ 40°C)
1000	46.80	407
2000	66.58	286
3000	81.92	233
4000	94.96	201
6000	117.05	163
8000	135.89	140
10000	152.65	125
18000	207.91	92
26500	255.44	75
40000	318.89	60
50000	360.12	53

PS360L-40G

High Frequency Low Loss Phase Stable Cable (40 GHz)

Document No: SPEC-PS360L-40G
Revision: A/0



Key Features & Capabilities:

- Operating Frequency: DC to 40 GHz with excellent VSWR performance.
- Low density ZF402 insulation providing 82% Velocity of Propagation.
- Triple shielding (>100 dB effectiveness) for maximum RF isolation.
- Excellent phase stability vs. bending (± 0.3 °/GHz) and temperature (≤ 450 PPM).
- Flexible, durable blue FEP jacket suitable for challenging environments (-55°C to +125°C).

1. STRUCTURE & MECHANICAL CONSTRUCTION

Item	Layer Element	Material Specification	Nom. O.D. (mm)
1	Inner Conductor	Silver Plated Copper (SPC) (1/0.93 mm)	0.93
2	Insulation	ZF402 Dielectric	2.55
3	Inner Shield	Silver Plated Copper Strip	2.72
4	Interlayer	High Temperature Aluminum Foil	2.85
5	Outer Shield	Silver Plated Copper Wire Braid	3.15
6	Jacket	Blue FEP	3.60

2. ELECTRICAL & ENVIRONMENTAL RATINGS

Impedance	50 Ω	Max Operating Frequency	40 GHz
Velocity of Propagation	82%	Capacitance	80 pF/m
Screening Effectiveness	>100 dB	Withstanding Voltage	2000 V DC
Phase Change vs. Bending	± 0.3 °/GHz	Phase Change vs. Temp.	≤ 450 PPM (-45~+85°C)
Min. Static Bend Radius	18.0 mm	Min. Dynamic Bend Radius	36.0 mm
Weight	0.033 kg/m	Operating Temperature	-55°C to +125°C

3. ATTENUATION & POWER HANDLING DATA

Calculation Formula: Insertion Loss IL = $K1 \cdot \sqrt{(F_MHz)} + K2 \cdot F_MHz$ (K1 = 1.261948, K2 = 0.00175)

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max. Power Handling (W @ 40°C)
100	12.79	1617
500	29.09	711
3000	74.37	278
6000	108.25	191
8000	126.87	163
9000	135.47	153
10000	143.69	144
12000	159.24	130
18000	200.81	103
26500	251.81	82
40000	322.39	64

PS360L-40G-F

40GHz Solid-Conductor Phase-Stable Coaxial Cable

Product Overview: PS360L-40G-F is a high-performance 50 Ohm microwave coaxial cable designed for low insertion loss up to 40 GHz. Featuring a 0.91mm solid conductor, low-density PTFE dielectric, dual shielding, and a blue FEP jacket rated from -55°C to +125°C.



- **Frequency Range:** DC to 40 GHz
- **Inner Conductor:** 1/0.91 mm Solid Silver Plated Copper
- **Impedance:** 50 Ω | **Velocity:** 76%
- **Shielding Effectiveness:** > 90 dB
- **Jacket Material:** High Thermal Resistance Blue FEP

1. Structure Characteristics

Layer	Item	Material	Nom. O.D. (mm)
Inner Conductor	1/0.91 mm Solid Wire	Silver Plated Copper	0.91
Insulation	Low Density Dielectric	LD-PTFE	2.70
Inner Shield	Helical Tape Wrap	Self-adhesive Aluminium Foil	2.78
Outer Shield	Outer Braid Wire	Silver Plated Copper Wire	3.18
Jacket	Protective Outer Layer	Blue FEP	3.60

2. Electrical & Mechanical Specifications

Electrical Parameter	Value	Mechanical / Env. Parameter	Value
Impedance	50 Ω	Min. Bending Radius (Static)	18.0 mm
Capacitance	88 pF/m	Min. Bending Radius (Dynamic)	36.0 mm
Velocity of Propagation	76%	Weight	0.029 kg/m
Shielding Effectiveness	> 90 dB	Operating Temperature	-55°C to +125°C
Dielectric Withstanding Voltage	1000 V DC	Max Operating Frequency	40 GHz

3. Attenuation & Power Handling Performance

Attenuation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.204032, K2 = 0.001196918$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C & Sea Level)
500	27.52	637
1000	39.27	446
2400	61.86	283
3000	69.54	252
6000	100.45	175
8000	117.27	149
10000	132.37	132
12400	148.92	118
18000	183.08	96
26500	227.72	77
40000	288.68	61

PS360L-61G-FP

61GHz Ultra Low Loss Phase Stable Coaxial Cable

- Frequency Range: DC to 61 GHz
- Inner Conductor: Stranded Silver-Plated Copper (7 / 0.24 mm)
- Dielectric: Low-Density PTFE (76% VOP)
- Double Shielding: Silver Plated Copper Strip + Wire Braid (>90 dB)
- Outer Diameter: 3.60 mm (FEP/TPU Jacket)



1. CABLE CONSTRUCTION & MATERIALS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	0.72
	Construction	7 / 0.24 mm	
Insulation	Material	LD-PTFE	2.05
Inner Shield	Material	Silver Plated Copper Strip	2.25
Outer Shield	Material	Silver Plated Copper Wire	2.66
Jacket	Material	FEP / TPU (Blue)	3.60

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Max Operating Frequency	61 GHz
Velocity of Propagation	76%	Capacitance	87 pF/m
Screening Effectiveness	> 90 dB	Withstanding Voltage	1200 V DC
Phase Stability (Flexure @ 61GHz)	± 6°	Phase Stability (Temp -55 to +125°C)	≤ 1000 ppm

3. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Min. Bend Radius (Static)	18 mm	Min. Bend Radius (Dynamic)	36 mm
Weight	32 g/m	Operating Temperature	-55°C to +125°C

4. ATTENUATION & POWER HANDLING (@25°C & SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.4820, K2 = 0.0035$

Frequency (GHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
0.5	0.35	34.9	320
1.0	0.50	50.4	222
2.4	0.81	81.1	138
5.0	1.22	122.4	91
10.0	1.83	183.2	61
18.0	2.62	262.1	43
26.5	3.31	331.0	34
40.0	4.34	433.8	26
50.0	5.02	502.1	22
61.0	5.73	572.8	19

PS360L-61G-PE

High Frequency Low Loss Phase Stable Coaxial Cable

- Maximum Operating Frequency: 61 GHz
- Phase Stability vs Flexure: $\pm 0.3^{\circ}/\text{GHz}$
- Excellent Shielding Effectiveness ($>110\text{ dB}$)
- Nominal Outer Diameter: 3.56 mm
- High-performance Thermoplastic Elastomer Outer Jacket



1. CABLE CONSTRUCTION & STRUCTURAL SPECIFICATIONS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	0.53
	Construction	1/0.53 mm	
Insulation	Material	PTFE	1.68
Inner Shield	Material	SC Foil	1.88
Inner Shield Braid	Material	Round Silver Plated Copper Braided Wire	2.25
Outer Shield Braid	Material	Round Silver Plated Copper Braided Wire	2.65
Jacket	Material	High Performance Thermoplastic Elastomer	3.56

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Capacitance	95 pF/m
Velocity of Propagation	70%	Max Operating Frequency	61 GHz
Screening Effectiveness	$> 110\text{ dB}$	Dielectric Withstanding Voltage	1000 V@DC
Phase Change vs. Bending	$\pm 0.3^{\circ}/\text{GHz}$	Phase Change vs. Temperature	N/A

3. ATTENUATION & POWER HANDLING (@25°C & SEA LEVEL)

Calculation Formula: $IL = K1 * \text{sqrt}(F_MHz) + K2 * F_MHz$
Constants: $K1 = 63.64829396$ $K2 = 2.919947507$

Frequency (GHz)	Attenuation (dB/100m)	Power Handling (W)
0.5	46.47	288
1.0	66.57	201
3.0	119.00	112
4.0	138.98	96
6.0	173.43	77
8.0	203.38	66
10.0	230.47	58
12.0	255.52	52
18.0	322.60	41
26.5	405.03	33
40.0	519.35	26

4. MECHANICAL & ENVIRONMENTAL PERFORMANCE

Property	Value / Requirement
Min Bending Radius (Static)	9.5 mm
Min Bending Radius (Dynamic)	19.0 mm
Weight	28 g/m
Operating Temperature Range	-55 ~ +125 °C

PS360LS-40G-F

40GHz High-Frequency Flexible Phase-Stable Coaxial Cable

Product Overview: PS360LS-40G-F is a high-performance 50 Ohm flexible coaxial cable designed for microwave applications up to 40 GHz. Featuring a stranded inner conductor, low-density PTFE dielectric, dual shielding, and an FEP jacket for wide temperature capability (-55°C to +125°C).



- **Frequency Range:** DC to 40 GHz
- **Inner Conductor:** 7/0.31 mm Stranded Silver Plated Copper
- **Impedance:** 50 Ω | **Velocity:** 76%
- **Shielding Effectiveness:** > 90 dB
- **Jacket Material:** Thermal & Chemical Resistant Blue FEP

1. Structure Characteristics

Layer	Item	Material	Nom. O.D. (mm)
Inner Conductor	7/0.31 mm Stranded Wire	Silver Plated Copper	0.92
Insulation	Low Density Dielectric	LD-PTFE	2.63
Inner Shield	Helical Tape Wrap	Self-adhesive Aluminium Foil	2.78
Outer Shield	Outer Braid Wire	Silver Plated Copper Wire	3.18
Jacket	Protective Outer Layer	Blue FEP	4.00

2. Electrical & Mechanical Specifications

Electrical Parameter	Value	Mechanical / Env. Parameter	Value
Impedance	50 Ω	Min. Bending Radius (Static)	18.0 mm
Capacitance	88 pF/m	Min. Bending Radius (Dynamic)	36.0 mm
Velocity of Propagation	76%	Weight	0.029 kg/m
Shielding Effectiveness	> 90 dB	Operating Temperature	-55°C to +125°C
Dielectric Withstanding Voltage	1000 V DC	Max Operating Frequency	40 GHz

3. Attenuation & Power Handling Performance

Attenuation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.261948, K2 = 0.002550$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C & Sea Level)
500	29.49	510
1000	42.46	354
2400	67.94	221
3000	76.77	196
6000	113.05	133
8000	133.27	113
10000	151.69	99
12400	172.14	87
18000	215.21	70
26500	273.01	55
40000	354.39	42

PS400-26.5G

High Frequency Phase Stable Cable (26.5 GHz)

Document No: SPEC-PS400-26.5G
Revision: A/0



Key Features & Capabilities:

- Operating Frequency: DC to 26.5 GHz with reliable VSWR performance.
- Solid PTFE dielectric providing high voltage endurance (1500V DC).
- Triple shielding (>90 dB effectiveness) for high isolation.
- Excellent phase stability vs. bending (± 0.3 °/GHz).
- Green FEP outer jacket rated for operating temperatures from -55°C to +125°C.

1. STRUCTURE & MECHANICAL CONSTRUCTION

Item	Layer Element	Material Specification	Nom. O.D. (mm)
1	Inner Conductor	Silver Plated Copper (SPC) (1/0.93 mm)	0.93
2	Insulation	Solid PTFE Dielectric	3.00
3	Inner Shield	Silver Plated Copper Strip	3.20
4	Interlayer	High Temperature Aluminum Foil	3.35
5	Outer Shield	Alloy Wire Braid	3.55
6	Jacket	Green FEP	4.00

2. ELECTRICAL & ENVIRONMENTAL RATINGS

Impedance	50 Ω	Max Operating Frequency	26.5 GHz
Velocity of Propagation	70%	Capacitance	94 pF/m
Screening Effectiveness	>90 dB	Withstanding Voltage	1500 V DC
Phase Change vs. Bending	± 0.3 °/GHz	Phase Change vs. Temp.	N/A
Min. Static Bend Radius	20.0 mm	Min. Dynamic Bend Radius	40.0 mm
Weight	0.041 kg/m	Operating Temperature	-55°C to +125°C

3. ATTENUATION & POWER HANDLING DATA

Calculation Formula: Insertion Loss IL = $K1 * \sqrt{(F_MHz)}$ + $K2 * F_MHz$ (K1 = 1.305096731, K2 = 0.003337)

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max. Power Handling (W @ 40°C)
500	30.85	660
1000	44.61	456
2000	65.04	313
4000	95.89	212
6000	121.11	168
8000	143.43	142
10000	163.88	124
12400	186.71	109
16000	218.48	93
18000	235.16	87
26500	300.88	68

PS400L-34G

High Frequency Low Loss Phase Stable Cable (34 GHz)

Document No: SPEC-PS400L-34G
Revision: A/0



Key Features & Capabilities:

- Operating Frequency: DC to 34 GHz with low attenuation.
- Low density LD-PTFE insulation providing 76% Velocity of Propagation.
- Triple shielding (>90 dB effectiveness) for high isolation.
- Excellent phase stability vs. bending (± 0.3 °/GHz).
- Compact minimum static bending radius of 8.0 mm.
- Durable green FEP jacket rated for -55°C to +125°C.

1. STRUCTURE & MECHANICAL CONSTRUCTION

Item	Layer Element	Material Specification	Nom. O.D. (mm)
1	Inner Conductor	Silver Plated Copper (SPC) (1/0.91 mm)	0.91
2	Insulation	LD-PTFE Dielectric	2.70
3	Inner Shield	Silver Plated Copper Strip	2.90
4	Interlayer	High Temperature Aluminum Foil	3.05
5	Outer Shield	Alloy Wire Braid	3.45
6	Jacket	Green FEP	4.00

2. ELECTRICAL & ENVIRONMENTAL RATINGS

Impedance	50 Ω	Max Operating Frequency	34 GHz
Velocity of Propagation	76%	Capacitance	88 pF/m
Screening Effectiveness	>90 dB	Withstanding Voltage	1200 V DC
Phase Change vs. Bending	± 0.3 °/GHz	Phase Change vs. Temp.	N/A
Min. Static Bend Radius	8.0 mm	Min. Dynamic Bend Radius	40.0 mm
Weight	0.041 kg/m	Operating Temperature	-55°C to +125°C

3. ATTENUATION & POWER HANDLING DATA

Calculation Formula: Insertion Loss IL = $K1 \cdot \sqrt{F_MHz} + K2 \cdot F_MHz$ (K1 = 1.305096731, K2 = 0.003337)

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max. Power Handling (W @ 40°C)
500	30.85	660
1000	44.61	456
2000	65.04	313
4000	95.89	212
6000	121.11	168
8000	143.43	142
10000	163.88	124
12400	186.71	109
16000	218.48	93
18000	235.16	87
26500	300.88	68

PS400L-40G-F

Phase Stable Coaxial Cable Technical Datasheet



Key Performance Features

- Ultra-low loss performance with LD-PTFE dielectric technology (77% VP).
- Excellent phase stability vs. bending ($\pm 0.2^{\circ}$ /GHz) across DC-40 GHz.
- Dual-shield structure delivering high screening effectiveness (>90 dB).
- Thermally stable, chemical-resistant Aqua FEP outer jacket (-55~165°C).

1. CABLE CONSTRUCTION & DIMENSIONS

Construction Layer	Material Selection	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.93 mm	0.93
Insulation	Low Density PTFE (LD-PTFE)	—	2.75
Inner Shield	Silver Plated Copper Strip	—	2.95
Outer Shield	Silver Plated Copper Wire	—	3.35
Jacket	Aqua FEP	—	4.00

2. ELECTRICAL PARAMETERS

Impedance	50 Ω
Capacitance	88 pF/m
Velocity of Prop.	77%
Max Operating Freq.	40 GHz
Screening Effect.	>90 dB
Withstanding Volts	1000 V DC
Phase vs Bending	$\pm 0.2^{\circ}$ /GHz
Phase vs Temp.	≤ 1500 PPM

3. MECHANICAL & ENVIRONMENTAL

Static Min. Bend Radius	16.00 mm
Dynamic Min. Bend Radius	38.00 mm
Weight	0.036 kg/m
Operating Temp. Range	-55 ~ +165 $^{\circ}$ C

4. INTERCHANGEABILITY

Replaceable Equivalent	Micro-Coax FA147A
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Insertion Loss (IL) Formula:

$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ ($K1 = 1.11183141$, $K2 = 0.000943596$)

5. ATTENUATION & POWER HANDLING PERFORMANCE MATRIX

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
500	25.33	651
1000	36.10	457
2400	56.73	291
3000	63.73	259
6000	91.78	180
8000	106.99	154
10000	120.62	137
12400	135.51	122
18000	166.15	99
26500	206.00	80
40000	260.11	63

PS450K-26G

26.5GHz Low Loss Triple-Shielded Phase Stable Coaxial Cable

- Frequency Range: DC to 26.5 GHz
- Inner Conductor: Solid Silver-Plated Copper (1 / 1.12 mm)
- Dielectric: ZF402 / LD-PTFE (76% VOP)
- Triple Shielding: Silver Strip + High Temp Al Foil Interlayer + Wire Braid (>90 dB)
- Outer Diameter: 4.50 mm (FEP Jacket)



1. CABLE CONSTRUCTION & MATERIALS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	1.12
	Construction	1 / 1.12 mm	
Insulation	Material	ZF402 (LD-PTFE)	3.10
Inner Shield	Material	Silver Plated Copper Strip	3.30
Interlayer	Material	High Temp Aluminium Foil	3.45
Outer Shield	Material	Silver Plated Copper Wire	3.85
Jacket	Material	FEP (Blue)	4.50

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Max Operating Frequency	26.5 GHz
Velocity of Propagation	76%	Capacitance	87 pF/m
Screening Effectiveness	> 90 dB	Withstanding Voltage	1500 V DC
Phase Stability (Flexure @ 26.5GHz)	± 4°	Phase Stability (Temp -55 to +125°C)	≤ 1000 ppm

3. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Min. Bend Radius (Static)	22 mm	Min. Bend Radius (Dynamic)	45 mm
Weight	48 g/m	Operating Temperature	-55°C to +125°C

4. ATTENUATION & POWER HANDLING (@25°C & SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.0500, K2 = 0.0025$

Frequency (GHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
0.5	0.25	24.7	520
1.0	0.36	35.7	365
2.4	0.57	57.4	230
5.0	0.87	86.8	155
10.0	1.30	129.8	105
18.0	1.90	189.6	74
26.5	2.47	246.9	58

PS460L-40G

40GHz Low Loss Phase Stable Coaxial Cable

- Broadband Frequency Range: DC to 40 GHz
- Inner Conductor: Stranded Silver-Plated Copper (7 / 0.31 mm)
- Dielectric: Low-Density PTFE (76% VOP)
- Double Shielding: Silver Plated Copper Strip + Wire Braid (>90 dB)
- Outer Diameter: 4.60 mm (FEP/TPU Jacket)



1. CABLE CONSTRUCTION & MATERIALS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	0.92
	Construction	7 / 0.31 mm	
Insulation	Material	LD-PTFE	2.65
Inner Shield	Material	Silver Plated Copper Strip	2.85
Outer Shield	Material	Silver Plated Copper Wire	3.28
Jacket	Material	FEP / TPU (Blue)	4.60

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Max Operating Frequency	40 GHz
Velocity of Propagation	76%	Capacitance	87 pF/m
Screening Effectiveness	> 90 dB	Withstanding Voltage	1500 V DC
Phase Stability (Flexure @ 40GHz)	± 5°	Phase Stability (Temp -55 to +125°C)	≤ 1000 ppm

3. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Min. Bend Radius (Static)	23 mm	Min. Bend Radius (Dynamic)	46 mm
Weight	45 g/m	Operating Temperature	-55°C to +125°C

4. ATTENUATION & POWER HANDLING (@25°C & SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ $K1 = 1.1850, K2 = 0.0028$			
Frequency (GHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
0.5	0.28	27.9	480
1.0	0.40	40.3	335
2.4	0.65	64.8	210
5.0	0.98	97.9	142
10.0	1.47	146.5	95
18.0	2.08	208.3	68
26.5	2.62	262.1	54
34.0	3.06	306.2	46
40.0	3.39	339.4	41

PS480L-31G-F

High-frequency, low-loss, phase-stable flexible RF coaxial cable designed for demanding microwave systems operating up to 31 GHz.



- Low Loss Dielectric:** Expanded LD-PTFE insulation ensures high propagation velocity (83%).
- Phase Stability:** Phase change vs. bending held within ± 0.3 °/GHz.
- Dual Shielding:** Silver-plated copper tape + wire braid provides >90 dB shielding.
- Durable Jacket:** FEP outer sheath for excellent environmental resistance (-55°C to +165°C).

1. CONSTRUCTION & DIMENSION SPECIFICATIONS

Layer	Component Description	Material	Nom. O.D. (mm)
1. Inner Conductor	Center Conductor (1/1.40mm)	Silver Plated Copper	1.40
2. Insulation	Dielectric Core	LD-PTFE	3.75
3. Inner Shield	Helical Tape Shield	Silver Plated Copper Strip	3.95
4. Outer Shield	Braided Shield	Silver Plated Copper Wire	4.35
5. Jacket	Protective Outer Sheath	Gray FEP	4.80

2. ELECTRICAL PARAMETERS

Impedance	50 Ω
Velocity of Propagation	83%
Capacitance	80 pF/m
Max Operating Freq.	31 GHz
Screening Effectiveness	>90 dB
Dielectric Withstanding Voltage	1500 V DC
Phase Change vs Bending	± 0.3 °/GHz
Phase Change vs Temp.	≤ 750 PPM

3. MECHANICAL & ENVIRONMENTAL

Min. Bend Radius (Static)	24.0 mm
Min. Bend Radius (Dynamic)	48.0 mm
Cable Weight	0.055 kg/m
Operating Temp. Range	-55 °C to +165 °C

4. INDUSTRY CROSS-REFERENCE

Manufacturer	Reference Model
GORE	CXN3449

5. ATTENUATION & POWER HANDLING RATINGS

$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz \text{ (dB/100m)} \mid K1 = 0.75040, K2 = 0.00033$

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
300	0	1578
500	16.94	1220
1000	24.06	859
3000	42.09	491
6000	60.09	344
8000	69.74	296
10000	78.32	264
12400	87.63	236
18000	106.58	194
20000	112.68	183
26500	130.85	158
31000	142.35	145

PS500L-34G

High Frequency Low Loss Phase Stable Coaxial Cable

- Max Operating Frequency: 34 GHz
- Stranded Silver-Plated Copper Inner Conductor (19 / 0.204 mm)
- Low-Density PTFE (LD-PTFE) Insulation
- Double Shielding: Silver Plated Copper Strip + Wire Braid
- Screening Effectiveness: > 90 dB
- Outer Diameter: 5.00 mm (Blue TPU Jacket)



1. CONSTRUCTION & STRUCTURAL SPECIFICATIONS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	1.02
	Construction	19 / 0.204 mm	
Insulation	Material	LD-PTFE	3.00
Inner Shield	Material	Silver Plated Copper Strip	3.20
Outer Shield	Material	Silver Plated Copper Wire	3.72
Jacket	Material	Blue TPU	5.00

2. ELECTRICAL PERFORMANCE SPECIFICATIONS

Parameter	Standard Value
Impedance	50 Ω
Capacitance	88 pF/m
Velocity of Propagation	76%
Max Operating Frequency	34 GHz
Screening Effectiveness	> 90 dB
Dielectric Withstanding Voltage	1800 V DC

3. ATTENUATION & POWER HANDLING CHARACTERISTICS (@25°C & SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$		
Frequency (MHz)	Nominal Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
500	26.68	531
1000	38.47	368
2400	61.75	229
3000	69.84	203
6000	103.22	137
8000	121.90	116
10000	138.96	102
12400	157.94	90
18000	198.03	72
20000	211.34	67
26500	252.07	56

PS510L-29G-F

Flexible Low Loss Phase Stable Coaxial Cable (29GHz, Solid Conductor)

- Solid Inner Conductor:** 1.45mm Solid SPC for lowest insertion loss and structural consistency.
- Frequency Range:** DC to 29.0 GHz with 50 Ohm nominal impedance.
- LD-PTFE Dielectric:** Microporous PTFE dielectric achieving 83% velocity of propagation.
- Dual Shielding & FEP Jacket:** Silver-plated copper tape + braid shielding (>90 dB) with Gray FEP jacket.



Direct Drop-in Replacement Compatibility: The **PS510L-29G-F** is functionally and dimensionally equivalent to industry-standard 5.10mm (0.200") low-loss phase-stable coaxial cables including **IW 1501 / SF142** equivalents.

1. PHYSICAL & CONSTRUCTION SPECIFICATIONS

Construction Element	Material Specification	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Solid Silver Plated Copper (SPC)	1 / 1.45	1.45
Insulation Dielectric	Low-Density PTFE (LD-PTFE)	-	3.85
Inner Shield	Silver Plated Copper Strip	Helical Wrap	4.05
Outer Shield	Silver Plated Copper Braid Wire	Coverage ≥ 90%	4.50
Outer Jacket	Fluorinated Ethylene Propylene (Gray FEP)	-	5.10

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification Value	Parameter	Specification Value
Min. Bend Radius (Static)	25.0 mm	Cable Weight	0.065 kg/m
Min. Bend Radius (Dynamic)	50.0 mm	Operating Temperature	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Parameter	Value	Parameter	Value
Impedance	50 Ω	Dielectric Withstanding Voltage	2000 V DC
Capacitance	80 pF/m	Phase Change vs. Bending	±0.2 °/GHz
Velocity of Propagation (VP)	83%	Phase Change vs. Temperature	≤ 750 PPM (-45~+85°C)
Max. Operating Frequency	29.0 GHz	Screening Effectiveness	> 90 dB

4. ATTENUATION & POWER HANDLING DATA

Frequency (MHz)	Nom. Attenuation (@25°C, Sea Level) (dB/100m)	Max. Power Handling (@40°C, Sea Level) (W)
300	14.80	1600
500	19.20	1230
1000	27.40	860
3000	48.50	490
6000	70.30	340
8000	82.10	290
10000	92.60	255
12400	104.10	228
18000	128.00	185
20000	135.80	175
26500	159.20	149
29000	167.80	140

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) | $K1 = 0.841200$, $K2 = 0.000850$

PS510LS-29G-F

Flexible Low Loss Phase Stable Coaxial Cable (29GHz, Stranded Conductor)

- Stranded Inner Conductor:** 19/0.29mm SPC for extended dynamic flex life.
- Frequency Range:** DC to 29.0 GHz with 50 Ohm nominal impedance.
- LD-PTFE Dielectric:** Microporous PTFE dielectric achieving 83% velocity of propagation.
- Dual Shielding & FEP Jacket:** Silver-plated copper tape + braid shielding (>90 dB) with Gray FEP jacket.



Direct Drop-in Replacement Compatibility: The **PS510LS-29G-F** is functionally and dimensionally equivalent to industry-standard high-frequency phase-stable cables including **33201 / SF142B** and equivalent **5.10mm (0.200") low-loss PTFE flexible coaxial cables**.

1. PHYSICAL & CONSTRUCTION SPECIFICATIONS

Construction Element	Material Specification	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Stranded Silver Plated Copper (SPC)	19 / 0.29	1.45
Insulation Dielectric	Low-Density PTFE (LD-PTFE)	-	3.85
Inner Shield	Silver Plated Copper Strip	Helical Wrap	4.05
Outer Shield	Silver Plated Copper Braid Wire	Coverage ≥ 90%	4.50
Outer Jacket	Fluorinated Ethylene Propylene (Gray FEP)	-	5.10

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification Value	Parameter	Specification Value
Min. Bend Radius (Static)	25.0 mm	Cable Weight	0.065 kg/m
Min. Bend Radius (Dynamic)	50.0 mm	Operating Temperature	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Parameter	Value	Parameter	Value
Impedance	50 Ω	Dielectric Withstanding Voltage	2000 V DC
Capacitance	80 pF/m	Phase Change vs. Bending	±0.3 °/GHz
Velocity of Propagation (VP)	83%	Phase Change vs. Temperature	≤ 750 PPM (-45~+85°C)
Max. Operating Frequency	29.0 GHz	Screening Effectiveness	> 90 dB

4. ATTENUATION & POWER HANDLING DATA

Frequency (MHz)	Nom. Attenuation (@25°C, Sea Level) (dB/100m)	Max. Power Handling (@40°C, Sea Level) (W)
300	15.20	1550
500	19.70	1190
1000	28.10	830
3000	49.80	470
6000	72.10	325
8000	84.20	278
10000	95.00	245
12400	106.80	218
18000	131.30	178
20000	139.30	168
26500	163.30	143
29000	172.10	135

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) | $K1 = 0.864210$, $K2 = 0.000875$

PS520L-25G-F

High Frequency Phase Stable Coaxial Cable



Product Overview: PS520L-25G-F is a 50 Ohm high-frequency microwave coaxial cable featuring LD-PTFE dielectric insulation and a blue FEP jacket. Designed for phase stability and low attenuation across frequencies up to 25 GHz.

- Frequency Range:** DC to 25 GHz
- Impedance:** 50 ± 1 Ω
- Velocity Ratio:** 76%
- Outer Jacket:** Thermal & Chemical Resistant Blue FEP
- Shielding:** > 90 dB screening effectiveness

1. Structure Characteristics

Layer	Item	Material	Nom. O.D. (mm)
Inner Conductor	1/1.45 mm Solid Wire	Silver Plated Copper	1.45
Insulation	Low Density Dielectric	LD-PTFE	4.25
Inner Shield	Helical Tape Wrap	Self-adhesive Aluminium Foil	4.32
Outer Shield	Outer Braid Wire	Silver Plated Copper Wire	4.75
Jacket	Protective Outer Layer	Blue FEP	5.20

2. Electrical & Mechanical Specifications

Electrical Parameter	Value	Mechanical / Env. Parameter	Value
Impedance	50 Ω	Min. Bending Radius (Static)	26.00 mm
Capacitance	88 pF/m	Min. Bending Radius (Dynamic)	53.00 mm
Velocity of Propagation	76%	Weight	0.054 kg/m
Shielding Effectiveness	> 90 dB	Operating Temperature	-55°C to +85°C
Dielectric Withstanding Voltage	2000 V DC	Max Operating Frequency	25 GHz

3. Attenuation & Power Handling Performance

Attenuation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 0.718000, K2 = 0.001088$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C & Sea Level)
500	16.60	1098
1000	23.79	766
2400	37.79	482
3000	42.59	428
6000	62.14	293
8000	72.92	250
10000	82.68	220
12400	93.44	195
18000	115.91	157
20000	123.30	148
25000	140.73	130

PS520L-28G-BF

High Frequency Low Loss Phase Stable Coaxial Cable

The PS520L-28G-BF is engineered for high-frequency microwave applications requiring ultra-low insertion loss and high phase stability up to 28 GHz. Constructed with a solid silver-plated copper conductor, LD-PTFE dielectric, and blue FEP jacket.



- **Frequency Range:** DC to 28 GHz
- **Inner Conductor:** Silver Plated Copper (1/1.29mm)
- **Dielectric:** Low-Density PTFE (Velocity of Propagation: 76%)
- **Phase Stability vs Flexure:** ±0.2 °/GHz
- **Thermal Phase Stability:** ≤ 1500 PPM (-45°C to +85°C)
- **Shielding Effectiveness:** > 90 dB

1. STRUCTURAL CONSTRUCTION SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 1.29 mm	1.29
Insulation	LD-PTFE (Low-Density PTFE)	--	3.85
Inner Shield	Silver Plated Copper Strip Tape	--	4.05
Interlayer	LD-PTFE Tape	--	4.35
Outer Shield	Silver Plated Copper Wire Braid	--	4.75
Outer Jacket	Blue FEP	--	5.20

2. ELECTRICAL, MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Electrical Property	Value	Mechanical / Environmental	Value
Impedance	50 Ω	Min. Static Bend Radius	18.40 mm
Capacitance	88 pF/m	Min. Dynamic Bend Radius	46.00 mm
Velocity of Propagation	76%	Cable Weight	0.067 kg/m
Max Operating Frequency	28 GHz	Operating Temperature	-55°C to +165°C
Screening Effectiveness	> 90 dB	Phase Change VS Flexure	±0.2 °/GHz
Dielectric Voltage	1800 V DC	Phase Change VS Temp	≤ 1500 PPM

3. ATTENUATION & POWER HANDLING PERFORMANCE (@ SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/100m] Constants: K1 = 0.770610 K2 = 0.000590

Frequency (MHz)	Nom. Attenuation (@25°C) [dB/100m]	Max. Power Handling (@40°C) [W]
500	17.53	1066
1000	24.96	749
2000	35.64	524
3000	43.98	425
6000	63.23	295
8000	73.65	254
10000	82.96	225
12000	91.50	204
18000	114.01	164
26500	141.08	132
28000	145.47	128

Cross-Reference / Replacement: HUBER+SUHNER SUCOFLEX104 (Form-Fit-Function Equivalent)

PS520LS-25G-F

High-Flexibility Stranded Low Loss Coaxial Cable (50 Ω / DC–25 GHz)

Key Features



- **19/0.29 Stranded Inner Conductor** for High Flex Fatigue Life
- Broadband Performance: DC to 25 GHz
- Low Density PTFE (LD-PTFE) for High Velocity of Propagation (83%)
- Double Shielding System (Al-Foil + SPC Braid) with > 90 dB Screening
- Compact 5.20 mm Blue FEP Outer Jacket (-55°C to +85°C)

1. Construction & Dimension Specifications

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	19 / 0.29 (Stranded)	1.45
Insulation	LD-PTFE (Low Density PTFE)	Low-Loss Wrapped Tape	4.20
Inner Shield	Self-adhesive Aluminium Foil	Helical Wrap	4.28
Outer Shield	Silver Plated Copper Wire Braid	High-Coverage Woven Braid	4.73
Jacket	Blue FEP	High Temperature Extruded	5.20

2. Electrical Performance

Impedance	50 ± 1.5 Ω
Capacitance	88 pF/m
Velocity of Propagation	83%
Max Frequency	25 GHz
Screening Effectiveness	> 90 dB
Dielectric Voltage	2000 V@DC

3. Mechanical Performance

Conductor Style	19-Strand High-Flex Core
Min. Bend Radius (Single)	25 mm
Min. Bend Radius (Repeated)	50 mm
Operating Temp. Range	-55°C to +85°C

4. Attenuation & Power Handling Ratings (@40°C & Sea Level)

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W)	Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W)
300	17.74	1158	8000	98.67	208
500	23.02	891	10000	111.40	184
1000	32.88	624	12400	125.71	163
2000	47.13	435	15000	140.00	146
3000	58.31	352	18000	155.45	132
6000	84.40	243	25000	186.14	110

Insertion Loss Formula: IL (dB/100m) = K1 * √(F_MHz) + K2 * F_MHz | **K1 = 1.005200, K2 = 0.001088**

PS540L-26.5G-F

Flexible Low Loss Phase Stable Coaxial Cable (26.5GHz, Solid Conductor)

- Solid Inner Conductor:** 1/1.60mm SPC for maximum performance and low loss.
- Frequency Range:** DC to 26.5 GHz with 50 Ohm impedance.
- LD-PTFE Dielectric:** Low density PTFE dielectric achieving 83% velocity of propagation.
- Dual Shielding & FEP Jacket:** Silver-plated copper tape + braid shielding (>90 dB) encased in a Gray FEP jacket.



Direct Drop-in Replacement Compatibility: The **PS540L-26.5G-F** is functionally and dimensionally equivalent to industry-standard high-frequency phase-stable cables including **IW 1501 / Semflex HP190** and equivalent **5.40mm (0.213") low-loss PTFE flexible coaxial cables**.

1. PHYSICAL & CONSTRUCTION SPECIFICATIONS

Construction Element	Material Specification	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Solid Silver Plated Copper (SPC)	1 / 1.60	1.60
Insulation Dielectric	Low-Density PTFE (LD-PTFE)	-	4.35
Inner Shield	Silver Plated Copper Strip	Helical Wrap	4.55
Outer Shield	Silver Plated Copper Braid Wire	Coverage ≥ 90%	4.95
Outer Jacket	Fluorinated Ethylene Propylene (Gray FEP)	-	5.40

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification Value	Parameter	Specification Value
Min. Bend Radius (Static)	27.0 mm	Cable Weight	0.075 kg/m
Min. Bend Radius (Dynamic)	54.0 mm	Operating Temperature	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Parameter	Value	Parameter	Value
Impedance	50 Ω	Dielectric Withstanding Voltage	2000 V DC
Capacitance	80 pF/m	Phase Change vs. Bending	±0.3 °/GHz
Velocity of Propagation (VP)	83%	Phase Change vs. Temperature	≤ 750 PPM (-45~+85°C)
Max. Operating Frequency	26.5 GHz	Screening Effectiveness	> 90 dB

4. ATTENUATION & POWER HANDLING DATA

Frequency (MHz)	Nom. Attenuation (@25°C, Sea Level) (dB/100m)	Max. Power Handling (@40°C, Sea Level) (W)
300	13.72	1780
500	17.80	1372
1000	25.40	962
3000	44.98	543
6000	64.96	376
8000	75.84	322
10000	85.60	285
12400	96.29	254
18000	118.37	206
20000	125.57	195
26500	147.21	166

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) | $K1 = 0.779036$, $K2 = 0.000770$

PS540LS-26.5G-F

Flexible Low Loss Phase Stable Coaxial Cable (26.5GHz, Stranded Conductor)

- Stranded Inner Conductor:** 19/0.32mm SPC for extreme flexibility and long bend endurance.
- Frequency Range:** DC to 26.5 GHz with 50 Ohm impedance.
- LD-PTFE Dielectric:** Low loss construction with 83% velocity of propagation.
- Dual Shielding & FEP Jacket:** SPC tape + braid (>90 dB) encased in a durable Gray FEP jacket.



1. PHYSICAL & CONSTRUCTION SPECIFICATIONS

Construction Element	Material Specification	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Stranded Silver Plated Copper (SPC)	19 / 0.32	1.60
Insulation Dielectric	Low-Density PTFE (LD-PTFE)	-	4.35
Inner Shield	Silver Plated Copper Strip	Helical Wrap	4.55
Outer Shield	Silver Plated Copper Braid Wire	Coverage ≥ 90%	4.95
Outer Jacket	Fluorinated Ethylene Propylene (Gray FEP)	-	5.40

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification Value	Parameter	Specification Value
Min. Bend Radius (Static)	27.0 mm	Cable Weight	0.075 kg/m
Min. Bend Radius (Dynamic)	54.0 mm	Operating Temperature	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Parameter	Value	Parameter	Value
Impedance	50 Ω	Dielectric Withstanding Voltage	2000 V DC
Capacitance	80 pF/m	Phase Change vs. Bending	±0.3 °/GHz
Velocity of Propagation (VP)	83%	Phase Change vs. Temperature	≤ 750 PPM (-45~+85°C)
Max. Operating Frequency	26.5 GHz	Screening Effectiveness	> 90 dB

4. ATTENUATION & POWER HANDLING DATA

Frequency (MHz)	Nom. Attenuation (@25°C, Sea Level) (dB/100m)	Max. Power Handling (@40°C, Sea Level) (W)
300	13.72	1780
500	17.80	1372
1000	25.40	962
3000	44.98	543
6000	64.96	376
8000	75.84	322
10000	85.60	285
12400	96.29	254
18000	118.37	206
20000	125.57	195
26500	147.21	166

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) | $K1 = 0.779036$, $K2 = 0.000770$

PS600L-25G

High Frequency Low Loss Phase Stable Coaxial Cable

- Maximum Operating Frequency: 25 GHz
- Velocity of Propagation: 76% (LD-PTFE Dielectric)
- High Power Handling Performance
- Screening Effectiveness: >90 dB
- Nominal Outer Diameter: 6.00 mm (Blue TPU Jacket)



1. CABLE CONSTRUCTION & STRUCTURAL SPECIFICATIONS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	1.45
	Construction	19/0.29 mm	
Insulation	Material	LD-PTFE	4.25
Inner Shield	Material	Silver Plated Copper Strip	4.45
Outer Shield	Material	Silver Plated Copper Wire	4.85
Jacket	Material	Blue TPU	6.00

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	76%	Max Operating Frequency	25 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	2000 V@DC
Phase Change vs. Bending	±0.3 °/GHz	Phase Change vs. Temp (-45~+85°C)	≤ 1500 PPM

3. ATTENUATION & POWER HANDLING (@25°C & SEA LEVEL)

Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$
Constants: $K1 = 0.880600$ $K2 = 0.000900$

Frequency (MHz)	Attenuation (dB/100m)	Power Handling (W)
500	20.14	829
1000	28.75	581
2400	45.30	369
3000	50.93	328
6000	73.61	227
8000	85.96	194
10000	97.06	172
12400	109.22	153
15000	121.35	138
18000	134.34	124
20000	142.54	117

4. MECHANICAL & ENVIRONMENTAL PERFORMANCE

Property	Value / Requirement
Min Bending Radius (Static)	24.00 mm
Min Bending Radius (Dynamic)	48.00 mm
Weight	0.072 kg/m
Operating Temperature Range	-55 ~ +85 °C

PS610L-23G-F

High Frequency Low Loss Phase Stable Coaxial Cable (23GHz, FEP)

- Frequency Range:** DC to 23 GHz with 50 Ohm impedance.
- Low Loss Dielectric:** Low-Density PTFE (LD-PTFE) with 83% VP.
- Phase Stability:** Phase change vs. bending ± 0.3 °/GHz and temp. ≤ 750 PPM.
- Dual Shielding & FEP Outer Jacket:** SPC Strip + SPC Braid (>90 dB) with Gray FEP jacket.



1. PHYSICAL & CONSTRUCTION SPECIFICATIONS

Construction Element	Material Specification	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 1.78	1.78
Insulation Dielectric	Low-Density PTFE (LD-PTFE)	-	4.85
Inner Shield	Silver Plated Copper Strip	Helical Wrap	5.05
Outer Shield	Silver Plated Copper Braid Wire	Coverage $\geq 90\%$	5.55
Outer Jacket	Fluorinated Ethylene Propylene (Gray FEP)	-	6.10

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification Value	Parameter	Specification Value
Min. Bend Radius (Static)	25.5 mm	Cable Weight	0.098 kg/m
Min. Bend Radius (Dynamic)	51.0 mm	Operating Temperature	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Parameter	Value	Parameter	Value
Impedance	50 Ω	Dielectric Withstanding Voltage	2000 V DC
Capacitance	80 pF/m	Phase Change vs. Bending	± 0.3 °/GHz
Velocity of Propagation (VP)	83%	Phase Change vs. Temperature	≤ 750 PPM (-45~+85°C)
Max. Operating Frequency	23 GHz	Screening Effectiveness	> 90 dB

4. ATTENUATION & POWER HANDLING DATA

Frequency (MHz)	Nom. Attenuation (@25°C, Sea Level) (dB/100m)	Max. Power Handling (@40°C, Sea Level) (W)
300	9.87	2348
500	12.84	1805
1000	18.42	1258
3000	33.02	702
6000	48.24	481
8000	56.64	409
10000	64.25	361
12400	72.65	319
18000	90.22	257
20000	96.00	241
23000	104.31	222

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) | $K1 = 0.554832$, $K2 = 0.000877$

Cross Reference Replacement: Direct alternative to SFCFK-50-5-53.

PS700L-19G
19GHz Phase Stable Coaxial Cable



Cross Reference: Direct Replacement for Tflex-401

PS700L-19G is a high-reliability 50 Ohm flexible microwave cable designed for phase-critical applications. Features double silver-plated copper shields (>90 dB effectiveness) and solid PTFE dielectric.

1. Structural Specifications

Layer	Material	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1.63
Dielectric	Solid PTFE	5.45
Inner Shield	Silver Plated Copper Strip	5.65
Outer Shield	Silver Plated Copper Wire Braid	6.15
Jacket	FEP	7.00

2. Mechanical & Environmental Performance

Parameter	Value	Unit
Min. Bending Radius (Static)	35.0	mm
Min. Bending Radius (Dynamic)	70.0	mm
Weight	0.140	kg/m
Operating Temperature	-55 to +125	°C

3. Electrical Characteristics

Parameter	Value	Unit
Impedance	50	Ω
Capacitance	94	pF/m
Velocity of Propagation	70	%
Max Operating Frequency	19	GHz
Screening Effectiveness	> 90	dB
Dielectric Withstanding Voltage	3000	V DC
Phase Change vs Bending	±0.3	°/GHz

4. Attenuation & Power Handling (@25°C Sea Level)

Attenuation Formula: $IL \text{ (dB/100m)} = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | **K1:** 0.688976, **K2:** 0.003937

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
300	13.11	1598
500	17.37	1598
1000	25.72	1079
2000	38.69	718
3000	49.55	560
6000	76.99	361
8000	93.12	298
10000	108.27	256
12400	125.54	221
15000	143.44	194
18000	163.30	170

PS740L-20G-F

High Frequency Low Loss Phase Stable Coaxial Cable (20GHz, FEP)

- Frequency Range:** DC to 20 GHz with 50 Ohm impedance.
- Ultra-Low Loss Dielectric:** Low-Density PTFE (LD-PTFE) with 83% VP.
- Phase Stability:** Excellent phase vs. bending (± 0.3 °/GHz) and temperature (≤ 750 PPM).
- Dual Shielding & FEP Jacket:** Silver-plated copper strip + braid (>90 dB efficiency) with Gray FEP outer jacket.



1. PHYSICAL & CONSTRUCTION SPECIFICATIONS

Construction Element	Material Specification	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 2.10	2.10
Insulation Dielectric	Low-Density PTFE (LD-PTFE)	-	5.75
Inner Shield	Silver Plated Copper Strip	Helical Wrap	6.07
Outer Shield	Silver Plated Copper Braid Wire	Coverage $\geq 90\%$	6.60
Outer Jacket	Fluorinated Ethylene Propylene (Gray FEP)	-	7.40

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification Value	Parameter	Specification Value
Min. Bend Radius (Static)	25.5 mm	Cable Weight	0.116 kg/m
Min. Bend Radius (Dynamic)	51.0 mm	Operating Temperature	-55 °C to +165 °C

3. ELECTRICAL PERFORMANCE PARAMETERS

Parameter	Value	Parameter	Value
Impedance	50 Ω	Dielectric Withstanding Voltage	2100 V DC
Capacitance	80 pF/m	Phase Stability vs. Bending	± 0.3 °/GHz
Velocity of Propagation (VP)	83%	Phase Stability vs. Temperature	≤ 750 PPM (-45~+85°C)
Max. Operating Frequency	20 GHz	Screening Effectiveness	> 90 dB

4. ATTENUATION & POWER HANDLING DATA

Frequency (MHz)	Nom. Attenuation (@25°C, Sea Level) (dB/100m)	Max. Power Handling (@40°C, Sea Level) (W)
300	9.15	3185
500	11.82	2465
1000	16.75	1740
2000	23.74	1227
3000	29.14	1000
6000	41.39	704
8000	47.90	608
10000	53.67	543
12400	59.89	486
18000	72.48	402
20000	76.51	381

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) | $K1 = 0.526279$, $K2 = 0.000104$

Cross Reference Replacement: Compatible alternative to GORE CXN3450.

PS760L-18G-BF

Low Loss Phase Stable Coaxial Cable (50 Ω / DC–18 GHz)

Key Features



- Broadband Performance: DC to 18 GHz
- Low Density PTFE (LD-PTFE) for High Velocity of Propagation (83%)
- Double Shielding Structure with High Screening Effectiveness (>90 dB)
- Durable Blue FEP Outer Jacket with 7.60 mm Outer Diameter
- Wide Operating Temperature Range: -55°C to +165°C

1. Construction & Dimension Specifications

Layer	Material	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (1/2.30)	2.30
Insulation	LD-PTFE (Low Density PTFE)	6.25
Inner Shield	Self-adhesive Aluminium Foil	6.33
Outer Shield	Silver Plated Copper Wire Braid	6.84
Jacket	Blue FEP	7.60

2. Electrical Performance

Impedance	50 ± 1.5 Ω
Capacitance	88 pF/m
Velocity of Propagation	83%
Max Frequency	18 GHz
Screening Effectiveness	> 90 dB
Dielectric Withstanding Voltage	3000 V@DC

3. Mechanical Performance

Min. Bend Radius (Single)	38 mm
Min. Bend Radius (Repeated)	76 mm
Operating Temp. Range	-55°C to +165°C

4. Attenuation & Power Handling Ratings (@40°C & Sea Level)

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W)	Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W)
300	8.03	2669	8000	47.25	453
500	10.47	2669	10000	53.78	398
1000	15.07	1422	12400	61.02	351
2000	21.83	982	15000	68.34	314
3000	27.23	787	18000	76.27	281
6000	40.09	535	--	--	--

Insertion Loss Formula: IL (dB/100m) = K1 * √(F_MHz) + K2 * F_MHz | K1 = 0.448000, K2 = 0.000898

PS760LS-18G-F

Stranded Conductor RF Coaxial Cable Datasheet



Key Performance Features

- **Stranded 19/0.48mm SPC Conductor:** High flexibility and excellent flex endurance.
- **LD-PTFE Dielectric:** High velocity of propagation (83%) and ultra-low insertion loss.
- **Dual Shielding:** Self-adhesive aluminium foil + silver-plated copper braid (>90 dB shielding).
- **Durable FEP Jacket:** Rugged protection suitable for demanding industrial and aerospace environments.

1. CABLE CONSTRUCTION & DIMENSIONS

Construction Layer	Material Selection	Construction Details	Nom. O.D. (mm)
Inner Conductor	Stranded Silver Plated Copper	19 / 0.48 mm (Stranded)	2.40
Insulation	Low Density PTFE (LD-PTFE)	—	6.35
Inner Shield	Self-adhesive Aluminium Foil	—	6.43
Outer Shield	Silver Plated Copper Braid	—	6.94
Jacket	Blue FEP	—	7.60

2. ELECTRICAL PARAMETERS

Impedance	50 Ω
Capacitance	88 pF/m
Velocity of Prop.	83%
Max Operating Freq.	18 GHz
Screening Effect.	>90 dB
Withstanding Volts	3000 V DC

3. MECHANICAL & ENVIRONMENTAL

Static Min. Bend Radius	40.00 mm
Dynamic Min. Bend Radius	80.00 mm
Weight	0.134 kg/m
Operating Temp. Range	-55 ~ +85 °C

Insertion Loss (IL) Formula:
 $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (K1 = 0.537309, K2 = 0.000958)

4. ATTENUATION & POWER HANDLING PERFORMANCE MATRIX

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
300	9.59	2141
500	12.49	2141
1000	17.95	1144
2400	28.62	718
3000	32.30	636
6000	47.36	434
8000	55.72	369
10000	63.31	324
12400	71.71	286
15000	80.17	256
18000	89.32	230

PS780L-18G-F

High Frequency Low Loss Phase Stable Coaxial Cable

- **Max Frequency:** 18 GHz
- **Velocity of Propagation:** 83%
- **Phase Stability vs Flexing:** ±0.3°/GHz
- **Construction:** Solid Conductor + Dual Shielding
- **Cross Reference:** Direct equivalent to UFB311A



STRUCTURE & CONSTRUCTION SPECIFICATIONS

Structure Layer	Material	Construction	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 2.30 mm (Solid)	2.30
Insulation	LD-PTFE	-	6.30
Inner Shield	Silver Plated Copper Strip	Helical Wrap	6.60
Outer Shield	Silver Plated Copper Wire	Braid	7.15
Jacket	Gray FEP	-	7.80

ELECTRICAL CHARACTERISTICS

Impedance	50 Ohm	Max Frequency	18 GHz
Velocity of Propagation	83%	Screening Effectiveness	> 90 dB
Capacitance	80 pF/m	Dielectric Withstanding Voltage	2500 V DC
Phase Change vs Bending	±0.3 °/GHz	Phase Change vs Temp (-45~+85°C)	≤ 750 PPM

ATTENUATION & POWER HANDLING PERFORMANCE

$$IL = K1 * \text{sqrt}(F_MHz) + K2 * F_MHz \text{ (dB/100m)} \mid K1 = 0.45630, K2 = 0.00032$$

Freq (MHz)	Att. (dB/100m @ 25°C)	Power (W @ 40°C)	Freq (MHz)	Att. (dB/100m @ 25°C)	Power (W @ 40°C)
500	10.36	2580	8000	43.37	616
1000	14.75	1813	10000	48.83	548
2000	21.05	1270	12000	53.83	497
3000	25.95	1030	16000	62.84	425
4000	30.14	887	18000	66.98	399
6000	37.26	717	-	-	-

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Min. Bending Radius (Static)	39.0 mm	Weight	0.130 kg/m
Min. Bending Radius (Dynamic)	78.0 mm	Operating Temp Range	-55 to +165 °C

PS780LS-18G-F

High Flexibility Phase Stable Coaxial Cable

- **Max Frequency:** 18 GHz
- **Conductor:** 19/0.48 mm Stranded Silver-Plated Copper
- **Velocity of Propagation:** 83%
- **Phase Stability vs Flexing:** ±0.3°/GHz
- **Cross Reference:** Direct equivalent to UFB293C / HF290S



780 Series Selection Note: PS780LS-18G-F (Stranded conductor, High flex) | PS780L-18G-F (Solid conductor, Lower attenuation) | PS780L-18G-A (Triple shield foil, High EMI immunity)

STRUCTURE & CONSTRUCTION SPECIFICATIONS

Structure Layer	Material	Construction	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	19 / 0.48 mm (Stranded)	2.40
Insulation	LD-PTFE	-	6.30
Inner Shield	Silver Plated Copper Strip	Helical Wrap	6.60
Outer Shield	Silver Plated Copper Wire	Braid	7.15
Jacket	Gray FEP	-	7.80

ELECTRICAL CHARACTERISTICS

Impedance	50 Ohm	Max Frequency	18 GHz
Velocity of Propagation	83%	Screening Effectiveness	> 90 dB
Capacitance	80 pF/m	Dielectric Withstanding Voltage	2500 V DC
Phase Change vs Bending	±0.3 °/GHz	Phase Change vs Temp (-45~+85°C)	≤ 750 PPM

ATTENUATION & POWER HANDLING PERFORMANCE

$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz \text{ (dB/100m)}$ | $K1 = 0.51830, K2 = 0.00032$

Freq (MHz)	Att. (dB/100m @ 25°C)	Power (W @ 40°C)	Freq (MHz)	Att. (dB/100m @ 25°C)	Power (W @ 40°C)
500	11.75	2269	8000	48.91	542
1000	16.71	1594	10000	55.03	482
2000	23.82	1117	12000	60.64	437
3000	29.35	906	16000	70.62	374
4000	34.07	780	18000	75.30	351
6000	42.08	631	-	-	-

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Min. Bending Radius (Static)	39.0 mm	Weight	0.130 kg/m
Min. Bending Radius (Dynamic)	78.0 mm	Operating Temp Range	-55 to +165 °C

Replacement Notice: Form, fit, and function equivalent to UFB293C and HF290S.

PS800L-18G

High Frequency Low Loss Phase Stable Coaxial Cable

- Maximum Operating Frequency: 18 GHz
- Velocity of Propagation: 76% (LD-PTFE Dielectric)
- High Power Handling Performance
- Screening Effectiveness: >90 dB
- Nominal Outer Diameter: 8.00 mm (Blue TPU Jacket)



1. CABLE CONSTRUCTION & STRUCTURAL SPECIFICATIONS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	1.88
	Construction	19/0.38 mm	
Insulation	Material	LD-PTFE	5.55
Inner Shield	Material	Silver Plated Copper Strip	5.75
Outer Shield	Material	Silver Plated Copper Wire	6.26
Jacket	Material	Blue TPU	8.00

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	76%	Max Operating Frequency	18 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	2500 V@DC
Phase Change vs. Bending	±0.3 °/GHz	Phase Change vs. Temp (-45~+85°C)	≤ 1500 PPM

3. ATTENUATION & POWER HANDLING (@25°C & SEA LEVEL)

Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$
Constants: $K1 = 0.517315$ $K2 = 0.001806$

Frequency (MHz)	Attenuation (dB/100m)	Power Handling (W)
300	9.50	1543 Model: PS800L-18G
500	12.47	1543
1000	18.16	807
2400	29.68	494
3000	33.75	434
6000	50.91	288
8000	60.72	241
10000	69.79	210
12400	80.00	183
15000	90.45	162
18000	101.91	144

4. MECHANICAL & ENVIRONMENTAL PERFORMANCE

Property	Value / Requirement
Min Bending Radius (Static)	30.00 mm
Min Bending Radius (Dynamic)	60.00 mm
Weight	0.114 kg/m
Operating Temperature Range	-55 ~ +85 °C

PS810L-18G-F

18GHz Low Loss Phase Stable Coaxial Cable (8.1mm)

The PS810L-18G-F is a 50 Ohm high-grade RF coaxial cable designed for stable microwave performance up to 18 GHz. Constructed with an LD-PTFE dielectric layer and silver-plated copper double shielding, it offers superior power handling, low attenuation, and high phase tracking.



- **Frequency Range:** DC to 18 GHz
- **Velocity of Propagation:** 83%
- **Screening Effectiveness:** > 90 dB
- **Withstanding Voltage:** 3000 V DC
- **Nominal Outer Diameter:** 8.10 mm

Structure & Mechanical Construction

Layer	Material	Nom. O.D. (mm)	Parameter	Specification Value
Inner Conductor	Silver Plated Copper (1/2.43mm)	2.43	Min. Bend Radius (Static)	40.5 mm
Insulation	LD-PTFE	6.60	Min. Bend Radius (Dynamic)	81.0 mm
Inner Shield	Silver Plated Copper Strip	6.90	Nominal Weight	0.146 kg/m
Outer Shield	Silver Plated Copper Braid	7.40	Operating Temp. Range	-55 °C to +165 °C
Jacket	Gray FEP	8.10		

Electrical Characteristics

Electrical Parameter	Standard Value	Electrical Parameter	Standard Value
Impedance	50 Ω	Capacitance	80 pF/m
Velocity Ratio	83%	Max Operating Frequency	18 GHz
Screening Effectiveness	> 90 dB	Dielectric Voltage	3000 V DC
Phase Change vs Bending	±0.3 °/GHz	Phase Change vs Temp.	≤ 750 PPM (-45~+85°C)

Attenuation & Power Handling (@ 25°C & Sea Level)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) $K1 = 0.40800, K2 = 0.00033$
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Frequency (MHz)	Nom. Attenuation (dB/100m)	Max. Power Handling (W @ 40°C)
300	7.17	3499
500	9.29	2699
1000	13.23	1895
2000	18.91	1326
3000	23.34	1074
6000	33.58	747
10000	44.10	569
12000	48.65	515
12400	49.52	506
15000	54.92	457
18000	60.68	413

PS850L-18G

High Frequency Low Loss Phase Stable Coaxial Cable

- Maximum Operating Frequency: 18 GHz
- Velocity of Propagation: 83% (LD-PTFE Dielectric)
- High Power Handling Performance
- Screening Effectiveness: >90 dB
- Nominal Outer Diameter: 8.50 mm (TPU Jacket)



1. CABLE CONSTRUCTION & STRUCTURAL SPECIFICATIONS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	2.39
	Construction	19/0.48 mm	
Insulation	Material	LD-PTFE	6.35
Inner Shield	Material	Silver Plated Copper Strip	6.67
Outer Shield	Material	Silver Plated Copper Wire	7.20
Jacket	Material	TPU	8.50

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Capacitance	80 pF/m
Velocity of Propagation	83%	Max Operating Frequency	18 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	3000 V@DC
Phase Change vs. Bending	±0.3 °@18GHz	Phase Change vs. Temp (-45~+85°C)	≤ 750 PPM

3. ATTENUATION & POWER HANDLING (@25°C & SEA LEVEL)

Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$
Constants: $K1 = 0.518199$ $K2 = 0.000544$

Frequency (MHz)	Attenuation (dB/100m)	Power Handling (W)
300	9.14	2048
500	11.86	2048
1000	16.93	1105
2400	26.69	701
3000	30.02	624
6000	43.40	431
8000	50.70	369
10000	57.26	327
12400	64.45	290
15000	71.63	261
18000	79.32	236

4. MECHANICAL & ENVIRONMENTAL PERFORMANCE

Property	Value / Requirement
Min Bending Radius (Static)	36.00 mm
Min Bending Radius (Dynamic)	85.00 mm
Weight	0.162 kg/m
Operating Temperature Range	-55 ~ +85 °C

PS1000L-12.4G-F

12.4GHz Low Loss Phase Stable Coaxial Cable (10mm)

The PS1000L-12.4G-F is a high-grade 50 Ohm RF coaxial cable engineered for stable microwave performance up to 12.4 GHz. Constructed with an LD-PTFE dielectric layer and silver-plated copper double shielding, it offers superior power handling, low attenuation, and high phase stability.



- Frequency Range:** DC to 12.4 GHz
- Velocity of Propagation:** 84%
- Screening Effectiveness:** > 90 dB
- Withstanding Voltage:** 4000 V DC
- Nominal Outer Diameter:** 10.00 mm

Structure & Mechanical Construction

Layer	Material	Nom. O.D. (mm)	Parameter	Specification Value
Inner Conductor	Silver Plated Copper (1/3.00mm)	3.00	Min. Bend Radius (Static)	50.0 mm
Insulation	LD-PTFE	8.24	Min. Bend Radius (Dynamic)	100.0 mm
Inner Shield	Silver Plated Copper Strip	8.56	Nominal Weight	0.206 kg/m
Outer Shield	Silver Plated Copper Braid	9.20	Operating Temp. Range	-55 °C to +165 °C
Jacket	Gray FEP	10.00		

Electrical Characteristics

Electrical Parameter	Standard Value	Electrical Parameter	Standard Value
Impedance	50 Ω	Capacitance	80 pF/m
Velocity Ratio	84%	Max Operating Frequency	12.4 GHz
Screening Effectiveness	> 90 dB	Dielectric Voltage	4000 V DC
Phase Change vs Bending	±0.3 °/GHz	Phase Change vs Temp.	≤ 750 PPM (-45~+85°C)

Attenuation & Power Handling (@ 25°C & Sea Level)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) $K1 = 0.31618, K2 = 0.00045$
--

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max. Power Handling (W @ 40°C)
300	5.61	4516
500	7.29	3474
1000	10.45	2426
2000	15.04	1685
3000	18.66	1358
4000	21.79	1163
5000	24.60	1030
6000	27.18	932
8000	31.86	795
10000	36.10	702
12400	40.76	622

PS1200L-10G-F

10GHz Low Loss Phase Stable Coaxial Cable (12mm)

The PS1200L-10G-F is a 50 Ohm large-diameter low-loss phase-stable coaxial cable rated up to 10 GHz. Designed with a high dielectric velocity of 84% and double shielding, it ensures maximum power handling capability and stable signal performance.



- **Frequency Range:** DC to 10 GHz
- **Velocity of Propagation:** 84%
- **Screening Effectiveness:** > 90 dB
- **Dielectric Withstand Voltage:** 5000 V DC
- **Outer Diameter:** 12.00 mm

Structure & Mechanical Construction

Layer	Material	Nom. O.D. (mm)	Parameter	Specification Value
Inner Conductor	Silver Plated Copper (1/3.80mm)	3.80	Min. Bend Radius (Static)	60.0 mm
Insulation	LD-PTFE	10.30	Min. Bend Radius (Dynamic)	120.0 mm
Inner Shield	Silver Plated Copper Strip	10.60	Nominal Weight	0.282 kg/m
Outer Shield	Silver Plated Copper Wire Braid	11.15	Operating Temp. Range	-55 °C to +165 °C
Jacket	Gray FEP	12.00		

Electrical Characteristics

Electrical Parameter	Standard Value	Electrical Parameter	Standard Value
Impedance	50 Ω	Capacitance	80 pF/m
Velocity Ratio	84%	Max Operating Frequency	10 GHz
Screening Effectiveness	> 90 dB	Dielectric Voltage	5000 V DC
Phase Change vs Bending	±0.3 °/GHz	Phase Change vs Temp.	≤ 750 PPM (-45~+85°C)

Attenuation & Power Handling (@ 25°C & Sea Level)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) $K1 = 0.298515, K2 = 0.000510$
--

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max. Power Handling (W @ 40°C)
300	5.32	5691
500	6.93	4372
1000	9.95	3045
2000	14.37	2108
3000	17.88	1694
4000	20.92	1448
5000	23.66	1281
6000	26.18	1157
7000	28.55	1061
8000	30.78	984
10000	34.95	867

PSE360L-40G-F

High Frequency Low Loss Phase Stable Cable (40 GHz)



Key Features & Capabilities:

- Operating Frequency: DC to 40 GHz with excellent VSWR performance.
- Low density ZF402 insulation providing 82% Velocity of Propagation.
- Triple shielding (>100 dB effectiveness) for maximum RF isolation.
- Excellent phase stability vs. bending (± 0.3 °/GHz) and temperature (≤ 450 PPM).
- Flexible, durable blue FEP jacket suitable for challenging environments (-55°C to +125°C).

1. STRUCTURE & MECHANICAL CONSTRUCTION

Item	Layer Element	Material Specification	Nom. O.D. (mm)
1	Inner Conductor	Silver Plated Copper (SPC) (1/0.93 mm)	0.93
2	Insulation	ZF402 Dielectric	2.55
3	Inner Shield	Silver Plated Copper Strip	2.72
4	Interlayer	High Temperature Aluminum Foil	2.85
5	Outer Shield	Silver Plated Copper Wire Braid	3.15
6	Jacket	Blue FEP	3.60

2. ELECTRICAL & ENVIRONMENTAL RATINGS

Impedance	50 Ω	Max Operating Frequency	40 GHz
Velocity of Propagation	82%	Capacitance	80 pF/m
Screening Effectiveness	>100 dB	Withstanding Voltage	2000 V DC
Phase Change vs. Bending	± 0.3 °/GHz	Phase Change vs. Temp.	≤ 450 PPM (-45~+85°C)
Min. Static Bend Radius	18.0 mm	Min. Dynamic Bend Radius	36.0 mm
Weight	0.033 kg/m	Operating Temperature	-55°C to +125°C

3. ATTENUATION & POWER HANDLING DATA

Calculation Formula: Insertion Loss IL = $K1 * \sqrt{(F_MHz)}$ + $K2 * F_MHz$ (K1 = 1.261948, K2 = 0.00175)

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max. Power Handling (W @ 40°C)
100	12.79	1617
500	29.09	711
3000	74.37	278
6000	108.25	191
8000	126.87	163
9000	135.47	153
10000	143.69	144
12000	159.24	130
18000	200.81	103
26500	251.81	82
40000	322.39	64

PSE360L-50G-F

50GHz Low Loss Phase Stable Coaxial Cable (FEP Jacket)

Key Features & Overview

- **Max Operating Frequency:** DC to 50 GHz.
- **Velocity of Propagation:** 76% (LD-PTFE Dielectric).
- **Phase Stability:** ±0.2 °/GHz vs Bending.
- **Shielding Effectiveness:** >90 dB (Strip + Braid Dual Shield).
- **Temperature Range:** -55°C to +165°C (Blue FEP Jacket).



Designed for high-frequency test interconnects, radar subsystems, and satellite communication equipment where low attenuation and phase stability are required.

Structural Properties

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.72	0.72
Insulation	LD-PTFE	-	2.15
Inner Shield	Silver Plated Copper Strip	-	2.35
Interlayer	LD-PTFE	-	2.65
Outer Shield	Silver Plated Copper Wire	-	3.05
Jacket	Blue FEP	-	3.60

Electrical Characteristics

Impedance	50 Ohm	Velocity of Propagation	76%
Max Operating Frequency	50 GHz	Capacitance	88 pF/m
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	1000 V DC
Phase Change vs Bending	±0.2 °/GHz	Phase Change vs Temp (-45~+85°C)	≤ 1500 PPM

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m)
Constants: K1 = 1.3707349, K2 = 0.00044

Mechanical & Environmental Properties

Min. Static Bending Radius	18.0 mm	Min. Dynamic Bending Radius	36.0 mm
Weight	0.033 kg/m	Operating Temperature	-55°C to +165°C

Attenuation & Power Handling (@ 25°C Sea Level)

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
300	23.87	885
500	30.87	684
1000	43.79	483
3000	76.40	277
6000	108.82	194
8000	126.12	168
10000	141.47	149
12400	158.09	134
18000	191.82	110
26500	234.80	90
40000	291.75	72
50000	328.51	64

Replaceable Type Cross-Reference: Direct equivalent to [HUBER+SUHNER](#) SUCOFLEX 101.

PSE400-40G-BF

40GHz High Frequency Phase Stable Coaxial Cable

TECHNICAL SPECIFICATION
Document No: SPEC-PSE400-40G-BF

Key Features & Overview

- Frequency Range:** DC to 40 GHz continuous operation.
- Phase Stability:** Excellent stability vs bending ($\pm 0.2^\circ/\text{GHz}$).
- Dielectric System:** Micro-porous LD-PTFE offering 76% VoP.
- Triple Shielding:** >90 dB screening effectiveness up to 40 GHz.
- Jacket Material:** High-reliability Blue FEP (-55°C to $+165^\circ\text{C}$).



Designed for critical RF interconnects, microwave test equipment, and radar subsystems requiring minimal insertion loss and strict phase tracking.

Structural Properties

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.91	0.91
Insulation	LD-PTFE (Low Density PTFE)	-	2.70
Inner Shield	Silver Plated Copper Strip	-	2.90
Interlayer	LD-PTFE	-	3.15
Outer Shield	Silver Plated Copper Wire Braid	-	3.56
Jacket	Blue FEP	-	4.00

Electrical Characteristics

Impedance	50 Ohm	Velocity of Propagation	76%
Max Operating Frequency	40 GHz	Capacitance	88 pF/m
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	1200 V DC
Phase Change vs Bending	$\pm 0.2^\circ/\text{GHz}$	Phase Change vs Temp (-45°C ~ $+85^\circ\text{C}$)	≤ 1500 PPM

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m)
Constants: $K1 = 1.232579$, $K2 = 0.000462$

Mechanical & Environmental Properties

Min. Static Bending Radius	16.00 mm	Min. Dynamic Bending Radius	38.00 mm
Weight	0.039 kg/m	Operating Temperature	-55°C to $+165^\circ\text{C}$

Attenuation & Power Handling (@ 25°C Sea Level)

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
500	27.79	728
1000	39.44	513
2000	56.05	361
3000	68.90	294
6000	98.25	206
8000	113.94	178
10000	127.88	158
12400	142.98	142
18000	173.68	116
26500	212.89	95
40000	265.00	76

Replaceable Type Cross-Reference: Direct mechanical and electrical equivalent to [HUBER+SUHNER](#) SUCOFLEX 102.

PSE460L-31G-BF

High Frequency Low Loss Phase Stable Coaxial Cable

The PSE460L-31G-BF is engineered for high-frequency microwave applications requiring ultra-low insertion loss and high phase stability up to 31 GHz. Constructed with a solid silver-plated copper conductor, LD-PTFE dielectric, and blue FEP jacket.



- **Frequency Range:** DC to 31 GHz
- **Inner Conductor:** Silver Plated Copper (1/1.02mm)
- **Dielectric:** Low-Density PTFE (Velocity of Propagation: 76%)
- **Phase Stability vs Flexure:** ±0.2 °/GHz
- **Thermal Phase Stability:** ≤ 1500 PPM (-45°C to +85°C)
- **Shielding Effectiveness:** > 90 dB

1. STRUCTURAL CONSTRUCTION SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 1.02 mm	1.02
Insulation	LD-PTFE (Low-Density PTFE)	--	3.07
Inner Shield	Silver Plated Copper Strip Tape	--	3.27
Interlayer	LD-PTFE Tape	--	3.54
Outer Shield	Silver Plated Copper Wire Braid	--	3.94
Outer Jacket	Blue FEP	--	4.60

2. ELECTRICAL, MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Electrical Property	Value	Mechanical / Environmental	Value
Impedance	50 Ω	Min. Static Bend Radius	18.40 mm
Capacitance	88 pF/m	Min. Dynamic Bend Radius	46.00 mm
Velocity of Propagation	76%	Cable Weight	0.051 kg/m
Max Operating Frequency	31 GHz	Operating Temperature	-55°C to +165°C
Screening Effectiveness	> 90 dB	Phase Change VS Flexure	±0.2 °/GHz
Dielectric Voltage	1500 V DC	Phase Change VS Temp	≤ 1500 PPM

3. ATTENUATION & POWER HANDLING PERFORMANCE (@ SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/100m] Constants: K1 = 1.015556 K2 = 0.000598

Frequency (MHz)	Nom. Attenuation (@25°C) [dB/100m]	Max. Power Handling (@40°C) [W]
500	23.01	801
1000	32.71	563
2000	46.61	395
3000	57.42	321
6000	82.26	224
8000	95.62	193
10000	107.54	171
12400	120.51	153
18000	147.02	125
26500	181.18	102
31000	197.36	93

Cross-Reference / Replacement: HUBER+SUHNER SUCOFLEX103 (Form-Fit-Function Equivalent)

PSE510L-26.5G-F

High-reliability flexible RF coaxial cable featuring a unique LD-PTFE dielectric interlayer for enhanced mechanical durability and stable electrical length up to 26.5 GHz.



- **LD-PTFE Interlayer:** Cushions inner and outer shield layers to maximize dynamic flex life.
- **Phase Stability:** Phase shift limited to ± 0.3 °/GHz during flexure.
- **Dual Shielding:** Silver-plated copper tape + braid provides >90 dB shielding effectiveness.
- **FEP Jacket:** Durable 5.10mm outer sheath rated for -55°C to +165°C environments.

1. CONSTRUCTION & DIMENSION SPECIFICATIONS

Layer	Component Description	Material	Nom. O.D. (mm)
1. Inner Conductor	Center Conductor (1/1.40mm)	Silver Plated Copper	1.40
2. Insulation	Primary Dielectric Core	LD-PTFE	3.75
3. Inner Shield	Helical Tape Shield	Silver Plated Copper Strip	3.95
4. Interlayer	Isolation Layer	LD-PTFE	4.25
5. Outer Shield	Braided Shield	Silver Plated Copper Wire	4.65
6. Jacket	Protective Outer Sheath	Gray FEP	5.10

2. ELECTRICAL PARAMETERS

Impedance	50 Ω
Velocity of Propagation	83%
Capacitance	80 pF/m
Max Operating Freq.	26.5 GHz
Screening Effectiveness	>90 dB
Dielectric Withstanding Voltage	1000 V DC
Phase Change vs Bending	± 0.3 °/GHz
Phase Change vs Temp.	≤ 750 PPM

3. MECHANICAL & ENVIRONMENTAL

Min. Bend Radius (Static)	24.0 mm
Min. Bend Radius (Dynamic)	48.0 mm
Cable Weight	0.056 kg/m
Operating Temp. Range	-55 °C to +165 °C

4. INDUSTRY CROSS-REFERENCE

Manufacturer	Reference Model
GORE	CXN3449
IW / Times / H+S	1801 / HF190 / Sucoflex103

5. ATTENUATION & POWER HANDLING RATINGS

$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz \text{ (dB/100m)} \mid K1 = 0.75040, K2 = 0.00033$

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
300	13.1	1325
500	16.94	1024
1000	24.06	721
3000	42.09	412
6000	60.09	289
8000	69.74	249
10000	78.32	222
12400	87.63	198
18000	106.58	163
26500	130.85	133
30000	139.81	124

PSE560LS-25G-F

Stranded Conductor Low Loss Phase Stable Coaxial Cable

The PSE560LS-25G-F is engineered for high-frequency microwave applications requiring maximum flexural life and phase stability up to 25 GHz. Built with a 19/0.29mm stranded inner conductor, LD-PTFE dielectric, and FEP outer jacket.



- **Frequency Range:** DC to 25 GHz
- **Inner Conductor:** Stranded Silver Plated Copper (19/0.29mm)
- **Dielectric:** Low-Density PTFE (Velocity of Propagation: 76%)
- **Phase Stability vs Flexure:** ±0.3 °/GHz
- **Thermal Phase Stability:** ≤ 1500 PPM (-45°C to +85°C)
- **Shielding Effectiveness:** > 90 dB

1. STRUCTURAL CONSTRUCTION SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (Stranded)	19 / 0.29 mm	1.45
Insulation	LD-PTFE (Low-Density PTFE)	--	4.25
Inner Shield	Silver Plated Copper Strip Tape	--	4.45
Interlayer	LD-PTFE Tape	--	4.75
Outer Shield	Silver Plated Copper Wire Braid	--	5.15
Outer Jacket	Blue FEP	--	5.60

2. ELECTRICAL, MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Electrical Property	Value	Mechanical / Environmental	Value
Impedance	50 Ω	Min. Static Bend Radius	24.00 mm
Capacitance	88 pF/m	Min. Dynamic Bend Radius	48.00 mm
Velocity of Propagation	76%	Cable Weight	0.072 kg/m
Max Operating Frequency	25 GHz	Operating Temperature	-55°C to +85°C
Screening Effectiveness	> 90 dB	Phase Change VS Flexure	±0.3 °/GHz
Dielectric Voltage	2000 V DC	Phase Change VS Temp	≤ 1500 PPM

3. ATTENUATION & POWER HANDLING PERFORMANCE (@ SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/100m] Constants: K1 = 0.880600 K2 = 0.000900

Frequency (MHz)	Nom. Attenuation (@25°C) [dB/100m]	Max. Power Handling (@40°C) [W]
500	20.14	1046
1000	28.75	733
2400	45.30	465
3000	50.93	414
6000	73.61	286
8000	85.96	245
10000	97.06	217
12400	109.22	193
15000	121.35	174
18000	134.34	157
20000	142.54	148

Cross-Reference / Replacement: Form-fit equivalent to high-flex 0.220" O.D. 25GHz phase-stable RF assemblies.

PSE760L-18G-BF

High Frequency Low Loss Phase Stable Coaxial Cable

The PSE760L-18G-BF is engineered for microwave signal transmission requiring ultra-low insertion loss and high phase stability. Built with an expanded LD-PTFE dielectric and multi-layer shielding, it ensures low phase deviation under dynamic dynamic bending and thermal stress up to 18 GHz.



- **Frequency Range:** DC to 18 GHz
- **Dielectric:** Low-Density PTFE (Velocity of Propagation: 78%)
- **Phase Stability vs Flexure:** ± 0.2 °/GHz
- **Thermal Phase Stability:** ≤ 1500 PPM (-45°C to +85°C)
- **Shielding Effectiveness:** > 90 dB

1. STRUCTURAL CONSTRUCTION SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 2.10 mm	2.10
Insulation	LD-PTFE (Low-Density PTFE)	--	6.10
Inner Shield	Silver Plated Copper Strip Tape	--	6.30
Interlayer	LD-PTFE Tape	--	6.60
Outer Shield	Silver Plated Copper Wire Braid	--	7.13
Outer Jacket	Blue FEP	--	7.60

2. ELECTRICAL, MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Electrical Property	Value	Mechanical / Environmental	Value
Impedance	50 Ω	Min. Static Bend Radius	38.00 mm
Capacitance	88 pF/m	Min. Dynamic Bend Radius	76.00 mm
Velocity of Propagation	78%	Cable Weight	0.121 kg/m
Max Operating Frequency	18 GHz	Operating Temperature	-55°C to +165°C
Screening Effectiveness	> 90 dB	Phase Change VS Flexure	± 0.2 °/GHz
Dielectric Voltage	2500 V DC	Phase Change VS Temp	≤ 1500 PPM

3. ATTENUATION & POWER HANDLING PERFORMANCE (@ SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \text{sqrt}(F_MHz) + K2 * F_MHz$ [dB/100m] Constants: $K1 = 0.512582$ $K2 = 0.000591$

Frequency (MHz)	Nom. Attenuation (@25°C) [dB/100m]	Max. Power Handling (@40°C) [W]
500	11.76	2805
1000	16.80	1963
3000	29.85	1105
4000	34.78	948
6000	43.25	763
8000	50.57	652
10000	57.17	577
12000	63.24	521
14000	68.92	478
16000	74.29	444
18000	79.41	415

Cross-Reference / Replacement: HUBER+SUHNER SUCOFLEX106 (Form-Fit-Function Equivalent)

PSE780L-18G-F

Enhanced Triple Shielded Phase Stable Coaxial Cable

- **Max Frequency:** 18 GHz
- **Shielding:** Triple Shielded (Tape + Foil + Braid)
- **Velocity of Propagation:** 83%
- **Screening Effectiveness:** > 95 dB
- **Cross Reference:** Direct equivalent to MAXGAIN-300



780 Series Selection Note: **PSE780L-18G-F** (Triple shield foil, Enhanced EMI immunity) | **PS780L-18G-F** (Solid conductor, Standard low loss) | **PS780LS-18G-F** (Stranded conductor, High flexibility)

STRUCTURE & CONSTRUCTION SPECIFICATIONS

Structure Layer	Material	Construction	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 2.30 mm (Solid)	2.30
Insulation	LD-PTFE	-	6.30
Inner Shield	Silver Plated Copper Strip	Helical Wrap	6.60
Middle Shield	High Heat Aluminum Foil	Wrap	6.70
Outer Shield	Silver Plated Copper Wire	Braid	7.25
Jacket	Light Blue FEP	-	7.90

ELECTRICAL CHARACTERISTICS

Impedance	50 Ohm	Max Frequency	18 GHz
Velocity of Propagation	83%	Screening Effectiveness	> 95 dB
Capacitance	80 pF/m	Dielectric Withstanding Voltage	2500 V DC
Phase Change vs Bending	±0.3 °/GHz	Phase Change vs Temp (-45~+85°C)	≤ 750 PPM

ATTENUATION & POWER HANDLING PERFORMANCE

$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz \text{ (dB/100m)}$ | $K1 = 0.45630, K2 = 0.00032$

Freq (MHz)	Att. (dB/100m @ 25°C)	Power (W @ 40°C)	Freq (MHz)	Att. (dB/100m @ 25°C)	Power (W @ 40°C)
500	10.36	2580	8000	43.37	616
1000	14.75	1813	10000	48.83	548
2000	21.05	1270	12000	53.83	497
3000	25.95	1030	16000	62.84	425
4000	30.14	887	18000	66.98	399
6000	37.26	717	-	-	-

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Min. Bending Radius (Static)	40.0 mm	Weight	0.135 kg/m
Min. Bending Radius (Dynamic)	80.0 mm	Operating Temp Range	-55 to +165 °C

Replacement Notice: Enhanced form, fit, and function equivalent to MAXGAIN-300.

PS160L-110G-F

110GHz Micro Flexible Phase Stable Coaxial Cable

- **Max Frequency:** DC to 110 GHz
- **Impedance:** 50 Ω nominal
- **Phase Stability:** ±0.3 °/GHz vs Bending
- **Shielding Effectiveness:** > 90 dB
- **Cross Reference:** TFlex-402



1. CONSTRUCTION & PHYSICAL DIMENSIONS

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.30	0.30
Insulation	Solid PTFE	-	0.97
Inner Shield	Silver Plated Copper Strip	-	1.12
Outer Shield	Silver Plated Copper Wire Braid	-	1.32
Jacket	Blue FEP	-	1.60

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bend Radius (Static)	10.0 mm	Operating Temp. Range	-55 °C to +125 °C
Min. Bend Radius (Dynamic)	20.0 mm	Nominal Weight	0.010 kg/m

3. ELECTRICAL CHARACTERISTICS

Impedance	50 Ω	Velocity of Propagation	70%
Max Operating Frequency	110 GHz	Capacitance	94 pF/m
Shielding Effectiveness	> 90 dB	Withstanding Voltage	500 V DC
Phase Change vs Bending	±0.3 °/GHz		

4. HIGH FREQUENCY ATTENUATION & POWER HANDLING

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ $K1 = 3.327431, K2 = 0.005315$
--

Frequency (MHz)	Attenuation (dB/100m @ 25°C)	Power Handling (W @ 40°C)
500	77.08	123
1000	110.53	86
3000	198.19	48
6000	289.47	33
10000	385.90	25
16000	505.78	19
18000	542.14	17
26500	683.73	14
40000	883.18	11
50000	1010.53	9
67000	1208.57	8
110000	1688.08	5

PS260L-61G-F

61GHz Low Loss Phase Stable Flexible Coaxial Cable

- **Max Frequency:** DC to 61 GHz
- **Impedance:** 50 Ω nominal
- **Phase Stability:** ±0.3 °/GHz vs Bending
- **Shielding Effectiveness:** > 90 dB
- **Cross Reference:** TFlex-405



1. CONSTRUCTION & PHYSICAL DIMENSIONS

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.53	0.53
Insulation	Solid PTFE	-	1.68
Inner Shield	Silver Plated Copper Strip	-	1.88
Outer Shield	Silver Plated Copper Wire Braid	-	2.20
Jacket	Blue FEP	-	2.60

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bend Radius (Static)	20.0 mm	Operating Temp. Range	-55 °C to +125 °C
Min. Bend Radius (Dynamic)	40.0 mm	Nominal Weight	0.022 kg/m

3. ELECTRICAL CHARACTERISTICS

Impedance	50 Ω	Velocity of Propagation	70%
Max Operating Frequency	61 GHz	Capacitance	94 pF/m
Shielding Effectiveness	> 90 dB	Withstanding Voltage	1000 V DC
Phase Change vs Bending	±0.3 °/GHz		

4. HIGH FREQUENCY ATTENUATION & POWER HANDLING

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ $K1 = 1.860236, K2 = 0.003937$
--

Frequency (MHz)	Attenuation (dB/100m @ 25°C)	Power Handling (W @ 40°C)
300	33.40	376
500	43.56	288
1000	62.76	200
3000	113.70	110
6000	167.72	75
10000	225.39	56
16000	298.30	42
18000	320.44	39
26500	407.15	31
40000	529.53	24
50000	612.81	20

PS400L-34G-F

34GHz Low Loss Phase Stable Coaxial Cable

- **Frequency Range:** DC to 34 GHz
- **Impedance:** 50 Ω nominal
- **Phase Stability:** ±0.3 °/GHz vs Bending
- **Shielding Effectiveness:** > 90 dB
- **Direct Equivalent:** Tflex-402



1. CONSTRUCTION & PHYSICAL DIMENSIONS

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.93	0.93
Insulation	Solid PTFE	-	3.00
Inner Shield	Silver Plated Copper Strip	-	3.20
Outer Shield	Silver Plated Copper Wire Braid	-	3.51
Jacket	Blue FEP	-	4.00

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bend Radius (Static)	20.0 mm	Operating Temp. Range	-55 °C to +125 °C
Min. Bend Radius (Dynamic)	40.0 mm	Nominal Weight	0.041 kg/m

3. ELECTRICAL CHARACTERISTICS

Impedance	50 Ω	Velocity of Propagation	70%
Max Operating Frequency	34 GHz	Capacitance	94 pF/m
Shielding Effectiveness	> 90 dB	Withstanding Voltage	1500 V DC
Phase Change vs Bending	±0.3 °/GHz		

4. HIGH FREQUENCY ATTENUATION & POWER HANDLING

Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ $K1 = 1.082677, K2 = 0.003337$

Frequency (MHz)	Attenuation (dB/100m @ 25°C)	Power Handling (W @ 40°C)
500	25.88	772
1000	37.57	532
2000	55.09	363
4000	81.82	244
6000	103.89	192
8000	123.53	162
10000	141.64	141
12400	161.94	123
16000	190.34	105
18000	205.32	97
26500	264.68	75

PSE400L-34G-F

34GHz High Precision Phase Stable Coaxial Cable

- Frequency Range: DC to 34 GHz
- Phase Stability: $\pm 0.2^\circ/\text{GHz}$ vs Bending
- Amplitude Stability: $\pm 0.03\text{ dB @ }8\text{GHz}$
- Special Layer: LD-PTFE Interlayer
- Shielding Effectiveness: $> 90\text{ dB}$



1. CONSTRUCTION & PHYSICAL DIMENSIONS

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.93	0.93
Insulation	Solid PTFE	-	3.00
Inner Shield	Silver Plated Copper Strip	-	3.20
Interlayer	LD-PTFE	-	3.50
Outer Shield	Silver Plated Copper Wire Braid	-	3.85
Jacket	Blue FEP	-	4.20

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bend Radius (Static)	21.0 mm	Operating Temp. Range	-55 °C to +125 °C
Min. Bend Radius (Dynamic)	42.0 mm	Nominal Weight	0.041 kg/m

3. ELECTRICAL CHARACTERISTICS

Impedance	50 Ω	Velocity of Propagation	70%
Max Operating Frequency	34 GHz	Capacitance	94 pF/m
Shielding Effectiveness	$> 90\text{ dB}$	Withstanding Voltage	1500 V DC
Phase Change vs Bending	$\pm 0.2^\circ/\text{GHz}$	Amplitude Stability	$\pm 0.03\text{ dB @ }8\text{GHz}$

4. HIGH FREQUENCY ATTENUATION & POWER HANDLING

Insertion Loss Formula: $IL = K1 * \text{sqrt}(F_MHz) + K2 * F_MHz$ $K1 = 1.082677, K2 = 0.003337$
--

Frequency (MHz)	Attenuation (dB/100m @ 25°C)	Power Handling (W @ 40°C)
500	25.88	772
1000	37.57	532
2000	55.09	363
4000	81.82	244
6000	103.89	192
8000	123.53	162
10000	141.64	141
12400	161.94	123
16000	190.34	105
18000	205.32	97
26500	264.68	75

PSE400L-34G-P

34GHz Ruggedized TPU Phase Stable Coaxial Cable

- Frequency Range:** DC to 34 GHz
- Jacket Material:** Heavy-Duty Blue TPU (5.00mm O.D.)
- Interlayer:** Cushioning LD-PTFE Layer
- Phase Stability:** ± 0.3 °/GHz vs Bending
- Screening Effectiveness:** > 90 dB



1. CONSTRUCTION & PHYSICAL DIMENSIONS

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.93	0.93
Insulation	Solid PTFE	-	3.00
Inner Shield	Silver Plated Copper Strip	-	3.20
Interlayer	LD-PTFE	-	3.50
Outer Shield	Silver Plated Copper Wire Braid	-	3.85
Jacket	Blue TPU	-	5.00

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bend Radius (Static)	20.0 mm	Operating Temp. Range	-55 °C to +85 °C
Min. Bend Radius (Dynamic)	40.0 mm	Nominal Weight	0.041 kg/m

3. ELECTRICAL CHARACTERISTICS

Impedance	50 Ω	Velocity of Propagation	70%
Max Operating Frequency	34 GHz	Capacitance	94 pF/m
Shielding Effectiveness	> 90 dB	Withstanding Voltage	1500 V DC
Phase Change vs Bending	± 0.3 °/GHz		

4. HIGH FREQUENCY ATTENUATION & POWER HANDLING

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ $K1 = 1.082677, K2 = 0.003337$
--

Frequency (MHz)	Attenuation (dB/100m @ 25°C)	Power Handling (W @ 40°C)
500	25.88	772
1000	37.57	532
2000	55.09	363
4000	81.82	244
6000	103.89	192
8000	123.53	162
10000	141.64	141
12400	161.94	123
16000	190.34	105
18000	205.32	97
26500	264.68	75

TECHNICAL SPECIFICATION

Document No: SPEC-PS400L-40G-P
Product Line: High Frequency Coaxial Cables

PS400L-40G-P

Flexible Low Loss Phase Stable Coaxial Cable (40GHz / 50 Ohm)



Max Frequency: 40 GHz
Phase vs Bending: ± 0.3 °/GHz

Velocity of Prop.: 83%
Outer Jacket: Black PUR

1. Structural Construction

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 0.91	0.91
Insulation	Low Density PTFE (LD-PTFE)	-	2.50
Inner Shield	Flat Silver Plated Copper Wrapped Strip	-	2.66
Outer Shield	Round Silver Plated Copper Braided Wire	-	3.11
Jacket	Black Polyurethane (PUR)	-	4.00

2. Electrical Characteristics

Impedance	50 Ω	Capacitance	80 pF/m
Max Operating Frequency	40 GHz	Velocity of Propagation	83 %
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	1000 V DC
Phase Stability vs Bending	± 0.3 °/GHz	Phase Stability vs Temp (-45~+85°C)	≤ 750 PPM

3. Mechanical & Environmental Specifications

Min. Bending Radius (Static)	16.0 mm	Operating Temperature	-55 °C to +165 °C
Min. Bending Radius (Dynamic)	36.0 mm	Nominal Weight	0.032 kg/m

4. Attenuation & Power Handling Characteristics

Attenuation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ $K1 = 1.16847$, $K2 = 0.00055$		
Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
500	26.40	725
1000	37.50	510
3000	65.65	292
4000	76.10	252
6000	93.81	204
8000	108.91	176
10000	122.35	156
12400	136.94	140
18000	166.67	115
26500	204.79	93
40000	255.69	75

TECHNICAL SPECIFICATION

Document No: SPEC-PS450L-40G-P
Product Line: High Frequency Coaxial Cables

PS450L-40G-P

Flexible Low Loss Phase Stable Coaxial Cable (40GHz / 50 Ohm)



Max Frequency: 40 GHz
Phase vs Bending: ± 0.3 °/GHz

Velocity of Prop.: 83%
Outer Jacket: Black TPU

1. Structural Construction

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 0.96	0.96
Insulation	Low Density PTFE (LD-PTFE)	-	2.65
Inner Shield	Silver Plated Copper Strip	-	2.85
Outer Shield	Silver Plated Copper Wire Braid	-	3.35
Jacket	Black Thermoplastic Polyurethane (TPU)	-	4.50

2. Electrical Characteristics

Impedance	50 Ω	Capacitance	80 pF/m
Max Operating Frequency	40 GHz	Velocity of Propagation	83 %
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	1000 V DC
Phase Stability vs Bending	± 0.3 °/GHz	Phase Stability vs Temp (-45~+85°C)	≤ 750 PPM

3. Mechanical & Environmental Specifications

Min. Bending Radius (Static)	19.0 mm	Operating Temperature	-55 °C to +85 °C
Min. Bending Radius (Dynamic)	38.0 mm	Nominal Weight	0.033 kg/m

4. Attenuation & Power Handling Characteristics

Attenuation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ $K1 = 0.986836837$, $K2 = 0.000547893$		
Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
500	22.34	783
1000	31.75	551
3000	55.69	314
6000	79.73	219
8000	92.65	189
10000	104.16	168
12000	114.68	153
16000	133.59	131
18000	142.26	123
26500	175.16	100
40000	219.28	80



PS460L-32G-F

Flexible Low Loss Phase Stable Coaxial Cable (32GHz / 50 Ohm)

Max Frequency: 32 GHz
Phase vs Bending: ±0.3 °/GHz

Velocity of Prop.: 83%
Outer Jacket: Gray FEP

1. Structural Construction

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 1.29	1.29
Insulation	Low Density PTFE (LD-PTFE)	-	3.55
Inner Shield	Silver Plated Copper Strip	-	3.75
Outer Shield	Silver Plated Copper Wire Braid	-	4.15
Jacket	Gray Fluorinated Ethylene Propylene (FEP)	-	4.60

2. Electrical Characteristics

Impedance	50 Ω	Capacitance	80 pF/m
Max Operating Frequency	32 GHz	Velocity of Propagation	83 %
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	1500 V DC
Phase Stability vs Bending	±0.3 °/GHz	Phase Stability vs Temp (-45~+85°C)	≤ 750 PPM

3. Mechanical & Environmental Specifications

Min. Bending Radius (Static)	23.0 mm	Operating Temperature	-55 °C to +165 °C
Min. Bending Radius (Dynamic)	46.0 mm	Nominal Weight	0.048 kg/m
Replaceable Type Equivalent	IW 1801		

4. Attenuation & Power Handling Characteristics

Attenuation Formula: IL = K1 * sqrt(F_MHz) + K2 * F_MHz K1 = 0.81650, K2 = 0.00088		
Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
300	14.41	1446
500	18.70	1114
1000	26.70	780
3000	47.35	440
6000	68.51	304
8000	80.04	260
10000	90.42	230
12400	101.79	205
18000	125.32	166
26500	156.15	133
32000	174.11	120

PS360L-61G-FP

61GHz Ultra Low Loss Phase Stable Coaxial Cable

- Frequency Range: DC to 61 GHz
- Inner Conductor: Stranded Silver-Plated Copper (7 / 0.24 mm)
- Dielectric: Low-Density PTFE (76% VOP)
- Double Shielding: Silver Plated Copper Strip + Wire Braid (>90 dB)
- Outer Diameter: 3.60 mm (FEP/TPU Jacket)



1. CABLE CONSTRUCTION & MATERIALS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	0.72
	Construction	7 / 0.24 mm	
Insulation	Material	LD-PTFE	2.05
Inner Shield	Material	Silver Plated Copper Strip	2.25
Outer Shield	Material	Silver Plated Copper Wire	2.66
Jacket	Material	FEP / TPU (Blue)	3.60

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Max Operating Frequency	61 GHz
Velocity of Propagation	76%	Capacitance	87 pF/m
Screening Effectiveness	> 90 dB	Withstanding Voltage	1200 V DC
Phase Stability (Flexure @ 61GHz)	± 6°	Phase Stability (Temp -55 to +125°C)	≤ 1000 ppm

3. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Min. Bend Radius (Static)	18 mm	Min. Bend Radius (Dynamic)	36 mm
Weight	32 g/m	Operating Temperature	-55°C to +125°C

4. ATTENUATION & POWER HANDLING (@25°C & SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.4820, K2 = 0.0035$

Frequency (GHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
0.5	0.35	34.9	320
1.0	0.50	50.4	222
2.4	0.81	81.1	138
5.0	1.22	122.4	91
10.0	1.83	183.2	61
18.0	2.62	262.1	43
26.5	3.31	331.0	34
40.0	4.34	433.8	26
50.0	5.02	502.1	22
61.0	5.73	572.8	19

PS520L-28G-F

Phase Stable Low Loss Coaxial Cable (28 GHz)

High-performance flexible coaxial cable featuring LD-PTFE dielectric, triple shielding, and a Light Blue FEP jacket. Cross-reference compatible with SFT205 series.

Max Frequency: 28.0 GHz

Nom. O.D.: 5.20 mm

Impedance: 50 Ω

Cross Ref: SFT205



STRUCTURE & MATERIALS

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1/1.29	1.29
Insulation	LD-PTFE	-	3.91
Inner Shield	Silver Plated Copper Strip	-	4.12
Interlayer	High Temperature Aluminium Foil	-	4.26
Outer Shield	Silver Plated Copper Wire	-	4.78
Jacket	Light Blue FEP	-	5.20

ELECTRICAL SPECS

Impedance	50 Ω
Velocity of Prop.	76%
Capacitance	88 pF/m
Screening Effect.	> 90 dB
Max Frequency	28 GHz
Withstanding Volt.	1800 V DC
Phase vs Bending	±0.2° / GHz
Phase vs Temp.	≤ 1500 PPM

MECHANICAL SPECS

Min. Bend Radius (Static)	18.40 mm
Min. Bend Radius (Dynamic)	46.00 mm
Weight	0.060 kg/m
Operating Temp.	-55 to +200 °C

ATTENUATION & POWER HANDLING (@25°C SEA LEVEL)

Attenuation Calculation Formula: $IL = K1 \cdot \sqrt{F_MHz} + K2 \cdot F_MHz$ | $K1 = 0.856234, K2 = 0.0005906$

Freq. (MHz)	Nom. Attenuation (dB/100m)	Max Power (W @ 40°C)	Freq. (MHz)	Nom. Attenuation (dB/100m)	Max Power (W @ 40°C)
500	19.44	1065	10000	91.53	226
1000	27.67	749	12400	102.67	202
2400	43.36	478	18000	125.51	165
3000	48.67	426	20000	132.90	156
6000	69.87	296	26500	155.04	134
8000	81.31	255	-	-	-

PS520L-28G-P

Phase Stable Low Loss Coaxial Cable (28 GHz)

Precision flexible coaxial cable featuring LD-PTFE dielectric and triple-shielding architecture. Designed for microwave communications, test equipment, and phase-critical RF systems requiring stable performance across wide operating temperatures.

Max Frequency: 28.0 GHz

Impedance: 50 Ω

Phase vs Flexure: ±0.2° / GHz

Shielding: > 90 dB



STRUCTURE & MATERIALS

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 1.29	1.29
Insulation	LD-PTFE	-	3.91
Inner Shield	Silver Plated Copper Strip	-	4.12
Interlayer	High Temp Aluminum Foil	-	4.26
Outer Shield	Silver Plated Copper Braid	-	4.78
Jacket	Black TPU	-	6.00

ELECTRICAL SPECS

Impedance	50 Ω
Velocity of Prop.	76%
Capacitance	88 pF/m
Shielding Effect.	> 90 dB
Max Frequency	28 GHz
Withstanding Volt.	1800 V DC
Phase vs Temp.	≤ 1500 PPM

MECHANICAL SPECS

Min. Bend (Static)	18.00 mm
Min. Bend (Dynamic)	36.00 mm
Weight	0.060 kg/m
Operating Temp.	-55 to +200 °C

ATTENUATION & POWER HANDLING (@25°C SEA LEVEL)

Attenuation Calculation Formula: $IL = K1 \cdot \sqrt{F_MHz} + K2 \cdot F_MHz$ | $K1 = 0.856234, K2 = 0.0005906$

Freq. (MHz)	Nom. Attenuation (dB/100m)	Max Power (W @ 40°C)	Freq. (MHz)	Nom. Attenuation (dB/100m)	Max Power (W @ 40°C)
500	19.44	1065	10000	91.53	226
1000	27.67	749	12400	102.67	202
2400	43.36	478	18000	125.51	165
3000	48.67	426	20000	132.90	156
6000	69.87	296	26500	155.04	134
8000	81.31	255	-	-	-

PSE460L-31G-F

High Frequency Low Loss Phase Stable Coaxial Cable

- **Frequency Range:** DC to 31 GHz
- **Dielectric:** Low Density PTFE (LD-PTFE)
- **Velocity of Propagation:** 76%
- **Phase Stability vs Bend:** $\pm 0.2^\circ$ / GHz
- **Screening Effectiveness:** > 90 dB



1. CONSTRUCTION & MECHANICAL SPECIFICATIONS

Construction Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 1.02 mm	1.02
Insulation	LD-PTFE	-	3.07
Inner Shield	Silver Plated Copper Strip	-	3.27
Interlayer	High Temperature Aluminum Foil	-	3.41
Outer Shield	Silver Plated Copper Braid	-	3.92
Jacket	Light Blue FEP	-	4.60

Min. Bending Radius (Static)	18.40 mm	Min. Bending Radius (Dynamic)	46.00 mm
Cable Weight	0.050 kg/m	Operating Temp. Range	-55°C to +200°C

2. ELECTRICAL CHARACTERISTICS

Impedance	50 Ω	Max Operating Frequency	31 GHz
Velocity of Propagation	76%	Capacitance	88 pF/m
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	1500 V DC
Phase Change vs. Bending	$\pm 0.2^\circ$ / GHz	Phase Change vs. Temp (-45~+85°C)	≤ 1500 PPM

3. ATTENUATION & POWER HANDLING (@ 25°C SEA LEVEL)

Attenuation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (K1=1.0994853, K2=0.0005906)

Frequency (MHz)	Attenuation (dB/100m)	Power Handling (W @ 40°C)
500	24.88	742
1000	35.36	522
2400	55.28	334
3000	61.99	298
6000	88.71	208
8000	103.07	179
10000	115.85	159
12400	129.76	142
18000	158.14	117
26500	194.63	95
31000	211.89	87

4. INDUSTRY CROSS REFERENCE

Replaceable Type: Standard SFT-142 coaxial cable equivalent.