

## NextPhase™ Low Loss System Cable - Series 9

Lowest Loss For System Connections – Airborne • High Performance



### NextPhase™ Typical Insertion Loss<sub>dB</sub> = (Attenuation)(Length) + 2(Connector Loss)

Frequency		Attenuation												Conn. Loss dB	SWR
GHz	Band	912		916		919		930		945		950			
		dB/ft	dB/m	dB/ft	dB/m	dB/ft	dB/m	dB/ft	dB/m	dB/ft	dB/m	dB/ft	dB/m		
0.450	VHF	0.10	0.34	0.08	0.26	0.05	0.17	0.03	0.11	0.02	0.08	0.02	0.07	0.01	1.05:1
0.900	UHF	0.15	0.49	0.11	0.38	0.07	0.24	0.05	0.16	0.03	0.12	0.03	0.11	0.02	1.12:1
1.000	L	0.16	0.52	0.12	0.40	0.08	0.26	0.06	0.17	0.04	0.12	0.04	0.11	0.02	
2.000	S	0.23	0.75	0.17	0.57	0.11	0.37	0.08	0.24	0.06	0.18	0.05	0.17	0.03	
3.000		0.28	0.92	0.21	0.70	0.14	0.46	0.09	0.31	0.07	0.23	0.06	0.21	0.04	1.25:1
6.000	C	0.41	1.34	0.31	1.01	0.21	0.67	0.14	0.45	0.11	0.35	0.10	0.32	0.06	
12.000	Ku	0.60	1.96	0.45	1.47	0.30	0.98	0.21	0.69	0.16	0.53			0.08	1.35:1
18.000		0.75	2.47	0.56	1.85	0.38	1.24	0.27	0.88					0.11	
24.000	K	0.89	2.91	0.66	2.17	0.45	1.47							0.14	1.45:1
30.000	Ka	1.02	3.32	0.75	2.46									0.16	
40.000			1.20	3.93	0.89	2.91									0.25

### NextPhase™ Electrical Data

	912	916	919	930	945	950
Maximum Frequency	40 GHz	40 GHz	28 GHz	18 GHz	12 GHz	10 GHz
Impedance	50 Ω nom.	50 Ω nom.	50 Ω nom.	50 Ω nom.	50 Ω nom.	50 Ω nom.
Propagation Velocity	75.5% nom.	76.0% nom.	76.5% nom.	77.0% nom.	78.0% nom.	78.0% nom.
Time Delay	1.35 ns/ft (4.43 ns/m)	1.34 ns/ft (4.40 ns/m)	1.33 ns/ft (4.36 ns/m)	1.32 ns/ft (4.33 ns/m)	1.31 ns/ft (4.30 ns/m)	1.31 ns/ft (4.30 ns/m)
Capacitance	27.0 pF/ft (88.6 pF/m)	26.9 pF/ft (88.3 pF/m)	26.7 pF/ft (87.6 pF/m)	26.2 pF/ft (85.9 pF/m)	26.0 pF/ft (85.2 pF/m)	26.0 pF/ft (85.2 pF/m)
Shielding Effectiveness	< -90 dB minimum		< -90 dB minimum		< -90 dB minimum	
Temperature Phase Stability	25 PPM	25 PPM	25 PPM	25 PPM	25 PPM	25 PPM
Voltage Breakdown	> 5 kV	> 7 kV	> 10 kV	> 15 kV	> 20 kV	> 20 kV

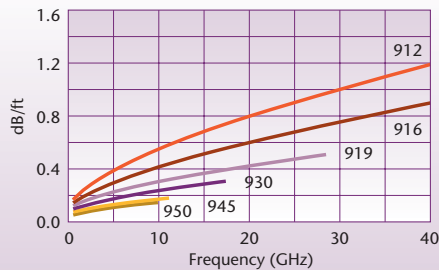
### NextPhase™ Mechanical Data

	912	916	919	930	945	950
Outer Conductor Diameter	0.126 in (3.20 mm)	0.160 in (4.06 mm)	0.190 in (4.83 mm)	0.305 in (7.75 mm)	0.450 in (11.43 mm)	0.500 in (12.70 mm)
Bend Radius	0.600 in (15.24 mm)	0.900 in (22.86 mm)	1.100 in (27.94 mm)	1.800 in (45.72 mm)	2.500 in (63.50 mm)	2.750 in (69.85 mm)
Operating Temperature Range	-85 to 392°F (-65 to +200°C)			-85 to 392°F (-65 to +200°C)		
Unjacketed Weight	0.02 lbs/ft (0.03 kg/m)	0.04 lbs/ft (0.06 kg/m)	0.05 lbs/ft (0.07 kg/m)	0.09 lbs/ft (0.13 kg/m)	0.20 lbs/ft (0.30 kg/m)	0.24 lbs/ft (0.36 kg/m)
Maximum Assembly Length	150 ft (45.72 m)	150 ft (45.72 m)	150 ft (45.72 m)	150 ft (45.72 m)	150 ft (45.72 m)	150 ft (45.72 m)
Flexibility Rating – Highest = 5.0	5.0	5.0	4.0	3.0	3.0	2.5

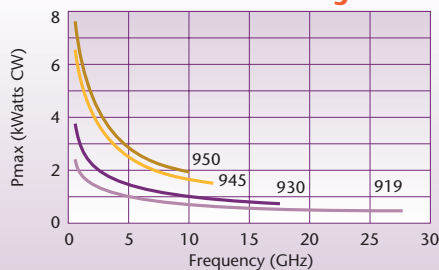
### NextPhase™ Cable Construction

	912	916	919	930	945	950
Inner Conductor	Solid Ag-plated Cu		Solid Ag-plated Cu		Stranded Ag-plated Cu	
Dielectric	PTFE Tape	PTFE Tape	PTFE Tape	PTFE Tape	PTFE Tape	PTFE Tape
Outer Conductor	Flat Braid / Foil Laminate / Round Braid			Flat Braid / Foil Laminate / Round Braid		
Outer Jacket (Standard)	FEP - G	FEP - G	FEP - G	FEP - G	FEP - G	FEP - G

### Cable Attenuation @ STP



### Cable CW Power Handling @ STP



### Standard Connectors

**912:** 1.85mm, 2.4mm, 2.92mm, 3.5mm, SMA

**916:** 2.4mm, 2.92mm, 3.5mm, SMA, Type N

**919:** 3.5mm, 7mm, SMA, TNC, Type N

**930:** 7mm, SMA, TNC, Type N

**945 & 950:** TNC, Type N

Other connectors available upon request.