

# SITELINE™

## SiteLine™ Armored Test Cables to 50 GHz

### SiteLine Armored Test Cables

- Phase & Amplitude Stable
- Crush Proof 250 lbs/in (.46 kg/cm)
- Field and High Impact Production
- Rugged Armor
- Severe Environment
- Flight Line Testing

MegaPhase's SiteLine™ test cable assemblies are protected by a super-rugged armor designed for severe environments, such as flightline, outdoor antenna testing, and demanding production environments. This "gorilla proof" cable endures torque, twist, and crush forces better than any cable on the market, period. Ideal for use with FieldFox®, SiteMaster™, and Site Analyzer®.



### Electrical Data

**Maximum Frequency:**  
50 GHz

**Impedance:**  
50 Ω nominal

**Propagation Velocity:**  
SL 32 - 69% nominal  
SL 50 - 80% nominal

**Time Delay:**  
SL 32 - 1.47 ns/ft (4.82 ns/m)  
SL 50 - 1.27 ns/ft (4.167 ns/m)

**Shielding Effectiveness:**  
-115 dB minimum (cable only)

**Dielectric Withstanding Voltage:**  
SL 32 - 10 kV at 60 Hz  
SL 50 - 1.2 kV at 60 Hz

**Capacitance:**  
SL 32 - 29.0 pF/ft (95.1 pF/m)  
SL 50 - 25.4 pF/ft (83.3 pF/m)

### Mechanical Data

**Finished Outer Diameter:**  
0.5 in (1.27 cm)

**Static Bend Radius:**  
3.0 in (7.62 cm)

**Weight with Standard Jacket/Armor:**  
0.28 lbs/ft (0.417 kg/m)

**Crush Resistance:**  
250 lbs/linear in (44.6 kg/linear cm)

**Operating Temp. Range:**  
-85 to 248° F (-65 to 120° C)  
Above 185° F (85° C) use "T" designation

### Cable Construction

Inner Conductor: Solid Ag-plated Cu

Dielectric:  
SL 32 PTFE  
SL 50 Foamed FEP

Outer Conductor:  
SL 32 GrooveTube® Cu  
SL 50 Ag-plated Cu Fil/Braid

Standard Finished: Neoprene

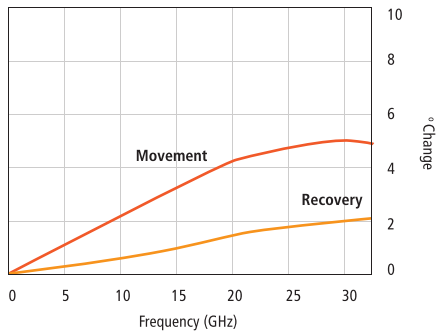
### Available Connectors

1.85mm, 2.4mm, 2.92mm, 3.5mm, 7-16 DIN, BNC, SMA, TNC, Type N

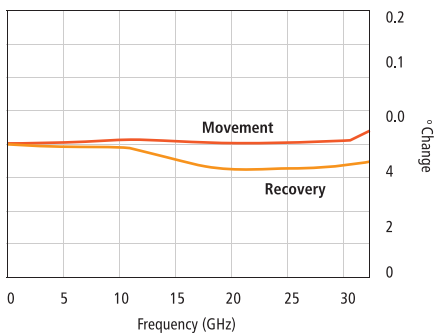
MegaPhase standard connectors are designed using passivated 303 Stainless Steel. These designs pass Salt Spray testing in accordance with Mil-Std-202 Method 101 condition C. MegaPhase suggests for more stringent environments the use of 303 Stainless Steel Gold plated connectors, this must be requested at the time of quoting.

## SiteLine™ Armored Test Cables to 50 GHz (continued)

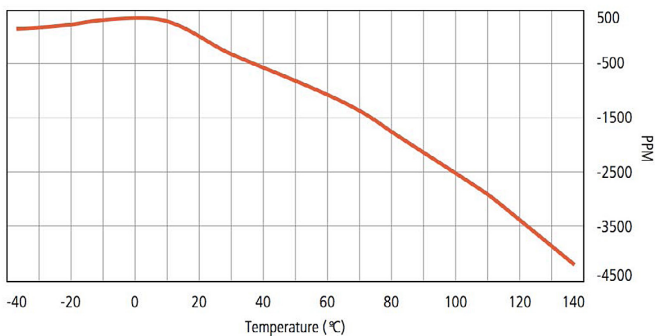
### SL 32 Phase Change vs. Flexure



### SL 32 Insertion Loss vs. Flexure



### SL 32 Phase Change vs. Temperature



### Specifications

Frequency		SL 32 Series		SL 50 Series		Conn Loss dB	VSWR
Band	GHz	dB/ft	dB/m	dB/ft	dB/m		
UHF	0.3	0.062	0.203	0.104	0.341	0.006	1.10
	0.5	0.082	0.268	0.135	0.443	0.009	
	0.8	0.106	0.348	0.172	0.566	0.012	
L	1.0	0.120	0.394	0.194	0.635	0.014	
S	2.0	0.178	0.585	0.279	0.915	0.024	1.15
	2.4	0.199	0.652	0.307	1.009	0.027	
	3.0	0.227	0.744	0.347	1.137	0.032	
C	4.0	0.270	0.885	0.405	1.328	0.040	
	6.0	0.347	1.138	0.505	1.658	0.055	
X	8.0	0.417	1.367	0.593	1.945	0.070	1.20
	10.0	0.482	1.580	0.672	2.205	0.084	1.25
	12.4	0.555	1.822	0.759	2.491	0.101	1.30
Ku	15.0	0.631	2.070	0.847	2.779	0.118	
	18.0	0.715	2.345	0.941	3.089	0.139	
K	20.0	0.769	2.522	1.001	3.285	0.152	1.35
	22.0	0.821	2.695	1.059	3.475	0.165	
	24.0	0.873	2.865	1.115	3.659	0.178	
	26.5	0.937	3.073	1.183	3.881	0.194	
Ka	28.0	0.974	3.196	1.223	4.011	0.204	1.40
	30.0	1.024	3.358	1.274	4.181	0.217	
	32.0	1.072	3.518	1.325	4.347	0.230	
	34.0			1.375	4.510	0.243	
	36.0			1.423	4.669	0.256	
V	40.0			1.518	4.980	0.281	1.50
	45.0			1.633	5.356	0.313	
	50.0			1.743	5.719	0.344	

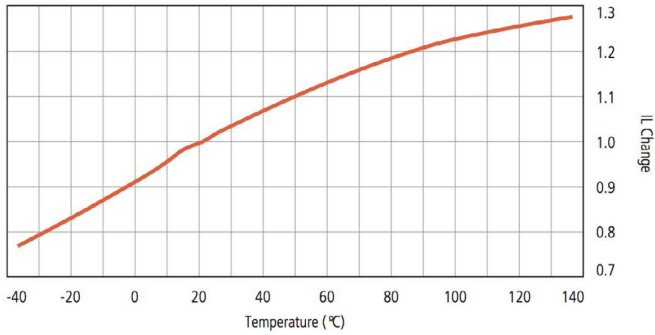
\*SL 32 includes SL26, SL18, SL8, SL4

\*\*SL 50 includes SL40, SL34

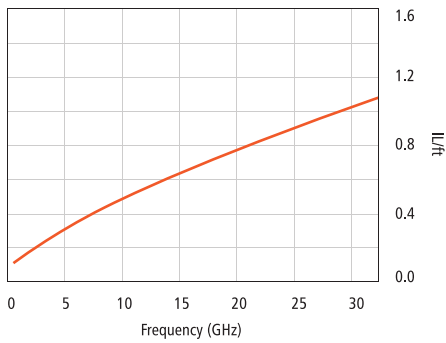


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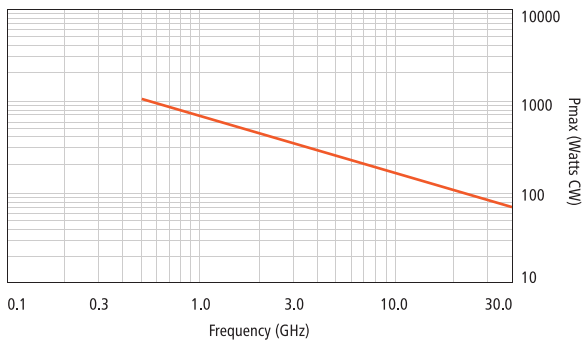
### SL 32 Insertion Loss vs. Temperature



### SL 32 Insertion Loss



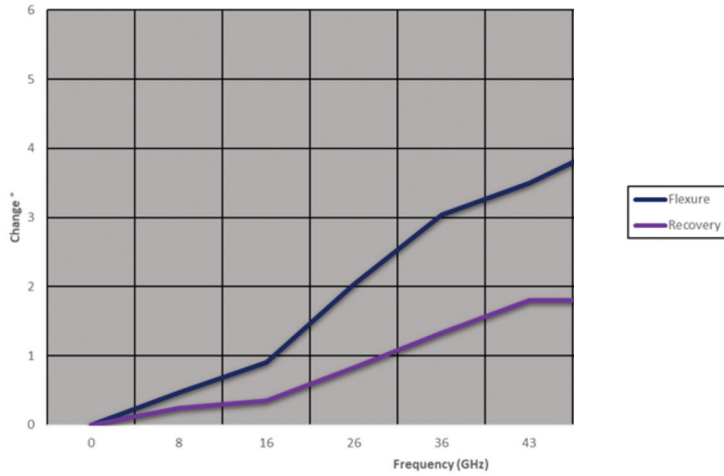
### SL 32 Cable CW Power Handling





## SiteLine™ Armored Test Cables to 50 GHz (continued)

### SL 50 Phase vs. Flexures



### SL 50 Phase vs. Temperature

