

SilverLine-TuffGrip™ - CI™

(Changeable Interface)

Coax Test Cables

ISO 9001 Certified

- *Wireless and Cellular*
- *Antenna Test*
- *DTF Measurements*
- *RF Maintenance*
- *Troubleshooting*



TuffGrip-CI™ is a revolutionary concept in field test leads. It combines all the features of our original TuffGrip including a rock-steady phase stable coax cable, incredibly robust torque and crush resistant steel armor with patented TuffGrip technology plus the ability to change the coaxial connector interface on the grip to suit the application.

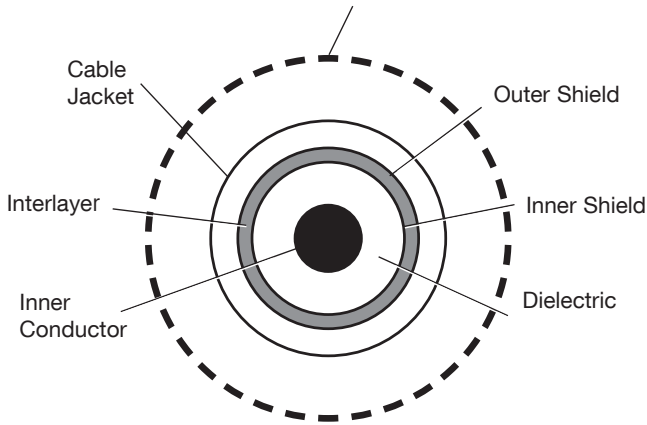
Field technicians no longer need to carry multiple test leads to service different cellular or wireless radio designs. A single TuffGrip plus a set of changeable interfaces now allows any radio system currently deployed to be tested. Grip length and assembly VSWR are not compromised to achieve this remarkable enhancement.

Features and Benefits:

- 4-in-1 test lead: Type N plug & jack, 7-16 plug and jack
- Patented TuffGrip for fast on, fast off RF connections
- Unique PTN with One Turn for fast interface changes
- Extra PTN bullet allows interfaces to double as adapters
- Strong yet flexible retention loops on all hardware
- Torque and crush resistant steel armor
- Heavy duty protective changeable interface case
- RoHS Compliant



SilverLine-TuffGrip™ - CI™ Specifications:



Cable Construction

Inner Conductor: Solid Silver Plated Copper Clad Steel

Dielectric: Solid PTFE

Shield: Silver-Plated Copper Flat Ribbon Braid
Aluminum-Polyimide Tape Interlayer
36 GA Silver-Plated Copper Round Braid (90%k)

Jacket: Clear FEP

Armor: Full, 100% non-interleaved spiral steel sheath overlaid with captured, opposing-force structure for torque resistance. Waterproof, UV resistant, black TPE outer jacket.

Connectors and Interchangeable Interfaces

- Passivated stainless steel
- Precision Grade Surface finish and tolerances
- Extra thick gold plating on center contacts
- Unique, Times developed long-life, durable PTN
- PTN and 7-16 male includes One Turn feature

Connector Attachment

- System side: TuffGrip® (patented)
- Analyzer side: solder/clamp/crimp

Times's SilverLine Product Guarantee

Times will repair or replace your SilverLine test cable at its option if the connector attachment fails within one year of shipment. This guarantee excludes cable or connector interface damage from misuse or abuse.

*Assumes the use of a calibrated torque wrench, proper care and cleaning of interface, and mated connector is within mil spec limits.

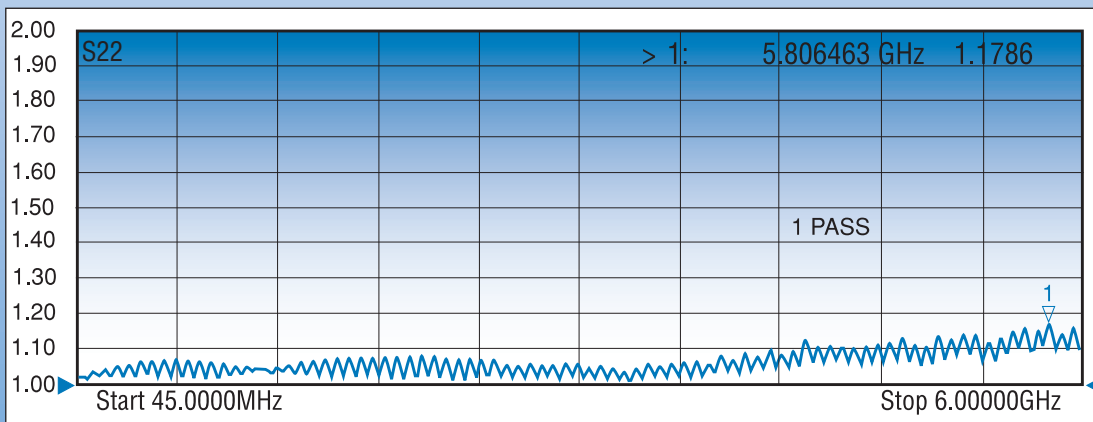
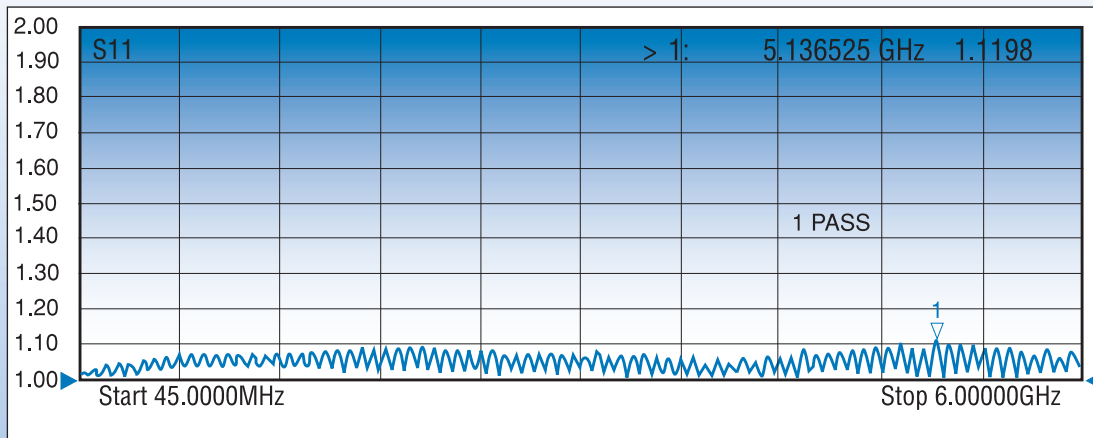
** Minimum bend radius not to be exceeded.

*** Connector configuration may limit cable assembly maximum power handling capability.

Specifications subject to change without notice.

Physical & Mechanical Specifications			
Dimensions	in	mm	
Armor O.D.	0.43	10.92	
Minimum Bend Radius	2.5	63.5	
Connector Retention	> 290lbs		
Armor Crush Resistance	> 1200 lbs per linear inch		
Mating Life Cycle	> 5000*		
Flex Life	> 50,000**		
Temperature Range	-67°/+221°F	-55° / +105°C	
Electrical Specifications (cable assembly only)			
Impedance	50 Ohms		
Velocity of Propagation	70%		
Shielding Effectiveness	< 100dB		
Capacitance	29.4 pf/ft=96.4 pf/m		
Phase Stability (ten, 180 reverse bends)	DC- 6 GHz: +/-0.9		
VSWR Max (1.5m assy)	1.15:1 DC - 6GHz		
Cable Attenuation	Max @77 F (25°C)		
Frequency (GHz)	dB/100ft		d/B/100m
1	12.2		40.0
2	18.0		59.0
6	34.2		112.0
Cable Power Handling	@ +77 F (+25°C) (sea level) (cable only***)		
Frequency (GHz)	Watts (max)		
1	539		
2	363		
6	180		
Electrical Specifications (changeable interfaces only)			
Impedance	50 Ohms		
VSWR Max (all interfaces)	1.06:1 DC - 6 GHz		
Interface Insertion loss max	0.12dB - 6 GHz		

Typical VSWR vs. Frequency



Ordering Information

SLS06-NMSNFG-XX.XXMK

K = Changeable interface kit included. Omit K for cable assembly only

01.50 = 1.5 meters

03.00 = 3.0 meters

05.00 = 5.0 meters

Changeable Interface Kit Separate Order: PN 66978EA

Kit contains one each PTN N male, PTN - 7-16 male, PTN - 7-16 female and PTN female bullet all with lanyards and packed into a heavy duty protective case also with lanyard and belt clip. See page 4 for pictures and use.



Changeable interfaces double as between series adaptors



Heavy duty nylon case with sturdy velcro closure, individual protective compartments, belt clip and lanyard



PTN-equipped changeable interfaces, including PTN female bullet. All include flexible lanyards (not shown)



Close up of male and female PTN interface



Protective shipping container with foam insert