

ISO 9001 Certified

SilverLine™-LP (Low PIM)

Passive Intermodulation Testing

- Cellular site certification
- Troubleshooting
- Performance Analysis
- Antenna or radio component production test



Features and Benefits

- Better than -117dbm (-160dbc) performance*
- Includes a set of low PIM adaptors
- Low attenuation
- Rugged, durable, steel armored design
- Retractable, OneTurn™ connector for fast-on, fast off mating
- European and US Hex sizes all in one
- Water Resistant
- RoHS compliant

SilverLine™-LP is another first from Times Microwave. There now exists **flexible** test cable specifically designed for low passive intermodulation performance and to withstand the physical abuse of field use.

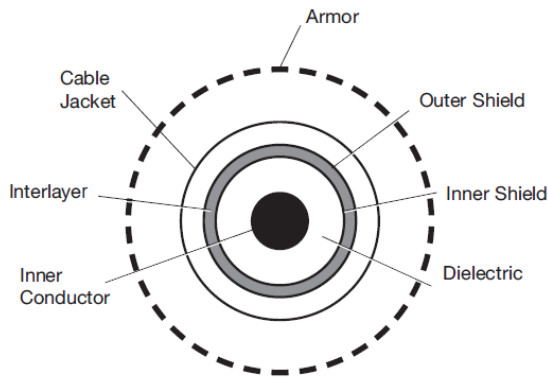
SilverLine™-LP works well with both the latest generation of portable field PIM analyzers and traditional bench top models. No longer must a field or production test technician struggle with stiff, corrugated cable as a temporary test lead only to have it fail repeatedly requiring a steady supply of replacements.

SilverLine™-LP incorporates the very best of Times' field proven cable assembly technology, TuffGrip™ armor design and a revolutionary new concept in connector attachment that makes connector/cable junction failures a thing of the past.

The SilverLine™-LP manufacturing process has been tailored to achieve the lowest, most consistent PIM performance of any flexible cable offered; a cable that rivals the performance of corrugated cable but with far more user friendliness.

For an extra measure of assurance Times offers a limited **refurbishment option** on SilverLine™-LP.**

SilverLine-LP Specifications



Cable Construction

Inner conductor: Solid Silver Plated Copper

Dielectric: Solid PTFE

Shield: Silver Plated Copper Flat or Round Wire Inner Braid, Aluminum-Polyimide Tape Interlayer, Silver Plated Copper Round Wire Outer Braid

Jacket: FEP

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

Connectors

- Tri-Metal plated brass
- Waterproof
- Accommodates US and European Hex Sizes
- Includes OneTurn™ feature for fast-on, fast-off connections

Connector Attachment:

Fully soldered center contact and shield. Mechanical attachment includes a three inch long, ribbed, wedge clamp-to-armor for the strongest, most robust retention system in the industry

Specifications subject to change without notice.

Physical and Mechanical Specifications

Dimensions	in	mm
Inner Conductor	0.094	2.387
Dielectric	0.285	7.239
Inner shield	0.295	7.492
Interlayer	0.301	7.645
Outer shield	0.330	8.382
Jacket	0.360	9.144
Armor	0.590	14.986
Weight lbs/ft (kg/m)	Cable & armor combined: 0.330 (0.491)	
Armor crush resistance	>1500 lbs per linear inch	
Bend radius: (min)	6	152.4
Connector Retention:	>500 lbs	
Mating life Cycle:	1000*	
Length Tolerances:	+/-2% of length	
Storage Temperature:	-67°/+221°F	-55°/+105°C

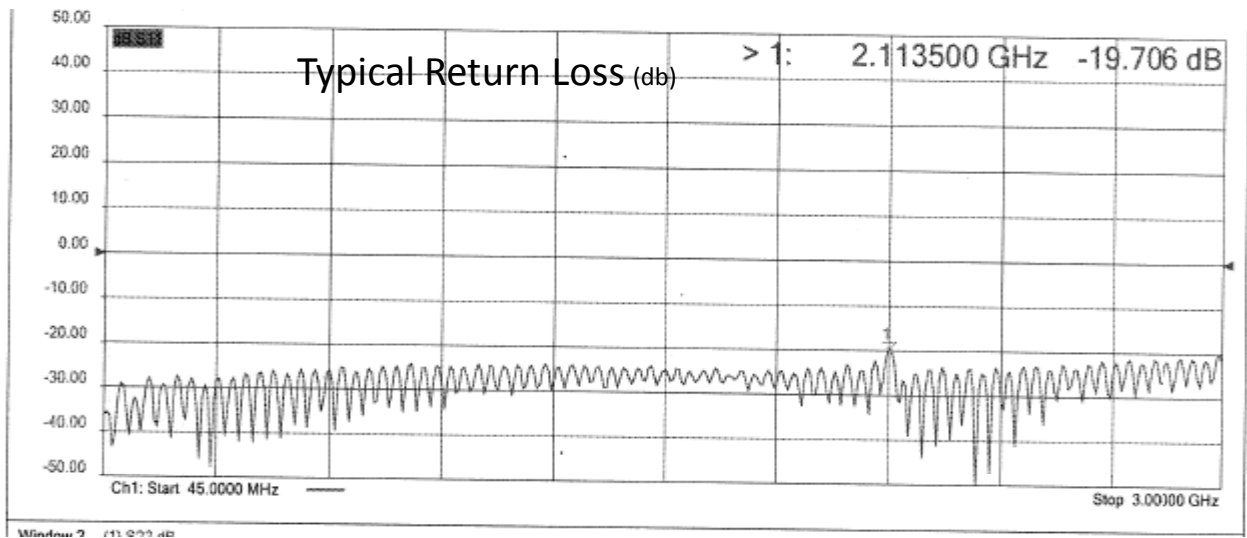
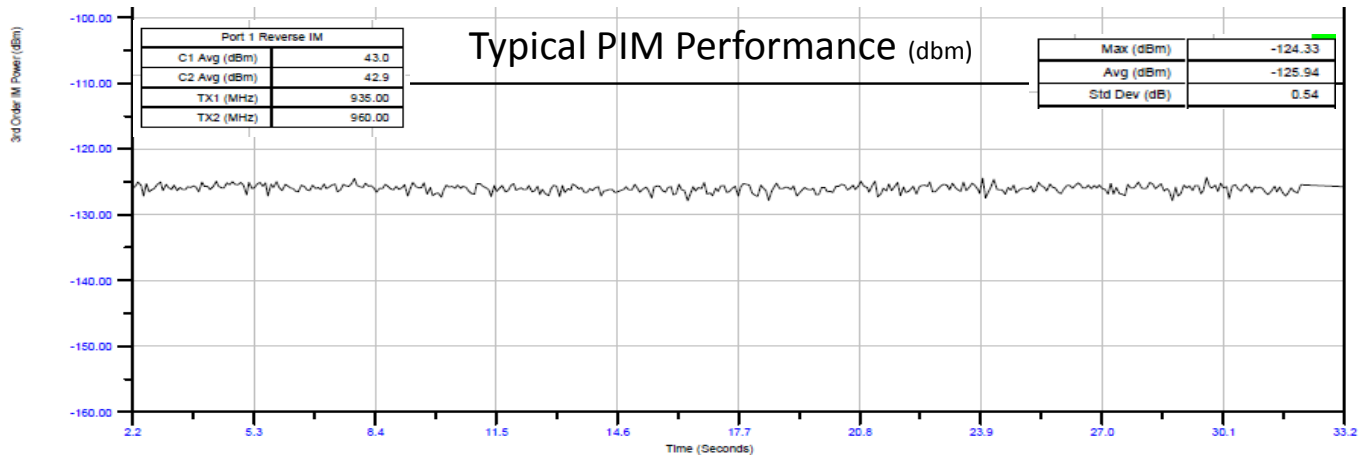
Electrical Specifications

Passive Intermodulation	-117 dbm (-160 dbc) min. at rest**	
VSWR (ret. loss) DC - 3 ghz	1.30:1 (18 db) typ. 1.4:1 (15.56 db) max	
Impedance	50 ohms	
Velocity of Propagation	70%	
Shielding Effectiveness	>-100db	
Capacitance	29.3 pf/ft	96.1 pf/meter
Attenuation max@ 77°F (+25°C)		
Ghz	db/100 ft	db/100m
1	5	16.4
2	7	22.96
3	8	26.24
Power Handling @ 77°F (+25°C) (Watts, Max) (Sea Level) (Cable Only)***		
1	1450	
2	946	
3	729	

* Achieving mating life requires interfaces to be clean at all times. Remove dust, dirt and especially any metal particles after every mate cycle using a lint free cotton swab and/or dry compressed air. Damage to connector interface voids warrantee. Protect connector interface at all times by replacing protective caps when not in use.

** Proper torque (21 ft lbs) and cleanliness are mandatory (see note above for cleaning). PIM value will vary within approx -117 dbm to -125 dbm even with cable at rest. Loosen then re-torque coupling nuts if -120 dbm is not achieved when connectors are first torqued. Coax cable has a finite PIM life. For longest life flex the cable as little as possible.

*** May be limited by connectors.



Ordering Information

SLSLP03-76M76M-XX.XXMK

K = Include set of three low PIM adaptors. Omit for cable assembly only

Every 0.25 meter length from 1.5 to 2.75 m

Low PIM adaptor kit PN: 660-0007EA.

kit Contents:



Female bullet, M-F r/a, and M-F connector saver



Heavy duty nylon case with sturdy Velcro closure, individual compartments, belt clip and metal lanyard

Low PIM Accessories



Times pn 67020

Bench PIM Load

Frequency: 800 Mhz – 3000 Mhz
Size in (mm): 7.1h x 2.8w x 5.04d (180 x 68 x 128)
Approx Weight: 6.8 lbs (3.08 kg)
Impedance: 50 ohms
Return Loss: 16 db min
Intermodulation: -165 dbc (2 x 43 db m carriers)
Power Handling: 75 watts average
Coupling torque: 21 ft*lbf (29 N*m) min
36 ft*lbf (49 N*m) max
Operating temp: 32-95°F (0-32°C)
Connector type: 7-16 male

Portable PIM Load

Frequency: 800 Mhz – 2500 Mhz
Size in (mm): 10.4L x 3w (263 x 76)
Weight: 3.4 lbs (1.54 kg)
Impedance: 50 ohms
Return Loss: 16 db min
Intermodulation : -165 dbc (2 x 43 dbm carriers)
Power Handling: 40 watts average
Coupling torque: 21 ft*lbf (29 N*m) min
36 ft*lbf (49 N*m) max
Operating Temp: 32-95°F (0-32°C)
Connector type: 7-16 male, 7-16 female



Times pn 67019



3/8" corrugated Low PIM test leads

Cable Type: 3/8 Super Flex
Connectors: 7-16 male both ends
Length: 3 meters
Impedance: 50 ohms
Return Loss: ≤ 26 db 1800-2100 mhz
Intermodulation: < -165 dbc (2 x 43 dbm carriers)

Times pn SLCOR03-76M76M-03.00M

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