TIMES MICROWAVE SYSTEMS
An Amphenol Company

SilverLine®-VNA Flex Supreme™

(50 & 70 GHz) Coaxial Test Cables

- **5G**
- **Communications:**
  Inter-satellite, point-to-point & wireless HDMI
- **Electronic Warfare:**
  Targeting/tracking systems
- **Research:**
  Component & subsystem development

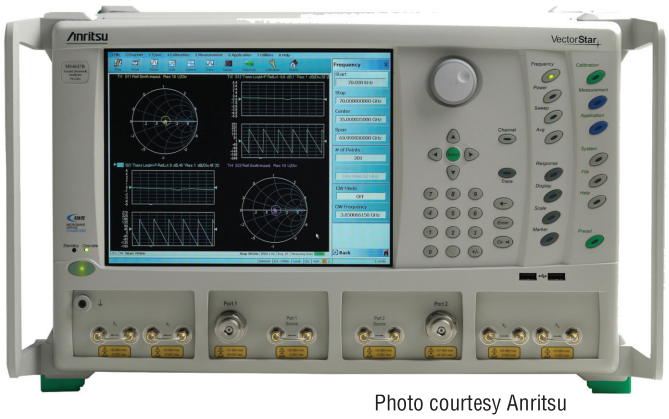


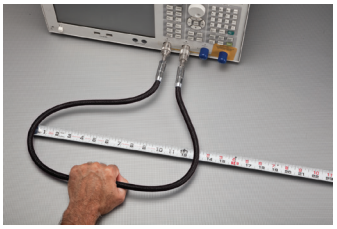
Photo courtesy Anritsu

SilverLine®-VNA Flex Supreme™ 50 & 70 GHz are extremely flexible, very high frequency coax cable assemblies designed for Vector Network Analyzer use. The high flexibility is ideal for use with small or delicate circuitry. "Light " armoring helps reduce accidental damage without adding excess weight and/or inhibiting flexibility. A Nomex®, abrasion resistant outer braid improves feel and handling characteristics .

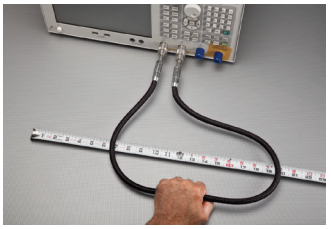
SilverLine®-VNA Flex Supreme™ 50 & 70 GHz are also phase, amplitude & return loss stable over many thousands of flexes when handled in accordance with Times ' recommendations.

Features & Benefits:

- Extremely flexible
- Long flex life
- Torque resistant outer armor
- Nomex® outer sleeve
- 2.4mm & 1.85 male and female connectors
- ROHS Compliant



Flex Test (one full cycle)



Cable is pulled off center 10" in both directions

***Phase stability data IAW Times' phase/flex test criteria as demonstrated above.**

Connectors:

Stainless steel. Soldered contact and braid. Additional crimp to armor for added torque resistance

* RF stability and flex life are in accordance with the flex test method example. Data is for cables 4ft or shorter. Longer cables may exhibit different stability characteristics. A cable will exhibit some instability when new. A very brief period of use is required to alleviate cable component stresses from manufacturing after which the cable will "settle" and maintain the values stated

**Mating life requires hand tightening and/or the strict use of a calibrated torque wrench and clean interfaces that are within the IEEE 287 precision connector standards.

Care and Handling Guidelines:

While armored, 50 & 70 GHz cables are sensitive microwave instruments. Small, flexible cables can easily be forced beyond the recommended minimum bend radius. This will likely degrade or destroy the RF performance. All flexible cables have a limited flex life. Develop procedures that limit flexing. 2.4 and 1.85mm interfaces are delicate. Keep them meticulously clean and the center contacts concentric within the outer contact. Use a microscope to examine if necessary. DO NOT mate connectors that are dirty, suspected of being damaged or outside concentric tolerances. Connectors must be aligned when mating. Misalignment could damage the interfaces and voids the warranty. Test equipment makers publish extensive use and handling procedures on their web sites that cover these and related topics.

ALWAYS:

-Inspect interfaces before every mate. Clean if needed.
-Gently start the coupling nut and fully thread with fingers first.
-Hand tighten, but if a calibrated torque wrench is used 8 lbs max.
-Limit use to experienced technicians.
-Cap connectors and store cables separately in a protective container.
-Keep a spare pair of cables ready, just in case.

NEVER:

-Force the cable to bend beyond the recommended minimum radius.
-Force two connectors. If any resistance is felt STOP and examine.
-Mate to another series.
-Mate connectors that are not aligned and concentric.
-Put foreign or dirty objects into the interface.

Warranty:

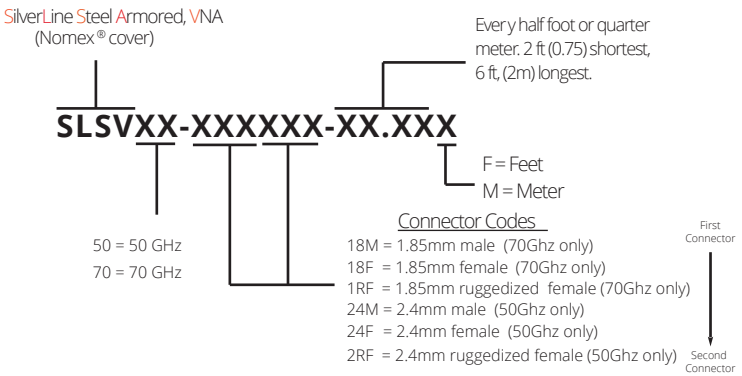
Product to be free from workmanship and materials defects and to meet stated data sheet performance for a period of 90 days. Excludes cable or connector interface damage from misuse, abuse, mishandling or mis-mating outside the data sheet recommendations. Warranty claims are subject to factory analysis and may include analysis charges depending on findings.

Mechanical Specifications		
Dimensions	**in**	**mm**
Armored Diameter: armor/strain relief	0.308	7.80
Min bend radius, armored (max flex life)	1	25
Flex life (armored) *	50,000	
Crushing (armored version)	188 lbs/lin.in	
**Mating life cycle ** **	500	
Temperature range	-67°/+ 221°F	-55°/+105°C

Electrical Specifications			
Impedance		50 Ohms	
Velocity of Propagation		78%	
Shielding Effectiveness		>100 dB	
Capacitance		25.9 pf/ft (85 pf/m)	
VSWR (maximum)		**50 GHz** 1.3:1	**70 GHz** 1.4:1
Phase Stability (degrees) *	typical	+/-3°	+/-5°
Amplitude Stability (dB)*	typical	+/-0.10dB	+/-0.10dB
Attenuation, max@77°F (25°C)		dB/100 ft	(dB/100 m)
50 GHz		104	342
70 GHz		200	656
Cable Power Handling (Cable Only)			
@77°F (25°C) sea level, watts (max)			
50 GHz		18	
70 GHz		13	

Specifications subject to change without notice

Ordering Information:



A brand new cable can have a break-in period of several hundred flexes.

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