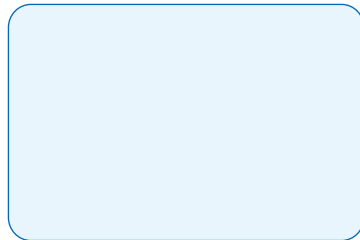


Microwave Cable Products



HeliFoil™

Features & Benefits:

- Lowest Insertion Loss Available, DC-18GHz
- Ultra Stable Loss, Phase and VSWR with Flexing
- Excellent Phase Tracking Performance over Temperature
- Extremely Flexible, Low Minimum Bend Radius
- Superior Shielding Effectiveness (>100 dB)



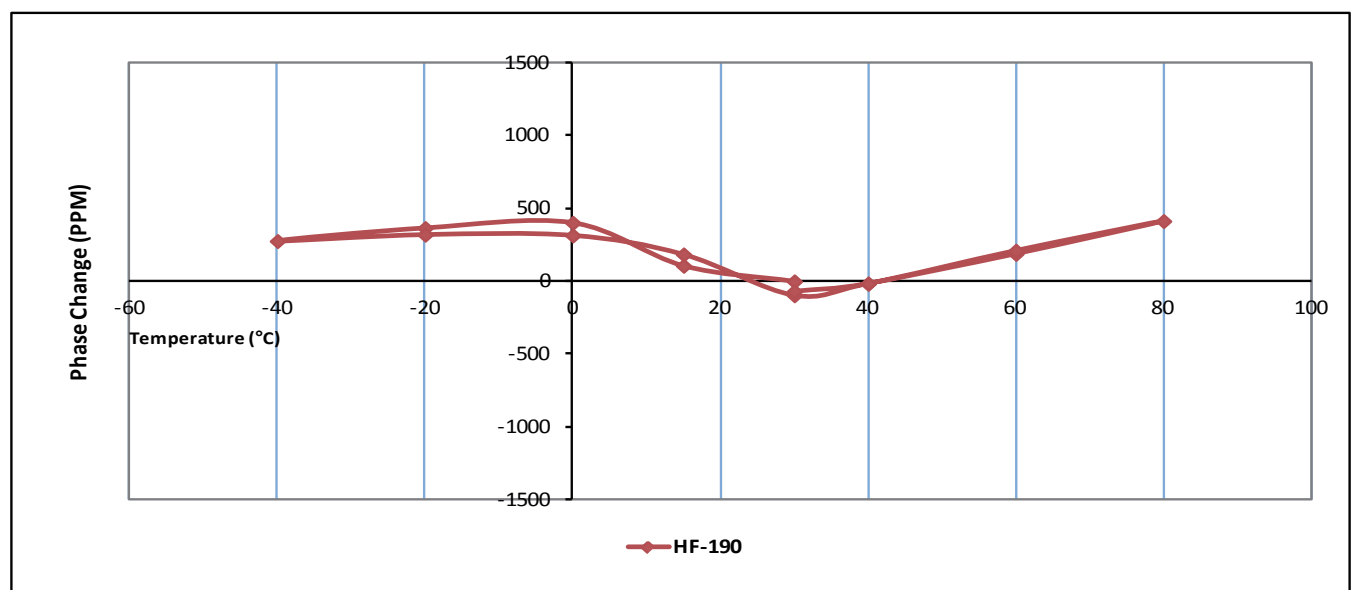
HeliFoil™ ultra low loss, flexible microwave coaxial cable and assemblies provide excellent performance over the DC-18 GHz frequency range. HeliFoil cable comes in four different sizes, with options of stranded center conductors for better flexibility. All sizes provide lowest attenuation, excellent phase stability, broad operating temperature range and high power handling making them a good choice for interconnect and testing applications in both field and laboratory conditions.

Installation of the connectors requires induction soldering and is only recommended for experienced assembly shops. Custom assemblies can be provided to meet your requirements.

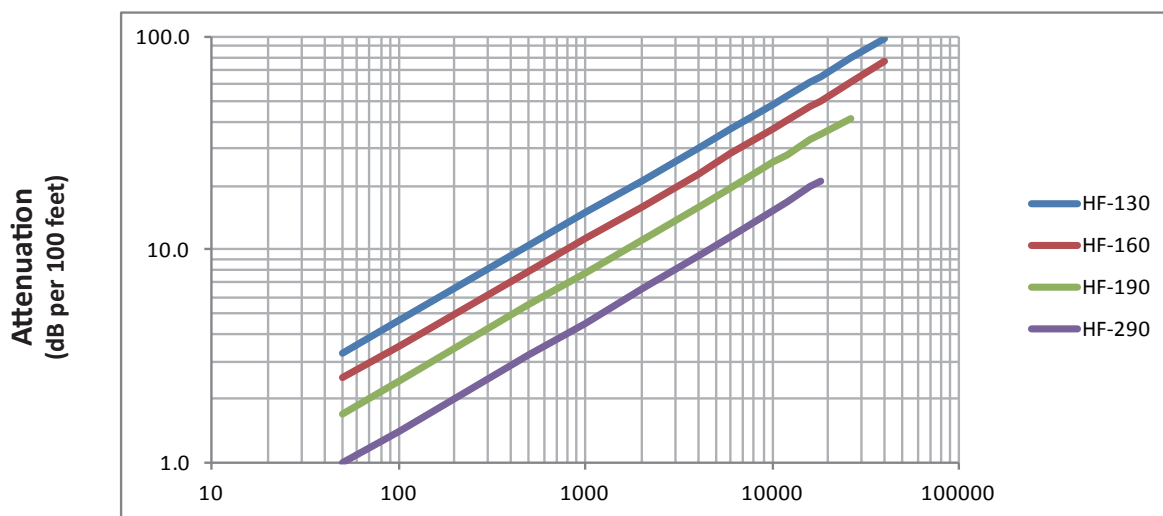
Cable	AA number MI Number	Conductor in (mm)	Dielectric in (mm)	Shields in (mm)	Outer braid in (mm)	Jacket in (mm)	Weight lb/ft (kg/m)	Impedance ohms Vp (%)	Capacitance pF/ft (pF/m)	Temp. Range F (C)	Min.Bend Radius in (mm)	Cut-off Frequency (GHz)
HF-130	AA-11427 510-0065	SC 0.029 0.74	PTFE 0.087 2.21	SC 0.094 2.39	SC 0.112 2.84	Blue FEP 0.130 3.30	0.021 (0.032)	50 +/-1 74%	26.5 (86.9)	-67 +342 (-55 +150)	0.75 (19.05)	47.84
HF-160	AA-11594 510-0101	SC 0.036 0.91	PTFE 0.105 2.67	SC 0.112 2.84	SC 0.130 3.30	Blue FEP 0.150 3.81	0.025 (0.038)	50 +/-1 80%	25.4 (83.3)	-67 +342 (-55 +150)	0.75 (19.05)	42.68
HF-190	AA-9185 51881	SC 0.052 1.32	PTFE 0.145 3.68	SC 0.158 4.01	SC 0.175 4.45	Blue FEP 0.197 5.00	0.042 (0.063)	50 +/-1 83%	24.0 (78.7)	-67 +342 (-55 +150)	1.00 (25.4)	31.25
HF-290	AA-9186 51909	SC 0.088 2.24	PTFE 0.240 6.10	SC 0.255 6.48	SC 0.273 6.93	Blue FEP 0.301 7.65	0.092 (0.138)	50 +/-1 83%	24.6 (80.7)	-67 +342 (-55 +150)	1.50 (38.1)	18.96

* PUR Jacket is available as an option, for detailed information please consult the factory.

HF-190 Phase Change vs. Temperature



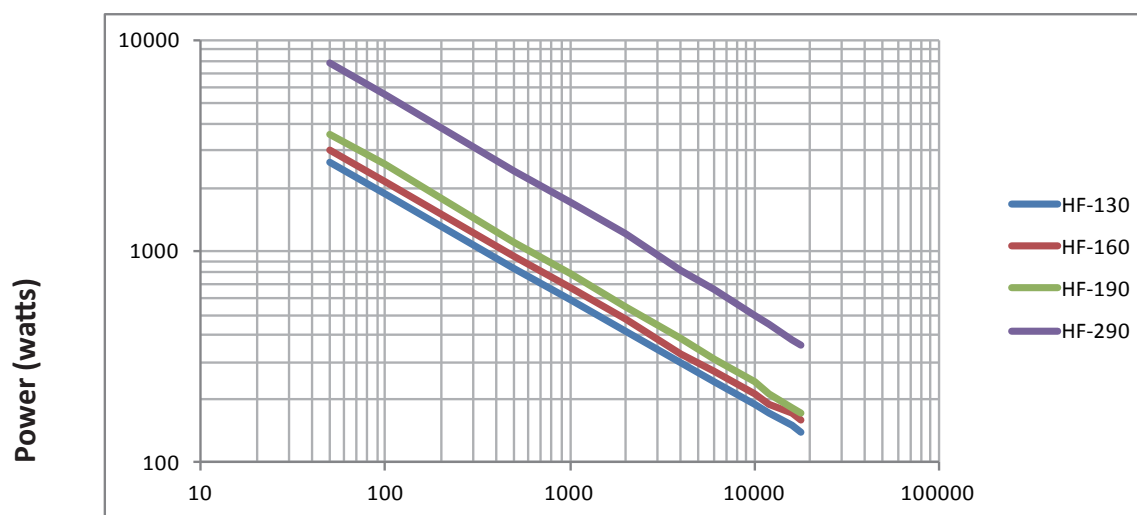
Attenuation vs. Frequency (Typical)



Frequency (MHz)	50	100	500	1,000	2,000	4,000	6,000	10,000	12,000	16,000	18,000	26,500	40,000	K1	K2
HF-130	3.3	4.7	10.5	14.8	21.1	30.0	36.9	47.9	52.7	61.1	65.0	79.5	98.8	0.46466	0.00015
HF-160	2.5	3.5	7.9	11.2	15.9	22.8	28.1	36.6	40.3	46.9	50.0	61.4	76.8	0.34880	0.00018
HF-190	1.7	2.4	5.5	7.8	11.1	15.9	19.6	26.0	28.0	33.0	35.0	40.9		0.24210	0.00014
HF-290	1.0	1.4	3.2	4.5	6.5	9.3	11.6	15.2	16.8	19.7	21.0			0.13896	0.00013

Attenuation at Any Frequency = [k1 x SQRT (Fmhz)] + [k2 x Fmhz]; dB per 100 feet

Power Handling vs. Frequency (Maximum)



Frequency (MHz)	50	100	500	1,000	2,000	4,000	6,000	10,000	12,000	16,000	18,000	26,500	40,000
HF-130	2630	1860	830	590	420	300	240	190	170	150	140	120	100
HF-160	3000	2130	950	670	475	330	270	210	190	170	160	130	105
HF-190	3600	2600	1100	790	550	390	310	240	210	180	170	160	
HF-290	7800	5500	2400	1700	1200	820	660	500	450	380	360		

Watts; Sea Level; Ambient +40C; VSWR 1:1

StripFlex®-II (SFT)

Features & Benefits

- Lower Loss than SF Versions
- Superior Shielding Effectiveness
- Low Passive Intermod (-155dBc)
- Stable Loss & VSWR vs. Flexing
- Excellent Connector Selection



SFT cables provides the ultimate performance in a flexible cable. The low density PTFE tape dielectric provides the lowest dielectric loss of any practical dielectric and silver plated conductors make these the ideal choice for microwave applications and other commercial and military interconnect systems.

The high temperature dielectric and jacket enable their use in high ambient temperature up to +200C. They have losses slightly smaller than their low temperature TCOM counterparts as well as high power handling capability.

The Shielding systems, pioneered by Times Microwave Systems in the mid-sixties, consists of an inner silver plated ribbon braid (FSC), a spirally applied and overlapped composite aluminum tape interlayer (Intl), and an overall silver plated round wire braid (SC). The flat ribbon shield affords approximately 30% lower loss and >95 Db shielding compared with the typical M17/RG round wire braided shield (40 to 60 dB).

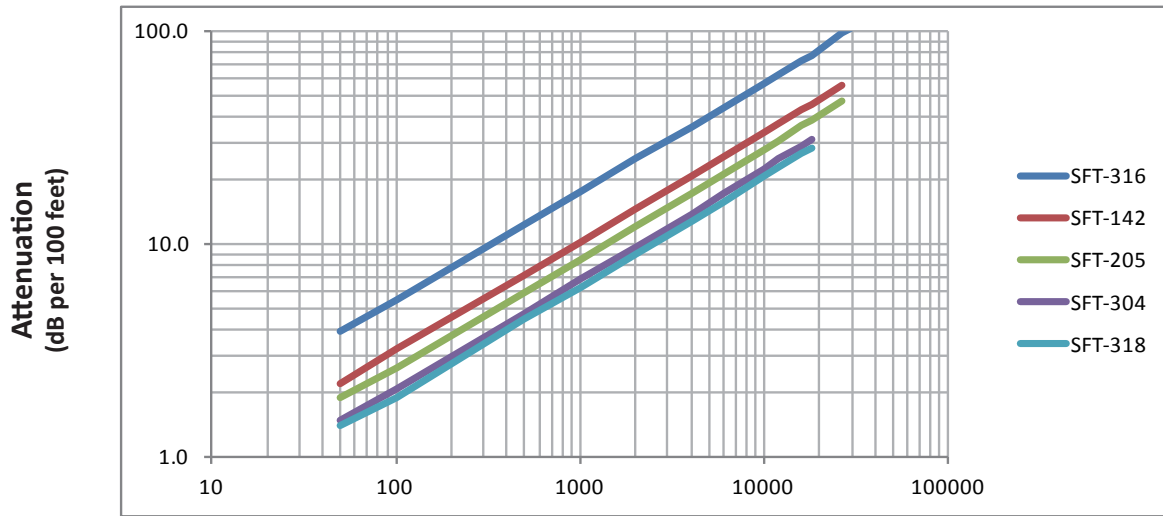
Standard M17/RG cables are shielded with high coverage single or double round wire braids. While these shields provide 40 dB and 60 dB shielding effectiveness respectively. They are not particularly stable (loss & VSWR) nor is the shielding adequate for today's sensitive wireless communications and microwave military/defense applications.

VSWR is lower since the flat ribbon can be applied over the dielectric much more uniformly than multi-end round wire braids. The VSWR and attenuation variation due to aging and flexure is substantially lower at all frequencies, and especially above 12 GHz. StripFlex-II cables are also available from Times that have been sweep tested for broadband VSWR and attenuation performance. Please contact the factory with your specific requirements.

A good selection of standard interface connectors (crimp or clamp style) are available. SFT cable can be purchased in bulk reels or as preterminated and tested cable assemblies.

Cable	AA number MI Number	Conductor in (mm)	Dielectric in (mm)	inner Shield in (mm)	Interlayer in (mm)	Outer Shield in (mm)	Jacket in (mm)	Weight lb/ft (kg/m)	Impedance ohms Vp (%)	Capacitance pF/ft (pF/m)	Temp. Range F (C)	Min.Bend Radius in (mm)	Cut-off Frequency (GHz)
SFT-316	AA-8649 51743	SC 0.023 (0.57)	LDPTFE 0.068 (1.73)	FSC 0.078 (1.98)	Al/Kapton 0.083 (1.85)	SC 0.096 (2.44)	Blue FEP 0.120 (3.05)	0.018 (0.027)	50+/-1 76%	26.7 (87.6)	-67 +392 (-55 +200)	0.50 (12.7)	62.95
SFT-142	AA-8650 51742	SC 0.040 (1.02)	LDPTFE 0.121 (3.07)	FSC 0.131 (3.33)	Al/Kapton 0.136 (3.48)	SC 0.158 4.01	Blue FEP 0.180 (4.57)	0.036 (0.054)	50+/-1 76%	26.7 (87.6)	-67 +392 (-55 +200)	0.75 (19.1)	35.40
SFT-205	AA-8651 51802	SC 0.051 (1.29)	LDPTFE 0.154 (3.91)	FSC 0.164 (4.17)	Al/Kapton 0.169 (4.29)	SC 0.187 (4.75)	Blue FEP 0.205 (5.21)	0.042 (0.063)	50+/-1 76%	26.7 (87.6)	-67 +392 (-55 +200)	1.00 (25.4)	27.84
SFT-304	AA-8652 51807	SC 0.062 (1.57)	LDPTFE 0.185 (4.70)	FSC 0.195 (4.95)	Al/Kapton 0.200 (5.08)	SC 0.227 (5.77)	Blue FEP 0.250 (6.35)	0.067 (0.100)	50+/-1 76%	26.7 (87.6)	-67 +392 (-55 +200)	1.25 (31.8)	23.09
SFT-318	AA-9702 51972	SC 0.074 (1.88)	LDPTFE 0.221 (5.61)	FSC 0.231 (5.87)	Al/Kapton 0.240 (6.10)	SC 0.263 (6.68)	Blue FEP 0.291 (7.39)	0.095 (0.140)	50+/-1 76%	26.7 (87.6)	-67 +392 (-55 +200)	1.75 (44.45)	19.33

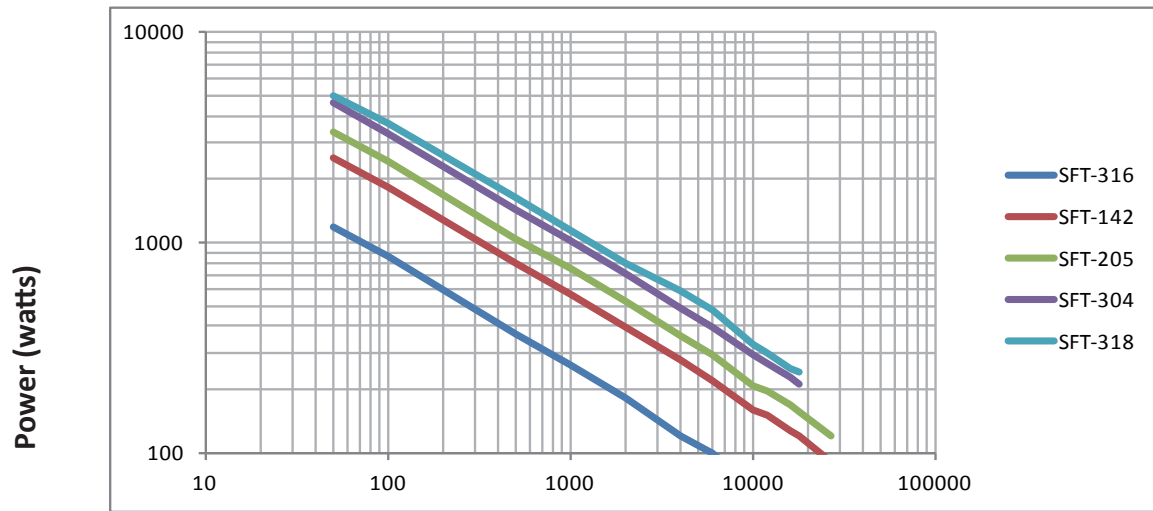
Attenuation vs. Frequency (Typical)



Frequency (MHz)	50	100	500	1,000	2,000	4,000	6,000	10,000	12,000	16,000	18,000	26500	40,000	K1	K2
SFT-316	3.9	5.5	12.4	17.6	25.0	35.6	43.8	57.0	62.6	72.7	77.3	98.3	117.5	0.55168	0.00018
SFT-142	2.2	3.2	7.1	10.2	14.5	20.7	25.5	33.3	36.7	42.8	45.6	56.1		0.31533	0.00018
SFT-205	1.9	2.6	5.9	8.4	12.0	17.2	21.3	27.9	30.7	36.0	38.3	47.3		0.26098	0.00018
SFT-304	1.5	2.1	4.7	6.8	9.7	13.9	17.2	22.6	25	29	31.2			0.20810	0.00018
SFT-318	1.4	1.9	4.4	6.2	8.9	12.8	15.8	20.7	22.8	26.7	28.4			0.19236	0.00015

Attenuation at Any Frequency = [k1 x SQRT (Fmhz)] + [k2 x Fmhz] ; dB per 100 feet

Power Handling vs. Frequency (Maximum)



Frequency (MHz)	50	100	500	1,000	2,000	4,000	6,000	10,000	12,000	16,000	18,000	26500	40,000
SFT-316	1180	854	370	263	183	120	100	70	69	58	54	40	30
SFT-142	2540	1843	790	569	397	275	221	160	151	128	120	90	
SFT-205	3360	2430	1040	750	523	362	291	210	198	168	157	120	
SFT-304	4590	3309	1420	1020	710	491	394	290	268	227	212		
SFT-318	5000	3690	1630	1140	790	590	474	330	300	250	240		

Watts; Sea Level; Ambient +40C; VSWR 1:1

MaxGain

DC-50 GHz Ultra Low Loss Coaxial Cable and Connectors

- Times Microwave's Unique Spiral Outer Conductor Technology
- Lighter Weight Compared to Competing Technologies



MaxGain ultra low loss, flexible Microwave Coaxial Cable and a full range of passivated stainless steel connectors are available as fully tested custom cable assemblies or for assembly by skilled assembly facilities. The assembly of the connectors to the cable is accomplished by soldering to the inner and outer conductor resulting in excellent mechanical and electrical performance, but is only recommended for installation by skilled technicians in a factory environment. Alternatively, Times can provide completed assemblies to your specifications.

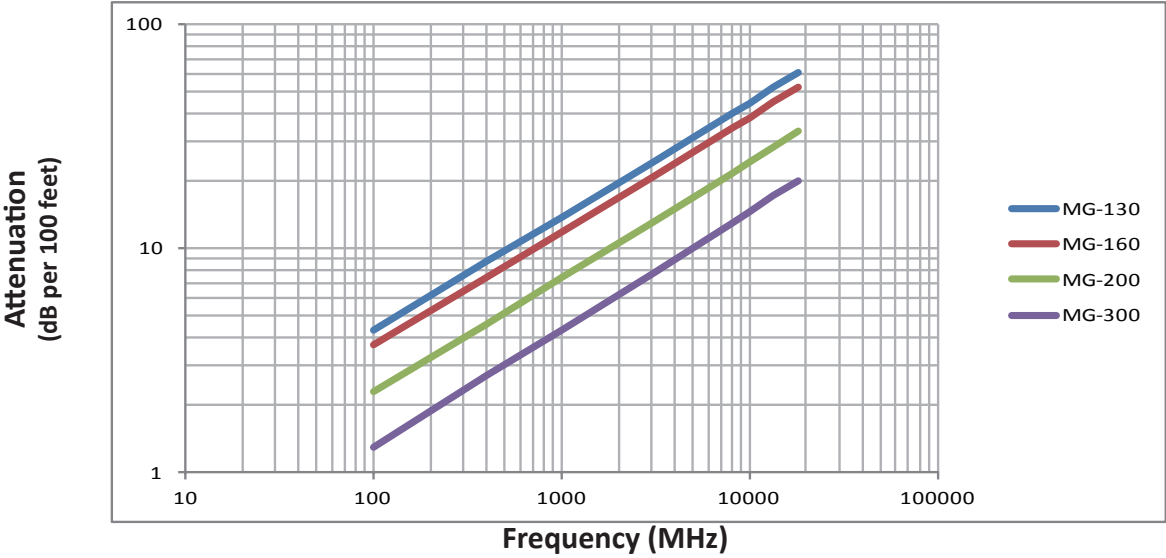
MaxGain assemblies are used for general applications in both field and laboratory conditions. They are ideally suited for applications where lowest loss and good stability with bending are required.

Features & Benefits:

- Lowest Insertion Loss Available, DC-50 GHz
- Ultra Stable Insertion Loss, Phase and VSWR with Flexing
- Excellent Phase Tracking Performance with wide Temperature (-65°C to +150°C)
- Extremely Flexible, Low Minimum Bend Radius
- Superior Shielding Effectiveness (>90 dB)
- Typical VSWR for assemblies is <1.40:1 at maximum frequencies

Cable	AA number MI Number	Conductor in (mm)	Dielectric in (mm)	inner Shield in (mm)	Interlayer in (mm)	Outer Braid in (mm)	Jacket in (mm)	Weight lb/ft (kg/m)	Impedance ohms Vp (%)	Capacitance pF/ft (pF/m)	Temp. Range F (C)	Min.Bend Radius in (mm)	Cut-off Frequency (GHz)
MG-130	AA-11521	SC	LDPTFE	SC	MT	SC	Blue FEP	0.018	50 +/-1	25.40	-85+342	0.63	50.00
	510-0089	0.029 (0.74)	0.083 (2.11)	0.086 (2.18)	0.094 (2.39)	0.108 (2.74)	0.130 (3.30)	(0.027)	80%	(83.3)	(-65 +150)	(15.9)	
MG-160	AA-11258	SC	LDPTFE	SC	MT	SC	Blue FEP	0.026	50 +/-1	25.40	-85+342	0.75	40.00
	510-0050	0.036 (0.91)	0.105 (2.67)	0.109 (2.77)	0.116 (2.95)	0.134 (3.40)	0.156 (3.96)	(0.038)	80%	(83.3)	(-65 +150)	(19.0)	
MG-200	AA-9889	SC	LDPTFE	SC	MT	SC	Blue FEP	0.037	50 +/-1	25.00	-85+342	1.25	31.00
	510-0001	0.051 (1.29)	0.146 (3.71)	0.151 (3.84)	0.156 (3.96)	0.174 (4.42)	0.200 (5.00)	(0.051)	80%	(82.0)	(-65 +150)	(31.75)	
MG-300	AA-9857	SC	LDPTFE	SC	MT	SC	Blue FEP	0.093	50 +/-1	24.75	-85+342	1.75	18.50
	510-0017	0.087 (2.21)	0.243 (6.17)	0.246 (6.25)	0.252 (6.40)	0.276 (7.01)	0.302 (7.67)	(0.139)	81%	(81.2)	(-65 +150)	(44.45)	

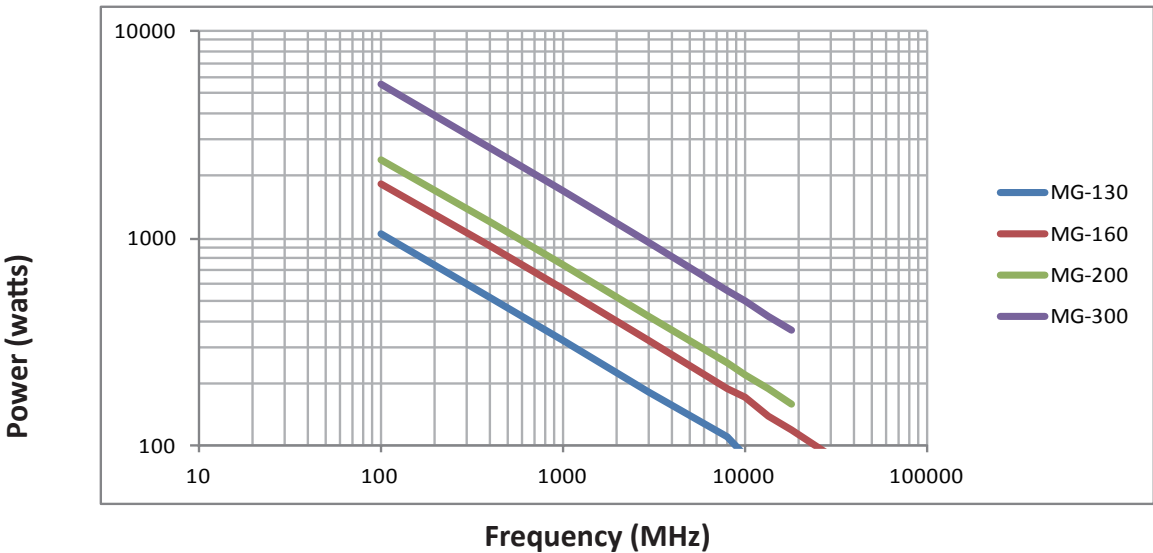
Attenuation vs. Frequency (Typical)



Frequency (MHz)	100	400	1,000	3,000	8,000	10,000	18,000	26,500	40,000	50,000	K1	K2
MG-130	4.3	8.7	13.8	24.0	39.8	44.6	60.6	74.3	92.5	104.3	0.43000	0.00016
MG-160	3.7	7.4	11.8	20.6	34.1	38.3	52.0	63.8	79.5		0.36800	0.00014
MG-200	2.3	4.6	7.4	12.9	21.5	24.2	33.1	43.5			0.22870	0.00013
MG-300	1.3	2.7	4.3	7.6	12.9	14.5	20.1				0.13256	0.00013

Attenuation at Any Frequency = [k1 x SQRT (Fmhz)] + [k2 x Fmhz]; dB per 100 feet

Power Handling vs. Frequency (Maximum)



Frequency (MHz)	100	400	1,000	3,000	8,000	10,000	18,000	26,500	40,000	50,000
MG-130	1040	520	320	180	110	90	70	50	45	40
MG-160	1830	910	570	320	190	170	120	100	80	
MG-200	2400	1190	740	420	250	220	160			
MG-300	5510	2720	1700	960	560	500	360			

Watts; Sea Level; Ambient +40C; VSWR 1:1

Connectors & Cable Assemblies

Times Microwave Systems designs and manufactures high performance RF and Microwave coaxial cables, connectors and cable assemblies for military, aerospace, telecommunications, compliance testing and industrial applications. We are an engineering organization committed to innovation and development of new products for demanding applications, but also a fully integrated manufacturer of cable, connectors and assemblies with cost effective production facilities and the resources of Amphenol behind us.

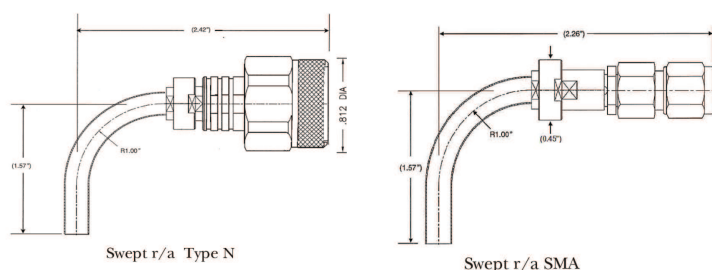
We offer a full range of connectors with all standard interfaces designed to match our microwave and provide optimum performance. Our integrated design and production expertise positions to provide custom cable assemblies to meet your requirements including phase matching, special testing, custom connectors, improved strain relief, armoring, special markings, traceability, color coding, kitting and other special requirements.

Here is the summary of the connectors we have developed for microwave cables:

Cable Connector	HF-160	HF-190	HF-290	SFT-316	SFT-142	SFT-205	SFT-304	TFlex-405	TFlex-402
SMA Male Straight	CF	3190-2722	3190-2604	3190-2738	3190-2793	3190-2289	3190-2288	3190-2711	3190-6248
SMA Male Right Angle	CF	3190-6042	CF	3190-2952	CF	3190-2733	CF	3190-2901	3190-2902
SMA Male Swept	CF	3190-6105	CF	CF	CF	3190-6089	CF	CF	CF
N Male Straight	CF	3190-2710	3190-2605	3190-2996	3190-2794	3190-2291	3190-2290	CF	3190-2921
N Male Right Angle	CF	CF	3190-6117	CF	CF	CF	CF	CF	CF
N Male Swept	CF	3190-6106	CF	CF	CF	3190-6090	CF	CF	CF
TNC Male Straight	CF	3190-2723	3190-2606	3190-2994	CF	3190-2676	3190-2584	CF	CF
TNC Male Swept	CF	3190-6107	CF	CF	CF	3190-6091	CF	CF	CF
3.5MM Male Straight	CF	3190-6044	CF	CF	CF	3190-2925	CF	CF	CF
3.5MM Male Swept	CF	3190-6108	CF	CF	CF	3190-6156	CF	CF	CF
2.92MM Male Straight	3190-6269	CF	CF	CF	CF	CF	CF	3190-6225	3190-2842
2.92MM Male Swept	3190-6308	CF	CF	CF	CF	CF	CF	CF	CF
Straighteel Armor Option	MI-10642	MI-10630	MI-10635	CF	CF	MI-10630	CF	CF	CF

*CF: Consulting Factory

Swept option: Swept replaceable screw tube is available to satisfy the right angle requirement with an effective cost, while the performance could be maintained the same as the straight connectors.



* Dimension is just for reference, detailed information please contact factory.



Armored option: Steel armor is available as an option to provide the cable assembly the additional protection for rough field application.



SilverLine® - VNA Flex Supreme™

(50 & 67 GHz) ISO 9001 Certified

Coaxial Test Cables

- **Communications:**
Inter-satellite, point-to-point & wireless HDMI
- **Wafer Test:**
Probe connections
- **Electronic Warfare:**
Targeting/tracking systems
- **Research:**
Component & subsystem development

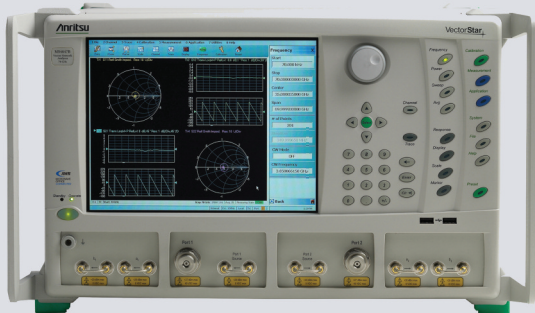


Photo courtesy Anritsu



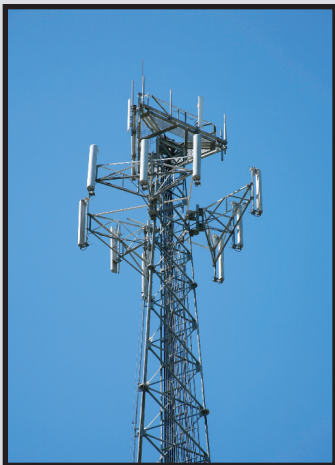
SilverLine®-VNA Flex Supreme™ 50 & 67 GHz are extremely flexible, very high frequency coax cable assemblies designed for Vector Network Analyzer use. The high flexibility is ideal for use with small or delicate circuitry. "Light" armoring helps reduce accidental damage without adding excess weight and/or inhibiting flexibility. A Nomex®, abrasion resistant outer braid improves feel and handling characteristics.

SilverLine®-VNA Flex Supreme™ 50 & 67 GHz are also phase, amplitude & return loss stable over many thousands of flexes when handled in accordance with Times' recommendations.

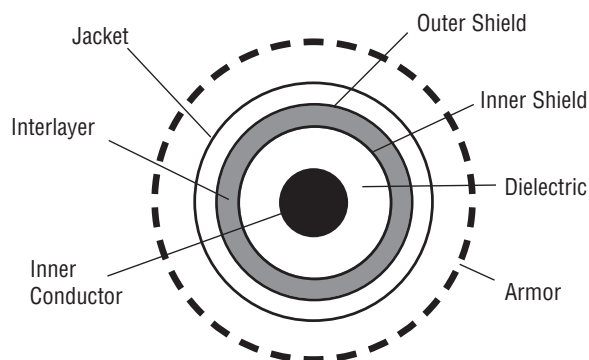
Features & Benefits:

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

Nomex is a registered trademark of Dupont



SilverLine®-VNA Flex Supreme™ (50 & 67 GHz)



Cable Construction:

Inner Conductor:

Solid silver plated copper.

Dielectric:

Micro-porous PTFE.

Inner Shield:

Helically wound silver plated copper flat strip.

Outer Shield:

Silver plated copper round wire braid

Jacket:

FEP

Armor:

Stainless steel flat coil, stainless steel torque resistant wire braid, PVC jacket, Nomex® abrasion resistant sleeve.

Connectors:

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

Physical & Mechanical Specifications

Dimensions	in	mm
Outside Diameter	0.308	7.8
Min bend radius (max flex life)	1 (4)	25 (100)
Flex life (min)*	50,000	
Crush Resistance (armored)	188 lbs per linear inch	
Mating Life Cycle**	500	
Temperature Range	-67°/+194°F	-55°/+90°C

Electrical Specifications

VSWR Max	50 Ghz	67 Ghz
	1.3:1	1.4:1
Impedance	50 Ohms	
Velocity of Propagation	78%	
Shielding Effectiveness	>100dB	
Capacitance	25.9 pF/ft (85pF/m)	
Phase Stability typical (max) *	50 Ghz	67 Ghz
	+/-3 (+/- 8)deg	+/-5 (+/-10)deg
Amplitude Stability	+/- 0.12db	+/-0.15db
Attenuation, max @ 77°F (25°C)	50 Ghz	67 Ghz
	dB/ft (m)	dB/ft (m)
	1.04 (3.42)	1.98 (6.5)
Maximum attenuation at any frequency: $(K1 \times \sqrt{f(\text{ghz})}) + (K2 \times f(\text{ghz}))$ K1 = 0.671, K2 = 0.0135		
Cable Power Handling @77°F (25°C) sea level, watts, (max)		
Frequency (Ghz)	50 Ghz	67 Ghz
	18w	14w

* See SilverLine-VNA 26.5 & 40 GHz data sheet for test details or contact your Times representative.

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

Care and Handling Guidelines:

While armored, 50 & 67 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 other 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.

Ordering Information

SilverLine Steel Armored, VNA
(Nomex® cover)

Every half foot or quarter meter. 2 ft (0.75) shortest, 6 ft, (2m) longest.

SLSVXX-XXXXXX-XX.XXX

50 = 50 GHz
67 = 67 GHz

F = Feet
M = Meter

Connector Codes

18M = 1.85mm Male
18F = 1.85mm Female
24M = 2.4mm Male
24F = 2.4mm Female

First Connector
↓
Second Connector

**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.

SilverLine®-VNA (110 GHz)

Coaxial Test Cables

ISO 9001 Certified

- **Automotive:**
Collision avoidance radar test
- **Communications:**
Point-to-point backhaul system test
- **Wafer Test:**
Probe Connections
- **Electronic Warfare:**
*Targeting/tracking systems.
Satellite testing*
- **Environmental:**
Remote atmospheric sensing



Photo courtesy of Anritsu

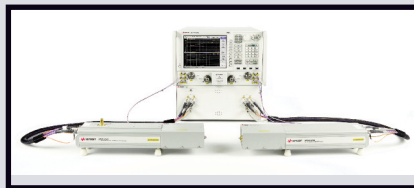


Photo courtesy of Keysight



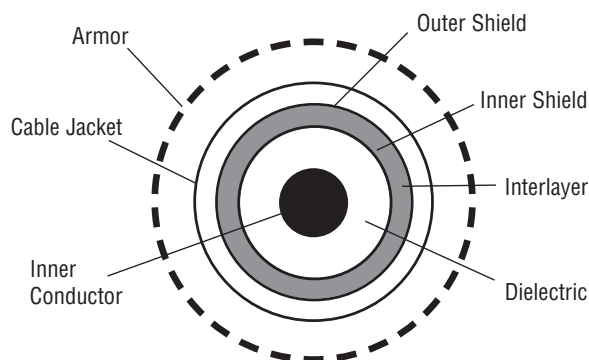
SilverLine®-VNA 110 GHz is an armored, extremely high frequency coax cable assembly designed for use where waveguide is impractical.

SilverLine®-VNA 110 GHz now offers the user working in these frequencies an alternative to the limited selection of semi-rigid solutions offered by current suppliers. Test technicians experienced in the use and handling of traditional 110 GHz products will find Times' solution to be more than competitive for RF stability and overall product life.

Features & Benefits:

- Flexible / rebendable
- Steel armored, torque resistant
- Nomex outer sleeve
- 1.0mm male and female connectors
- ROHS Compliant

SilverLine®-VNA (110 GHz)



Cable Construction

Inner Conductor:

Solid silver plated copper.

Dielectric:

Micro-porous PTFE

Inner Shield:

Helically wound silver plated copper flat strip.

Outer Shield:

Silver plated copper round wire braid.

Jacket: FEP

Armor:

Stainless steel flat coil, stainless steel torque resistant wire braid, PVC jacket, nomex abrasion resistant sleeve

Care and Handling Guidelines:

While armored, 110 GHz cables are sensitive microwave instruments. 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. 1.0mm 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 will damage the interfaces and voids the warranty. Test equipment makers publish extensive use and handling procedures on their websites that cover these and other topics.

Always:

- Inspect interfaces before every mate. Clean if needed.
- Gently start the coupling nut and fully thread with fingers first.
- Hand tighten, but use a calibrated torque wrench to tighten. 4 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.

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.

Physical & Mechanical Specifications

Dimensions	in	mm
Outside Diameter	0.18	4.6
Min Bend Radius (Rebendable)	0.40 (1.0)	10 (25)
Mating Life Cycle	500	
Temperature Range	-65° C - +125° C	

Electrical Specifications

VSWR (DC-110 GHz)	1.25:1 typical 1.40: max
Impedance	50 Ohms
Velocity of Propagation	78%
Shielding Effectiveness	>100 dB
Capacitance	25.9 pf/ft (85pf/m)
Phase Stability (over 2000 flexes ¹)	+/- 10°
Time Delay	4.3ns/m
Attenuation, max @ 77° (25° C)	
Frequency (GHz)	dB/m
50	10.76
72	13.06
84	14.19
96	15.24
110	16.42

Connectors:

Stainless steel. Solder contact and braid. Additional crimp to armor for added strength and torsion resistance.

1. Standard "tick-tock" flex test. Contact Times for test details.

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

Ordering Information

SilverLine Steel Armored
(Nomex cover)

Whole centimeters
(7 cm min, 45 cm max length)

SLSV 110-XXXXXX-CM

110 GHz

Connector Codes

10M = 1.0mm Male

10F = 1.0mm Female

First Connector
↓
Second Connector

*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.

MISSION

TIMES MICROWAVE SYSTEMS designs and manufactures high performance RF and microwave transmission lines. These products consist of coaxial cables, connectors, accessories and cable assemblies.

We are committed to understanding the needs and requirements of our customers and providing highly engineered, cost effective products.

TIMES MICROWAVE SYSTEMS is dedicated to total customer satisfaction and superior results for our shareholders in all we do.



World Headquarters: 358 Hall Avenue, Wallingford, CT 06492 • Tel: 203-949-8400, 1-800-867-2629 Fax: 203-949-8423

International Sales: 4 School Brae, Dysart, Kirkcaldy, Fife, Scotland KY1 2XB UK • Tel: +44(0)1592655428

China: Bld 4, No.318 Yuanshan Road, Shanghai, China 201108 • Tel: 86-21-51761234 Fax: 86-21-64424098

www.timesmicrowave.com