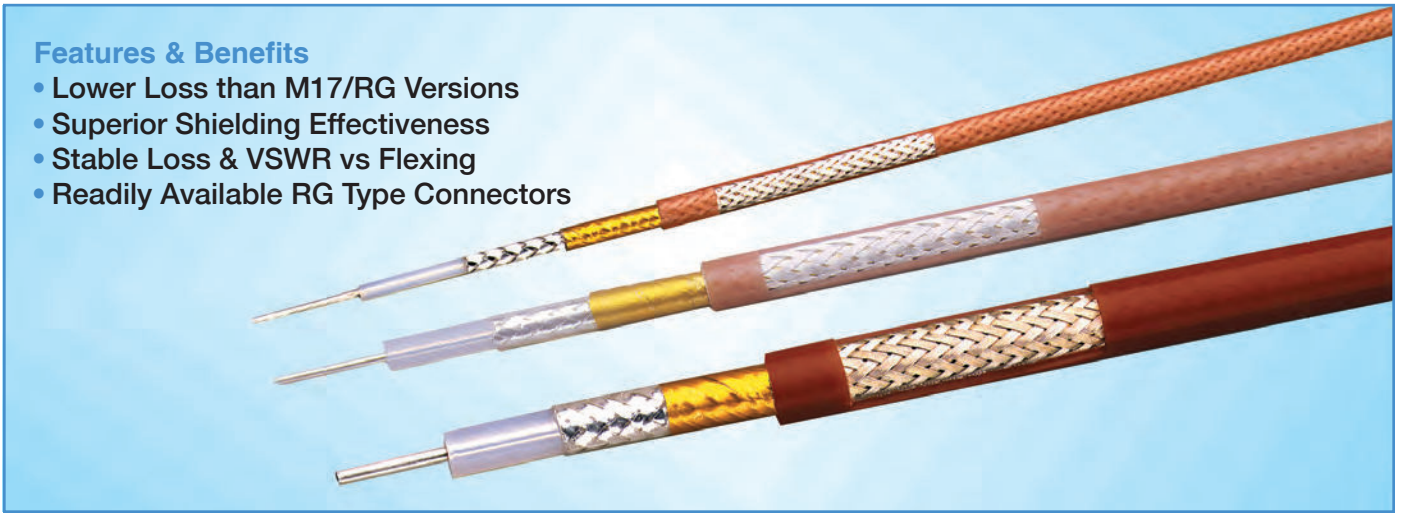
StripFlex®

Low Loss – High Performance Coax

- Low Loss Microwave Interconnect
- Wireless Base Station Interconnect



StripFlex cables are identical in materials and construction to their M17/RG predecessors, with the exception of the outer conductor.

The StripFlex shielding system, pioneered by Times Microwave Systems in the mid-sixties, consists of an inner silver plated flat ribbon braid (FSC), a spirally applied and overlapped composite aluminum tape interlayer (Intl), and an overall silver plated round wire braid (SC). The StripFlex shield affords approximately 15% 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 ribbons 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 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.

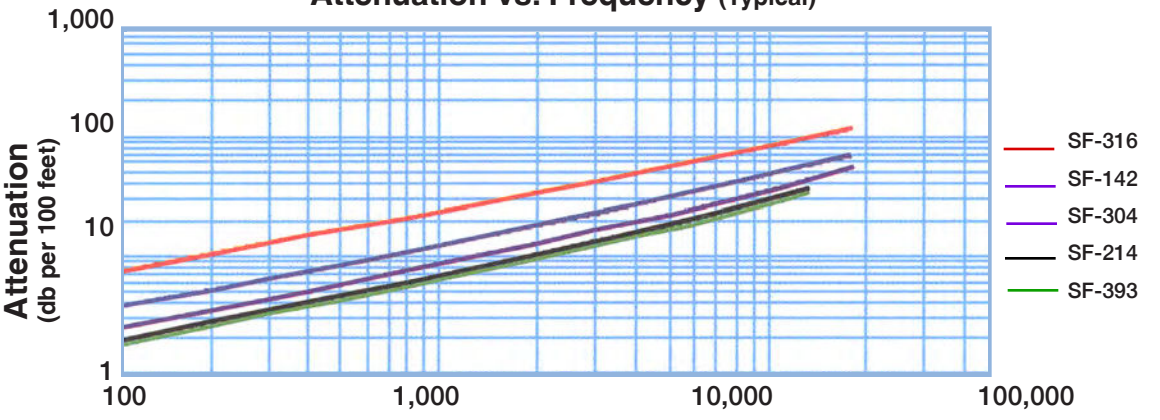
Standard inexpensive connectors (crimp or clamp style) commonly used on the M17/RG counterparts can be used on StripFlex.

StripFlex Low Loss High Performance Coaxial Cables

TMS Number	Conductor inches (mm)	Dielectric inches (mm)	Shields inches (mm)	Jacket inches (mm)	Weight lbs/foot (kg/m)	Impedance ohms Vp(%)	Capacitance pF/foot (pF/m)	DC Resistance ohms/1kft (/km) Cent. Cond	DC Resistance ohms/1kft (/km) Shield	Oper. Voltage kvrms	Temp. Range F (C)	Min. Bend Radius in (mm)	Test Freq.
SF-316	SCCS 7/.0067" 0.0201 (0.51)	PTFE 0.060 (1.52)	FSC Intl: SC 0.093 (2.36)	FEP-IX 0.110 (2.79)	0.013 (0.019)	50 +/- 1 69.5	29.4 (96.5)	83.3 (273.3)	4.4 (14.4)	1.2	-67 +392 (-55 +200)	0.5 (12.7)	.05-3 GHz
SF-142	SCCS 0.037 (0.94)	PTFE 0.116 (2.95)	FSC Intl: SC 0.154 (3.91)	FEP-IX 0.195 (4.95)	0.043 (0.064)	50 +/- 1 69.5	29.4 (96.5)	19.1 (62.7)	2.9 (9.4)	1.9	-67 +392 (-55 +200)	1 (25.4)	.05-18 GHz
SF-304	SCCS 0.059 (1.50)	PTFE 0.185 (4.70)	FSC Intl: SC 0.231 (5.87)	FEP-IX 0.290 (7.37)	0.105 (0.1564)	50 +/- 1 69.5	29.4 (96.5)	7.5 (24.6)	1.7 (5.4)	3.0	-67 +392 (-55 +200)	1.5 (38.1)	.05-18 GHz
SF-214	SC 7/.0296" 0.0888 (2.26)	PE 0.285 (7.24)	FSC Intl: SC 0.330 (8.38)	PVC-IIA 0.425 (10.8)	0.116 0.116 (0.173)	50 +/- 1 65.9	30.8 (101)	1.71 (5.6)	1.36 (4.5)	5.0	-40 +176 (-40 +80)	2 (50.8)	.05-12 GHz
SF-393SC 7/.0312"	PTFE 0.094 (2.39)	FSC: 0.285 (7.24)	FEP-IX Intl: SC 0.330 (8.38)	0.188 0.390 (9.91)	50 +/- 1 (0.280)	29.4 69.5	1.54 (96.5)	1.08 (5.1)	5.0 (3.5)	-67 +392	2 (-55 +200)	.05- (50.8)	12 GHz

- Low Passive Intermod
- High Temperature /Low Temperature
- High Power

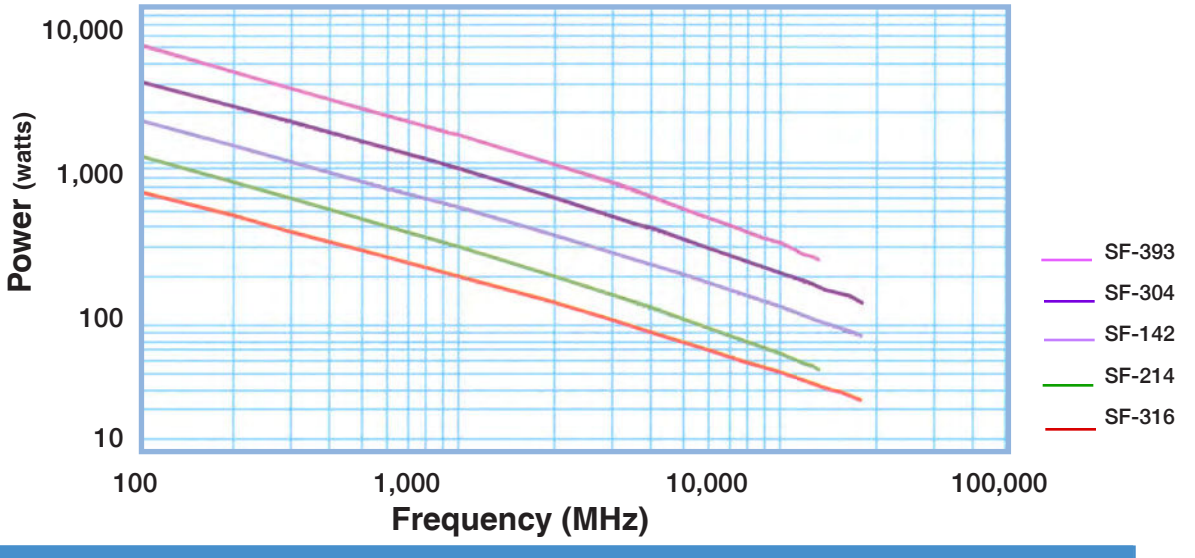
Attenuation vs. Frequency (Typical)



Frequency (MHz)	100	400	1,000	2,000	3,000	5,000	10,000	12,000	13,500	16,000	18,000	k1	k2
SF-316	7.2	15	24	34	42	56	83	92	98	109	117	0.708	0.00120
SF-142	3.6	7.4	12	18	23	31	47	53	57	63	68	0.348	0.00120
SF-304	2.4	5.1	8.5	13	16	22	35	40	43	48	53	0.231	0.00120
SF-214	1.8	3.9	6.7	10	13	18	30	34	37	-	-	0.172	0.00126
SF-393	1.8	3.8	6.4	10	13	18	28	32	35	-	-	0.164	0.00120

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	2,000	3,000	5,000	10,000	12,000	13,500	16,000	18,000
SF-393	5303	2474	1450	946	729	517	315	274	251	-	--
SF-304	3192	1514	903	599	467	336	210	184	169	149	136
SF-142	1796	864	522	352	277	202	129	114	105	93	85
SF-214	1102	515	302	197	152	108	66	58	53	-	-
SF-316	672	328	200	136	108	80	52	46	42	38	35

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