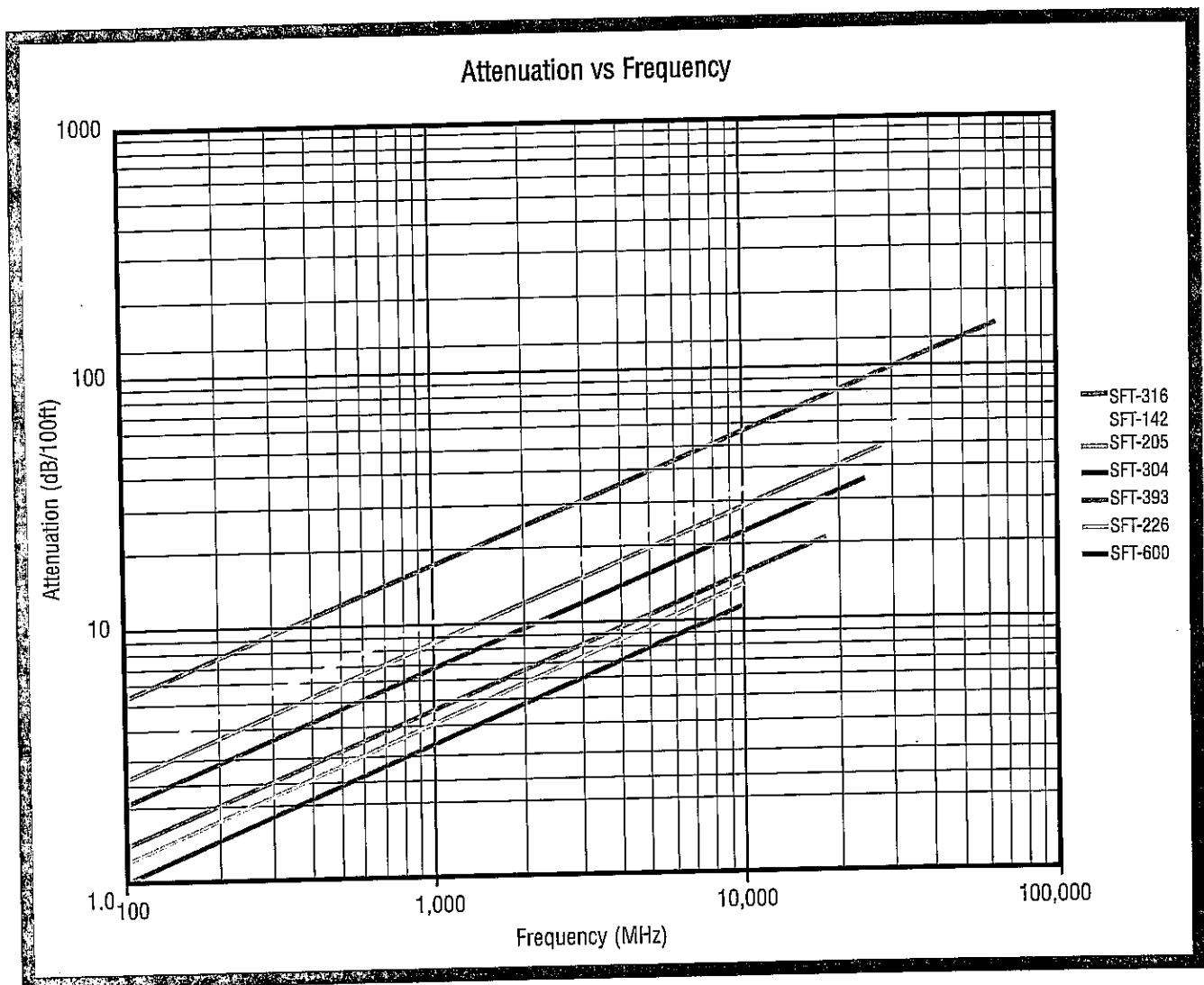


SFT™ High Performance Microwave Coaxial Cables, Connectors

The SFT Product Line has been successfully deployed in a broad range of applications. It has been used in system level microwave interconnects for airborne and ground based military as well as, commercial telecom applications. It performs admirably as a low loss test cable for production testing of RF components and equipment with excellent phase stability and durability. The larger sizes are ideal for high power industrial applications, where their high power handling combined with flexibility provide long life in semi-conductor manufacturing equipment and robotic laser cutting equipment. Interconnects in MRI systems and other medical applications utilize the low loss and stability that these cables provide. The smaller sizes have been used

as board level interconnects within LRU's in both military and commercial systems.

Our expertise as a cable assembly supplier has led to the refinement of these cable designs. They provide an excellent combination of outstanding electrical performance, mechanical ruggedness and cost effectiveness. Combined with the availability of a good selection of connectors, this makes them the practical choice for a broad range of demanding applications. Our field engineers can help you to select the right cable for your application from the range of SFT cables or the large range of other standard and special cables produced by Times Microwave Systems.



SFT™ Specifications

	SFT-316		SFT-142		SFT-205	
Physical & Mechanical Specifications						
Dimensions	inches	mm	inches	mm	inches	mm
Center Conductor	0.0226	(0.57)	0.0403	(1.02)	0.0508	(1.29)
Dielectric	0.068	(1.73)	0.121	(3.07)	0.164	(4.17)
Inner Shield 0.078	(1.98)	0.131	(3.33)	0.164	(4.17)	0.195
Interlayer	0.083	(1.85)	0.136	(3.48)	0.169	(4.29)
Outer Shield 0.096	(2.44)	0.158	(4.01)	0.187	(4.75)	0.227
Jacket	0.120	(3.05)	0.180	(4.57)	0.205	(5.21)
Bend Radius: minimum	0.500	(12.7)	0.750	(19.1)	1.000	(25.4)
Weight	0.018 lbs/ft	(0.03 kg/m)	0.036 lbs/ft	(0.05 kg/m)	0.042 lbs/ft	(0.06 kg/m)
Temperature Range	-67°/+392°F			(-55°/+200°C)		
Electrical Specifications						
Impedance	50 ohms		50 ohms		50 ohms	
Velocity of Propagation	76 %		76 %		76 %	
Dielectric Constant	1.73		1.73		1.73	
Shielding Effectiveness	>100 dB		>100 dB		>100 dB	
Time Delay	1.34 nS/ft	(4.39 nS/m)	1.34 nS/ft	(4.39 nS/m)	1.34 nS/ft	(4.39 nS/m)
Capacitance	26.7 pF/ft	(87.7 pF/m)	26.7 pF/ft	(87.7 pF/m)	26.7 pF/ft	(87.7 pF/m)
Inductance	0.067 uH/ft	(0.22 uH/m)	0.067 uH/ft	(0.22 uH/m)	0.067 uH/ft	(0.22 uH/m)
Cutoff Frequency	63 GHz		35 GHz		28 GHz	
Voltage Withstand	500 DC		1000 DC		1500 DC	
Peak Power	0.6 kW		2.5 kW		5.6 kW	
DC Resistance - ohms	ohms/1000ft	(ohms/km)	ohms/1000ft	(ohms/km)	ohms/1000ft	(ohms/km)
Inner Conductor	20.3	(66.6)	6.39	(21.0)	4.02	(13.2)
Outer Conductor	5.54	(18.2)	3.10	(10.2)	2.43	(8.0)
Attenuation & Power Handling (+25°C Ambient) & Power Handling (+40°C Ambient; Sea Level; VSWR 1:1)						
Frequency (MHz)	dB/100ft	dB/100m	kW	dB/100ft	dB/100m	kW
13.56	2.0	7	4.044	1.2	3.8	5.040
30	3.0	10	2.713	1.7	5.7	3.382
100	5.5	18	1.478	3.2	10.4	1.843
150	7	22	1.203	3.9	12.8	1.501
400	11	36	0.730	6.4	20.9	0.912
900	17	55	0.481	9.6	31.6	0.601
1000	18	58	0.455	10.2	33.3	0.569
1500	22	71	0.368	12.5	41.0	0.461
2000	25	82	0.316	14.5	47.4	0.397
3000	31	101	0.255	17.8	58.4	0.320
4000	36	117	0.219	20.7	67.8	0.275
5000	40	131	0.194	23.2	76.1	0.244
6000	44	144	0.175	25.5	83.7	0.221
8000	51	167	0.149	29.6	97.3	0.189
10000	57	187	0.132	33.3	109.4	0.167
12000	63	205	0.119	36.7	120.4	0.151
13500	67	218	0.111	39.1	128.2	0.141
15000	70	231	0.105	41.3	135.6	0.133
18000	77	253	0.094	45.5	149.4	0.120
24000	90	295	0.079	53.2	174.5	0.101
28000	97	319	0.072	57.8	189.7	0.092
35000	110	359	0.063	65.3	214.2	0.081
63000	150	492	0.043			
Attenuation at Frequency				(A=K1 FMHz + K2 FMHz)		
K1	0.551680		0.315330		0.260980	

SFT-304		SFT-393		SFT-226		SFT-600	
inches	mm	inches	mm	inches	mm	inches	mm
0.062	(1.57)	0.096	(2.44)	0.131	(3.33)	0.163	(4.14)
0.185	(4.70)	0.285	(7.24)	0.370	(9.40)	0.455	(11.56)
(4.95) 0.295		(7.49) 0.380		(9.65) 0.465		(11.81)	
0.200	(5.08)	0.300	(7.62)	0.385	(9.78)	0.470	(11.94)
(5.77) 0.319		(8.10) 0.399		(10.14) 0.499		(12.67)	
0.250	(6.35)	0.390	(9.91)	0.485	(12.32)	0.565	(14.35)
1.250	(31.8)	2.000	(50.8)	2.500	(63.5)	3.000	(76.2)
0.067 lbs/ft	(0.10 kG/m)	0.126 lbs/ft	(0.19 kG/m)	0.235 lbs/ft	(0.35 kG/m)	0.265 lbs/ft	(0.39 kG/m)
-67°/+392°F				(-55°/+200°C)			

50 ohms		50 ohms		50 ohms		50 ohms	
76 %		76 %		76 %		76 %	
1.73		1.73		1.73		1.73	
>100 dB		>100 dB		>100 dB		>100 dB	
1.34 nS/ft	(4.39 nS/m)	1.34 nS/ft	(4.39 nS/m)	1.34 nS/ft	(4.39 nS/m)	1.34 nS/ft	(4.39 nS/m)
26.7 pF/ft	(87.7 pF/m)	26.7 pF/ft	(87.7 pF/m)	26.7 pF/ft	(87.7 pF/m)	26.7 pF/ft	(87.7 pF/m)
0.067 uH/ft	(0.22 uH/m)	0.067 uH/ft	(0.22 uH/m)	0.067 uH/ft	(0.22 uH/m)	0.067 uH/ft	(0.22 uH/m)
23 GHz		15 GHz		11 GHz		9.2 GHz	
2000 DC		2500 DC		3000 DC		4000 DC	
10 kW		16 kW		22 kW		40 kW	
ohms/1000ft	(ohms/km)	ohms/1000ft	(ohms/km)	ohms/1000ft	(ohms/km)	ohms/1000ft	(ohms/km)
2.70	(8.9)	1.13	(3.7)	0.63	(2.1)	0.52	(1.7)
2.02	(6.6)	1.3	(4.3)	1.04	(3.4)	0.8	(2.6)

Attenuation (+25°C Ambient) & Power Handling (+40°C Ambient; Sea Level; VSWR 1:1)

dB/100ft	dB/100m	kW	dB/100ft	dB/100m	kW	dB/100ft	dB/100m	kW	dB/100ft	dB/100m	kW
0.8	2.5	9.057	0.5	1.7	16.417	0.5	1.5	20.571	0.4	1.2	26.138
1.1	3.8	6.076	0.7	2.5	11.007	0.7	2.2	13.788	0.6	1.8	17.512
2.1	6.9	3.310	1.4	4.5	5.987	1.2	4.1	7.496	1.0	3.4	9.509
2.6	8.5	2.695	1.7	5.6	4.871	1.5	5.0	6.097	1.3	4.2	7.731
4.2	13.9	1.635	2.8	9.2	2.948	2.5	8.2	3.686	2.1	6.9	4.665
6.4	21.0	1.077	4.2	13.9	1.936	3.8	12.5	2.418	3.2	10.5	3.052
8.8	27.3	0.826	5.5	18.2	1.480	5.0	16.4	1.846	4.2	13.8	2.326
9.7	31.7	0.710	6.4	21.1	1.270	5.8	19.1	1.584	4.9	16.1	1.992
11.9	39.2	0.573	8.0	26.2	1.022	7.2	23.7	1.272	6.1	20.0	1.597
13.9	45.5	0.491	9.3	30.6	0.874	8.4	27.6	1.087	7.1	23.4	1.362
15.6	51.2	0.435	10.5	34.5	0.773	9.5	31.2	0.961	8.1	26.5	1.202
17.2	56.4	0.394	11.6	38.1	0.698	10.5	34.5	0.868	8.9	29.3	1.084
20.1	65.8	0.336	13.6	44.6	0.594	12.3	40.5	0.738	10.5	34.5	0.919
22.6	74.2	0.287	15.4	50.5	0.524	14.0	45.9	0.649			
25.0	81.9	0.268	17.1	55.9	0.471						
26.6	87.3	0.251	18.2	59.8	0.440						
28.2	92.5	0.236	19.3	63.5	0.414						
31.2	102.2	0.213									
36.6	119.9	0.180									

(A=K1 FMHz + K2 FMHz)

0.208100

0.135930

0.121830

0.101373

Specifications subject to change without notice.

For further information, pricing and delivery, please contact our Sales Department.