

**SCF12-75J****1/2" CELLFLEX® Superflexible Foam-Dielectric Coaxial Cable**RFS-CELLFLEX-
SCF12.png

CELLFLEX® 1/2" superflexible cable

Features / Benefits

- **Ultra Low Attenuation**
The reduced attenuation of CELLFLEX® coaxial cable results in extremely efficient signal transfer in your RF system, especially at high frequencies.
- **Complete Shielding**
The solid outer conductor of CELLFLEX® coaxial cable creates a continuous RFI/EMI shield that minimizes system interference.
- **Low VSWR**
Special low VSWR versions of CELLFLEX® coaxial cables contribute to low system noise.
- **Outstanding Intermodulation Performance**
CELLFLEX® coaxial cable's solid inner and outer conductors virtually eliminate intermods. Intermodulation performance is also confirmed with state-of-the-art equipment at the RFS factory.
- **High Power Rating**
Due to their low attenuation, outstanding heat transfer properties and temperature stabilized dielectric materials, CELLFLEX® cable provides safe long term operating life at high transmit power levels.
- **Wide Range of Application**
Typical areas of application are: feedlines for broadcast and terrestrial microwave antennas, wireless cellular, PCS and ESMR base stations, cabling of antenna arrays, and radio equipment interconnects.

Technical Features**STRUCTURE**

Cable Type	SCF
Size	1/2"
Jacket Option	Outdoor
Inner Conductor Material	Copper Wire
Dielectric Material	Foam Polyethylen
Outer Conductor Material	Corrugated Copper
Jacket Material	Black Polyethylen

MECHANICAL SPECIFICATION

Inner Conductor Diameter	2.1mm (0.083in)
Dielectric Diameter	8.6mm (0.339in)
Outer Conductor Diameter	12.2mm (0.48in)
Jacket Diameter	15mm (0.591in)
Cable Weight	0.23kg/m (0.155lb/ft)
Min. Bending Radius, Repeated Bends	30mm (1.181in)
Bending Moment	3.6Nm (2.657ft-lbf)
Tensile Strength	520N (116.901lb)
Recommended Clamp Spacing	0.3m (0.984ft)



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ELECTRICAL SPECIFICATION

Impedance	75 ±1 Ω
Max. Operating Frequency	13 GHz
Velocity	81 %
Capacitance	55pF/m (16.764pF/ft)
Peak Power Rating	12.1 kW
RF Peak Voltage	1.35 kV
Jacket Spark	5 kV
DC-Resistance Inner Conductor	5.13Ω/km (1.564Ω/kft)
DC-Resistance Outer Conductor	4.95Ω/km (1.509Ω/kft)
Return Loss (VSWR) Performance	Standard 20dB (1.222) / Premium 23/24dB (1.152/1.135) on specified frequencies.

TESTING AND ENVIRONMENTAL

Fire Performance	Halogen Free
Compliance	RoHS 2011/65/EU China RoHS SJ/T 11364-2006 REACH (EC 1907/2006) IEC 60754-1/-2 Halogen Acid Gases
Installation Temperature, Minimum	-40°C (-40°F)
Installation Temperature, Maximum	60°C (140°F)
Storage Temperature, Minimum	-70°C (-94°F)
Storage Temperature, Maximum	85°C (185°F)
Operation Temperature, Minimum	-50°C (-58°F)
Operation Temperature, Maximum	85°C (185°F)



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ATTENUATION AND POWER RATING

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
75	2.72	0.83	2.50
100	3.16	0.96	2.15
150	3.90	1.19	1.74
200	4.53	1.38	1.50
450	6.98	2.13	0.97
700	8.87	2.70	0.77
800	9.55	2.91	0.71
870	10.0	3.05	0.68
900	10.19	3.11	0.67
960	10.56	3.22	0.64
1800	15.04	4.58	0.45
2000	15.98	4.87	0.43
2200	16.88	5.15	0.40
2400	17.75	5.41	0.38
2600	18.6	5.67	0.37
2700	19.01	5.80	0.36
3000	20.23	6.17	0.34
3500	22.16	6.76	0.31
4000	24.00	7.32	0.28
5000	27.47	8.37	0.25
6000	30.72	9.36	0.22
Note	"Standard Conditions: For attenuation: VSWR 1.0, cable temperature 20°C (68°F). For average power: VSWR 1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F). No solar loading."		