



CELLFLEX® 1/2" superflexible cable; flame retardant/ halogen free jacket

FEATURES / BENEFITS

- **Low Attenuation**

The low attenuation of CELLFLEX® coaxial cable results in highly efficient signal transfer in your RF system.

- **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.

- **Meets/Exceeds:** IEC 60754-1, -2; IEC 60332-1-1; IEC 61034-1, -2; IEC 60332-3-24; EN45545-2; EN50575



Technical features

APPLICATIONS

Applications	OEM jumpers, Main feed transitions to equipment, GPS lines, Riser-rated In-Building, CPR classified cable
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STRUCTURE

Cable Type		Foam-Dielectric, Superflexible
Size		1/2
Inner Conductor Diameter	mm (in)	3.56 (0.14)
Inner Conductor Material		Copper-Clad Aluminum Wire
Dielectric Diameter	mm (in)	9.3 (0.366)
Dielectric Material		Foam Polyethylene
Outer Conductor Diameter	mm (in)	12.3 (0.48)
Outer Conductor Material		Corrugated Copper
Jacket Diameter	mm (in)	13.75 (0.54)
Jacket Material		Black Polyethylene, Metalhydroxite Filling

TESTING AND ENVIRONMENTAL

Fire Performance		Flame Retardant, LSOH
Installation Temperature	°C(°F)	-25 to 60 (-13 to 140)
Storage Temperature	°C (°F)	-70 to 85 (-94 to 185)
Operation Temperature	°C(°F)	-50 to 85 (-58 to 185)



ELECTRICAL SPECIFICATIONS

Impedance	Ω	50 +/- 1
Maximum Frequency	GHz	10.6
Velocity	%	77
Capacitance	pF/m (pF/ft)	86 (26)
Inductance	uH/m (uH/ft)	0.215 (0.066)
Peak Power Rating	kW	24
RF Peak Voltage	Volts	1550
Jacket Spark	Volt RMS	5000
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	2.97 (0.9)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	6.5 (1.88)
Passive Intermodulation PIM	typ. dBc	-160
Return Loss (VSWR) Performance		Standard 20dB (1.222) / Premium 23/24dB (1.152/1.135) on specified frequencies
Phase Stabilized		Phase stabilized and phase matched cables and assemblies are available upon request.
Temperature & Power		Standard

MECHANICAL SPECIFICATIONS

Cable Weight, Nominal	kg/m (lb/ft)	0.15 (0.1)
Minimum Bending Radius, Repeated Bends	mm (in)	32 (1.3)
Bending Moment	Nm (lb-ft)	2.5 (1.84)
Tensile Strength	N (lb)	650 (146)
Recommended / Maximum Clamp Spacing	m (ft)	0.3 / 0.5 (1 / 1.64)

ATTENUATION @ 20°C (68°F) AND POWER RATING @ 40°C (104°F)

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
100	3.21	0.98	2.20
200	4.60	1.40	1.53
450	7.04	2.14	1
700	8.91	2.71	0.79
800	9.57	2.92	0.74
900	10.20	3.11	0.69
1800	14.90	4.55	0.47
2000	15.80	4.82	0.45
2200	16.70	5.09	0.42
2400	17.50	5.35	0.40
2700	18.80	5.72	0.38
3000	19.90	6.07	0.36
3500	21.80	6.63	0.32
4000	23.50	7.16	0.30
5000	26.80	8.16	0.26
10600	42.14	12.85	0.17



External Document Links

Notes

- Notes SCF12-50JFNTC: TC cables (temperature cycled) are cables that are aged in order to reduce hysteresis effects. Available upon request.
- Europe ordering code:
 - SCF12-50JFN-1-50: SCF12-50JFN, 50m length, Carton
 - SCF12-50JFN-1-100: SCF12-50JFN, 100m length, Carton
 - SCF12-50JFN-1-500: SCF12-50JFN, 500m length, Drum 08-053-X