



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

INFORMATION

Applications		OEM jumpers, Main feed transitions to equipment, GPS lines, intended for outdoor usage
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STRUCTURE

Size		1/2
Inner Conductor Diameter	mm (in)	3.6 (0.142)
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 (0.484)
Outer Conductor Material		Corrugated Copper
Jacket Diameter	mm (in)	13.7 (0.539)
Jacket Material		Black Polyethylene

TESTING AND ENVIRONMENTAL

Phase Stabilized		Phase stabilized and phase matched cables and accessories are available upon request.
Compliance		DIN EN ISO 9001:2015 ISO 14001:2015 RoHS 2011/65/EU - China RoHS SJ/T 11364-2006 REACH (EC 1907/2006) UL1581 - UV Resistance Jacket IEC 60754-1/-2
Installation Temperature	°C(°F)	-40 to 60 (-40 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	μ H/m (μ H/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 (1.98)
Passive Intermodulation PIM	typ. dBc	-160
Return Loss (VSWR) Performance		Standard 20dB (1.222) / Premium 23/24dB (1.152/1.135) on specified frequencies

MECHANICAL SPECIFICATIONS

Cable Weight, Nominal	kg/m (lb/ft)	0.135 (0.09)
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
1	0.31	0.1	22.6
100	3.21	0.98	2.20
200	4.60	1.40	1.54
450	7.04	2.14	1.00
700	8.91	2.71	0.79
800	9.57	2.92	0.74
900	10.2	3.11	0.69
1800	14.93	4.55	0.47
2000	15.83	4.83	0.45
2200	16.70	5.09	0.42
2400	17.54	5.35	0.40
2700	18.75	5.72	0.38
3000	19.91	6.07	0.35
3500	21.75	6.63	0.32
4000	23.50	7.16	0.30
5000	26.78	8.16	0.26
10600	42.14	12.85	0.17

**RELATED PRODUCTS**

Connector Interface	Standard Connector Series C03	Premium Connector Series E01	Premium Connector Series D01 *only on request
N Male	NM-SCF12-C03	NM-SCF12-E01	NM-SCF12-D01
N Female	NF-SCF12-C03	NF-SCF12-E01	NF-SCF12-D01
4.3-10 Male	43M-SCF12-C03	43M-SCF12-E01	43M-SCF12-D01
4.3-10 Female	43F-SCF12-C03	43F-SCF12-E01	43F-SCF12-D01
7/16 Male	716M-SCF12-C03	716M-SCF12-E01	716M-SCF12-D01
7/16 Female	716F-SCF12-C03	716F-SCF12-E01	716F-SCF12-D01
Mandatory Tool	TRIM-SET-S12-C02	TRIM-SET-S12-D01	
Tool Information	Universal Trimming Tool For *-C02 And *-C03 Connector Series	Universal Trimming Tool For *-D01 And *-E01 Connector Series	
Installation Video	**SCF12-C03	**SCF12-E01	**SCF12-D01
General Accessories			
Hand Tool Kit	TRIM-T01		
Grounding Kit	EAR-12-S		

External Document Links[CELLFLEX Drum Selection Guide](#)**Notes**

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