### CELLFLEX® 1/2" superflexible cable

### **FEATURES / BENEFITS**

#### Ultra Low Attenuation

The reduced attenuation of CELLFLEX® coaxial cable results in extremly 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**

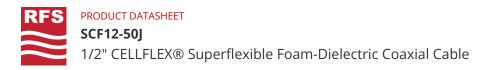
Applications	OEM jumpers, Main feed transitions to equipment, GPS lines, intended for outdoor usage
STRUCTURE	

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)		
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)		

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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 (1.98)		
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 I	POWER RATIN	G @ 40°C (104°F)		
Frequency, MHz	dB per 100m		dB per 100ft	Power, kW
100		3.21	0.98	2.2
200	4.6		1.4	1.54
450	7.04		2.14	1
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	14.93		4.83	0.45
2200	16.7		5.09	0.42
2400		17.54	5.35	0.42
2700			5.72	0.38
	18.75			
3000	19.91		6.07	0.35
3500	21.75		6.63 7.16	0.32
4000	23.5			
5000	26.78		8.16	0.26
10600	42.14		12.85	0.17

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## 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	-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

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