${\it CELLFLEX} \hbox{\it @ 1/2" low loss flexible cable; flame retardant/ halogen free jacket}$

FEATURES / BENEFITS

Low Attenuation

The low attenuation of CELLFLEX® coaxial cable results in highly efficient signal transferin 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 or Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C)

Technical features

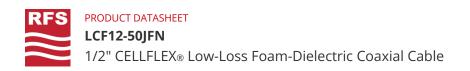
APPLICATIONS

Applications		OEM jumpers, Main feed transitions to equipment, GPS lines, Riser-rated In-Building, CPR classified cable		
STRUCTURE				
Cable Type		Foam-Dielectric, Corrugated		
Size		1/2		
Inner Conductor Diameter	mm (in)	4.8 (0.19)		
Inner Conductor Material		Copper-Clad Aluminum Wire		
Dielectric Diameter	mm (in)	11.3 (0.44)		
Dielectric Material		Foam Polyethylene		
Outer Conductor Diameter	mm (in)	13.8 (0.54)		
Outer Conductor Material		Corrugated Copper		
Jacket Diameter	mm (in)	15.8 (0.62)		
Jacket Material		Black Polyethylene, Metalhydroxite Filling		

TESTING AND ENVIRONMENTAL

Fire Performance		Flame Retardant, LS0H		
Flame Retardant Jacket Specifications	Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C); UL 1581; UL 1666; NFPA 130; NEC type CATVR; EN45545-2(GER production) CPR: https://www.rfsworld.com/searchengine/construction-products-regulation			
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)		

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Impedance	Ω	50 +/- 1	
Maximum Frequency	GHz	8.8	
Velocity	%	87	
Capacitance	pF/m (pF/ft)	76 (23.2)	
Inductance	uH/m (uH/ft)	0.19 (0.058)	
Peak Power Rating	kW	38	
RF Peak Voltage	Volts	1950	
Jacket Spark	Volt RMS	8000	
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	1.62 (0.5)	
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	3.55 (1.08)	
Return Loss (VSWR) Performance		Standard or Premium	
Min. Return Loss (Max. VSWR)	dB (VSWR)	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)	0.201 (0.135)	
Minimum Bending Radius, Single Bend	mm (in)	70 (3)	
Minimum Bending Radius, Repeated Bends	mm (in)	125 (5)	
Bending Moment	Nm (lb-ft)	6.5 (4.79)	
Tensile Strength	N (lb)	1050 (236)	
Recommended / Maximum Clamp Spacing	m (ft)	0.6 / 1 (2 / 3.25)	

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ATTENUATION @ 20°C (68°F) AND POWER RATING @ 40°C (104°F)						
Frequency, MHz	dB per 100m	dB per 100ft	Power, kW			
1	0.21	0.07	35.30			
100	2.18	0.66	3.45			
200	3.12	0.95	2.41			
450	4.77	1.45	1.57			
700	6.03	1.84	1.24			
800	6.48	1.98	1.16			
900	6.91	2.10	1.09			
1800	10.10	3.07	0.75			
2000	10.70	3.26	0.70			
2200	11.30	3.44	0.67			
2400	11.80	3.61	0.63			
2700	12.70	3.86	0.59			
3000	13.40	4.09	0.56			
3500	14.70	4.47	0.51			
4000	15.80	4.83	0.47			
5000	18	5.50	0.42			
6000	20.70	6.30	0.37			
7000	22	6.70	0.34			
8800	25.20	7.69	0.30			

External Document Links

Notes

- LCF12-50JFN**TC**: **TC** cables (temperature cycled) are cables that are aged in order to reduce hysteresis effects. Available upon request.
- Europe ordering code:

LCF12-50JFN**-1-50**: LCF12-50JFN, 50m length, Carton LCF12-50JFN**-1-100**: LCF12-50JFN, 100m length, Carton LCF12-50JFN**-1-240**: LCF12-50JFN, 240m length, Drum 06-042-X LCF12-50JFN**-1-500**: LCF12-50JFN, 500m length, Drum 08-053-X

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