CELLFLEX® 3/8" low loss flexible cable support CBRS, C-Band and LAA up to 6GHz 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

External Document Links

Notes

CELLFLEX Drum Selection Guide

Technical features

INFORMATION

Applications		OEM jumpers, BTS inter-cabinet connections, GPS lines, Microwave IF cabling, intended for outdoor usage			
STRUCTURE					
Size		3/8			
Inner Conductor Diameter	mm (in)	3.1 (0.122)			
Inner Conductor Material		Copper-Clad Aluminum Wire			
Dielectric Diameter	mm (in)	7.2 (0.283)			
Dielectric Material		Foam Polyethylene			
Outer Conductor Diameter	mm (in)	9.5 (0.374)			
Outer Conductor Material		Corrugated Copper			
Jacket Diameter	mm (in)	11.2 (0.441)			
Jacket Material		Black Polyethylene			

LCF38-50J REV : P3 REV DATE : 15 Jan 2024 www.rfstechnologies.com

Phase Stabilized		Phase stabilized	and phase matched cables and accessorie	es 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 +/- 1.5	
Maximum Frequency	GHz	13.5		
Velocity	%	88		
Capacitance	pF/m (pF/ft)	76 (23.2)		
Inductance	uH/m (uH/ft)	0.19 (0.058)		
Peak Power Rating	kW	15.4		
RF Peak Voltage	Volts	1240		
Jacket Spark	Volt RMS	5000		
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	3.8 (1.16)		
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	2.9 (0.88)		
Passive Intermodulation PIM	min. dBc	-160		
Return Loss (VSWR) Performance		20 (1.22) @ 450-617 MHz 24 (1.13) @ 617-960 MHz 24 (1.13) @ 1695-2200 MHz 20 (1.22) @ 2300-2700 MHz 18 (1.28) @ 3500-4200 MHz 16 (1.37) @ 5150-6000 MHz		
MECHANICAL SPECIFICATIONS				
Cable Weight, Nominal	kg/m (lb/ft)	0.13 (0.087)		
Minimum Bending Radius, Single Bend	mm (in)	50 (2)		
Minimum Bending Radius, Repeated Bends	mm (in)	95 (4)		
Bending Moment	Nm (lb-ft)	1.9 (1.4)		
Tensile Strength	N (lb)	530 (119)		
Recommended / Maximum Clamp Spacing	m (ft)	0.5 / 1 (1.75 / 3.25)		
ATTENUATION @ 20°C (68°F) AND I	POWER RATING	@ 40°C (104°F)		
Frequency, MHz	dB p			Power, kW
1		0.34	0.1	21.59
100		3.43	1.04	2.12

LCF38-50J REV : P3 REV DATE : 15 Jan 2024 www.rfstechnologies.com



3/8" CELLFLEX® Low-Loss Foam-Dielectric Coaxial Cable

200	4.89	1.49	1.48
450	7.44	2.27	0.97
700	9.38	2.86	0.77
800	10.06	3.07	0.72
900	10.71	3.27	0.68
1800	15.54	4.74	0.47
2000	16.45	5.01	0.44
2200	17.33	5.28	0.42
2400	18.17	5.54	0.40
2700	19.39	5.91	0.37
3000	20.55	6.26	0.35
3500	22.39	6.82	0.32
4000	24.12	7.35	0.3
5000	27.35	8.34	0.27
13500	48.8	14.88	0.15

RELATED PRODUCTS

Connector Interface	Premium Connector Series E01	Connector Series 070 / 071		
N Male	NM-LCF38-E01	NM-LCF38-070		
N Female	NF-LCF38-E01	NF-LCF38-070		
4.3-10 Male	43M-LCF38-E01			
Mandatory Tool		TRIM-38-L03		
Tool Information		Trimming Tool For *-070 And *-071 Connector Series		
Installation Video				
General Accessories				
Hand Tool Kit	TRIM-T01			
Grounding Kit	EAR-38-L			

LCF38-50J REV : P3 REV DATE : 15 Jan 2024 www.rfstechnologies.com