

CELLFLEX®7/8" premium attenuation low loss flexible cable FEATURES / BENEFITS Ultra Low Attenuation The further reduced attenuation of CELLFLEX® premium attenuation 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. • Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1-1; IEC 61034-1, -2; IEC 60332-3-24; EN50575 **Technical features APPLICATIONS** Indoor, Wireless Communication, TV & Radio, HF Defense, Microwave, Mobile Radio, Cable Applications Solutions **STRUCTURE** Cable Type Foam-Dielectric, Corrugated Size 7/8 Inner Conductor Diameter mm (in) 9.1 (0.358) **Inner Conductor Material** Copper Tube **Dielectric Diameter** 21.5 (0.846) mm (in) **Dielectric Material** Foam Polyethylene **Outer Conductor Diameter** mm (in) 25.2 (0.992) **Outer Conductor Material Corrugated Copper Jacket Diameter** 27.8 (1.094) mm (in) Jacket Material Black Polyethylene, Metalhydroxite Filling **TESTING AND ENVIRONMENTAL**

Fire Performance Flame Retardant, LSOH Installation Temperature °C(°F) -15 to 60 (5 to 140) **Storage Temperature** °C (°F) -70 to 85 (-94 to 185) **Operation Temperature** °C(°F) -50 to 85 (-58 to 185)

LCF78-50JFNA





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Impedance	Ω		50 +/- 1	
Maximum Frequency	GHz	5		
Velocity	%	88		
Capacitance	pF/m (pF/ft)	74 (22.5)		
nductance	uH/m (uH/ft)	0.185 (0.056)		
Peak Power Rating	kW	85		
RF Peak Voltage	Volts	2920		
acket Spark	Volt RMS	8000		
nner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	2.04 (0.62)		
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	1.55 (0.472)		
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.		
MECHANICAL SPECIFICATIONS				
Cable Weight, Nominal	kg/m (lb/ft)	0.46 (0.309)		
Vinimum Bending Radius, Single Bend	mm (in)	120 (5)		
Minimum Bending Radius, Repeated Bends	mm (in)	250 (10)		
Bending Moment	Nm (lb-ft)	13 (10)		
Tensile Strength	N (lb)	1440 (324)		
Recommended / Maximum Clamp Spacing	m (ft)	0.8 / 1 (2.75 / 3.25)		
ATTENUATION @ 20°C (68°F) AND	POWER RATIN	G @ 40°C (104°F)		
Frequency, MHz	dB per 100m		dB per 100ft	Power, kW
100	1.17		0.36	8.50
200	1.68		0.51	5.92
150	2.58		0.79	3.85
/00	3.28		1	3.03
300	3.53		1.08	2.82
900	3.76		1.15	2.64
1800	5.55		1.70	1.79
2000	5.89		1.80	1.69
2200	6.23		1.90	1.60
400	6.55		2	1.52
700	7.01		2.14	1.42
3000	7.46		2.28	1.33
3500	8.17		2.49	1.22
4000	8.84		2.70	1.12
5000	10.11		3.09	0.98

REV : c

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External Document Links

Notes

• Notes LCF78-50JFNTC: TC cables (temperature cycled) are cables that are aged in order to reduce hysteresis effects. Available upon request.

• Europe ordering code:

LCF78-50JFNA-1-50: LCF78-50JFN, 50m length, Carton LCF78-50JFNA-1-500: LCF78-50JFN, 500m length, Drum 11-077-X LCF78-50JFNA-3-500: LCF78-50JFN, CoO China, 500m length, Drum standard