



CELLFLEX® 1/2" low loss flexible 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**

<b>Applications</b>	OEM jumpers, Main feed transitions to equipment, GPS lines, intended for outdoor usage
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**STRUCTURE**

<b>Size</b>		1/2
<b>Inner Conductor</b>	mm (in)	4.8 (0.189)
<b>Inner Conductor Material</b>		Copper-Clad Aluminum Wire
<b>Dielectric</b>	mm (in)	11.3 (0.445)
<b>Dielectric Material</b>		Foam Polyethylene
<b>Outer Conductor</b>	mm (in)	13.8 (0.543)
<b>Outer Conductor Material</b>		Corrugated Copper
<b>Jacket</b>	mm (in)	15.8 (0.622)
<b>Jacket Material</b>		Black Polyethylene

**TESTING AND ENVIRONMENTAL**

<b>Phase Stabilized</b>		Phase stabilized and phase matched cables and accessories are available upon request.
<b>Compliance</b>		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
<b>Installation Temperature</b>	°C(°F)	-40 to 60 (-40 to 140)
<b>Storage Temperature</b>	°C (°F)	-70 to 85 (-94 to 185)
<b>Operation Temperature</b>	°C(°F)	-50 to 85 (-58 to 185)



**ELECTRICAL SPECIFICATIONS**

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)
Passive Intermodulation PIM	min. 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)	0.18 (0.125)
Minimum Bending Radius, Single Bend	mm (in)	70 (2.756)
Minimum Bending Radius, Repeated Bends	mm (in)	125 (4.921)
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)

**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	0.06	35.34
100	2.18	0.66	3.45
200	3.12	0.95	2.41
450	4.77	1.45	1.57
700	6.03	1.83	1.24
800	6.48	1.97	1.16
900	6.91	2.10	1.09
1800	10.09	3.07	0.74
2000	10.70	3.26	0.70
2200	11.28	3.44	0.67
2400	11.84	3.61	0.63
2700	12.66	3.86	0.59
3000	13.43	4.01	0.56
3500	14.67	4.47	0.51



4000	15.84	4.83	0.47
5000	18.03	5.51	0.42
6000	20.07	6.14	0.37
7000	22.0	6.73	0.34
8800	25,24	7.73	0.30

**RELATED PRODUCTS**

Connector Interface	Standard Connector Series C03	Premium Connector Series E01	Premium Connector Series D01 *only on request
N Male	NM-LCF12-C03	NM-LCF12-E01	NM-LCF12-D01
N Female	NF-LCF12-C03	NF-LCF12-E01	NF-LCF12-D01
4.3-10 Male	43M-LCF12-C03	43M-LCF12-E01	43M-LCF12-D01
4.3-10 Female	43F-LCF12-C03	43F-LCF12-E01	43F-LCF12-D01
7/16 Male	716M-LCF12-C03	716M-LCF12-E01	716M-LCF12-D01
7/16 Female	716F-LCF12-C03	716F-LCF12-E01	716F-LCF12-D01
<b>Mandatory Tool</b>	TRIM-SET-L12-C02	TRIM-SET-L12-D01	
<b>Tool Information</b>	Universal Trimming Tool For *-C02 And *-C03 Connector Series	Universal Trimming Tool For *-D01 And *-E01 Connector Series	
<b>Installation Video</b>	** -LCF12-C03	** -LCF12-E01	** -LCF12-D01
<b>General Accessories</b>			
<b>Hand Tool Kit</b>	TRIM-T01		
<b>Stripping Tool For Grounding Kits</b>	JSTRIP-12-2		
<b>Grounding Kit</b>	GKSPEED20-12P		

**External Document Links**

[CELLFLEX Drum Selection Guide](#)

**Notes**