



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

CELLFLEX® 3/8" low loss flexible cable

FEATURES / BENEFITS

- ➔ **Low Attenuation**
The low attenuation of CELLFLEX® coaxial cable results in highly efficient signal transfer in 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.



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Technical Features

APPLICATIONS

Applications	OEM jumpers, BTS inter-cabinet connections, GPS lines, Microwave IF cabling
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STRUCTURE

Cable Type		Foam-Dielectric, Corrugated
Size		3/8"
Jacket Option		Black
Inner Conductor	mm (in)	3.1 (0.12) Copper-Clad Aluminum Wire
Dielectric	mm (in)	7.2 (0.28) Foam Polyethylene
Outer Conductor	mm (in)	9.5 (0.37) Corrugated Copper
Jacket	mm (in)	11.2 (0.44) Polyethylene, PE

ELECTRICAL SPECIFICATIONS

Impedance	Ω	50 +/- 1.5
Maximum Frequency	GHz	13.5
Velocity	%	88
Capacitance	pF/m (pF/ft)	76 (23.2)
Inductance	μH/m (μH/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)
Return Loss (VSWR) Performance		Standard
Maximum Return Loss	dB (VSWR)	Contact RFS for your VSWR performance specification for your required frequency band.
Phase Stabilized		Phase stabilized and phase matched cables and assemblies are available upon request.
Temperature & Power		Standard

MECHANICAL SPECIFICATIONS

Cable Weight	kg/m (lb/ft)	0.12 (0.08)
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)



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ATTENUATION AND POWER RATING

Frequency MHz	Attenuation		Power kW
	dB/100m	dB/100ft	
0.5	0.24	0.072	15.40
1	0.34	0.102	15.40
1.5	0.41	0.125	15.40
2	0.48	0.145	15.20
10	1.07	0.325	6.79
20	1.51	0.461	4.79
30	1.86	0.566	3.90
50	2.41	0.734	3.01
88	3.21	0.978	2.26
100	3.43	1.04	2.12
108	3.56	1.09	2.04
150	4.21	1.28	1.72
174	4.55	1.39	1.59
200	4.89	1.49	1.48
300	6.02	1.84	1.20
400	7.00	2.13	1.04
450	7.44	2.27	0.975
500	7.86	2.40	0.923
512	7.96	2.43	0.911
600	8.65	2.64	0.838
700	9.38	2.86	0.773
800	10.10	3.07	0.72
824	10.20	3.12	0.709
894	10.70	3.25	0.679
900	10.70	3.27	0.677
925	10.90	3.31	0.667
960	11.10	3.38	0.654
1000	11.30	3.45	0.64
1250	12.80	3.89	0.568
1500	14.10	4.29	0.515
1700	15.10	4.59	0.481
1800	15.50	4.74	0.467
2000	16.50	5.01	0.441
2100	16.90	5.15	0.429
2200	17.30	5.28	0.418
2400	18.20	5.54	0.399
3000	20.50	6.26	0.353
3500	22.40	6.82	0.324
4000	24.10	7.35	0.301
5000	27.40	8.34	0.265
6000	30.30	9.25	0.239
7000	33.20	10.10	0.219
8000	35.80	10.90	0.202
9000	38.40	11.70	0.189
10000	40.80	12.40	0.178
12000	45.50	13.90	0.159
13500	48.80	14.90	0.149

Attenuation at 20°C (68°F) cable temperature;
tolerance +/- 5% max.; Mean power rating at
40°C (104°F) ambient temperature

TESTING AND ENVIRONMENTAL

Fire Performance	Halogene Free
Installation Temperature	-40 to 60 (-40 to 140) °C(°F)
Storage Temperature	-70 to 85 (-94 to 185) °C(°F)
Operation Temperature	-50 to 85 (-58 to 185) °C(°F)

External Document Links

Notes

Phase stabilized versions available upon request.