



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.



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

Technical features

APPLICATIONS

Applications	OEM jumpers, BTS inter-cabinet connections, GPS lines, Microwave IF cabling, intended for outdoor usage
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STRUCTURE

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

TESTING AND ENVIRONMENTAL

Fire Performance		Halogene Free
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, Ohm	Ω	50 +/- 1.5
Maximum Frequency	GHz	13.5
Velocity, percent	%	88
Capacitance	pF/m (pF/ft)	76 (23.2)
Inductance, uH/m (uH/ft)	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/km (Ω/kft)	Ω/1000 m (Ω/1000 ft)	3.8 (1.16)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft)	Ω/1000 m (Ω/1000 ft)	2.9 (0.88)
Return Loss (VSWR) Performance		Standard (for 40-2700, 3300-4200, 4400-5925 MHz) or Premium
Min. Return Loss (Max. VSWR)	dB (VSWR)	Standard 20 (1.222), Premium 24 (1.135)/ 23 (1.152)
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)	0.12 (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)	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 POWER RATING @ 40°C (104°F)

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.24	0.07	15.40
1	0.34	0.10	15.40
1.5	0.41	0.13	15.40
2	0.48	0.15	15.20
10	1.07	0.33	6.79
20	1.51	0.46	4.79
30	1.86	0.57	3.90
50	2.41	0.73	3.01
88	3.21	0.98	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	2.13	1.04
450	7.44	2.27	0.98
500	7.86	2.40	0.92
512	7.96	2.43	0.91
600	8.65	2.64	0.84
700	9.38	2.86	0.77
800	10.10	3.07	0.72
824	10.20	3.12	0.71
894	10.70	3.25	0.68
900	10.70	3.27	0.68
925	10.90	3.31	0.67
960	11.10	3.38	0.65
1000	11.30	3.45	0.64
1250	12.80	3.89	0.57
1500	14.10	4.29	0.52
1700	15.10	4.59	0.48
1800	15.50	4.74	0.47
2000	16.50	5.01	0.44
2100	16.90	5.15	0.43
2200	17.30	5.28	0.42
2400	18.20	5.54	0.40
3000	20.50	6.26	0.35
3500	22.40	6.82	0.32
4000	24.10	7.35	0.30
5000	27.40	8.34	0.27



6000	30.30	9.25	0.24
7000	33.20	10.10	0.22
8000	35.80	10.90	0.20
9000	38.40	11.70	0.19
10000	40.80	12.40	0.18
12000	45.50	13.90	0.16
13500	48.80	14.90	0.15

External Document Links

Notes

Phase stabilized versions available upon request.

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