



## 2-1/4" CELLFLEX® Low-Loss Foam-Dielectric Coaxial Cable

CELLFLEX® 2-1/4" SERIES "A" 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 RF/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	Main feed line
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#### STRUCTURE

Cable Type		Foam-Dielectric, Corrugated
Size		2-1/4"
Jacket Option		Black
Inner Conductor	mm (in)	20.8 (0.82) Corrugated Copper Tube
Dielectric	mm (in)	49 (1.93) Foam Polyethylene
Outer Conductor	mm (in)	56.1 (2.21) Corrugated Copper
Jacket	mm (in)	59.9 (2.36) Polyethylene, PE

#### ELECTRICAL SPECIFICATIONS

Impedance	Ω	50 +/- 1
Maximum Frequency	GHz	2.2
Velocity	%	88
Capacitance	pF/m (pF/ft)	75 (22.9)
Inductance	μH/m (μH/ft)	0.19 (0.058)
Peak Power Rating	kW	425
RF Peak Voltage	Volts	6520
Jacket Spark	Volt RMS	10000
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	0.92 (0.28)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	0.31 (0.09)
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)	1.7 (1.14)
Minimum Bending Radius, Single Bend	mm (in)	280 (11)
Minimum Bending Radius, Repeated Bends	mm (in)	560 (22)
Bending Moment	Nm (lb*ft)	81 (60)
Tensile Strength	N (lb)	2610 (587)
Recommended / Maximum Clamp Spacing	m (ft)	1.5 / 2 (5 / 6.6)



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**ATTENUATION AND POWER RATING**

Frequency MHz	Attenuation		Power kW
	dB/100m	dB/100ft	
0.5	0.04	0.011	321.00
1	0.05	0.016	226.00
1.5	0.06	0.02	184.00
2	0.07	0.023	159.00
10	0.17	0.051	70.00
20	0.24	0.074	49.10
30	0.30	0.091	39.70
50	0.39	0.119	30.40
88	0.53	0.161	22.40
100	0.57	0.172	20.90
108	0.59	0.18	20.10
150	0.71	0.215	16.80
174	0.77	0.233	15.50
200	0.83	0.252	14.30
300	1.04	0.317	11.40
400	1.23	0.373	9.62
450	1.31	0.40	9.04
500	1.39	0.425	8.52
512	1.41	0.431	8.40
600	1.55	0.473	7.64
700	1.70	0.519	6.96
750	1.77	0.54	6.69
800	1.84	0.562	6.43
824	1.88	0.572	6.30
894	1.97	0.601	6.01
900	1.98	0.603	5.98
925	2.01	0.613	5.89
960	2.06	0.627	5.75
1000	2.11	0.643	5.61
1250	2.42	0.738	4.89
1400	2.60	0.792	4.55
1500	2.71	0.827	4.37
1700	2.94	0.895	4.03
1800	3.05	0.929	3.88
2000	3.26	0.993	3.63
2100	3.36	1.03	3.52
2200	3.47	1.06	3.41

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

**TESTING AND ENVIRONMENTAL**

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

**External Document Links**

**Notes**