## 1/2" CELLFLEX<sup>®</sup> Low-Loss Foam-Dielectric Coaxial Cable

## Product Description

Features/Benefits Low Attenuation

Dielectric:

Jacket:

Capacitance Inductance

VSWR Performance:

Other Options:

Other Characteristics Fire Performance:

Halogene Free

Standard

CELLFLEX® 1/2" low loss flexible cable

OEM jumpers, Main feed transitions to equipment, GPS lines Application:

[dB (VSWR)]

band

Contact RFS for your VSWR performance specification for your required frequency



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Low Attenuation					Frequency Attenuation Power			
The low attenuation of CELLFLEX® coaxial cable results in highly efficient signal transferin			al transferin your RF	Frequency [MHz]		[ dB/100ft ]	[ kW ]	
system.			[	1	[ 0.0, 10011 ]	[]		
Complete Shielding			0.5	0.149	0.0454	38.0		
The solid outer conductor of CELLFLEX® coaxial cable creates a continuous RFI/EMI shield that minimizes			1.0	0.211	0.0643	38.0		
system interference.			1.5	0.258	0.0788	32.9		
Low VSWR			2.0	0.298	0.0910	28.5		
Special low VSWR versions of CELLFLEX <sup>®</sup> coaxial cables contribute to low system noise.			10	0.671	0.204	12.7		
			20 30	0.951	0.290	8.93 7.26		
Outstanding Intermodulation Performance			50	1.17	0.350	5.63		
CELLFLEX® coaxial cable?s solid inner and outer conductors virtually eliminate intermods. Intermodulation			88	2.02	0.616	4.21		
performance is also confirmed with state-of-the-art equipment at the RFS factory.				100	2.16	0.658	3.93	
High Power Rating				108	2.24	0.684	3.79	
Due to their low attenuation, outstanding heat transfer properties and temperature stabilized dielectric				150	2.66	0.810	3.19	
materials, CELLFLEX <sup>®</sup> cable provides safe long term operating life at high transmit power levels.				174	2.87	0.875	2.96	
Wide Range of Application				200	3.08	0.940	2.76	
Typical areas of application are: feedlines for broadcast and terrestrial microwave antennas, wireless				300 400	3.81 4.43	1.16 1.35	2.23 1.92	
	ESMR base stations, cabling of ar			400	4.43	1.35	1.92	
Technical Feat	lires			500	4.98	1.52	1.71	
	ules			512	5.04	1.54	1.69	
Structure				600	5.48	1.67	1.55	
nner conductor:	Copper-Clad Aluminum Wire	[mm (in)]	4.8 (0.19)	700	5.95	1.81	1.43	
Dielectric:	Foam Polyethylene	[mm (in)]	11.9 (0.47)	750	6.17	1.88	1.38	
Outer conductor:	Corrugated Copper	[mm (in)]	13.8 (0.54)	800	6.39	1.95	1.33	
Jacket:	Polyethylene, PE	[mm (in)]	15.8 (0.62)	824 894	6.49 6.78	1.98 2.07	1.31 1.25	
Mechanical Properties				900	6.80	2.07	1.25	
Weight, approximately		[kg/m (lb/ft)]	0.2 (0.14)	925	6.90	2.10	1.23	
Minimum bending rad		[mm (in)]	70 (3)	960	7.04	2.15	1.21	
Minimum bending radius, repeated bending		[mm (in)]	125 (5)	1000	7.20	2.19	1.18	
Bending moment	ius, repeated bending	[Nm (lb-ft)]	6.5 (4.79)	1250	8.12	2.48	1.05	
Max. tensile force		[N (lb)]	1100 (247)	1400 1500	8.64 8.97	2.63 2.73	0.983 0.947	
Recommended / maxi	mum clamp spacing	[m (ft)]	0.6 / 1 (2 / 3.25)	1700	9.61	2.93	0.884	
	110		0.071(275.25)	1800	9.91	3.02	0.857	
Electrical Propert		101	50 . / /	2000	10.5	3.20	0.809	
Characteristic impeda		[Ω]	50 +/- 1	2100	10.8	3.29	0.787	
Relative propagation v	Velocity	[%]	88	2200	11.1	3.38	0.765	
Capacitance		[pF/m (pF/ft)]	76 (23.2)	2400 2500	11.6 11.9	3.54 3.62	0.732	
nductance		[μH/m (μH/ft)]	0.19 (0.058)	2600	12.2	3.70	0.696	
Max. operating freque		[GHz]	8.8	2700	12.4	3.78	0.685	
Jacket spark test RMS	5	[V]	8000	3000	13.2	4.01	0.644	
Peak power rating		[kW]	38	3500	14.4	4.38	0.590	
RF Peak voltage rating		[V]	1950	4000	15.5	4.72	0.548	
DC-resistance inner conductor		[Ω/km (Ω/1000ft)]	1.57 (0.48)	5000	17.6	5.37	0.483	
DC-resistance outer c	onductor	[Ω/km (Ω/1000ft)]	2.7 (0.82)	6000 7000	19.6 21.4	5.97 6.54	0.433 0.397	
Recommended Te	emperature Range			8000	21.4	7.07	0.397	
Storage temperature		[°C (°F)]	-70 to 85 (-94 to 185 )	8800	24.6	7.49	0.345	
Installation temperature		[°C (°F)]	-40 to 60 (-40 to 140 )	Attenuation at	20°C (68°F) c	able temperatur	re .	
Operation temperature		[°C (°F)]	-50 to 85 (-58 to 185 )	mean power n	ating at 40°C (	104°F) ambient	temperature	
Other Characteris	tics		· · ·					

RFS The Clear Choice ®	LCF12-50J	Rev: D / 15.Aug.2013
Please visit us on the internet at http://www.rfsw	/orld.com/	

Phase stabilized and phase matched cables and assemblies are available upon request.