

3/8" Foam Dielectric, LDF Series – 50-ohm



LDF2-50

Description	Type No.
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Cable Ordering Information

Standard Cable	
3/8" Standard Cable, Standard Jacket	LDF2-50
Fire Retardant Cables	
3/8" Fire Retardant Jacket (CATVX)	LDF2RN-50
3/8" Fire Retardant Jacket (CATVR)	LDF2RN-50
Low VSWR and Specialized Cables	
3/8" Low VSWR, specify operating band	LDF2P-50-(**)
Phase Stabilized and Phase Measured Cable	See page 590
Jumper Cable Assemblies – See page 584	

** Insert suffix number from "Low VSWR Specifications" table, page 495

Characteristics

Electrical	
Impedance, ohms	50 ± 1
Maximum Frequency, GHz	13.5
Velocity, percent	88
Peak Power Rating, kW	15.6
dc Resistance, ohms/1000 ft (1000 m)	
Inner	1.06 (3.48)
Outer	0.87 (2.85)
dc Breakdown, volts	2500
Jacket Spark, volts RMS	5000
Capacitance, pF/ft (m)	23.0 (75.5)
Inductance, µH/ft (m)	0.058 (0.19)
Mechanical	
Outer Conductor	Copper
Inner Conductor	Copper-Clad Aluminum
Diameter over Jacket, in (mm)	0.44 (11)
Diameter over Copper Outer Conductor, in (mm)	0.38 (9.7)
Diameter Inner Conductor, in (mm)	0.122 (3.1)
Minimum Bending Radius, in (mm)	3.75 (95)
Number of Bends, minimum (typical)	15 (60)
Bending Moment, lb-ft (N·m)	1.4 (1.9)
Cable Weight, lb/ft (kg/m)	0.08 (0.12)
Tensile Strength, lb (kg)	250 (113)
Flat Plate Crush Strength, lb/in (kg/mm)	110 (2.0)

Attenuation and Average Power Ratings

Frequency MHz	Attenuation dB/100 ft	Attenuation dB/100 m	Average Power, kW
0.5	0.072	0.235	15.6
1	0.101	0.332	15.6
1.5	0.124	0.407	15.6
2	0.143	0.471	15.6
10	0.323	1.06	7.23
20	0.458	1.50	5.09
30	0.563	1.85	4.14
50	0.730	2.40	3.19
88	0.976	3.20	2.39
100	1.04	3.42	2.24
108	1.08	3.56	2.15
150	1.29	4.22	1.81
174	1.39	4.56	1.68
200	1.49	4.90	1.56
300	1.85	6.06	1.26
400	2.15	7.06	1.08
450	2.29	7.51	1.02
500	2.42	7.95	0.963
512	2.45	8.05	0.951
600	2.67	8.76	0.874
700	2.90	9.52	0.804
800	3.12	10.2	0.748
824	3.17	10.4	0.736
894	3.31	10.9	0.704
960	3.44	11.3	0.678
1000	3.52	11.6	0.663
1250	3.98	13.1	0.586
1500	4.40	14.4	0.530
1700	4.72	15.5	0.494
1800	4.87	16.0	0.479
2000	5.17	17.0	0.451
2100	5.32	17.4	0.439
2200	5.46	17.9	0.428
2300	5.60	18.4	0.417
3000	6.52	21.4	0.358
3400	7.00	23.0	0.333
4000	7.70	25.3	0.303
5000	8.78	28.8	0.266
6000	9.79	32.1	0.239
8000	11.7	38.2	0.200
10000	13.4	43.9	0.175
12000	15.0	49.2	0.156
13500	16.2	53.0	0.145

Standard Conditions:

For attenuation. VSWR 1.0, ambient temperature 20°C (68°F).

For Average Power, VSWR 1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F), no solar loading.



N Male
L2PNM-H



N Female
L2PNF



7-16 DIN Male
L2PDM-C



UHF Male
L42P



TNC Male
L2PTM



SMA Male
L42WS

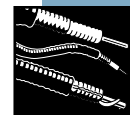
Connectors

Interface	Description	Type Number	Inner Contact Attachment	Outer Contact Attachment	Plating Code	Max. Length in (mm)	Max. Dia. in (mm)
N Male	Hex Head	L2PNM-H	Solder	Self-Flare	SG	2.1 (53)	0.94 (23.9)
N Male	Hex Head	L2PNM-HC	Captivated	Self-Flare	SG	2.1 (53)	0.94 (23.9)
N Female	–	L2PNF	Solder	Self-Flare	SG	2.4 (61)	0.63 (16.0)
N Female	Bulk Head	L2PNF-BH	Solder	Self-Flare	SG	2.4 (61)	0.88 (22.4)
4.1/9.5 DIN	–	L2PKM-C	Captivated	Self-Flare	SS	1.9 (48)	0.95 (24.1)
4.1/9.5 DIN	–	L2PKM	Solder	Self-Flare	SS	1.9 (48)	0.95 (24.1)
4.1/9.5 DIN	Right Angle	L2PKR-C	Captivated	Self-Flare	SS	2.0/1.5 (50/38)	0.95 (24.1)
7-16 DIN Male	–	L2PDM-C	Captivated	Self-Flare	SS	1.9 (48)	1.1 (27.9)
7-16 DIN Female	–	L2PDF-C	Captivated	Self-Flare	SS	1.9 (48)	1.4 (35.6)
7-16 DIN Female	Panel Mount	L2PDF-PMC	Captivated	Self-Flare	SS	1.9 (48)	1.25 (31.8)
UHF Male	–	L42P	Solder	Self-Flare	BB	2.3 (58)	0.68 (17.3)
UHF Female	–	L42U	Solder	Self-Flare	BB	2.3 (58)	0.91 (23.1)
SMA Male	–	L42WS	Solder	Self-Flare	BG	2.2 (56)	0.68 (17.3)
TNC Male	–	L42EWT	Solder	Self-Flare	NG	2.1 (53)	0.68 (17.3)
TNC Female	–	L42ENT	Solder	Self-Flare	NG	1.9 (48)	0.68 (17.3)

Plating Codes: BB - Brass Body and Pin, BS - Brass Body and Silver Plated Pin, NG - Nickel Plated Body and Gold Plated Pin, SG - Silver Plated Body and Gold Plated Pin, SS - Silver Plated Body and Pin

Connector Accessories – See page 624

Factory Attached Connectors – For factory made cable assemblies and jumper cables, see pages 584-587.



Low VSWR Specifications, Type LDF2P-50-()

Frequency Band, GHz	Type No.	Using Connector Type**	Assembly VSWR, Maximum (R.L., dB)	
			0-10 ft (0-3 m)	10-20 ft (3-6 m)
0.806-0.960	LDF2P-50-40	N 7-16 DIN	1.08 (28.3) 1.08 (28.3)	1.10 (26.4) 1.10 (26.4)
0.806-0.960 and 1.7- 2.3	LDF2P-50-42	N 7-16 DIN	1.10 (26.4) 1.10 (26.4)	1.10 (26.4) 1.10 (26.4)
1.7- 2.3	LDF2P-50-41	N 7-16 DIN	1.10 (26.4) 1.10 (26.4)	1.10 (26.4) 1.10 (26.4)
Up to 2.3 *	LDF2P-50-1	N Male N Female TNC Male	1.15 (23.1) 1.15 (23.1) 1.20 (20.8)	1.20 (20.8) 1.25 (19.9) 1.30 (17.7)
Up to 4.2 *	LDF2P-50-2	N Male N Female	1.20 (20.8) 1.35 (16.6)	1.35 (16.6) 1.45 (14.7)
Up to 8.5 *	LDF2P-50-3	N Male	1.25 (19.9)	1.35 (16.6)
Up to 13.5 *	LDF2P-50-4	N Male: L2PNM	1.30 (17.7)	1.35 (16.6)

* Specify operating band. ** Connectors ordered separately.

VSWR values apply to straight connectors only, are guaranteed for factory fit assemblies, and are typical for cut lengths. If two different connector interfaces are selected, the higher VSWR value is guaranteed.

Accessories

Description	Type No.
Hangers – For more hangers, adapters and mounting hardware see pages 599-607	
Insulated Hanger , single. Recommended maximum spacing is 2.5 ft (0.76 m). For different spacing recommendations, refer to Cable Hanger Spacing, page 593-598	11662-3
Angle Adapter , for insulated hanger	40430-1
Nylon Cable Tie Kit of 50, Indoor use, Recommended maximum spacing is 1.5 ft (0.5 m)	40417
Nylon Cable Tie Kit in plastic box. 100 each 4, 5.5 and 7.5 inch ties. Indoor use, Recommended maximum spacing is 1.5 ft (0.5 m)	CT-K350
Velcro Cable Ties, Black, 8 inch. Indoor Use	
Kit of 10	VCT8-10
Kit of 50	VCT8-50
Kit of 100	VCT8-100
Support/Hoisting Grip . Use at 200-ft (60m) intervals.	
Grip with one clamp	L2SGRIP
Support clamp kit of 10	L2SGRIP-2IK
Grounding and Surge Protection – for additional grounding kits and our surge protection offerings, see pages 609-616	
Standard Grounding Kit	
Factory attached one-hole lug, 24" lead	223158
Factory attached two-hole lug, 24" lead	223158-2
Field attached one-hole lug, 36" lead	223158-3

Description	Type No.
Weatherproofing – for additional weatherproofing information see pages 617-618	
Cold Shrink Weatherproofing Kit	
3/8" Coax to 3/8" Coax with N Connector	241475-10
5/8" Coax to 3/8" Coax	241475-13
7/8" Coax to 3/8" Coax	241475-9
1-1/4" or 1-5/8" Coax to 3/8" Coax	241475-5A
2 1/4" Coax to 3/8" Coax	241475-8
3/8" Coax to 1-1/2" Omni Panel Base type N or DIN	241548-8
3/8" Coax to 2" Omni Panel Base type N or DIN	241548-9
Connector/Splice Weatherproofing Kit	221213
Entry Systems – For entry systems offerings see pages 619-620	
Standard Cable Entry Boots	
4" Boots – Three Hole:	204679A-19
5" Boots – One Hole:	48939A-16
Tools – for additional tool offerings see pages 620-623	
EASIAx® Plus Automated Cable Prep Tool for:	
DIN Connectors	CPT-E2L2DIN
N Connectors	CPT-E2L2N
DIN Connector Coupling Torque Wrench	244377
N Connector Coupling Torque Wrench	244379