

Mounting on cable LDF4 Alcatel Code:77096434

1/2" Foam Dielectric,
LDF Series – 50-ohm

HELIAX® Coaxial Cables

LDF4-50A

Description	Type No.
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Cable Ordering Information

Standard Cable	
1/2" Standard Cable, Standard Jacket	LDF4-50A
Fire Retardant Cables	
1/2" Fire Retardant Jacket (CATVX)	LDF4RN-50A
1/2" Fire Retardant Jacket (CATVR)	LDF4RN-50A
Low VSWR and Specialized Cables	
1/2" Low VSWR, specify operating band	LDF4P-50A-(**)
Phase Stabilized and Phase Measured Cable	See page 590
Jumper Cable Assemblies – See page 584	

** Insert suffix number from "Low VSWR Specifications" table, page 498

Characteristics

Electrical	
Impedance, ohms	50 ± 1
Maximum Frequency, GHz	8.8
Velocity, percent	88
Peak Power Rating, kW	40
dc Resistance, ohms/1000 ft (1000 m)	
Inner	1.45 (1.48)
Outer	0.58 (1.90)
dc Breakdown, volts	4000
Jacket Spark, volts RMS	8000
Capacitance, pF/ft (m)	23.1 (75.8)
Inductance, µH/ft (m)	0.058 (0.19)
Mechanical	
Outer Conductor	Copper
Inner Conductor	Copper-Clad Aluminum
Diameter over Jacket, in (mm)	0.63 (16)
Diameter over Copper Outer Conductor, in (mm)	0.55 (14)
Diameter Inner Conductor, in (mm)	0.189 (4.6)
Nominal Inside Transverse Dimensions, cm	1.11
Minimum Bending Radius, in (mm)	5 (125)
Number of Bends, minimum (typical)	15 (50)
Bending Moment, lb-ft (N·m)	2.8 (3.8)
Cable Weight, lb/ft (kg/m)	0.15 (0.22)
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	0.045	0.149	40.0
1	0.064	0.211	35.8
1.5	0.079	0.259	29.2
2	0.091	0.299	25.3
10	0.205	0.672	11.3
20	0.291	0.954	7.93
30	0.357	1.17	6.46
50	0.463	1.52	4.98
88	0.619	2.03	3.73
100	0.661	2.17	3.49
108	0.688	2.26	3.36
150	0.815	2.67	2.83
174	0.880	2.89	2.62
200	0.946	3.10	2.44
300	1.17	3.83	1.97
400	1.36	4.46	1.70
450	1.45	4.75	1.59
500	1.53	5.02	1.51
512	1.55	5.08	1.49
600	1.69	5.53	1.37
700	1.83	6.01	1.26
800	1.97	6.46	1.17
824	2.00	6.56	1.15
894	2.09	6.85	1.10
960	2.17	7.12	1.06
1000	2.22	7.28	1.04
1250	2.51	8.23	0.921
1500	2.77	9.09	0.833
1700	2.97	9.74	0.777
1800	3.07	10.1	0.753
2000	3.25	10.7	0.710
2100	3.34	11.0	0.691
2200	3.43	11.2	0.673
2300	3.52	11.5	0.657
3000	4.09	13.4	0.565
3400	4.39	14.4	0.526
4000	4.82	15.8	0.479
5000	5.49	18.0	0.421
6000	6.11	20.1	0.378
8000	7.26	23.8	0.318
8800	7.69	25.2	0.300

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.

Installation Instructions

Bulletin 237309

Revision B

N Connectors

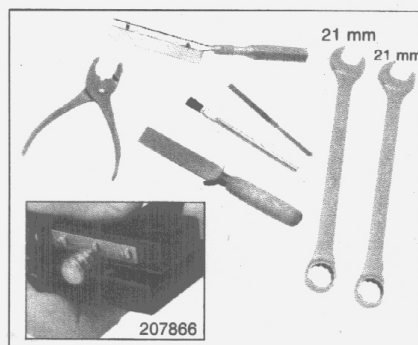
for HELIAX® LDF4-50A Coaxial Cable



L4NM-C
L4NM-HC
L4PNM-C
L4PNM-HC



L4NF-C
L4PNF-C



FAX-On-Demand: +1-708-873-3614 • North America: 1-800-861-1700

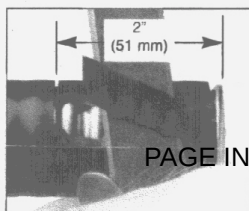
Tips and Techniques (SP50047) available by FAX-On-Demand.
Los consejos prácticos y técnicas (SP50047) pueden solicitarse por fax.

Conseils et techniques (SP50047) disponibles par fax à la demande.
Tips und Anleitungen (SP50047) auf Faxanfrage erhältlich.

Dicas e Técnicas (SP50047) disponíveis via pedido por fax.
提示與方法 (SP50047) 可以通過電傳獲得

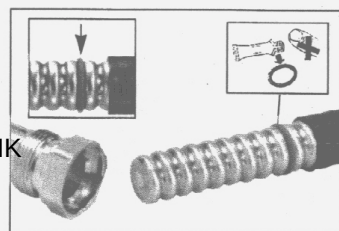
1

Trim cable jacket.
Recortar la envuelta del cable.
Coupez la gaine du câble.
Kabelmantel abziehen.
Retire a capa do cabo.
切整電纜外皮



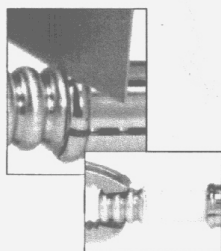
2

Add O-ring, grease, and clamping nut.
Añadir la junta tórica, la grasa y la tuerca sujetadora.
Mettez en place le joint torique, de la graisse et la tige de serrage.
O-Ring und Klemmutter vor Montage einfetten.
Coloque o anel O ring, graxa e a porca de aperto.
加 O 型圈，油脂和緊固螺母



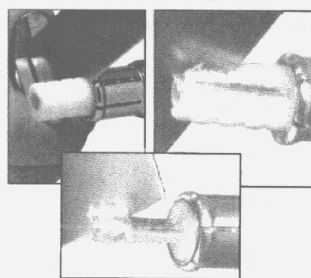
3

Cut outer conductor.
Cortar el conductor externo.
Coupez le conducteur extérieur.
Außenleiter zurückschneiden.
Corte o condutor externo.
切外導體



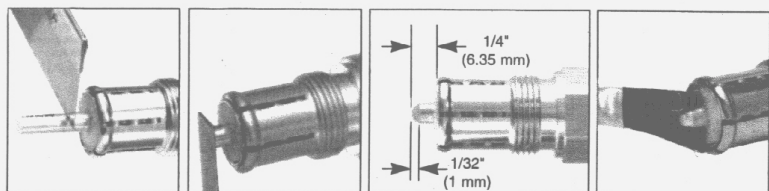
4

Remove foam and adhesive.
Retirar el material de espuma y el adhesivo.
Enlevez la mousse et l'adhésif.
Verschäumung und Klebeband entfernen.
Remove a espuma e o adesivo.
去除泡沫塑料和粘潔劑



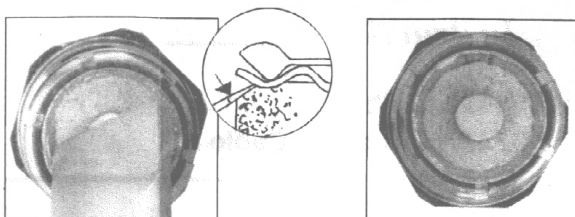
5

Trim inner conductor. Remove debris.
Cortar el conductor interno. Retirar los restos.
Coupez le conducteur intérieur. Enlevez les débris.
Innenleiter abschneiden. Metallspäne entfernen.
Limpe o condutor interno. Remova os detritos.
切整內心導體。去除殘渣



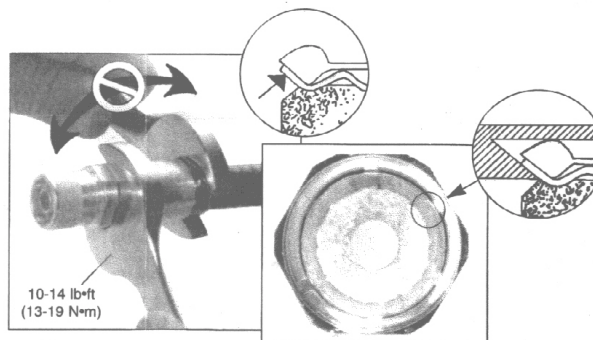
6

Compress foam.
Comprimir el material de espuma.
Comprimez la mousse.
Verschäumung zusammendrücken.
Comprima a espuma.
壓聚泡沫塑料



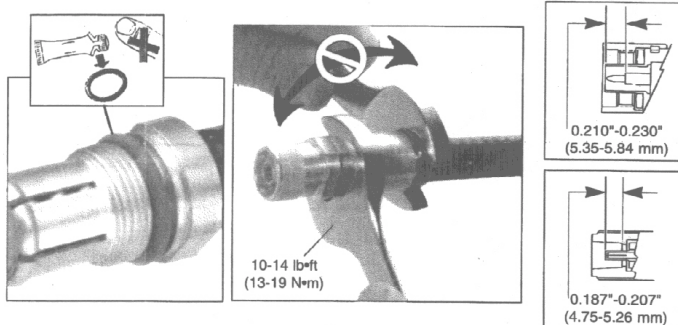
7

Flare outer conductor, examine flare, remove debris
Acampañar el conductor externo, examinar la forma de campana y retirar los restos.
Evasez le conducteur extérieur, examinez l'évasement et enlevez les débris.
Außenleiter aufweiten, Öffnung prüfen und Metallspäne entfernen.
Flangear o condutor externo, examinar o flangeamento e remover os detritos.
擴張外導體，檢查擴張表面，去除殘骸。



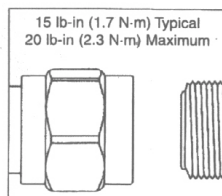
8

Add O-ring and grease. Reassemble connector.
Añadir la junta tórica y grasa. Montar nuevamente el conector.
Mettez en place le joint torique et graissez. Réassemblez le connecteur.
O-Ring vor Montage einfetten. Steckverbindung wieder zusammenbauen.
Coloque o anel em O ring e graxa. Reinstale o conector.
加 O 型圈和油脂。重新裝配接頭



9

Coupling torque.
Par de acoplamiento.
Couple de serrage.
Anschlußdrehmoment.
Torque de conjugação.
配合扭矩



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