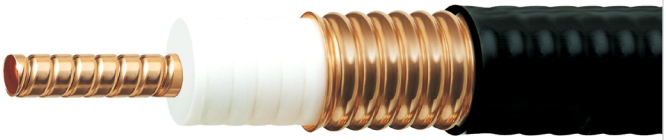
LHF Series (Ultimate High Performance)

Ultimate Low Loss High Flexible Foam Dielectric Feeder

LHF-22DU



LHF-42DUF

PRODUCT DESCRIPTION

LHF Ultimate High Performance Series cables are low loss 50 Ohm cables featuring a copper tube center conductor, foamed polyethylene dielectric and annularly corrugated copper metallic shield. Ultimate High Performance cables are designed to offer the low attenuation and high propagation velocity required by modern 3G and 4G networks.

FEATURES	BENEFITS
• Low attenuation and high propagation velocity	• Highly efficient signal transfer over long cable runs
• Low passive intermodulation	• Outperforms the industry requirements for low passive intermodulation
• Easy connectorization	• Full line of high-quality low intermodulation DIN and N connectors and cable preparation tools minimize installation time and expenses
• Factory tested and inspected	• 100% of all RF cables are inspected and tested to meet or exceed industry specifications including passive intermodulation
• Rugged and durable	• High-quality materials result in rugged cables that are able to withstand extreme environments without corrosion

SPECIFICATIONS

Inner Conductor	LHF-22DU: Smooth copper tube LHF-42DU: Corrugated copper tube
Dielectric	Foamed polyethylene
Outer Conductor	Annulary corrugated copper tube
Jacket	Black polyethylene
Recommended Operating Temperature °F (°C)	-40 to +185 (-40 to +80)

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Part Number	Cable Size in (mm)	Nominal Diameter in (mm)				Minimum Bend Radius in (mm)	Approx. Weight lbs/kft (kg/km)	Flat Plate Crush Resistance lbs/in (kg/mm)	Maximum Pulling Force lbs (kg)
		Inner Conductor	Dielectric	Outer Conductor	Jacket				
LHF-22DU	⅞ (22)	0.37 (9.5)	0.91 (23.1)	1.00 (25.3)	1.11 (28.2)	9.84 (250)	316 (470)	0.15 (1.8)	323 (147)
LHF-42DUF	1⅝ (42)	0.71 (18.1)	1.72 (43.6)	1.83 (46.6)	1.97 (50.0)	19.69 (500)	710 (1,059)	0.13 (1.6)	398 (181)

ELECTRICAL SPECIFICATIONS

Part Number	Cable Size in (mm)	Conductor DC Resistance Ohms/kft (Ohms/km)		Insulation Resistance mΩ km	Dielectric Strength for 1 minute DC Potential – Volts	Velocity of Propagation %	Peak Power Rating kW	Maximum Operating Frequency GHz	Characteristic Impedance Ohms	Typical Return Loss dB
		Inner	Outer							
LHF-22DU	⅞ (22)	0.6 (1.9)	0.6 (1.9)	10,000	6,000	91 ± 3	0.92	5.0	50 ± 1	28
LHF-42DUF	1⅝ (42)	0.4 (1.6)	0.2 (0.7)	10,000	11,000	92 ± 3	2.77	2.5	50 ± 1	28

Frequency MHz	Attenuation at 20˚C dB/100 ft (dB/100 m)		Average Power Rating at Ambient 40˚C Inner Conductor 100˚C kW	
	LHF-22D	LHF-42D	LHF-22DU	LHF-42DUF
450	0.73 (2.42)	0.43 (1.43)	-	-
700	0.93 (3.06)	0.55 (1.82)	-	-
824	1.02 (3.35)	0.61 (2.00)	2.49	3.60
894	1.07 (3.50)	0.64 (2.09)	2.38	3.44
960	1.11 (3.64)	0.66 (2.18)	-	-
1,700	1.52 (4.99)	0.92 (3.02)	1.67	2.38
1,800	-	-	1.61	2.30
2,000	1.66 (5.47)	1.01 (3.33)	1.54	2.16
2,400	1.85 (6.07)	1.13 (3.71)	-	-
3,000	2.10 (6.89)	-	-	-

Frequency MHz	V.S.W.R.	
	LHF-22DU	LHF-42DU
800-960	1.13	1.13
1,700-2,200	1.13	1.13

Standard Conditions: V.S.W.R. 1.0,
Ambient Temperature 20°C/Attenuation is typical value.