FLEXIBLE RF CABLE / LOW LOSS CABLE

Cable Name: L87

Part No: VXL870



10 GHz
MAX FREQUENCY

2500 V.DC
EXTREME HIGH VOLTAGE

-155 dBc
LOW PIM PERFORMANCE

8.70 mm
MAXIMUM ARMOR

General Description: The Vinstronics VXL870 is a heavy-duty, low-loss RF cable built for high-power 10GHz applications. Protected by a massive 8.70mm blue FEP jacket and an extreme 2500 V.DC withstanding voltage, it delivers unmatched power handling and -155dBc PIM performance, providing impenetrable defense for critical ground-based and base station systems.

Core Features

- **Ultra-Low Loss:** Optimized for precision transmission.
- **Low PIM:** Outstanding -155dBc performance for clear signals.
- **Extreme Voltage:** 2500 V.DC rating for ultimate power handling.
- **Robust Power:** Superior handling for high-intensity signals.
- **Maximum Armor:** 8.70mm outer diameter for impenetrable defense.

Target Applications

- **Base Stations:** Ideal for high-power communication routing.
- **RF Testing:** Reliable for microwave device testing environments.
- **Naval & Ground Systems:** Dependable in harsh outdoor settings.
- **Extreme Power Routing:** Ideal for high-voltage applications.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**2.44** [0.096]
2. Dielectric	Low Density PTFE (LD PTFE)	**7.24** [0.285]
3. Inner Shield	Silver-plated copper strip	**7.48** [0.294]
4. Outer Shield	Silver-plated copper wire braiding	**8.05** [0.317]
5. Jacket	FEP / Blue (Customizable)	**8.70** [0.343]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**10 GHz**
Cut-off Frequency	**14 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**76 %**
Shielding Effectiveness	**>90 dB**
Dielectric Withstanding Voltage	**2500 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**4000**	**5000**	**6000**	**8000**	**10000**
Attenuation (dB/100m)	**12.6**	**18.1**	**22.5**	**26.3**	**29.8**	**32.9**	**38.6**	**43.8**
Average Power (kW)	**1.833**	**1.271**	**1.023**	**0.875**	**0.775**	**0.701**	**0.597**	**0.526**

K1 = 0.379168 **K2 =** 0.000591 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**46 mm** [1.811 in]
Dynamic Bending Radius	**93 mm** [3.661 in]
Weight	**0.190 kg/m** [0.1277 lbs/ft]
Temperature Range	**-55 ~ +165 ℃** [-67 ~ +329 ℉]