FLEXIBLE RF CABLE / LOW LOSS CABLE

Cable Name: L94

Part No: VXL940



10 GHz
MAX FREQUENCY

2500 V.DC
EXTREME HIGH VOLTAGE

-155 dBc
LOW PIM PERFORMANCE

9.40 mm
MEGA-SIZE PROFILE

General Description: The Vinstronics VXL940 is a mega-size, ultra-low loss RF cable designed for the most demanding 10GHz transmissions. Boasting an unprecedented 9.40mm blue FEP jacket and a 2500 V.DC rating, it provides maximum power transfer, excellent -155dBc PIM performance, and ultimate armor for critical wireless and electronic countermeasure 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.
- **Mega-Size Profile:** 9.40mm outer diameter for elite durability.

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	**2.58** [0.102]
2. Dielectric	Low Density PTFE (LD PTFE)	**7.80** [0.307]
3. Inner Shield	Silver-plated copper strip	-
4. Outer Shield	Silver-plated copper wire braiding	**8.75** [0.344]
5. Jacket	FEP / Blue (Customizable)	**9.40** [0.370]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**10 GHz**
Cut-off Frequency	**13 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)	**14.2**	**20.4**	**25.2**	**29.3**	**33.0**	**36.4**	**42.5**	**48.0**
Average Power (kW)	**3.137**	**2.190**	**1.771**	**1.522**	**1.351**	**1.226**	**1.050**	**0.930**

K1 = 0.396177 **K2 =** 0.000398 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**50 mm** [1.969 in]
Dynamic Bending Radius	**100 mm** [3.937 in]
Weight	**0.208 kg/m** [0.1398 lbs/ft]
Temperature Range	**-55 ~ +165 ℃** [-67 ~ +329 ℉]