FLEXIBLE RF CABLE / HIGH POWER CABLE

Cable Name: B147

Part No: VXB1470



6 GHz
MAX FREQUENCY

Aluminum Foil
HIGH TENSILE STRENGTH

4000 V.DC
ULTIMATE VOLTAGE

14.70 mm
ULTIMATE ARMOR

General Description: The Vinstronics VXB1470 is the absolute pinnacle of high-power RF cables, designed for 6GHz transmission. With an unprecedented 14.70mm FEP jacket and a high-temperature aluminum foil interlayer, it achieves an ultimate 4000 V.DC rating with phenomenal tensile strength. It guarantees impenetrable environmental defense and ultra-low loss for top-tier defense and broadcasting infrastructure.

Core Features

- **Ultimate Voltage:** Astounding 4000 V.DC rating for maximum power handling.
- **Aluminum Foil Layer:** Unique interlayer ensures superior tensile properties.
- **Low PIM:** Outstanding -155dBc performance for pure signal clarity.
- **Ultimate Armor:** Massive 14.70mm outer diameter for impenetrable physical defense.
- **Ultra-Low Loss:** Optimized for high-efficiency, long-distance transmission.

Target Applications

- **High Power Launch:** Dependable for extreme-intensity broadcasting.
- **Naval & Ground Systems:** Reliable in harsh, heavy-duty outdoor settings.
- **Base Stations:** Ideal for high-power communication routing.
- **ECM Systems:** Ultimate protection in electronic countermeasure setups.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**4.40** [0.173]
2. Dielectric	Low Density PTFE (LD PTFE)	**12.50** [0.492]
3. Inner Shield	Silver-plated copper strip	**12.82** [0.505]
4. Interlayer	High temperature aluminum foil	**12.95** [0.510]
5. Outer Shield	Silver-plated copper wire braiding	**13.67** [0.538]
6. Jacket	FEP / Blue (Customizable)	**14.70** [0.579]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**6 GHz**
Cut-off Frequency	**8 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**76 %**
Shielding Effectiveness	**>90 dB**
Dielectric Withstanding Voltage	**4000 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**100**	**300**	**500**	**800**	**1000**	**2000**	**3000**	**5000**	**6000**
Attenuation (dB/100m)	**3.1**	**5.4**	**7.1**	**9.1**	**10.2**	**14.8**	**18.4**	**24.5**	**27.1**
Average Power (kW)	**13.440**	**7.650**	**5.870**	**4.590**	**4.080**	**2.818**	**2.260**	**1.703**	**1.537**

K1 = 0.304208 **K2 =** 0.000591 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**76 mm** [2.992 in]
Dynamic Bending Radius	**150 mm** [5.906 in]
Weight	**0.432 kg/m** [0.2903 lbs/ft]
Temperature Range	**-55 ~ +200 °C** [-67 ~ +392 °F]