FLEXIBLE RF CABLE / HIGH POWER CABLE

Cable Name: B76

Part No: VXB762



18 GHz
MAX FREQUENCY

Aluminum Foil
HIGH TENSILE STRENGTH

2000 V.DC
EXTREME VOLTAGE

7.62 mm
RUGGEDIZED OD

General Description: The Vinstronics VXB762 is a ruggedized high-power RF cable built for extreme 18GHz environments. Reinforced by a high-temperature aluminum foil interlayer and a thick 7.62mm FEP jacket, it offers exceptional tensile strength and a 2000 V.DC power rating. Delivering outstanding -155dBc PIM, it is the premier choice for heavy-duty electronic countermeasures and high-power launch sites.

Core Features

- **Extreme Voltage:** 2000 V.DC rating for ultimate power handling.
- **Aluminum Foil Layer:** Unique interlayer ensures excellent tensile properties.
- **Low PIM:** Outstanding -155dBc performance for clear communication.
- **Ultra-Low Loss:** LD PTFE dielectric for precision signal integrity.
- **Ruggedized Build:** 7.62mm OD and robust FEP jacket for environmental defense.

Target Applications

- **High Power Launch:** Highly dependable for intense high-power broadcasting.
- **Base Stations:** Ideal for rugged outdoor wireless communication routing.
- **Avionics:** Meets strict environmental and tensile stability standards.
- **ECM Systems:** Reliable in complex electronic countermeasure setups.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**2.06** [0.081]
2. Dielectric	Low Density PTFE (LD PTFE)	**5.89** [0.232]
3. Inner Shield	Silver-plated copper strip	**6.05** [0.238]
4. Interlayer	High temperature aluminum foil	**6.17** [0.243]
5. Outer Shield	Silver-plated copper wire braiding	**6.81** [0.268]
6. Jacket	FEP / Blue (Customizable)	**7.62** [0.300]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**18 GHz**
Cut-off Frequency	**19 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**78 %**
Shielding Effectiveness	**>90 dB**
Dielectric Withstanding Voltage	**2000 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**6000**	**8000**	**10000**	**12400**	**16000**	**18000**
Attenuation (dB/100m)	**17.6**	**25.2**	**31.2**	**45.1**	**52.7**	**59.5**	**67.1**	**77.3**	**82.6**
Average Power (kW)	**1.530**	**1.098**	**0.887**	**0.613**	**0.524**	**0.464**	**0.412**	**0.358**	**0.335**

K1 = 0.536417 **K2 =** 0.000591 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**38 mm** [1.496 in]
Dynamic Bending Radius	**76 mm** [2.992 in]
Weight	**0.130 kg/m** [0.0874 lbs/ft]
Temperature Range	**-55 ~ +200 ℃** [-67 ~ +392 ℉]