FLEXIBLE RF CABLE / HIGH POWER CABLE

Cable Name: B63

Part No: VXB635



18 GHz
MAX FREQUENCY

Aluminum Foil
HIGH TENSILE STRENGTH

2000 V.DC
POWER HANDLING

6.35 mm
RUGGEDIZED OD

General Description: The Vinstronics VXB635 is a ruggedized high-power RF cable built for extreme 18GHz transmissions. Boasting a 2000 V.DC extreme voltage rating and a high-temperature aluminum foil interlayer, it guarantees maximum tensile strength and power handling. Combined with excellent -155dBc PIM, it is the ultimate 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:** 6.35mm 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	**1.57** [0.062]
2. Dielectric	Low Density PTFE (LD PTFE)	**4.72** [0.186]
3. Inner Shield	Silver-plated copper strip	**4.96** [0.195]
4. Interlayer	High temperature aluminum foil	**5.10** [0.201]
5. Outer Shield	Silver-plated copper wire braiding	**5.66** [0.223]
6. Jacket	FEP / Blue (Customizable)	**6.35** [0.250]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**18 GHz**
Cut-off Frequency	**27 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**76 %**
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)	**22.2**	**31.7**	**39.2**	**56.4**	**65.8**	**74.2**	**83.4**	**95.8**	**102.2**
Average Power (kW)	**1.020**	**0.713**	**0.577**	**0.401**	**0.344**	**0.305**	**0.271**	**0.236**	**0.221**

K1 = 0.682743 **K2 =** 0.000591 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**31 mm** [1.220 in]
Dynamic Bending Radius	**63 mm** [2.480 in]
Weight	**0.093 kg/m** [0.0625 lbs/ft]
Temperature Range	**-55 ~ +200 ℃** [-67 ~ +392 ℉]