FLEXIBLE RF CABLE / HIGH POWER CABLE

Cable Name: B120

Part No: VXB1200



10 GHz
MAX FREQUENCY

Aluminum Foil
HIGH TENSILE STRENGTH

3000 V.DC
EXTREME VOLTAGE

12.00 mm
MEGA-SIZE PROFILE

General Description: The Vinstronics VXB1200 is a mega-size, extreme high-power RF cable built for intense 10GHz applications. Integrating a high-temperature aluminum foil layer within a massive 12.00mm FEP jacket, it handles an incredible 3000 V.DC withstanding voltage. It offers unmatched physical durability, tensile strength, and ultra-low loss for the most demanding electronic warfare systems.

Core Features

- **Extreme Voltage:** 3000 V.DC rating for unprecedented power handling.
- **Aluminum Foil Layer:** Unique interlayer ensures superior tensile properties.
- **Low PIM:** Outstanding -155dBc performance for pure signal clarity.
- **Mega-Size Profile:** 12.00mm outer diameter for elite physical protection.
- **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	**3.50** [0.138]
2. Dielectric	Low Density PTFE (LD PTFE)	**9.90** [0.390]
3. Inner Shield	Silver-plated copper strip	**10.17** [0.400]
4. Interlayer	High temperature aluminum foil	**10.30** [0.406]
5. Outer Shield	Silver-plated copper wire braiding	**11.02** [0.434]
6. Jacket	FEP / Blue (Customizable)	**12.00** [0.472]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**10 GHz**
Cut-off Frequency	**11 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**76 %**
Shielding Effectiveness	**>90 dB**
Dielectric Withstanding Voltage	**3000 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**4000**	**5000**	**6000**	**7000**	**8000**	**10000**
Attenuation (dB/100m)	**13.0**	**18.7**	**23.3**	**27.2**	**30.7**	**33.9**	**37.0**	**39.8**	**45.2**
Average Power (kW)	**2.590**	**1.797**	**1.446**	**1.238**	**1.096**	**0.991**	**0.910**	**0.844**	**0.745**

K1 = 0.391680 **K2 =** 0.000600 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**60 mm** [2.362 in]
Dynamic Bending Radius	**120 mm** [4.724 in]
Weight	**0.300 kg/m** [0.2016 lbs/ft]
Temperature Range	**-55 ~ +200 ℃** [-67 ~ +392 ℉]