FLEXIBLE RF CABLE / LOW LOSS CABLE/ ECONOMY

Cable Name: E52

Part No: VXE520



18 GHz
MAX FREQUENCY

Aluminum Foil
COST-EFFECTIVE SHIELD

1500 V.DC
HIGH VOLTAGE

Economy
INNER CONNECTIVITY

General Description: The Vinstronics VXE520 is a robust, economy-type low-loss RF cable designed for high-power 18GHz inner connectivity. Utilizing an aluminum foil inner shield and a 5.20mm blue FEP jacket, it offers a reliable 1500 V.DC power rating and low attenuation. It is the ideal cost-effective solution for dense communication base station routing.

Core Features

- **Economy Build:** Aluminum foil shielding delivers maximum cost-effectiveness.
- **High Voltage Handling:** 1500 V.DC rating provides enhanced safety and power capacity.
- **Low Loss:** LD PTFE dielectric ensures efficient signal transmission.
- **Durable Build:** 5.20mm FEP jacket ensures reliable physical protection.
- **Reliable Shielding:** >70 dB shielding efficiency for internal environments.

Target Applications

- **Base Stations:** The optimal economical choice for communication base station connections.
- **Inner Connectivity:** Reliable routing inside general telecom cabinets.
- **Module Interconnection:** Cost-effective links between internal RF components.
- **General RF Routing:** Ideal for applications without strict PIM constraints.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**1.45** [0.057]
2. Dielectric	Low Density PTFE (LD PTFE)	**4.20** [0.165]
3. Inner Shield	Aluminum Foil	**4.32** [0.170]
4. Outer Shield	Silver-plated copper wire braiding	**4.65** [0.183]
5. Jacket	FEP / Blue (Customizable)	**5.20** [0.205]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**18 GHz**
Cut-off Frequency	**28 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**76 %**
Shielding Effectiveness	**>70 dB**
Dielectric Withstanding Voltage	**1500 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**6000**	**8000**	**10000**	**12400**	**16000**	**18000**
Attenuation (dB/100m)	**23.8**	**34.3**	**42.6**	**62.1**	**72.9**	**82.7**	**93.4**	**108.2**	**115.9**
Average Power (kW)	**0.766**	**0.532**	**0.428**	**0.293**	**0.250**	**0.220**	**0.195**	**0.168**	**0.157**

K1 = 0.718000 **K2 =** 0.001088 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**25 mm** [0.984 in]
Dynamic Bending Radius	**51 mm** [2.008 in]
Weight	**0.054 kg/m** [0.0363 lbs/ft]
Temperature Range	**-55 ~ +125 ℃** [-67 ~ +257 ℉]