FLEXIBLE RF CABLE / LOW LOSS CABLE/ ECONOMY

Cable Name: E40F

Part No: VXE400F



18 GHz
MAX FREQUENCY

Aluminum Foil
COST-EFFECTIVE SHIELD

PUR Jacket
WEAR RESISTANT

Economy
INNER CONNECTIVITY

General Description: The Vinstronics VXE400F is a ruggedized, economy-type low-loss cable designed for dynamic 18GHz environments. By combining an economical aluminum foil shield with an ultra-durable black PUR jacket, it delivers exceptional resistance to abrasion and tearing while maintaining reliable signal transmission for intensive base station connectivity.

Core Features

- **Economy Build:** Aluminum foil shielding delivers maximum cost-effectiveness.
- **Wear Resistant:** Black PUR jacket protects against continuous abrasions and harsh handling.
- **Low Loss:** LD PTFE dielectric ensures efficient signal transmission.
- **Reliable Shielding:** >70 dB shielding efficiency for internal environments.
- **High Voltage:** 1000 V.DC rating for reliable power handling.

Target Applications

- **Base Stations:** The optimal economical choice for communication base station connections.
- **Inner Connectivity:** Reliable routing inside general telecom cabinets.
- **Harsh Handling:** Ideal for installations requiring extra physical protection.
- **General RF Routing:** Ideal for applications without strict PIM constraints.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**0.91** [0.036]
2. Dielectric	Low Density PTFE (LD PTFE)	**2.65** [0.104]
3. Inner Shield	Aluminum Foil	**2.78** [0.109]
4. Outer Shield	Silver-plated copper wire braiding	**3.15** [0.124]
5. Jacket	PUR / Black (Customizable)	**4.00** [0.157]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**18 GHz**
Cut-off Frequency	**40 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**76 %**
Shielding Effectiveness	**>70 dB**
Dielectric Withstanding Voltage	**1000 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**6000**	**8000**	**10000**	**12400**	**18000**
Attenuation (dB/100m)	**44.7**	**63.6**	**78.2**	**111.7**	**129.6**	**145.5**	**162.8**	**198.0**
Average Power (kW)	**0.353**	**0.248**	**0.202**	**0.141**	**0.122**	**0.108**	**0.097**	**0.080**

K1 = 1.395308 **K2 =** 0.000600 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**18 mm** [0.709 in]
Dynamic Bending Radius	**36 mm** [1.417 in]
Weight	**0.029 kg/m** [0.0195 lbs/ft]
Temperature Range	**-55 ~ +85 ℃** [-67 ~ +185 ℉]