FLEXIBLE RF CABLE / LOW LOSS CABLE/ ECONOMY

Cable Name: E81

Part No: VXE810



18 GHz
MAX FREQUENCY

Aluminum Foil
COST-EFFECTIVE SHIELD

2000 V.DC
EXTREME VOLTAGE

8.10 mm
HEAVY-DUTY OD

General Description: The Vinstronics VXE810 is a heavy-duty, economy-type low-loss RF cable designed for high-power 18GHz inner connectivity. Incorporating an aluminum foil shield within a massive 8.10mm FEP jacket, it handles an extreme 2000 V.DC withstanding voltage while delivering >90dB shielding. It provides exceptional cost-effective durability for massive base station infrastructure.

Core Features

- **Economy Build:** Aluminum foil shielding delivers maximum cost-effectiveness.
- **Extreme Voltage:** 2000 V.DC rating for superior power and safety.
- **Heavy-Duty Build:** 8.10mm OD provides elite physical resilience.
- **Enhanced Shielding:** >90 dB shielding efficiency for superior isolation.
- **Low Loss:** Optimized for precision long-distance signal transmission.

Target Applications

- **Base Stations:** The optimal economical choice for high-power base station connections.
- **Inner Connectivity:** Reliable routing inside large-scale telecom cabinets.
- **High-Power Routing:** Dependable for high-voltage general RF modules.
- **General RF Routing:** Ideal for applications without strict PIM constraints.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**2.30** [0.091]
2. Dielectric	Low Density PTFE (LD PTFE)	**6.80** [0.268]
3. Inner Shield	Aluminum Foil	**6.95** [0.274]
4. Outer Shield	Silver-plated copper wire braiding	**7.50** [0.295]
5. Jacket	FEP / Blue (Customizable)	**8.10** [0.319]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**18 GHz**
Cut-off Frequency	**19 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)	**15.1**	**21.8**	**27.2**	**40.1**	**47.3**	**53.8**	**61.0**	**71.0**	**76.3**
Average Power (kW)	**1.471**	**1.015**	**0.814**	**0.553**	**0.469**	**0.412**	**0.363**	**0.312**	**0.291**

K1 = 0.448000 **K2** = 0.000898 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**40 mm** [1.575 in]
Dynamic Bending Radius	**81 mm** [3.189 in]
Weight	**0.134 kg/m** [0.0900 lbs/ft]
Temperature Range	**-55 ~ +125 ℃** [-67 ~ +257 ℉]