FLEXIBLE RF CABLE / LOW LOSS CABLE

Cable Name: L53

Part No: VXL530



18 GHz
MAX FREQUENCY

Premium
ULTRA-LOW LOSS

-155 dBc
LOW PIM PERFORMANCE

0.22 kW
POWER RATING

General Description: The Vinstronics VXL530 is a premium-tier, ultra-low loss RF cable designed for demanding microwave applications. Featuring a 5.30mm blue FEP jacket, it is engineered for superior signal transmission with exceptionally low attenuation (111.7 dB/100m @18GHz) and higher power handling. With excellent -155dBc PIM, it is the top choice for critical wireless communication base stations and precision RF testing.

Core Features

- **Ultra-Low Loss:** Optimized for efficient signal transmission.
- **Low PIM:** Outstanding -155dBc performance for clear signals.
- **Cost-Effective:** High performance-to-price ratio.
- **High Power:** Excellent power handling capabilities.
- **Durable Build:** 5.30mm FEP jacket for environmental protection.

Target Applications

- **Base Stations:** Ideal for internal wireless communication routing.
- **RF Testing:** Reliable for microwave device testing environments.
- **Avionics:** Meets strict environmental stability standards.
- **ECM Systems:** Dependable in electronic countermeasure setups.

CONSTRUCTION SPECIFICATION

Component	Material & Process	**Diameter** mm [in]
1. Inner Conductor	Silver-plated copper	**1.44** [0.057]
2. Dielectric	Low Density PTFE (LD PTFE)	**4.15** [0.163]
3. Inner Shield	Silver-plated copper strip	**4.35** [0.171]
4. Outer Shield	Silver-plated copper wire braiding	**4.90** [0.193]
5. Jacket	FEP / Blue (Customizable)	**5.30** [0.209]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**18 GHz**
Cut-off Frequency	**25 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**76 %**
Shielding Effectiveness	**>90 dB**
Dielectric Withstanding Voltage	**1000 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**6000**	**8000**	**10000**	**12400**	**18000**
Attenuation (dB/100m)	**25.3**	**35.9**	**44.2**	**63.0**	**73.1**	**82.1**	**91.9**	**111.7**
Average Power (kW)	**0.991**	**0.697**	**0.567**	**0.397**	**0.342**	**0.305**	**0.273**	**0.224**

K1 = 0.788400 **K2** = 0.000328 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**26 mm** [1.024 in]
Dynamic Bending Radius	**53 mm** [2.087 in]
Weight	**0.070 kg/m** [0.0470 lbs/ft]
Temperature Range	**-55 ~ +165 ℃** [-67 ~ +329 ℉]