FLEXIBLE RF CABLE / LOW LOSS CABLE

Cable Name: L52

Part No: VXL520



26.5 GHz
MAX FREQUENCY

1000 V.DC
WITHSTANDING VOLTS

-155 dBc
LOW PIM PERFORMANCE

5.20 mm
COST-EFFECTIVE BUILD

General Description: The Vinstronics VXL520 is a highly cost-effective, low-loss RF cable designed for high-power microwave applications. Featuring a 5.20mm blue FEP jacket and LD PTFE dielectric, it delivers reliable signal transmission up to 26.5GHz. With excellent -155dBc PIM performance and robust power handling, it is ideal for wireless communication base stations and 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:** 5.20mm 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	**1.29** [0.051]
2. Dielectric	Low Density PTFE (LD PTFE)	**3.85** [0.152]
3. Inner Shield	Silver-plated copper strip	**4.05** [0.159]
4. Outer Shield	Silver-plated copper wire braiding	**4.62** [0.182]
5. Jacket	FEP / Blue (Customizable)	**5.20** [0.205]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**26.5 GHz**
Cut-off Frequency	**28 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**	**26500**
Attenuation (dB/100m)	**25.0**	**35.6**	**44.0**	**63.2**	**73.7**	**83.0**	**93.1**	**114.0**	**141.1**
Average Power (kW)	**0.749**	**0.524**	**0.425**	**0.296**	**0.254**	**0.225**	**0.201**	**0.164**	**0.132**

K1 = 0.770610 **K2 =** 0.000591 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**26 mm** [1.024 in]
Dynamic Bending Radius	**52 mm** [2.047 in]
Weight	**0.066 kg/m** [0.0444 lbs/ft]
Temperature Range	**-55 ~ +165 ℃** [-67 ~ +329 ℉]