PRECISION TEST CABLE / ECONOMY

Cable Name: J52

Part No: VXJ520



26.5 GHz
MAX FREQUENCY

± 0.3°/GHz
LINEAR PHASE

PUR Jacket
WEAR RESISTANT

Economy
HIGH VOLTAGE (500V)

General Description: The Vinstronics VXJ520 is a ruggedized, economy-type precision test cable designed for heavy-duty 26.5GHz production lines. Operating with an elevated 500 V.DC withstanding voltage, it is protected by an ultra-durable blue PUR jacket to resist severe workshop wear and tear. It delivers a highly cost-effective solution with predictable ±0.3°/GHz linear phase for massive batch testing.

Core Features

- **Economy Build:** Outstanding performance-to-price ratio for massive testing.
- **High Voltage Handling:** 500 V.DC rating provides enhanced safety and power capacity.
- **Linear Phase:** ±0.3°/GHz enables rapid algorithmic error correction.
- **Wear Resistant:** Rugged PUR jacket protects against continuous abrasions.
- **Low Loss:** Precision signal transmission up to 26.5GHz.

Target Applications

- **Mass Production Lines:** The ultimate economical workhorse for high-volume testing.
- **Test Systems & Platforms:** Reliable interconnects for automated test equipment.
- **System Connection:** Dependable routing for high-power test benches.
- **High-Frequency Testing:** Economical verification for 26.5GHz microwave components.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**1.02** [0.040]
2. Dielectric	Low Density PTFE (LD PTFE)	**2.92** [0.115]
3. Inner Shield	Silver-plated copper strip	**3.10** [0.122]
4. Interlayer	PTFE	**3.38** [0.133]
5. Outer Shield	Silver-plated copper wire braiding	**3.95** [0.156]
6. Jacket	PUR / Blue (Customizable)	**5.20** [0.205]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**26.5 GHz**
Cut-off Frequency	**35 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**76 %**
Shielding Effectiveness	**>90 dB**
Dielectric Withstanding Voltage	**500 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**6000**	**8000**	**10000**	**12400**	**18000**	**26500**
Attenuation (dB/100m)	**38.5**	**55.9**	**69.8**	**103.2**	**121.9**	**139.0**	**157.9**	**198.0**	**252.1**
Average Power (kW)	**0.149**	**0.103**	**0.082**	**0.056**	**0.047**	**0.041**	**0.036**	**0.029**	**0.023**

K1 = 1.136600 **K2 =** 0.002530 **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	**0.053 kg/m** [0.0356 lbs/ft]
Temperature Range	**-55 ~ +85 ℃** [-67 ~ +185 ℉]
Mechanical Stationary Phase	**± 0.3 °/GHz**