PRECISION TEST CABLE / ECONOMY

Cable Name: J48

Part No: VXJ480



18 GHz
MAX FREQUENCY

± 1°/GHz
LINEAR PHASE

Solid PTFE
COST-EFFECTIVE

Economy
ATE OPTIMIZED

General Description: The Vinstronics VXJ480 is a highly cost-effective precision test cable designed for general 18GHz production line applications. Built with a solid PTFE dielectric and a robust 4.88mm FEP jacket, it offers an optimal balance between affordability and testing durability. With a predictable ±1.0°/GHz linear phase stability, it is the premier economical choice for massive manufacturing setups.

Core Features

- **Economy Build:** Solid PTFE construction delivers maximum cost-effectiveness.
- **Linear Phase:** ±1.0°/GHz enables simple algorithmic error correction.
- **Durable Jacket:** 4.88mm FEP jacket ensures reliable physical protection.
- **High Flex Life:** Built to survive the relentless demands of assembly lines.
- **Low VSWR:** Ensures reliable signal integrity across high-volume tests.

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 complex test benches.
- **General RF Testing:** Ideal for cost-conscious microwave component verification.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**0.94** [0.037]
2. Dielectric	Solid PTFE	**2.98** [0.117]
3. Inner Shield	Silver-plated copper strip	**3.25** [0.128]
4. Interlayer	Aluminum Foil	**3.40** [0.134]
5. Outer Shield	Silver-plated copper wire braiding	**3.95** [0.156]
6. Jacket	FEP / Blue (Customizable)	**4.88** [0.192]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**18 GHz**
Cut-off Frequency	**40 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**70 %**
Shielding Effectiveness	**>90 dB**
Dielectric Withstanding Voltage	**100 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**6000**	**8000**	**10000**	**12400**	**18000**
Attenuation (dB/100m)	**40.0**	**58.9**	**74.3**	**112.1**	**133.6**	**153.5**	**176.0**	**224.0**
Average Power (kW)	**0.488**	**0.332**	**0.263**	**0.174**	**0.146**	**0.127**	**0.111**	**0.087**

K1 = 1.141732 **K2 =** 0.003937 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**24 mm** [0.945 in]
Dynamic Bending Radius	**48 mm** [1.890 in]
Weight	**0.058 kg/m** [0.0390 lbs/ft]
Temperature Range	**-55 ~ +125 ℃** [-67 ~ +257 ℉]
Mechanical Stationary Phase	**± 1.0 °/GHz**