PRECISION TEST CABLE / STANDARD

Cable Name: T24

Part No: VXT240



67 GHz
MAX FREQUENCY

Low VSWR
SIGNAL INTEGRITY

2.40 mm
COMPACT OD

Bend-Resistant
TEST DURABILITY

General Description: The Vinstronics VXT240 is a standard precision test cable designed for high-performance 67GHz microwave systems. Utilizing a compact 2.40mm blue FEP jacket and LD PTFE dielectric, it guarantees low VSWR and superior resistance to torsion and bending. It provides reliable and pure signal transmission for demanding laboratory testing and avionics equipment.

Core Features

- **High Frequency:** Reliable precision transmission up to 67GHz.
- **Low VSWR:** Ensures pristine signal integrity for high-precision testing.
- **Bend-Resistant:** Handles frequent flexing, shaking, and torsion seamlessly.
- **Compact Build:** 2.40mm OD ideal for high-density lab environments.
- **Low Loss:** Optimized for highly efficient signal testing.

Target Applications

- **Avionics:** Meets stringent stability standards.
- **ECM Systems:** Reliable in complex electronic countermeasure setups.
- **Lab Testing:** Perfect for high-frequency RF and microwave device testing.
- **Phased Array Radar:** Ideal for internal array connection-free setups.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**0.50** [0.020]
2. Dielectric	Low Density PTFE (LD PTFE)	**1.38** [0.054]
3. Inner Shield	Silver-plated copper strip	**1.54** [0.061]
4. Interlayer	Low Density PTFE (LD PTFE)	**1.82** [0.072]
5. Outer Shield	Silver-plated copper wire braiding	**2.17** [0.085]
6. Jacket	FEP / Blue (Customizable)	**2.40** [0.094]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**67 GHz**
Cut-off Frequency	**82 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**81 %**
Shielding Effectiveness	**>90 dB**
Dielectric Withstanding Voltage	**500 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**3000**	**8000**	**18000**	**26500**	**40000**	**67000**
Attenuation (dB/100m)	**63.7**	**111.9**	**186.5**	**287.1**	**354.0**	**444.0**	**593.2**
Average Power (kW)	**0.097**	**0.055**	**0.029**	**0.022**	**0.017**	**0.014**	**0.010**

K1 = 1.975832 **K2 =** 0.001221 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**12 mm** [0.472 in]
Dynamic Bending Radius	**24 mm** [0.945 in]
Weight	**0.016 kg/m** [0.0108 lbs/ft]
Temperature Range	**-55 ~ +165 ℃** [-67 ~ +329 ℉]