PRECISION TEST CABLE / STANDARD

Cable Name: T36

Part No: VXT360



50 GHz
MAX FREQUENCY

Low VSWR
SIGNAL INTEGRITY

3.60 mm
DURABLE OD

Bend-Resistant
TEST DURABILITY

General Description: The Vinstronics VXT360 is a durable, low-loss standard precision test cable operating up to 50GHz. With a 3.60mm blue FEP jacket, it offers exceptional resistance to bending and shaking, ensuring long-lasting performance in dynamic environments. Featuring extremely low VSWR, it is the ideal interconnection for high-precision laboratory testing and phased array radar systems.

Core Features

- **High Frequency:** Reliable precision transmission up to 50GHz.
- **Low VSWR:** Ensures pristine signal integrity for high-precision testing.
- **Bend-Resistant:** Specialized internal structure handles frequent flexing and torsion.
- **Durable Build:** 3.60mm OD provides excellent physical resilience.
- **Low Loss:** Minimized attenuation across the entire frequency band.

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	**0.72** [0.028]
2. Dielectric	Low Density PTFE (LD PTFE)	**2.10** [0.083]
3. Inner Shield	Silver-plated copper strip	**2.25** [0.089]
4. Interlayer	Low Density PTFE (LD PTFE)	**2.55** [0.100]
5. Outer Shield	Silver-plated copper wire braiding	**3.01** [0.119]
6. Jacket	FEP / Blue (Customizable)	**3.60** [0.142]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**50 GHz**
Cut-off Frequency	**50 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**	**3000**	**8000**	**12400**	**18000**	**26500**	**40000**	**50000**
Attenuation (dB/100m)	**48.1**	**83.9**	**138.4**	**173.4**	**210.2**	**257.1**	**319.2**	**359.2**
Average Power (kW)	**0.506**	**0.290**	**0.176**	**0.140**	**0.116**	**0.095**	**0.076**	**0.068**

K1 = 1.507808 **K2 =** 0.000440 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**18 mm** [0.709 in]
Dynamic Bending Radius	**36 mm** [1.417 in]
Weight	**0.031 kg/m** [0.0208 lbs/ft]
Temperature Range	**-55 ~ +165 ℃** [-67 ~ +329 ℉]