ARMORED RF CABLE / **PRECISION TEST CABLE**

Cable Name: T26KB

Part No: VXT260KB



67 GHz	Integrated Armor
MAX FREQUENCY	ARMOR TYPE
4.95 mm	**±7°**
OUTER DIAMETER	MECHANICAL PHASE

General Description: The Vinstronics VXT260KB is a high-precision integrated armored RF test cable engineered for demanding microwave interconnect environments up to 67 GHz. Its multilayer shielded architecture combines low-density PTFE dielectric, silver-plated conductors, reinforced armor wrapping, and PTFE braided outer protection to deliver stable phase behavior, robust mechanical durability, and dependable high-frequency transmission in complex routing and repetitive handling conditions.

Core Features

- **Integrated Armor**: One-piece armored structure for enhanced cable protection.
- **67 GHz Performance**: Supports precision microwave transmission up to 67 GHz.
- **Stable Phase**: Mechanical phase controlled within ±7°.
- **Stable Amplitude**: ±0.15 dB amplitude stability under movement.
- **Multi-Layer Shielding**: Reinforced structure for dependable signal integrity.
- **Precision Test Ready**: Designed for protected high-frequency test interconnects.

Target Applications

- **Precision RF Test Systems**: For calibrated high-frequency measurement paths.
- **Microwave Labs**: For protected routing in dense test setups.
- **Aerospace and Defense Test**: For demanding environments requiring durable cable handling.
- **High-Frequency Interconnects**: For stable and shielded microwave signal transmission.

CONSTRUCTION SPECIFICATION

Item	Name	Material & Process	Size mm (Tolerance)
1	Inner Conductor	Silver-plated copper-clad steel	**0.51** (±0.010)
2	Dielectric	Low Density PTFE	**1.55** (±0.05)
3	Inner Shield	Silver-plated copper strip	**1.65** (±0.05)
4	Middle Layer 1	Aluminum foil	**1.75** (±0.05)
5	Middle Layer 2	PI	**1.88** (±0.05)
6	Outer Shield	Silver-plated copper wire	**2.23** (±0.05)
7	Outer Jacket	FEP	**2.60** (±0.10)
8	Winding Layer	Silver-plated copper-clad steel	**3.20** (±0.10)
9	Braiding Layer	Silver-plated copper wire	**3.80** (±0.10)
10	Protection Layer	PTFE tape wrapping	**4.20** (±0.10)
11	Outer Protective Layer	PTFE braiding (purple and black)	**4.95** (±0.15)

ELECTRICAL CHARACTERISTICS

Operating Frequency	**DC–67 GHz**
VSWR	**≤ 1.30 @ 67 GHz**
Repeated Bending Life	**20,000 cycles**
Mechanical Phase	**±7°**
Amplitude Stability	**±0.15 dB**
Working Temperature	**-55 to +125 °C**

ATTENUATION AND TRANSMISSION POWER

Parameter	1000	2000	3000	6000	8000	10000	12400	18000	26500	40000	67000
Frequency (MHz)	1000	2000	3000	6000	8000	10000	12400	18000	26500	40000	67000
Attenuation (dB/100 m)	70.1	99.8	122.9	176.0	204.5	229.9	257.6	314.1	386.8	484.3	645.4
Average Power (kW)	0.110	0.077	0.063	0.044	0.038	0.034	0.030	0.025	0.020	0.016	0.012

K1 = 2.177342 **K2** = 0.001221 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**25.0 mm**
Dynamic Bending Radius	**49.5 mm**
Mechanical Phase	**±7°**
Amplitude Stability	**±0.15 dB**
Weight	**0.059 kg/m**
Working Temperature	**-55 to +125 °C**