**PRECISION TEST CABLE / ARMORED**

# Cable Name: T42KA/KB

Part No: VXT420KA/KB



| 40 GHz | ≤ 1.30 |
|---|---|
| MAX FREQUENCY | VSWR (@ 40GHZ) |
| **± 7°** | **Armor** |
| MECHANICAL PHASE | CRUSH RESISTANCE |

**General Description:** The Vinstronics VXT420KA/KB is an armored precision test cable designed to deliver flawless 40GHz transmission. Built with a tough 6.70mm purple PTFE armor, it eliminates signal degradation caused by cable movement, providing outstanding mechanical phase stability (±7°) and amplitude stability (±0.05dB). It is essential for rigorous VNA testing and high-precision instrument interconnects.

## Core Features

- **Mechanical Phase Stability:** Exceptional ±7° stability for highly repeatable measurements.
- **Amplitude Stability:** Strict ±0.05dB range stability under dynamic flexing.
- **Armored Protection:** Eliminates damage from torsion, pulling, and crushing.
- **Ultra-Low VSWR:** ≤ 1.30 @ 40GHz guarantees absolute signal purity.
- **High Frequency:** Reliable high-performance transmission up to 40GHz.

## Target Applications

- **Lab Testing:** The ultimate choice for VNA and high-frequency testing.
- **EMC Lab:** Highly dependable in rigorous electromagnetic environments.
- **System Testing:** Provides flawless interconnects for complex test benches.
- **On-Site Measurement:** Armored durability for field measurements.

## CONSTRUCTION SPECIFICATION

| Item | Material & Process | Diameter mm [in] |
|---|---|---|
| 1~6 VXT420 Cable | FEP Jacket Core | **4.20** [0.165] |
| 7~8 Armor | Silver-plated copper | **5.75** [0.226] |
| 9~10 Jacket | PTFE (Purple) | **6.70** [0.264] |

## ELECTRICAL CHARACTERISTICS

| | |
|---|---|
| Operating Frequency | **40 GHz** |
| VSWR | **≤ 1.30 @ 40GHz** |
| Mechanical Phase | **± 7°** |
| Range Stability (Amplitude) | **± 0.05 dB** |
| 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** | **40000** |
|---|---|---|---|---|---|---|---|---|---|---|
| Attenuation (dB/100m) | **40.5** | **57.6** | **70.8** | **100.8** | **116.9** | **131.2** | **146.6** | **178.0** | **218.0** | **271.2** |
| Average Power (kW) | **0.567** | **0.399** | **0.325** | **0.228** | **0.197** | **0.175** | **0.157** | **0.129** | **0.105** | **0.085** |

**K1 =** 1.267795 **K2 =** 0.000440 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

## MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

| | |
|---|---|
| Static Bending Radius | **40 mm** [1.575 in] |
| Dynamic Bending Radius | **70 mm** [2.756 in] |
| Weight | **0.110 kg/m** [0.0739 lbs/ft] |
| Temperature Range | **-55 ~ +125 ℃** [-67 ~ +257 ℉] |