SEMI-RIGID COAXIAL CABLE / PHASE STABLE

Cable Name: C36G

Part No: VXC36G



26.5 GHz	< 750 PPM
MAX FREQUENCY	PHASE STABILITY
81%	**1000 V.DC**
ULTRA-HIGH VELOCITY	HIGH VOLTAGE

General Description: The Vinstronics VXC36G is an elite, phase-stable semi-rigid cable designed for demanding 26.5GHz and high-power applications. Delivering a 1000 V.DC rating and exceptional <750PPM temperature phase stability, its advanced ultra-low density PTFE core operates at an 81% velocity. It provides zero-drift, impenetrable (>165dB) internal routing for the most advanced electronic warfare and radar systems.

Core Features

- **Phase Stability:** Incredible <750PPM (-45℃ to 85℃) for absolute signal precision.
- **Ultra-High Velocity:** Advanced dielectric achieves an industry-leading 81% propagation velocity.
- **High Voltage Handling:** 1000 V.DC rating provides enhanced safety and power capacity.
- **Absolute Shielding:** Seamless copper tube provides >165dB isolation, eliminating cross-talk.
- **Extreme Temperature:** Survives ultra-harsh environments up to 250℃.

Target Applications

- **Phased Array Radar:** Flawless phase-stable routing for high-power antenna arrays.
- **Avionics & Aerospace:** Meets the ultimate temperature and stability standards.
- **Electronic Warfare (ECM):** Absolute zero-drift signal paths under intense conditions.
- **Precision Instruments:** The ultimate form-stable interconnect for top-tier test equipment.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**1.050** [0.041]
2. Dielectric	PTFE (Ultra-Low Density)	**3.000** [0.118]
3. Outer Shield/Jacket	Seamless Copper Tube	**3.580** [0.141]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**26.5 GHz**
Cut-off Frequency	**38 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**81 %**
Shielding Effectiveness	**>165 dB**
Dielectric Withstanding Voltage	**1000 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**6000**	**8000**	**10000**	**12400**	**18000**	**26500**
Attenuation (dB/100m)	**30.8**	**43.9**	**54.0**	**77.1**	**89.5**	**100.5**	**112.5**	**136.9**	**168.1**
Average Power (kW)	**0.259**	**0.182**	**0.148**	**0.104**	**0.090**	**0.080**	**0.072**	**0.059**	**0.048**

K1 = 0.961145 **K2 =** 0.000440 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**13.5 mm** [0.531 in]
Weight	**0.045 kg/m** [0.0298 lbs/ft]
Temperature Range	**-55 ~ +250 °C** [-67 ~ +482 °F]
Temperature Stable Phase	**< 750PPM @ -45°C ~ 85°C**