SEMI-RIGID COAXIAL CABLE / **STANDARD**

Cable Name: G64E

Part No: VXG64E



18 GHz
MAX FREQUENCY

> 165 dB
RF SHIELDING

6.35 mm
DURABLE OD

Solid PTFE
COST-EFFECTIVE

General Description: The Vinstronics VXG64E is a mega-size, standard semi-rigid cable built for 18GHz heavy-duty internal routing. With a massive 6.35mm seamless copper tube, it delivers excellent power handling and absolute >165dB shielding. It is the ultimate economical solution for permanent, rigid interconnections in high-power radar and broadcasting modules.

Core Features

- **Absolute Shielding:** Seamless copper tube provides >165dB isolation, eliminating cross-talk.
- **Mega-Size OD:** 6.35mm diameter ensures superior power capacity and durability.
- **Form-Stable:** Retains its complex 3D routed shape permanently after bending.
- **Economy Build:** Solid PTFE dielectric delivers excellent performance-to-price ratio.
- **Zero PIM:** Solid structure ensures impeccable intermodulation performance.

Target Applications

- **High-Power Launch:** Ideal for permanent internal routing in high-power broadcasting.
- **RF Module Internal:** Perfect for heavy-duty microwave component interconnections.
- **Phased Array Radar:** Dependable internal chassis links.
- **General RF Routing:** The economical backbone for large-scale setups.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**1.630** [0.064]
2. Dielectric	Solid PTFE	**5.280** [0.208]
3. Outer Shield/Jacket	Seamless Copper Tube	**6.350** [0.250]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**18 GHz**
Cut-off Frequency	**24 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**70 %**
Shielding Effectiveness	**>165 dB**
Dielectric Withstanding Voltage	**500 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**6000**	**8000**	**10000**	**12400**	**18000**
Attenuation (dB/100m)	**22.5**	**34.1**	**44.0**	**69.1**	**84.0**	**98.1**	**114.2**	**149.7**
Average Power (kW)	**0.542**	**0.357**	**0.277**	**0.177**	**0.145**	**0.124**	**0.107**	**0.082**

K1 = 0.587270 **K2** = 0.003937 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**30 mm** [1.181 in]
Weight	**0.146 kg/m** [0.0981 lbs/ft]
Temperature Range	**-55 ~ +125 ℃** [-67 ~ +257 ℉]