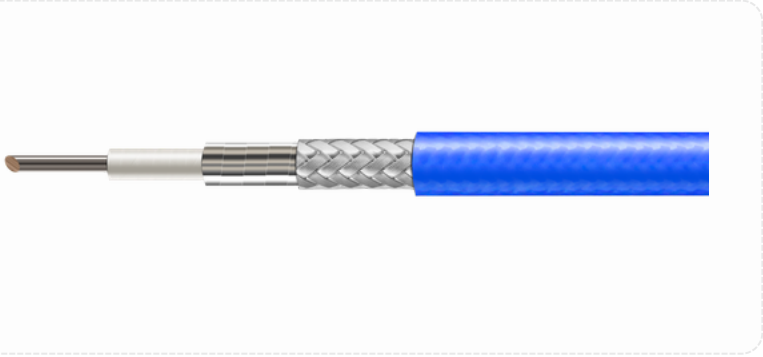
FLEXIBLE RF CABLE / GENERAL PURPOSE FLEXIBLE CABLE

Cable Name: I16

Part No: VXI160



18 GHz
MAX FREQUENCY

Low VSWR
SIGNAL INTEGRITY

1.45 mm
ULTRA-COMPACT

Economy
SEMI-RIGID REPLACEMENT

General Description: The Vinstronics VXI160 is an ultra-compact, economy-type flexible RF cable for 18GHz interconnects. Featuring a 1.45mm blue FEP jacket and solid PTFE dielectric, it provides low VSWR and excellent physical flexibility. It serves as the perfect cost-effective alternative to traditional semi-rigid or hand-formable cables in extremely tight chassis spaces.

Core Features

- **Economy Build:** High performance-to-price ratio for general-purpose use.
- **Semi-Rigid Replacement:** Highly flexible alternative to hand-formable cables.
- **Low VSWR:** Ensures excellent signal integrity across the frequency band.
- **Ultra-Compact:** Minimal 1.45mm OD and 6mm static bend radius.
- **Durable Jacket:** Blue FEP jacket for environmental protection.

Target Applications

- **Chassis Interconnects:** Perfect for narrow and complicated cabinet routing.
- **Module Interconnection:** Reliable links between internal RF modules.
- **Phased Array Radar:** Ideal for internal array connection-free setups.
- **Semi-Rigid Replacement:** Cost-effective upgrades for legacy rigid routing.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated copper	**0.30** [0.012]
2. Dielectric	Solid PTFE	**0.95** [0.037]
3. Inner Shield	Silver-plated copper strip	**1.07** [0.042]
4. Outer Shield	Silver-plated copper wire braiding	**1.25** [0.049]
5. Jacket	FEP / Blue (Customizable)	**1.45** [0.057]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**18 GHz**
Cut-off Frequency	**110 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**70 %**
Shielding Effectiveness	**>90 dB**
Dielectric Withstanding Voltage	**300 V.DC**

ATTENUATION AND TRANSMISSION POWER

Frequency (MHz)	**1000**	**2000**	**3000**	**6000**	**8000**	**10000**	**12400**	**18000**
Attenuation (dB/100m)	**135.2**	**191.6**	**235.1**	**334.0**	**386.5**	**433.0**	**483.2**	**584.7**
Average Power (kW)	**0.082**	**0.058**	**0.047**	**0.033**	**0.029**	**0.026**	**0.023**	**0.019**

K1 = 4.248276 **K2 =** 0.000820 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**6 mm** [0.236 in]
Dynamic Bending Radius	**16 mm** [0.630 in]
Weight	**0.006 kg/m** [0.0040 lbs/ft]
Temperature Range	**-55 ~ +125 ℃** [-67 ~ +257 ℉]