FLEXIBLE RF CABLE / ULTRA-FLEXIBLE CABLE

Cable Name: F36

Part No: VXF360



40 GHz
MAX FREQUENCY

18 mm
MIN BEND RADIUS

Stranded Core
DYNAMIC FLEXIBILITY

PUR Jacket
HARSH ENV DEFENSE

General Description: The Vinstronics VXF360 is a super-flexible, low-loss RF cable engineered for complex 40GHz microwave routing. Featuring a stranded silver-plated copper core and a highly durable 3.60mm blue PUR jacket, it offers exceptional dynamic flexibility (18mm static bend radius) and survives harsh outdoor environments. It is the ultimate choice for tight chassis interconnections and precision test assemblies.

Core Features

- **Super Flexible:** Stranded inner conductor for outstanding dynamic bending.
- **Ultra-Low Loss**: Optimized for precision transmission up to 40GHz.
- **Harsh Environment Ready:** PUR jacket provides elite wear and weather resistance.
- **Tight Routing:** Exceptional 18mm minimum static bend radius.
- **Reliable Shielding:** >90 dB shielding effectiveness for clear signals.

Target Applications

- **Tight Enclosures:** Perfect for narrow and complicated installation spaces.
- **RF Testing:** Highly durable for frequent-bending test cable assemblies.
- **Phased Array Radar:** Ideal for internal array interconnections.
- **Harsh Outdoors:** Dependable routing in extreme wild environments.

CONSTRUCTION SPECIFICATION

Component	Material & Process	Diameter mm [in]
1. Inner Conductor	Silver-plated stranded copper	**0.72** [0.028]
2. Dielectric	Low Density PTFE (LD PTFE)	**2.05** [0.081]
3. Inner Shield	Silver-plated copper strip	**2.22** [0.087]
4. Outer Shield	Silver-plated copper wire braiding	**2.66** [0.105]
5. Jacket	PUR / Blue (Customizable)	**3.60** [0.142]

ELECTRICAL CHARACTERISTICS

Operating Frequency	**40 GHz**
Cut-off Frequency	**51 GHz**
Impedance	**50 ± 1 Ω**
Velocity of Propagation	**76 %**
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)	**51.9**	**74.4**	**92.1**	**133.4**	**156.0**	**176.4**	**198.7**	**244.9**	**305.5**	**388.8**
Average Power (kW)	**0.119**	**0.083**	**0.067**	**0.046**	**0.040**	**0.035**	**0.031**	**0.025**	**0.020**	**0.016**

K1 = 1.582929 **K2 =** 0.001806 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Static Bending Radius	**18 mm** [0.709 in]
Dynamic Bending Radius	**36 mm** [1.417 in]
Weight	**0.027 kg/m** [0.0181 lbs/ft]
Temperature Range	**-55 ~ +85 ℃** [-67 ~ +185 ℉]