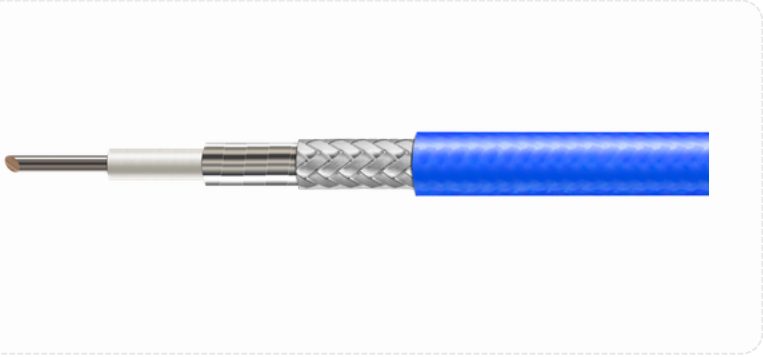
**FLEXIBLE RF CABLE / GENERAL PURPOSE FLEXIBLE CABLE**

# Cable Name: I70

Part No: VXI700



**18 GHz**
MAX FREQUENCY

**Low VSWR**
SIGNAL INTEGRITY

**3000 V.DC**
EXTREME VOLTAGE

**Economy**
SEMI-RIGID REPLACEMENT

**General Description:** The Vinstronics VXI700 is a heavy-duty, general-purpose flexible RF cable operating up to 18GHz. Protected by a thick 7.00mm blue FEP jacket, it features an extreme 3000 V.DC withstanding voltage while maintaining low VSWR. It is the ultimate economical replacement for large-diameter semi-rigid cables, offering superior routing flexibility in high-power radar cabinets.

## Core Features

- **Extreme Voltage:** Elite 3000 V.DC rating for maximum power handling.
- **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.
- **Heavy-Duty Profile:** 7.00mm OD for robust physical protection.

## Target Applications

- **High-Power Interconnects:** Ideal for extreme voltage module connections.
- **Chassis Routing:** Replaces rigid cables in complicated cabinet spaces.
- **Phased Array Radar:** Dependable for internal array interconnections.
- **Semi-Rigid Replacement:** Cost-effective upgrades for legacy rigid routing.

## CONSTRUCTION SPECIFICATION

| Component | Material & Process | Diameter mm [in] |
|---|---|---|
| 1. Inner Conductor | Silver-plated copper | **1.63** [0.064] |
| 2. Dielectric | Solid PTFE | **5.30** [0.209] |
| 3. Inner Shield | Silver-plated copper strip | **5.55** [0.219] |
| 4. Outer Shield | Silver-plated copper wire braiding | **6.17** [0.243] |
| 5. Jacket | FEP / Blue (Customizable) | **7.00** [0.276] |

## ELECTRICAL CHARACTERISTICS

| | |
|---|---|
| Operating Frequency | **18 GHz** |
| Cut-off Frequency | **19 GHz** |
| Impedance | **50 ± 1 Ω** |
| Velocity of Propagation | **70 %** |
| Shielding Effectiveness | **>90 dB** |
| Dielectric Withstanding Voltage | **3000 V.DC** |

## ATTENUATION AND TRANSMISSION POWER

| **Frequency (MHz)** | **1000** | **2000** | **3000** | **6000** | **8000** | **10000** | **12400** | **18000** |
|---|---|---|---|---|---|---|---|---|
| Attenuation (dB/100m) | **25.7** | **38.7** | **49.5** | **77.0** | **93.1** | **108.3** | **125.5** | **163.3** |
| Average Power (kW) | **0.561** | **0.373** | **0.291** | **0.187** | **0.155** | **0.133** | **0.115** | **0.088** |

**K1** = 0.688976 **K2** = 0.003937 **Formula:** Attenuation = K1 × √F(MHz) + K2 × F(MHz)

## MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

| | |
|---|---|
| Static Bending Radius | **35 mm** [1.378 in] |
| Dynamic Bending Radius | **70 mm** [2.756 in] |
| Weight | **0.118 kg/m** [0.0793 lbs/ft] |
| Temperature Range | **-55 ~ +125 ℃** [-67 ~ +257 ℉] |