

DIN Male – 4.3/10 Male Superflex RF Jumper Cable

Specification

- Product Name: 1/2" Superflex RF Jumper Cable
- Model Number: RFJ-D470XMM (X:Length Meter)
- Connector Type: DIN Male to 4.3-10 Male
- Compliance Standards: IEC60169, VG95250, EN122190, GJB681-89, GJB360A-96, IEC 60169-54

1. Main Parameter

1.1 RF coaxial connector:

1.1.1 Connector Materials and Plating

- Inner conductor: Bronze, plated with silver, plating thickness: $\geq 0.003\text{mm}$
- Outer conductor: Brass, plated with ternary alloy, plating thickness $\geq 0.003\text{mm}$
- Fastener: Brass; Insulation dielectric: PTFE.

1.1.2 Connector Electrical Spec

- Characteristics impedance: 50Ω
- Frequency range: DC-6GHz
- VSWR: ≤ 1.15 (DC-3GHz)
- Insulator resistance: $\geq 5G\Omega$
- Center conductor resistance: $\leq 1.0\text{m}\Omega$; Outer conductor resistance: $\leq 0.2\text{m}\Omega$
- Test voltage (at sea level): $\geq 2500\text{ V rms}$
- PIM(IM3): $\leq -160\text{dBc}@2\text{x}43\text{dBm}$

1.1.3 Connector Mechanical Feature

- Mating cycles: ≥ 500 cycles
- Coupling nut retention: 500N
- Recommended torque: 5 N.m
- Termination cable retention: $\geq 300\text{N}$

1.2 RF coaxial cable: 1/2" Super Flexible RF Cable

1.2.1 Materials

- Inner conductor: aluminum wire covered with copper ($\Phi 3.55\text{mm} \pm 0.04$)
- Insulation dielectric: polyethylene foamed PE ($\Phi 9.2\text{mm} \pm 0.20$)
- Outer conductor: Helically corrugated copper ($\Phi 12.0\text{mm} \pm 0.2$)
- Cable jacket: PE or fire retardant PE ($\Phi 13.60\text{mm} \pm 0.20$)

1.2.2 Feature

- Characteristics impedance: 50Ω
- Capacitance: 82 PF/m
- Propagation velocity: 83%
- Min. single bending radius: 50mm
- Tensile strength: 800N
- Insulation resistance: $\geq 5\text{G}\Omega$
- Shielding attenuation: $\geq 120\text{dB}$
- VSWR: ≤ 1.15 (0.01-3GHz)

1.3 Jumper cable

1.3.1 Cable Component Size:

- Total length of cable assemblies:
1000mm ± 10
2000mm ± 20
3000mm ± 25
5000mm ± 40

1.3.2 Electrical feature

- Frequency Band: 700-2700MHz
- Characteristics Impedance: $50\Omega \pm 1$
- Operating Voltage: 1500V
- VSWR: ≤ 1.1 (DC-3GHz), ≤ 1.15 (3-6GHz)
- Insulation voltage: $\geq 2500\text{V}$
- Insulation resistance: $\geq 5\text{G}\Omega$ (500V DC)
- PIM(IM3): $\leq -160\text{dBc}@2\text{x}20\text{W}$, manufacturing 100% QC test 900MHz, 1800MHz.

- Insertion Loss:

Frequency	1 Meter	2 Meter	3 Meter	5 Meter
800-960MHz	≤0.13dB	≤0.24dB	≤0.34dB	≤0.52dB
1710-1880MHz	≤0.18dB	≤0.34dB	≤0.50dB	≤0.78dB
1920-2200MHz	≤0.24dB	≤0.40dB	≤0.56dB	≤0.90dB
2500-2690MHz	≤0.28dB	≤0.48dB	≤0.68dB	≤1.0dB
5800-5900MHz	≤0.30dB	≤0.62dB	≤0.94dB	≤1.58dB

1.3.3 Environment feature

- Operating temperature range: -45 °C to +85 °C
- Storage temperature range: -70 °C to +85 °C
- Thermal shock: IEC 60068-2-14 Test Na
- Corrosion resistance: IEC 60068-2-11 Test Ka
- Vibration: IEC 60068-2-6 Test Fc
- Shock: IEC 60068-2-27 Test Ea
- Moisture resistance: IEC 60068-2-3 Test Ca
- Degree of protection (mated pair): IEC 60529, IP67