

# 50 Ohm Cable Jumpers



## Features & Benefits

- Ideal for providing RF connectivity for indoor and outdoor wireless radios and antennas
- Available in ½ inch and ¼ inch flexible, 100% shielded, low PIM, UV resistant coaxial cable
- Multiple corrosion resistant connector types and orientations
- Cables are 100% tested for VSWR and PIM
- Optional waterproof boots extend sealing performance



## Overview

PPC's 50 Ohm cable jumpers offer best-in-class mechanical and electrical performance, designed for reliable connectivity in the field. A variety of cable and connector types are available, with consistently low VSWR and PIM. The cables are IP68 rated for sealing, with extended performance when using optional waterproof boots.

## Technical Data

### Cable Construction

Item	Material	Nominal Diameter	
		½ inch Flexible	¼ inch Flexible
Center Conductor	Copper Clad Aluminum	0.142 in (3.60 mm)	0.075 in (1.90 mm)
Dielectric	Foamed Polyethylene	0.362 in (9.20 mm)	0.185 in (4.70 mm)
Outer Shield	Helical Corrugated Copper	0.470 in (11.95 mm)	0.252 in (6.40 mm)
Jacket	Polyethylene, Black	0.528 in (13.40 mm)	0.291 in (7.40 mm)

### Connector Construction

Item	Material
Connector Body	Brass, with Tri-Metal or Silver Plating
Outer Contact	Brass or Beryllium Copper, with Tri-Metal or Silver Plating
Center Contact	Brass or Phosphor Bronze, with Silver Plating
Dielectric	PTFE (Polytetrafluoroethylene)
Sealing Material	Silicone Rubber
Molded Strain Relief	PA (Polyamide)
Waterproof Boot	Silicone

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## Technical Data (cont)

### Electrical Specifications

Specification	Value			
Bandwidth	10 MHz to 3 GHz			
Impedance	50 ± 2 Ohms			
Maximum VSWR (Return Loss)	800-1000 MHz 1.12 (-25 dB)	1000-2200 MHz 1.17 (-22 dB)	2200-2400 MHz 1.20 (-21 dB)	2400-2700 MHz 1.22 (-20 dB)
PIM, 3rd Order	2x20W, < -160 dBc (-155 dBc for N Type)			
Peak Power	1/2" Flexible, 15.5 kW		1/4" Flexible, 6.0 kW	

### Mechanical Specifications

Specification	Value	
Operating Temperature	-67 °F to 176 °F (-55 °C to 80 °C)	
Installation Temperature	-40 °F to 140 °F (-40 °C to 60 °C)	
Minimum Bend Radius	1.0 in (25mm) Single, 1.2 in (30mm) Repeated	
Tensile	>100 lbs (445 N); Nex10 >45 lbs (200 N)	
Crush Resistance	112 lbs/in (2.0 kg/mm)	
Degree of Protection	Without Waterproof Boots	With Waterproof Boots
	IP68 (1.5 m for 90 minutes), Mated	IP68 (3.0 m for 7 days), Mated
Maximum Clamp Spacing	3.3 ft (1 m)	

## Connector Types



**N Male Straight (for 1/2 inch cable)**



**4.3-10 Male Straight (for 1/2 inch cable)**



**4.3-10 Male Right Angle (for 1/2 inch cable)**



**4.3-10 Male Straight (for 1/4 inch cable)**



**7/16 DIN Male Straight (for 1/2 inch cable)**



**7/16 DIN Male Right Angle (for 1/2 inch cable)**



**Nex10 Male Straight (for 1/4 inch cable)**

Connector Type	Recommended Nut Torque
N Type	13 in-lbs (1.5 N-m)
4.3-10	44 in-lbs (5 N-m)
7/16 DIN	221 in-lbs (25 N-m)
Nex10	13 in-lbs (1.5 N-m)

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## Technical Data (cont)

### Electrical Specifications

Part Number	Cable Type	Connector A	Connector B	Waterproof Boots	Length
R2-NMS-NMS-NP04F	½ inch Flexible	N Male Straight	N Male Straight	No	4 ft
R2-NMS-NMS-WP04F				Yes	
R2-NMS-NMS-NP06F				No	6 ft
R2-NMS-NMS-WP06F				Yes	
R2-3MS-3MS-NP04F		4.3-10 Male Straight	4.3-10 Male Straight	No	4 ft
R2-3MS-3MS-WP04F				Yes	
R2-3MS-3MS-NP10F				No	10 ft
R2-3MS-3MS-WP10F				Yes	
R2-3MR-3MR-NP04F		4.3-10 Male Right Angle	4.3-10 Male Right Angle	No	4 ft
R2-3MR-3MR-WP04F				Yes	
R2-3MR-3MR-NP10F				No	10 ft
R2-3MR-3MR-WP10F				Yes	
R2-7MS-3MS-NP04F		7/16 DIN Male Straight	4.3-10 Male Straight	No	4 ft
R2-7MS-3MS-WP04F				Yes	
R2-7MS-3MS-NP10F				No	10 ft
R2-7MS-3MS-WP10F				Yes	
R2-7MR-3MR-NP04F		7/16 DIN Male Right Angle	4.3-10 Male Right Angle	No	4 ft
R2-7MR-3MR-WP04F				Yes	
R2-7MR-3MR-NP10F				No	10 ft
R2-7MR-3MR-WP10F				Yes	
R4-XMS-3MS-NP04F	¼ inch Flexible	Nex10 Male Straight	4.3-10 Male Straight	No	4 ft
R4-XMS-3MS-WP04F				Yes	
R4-XMS-3MS-NP06F				No	6 ft
R4-XMS-3MS-WP06F				Yes	
R4-XMS-3MS-NP10F				No	10 ft
R4-XMS-3MS-WP10F				Yes	