

25 M UHF to UHF M/F 195 Series Low Loss Cable Jumper

CA195LL041-25M



Configuration

- Connector 1: UHF Male
- Connector 2: UHF Female
- Cable Type: PPBC-195LL

Features

- LMR Equivalent Coax
- Max Frequency 1 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Low Insertion Loss
- Double Shielded
- PE Jacket
- One Time Bend Radius of 0.5 Inches



Applications

- General Purpose
- Laboratory Use
- Antenna Installations
- Land Mobile Radio & Other Communication Systems
- Cellular & Wi-Fi Systems

Description

PolyPhaser CA195LL041-25M is a 25 meter UHF to UHF M/F 195 Series Low Loss Cable Jumper is built using high quality components by skilled technicians to ensure a reliable product. The UHF M and UHF F cable jumper connections are designed to industry standard interface dimensions to ensure superior performance. If you have an immediate need, these products are available to ship same day. This high-quality RF coaxial assembly is perfect in many RF Interconnect applications such as military / defense, industrial / commercial, Wi-Fi, and many other RF systems. The CA195LL041-25M UHF to UHF cable assembly is the perfect companion to PolyPhaser line of RF surge protection devices particularly when used as an antenna jumper cable.

The 195 Series coax used in these UHF to UHF assemblies is a 0.195 inch diameter coax with a black PE jacket. This cable's foam PE dielectric is low loss material with a phase velocity of 80% reducing the attenuation when compared to solid dielectric coax cables. PolyPhaser Low Loss 195 Series coax has a solid center conductor and uses a double shield consisting of a wire braid over a foil tape construction providing >90% shielding effectivity. The construction and materials of the CA195LL041-25M result in a coax cable assembly with 0.5 inch one time bend radius and a repeat bend radius of 2 inches. The cable assembly's combination of UHF to UHF M/F and 195 Series Low Loss Cable supports a maximum operating frequency of 300 MHz. You can find detailed performance specifications in the product datasheet. Processes and procedures are in place to ensure products meet the published specifications.

For additional strength, these UHF M to UHF F cable assemblies have polyolefin heat shrink strain relief boots on both ends of the RF Cable Assembly Jumpers. The heat shrink booting uses a double walled epoxy filled material to prolong the life of the assembly.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[25 M UHF to UHF M/F 195 Series Low Loss Cable Jumper CA195LL041-25M](#)

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		1,000	MHz
VSWR			1.3:1	
Velocity of Propagation		80		%
RF Shielding	90			dB
Capacitance		25.4 [83.33]		pF/ft [pF/m]
Operating Voltage (AC)			500	Vrms
Jacket Spark			5,000	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	50	100	250	500	1,000	MHz
Insertion Loss (Max.)	29.73	39.58	59.26	78.95	118.32	dB

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. Insertion Loss is estimated as 0.1 dB per connector.

Mechanical Specifications

Size

Length	984.252 in [25 m]
Diameter	0.195 in [4.95 mm]
Weight	1.82944 lbs [829.82 g]

Cable

Cable Type	PPBC-195LL
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PE, Black
Jacket Diameter	0.195 in [4.95 mm]
One Time Minimum Bend Radius	0.5 in [12.7 mm]
Repeated Minimum Bend Radius	2 in [50.8 mm]

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Connectors

Description	Connector 1	Connector 2
Type	UHF Male	UHF Female
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	
Coupling Nut Plating Specification	100 µin minimum	

Environmental Specifications

Temperature

Operating Range -40 to +85 deg C

Compliance Certifications

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

PolyPhaser protects and increases the reliability of global RF communications networks, including transportation, telecommunications, defense, security and industrial applications, with superior RF surge protection technologies including DC Block, DC Pass and Ultra Low PIM. Backed by responsive service and expert technical support PolyPhaser continually expands its product offering and services to serve engineers' urgent needs for RF components in mission critical communication networks.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [25 M UHF to UHF M/F 195 Series Low Loss Cable Jumper CA195LL041-25M](https://www.polyphaser.com/25-m-uhf-to-uhf-m-f-195-series-low-loss-cable-jumper-p.aspx)

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CA195LL041-25M CAD Drawing

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	07/26/2020	SELLIS

UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

X = +2	[5.08]	FRACTIONS
.XX = +.02	[.51]	+1/32
.XXX = +.005	[.13]	ANGLES ±1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305]	< L ≤ 60 [1524]	= +1 [25] / -0
60 [1524]	< L ≤ 120 [3048]	= +2 [51] / -0
120 [3048]	< L ≤ 300 [7620]	= +4 [102] / -0
300 [7620]	< L	= +6 [152] / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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10701 Airport Road, Hayden, Idaho 83835, USA
Phone: 1.208.635.6400 | 1.800.882.9110
Fax: 1.208.762.6133
Website: www.PolyPhaser.com
E-mail: CustomerService@PolyPhaser.com

SIZE A CAGE CODE 30992 DRAWN BY MVEERAPPAN ITEM NO. CA195LL041

NOTES:

1. CABLES 36" AND UNDER HAVE 1 LABEL CENTERED.
CABLES OVER 36" HAVE 2 LABELS, ONE AT EACH
END 6.0" FROM THE FRONT OF THE CONNECTOR.

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