

1 M Type N to Type N F/M Lightning Protector
400 Series Low Loss Cable Jumper



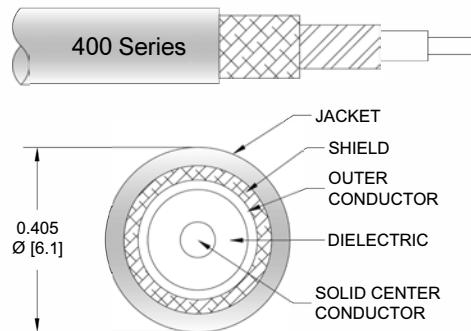
CAGTH400LL055-1M

Configuration

- Connector 1: N Female
- Connector 2: N Male
- Cable Type: 400 Series

Features

- LMR Equivalent Coax
- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- Double Shielded
- PE Jacket



Applications

- General Purpose
- Laboratory Use
- Antenna Installations/IEEE 802.11a/b/g/n
- Cellular & Wi-Fi Systems
- Protects Wireless Devices and Networks from Damage Due to Lightning Strikes

Description

The PolyPhaser CAGTH400LL055-1M is a 1 meter Type N to Type N F/M Lightning Protector 400 Series Low Loss Cable Jumper built using high quality components by skilled technicians to ensure a reliable product. This assembly is built on the low loss 400 series coax with a Type N Female connector on one end and an in-line N M gas discharge tube lightning protector attached directly to the cable on the other end. The combination of the low loss cable and the integrated surge protection connector results in excellent insertion loss and return loss by reducing the amount of additional hardware required.

The 400 Series coax used in these Type N to Type N integrated lightning protection assemblies is a 0.4 inch diameter coax with a black PE jacket. This cable's foam PE dielectric is low loss material with a phase velocity of 85% reducing the attenuation when compared to solid dielectric coax cables. PolyPhaser low loss 400 Series coax has a solid center conductor and uses a double shield comprised of a wire braid over a foil tape construction providing >90% shielding effectivity.

The N Female to Type N M lightning protector using 400 series cable assembly is rated to 5.8 GHz. The standard N F connector is designed to industry standards while the Type N Male in-line surge protector features multi-strike capabilities, a replaceable gas tube element, and fast response times. A ground lug and terminal is provided directly on the lightning protector house, which provides superior grounding. This RF interconnect assembly can be used in a wide range of applications including Distributed Antenna Systems (DAS), IEEE 802.11a/b/g/n wireless systems, and to protect wireless devices and networks from damage due to lightning strikes.

All PolyPhaser assemblies are available for same day shipment to fulfill your urgent needs.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[1 M Type N to Type N F/M Lightning Protector 400 Series Low Loss Cable Jumper CAGTH400LL055-1M](#)

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		85		%
RF Shielding	90			dB
Capacitance		23.9 [78.41]		pF/ft [pF/m]
DC Resistance Inner Conductor		1.39 [4.56]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		1.85 [6.07]		Ω/1000ft [Ω/Km]
Operating Voltage (DC)			60	Vdc
Input Power (Average)			150	Watts

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Max.)	0.86	0.89	0.93	1.02	1.15	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. The Insertion Loss includes an estimated total insertion loss of 0.8 dB for both connectors.

Surge Current: 10kA Max

Turn on Voltage: 90 Volts Typ.

Mechanical Specifications

Size

Length	39.37 in [100 cm]
Weight	0.493 lbs [223.62 g]

Cable

Cable Type	400 Series
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Copper Braid

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Jacket Material PE
Jacket Diameter 0.405 in [10.29 mm]

Repeated Minimum Bend Radius 4 in [101.6 mm]

Connectors

Description	Connector 1	Connector 2
Type	N Female	N Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Phosphor Bronze, Gold	
Dielectric Type	PTFE	
Outer Conductor Material and Plating	Brass, Tri-Metal	
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating		Brass, Tri-Metal

Mechanical Specification Notes:
IP67 when mated with gasket

Environmental Specifications

Temperature

Operating Range

-40 to +85 deg C

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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: [1 M Type N to Type N F/M Lightning Protector 400 Series Low Loss Cable Jumper CAGTH400LL055-1M](#)

URL: <https://www.polyphaser.com/1-m-type-n-to-type-n-fm-lightning-protector-400-series-low-loss-cable-jumper-p.aspx>

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CAGTH400LL055-1M CAD Drawing

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	08/08/2020	SELLIS

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.

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

$X = \pm .2$	[5.08]	FRACTIONS
$XX = \pm .02$	[51]	$\pm 1/32$
$XXX = \pm .005$	[1.3]	ANGLES $\pm 1^\circ$

CABLE LENGTH (L) TOLERANCES:

$L \leq 12.305$	= $\pm 1 [28]$ / -0
$12.305 < L \leq 60 [1524]$	= $\pm 2 [51]$ / -0
$60 [1524] < L \leq 120 [3048]$	= $\pm 4 [102]$ / -0
$120 [3048] < L \leq 300 [7620]$	= $\pm 6 [152]$ / -0
$300 [7620] < L \leq 450 [11430]$	= $\pm 9 [231]$ / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

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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 CAGE CODE DRAWN BY ITEM NO. REV A

A	30992	MVEERAPPAN	CAGTH400LL055
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