

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

CAGTH400LL055-1M

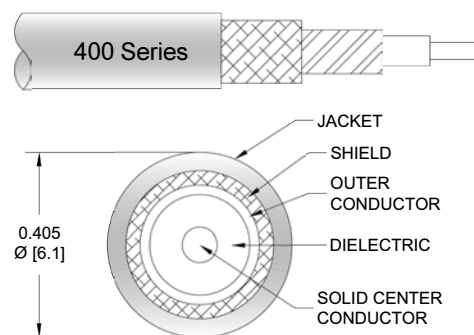


Configuration

- 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](#)

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

CAGTH400LL055-1M



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

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](#)

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

CAGTH400LL055-1M



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

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](#)

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

CAGTH400LL055-1M



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

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

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. PolyPhaser reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. PolyPhaser does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and PolyPhaser does not assume any liability arising out of the use of any part or documentation.

CAGTH400LL055-1M CAD Drawing

5 CAGTH400LL055-1M REV 1.1 | © 2020 Infinite Electronics, Inc. PolyPhaser is a registered trademark of Infinite Electronics, Inc.

+1 800 882 9110 | [PolyPhaser.com](https://www.polyphaser.com)