



# N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF

## RF Connectors Technical Data Sheet



TC-402-NM-LP

### Times Microwave Systems Connector Specification

#### Configuration

- N Male Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: TFT-402, TFT-402-LF
- Low PIM Design

#### Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.3:1
- PIM levels lower than -160 dBc
- Silver Plated Brass Contact
- 200 µin contact plating

#### Applications

- General Purpose Test
- Custom Cable Assemblies
- Distributed Antenna Systems (DAS)
- Wireless Communications
- Low PIM Applications

#### Description

Pasternack's TC-402-NM-LP type N male connector with solder/solder attachment for TFT-402 and TFT-402-LF is part of our full line of RF components available for same-day shipping. Our type N male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.3:1. The type N male connector also has low passive intermodulation of -160 dBc.

Our type N male connector TC-402-NM-LP datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.3:1	
Insertion Loss			0.24	dB
Passive Intermodulation			-160	dBc
Operating Voltage (DC)			2,500	Vdc
Insulation Resistance	10,000			MOhms

Electrical Specification Notes:  
Insertion Loss is  $0.1 \cdot \sqrt{f(\text{GHz})}$

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF TC-402-NM-LP](#)



N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF

RF Connectors  
Technical Data Sheet

**Mechanical Specifications**

**Size**

Length 1.043 in [26.49 mm]  
Width/Dia. 0.808 in [20.52 mm]

Mating Cycles 500 Cycles  
Mating Torque 15 in-lbs [1.70 Nm]  
Cable Retention Force 56 lbs [25.4 kg]

**Material Specifications**

Description	Material	Plating
Contact	Brass	Silver 200 µin
Insulation	PTFE	
Body	Brass	Tri-Metal 80 µin
Coupling Nut	Brass	Tri-Metal 80 µin
Gasket	Silicone Rubber	

**Environmental Specifications**

**Temperature**

Operating Range -40 to +125 deg C  
Shock MIL-STD 202G, Meth. 213, Cond. I  
Vibration MIL-STD 202G, Meth. 204, Cond. B  
Thermal Shock MIL-STD 202G, Meth. 107, Cond. B

Environmental Specification Notes:  
Climatic Class: IEC 60068 55/155/56

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF TC-402-NM-LP](#)



## N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF

### RF Connectors Technical Data Sheet



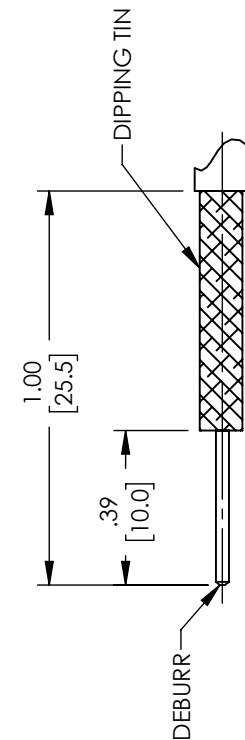
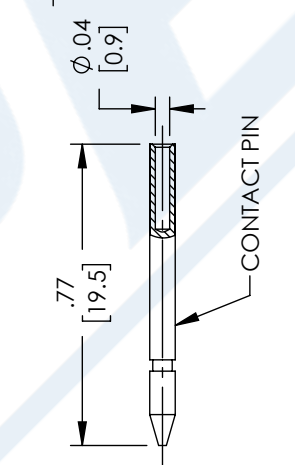
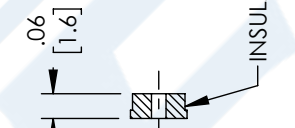
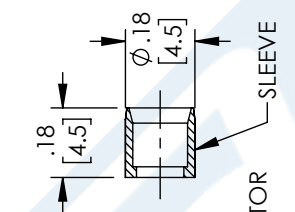
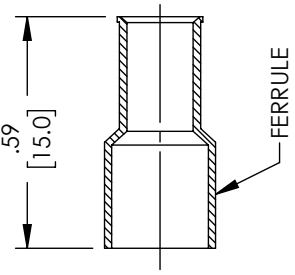
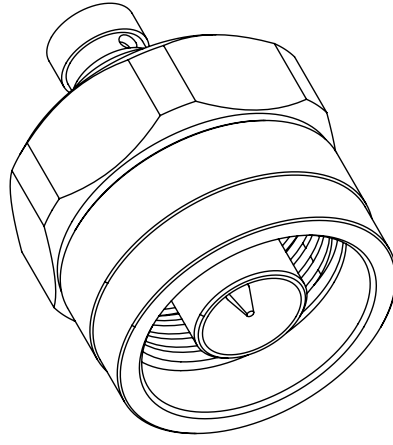
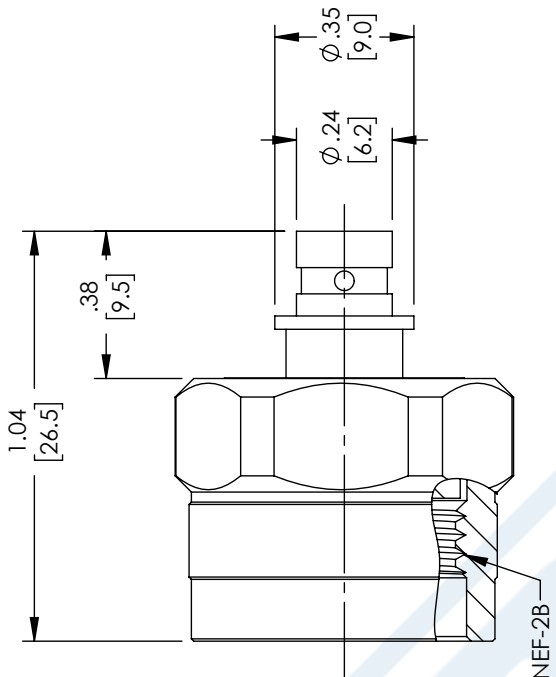
TC-402-NM-LP

N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF TC-402-NM-LP](https://www.pasternack.com/n-male-tft-402-connector-tc-402-nm-lp-p.aspx)

URL: <https://www.pasternack.com/n-male-tft-402-connector-tc-402-nm-lp-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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.



RECOMMENDED CABLE STRIPPING DIM'S  
 Connector adds: 17 mm

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS  TOLERANCES: .X = ±.2 [5.08]    FRACTIONS ±.1/32 .XX = ±.02 [51]    ANGLES ± 1° .XXX = ±.005 [13]    CABLE LENGTH (L): TOLERANCES: L ≤ 12 [305] = +1 [25] / -0 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 300 [7620] < L = +5% / -0  ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	THIRD-ANGLE PROJECTION 
	THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.  SHEET 1 OF 1  SCALE 2:1
<b>PE PASTERNAK</b> an INFINIT brand  Pasternack Enterprises, Inc. P. O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920   1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com	ITEM NO. TC-402-NM-LP DRAWN BY DMAY CAGE CODE 53919 SIZE A



# N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF

## RF Connectors Technical Data Sheet



TC-402-NM-LP

### Times Microwave Systems Connector Specification

#### Configuration

- N Male Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: TFT-402, TFT-402-LF
- Low PIM Design

#### Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.3:1
- PIM levels lower than -160 dBc
- Silver Plated Brass Contact
- 200 μin contact plating

#### Applications

- General Purpose Test
- Custom Cable Assemblies
- Distributed Antenna Systems (DAS)
- Wireless Communications
- Low PIM Applications

#### Description

Pasternack's TC-402-NM-LP type N male connector with solder/solder attachment for TFT-402 and TFT-402-LF is part of our full line of RF components available for same-day shipping. Our type N male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.3:1. The type N male connector also has low passive intermodulation of -160 dBc.

Our type N male connector TC-402-NM-LP datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.3:1	
Insertion Loss			0.24	dB
Passive Intermodulation			-160	dBc
Operating Voltage (DC)			2,500	Vdc
Insulation Resistance	10,000			MOhms

Electrical Specification Notes:  
Insertion Loss is  $0.1 \cdot \sqrt{f(\text{GHz})}$

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF TC-402-NM-LP](#)



N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF

RF Connectors  
Technical Data Sheet

**Mechanical Specifications**

**Size**

Length 1.043 in [26.49 mm]  
Width/Dia. 0.808 in [20.52 mm]

Mating Cycles 500 Cycles  
Mating Torque 15 in-lbs [1.70 Nm]  
Cable Retention Force 56 lbs [25.4 kg]

**Material Specifications**

Description	Material	Plating
Contact	Brass	Silver 200 µin
Insulation	PTFE	
Body	Brass	Tri-Metal 80 µin
Coupling Nut	Brass	Tri-Metal 80 µin
Gasket	Silicone Rubber	

**Environmental Specifications**

**Temperature**

Operating Range -40 to +125 deg C  
Shock MIL-STD 202G, Meth. 213, Cond. I  
Vibration MIL-STD 202G, Meth. 204, Cond. B  
Thermal Shock MIL-STD 202G, Meth. 107, Cond. B

Environmental Specification Notes:  
Climatic Class: IEC 60068 55/155/56

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF TC-402-NM-LP](#)



## N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF

### RF Connectors Technical Data Sheet



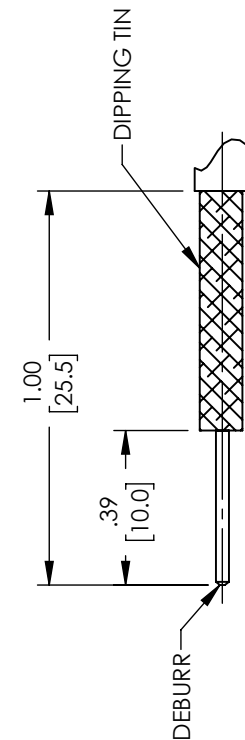
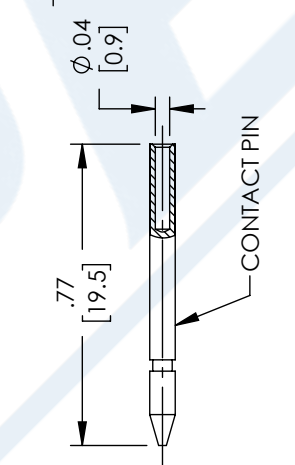
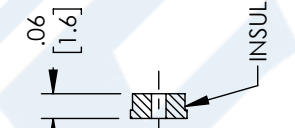
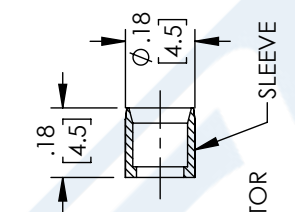
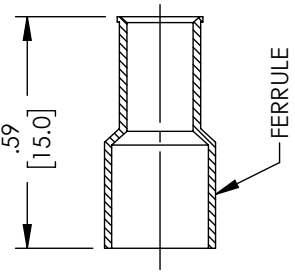
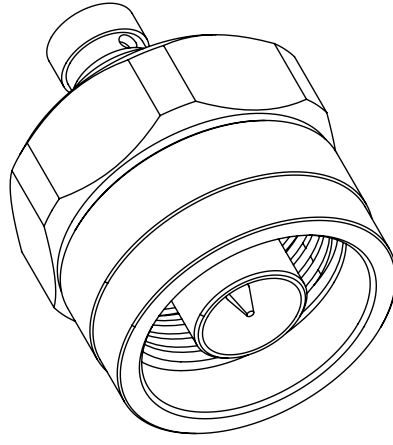
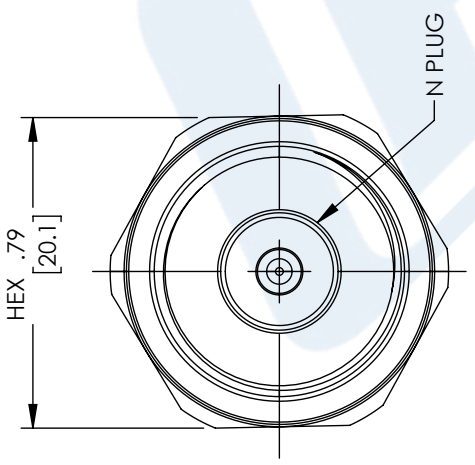
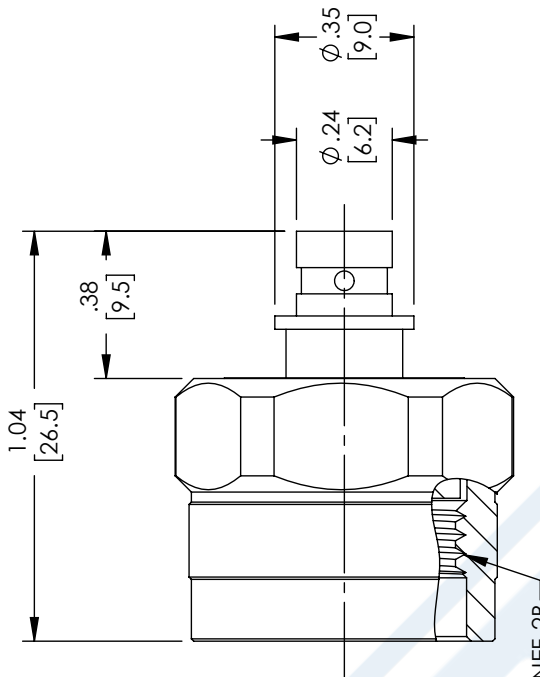
TC-402-NM-LP

N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Low PIM Connector Solder Attachment for TFT-402, TFT-402-LF TC-402-NM-LP](https://www.pasternack.com/n-male-tft-402-connector-tc-402-nm-lp-p.aspx)

URL: <https://www.pasternack.com/n-male-tft-402-connector-tc-402-nm-lp-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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS  TOLERANCES: .X = ±.2 [5.08]    FRACTIONS ±.1/32 .XX = ±.02 [51]    ANGLES ± 1° .XXX = ±.005 [13]	THIRD-ANGLE PROJECTION 
	THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.  SHEET 1 OF 1  SCALE 2:1
PASTERNAK an INFINIT brand Pasternack Enterprises, Inc. P. O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920   1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com	ITEM NO. TC-402-NM-LP DRAWN BY DMAY CAGE CODE 53919
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. L ≤ 12 [305] = +1 [25] / -0 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 300 [7620] < L = +5% / -0	REV A

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.



## Low PIM Flexible TFT-402 Outdoor Rated Coax Cable Double Shielded with Blue FEP Jacket

### RF Cables Technical Data Sheet


**TFT-402**

## Times Microwave Systems Coax Cable Specification

### Configuration

- Low Loss, Outdoor Flexible Cable
- 2 Shield(s)

### Features

- PIM < -160 dBc
- Low Loss
- UL910 Plenum Rated Cable
- Good Shielding >80 dB
- Lightweight and Extremely Flexible
- Durable FEP Jacket

### Applications

- Base Stations
- Antenna Pigtails
- Distributed Antenna Systems
- (DAS)
- Plenum Installations
- Small Cells
- Multi-Carrier Communication Systems

### Description

TFT-402 low PIM flexible coax by Time Microwave is part of our full line of RF components available for same-day shipping. The TFT-402 plenum rated coaxial cable features a taped PTFE dielectric, a silver-plated copper center conductor, and a Flat Braid outer conductor. These features combine to make the Times Microwave TFT-402 an extremely flexible, low loss, low PIM coax cable that is well suited for Distributed Antenna Systems (DAS), plenum installations, or small cells. The durable FEP jacket makes this cable suitable for both indoor and outdoor use.

Our datasheet specifications and drawing with dimensions for Times Microwave TFT-402 coax cable are shown below in this PDF. Whether the need is to provide a low PIM jumper connection, low PIM antenna pigtails or simply create a custom assembly configuration, Pasternack has the right TFT-402 cable assemblies for the job.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
Impedance		50		Ohms
Velocity of Propagation		76		%
Shielding Effectiveness	-80			dB
Inner Conductor DC Resistance			8.5	Ohms/1000ft
Outer Conductor DC Resistance			5.6	Ohms/1000ft
Nominal Capacitance		26.7 [87.6]		pF/ft [pF/m]
Input Power (Peak)			3	kWatts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low PIM Flexible TFT-402 Outdoor Rated Coax Cable Double Shielded with Blue FEP Jacket TFT-402](#)



## Low PIM Flexible TFT-402 Outdoor Rated Coax Cable Double Shielded with Blue FEP Jacket

### RF Cables Technical Data Sheet



TFT-402

#### Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.03	0.15	0.45	0.9	2	GHz
Attenuation, Typ	1.9	4.1	7.2	10.3	15.4	dB/100ft
	6.23	13.45	23.62	33.79	50.52	dB/100m
Input Power (CW), Max	3,000	1,340	770	550	370	Watts

Description	F6	F7	F8	F9	F10	Units
Frequency	2.5	5.8				GHz
Attenuation, Typ	17.3	26.7				dB/100ft
	56.76	87.6				dB/100m
Input Power (CW), Max	330	210				Watts

#### Mechanical Specifications

Diameter	0.16 in 4.06 mm
Weight	0.03 lbs/ft [0.04 Kg/m]
Min. Bend Radius (Installation)	0.75 in [19.05 mm]

#### Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper, Silver, 1 Strand	0.037 in [0.94 mm]
Conductor Type	Solid	
Dielectric	PTFE	0.113 in [2.87 mm]
First Shield	Silver Plated Copper Braid	0.121 in [3.07 mm]
Second Shield	Tinned Copper Braid	0.138 in [3.51 mm]
Jacket	FEP, Blue	0.16 in [4.06 mm]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low PIM Flexible TFT-402 Outdoor Rated Coax Cable Double Shielded with Blue FEP Jacket TFT-402](#)



## Low PIM Flexible TFT-402 Outdoor Rated Coax Cable Double Shielded with Blue FEP Jacket

### RF Cables Technical Data Sheet



TFT-402

#### Environmental Specifications

##### Temperature

Operating Range

-55 to +150 deg C

**Compliance Certifications** (see [product page](#) for current document)

#### Plotted and Other Data

Notes:

Low PIM Flexible TFT-402 Outdoor Rated Coax Cable Double Shielded with Blue FEP Jacket from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

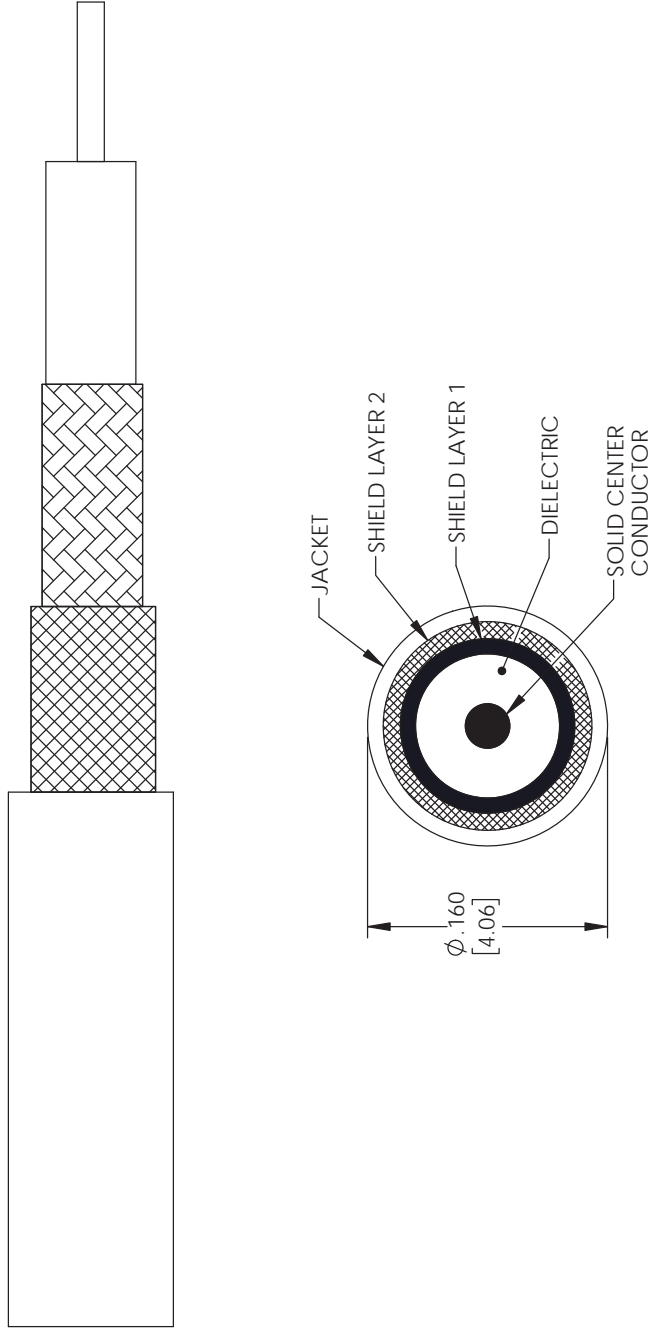
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low PIM Flexible TFT-402 Outdoor Rated Coax Cable Double Shielded with Blue FEP Jacket TFT-402](#)

URL: <https://www.pasternack.com/low-loss-flexible-tft-402-fep-jacket-silver-plated-copper-braid-over-tinned-copper-braid-outer-conductor-double-shielded-tft-402-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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.


**TFT-402 CAD Drawing**  
 Low PIM Flexible TFT-402 Outdoor Rated Coax Cable  
 Double Shielded with Blue FEP Jacket

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2/15/21	S.ELLIS



<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <p>X = +.2 [5.08]      FRACTIONS          XX = +.02 [ .51]      +.132          .XXX = ±.005 [ .13]      ANGLES ± 1°</p> <p>CABLE LENGTH (L) TOLERANCES:          L ≤ 12 [305] = +1 [25] / -0          12 [305] &lt; L ≤ 60 [1524] = +2 [51] / -0          60 [1524] &lt; L ≤ 120 [3048] = +4 [102] / -0          120 [3048] &lt; L ≤ 300 [7620] = +6 [152] / -0          300 [7620] &lt; L = +5% / -0</p> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	<p>THIRD-ANGLE PROJECTION</p>  <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p>
	<p><b>(PE) PASTERNAK</b>          an INFINIT® brand</p> <p>Pasternack Enterprises, Inc.          P. O. Box 16759, Irvine, CA 92623.          Phone: 1.949.261.1920   1.866.727.8376          Fax: 1.949.261.7451          Website: www.pasternack.com          E-mail: sales@pasternack.com</p>
<p>SIZE A</p> <p>CAGE CODE 53919</p> <p>DRAWN BY DFRISIELLO</p>	<p>SCALE N/A</p>

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.