

N Male Low PIM Connector Solder Attachment for SPO-500, SPF-500 Cable

Times Microwave Systems Connector Specification

Type N male connector with solder/solder attachment for Times' SPO-500 and SPF-500, part number TC-500-NM-LP, from Times Microwave offered by Fairview Microwave is in-stock and ships same day. This type N male connector operates up to a maximum frequency of 6 GHz and offers excellent VSWR of 1.25:1. The type N male connector also has low passive intermodulation (PIM) of -160 dBc.

Times Microwave's type N male connector TC-500-NM-LP datasheet specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. From providing an I/O for a board design to creating a custom cable assembly configuration, Fairview Microwave has a connector solution to meet your needs. Fairview Microwave also has the expertise to build your custom cable assemblies for you and ship them same-day.

Electrical Specifications

| Description | Min | Typ | Max | Units |
|-------------------------|-------|-----|--------|-------|
| Frequency Range | DC | | 6 | GHz |
| VSWR | | | 1.25:1 | |
| Insertion Loss | | | 0.25 | dB |
| Passive Intermodulation | | | -160 | dBc |
| Operating Voltage (DC) | | | 2,000 | Vdc |
| Insulation Resistance | 5,000 | | | MOhms |

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-------------|---------|--------|----|----|----|-------|
| Freq. Range | DC to 3 | 3 to 6 | | | | GHz |
| VSWR, Max | 1.1:1 | 1.25:1 | | | | |

Electrical Specification Notes:

Insertion Loss is $0.1 * \sqrt{f(\text{GHz})}$

Mechanical Specifications

Size

Length 1.24 in [31.5 mm]

Mating Torque 6 to 10 in-lbs [0.68 to 1.13 Nm]

Material Specifications

| Description | Material | Plating |
|-------------|----------|-------------------|
| Contact | Brass | Silver 200 µin |
| Insulation | PTFE | |



Configuration:

- N Male Connector
- 50 Ohms
- Straight Body Geometry
- SPO-500, SPF-500 Interface Type
- Solder/Solder Attachment
- Low PIM Design

Features:

- Operating Frequency of 6 GHz Max.
- Excellent VSWR of 1.25:1
- PIM levels better than -160 dBc
- Silver Plated Brass Contact
- 200 µin contact plating

Applications:

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

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| | | |
|--------------|----------|---------------------|
| Body | Brass | Tri-Metal 80 µin |
| Coupling Nut | Brass | Tri-Metal 80 µin |
| Gasket | Silicone | |

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

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

Plotted and Other Data

Notes:

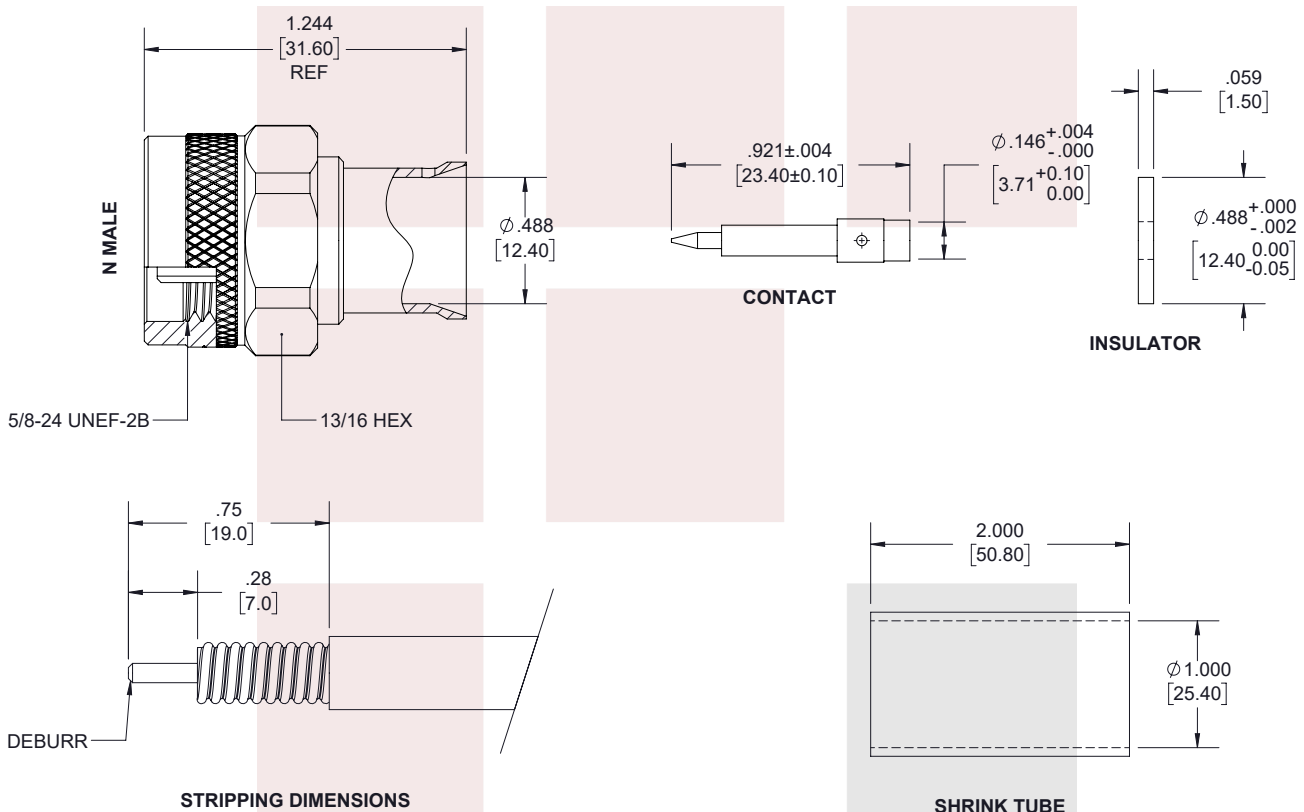
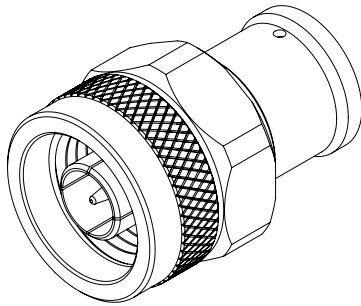
N Male Low PIM Connector Solder Attachment for SPO-500, SPF-500 Cable from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [N Male Low PIM Connector Solder Attachment for SPO-500, SPF-500 Cable TC-500-NM-LP](#)

URL: <https://www.fairviewmicrowave.com/n-male-spo-500-spf-500-connector-tc-500-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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 6/2/2020 | S.ELLIS |



NOTES:

- CABLE ATTACHMENT:
 - OUTER: SOLDER.
 - INNER: SOLDER.

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SHRINK TUBE

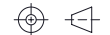
TITLE
N Male Low PIM Connector Solder Attachment for SPO-500, SPF-500 Cable

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

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

| | | |
|--------------------|------------------|---|
| .X = ±.2 [5.08] | FRACTIONS ± 1/32 | L ≤ 12 [305] = +1 [25] / -0 |
| .XX = ±.02 [.51] | ANGLES ± 1° | 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 |
| .XXX = ±.005 [.13] | | 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 |
| | | 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 |
| | | 300 [7620] < L = +5%L / -0 |

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

| | | | | |
|--------|-----------------|-----------------|-----------------------|-------|
| SIZE A | CAGE CODE 3FKR5 | DRAWN BY K.DANG | ITEM NO. TC-500-NM-LP | REV A |
|--------|-----------------|-----------------|-----------------------|-------|

T-Rev.D