



N Male Low PIM Connector Solder Attachment for SPP-250-LLPL, SPO-250, SPF-250

RF Connectors Technical Data Sheet



TC-250-NM-LP

Times Microwave Systems Connector Specification

Configuration

- N Male Connector
- 50 Ohms
- Straight Body Geometry
- SPP-250-LLPL, SPO-250, SPF-250 Interface Type
- Solder/Solder Attachment
- Low PIM Design

Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.35:1
- PIM levels lower than -160 dBc
- Silver Plated Phosphor Bronze Contact
- 196 μ m contact plating

Applications

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

Description

Times Microwave's TC-250-NM-LP type N male connector offered by Pasternack with solder/solder attachment for Times' SPP-250-LLPL, SPO-250 and SPF-250 is part of our full line of RF components available for same-day shipping. Times Microwave's type N male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.35:1. The Times type N male connector also has low passive intermodulation of -160 dBc.

Times Microwave's type N male connector TC-250-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			1.35:1	
Insertion Loss			0.25	dB
Passive Intermodulation			-160	dBc
Operating Voltage (DC)			1,000	Vdc
Inner Conductor DC Resistance			1	mOhms
Outer Conductor DC Resistance			1.5	mOhms
Insulation Resistance	5,000			MOhms

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 SPP-250-LLPL, SPO-250, SPF-250 TC-250-NM-LP](#)



N Male Low PIM Connector Solder Attachment for SPP-250-LLPL, SPO-250, SPF-250

RF Connectors Technical Data Sheet



TC-250-NM-LP

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3	3 to 6				GHz
VSWR, Max	1.25:1	1.35:1				

Electrical Specification Notes:
Insertion Loss is $0.1 \times \sqrt{\text{FGHz}}$

Mechanical Specifications

Size

Length

1.13 in [28.7 mm]

Width/Dia.

0.94 in [23.88 mm]

Mating Torque

7.08 to 9.74 in-lbs [0.80 to 1.10 Nm]

Material Specifications

Description	Material	Plating
Contact	Phosphor Bronze	Silver 196 μ in
Insulation	PTFE	
Body	Brass	Tri-Metal 118 μ in
Coupling Nut	Brass	Tri-Metal 118 μ in
Gasket	Silicone Rubber	

Environmental Specifications

Temperature

Operating Range

-55 to +155 deg C

Humidity

IP67

Shock

US MIL-STD 202G

Vibration

US MIL-STD 202G

Thermal Shock

US MIL-STD 202G

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

Plotted and Other Data

Notes:

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N Male Low PIM Connector Solder Attachment for SPP-250-LLPL, SPO-250, SPF-250

RF Connectors Technical Data Sheet



TC-250-NM-LP

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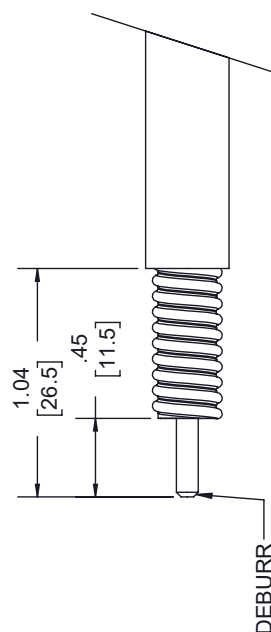
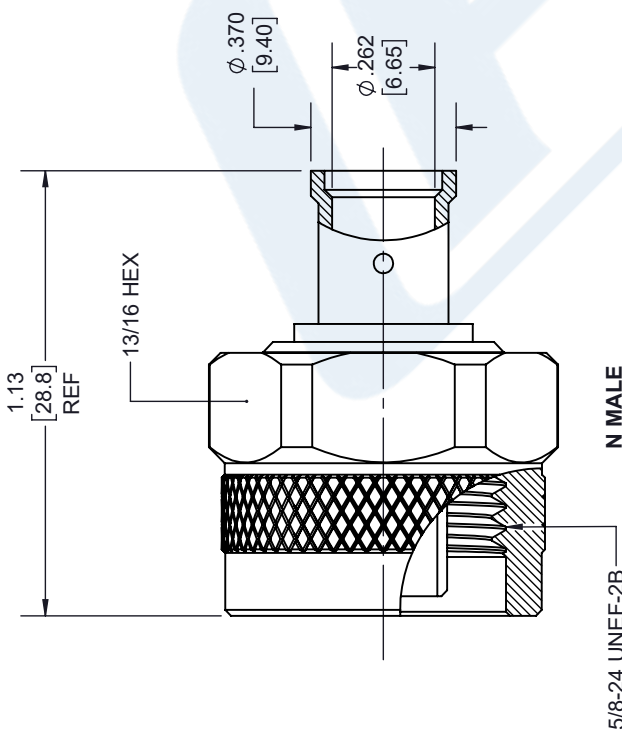
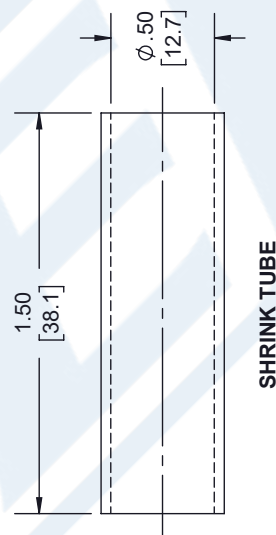
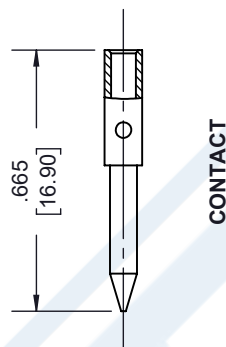
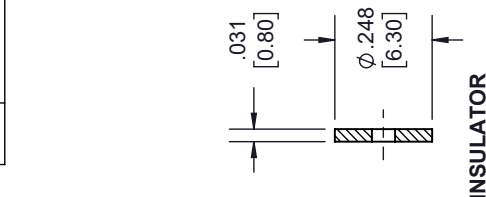
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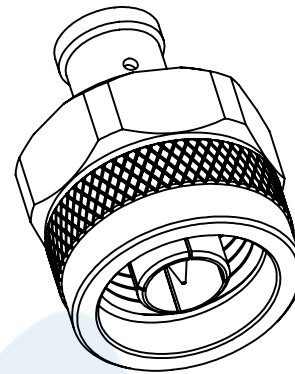
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	03/05/19	S. ELLIS



STRIPPING DIMENSIONS

NOTES:

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



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
X \pm .2	[5.08]
XX \pm .01	[.25]
XXX \pm .005	[.13]
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	
THIRD-ANGLE PROJECTION	

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SIZE	CAGE
A	53919
DRAWN BY	K.DANG
PART NUMBER	TC-250-NM-LP
REV	A

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SHEET	1 OF 1
SCALE	N/A



N Male Low PIM Connector Solder Attachment for SPP-250-LLPL, SPO-250, SPF-250

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TC-250-NM-LP

Times Microwave Systems Connector Specification

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Features

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- Good VSWR of 1.35:1
- PIM levels lower than -160 dBc
- Silver Plated Phosphor Bronze Contact
- 196 μ m contact plating

Applications

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

Description

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.35:1	
Insertion Loss			0.25	dB
Passive Intermodulation			-160	dBc
Operating Voltage (DC)			1,000	Vdc
Inner Conductor DC Resistance			1	mOhms
Outer Conductor DC Resistance			1.5	mOhms
Insulation Resistance	5,000			MOhms

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N Male Low PIM Connector Solder Attachment for SPP-250-LLPL, SPO-250, SPF-250

RF Connectors Technical Data Sheet



TC-250-NM-LP

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3	3 to 6				GHz
VSWR, Max	1.25:1	1.35:1				

Electrical Specification Notes:
Insertion Loss is $0.1 \times \sqrt{\text{FGHz}}$

Mechanical Specifications

Size

Length	1.13 in [28.7 mm]
Width/Dia.	0.94 in [23.88 mm]
Mating Torque	7.08 to 9.74 in-lbs [0.80 to 1.10 Nm]

Material Specifications

Description	Material	Plating
Contact	Phosphor Bronze	Silver 196 µin
Insulation	PTFE	
Body	Brass	Tri-Metal 118 µin
Coupling Nut	Brass	Tri-Metal 118 µin
Gasket	Silicone Rubber	

Environmental Specifications

Temperature

Operating Range	-55 to +155 deg C
Humidity	IP67
Shock	US MIL-STD 202G
Vibration	US MIL-STD 202G
Thermal Shock	US MIL-STD 202G

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

Plotted and Other Data

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TC-250-NM-LP

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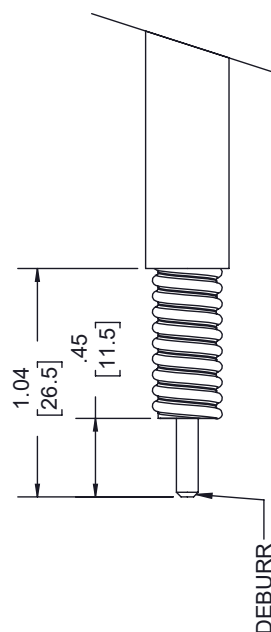
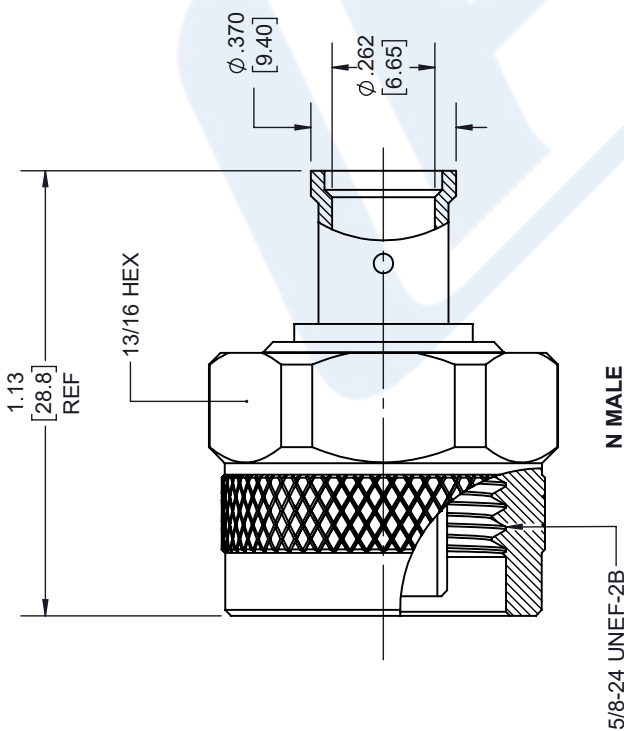
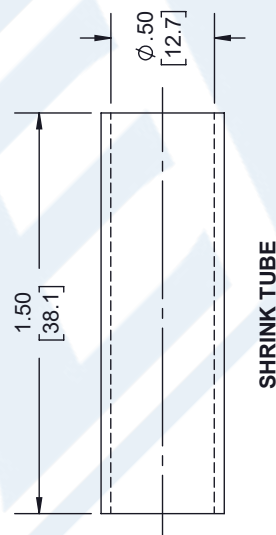
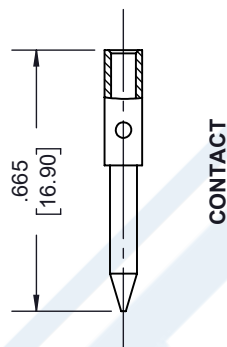
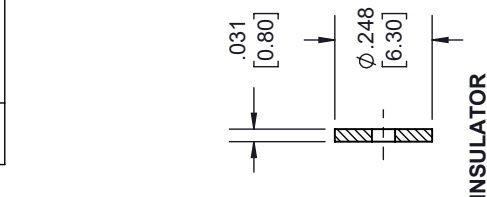
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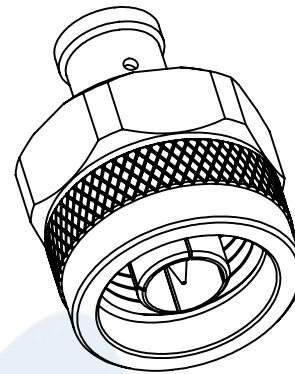
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SIZE	CAGE
A	53919
DRAWN BY	K.DANG
PART NUMBER	TC-250-NM-LP
REV	A

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SHEET	1 OF 1
SCALE	N/A



Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible

RF Cables Technical Data Sheet


SPP-250-LLPL

Times Microwave Systems Coax Cable Specification Configuration

- Low Loss, Plenum Corrugated Cable

Features

- PIM < -160 dBc
- UL910 Plenum Rated Cable
- Lightweight and Extremely Flexible
- Low Loss
- Great Shielding >100 dB
- UV Resistant Jacket

Applications

- Distributed Antenna Systems (DAS)
- Plenum Installations
- Small Cells
- Multi-Carrier Communication Systems
- PIM Testing

Description

SPP-250-LLPL low loss plenum rated coax cable by Times Microwave is part of our full line of RF components available for same-day shipping. The SPP-250-LLPL coaxial cable features a low loss dielectric, solid copper center conductor and a helically corrugated, copper outer conductor. These features combine to make the Times Microwave SPP-250-LLPL an extremely flexible, low PIM coax cable that is well suited for Distributed Antenna Systems (DAS), plenum installations or small cells. The tough, FEP jacket provides moisture and UV protection.

Our datasheet specifications and drawing with dimensions for Times Microwave SPP-250-LLPL coax cable are shown below in this PDF. Whether the need is to provide a low PIM jumper connection, low PIM feeder cable or simply create a custom cable assembly configuration, Pasternack has the right SPP-250-LLPL 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	100			dB
Passive Intermodulation			-160	dBc
Inner Conductor DC Resistance			3	Ohms/1000ft
Nominal Capacitance		27 [88.58]		pF/ft [pF/m]
Nominal Inductance		0.067 [0.22]		uH/ft [uH/m]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible SPP-250-LLPL](#)



Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible

RF Cables Technical Data Sheet


SPP-250-LLPL

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.45	1.9	2.3	4.9	5.8	GHz
Attenuation, Typ	3.8	8.1	9	13.5	14.8	dB/100ft
	12.47	26.57	29.53	44.29	48.56	dB/100m
Input Power (CW), Max	1,010	470	430	280	260	Watts

Mechanical Specifications

Diameter	0.28 in [7.11 mm]
Weight	0.072 lbs/ft [0.11 Kg/m]
Min. Bend Radius (Installation)	1.25 in [31.75 mm]
Bending Moment	0.8 lbs-ft [1.08 N-m]

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper, 1 Strands	0.068 in [1.73 mm]
Conductor Type	Solid	
Dielectric	PTFE	0.19 in [4.83 mm]
Outer Conductor	Copper Corrugated	0.25 in [6.35 mm]
Jacket	FEP, Blue	0.28 in [7.11 mm]

Environmental Specifications

Temperature Operating Range	-55 to +200 deg C
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Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible SPP-250-LLPL](#)



Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible

RF Cables Technical Data Sheet

**SPP-250-LLPL**

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

Plotted and Other Data

Notes:

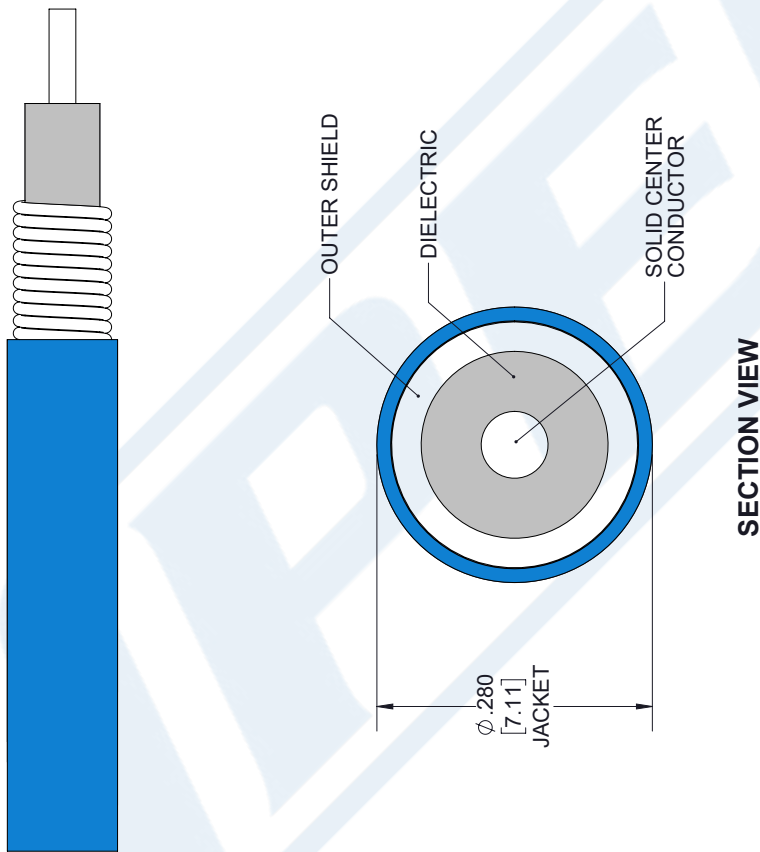
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TIMES MICROWAVE SYSTEMS **SPP-250-LLPL CAD Drawing**
 Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax
 Cable with Blue FEP Jacket Superflexible



STANDARD TOLERANCES
.X ±0.2
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

NOTES:
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
 3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE
 SPP-250-LLPL

CAGE CODE 53919

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 THE ENGINEER'S RF SOURCE
 Pasternack Enterprises, Inc.
 P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | **Fax:** (949) 261-7451
Website: www.pasternack.com | **E-Mail:** sales@pasternack.com

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SIZE A

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