



4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC

RF Connectors Technical Data Sheet



TC-250-4310MS-LP

Times Microwave Systems Connector Specification

Configuration

- Snap-On 4.3-10 Male Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC
- Low PIM Design

Features

- Max. Operating Frequency 6 GHz
- Excellent VSWR of 1.25:1
- PIM levels lower than -160 dBc
- Silver Plated Brass Contact
- 5 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-250-4310MS-LP 4.3-10 male snap-on connector offered by Pasternack with solder/solder attachment for Times' SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible and PE-1/4SFHC is part of our full line of RF components available for same-day shipping. Times Microwave's 4.3-10 male connector operates up to a maximum frequency of 6 GHz and offers excellent VSWR of 1.25:1. The Times 4.3-10 male connector also has low passive intermodulation of -160 dBc.

Times Microwave's 4.3-10 male connector TC-250-4310MS-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 | | | 1.25:1 | |
| Insertion Loss | | | 0.25 | dB |
| Passive Intermodulation | | | -160 | dBc |
| Operating Voltage (DC) | | | 1,000 | Vdc |
| Dielectric Withstanding Voltage (AC) | | | 1,000 | Vrms |
| 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: [4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC TC-250-4310MS-LP](#)



4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC

RF Connectors
Technical Data Sheet



TC-250-4310MS-LP

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------|---------|--------|----|----|----|-------|
| Frequency Range | DC to 3 | 3 to 6 | | | | GHz |
| VSWR, Max | 1.15:1 | 1.25:1 | | | | |

Electrical Specification Notes:
Insertion Loss is 0.1*sqrt(FGHz)

Mechanical Specifications

Size

| | |
|-----------------------|------------------------|
| Length | 1.13 in [28.7 mm] |
| Width/Dia. | 0.84 in [21.34 mm] |
| Height | 0.84 in [21.34 mm] |
| Weight | 0.0835 lbs [37.87 g] |
| Mating Cycles | 500 Cycles |
| Mating Torque | 44.25 in-lbs [5.00 Nm] |
| Cable Retention Force | 113 lbs 51.26 kg |

Material Specifications

| Description | Material | Plating |
|--------------|----------|-------------------|
| Contact | Brass | Silver 5 μm |
| Insulation | PTFE | |
| Body | Brass | Tri-Metal 2 μm |
| Coupling Nut | Brass | Tri-Metal 2 μm |
| Gasket | Silicone | |

Environmental Specifications

Temperature

| | |
|-----------------|---------------------------------------|
| Operating Range | -55 to +85 deg C |
| Shock | MIL-STD 202G, Method 213, Condition I |
| Vibration | MIL-STD 202G, Method 204, Condition B |
| Thermal Shock | MIL-STD 202G, Method 107, Condition B |

Environmental Specification Notes:
IEC 60068 55/155/56

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC TC-250-4310MS-LP](#)



4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC

RF Connectors
Technical Data Sheet

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

Plotted and Other Data

Notes:

4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC 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.

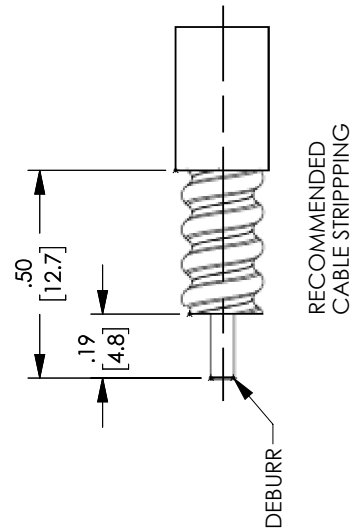
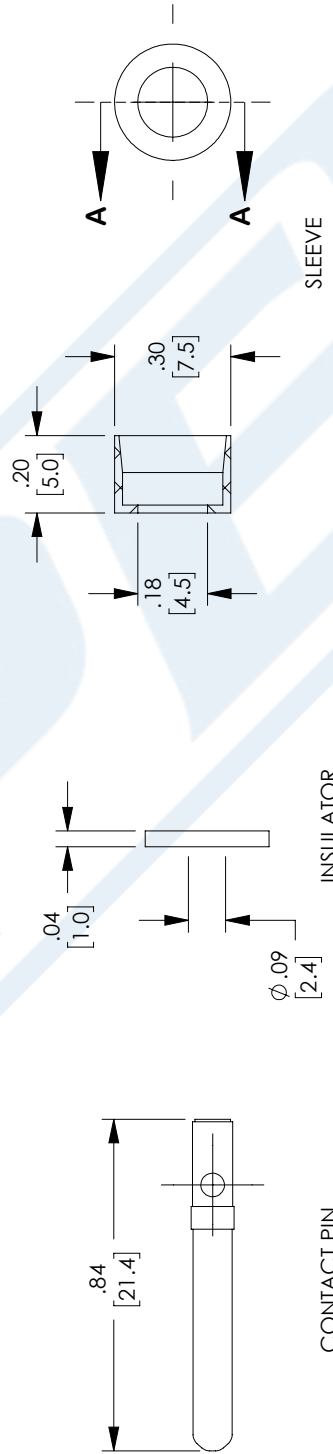
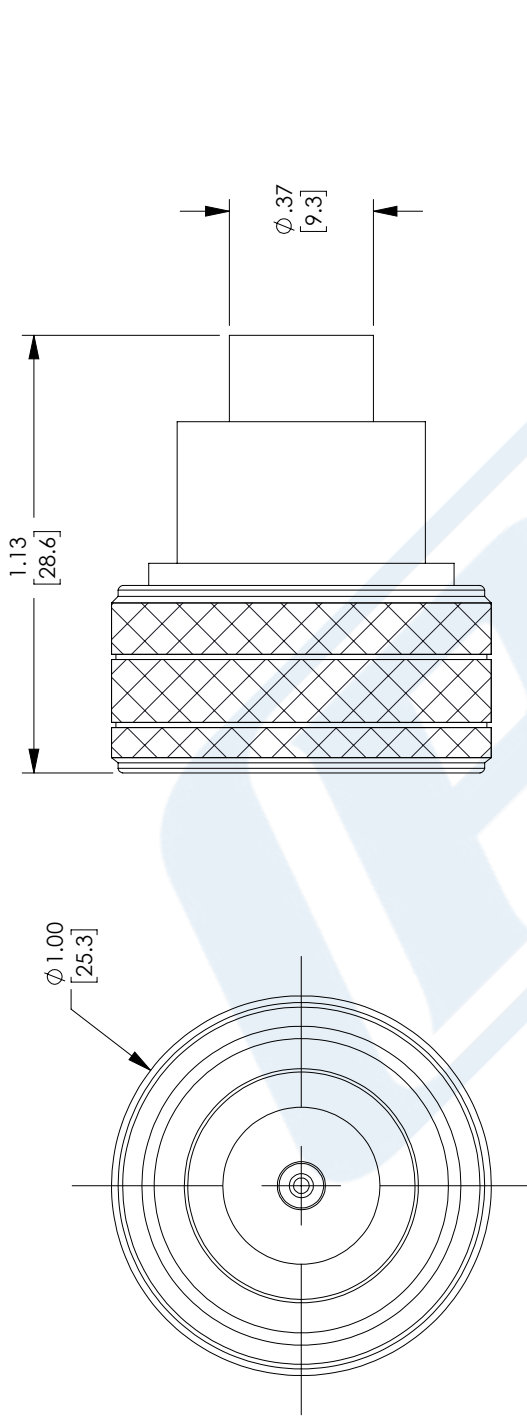
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC TC-250-4310MS-LP](#)

URL: <https://www.pasternack.com/4.3-10-male-snap-on-spp-250-llpl-connector-tc-250-4310ms-lp-p.aspx>

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TIMES MICROWAVE SYSTEMS **TC-250-4310MS-LP CAD Drawing**
 4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-
 250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC

| REVISIONS | | | |
|-----------|-----------------|------------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 03/10/2021 | SELLIS |



THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

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 E-mail: sales@pasternack.com

ITEM NO. TC-250-4310MS-LP

SIZE A CAGE CODE 53919 DRAWN BY DFRISIELLO

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%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.



QMA Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

RF Connectors Technical Data Sheet

PE45682

Configuration

- QMA Male Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: PE-1/4SFHC, SPP-250-LL-PL, SPO-250, SPF-250
- Low PIM Design

Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.3:1
- PIM levels lower than -155 dBc
- Silver Plated Brass Contact

Applications

- General Purpose Test
- Wireless Communications
- Custom Cable Assemblies
- Low PIM Applications

Description

Pasternack's PE45682 QMA male connector with solder/solder attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250 and SPF-250 is part of our full line of RF components available for same-day shipping. Our QMA male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.3:1. The QMA male connector also has low passive intermodulation of -155 dBc.

Our QMA male connector PE45682 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 | |
| Passive Intermodulation | | | -155 | dBc |
| Dielectric Withstanding Voltage (AC) | | | 750 | Vrms |

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------|---------|--------|----|----|----|-------|
| Frequency Range | DC to 3 | 3 to 6 | | | | GHz |
| VSWR, Max | 1.2:1 | 1.3:1 | | | | |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [QMA Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 PE45682](#)



QMA Male Low PIM Connector Solder Attachment for
PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

RF Connectors
Technical Data Sheet

PE45682

Mechanical Specifications

| | |
|-------------|--------------------|
| Size | |
| Length | 0.92 in [23.37 mm] |
| Width/Dia. | 0.41 in [10.41 mm] |
| Height | 0.41 in [10.41 mm] |
| Weight | 0.02 lbs [9.07 g] |

Material Specifications

| Description | Material | Plating |
|--------------|----------|-----------|
| Contact | Brass | Silver |
| Insulation | PTFE | |
| Body | Brass | Tri-Metal |
| Coupling Nut | Brass | Tri-Metal |

Environmental Specifications

| | |
|--------------------|-------------------|
| Temperature | |
| Operating Range | -40 to +155 deg C |

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: [QMA Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 PE45682](#)



QMA Male Low PIM Connector Solder Attachment for
PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

RF Connectors
Technical Data Sheet

PE45682

QMA Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 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: [QMA Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 PE45682](https://www.pasternack.com/qma-male-pe-1-4sfhc-spp-250-llpl-connector-pe45682-p.aspx)

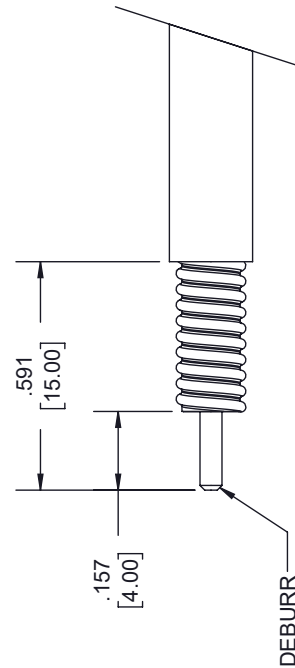
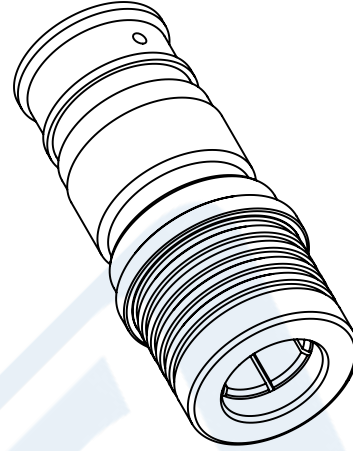
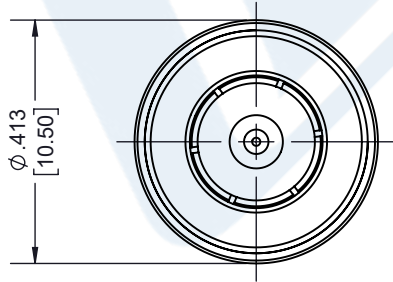
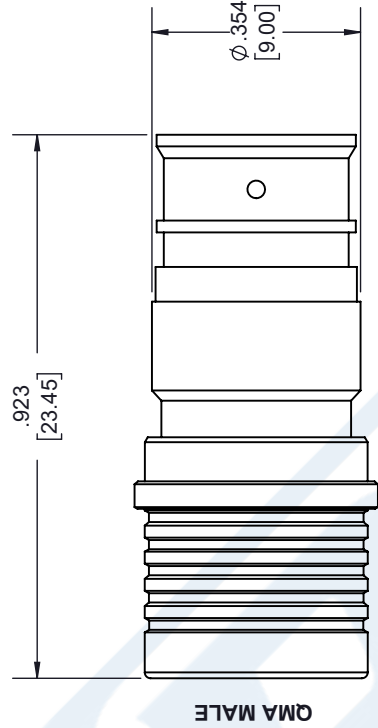
URL: <https://www.pasternack.com/qma-male-pe-1-4sfhc-spp-250-llpl-connector-pe45682-p.aspx>

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PE45682 CAD Drawing

QMA Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

| REVISIONS | | | |
|-----------|-----------------|-----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 1/18/2021 | S. ELLIS |



STRIPPING DIMENSIONS

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

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

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SHEET 1 OF 1

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ITEM NO. PE45682

SIZE A CAGE CODE 53919 DRAWN BY K.DANG



Low Loss SPO-250 Rated Corrugated Coax Cable with Black PE Jacket Superflexible Outdoor Rated

RF Cables Technical Data Sheet

Times Microwave Systems Coax Cable Specification

Configuration

- Low Loss Corrugated Cable
- 1 Shield(s)

Features

- PIM < -160 dBc
- Lightweight and Super Flexible
- Low Loss Dielectric 83% VoP
- Shielding > 100 dB
- Durable Black Polyethylene Outer Jacket
- Outdoor Rated

Applications

- Distributed Antenna Systems (DAS)
- Antenna Installations
- Small Cell
- Outdoor Applications
- Commination Tower Install

Description

SPO-250 low loss outdoor rated coax cable by Times Microwave is part of our full line of RF components available for same-day shipping. The SPO-250 coaxial cable features a low loss dielectric with an 83% velocity of propagation (VoP), solid copper center conductor and a helically corrugated, copper outer conductor. These features combine to make the Times Microwave SPO-250 a super flexible, low PIM coax cable that is well suited for use as an antenna jumper cable, Distributed Antenna Systems (DAS), small cell, and other outdoor applications. The tough, black polyethylene jacket provides moisture and UV protection and is suitable for outdoor use.

Our datasheet specifications and drawing with dimensions for Times Microwave SPO-250 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 SPO-250 cable assembly for the job. See our web site to find the right connector cable combination for your application.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------|---------|--------------|---------|--------------|
| Frequency Range | DC | | 5.8 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 83 | | % |
| Passive Intermodulation | | | -160 | dBc |
| Nominal Capacitance | | 24 [78.74] | | pF/ft [pF/m] |
| Nominal Inductance | | 0.054 [0.18] | | 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 SPO-250 Rated Corrugated Coax Cable with Black PE Jacket Superflexible Outdoor Rated SPO-250](#)



Low Loss SPO-250 Rated Corrugated Coax Cable with Black PE Jacket Superflexible Outdoor Rated

RF Cables Technical Data Sheet

Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|-------|-------|-------|-------|----------|
| Frequency | 0.45 | 1.5 | 2 | 2.5 | 5.8 | GHz |
| Attenuation, Typ | 4.1 | 7.8 | 9.13 | 10.33 | 16.65 | dB/100ft |
| | 13.45 | 25.59 | 29.95 | 33.89 | 54.63 | dB/100m |
| Input Power (CW), Max | 1,110 | 580 | 500 | 440 | 280 | Watts |

Mechanical Specifications

| | |
|---------------------------------|--------------------------|
| Diameter | 0.303 in [7.7 mm] |
| Weight | 0.052 lbs/ft [0.08 Kg/m] |
| Min. Bend Radius (Installation) | 1.25 in [31.75 mm] |
| Bending Moment | 0.5 lbs-ft [0.68 N-m] |

Construction Specifications

| Description | Material and Plating | Diameter |
|-----------------|-----------------------|-------------------|
| Inner Conductor | Copper Clad Aluminum1 | 0.075 in 1.91 mm |
| Conductor Type | Solid | |
| Dielectric | Foam PE | 0.177 in 4.5 mm |
| Outer Conductor | Copper Corrugated | 0.252 in 6.4 mm |
| Jacket | PE, Black | 0.303 in [7.7 mm] |

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: [Low Loss SPO-250 Rated Corrugated Coax Cable with Black PE Jacket Superflexible Outdoor Rated SPO-250](#)



Low Loss SPO-250 Rated Corrugated Coax Cable with Black PE Jacket Superflexible Outdoor Rated

RF Cables Technical Data Sheet

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

Plotted and Other Data

Notes:

Low Loss SPO-250 Rated Corrugated Coax Cable with Black PE Jacket Superflexible Outdoor Rated 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.

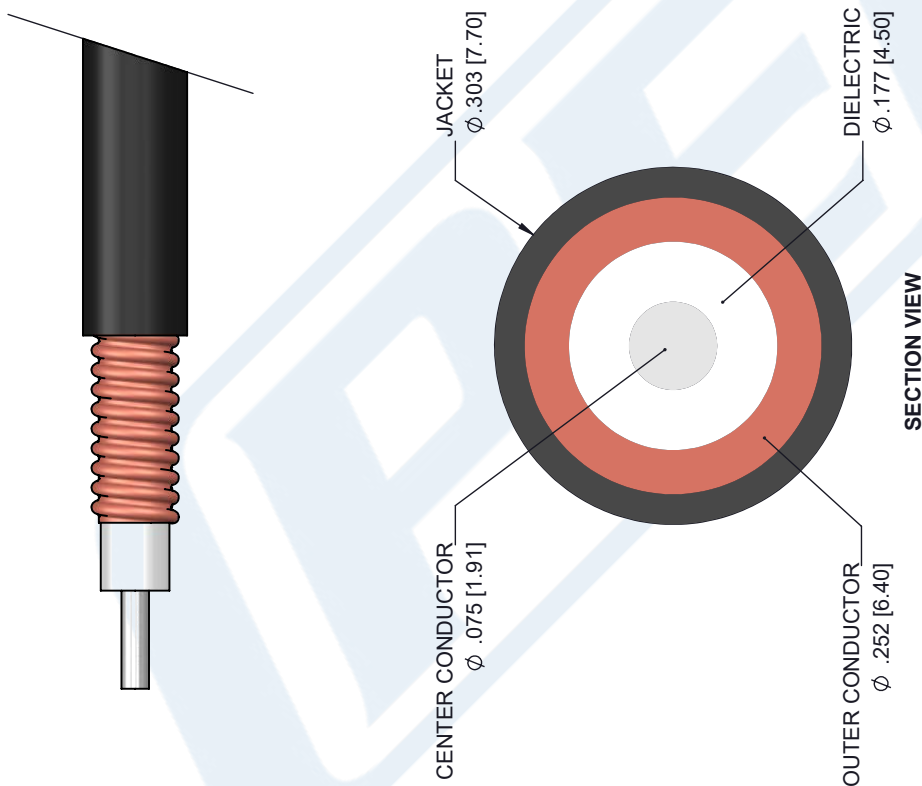
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss SPO-250 Rated Corrugated Coax Cable with Black PE Jacket Superflexible Outdoor Rated SPO-250](#)

URL: <https://www.pasternack.com/low-loss-corrugated-spo250-pe-jacket-spo-250-p.aspx>

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TIMES MICROWAVE SYSTEMS **SPO-250 CAD Drawing**
 Low Loss SPO-250 Rated Corrugated Coax Cable with
 Black PE Jacket Superflexible Outdoor Rated

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 03/04/19 | S. ELLIS |



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

TOLERANCES:
 X±.2 [5.08] FRACTIONS ±1/32
 XX±.01 [.25] ANGLES ± 1°
 XXX±.005 [0.13] THIRD ANGLE PROJECTION

ALL DIMENSIONS SHOWN
 ARE FOR REFERENCE ONLY.

(PEJ) PASTERNAK
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SHEET 1 OF 1
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CAGE CODE A 53919 DRAWN BY K.DANG PART NUMBER SPO-250 REV A

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