



SMP Female Right Angle Connector Crimp/Solder Attachment for RG178, RG196, Up To 8 GHz

RF Connectors Technical Data Sheet

PE45290

Configuration

- SMP Female Connector
- MIL-STD-348A
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: RG178, RG196

Features

- Max. Operating Frequency 8 GHz
- Excellent VSWR of 1.1:1
- Gold Plated Beryllium Copper Contact
- Contact plating according to MIL-DTL-45204
- Blind Mate Connector

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE45290 SMP female right angle connector with crimp/solder attachment for RG178 and RG196 is part of our full line of RF components available for same-day shipping. Our SMP female connector operates up to a maximum frequency of 8 GHz and offers excellent VSWR of 1.1:1. The Pasternack blind mate connector is ideal for applications where direct visual or tactile access to the connection point is not possible, for example, when two circuit boards need to be mated. Its right angle body geometry allows for easier connections in tight spaces. Pasternack 8 GHz SMP connectors are designed to offer a low cost alternative where the SMP form factor is desired but the standard SMP frequency range is not needed. The line of 8 GHz SMP connectors is fully compatible with industry standard SMP and GPO® connectors. These SMP connectors offer a low cost high performance blind-mate solution for lower frequency applications. The Male versions of the 8 GHz SMP is available in Full Detent, Limited Detent, and Smooth Bore versions.

Our SMP female right angle connector PE45290 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 | | 8 | GHz |
| VSWR | | | 1.1:1 | |

Mechanical Specifications

| Size | |
|------------|--------------------|
| Length | 0.34 in [8.64 mm] |
| Width/Dia. | 0.15 in [3.81 mm] |
| Height | 0.285 in [7.24 mm] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMP Female Right Angle Connector Crimp/Solder Attachment for RG178, RG196, Up To 8 GHz PE45290](#)



SMP Female Right Angle Connector Crimp/Solder Attachment for RG178, RG196, Up To 8 GHz

RF Connectors
Technical Data Sheet

PE45290

Weight 0.005 lbs [2.27 g]

Material Specifications

| Description | Material | Plating |
|-----------------|------------------|-----------------------|
| Contact | Beryllium Copper | Gold MIL-DTL-45204 |
| Insulation | PTFE | |
| Outer Conductor | Beryllium Copper | Gold MIL-DTL-45204 |
| Body | Brass | Gold MIL-DTL-45204 |

Environmental Specifications

Temperature

Operating Range -55 to +155 deg C
 Humidity MIL-STD-202, Method 106 (except 7b omitted)
 Shock MIL-STD-202, Method 213, Condition I
 Vibration MIL-STD-202, Method 204, Condition D
 Salt Spray MIL-STD-202, Method 101, Condition B

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: [SMP Female Right Angle Connector Crimp/Solder Attachment for RG178, RG196, Up To 8 GHz PE45290](#)



SMP Female Right Angle Connector Crimp/Solder Attachment for RG178, RG196, Up To 8 GHz

RF Connectors Technical Data Sheet

PE45290

SMP Female Right Angle Connector Crimp/Solder Attachment for RG178, RG196, Up To 8 GHz 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: [SMP Female Right Angle Connector Crimp/Solder Attachment for RG178, RG196, Up To 8 GHz PE45290](https://www.pasternack.com/smp-female-rg178-rg196-connector-pe45290-p.aspx)

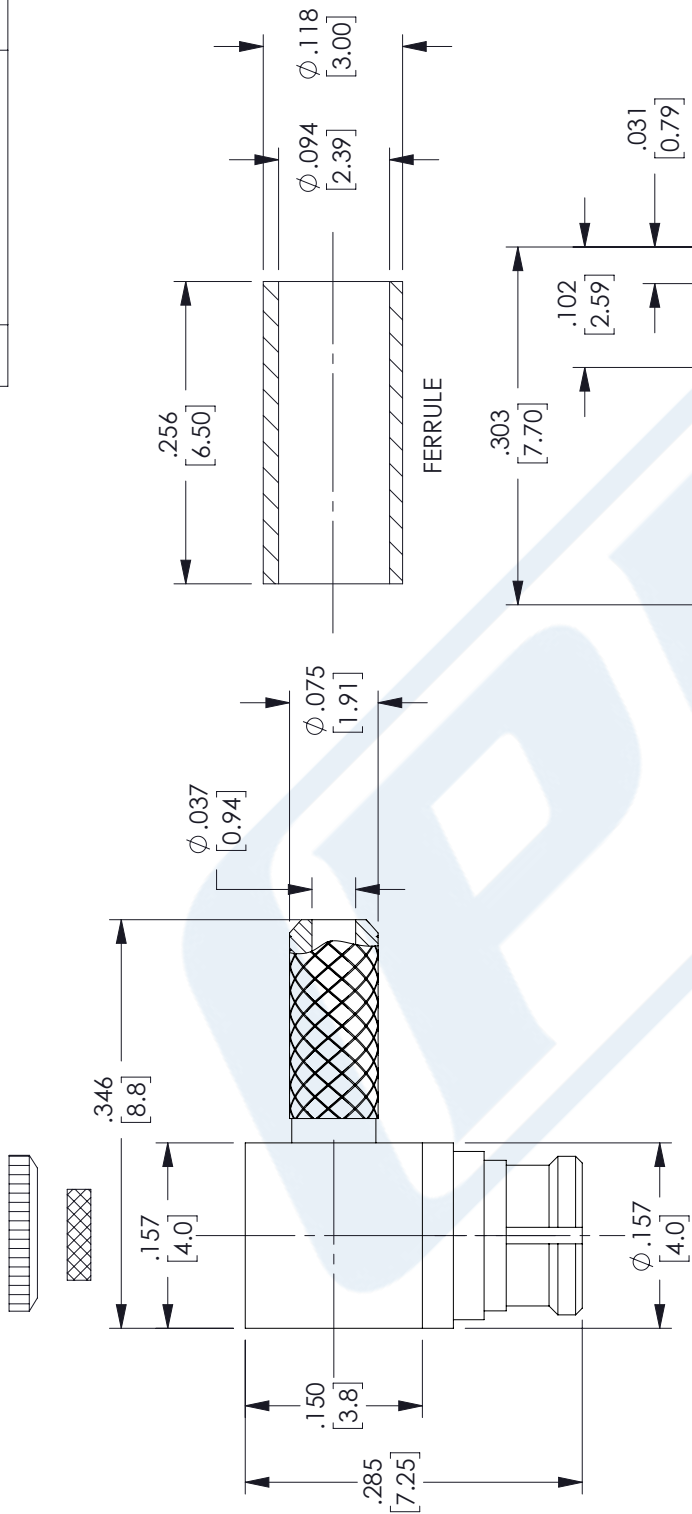
URL: <https://www.pasternack.com/smp-female-rg178-rg196-connector-pe45290-p.aspx>

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.

PE45290 CAD Drawing

SMP Female Right Angle Connector Crimp/Solder Attachment for RG178, RG196, Up To 8 GHz

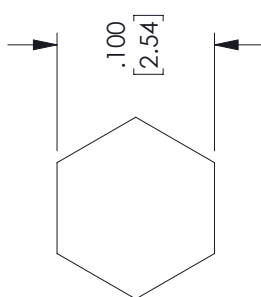
| REVISIONS | | | |
|-----------|------------------|------------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| B | PE45290 20220616 | 07/01/2022 | AMARG |



STRIPPING DIMENSIONS

ASSEMBLY PROCEDURES

1. STRIP CABLE AS SHOWN & TIN CENTER CONDUCTOR. SLIDE FERRULE OVER CABLE.
2. INSTALL CABLE INTO BODY OF CONNECTOR & SOLDER CENTER CONDUCTOR IN PLACE.
3. CRIMP FERRULE. INSERT PTFE & PRESS CAP DOWN.



CRIMP SIZE REQUIRED

FERRULE: .100" HEX CRIMP TOOL

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

TOLERANCES:

| | | |
|--------------|--------|-------------|
| .X = ±.2 | [5.08] | FRACTIONS |
| .XX = ±.02 | [.51] | ±.1/32 |
| .XXX = ±.005 | [.13] | ANGLES ± 1° |

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.

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an INFINITE brand

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1
SCALE N/A

SIZE [CAGE CODE] DRAWN BY [ITEM NO.]
A 53919 WZHANG PE45290
REV B

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SMA Male Connector Crimp/Solder Attachment for RG178, RG196

RF Connectors Technical Data Sheet

PE4398

Configuration

- SMA Male Connector
- MIL-STD-348A
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: RG178, RG196
- 5/16 inch Hex

Features

- Max. Operating Frequency 1 GHz
- Good VSWR of 1.3:1
- Gold Plated Brass Contact
- 50 μ m minimum contact plating

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE4398 SMA male connector with crimp/solder attachment for RG178 and RG196 is part of our full line of RF components available for same-day shipping. Our SMA male connector operates up to a maximum frequency of 1 GHz and offers good VSWR of 1.3:1.

Our SMA male connector PE4398 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 | | 1,000 | MHz |
| VSWR | | | 1.3:1 | |
| Operating Voltage (AC) | | | 250 | Vrms |

Mechanical Specifications

Size

| | |
|---------------|---------------------------------|
| Length | 1.047 in [26.59 mm] |
| Width/Dia. | 0.315 in [8.00 mm] |
| Weight | 0.019 lbs [8.62 g] |
| Mating Torque | 3 to 5 in-lbs [0.34 to 0.57 Nm] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male Connector Crimp/Solder Attachment for RG178, RG196 PE4398](#)



SMA Male Connector Crimp/Solder Attachment for RG178, RG196

RF Connectors Technical Data Sheet

PE4398

Material Specifications

| Description | Material | Plating |
|--------------|----------|---------------------------|
| Contact | Brass | Gold 50 µin minimum |
| Insulation | PTFE | |
| Body | Brass | Nickel 100 µin minimum |
| Coupling Nut | Brass | Nickel 100 µin minimum |
| Crimp Sleeve | Brass | Nickel |

Environmental Specifications

Temperature

Operating Range -65 to +165 deg C

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

Plotted and Other Data

Notes:

SMA Male Connector Crimp/Solder Attachment for RG178, RG196 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: [SMA Male Connector Crimp/Solder Attachment for RG178, RG196 PE4398](#)

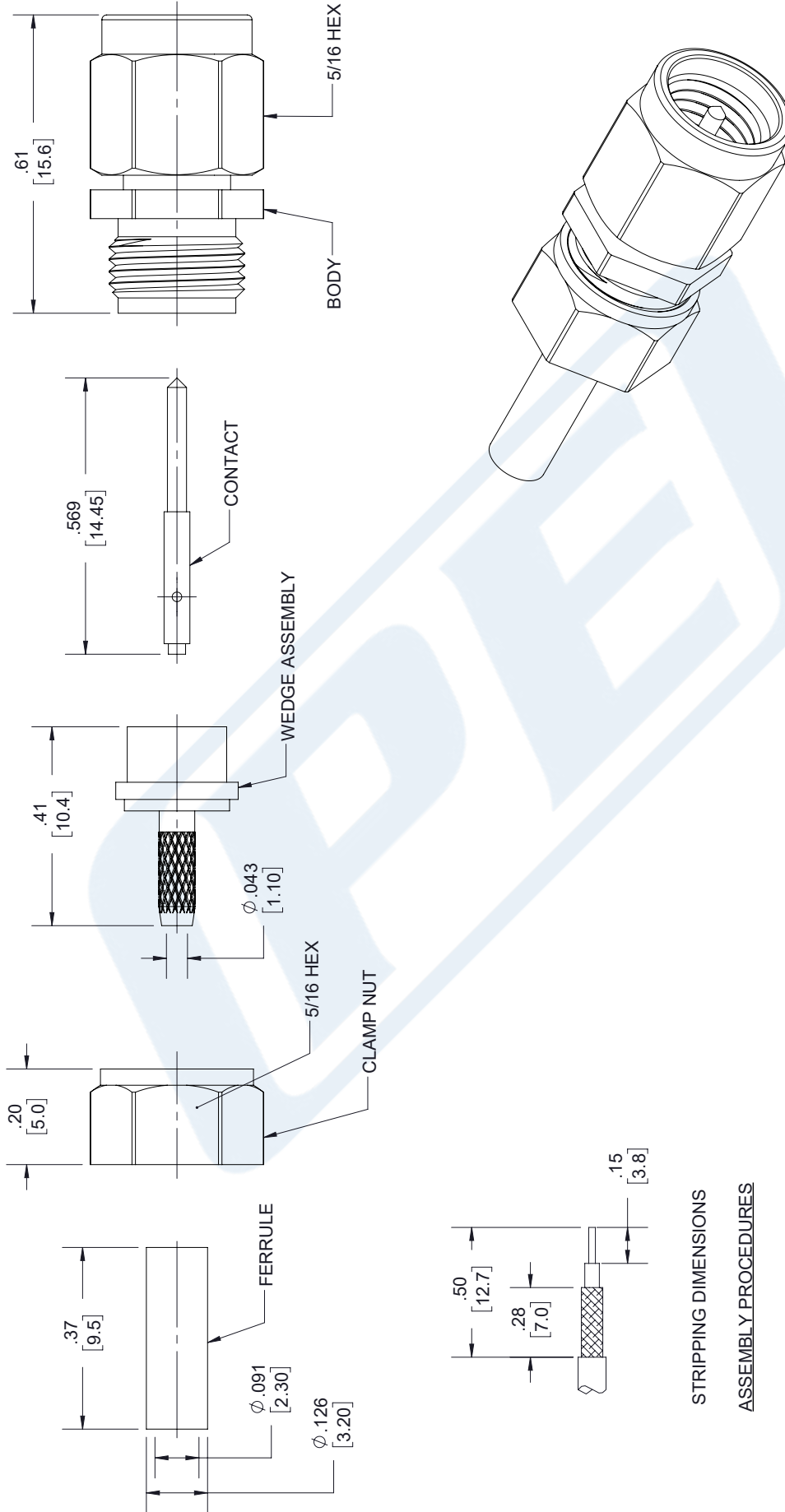
URL: <https://www.pasternack.com/sma-male-standard-rg178-rg196-connector-pe4398-p.aspx>

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.

PE4398 CAD Drawing

SMA Male Connector Crimp/Solder Attachment for RG178, RG196

| REVISIONS | | | |
|-----------|---------------------|----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | PCR PE4398 20200902 | 09/22/20 | SRAUTUS |



STRIPPING DIMENSIONS

ASSEMBLY PROCEDURES

1. STRIP CABLE AS SHOWN. DO NOT NICK CENTER CONDUCTOR. TIN CENTER CONDUCTOR.
2. SLIDE FERRULE & CLAMP NUT OVER CABLE. FLAIR BRAID & SLIDE WEDGE ASSEMBLY UNDER BRAID WITH CENTER CONDUCTOR PROTRUDING THROUGH HOLE IN INSULATOR. SLIDE FERRULE OVER BRAID & AGAINST EXTENSION. CRIMP FERRULE USING .100" HEX CRIMP TOOL.
3. SOLDER CONTACT TO CENTER CONDUCTOR. CLEAN. INSERT CABLE ASSEMBLY INTO BODY & TIGHTEN TO 8~10 IN-LBS.

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

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS ±.1/32
 .XX = ±.02 [.51] ±.1/32
 .XXX = ±.005 [.13] ANGLES ± 1°

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

SCALE N/A

REV A



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ITEM NO. PE4398
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 CAGE CODE A
 SIZE A

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Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket

RF Cables Technical Data Sheet

RG178B/U

Configuration

- Flexible Cable
- 1 Shield(s)

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------|---------|--------------|---------|--------------|
| Frequency Range | DC | | 3 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 70 | | % |
| Operating Voltage (AC) | | | 1,000 | Vrms |
| Nominal Capacitance | | 29.4 [96.46] | | pF/ft [pF/m] |

Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|------------------|-------|-------|-------|--------|----|---------------------|
| Frequency | 0.1 | 0.4 | 1 | 3 | | GHz |
| Attenuation, Typ | 13.81 | 27.8 | 44.41 | 78.4 | | dB/100ft dB/100m |
| | 45.31 | 91.21 | 145.7 | 257.22 | | |

Mechanical Specifications

| | |
|-----------------------------|--------------------------|
| Diameter | 0.072 in [1.83 mm] |
| Weight | 0.005 lbs/ft [0.01 Kg/m] |
| Min. Bend Radius (Repeated) | 0.4 in [10.16 mm] |

Construction Specifications

| Description | Material and Plating | Diameter |
|-----------------|--------------------------------------|--------------------|
| Inner Conductor | Copper Clad Steel, Silver, 7 Strands | 0.012 in [0.3 mm] |
| Conductor Type | Stranded | |
| Dielectric | PTFE | 0.034 in [0.86 mm] |
| First Shield | Silver Plated Copper Braid | 0.051 in [1.3 mm] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket RG178B/U](#)

Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket

RF Cables Technical Data Sheet

RG178B/U

| | | |
|--------|----------|--------------------|
| Jacket | FEP, Tan | 0.072 in [1.83 mm] |
|--------|----------|--------------------|

Environmental Specifications

Temperature

Operating Range -55 to +200 deg C

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

Plotted and Other Data

Notes:

Flexible RG178 Coax Cable Single Shielded with Tan 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: [Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket RG178B/U](#)

URL: <https://www.pasternack.com/flexible-0.075-rg178-50-ohm-coax-cable-fep-jacket-rg178b-u-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.

RG178B/U CAD Drawing

Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket



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
RG178B/U

CAGE CODE **53919**

CAD FILE 062117

SCALE N/A

SIZE A

2233

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