SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196

RF Connectors
Technical Data Sheet

PE45490

Configuration
- SSMC Plug Connector
- 50 Ohms
- Straight Body Geometry
- RG178, RG196 Interface Type
- Crimp/Solder Attachment

Features
- Max. Operating Frequency 12.4 GHz
- Good VSWR of 1.44:1
- Gold Plated Beryllium Copper Contact
- Contact plating according to MIL-G-45204
- Reliable threaded coupling
- Small SSMC connector form factor (50% smaller than SMA, radially)
- IEC 60169-20 SSMC connector interface
- In stock and ready to ship

Applications
- General Purpose Test
- Custom Cable Assemblies
- Avionics
- A/D Modules
- Data Acquisition
- Software defined radio (SDR)
- RADAR/SONAR
- Ultra Wideband Digital Receivers
- Medical equipment

Description

Pasternack's PE45490 SSMC plug connector with crimp/solder attachment for RG178 and RG196 is part of our full line of RF components available for same-day shipping. Our SSMC plug connector operates up to a maximum frequency of 12.4 GHz and offers good VSWR of 1.44:1.

Our SSMC plug connector PE45490 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		12.4	GHz
VSWR			1.44:1	
Insertion Loss			0.3	dB
Operating Voltage (AC)			250	Vrms
High Potential Voltage 5 MHz			400	Vrms
Inner Conductor DC Resistance			4	mOhms
Outer Conductor DC Resistance			1	mOhms
Insulation Resistance	1,000			MOhms
RF Leakage	-50			dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196 PE45490

SSMC Plug Connector Crimp/Solder
Attachment for RG178, RG196

RF Connectors
Technical Data Sheet   **PE45490**

Mechanical Specifications

Size
Length   0.7 in [17.78 mm]
Width/Dia.   0.156 in [3.96 mm]

Mating Cycles   500 Cycles
Mating Torque   1.75 to 2 in-lbs [0.20 to 0.23 Nm]

Material Specifications

Description	Material	Plating
Contact	Beryllium Copper	Gold MIL-G-45204
Insulation	Teflon	
Body	Beryllium Copper	Gold MIL-G-45204
Coupling Nut	Beryllium Copper	Gold MIL-G-45205
Crimp Sleeve	Brass	Gold MIL-G-45204

Environmental Specifications
Temperature
Operating Range   -65 to +165 deg C
Shock   Method 213, Condition B, 75G @6ms @1/2 sine
Vibration   Method 204, Condition D (20G)
Salt Spray   Method 101, Condition B, 5% salt solution

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: SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196 PE45490
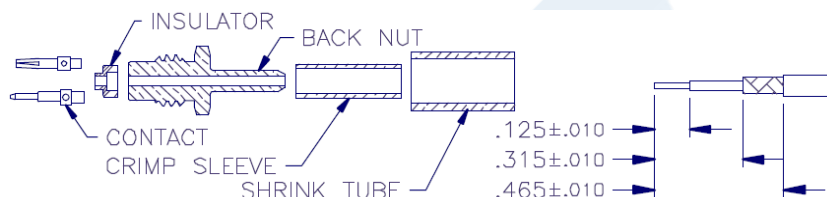
SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196

RF Connectors
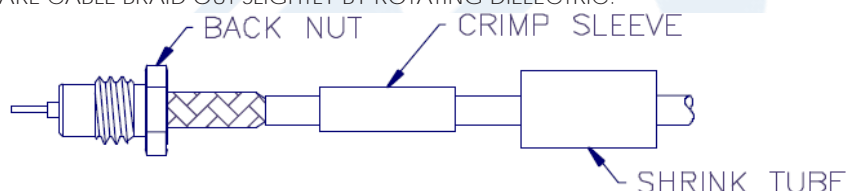**Technical Data Sheet**   **PE45490**
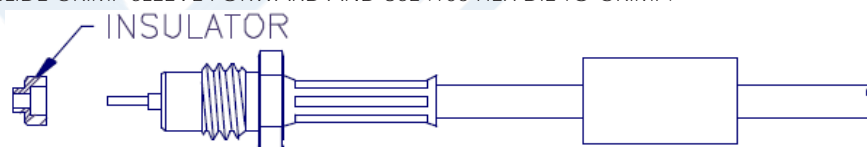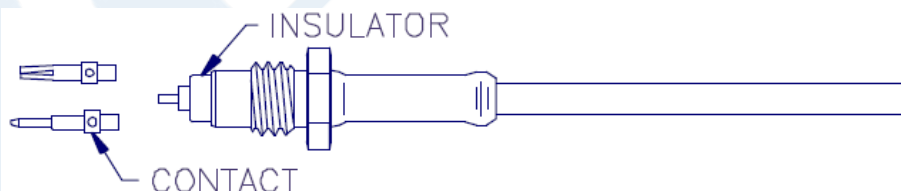
Assembly Instruction

Assembly Instructions

1. TRIM CABLE AS SHOWN ABOVE. TIN END OF CENTER CONDUCTOR.
2. SLIDE CRIMP SLEEVE AND SHRINK TUBE **(IF SUPPLIED)** OVER CABLE JACKET.
3. FLARE CABLE BRAID OUT SLIGHTLY BY ROTATING DIELECTRIC.

4. INSERT CABLE INTO TAIL-END OF BACK NUT, MAKING SURE TAIL GOES OVER DIELECTRIC AND UNDER BRAID. SLIDE IN UNTIL BRAID TOUCHES REAR SURFACE OF NUT.
5. SLIDE CRIMP SLEEVE FORWARD AND USE .105 HEX DIE TO CRIMP.

6. POSITION INSULATOR OVER CABLE DIELECTIC AND CENTER CONDUCTOR.

7. SOLDER CONTACT TO CENTER CONDUCTOR.
8. INSERT CAABLE ASSEMBLY INTO BODY AND TIGHTEN NUT WITH A TORQUE WRENCH WITH A TORQUE OF 35-45 INCH-OUNCES.
9. SLIDE SHRINK TUBE (IF SUPPLIED) OVER CRIMP SLEEVE AND SHRINK TO FIT.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196 PE45490

PE45490 REV 1.0   3

SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196
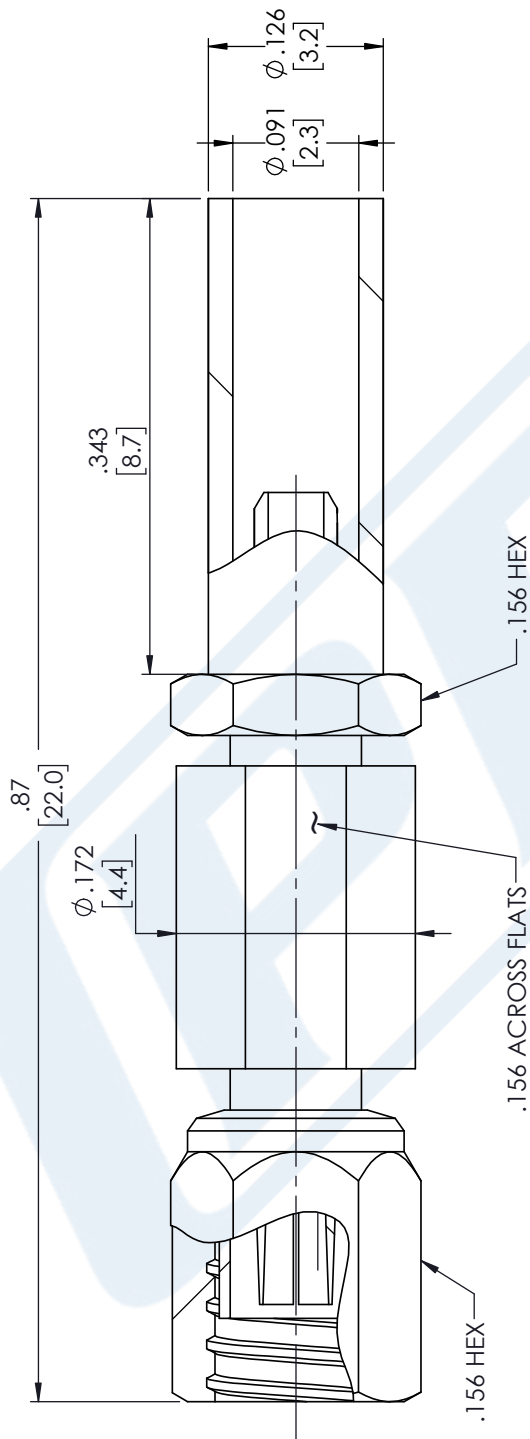
RF Connectors
Technical Data Sheet
PE45490

SSMC Plug 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: SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196 PE45490

URL: https://www.pasternack.com/ssmc-plug-rg178-rg196-connector-pe45490-p.aspx

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Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451

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PE45490 CAD Drawing

SSMC Plug Connector Crimp/Solder Attachment for RG178, RG196

Ø.126 [3.2]

Ø.091 [2.3]

.343 [8.7]

.87 [22.0]

Ø.172 [4.4]

.156 HEX

.156 ACROSS FLATS

.156 HEX

DWG TITLE
PE45490

CAGE CODE 53919

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

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES

PE45490 REV 1.0

PASTERNACK®
THE ENGINEER'S RF SOURCE

SMB Jack Bulkhead Mount Connector Crimp/
Solder Attachment for RG178, RG196

RF Connectors Technical Data Sheet — PE4364

Configuration
- SMB Jack Connector
- MIL-STD-348A
- 50 Ohms
- Straight Body Geometry
- RG178, RG196 Interface Type
- Crimp/Solder Attachment
- Bulkhead

Features
- Max. Operating Frequency 2 GHz
- Good VSWR of 1.5:1
- Gold Plated Brass Contact
- 30 μin minimum contact plating

Applications
- General Purpose Test
- Rack and Panel Mount Applications
- Custom Cable Assemblies

Description

Pasternack's PE4364 SMB jack bulkhead connector with crimp/solder attachment for RG178 and RG196 is part of our full line of RF components available for same-day shipping. Our SMB jack connector operates up to a maximum frequency of 2 GHz and offers good VSWR of 1.5:1. This SMB bulkhead connector allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

Our SMB jack bulkhead connector PE4364 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		2	GHz
VSWR			1.5:1	
Operating Voltage (AC)			250	Vrms

Mechanical Specifications

Size

Length	0.845 in [21.46 mm]
Width/Dia.	0.237 in [6.02 mm]
Weight	0.001 lbs [0.45 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SMB Jack Bulkhead Mount Connector Crimp/Solder Attachment for RG178, RG196 PE4364

SMB Jack Bulkhead Mount Connector Crimp/
Solder Attachment for RG178, RG196

RF Connectors Technical Data Sheet   PE4364

Material Specifications

Description	Material	Plating
Contact	Brass	Gold 30 µin minimum
Insulation	PTFE	
Body	Brass	Nickel 100 µin minimum

Environmental Specifications
Temperature
Operating Range   -40 to +60 deg C

Compliance Certifications (see product page for current document)
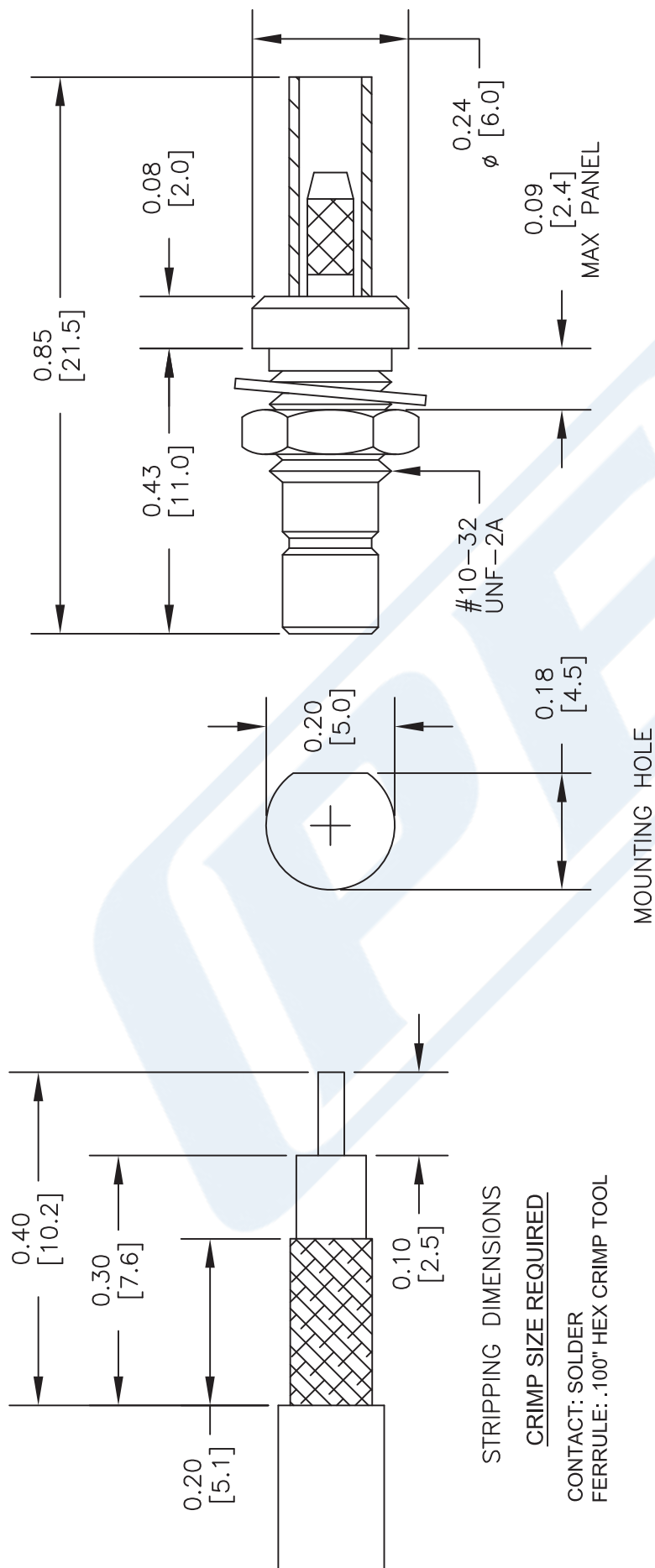
Plotted and Other Data
Notes:

SMB Jack Bulkhead Mount 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% 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: SMB Jack Bulkhead Mount Connector Crimp/Solder Attachment for RG178, RG196 PE4364

URL: https://www.pasternack.com/smb-jack-standard-rg178-rg196-connector-pe4364-p.aspx

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PE4364 CAD Drawing
SMB Jack Bulkhead Mount Connector Crimp/Solder Attachment for RG178, RG196

0.08 [2.0]

0.24 ø [6.0]

0.09 [2.4]
MAX PANEL

0.85 [21.5]

0.43 [11.0]

#10−32 UNF−2A

0.20 [5.0]

0.18 [4.5]

MOUNTING HOLE

0.40 [10.2]

0.30 [7.6]

0.10 [2.5]

0.20 [5.1]

STRIPPING DIMENSIONS
<u>CRIMP SIZE REQUIRED</u>

CONTACT: SOLDER
FERRULE: .100" HEX CRIMP TOOL

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PE4364 REV 1.1

3

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
	45.31	91.21	145.7	257.22		dB/100m

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

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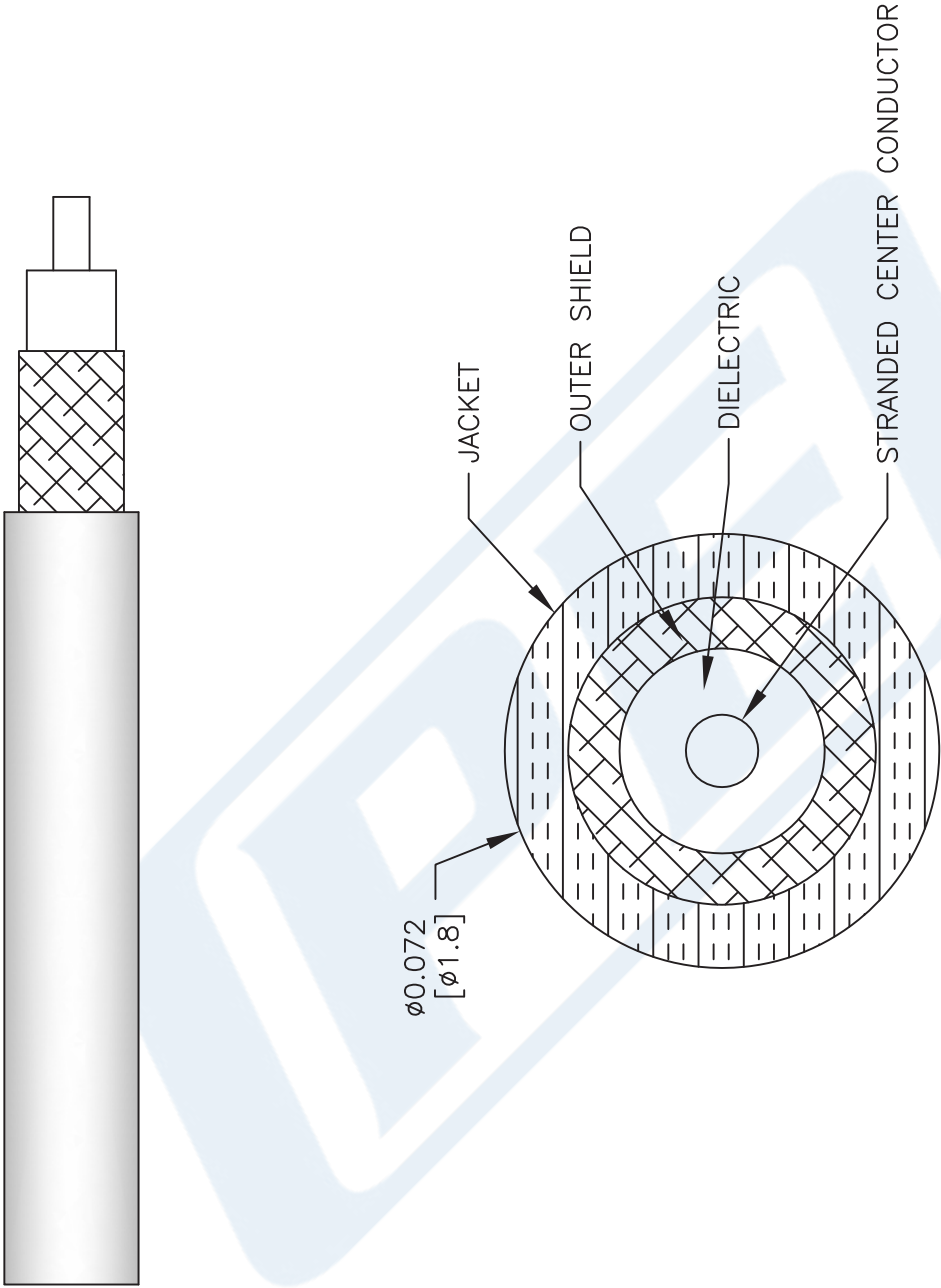
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket RG178B/U

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

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RG178B/U CAD Drawing
Flexible RG178 Coax Cable Single Shielded with Tan FEP Jacket

JACKET

OUTER SHIELD

DIELECTRIC

STRANDED CENTER CONDUCTOR

Ø0.072
[Ø1.8]

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].

CAD FILE	062117	SCALE N/A	SIZE A
			2233

DWG TITLE

RG178B/U

CAGE CODE 53919

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