



SSMC Plug Connector Crimp/Solder Attachment for LMR-100A, RG188, RG174, PE-C100- LSZH, PE-B100, LMR-100A-FR, RG316

RF Connectors Technical Data Sheet

PE45491

Configuration

- SSMC Plug Connector
- 50 Ohms
- Straight Body Geometry

- LMR-100A, RG188, RG174, PE-C100-LSZH, PE-B100, LMR-100A-FR, RG316 Interface Type
- Crimp/Solder Attachment

Features

- Max. Operating Frequency 12.4 GHz
- Good VSWR of 1.5:1
- 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 PE45491 SSMC plug connector with crimp/solder attachment for LMR-100A, RG188, RG174, PE-C100-LSZH, PE-B100, LMR-100A-FR and RG316 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 1.5:1.

Our SSMC plug connector PE45491 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			1.5:1	
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 LMR-100A, RG188, RG174, PE-C100-LSZH, PE-B100, LMR-100A-FR, RG316 PE45491](#)



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LSZH, PE-B100, LMR-100A-FR, RG316

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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-45206
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:

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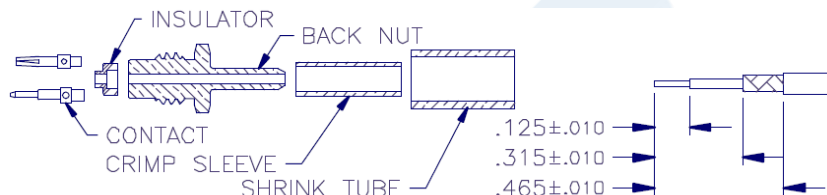
SSMC Plug Connector Crimp/Solder Attachment for LMR-100A, RG188, RG174, PE-C100- LSZH, PE-B100, LMR-100A-FR, RG316

RF Connectors Technical Data Sheet

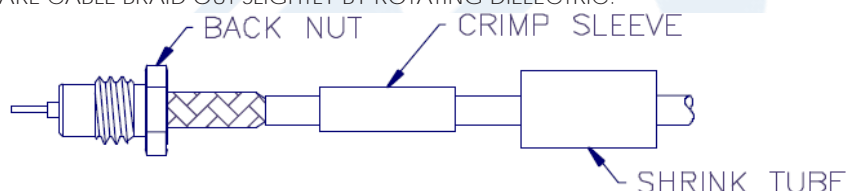
PE45491

Assembly Instruction

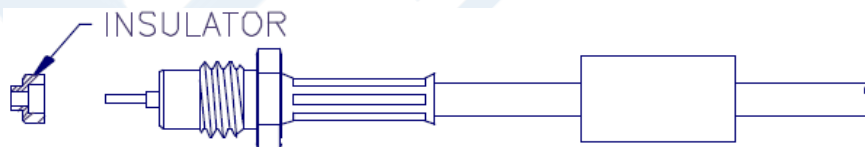
Assembly Instructions



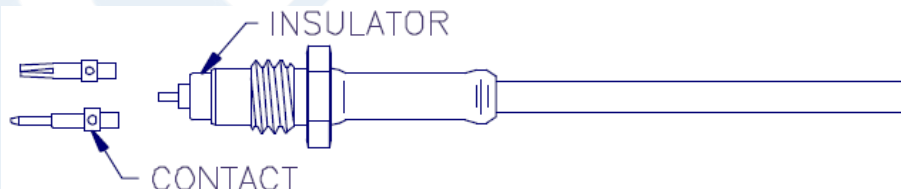
1. TRIM CABLE AS SHOWN ABOVE. TIN END OF CENTER CONDUCTOR.
2. SLIDE CRIMP SLEEVE AND SHRINK TUBE (IF SUPPLIED) OVER CABLE JACKET.
3. FLARE CABLE BRAID OUT SLIGHTLY BY ROTATING DIELECTRIC.



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 CABLE 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 LMR-100A, RG188, RG174, PE-C100-LSZH, PE-B100, LMR-100A-FR, RG316 PE45491](#)



SSMC Plug Connector Crimp/Solder Attachment for LMR-100A, RG188, RG174, PE-C100- LSZH, PE-B100, LMR-100A-FR, RG316

RF Connectors Technical Data Sheet

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SSMC Plug Connector Crimp/Solder Attachment for LMR-100A, RG188, RG174, PE-C100-LSZH, PE-B100, LMR-100A-FR, RG316 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.

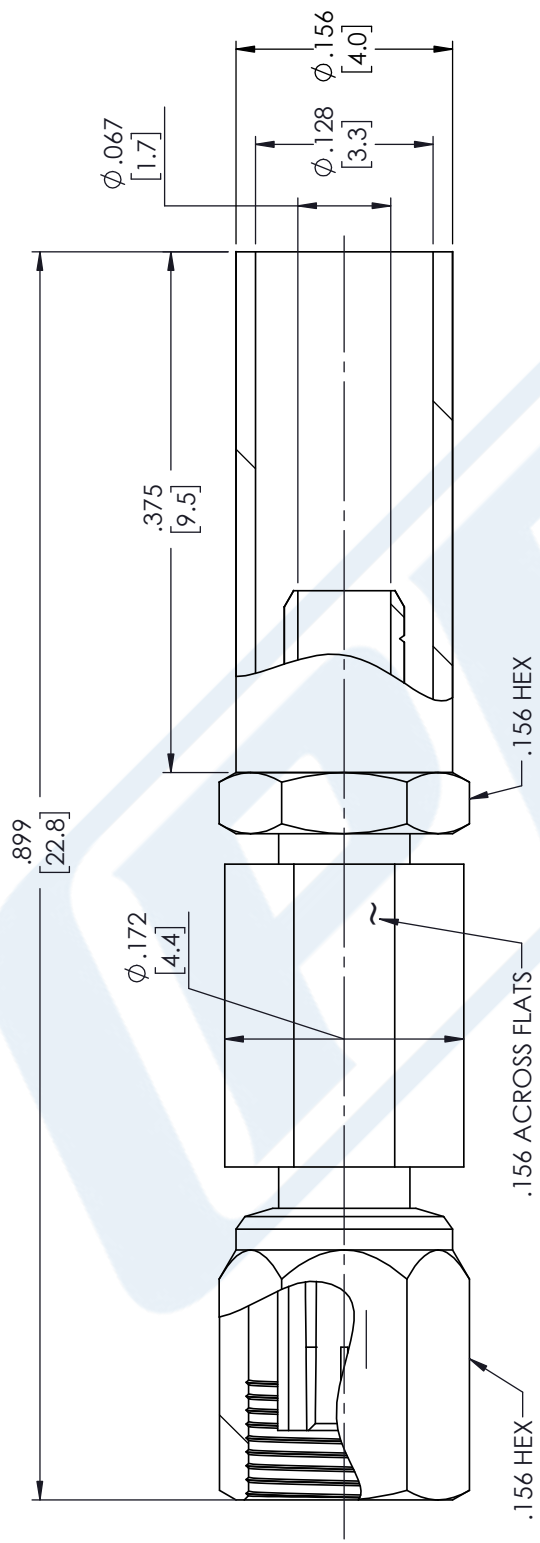
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SSMC Plug Connector Crimp/Solder Attachment for LMR-100A, RG188, RG174, PE-C100-LSZH, PE-B100, LMR-100A-FR, RG316 PE45491](https://www.pasternack.com/ssmc-plug-lmr-100a-rg188-pe-c100-lszh-pe-b100-connector-pe45491-p.aspx)

URL: <https://www.pasternack.com/ssmc-plug-lmr-100a-rg188-pe-c100-lszh-pe-b100-connector-pe45491-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.

PE45491 CAD Drawing

SSMC Plug Connector Crimp/Solder Attachment for LMR-100A, RG188,
RG174, PE-C100-LSZH, PE-B100, LMR-100A-FR, RG316



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

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES



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DWG TITLE
PE45368

CAGE CODE 53919

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 08/09/18

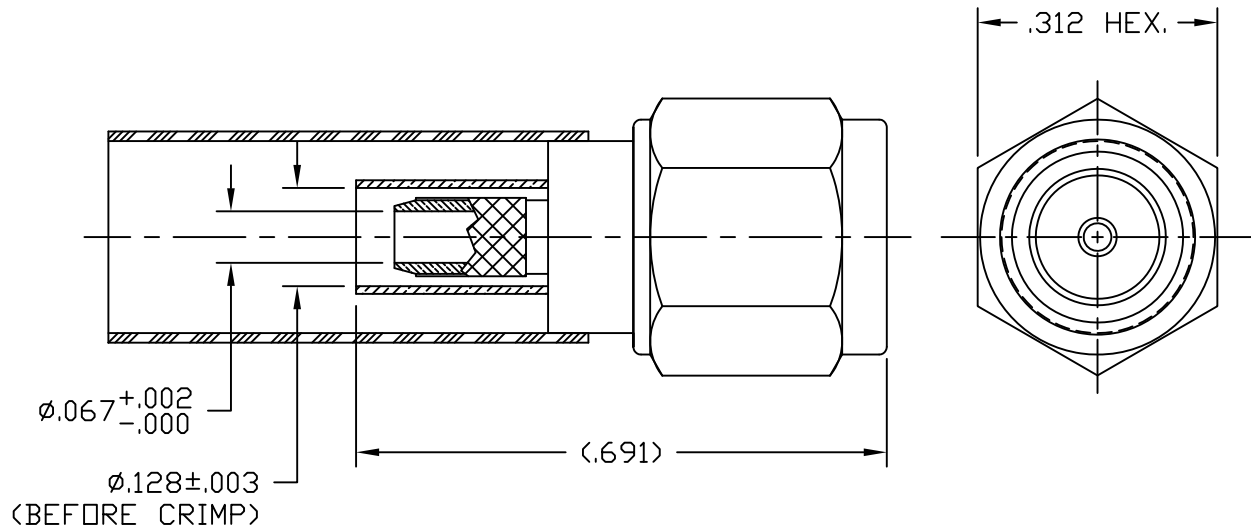
SCALE N/A

SIZE A

CN2245

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SYM	REVISION DESCRIPTION	DFTM	DATE	APPD	DATE
-	RELEASED FOR PRODUCTION	J. C. L.	8/20/03	J. C. L.	8/20/03
A	CHANGED PER CDC #36704	D. J. H.	1/14/13	J. D. B.	1/15/13
B	CHANGED PER CDC #37206	J. D. B.	3/226/13	J. D. B.	3/26/13

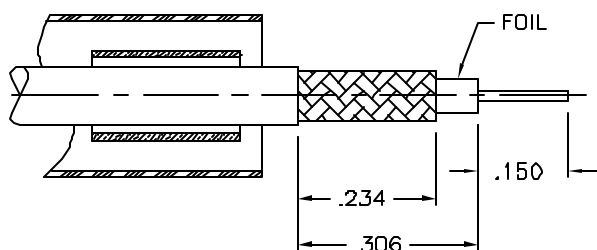
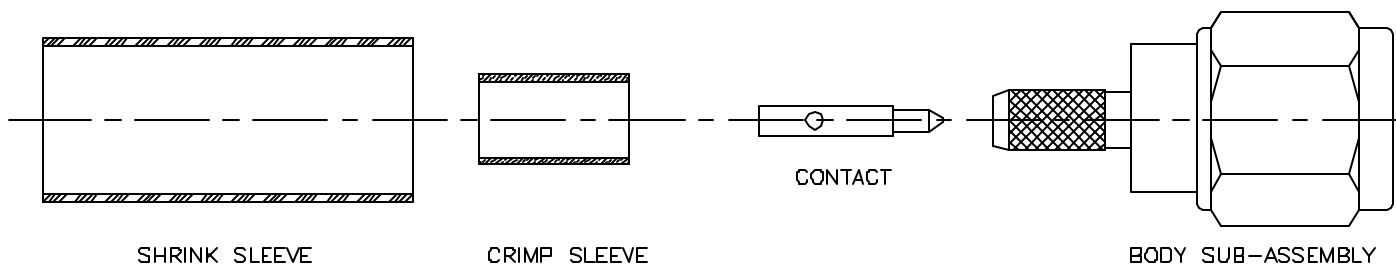


NOTES:

- ASSEMBLED CONNECTOR INTERFACE IS DESIGNED IN ACCORDANCE WITH MIL-STD-348.
- MATERIAL: BODY & HEX COUPLING NUT- CORROSION RESISTANT STEEL PER ASTM A582.
CONTACT - BERYLLIUM COPPER PER ASTM B196.
INSULATOR - TEFLON PER ASTM D1710
GASKET - SILICONE RUBBER PER ZZ-R-765
SHRINK SLEEVE - SHRINKABLE POLYOLEFIN PER MIL-I-23053/5
FERRULE - D.H.P. COPPER CDA ALLOY 122
- FINISHES: BODY & HEX COUPLING NUT - PASSIVATE PER QQ-P-35
CONTACT - GOLD PLATE PER MIL-G-45204
FERRULE - SULFAMATE NICKEL PLATE
- CONTACT PIN IS SOLDERED.
- CRIMP THE FERRULE TO .128" HEX.

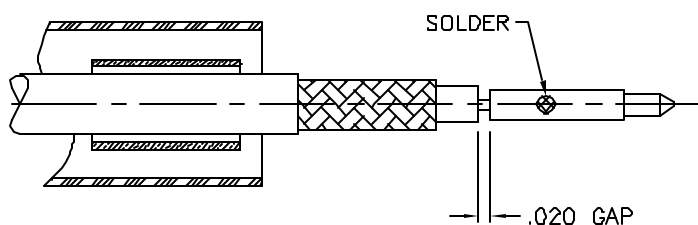
MATL:	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES MACHINED SURFACES FINISH N/A RMS MAX. REMOVE ALL BURRS .005 MAX. BREAK MACHINE CORNERS .005 MAX. FILLET R. TOLERANCES ON DECIMALS .XX ± .03 .XXX ± .005 ANGLES ± 1° FRACTIONS ± 1/32	DFTM. J. C. L.	TIMES MICROWAVE SYSTEMS		
USED ON: A		DATE 8/20/03	TC-100-SM SMA MALE FOR LMR100 CABLE		
		CHKD. J. C. L.			
SCALE: N/A	DWG. SIZE A	DATE 8/20/03	1 of 1 SD3190-1551		
		APPD. J. C. L.			
DO NOT SCALE DRAWING	CODE IDENT 68999	DATE 8/20/03	SH 1 of 1	SD3190-1551	REV B

INSTALLATION INSTRUCTIONS TC-100-SM (TIMES 3190-1551) (Cable Types: LMR-100)

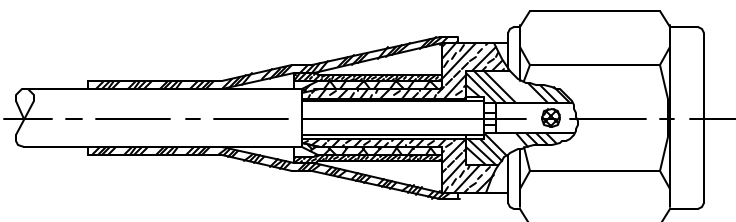


- 1) A. Trim cable to dimensions shown. Slide shrink sleeve & crimp sleeve back onto cable.

B. Remove any residual plastic from the center conductor and deburr center conductor using a fine file.



- 2) A. Slide contact onto center conductor leaving a .020 gap as shown and solder to center conductor. Use minimal heat to minimize melting of foam dielectric. Inspect to be sure aluminum foil is not touching center contact.



- 3) A. Insert cable into connector until fully seated, with all braid wires on the outside of connector body and aluminum tape inside connector body.
- B. Slide crimp sleeve forward and crimp as close as possible to body using a .128" hex die. Use Times HX-4 crimp tool or equivalent. Do not crimp rear of crimp sleeve.
- C. Heat shrink weather seal over rear of connector body and down onto cable jacket using hot air gun.

Low Loss Flexible RG174 Type Coax Cable Double Shielded with Black LSZH Jacket

RF Cables Technical Data Sheet

PE-C100-LSZH

Configuration

Low Loss Flexible Cable
2 Number of Shields

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5	GHz
Cutoff Frequency		41		GHz
Impedance		50		Ohms
Velocity of Propagation		66		%
Shielding Effectiveness	90			dB
Operating Voltage (AC)			500	Vrms
Jacket Spark			2,000	Vrms
Nominal Capacitance		30.8 [101.05]		pF/ft [pF/m]
Nominal Inductance		0.077 [0.25]		uH/ft [uH/m]

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	30	50	150	220	450	MHz
Attenuation, Typ	3.9	5.1	8.9	10.9	15.8	dB/100ft
	12.8	16.73	29.2	35.76	51.84	dB/100m
Input Power (CW), Max	230	180	100	80	60	Watts

Description	F6	F7	F8	F9	F10	Units
Frequency	0.7	1.5	1.8	2.5	5	GHz
Attenuation, Typ	20.1	30.5	33.5	40.5	60	dB/100ft
	65.94	100.07	109.91	132.87	196.85	dB/100m
Input Power (CW), Max	40	40	40	40	10	Watts

Mechanical Specifications

Diameter 0.109 in [2.77 mm]
Weight 0.014 lbs/ft [0.02 Kg/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 Flexible RG174 Type Coax Cable Double Shielded with Black LSZH Jacket PE-C100-LSZH](#)

Low Loss Flexible RG174 Type Coax Cable Double Shielded with Black LSZH Jacket

RF Cables Technical Data Sheet

PE-C100-LSZH

Min. Bend Radius (Installation)	0.25 in [6.35 mm]
Min. Bend Radius (Repeated)	1 in [25.4 mm]
Bending Moment	0.1 lbs/ft [0.15 Kg/m]
Tensile Strength	15 lbs [6.8 Kg]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper Clad Steel, 1 Strands	0.018in [0.46 mm]
Dielectric	PE	0.059 in [1.5 mm]
First Shield	Aluminum Tape	
Second Shield	Tinned Copper Braid	
Jacket	LSZH, Black	0.109 in [2.77 mm]

Environmental Specifications

Temperature

Operating Range	-40 to 85 deg C
Storage Range	-40 to 85 deg C

Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant	
REACH Compliant	12/17/2014

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss Flexible RG174 Type Coax Cable Double Shielded with Black LSZH Jacket PE-C100-LSZH](#)

Low Loss Flexible RG174 Type Coax Cable Double Shielded with Black LSZH Jacket

RF Cables Technical Data Sheet

PE-C100-LSZH

Plotted and Other Data

Notes:

Low Loss Flexible RG174 Type Coax Cable Double Shielded with Black LSZH Jacket 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.

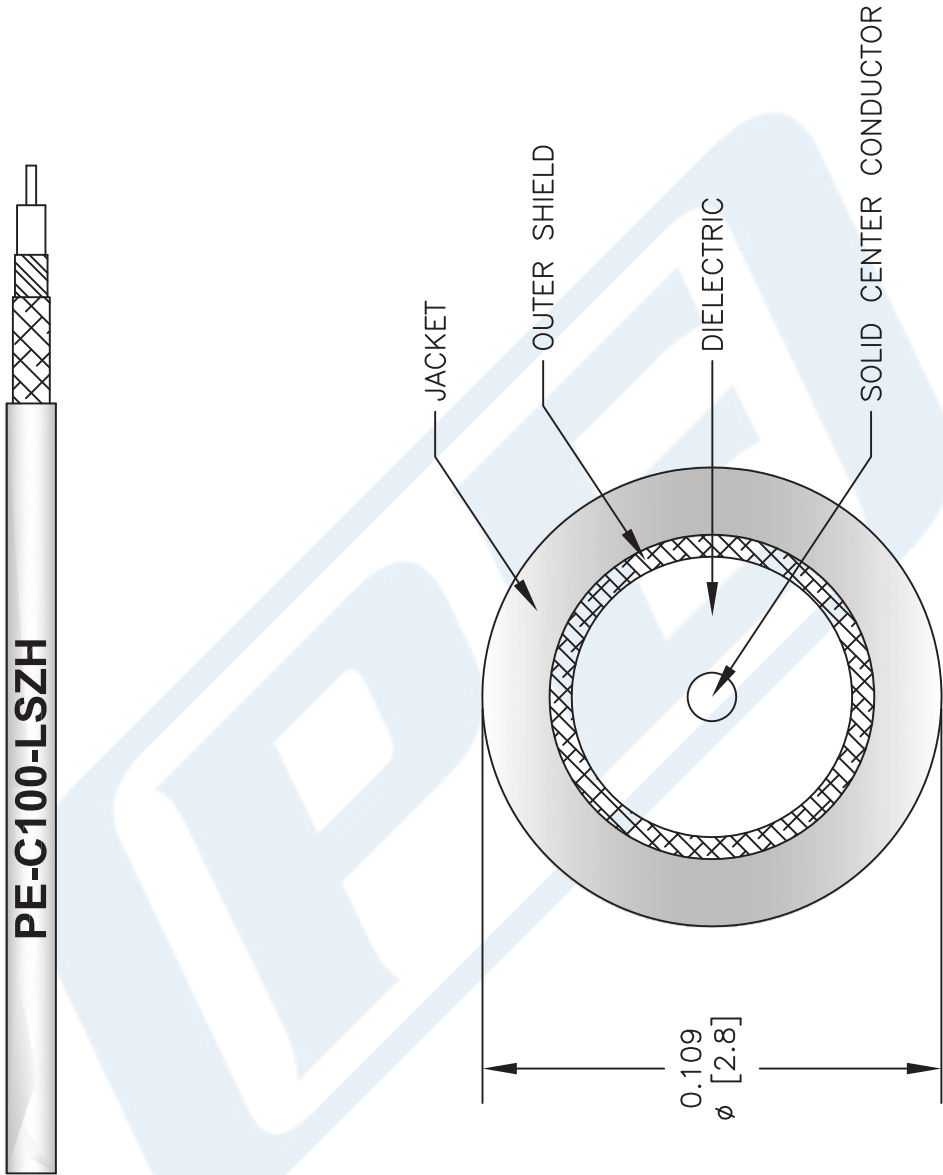
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss Flexible RG174 Type Coax Cable Double Shielded with Black LSZH Jacket PE-C100-LSZH](#)

URL: <http://www.pasternack.com/50-ohm-low-loss-lszh-jacket-aluminum-tape-over-tinned-copper-braid-outer-conductor-double-shielded-pe-c100-lszh-p.aspx>

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PE-C100-LSZH CAD Drawing

Low Loss Flexible RG174 Type Coax Cable Double Shielded with Black LSZH Jacket



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DWG TITLE
PE-C100-LSZH

FSCM NO. 53919

CAD FILE 031313

SCALE N/A

SIZE A

2233



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