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20KV Male Connector Crimp/Solder Attachment for RG213

RF Connectors
Technical Data Sheet

PE45841

Configuration

- 20KV Male Connector
- MIL-STD-202
- Straight Body Geometry
- Connector Interface Types: RG213

Features

- Gold over nickel over copper Plated Brass Contact
- High Density PE Insulator

Applications

- General Purpose Test
- Custom Cable Assemblies
- High Voltage Pulsed RF Transmission

Description

Pasternack's PE45841 20kV high voltage coaxial connector is part of our series of High Voltage coaxial interconnects. This high voltage connector minimizes the risk of electric shock due to its recessed contact design. Both cable connectors and bulkhead receptacles have recessed contacts to withstand unmated high voltage ratings. Additionally, the front mount receptacles in this family of connectors are hermetically sealed. Our 20 kV connectors operate up to maximum frequency of 300 MHz and offers good insulation resistance of 1000MOhm.These connectors allow designers to create external connections on product enclosures in a variety of high voltage transmission applications.

Our 20kV coaxial connector PE45841 has 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
Operating Voltage (DC)			20,000	Vdc
Test Voltage (DC)			30,000	Vdc
Inner Conductor DC Resistance			3	mOhms
Outer Conductor DC Resistance			2	mOhms
Insulation Resistance	1,000			MOhms

Mechanical Specifications

Size

Length	3.90 in [99.06 mm]
Width	0.75 in [19.05 mm]
Height	0.75 in [19.05 mm]
Weight	0.02 lbs [8.16 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 20KV Male Connector Crimp/Solder Attachment for RG213 PE45841

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PE45841

Material Specifications

Description	Material	Plating
Contact	Brass	Gold over nickel over copper
Insulation	PE (HD)	
Body	Brass	Tinned Copper
Coupling Nut	Brass	Tinned copper
Gasket	Silicone	
Crimp Sleeve	Brass	Tinned Copper
Washer	Brass	Tinned Copper

Environmental Specifications

Temperature

Operating Range	-55 to +85 deg C
Salt Spray	MIL-STD-202, Method 101, Condiiton B

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

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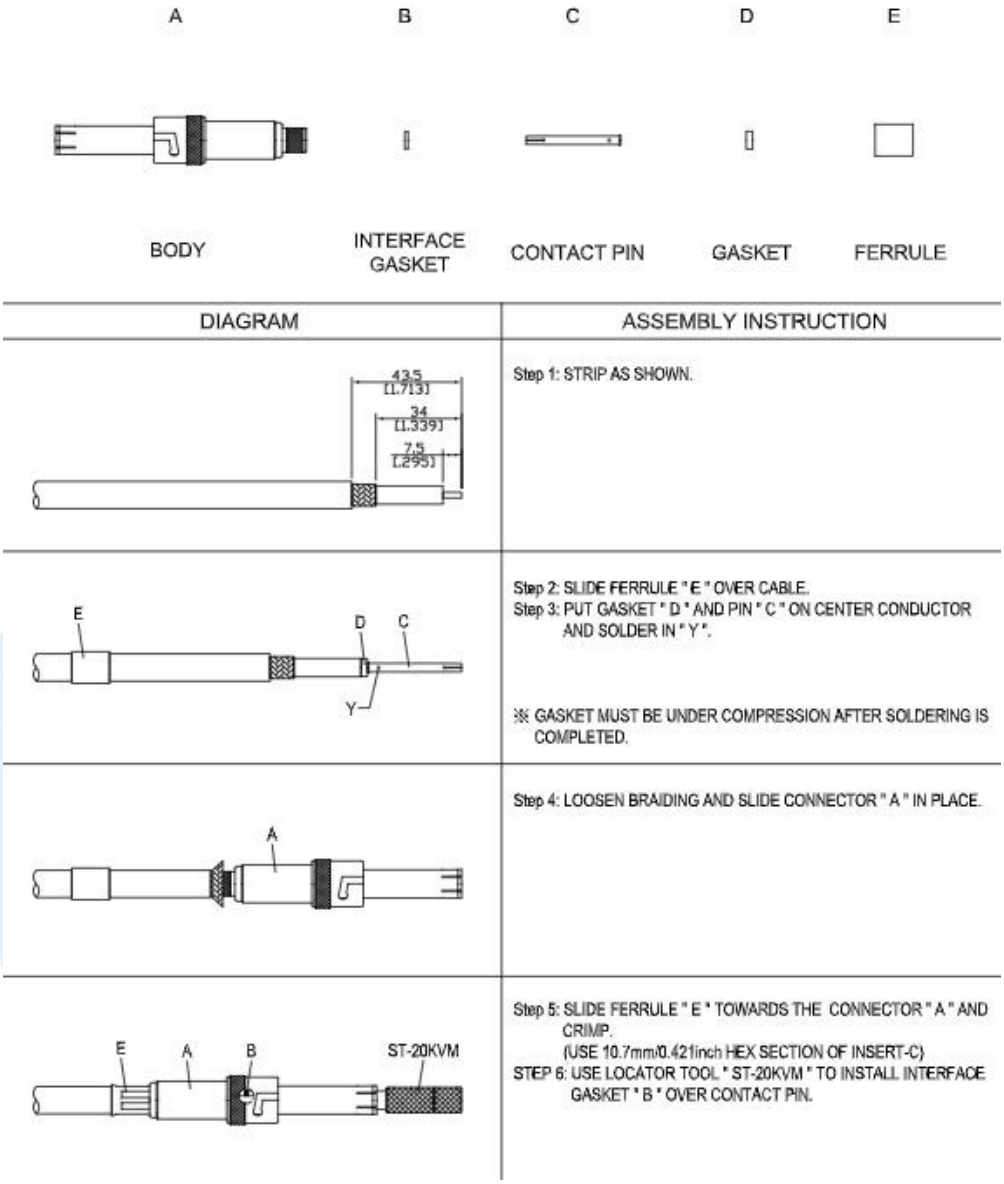


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Assembly Instruction



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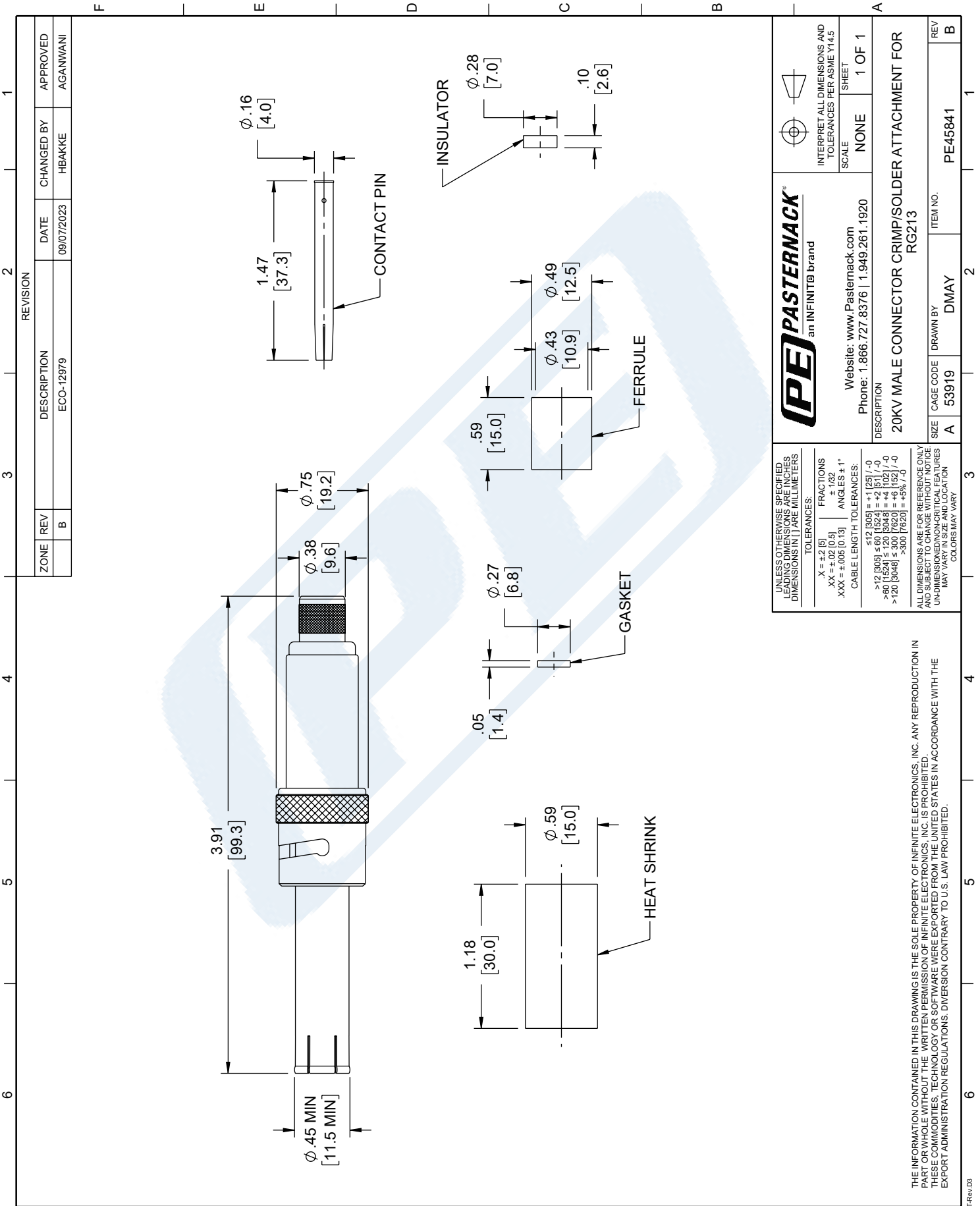
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PE45841 CAD Drawing

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Washer	Brass	Tinned Copper

Environmental Specifications

Temperature

Operating Range	-55 to +85 deg C
Salt Spray	MIL-STD-202, Method 101, Condiiton B

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

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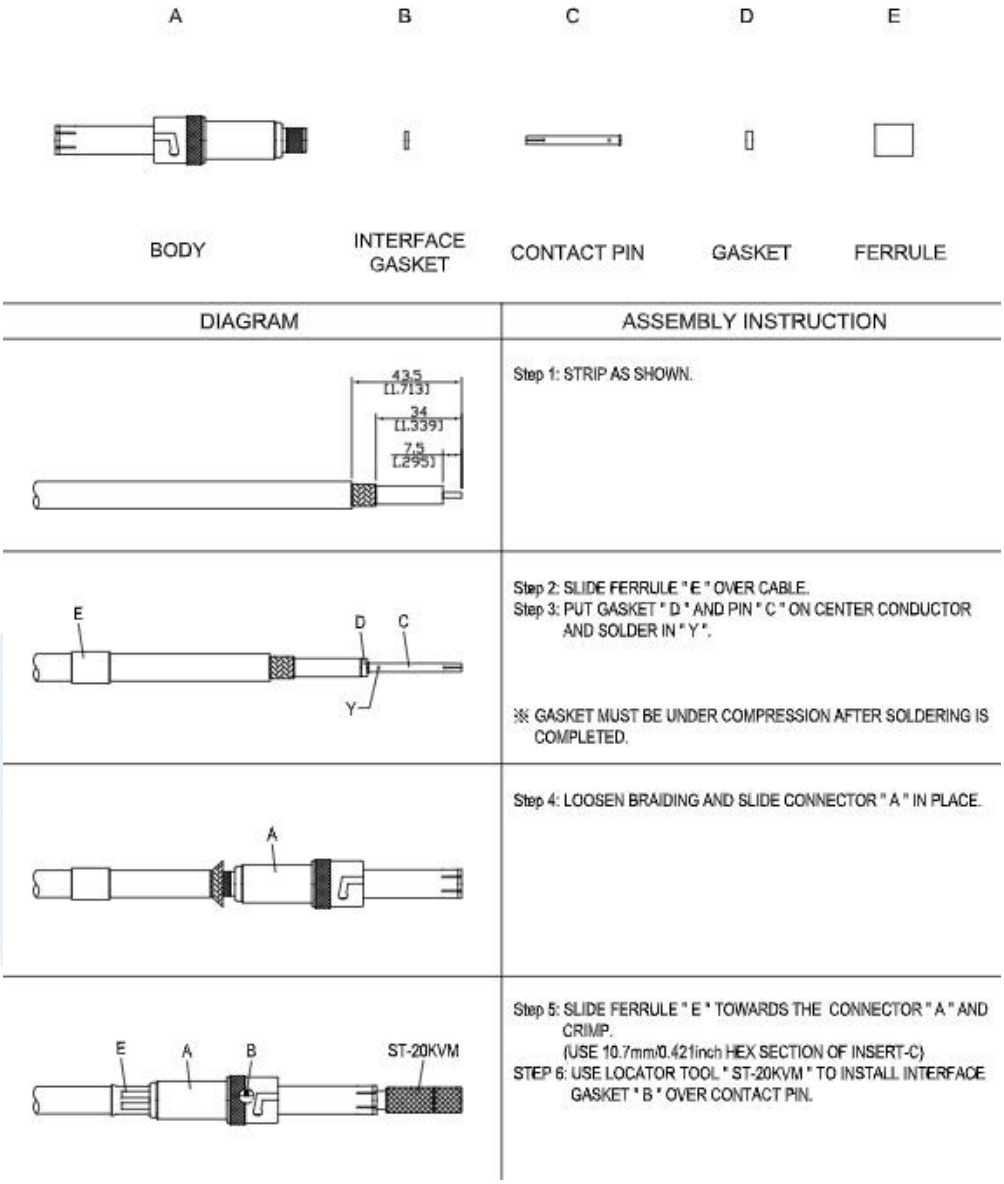


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RF Connectors
Technical Data Sheet

PE45841

Assembly Instruction



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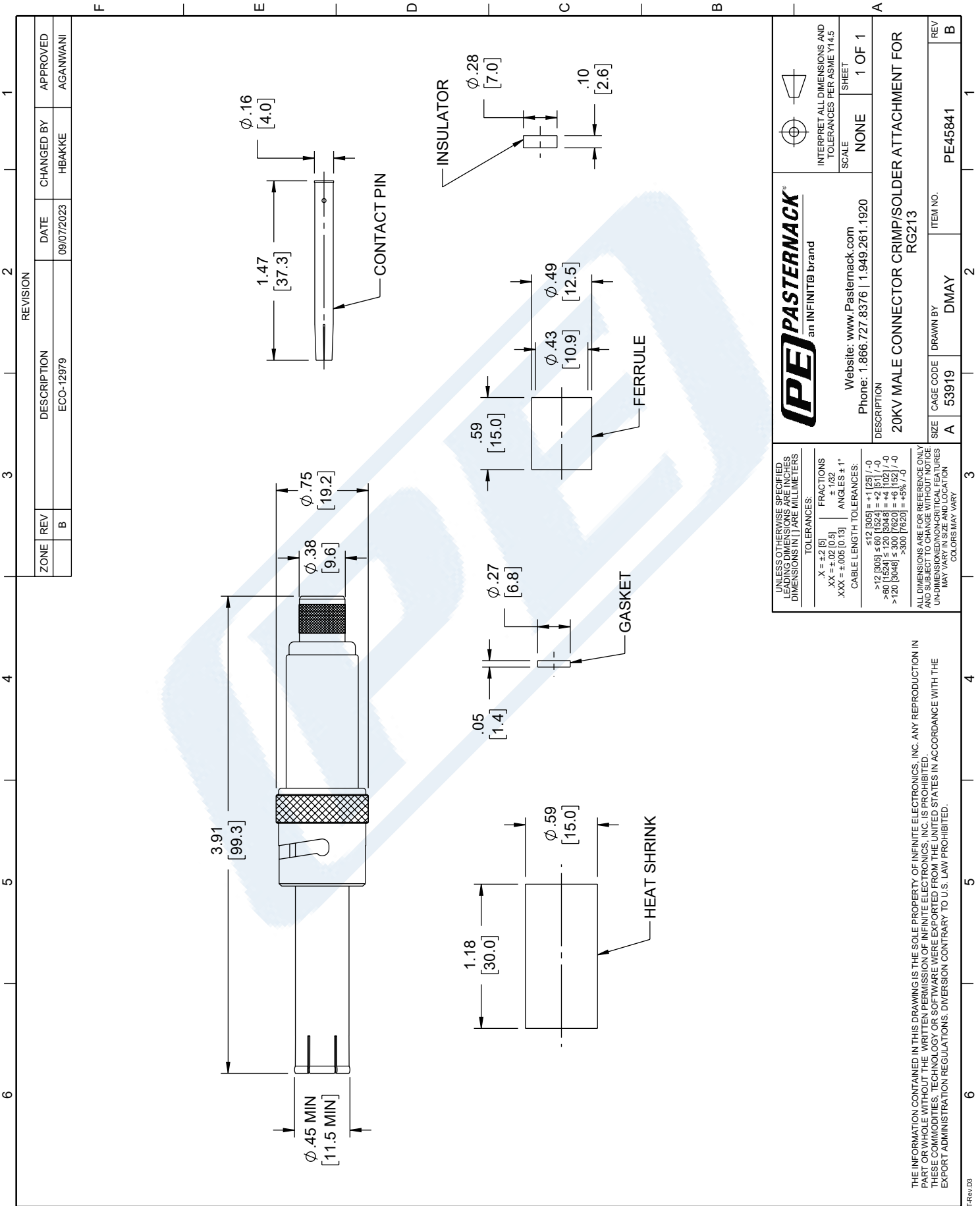
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PE45841 CAD Drawing

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20kV Flexible RG213 High Voltage Coax Cable Single Shielded with Red PUR Jacket

RF Cables
Technical Data Sheet

RG213HV

Configuration

- 1 Shield(s)

Features

- Voltage rating up to 20kV
- Low Signal Attenuation
- Robust Insulation
- Flexible and Durable

Applications

- Semiconductor Testing
- Radar Systems
- Broadcast Stations
- Research and Development
- Military and Defense

Description

RG213HV part number from Pasternack is a coax cable that is flexible. Pasternack's flexible coax RF cable has an impedance of 50 Ohm and PE dielectric. Our RG213HV coax cable is constructed with a 0.394-inch jacket made of red polyurethane. Our coax cable from Pasternack has a maximum frequency of 1000 MHz. This red colored coax cable has a 0.317-inch shield layer of tinned copper braid. Additional specifications for this RG213HV single-shielded RF coaxial cable are on our downloadable PDF datasheet above. Our RG213HV coax cable has a maximum operating temperature of 70 degrees C. This 20kV red-colored flexible RF cable with a 50 Ohm impedance has a typical insertion loss/maximum attenuation of 0.09 dB/ft at a frequency of 1000 MHz. The RG213HV flexible RF cable has a stranded copper center conductor with bare conductor plating.

RG213 high-voltage RF cable is specifically designed for radio frequency applications that require handling high levels of voltage. With a rated voltage of 20kV, this cable ensures safe and efficient transmission of high-voltage RF signals. It is commonly used in industrial applications where reliable RF signal distribution is essential. The RG213 cable is built with durable insulation materials and conductors to minimize signal loss and maintain excellent performance. Adhering to safety guidelines and proper installation practices are essential when working with this cable to maintain electrical safety and preserve signal integrity. Pasternack RG213HV coax cables are part of over 40,000 RF, microwave, and millimeter wave components. These flexible RF cables and our other RF parts are available for same-day shipping worldwide. Custom RF cable assemblies using RG213HV other coax can be built and shipped the same business day as well.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		1,000	MHz
Impedance		50		Ohms
Operating Voltage (DC)			20,000	Vdc
Test Voltage (Conductor/Braid)		41		kVoc/1min
Test Voltage (Spark Test, Core)		15		kVac
Test Voltage (Spark Test, Jacket)		5		kVac
Test Voltage (Type Test)		32		kVoc

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 20kV Flexible RG213 High Voltage Coax Cable Single Shielded with Red PUR Jacket RG213HV

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20kV Flexible RG213 High Voltage Coax Cable Single Shielded with Red PUR Jacket

RF Cables
Technical Data Sheet

RG213HV

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	50	100	400	1,000		MHz
Attenuation, Typ	1.2	2.3	4.8	9		dB/100ft
	3.94	7.55	15.75	29.53		dB/100m

Mechanical Specifications

Diameter	0.394 in [10.01 mm}
Weight	0.097 lbs/ft [0.14 kg/m]
Min. Bend Radius (Repeated)	1.969 in [50.01 mm]

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper, Bare, 7 Strands	0.089 in [2.26 mm]
Conductor Type	Stranded	
Dielectric	PE	0.286 in [7.26 mm]
First Shield	Tinned Copper Braid	0.317 in [8.05 mm]
Jacket	Polyurethane, Red	0.394 in [10.01 mm]

Environmental Specifications

Temperature

Operating Range	-30 to +70 deg C

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20kV Flexible RG213 High Voltage Coax Cable Single Shielded with Red PUR Jacket

RF Cables
Technical Data Sheet

RG213HV

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

- 1) All tests preformed in accordacne with MIL-DTL-17 (current issue).
  2) All materials are RoHS and REACH compliant.

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URL: https://www.pasternack.com/flexible-rg213-polyurethane-jacket-tinned-copper-braid-outer-conductor-single-shielded-rg213hv-p.aspx

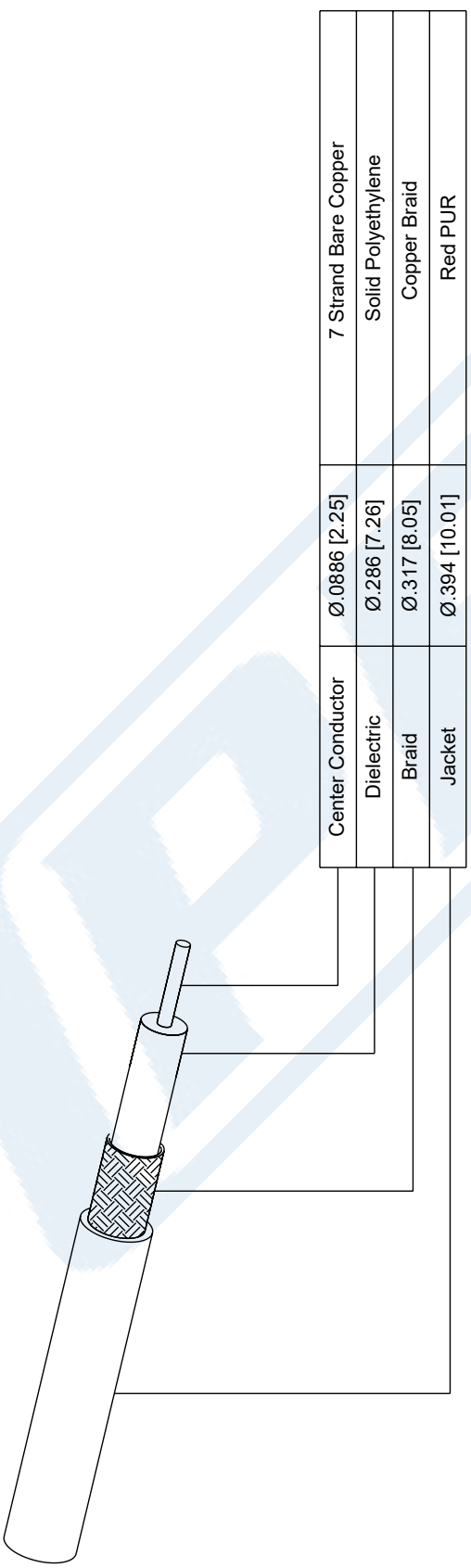
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RG213HV CAD Drawing

20kV Flexible RG213 High Voltage Coax Cable Single Shielded with Red PUR Jacket



	Center Conductor	Dielectric	Braid	Jacket
	Ø.0886 [2.25]	Ø.286 [7.26]	Ø.317 [8.05]	Ø.394 [10.01]
	7 Strand Bare Copper	Solid Polyethylene	Copper Braid	Red PUR

ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	05/05/2023	PSRINIVAS	AGANWANI

REVISION

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

TOLERANCES:

X = ± .2 [5] | FRACTIONS ± 1/32
.XX = ± .02 [.5] | ANGLES ± 1°
.XXX = ± .005 [.13]

CABLE LENGTH TOLERANCES:

≤12 [305] = +1 [25] / -0
>12 [305] ≤ 60 [1524] = +2 [51] / -0
>60 [1524] ≤ 120 [3048] = +4 [102] / -0
>120 [3048] ≤ 300 [7620] = +6 [152] / -0
>300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE | SHEET: 1 OF 1

DESCRIPTION: Flexible RG213 High Voltage Coax Cable Single Shielded with Red PUR Jacket

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	PSRINIVAS	RG213HV	A

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