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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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## RF Connectors
## Technical Data Sheet

**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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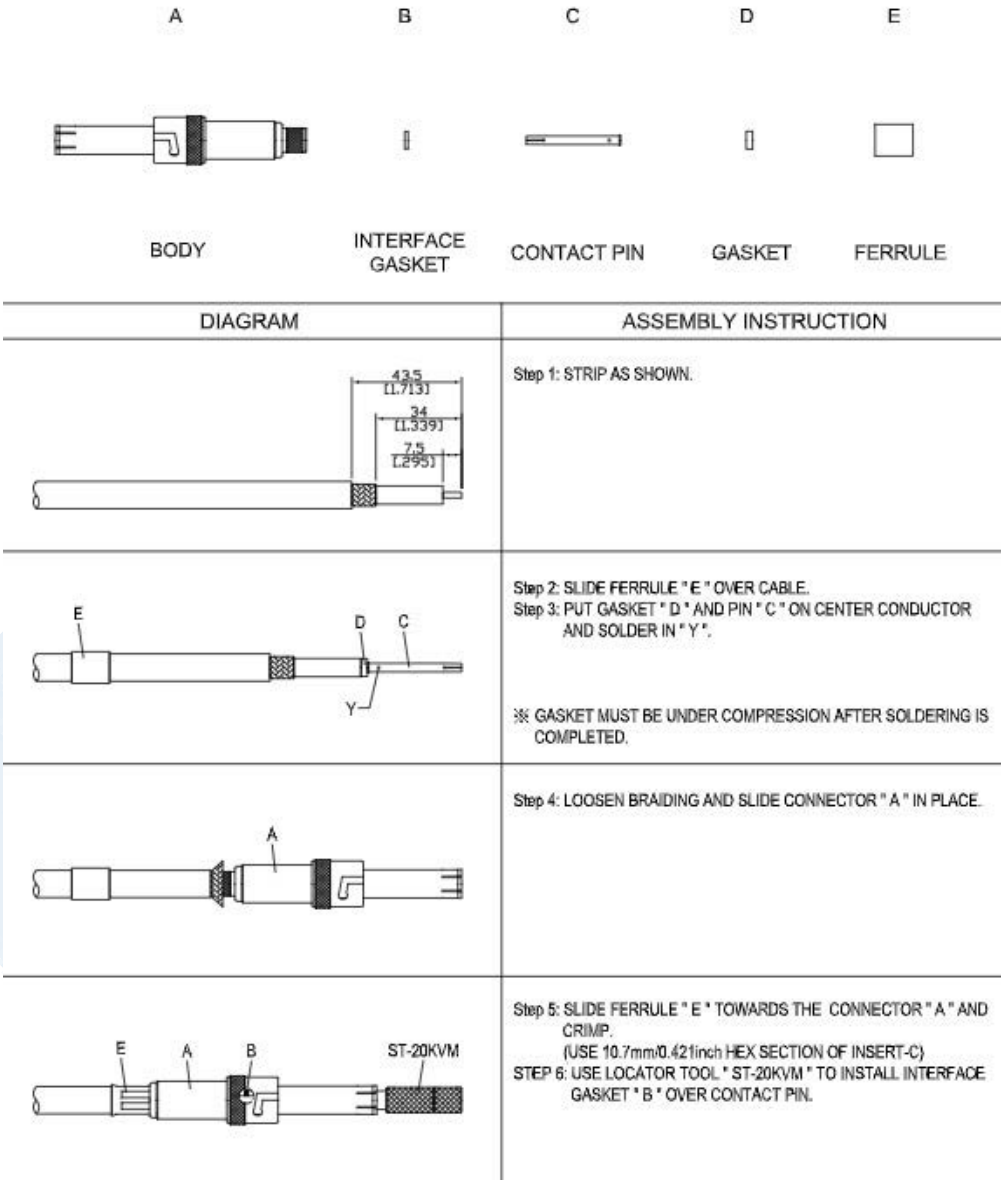


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## RF Connectors
## Technical Data Sheet

**PE45841**

**Assembly Instruction**




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## RF Connectors
## Technical Data Sheet

**PE45841**

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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

URL: https://www.pasternack.com/20KV-male-rg213-connector-pe45841-p.aspx

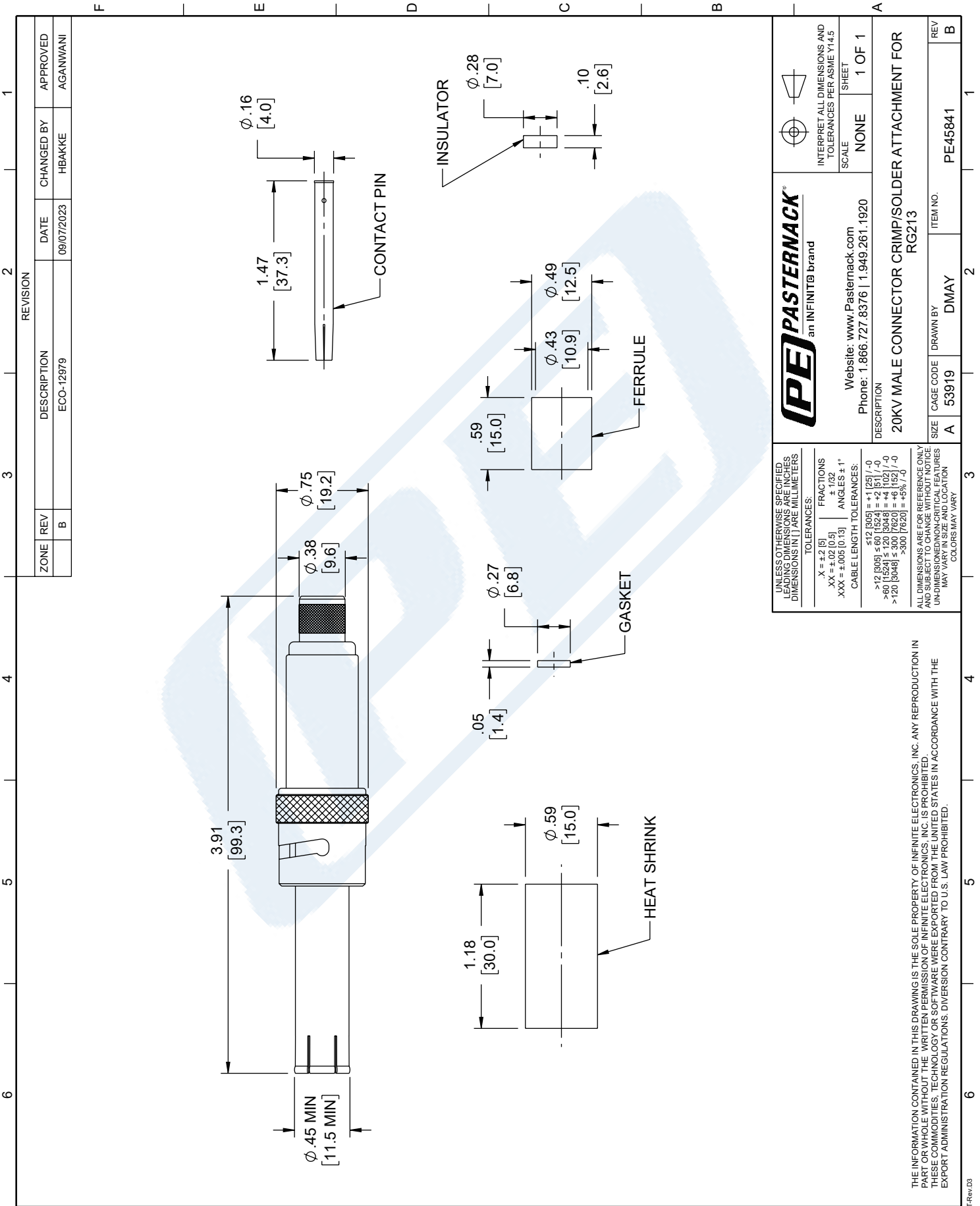
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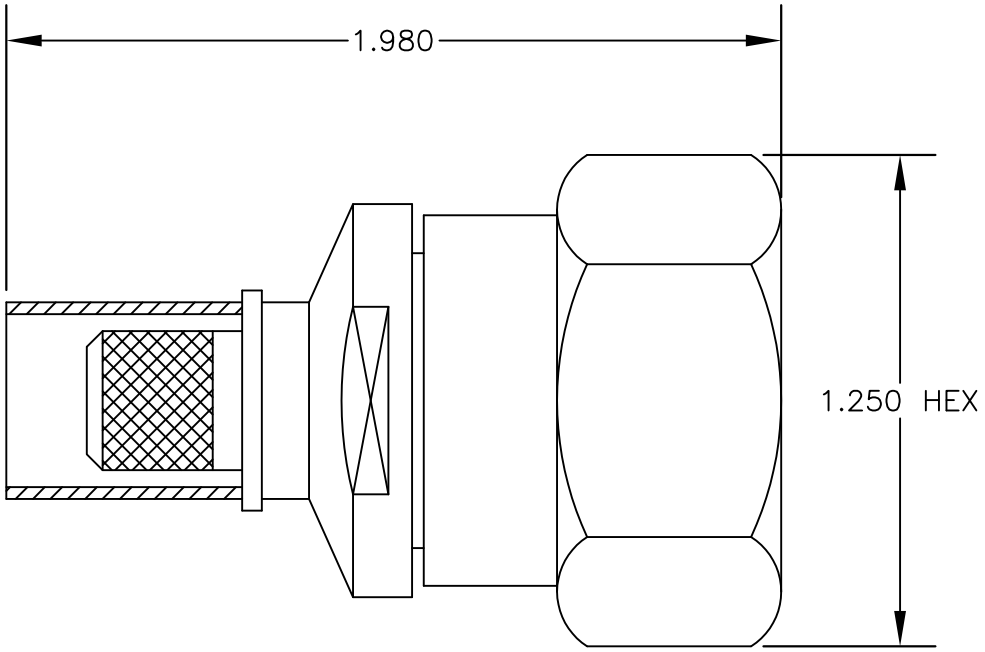
# PE45841 CAD Drawing

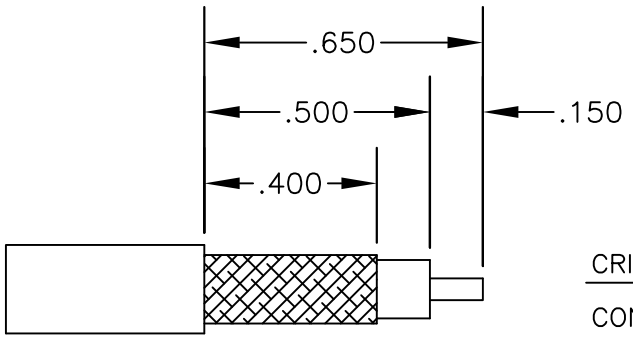
20KV Male Connector Crimp/Solder Attachment for RG213




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| MATERIALS | |
|---|---|
| BODY | BRASS NICKEL PLATED |
| CONTACT | SILVER PLATED |
| INSULATOR | PTFE |
| | |




STRIPPING DIMENSIONS

CRIMP SIZES REQUIRED

CONTACT: .100" HEX CRIMP TOOL
FERRULE: .429" HEX CRIMP TOOL

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ESTABLISHED 1972

COAXIAL & FIBER OPTICS

| DWG TITLE | DES. |
|---|---|
| PE4570 | 7/16" MALE, CRIMP ATTACHMENT FOR RG8 & RG213 |

| SIZE A | FSCM NO. 53919 | CAD FILE 052302 | SCALE N/A | | 127 |
|---|---|---|---|---|---|

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.

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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

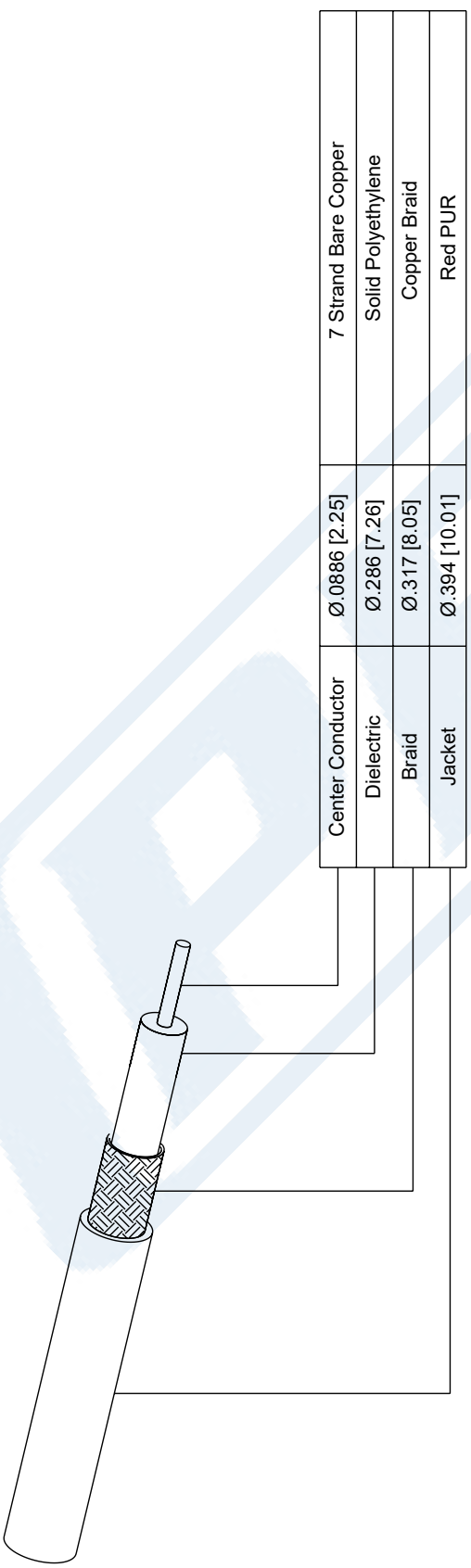
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# RG213HV CAD Drawing

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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