



SHV Jack Bulkhead to SHV Jack Bulkhead Cable Using RG142 Coax

RF Cable Assemblies Technical Data Sheet

PE3C9503

Configuration

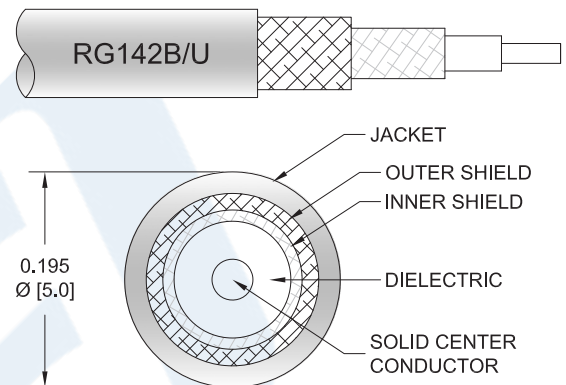
- Connector 1: SHV Jack Bulkhead
- Connector 2: SHV Jack Bulkhead
- Cable Type: RG142

Features

- Recessed contacts prevent shock hazards
- Max Frequency 300 MHz
- Shielding Effectivity > 45 dB
- 66% Phase Velocity
- PVC Jacket
- Dielectric withstanding of 5kV
- Shock, Moisture & Corrosion resistant

Applications

- General Purpose
- Laboratory Use
- Nuclear Instrumentation
- High Voltage Electrical Transmission
- Semiconductor Test



Description

Pasternack's PE3C9503 SHV jack bulkhead to SHV jack bulkhead cable using RG142 coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications such as nuclear instrumentation and semiconductor testing, where transmission of high voltage signals over coax is required. This Pasternack SHV to SHV cable assembly has a jack to jack gender configuration with 50 ohm flexible RG142 coax. The PE3C9503 SHV jack to SHV jack cable assembly operates to 300 MHz. Our RF cable assembly with SHV bulkhead interface 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. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness. Safety High Voltage (SHV) connectors are designed to allow signal transmission with high voltage ratings without safety risk for the operators. Both the pin and socket contacts are securely recessed inside the insulation to guard against potential electrical shock when live unmated connectors are handled.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SHV Jack Bulkhead to SHV Jack Bulkhead Cable Using RG142 Coax PE3C9503](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		300	MHz
Velocity of Propagation		70		%
Capacitance		29.4 [96.46]		pF/ft [pF/m]
Operating Voltage (AC)			1,900	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	100	250	300			MHz
Insertion Loss (Typ.)	0.039	0.054	0.059			dB/ft
	0.13	0.18	0.19			dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

Weight 0.31 lbs [140.61 g]

Cable

Cable Type RG142
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper Clad Steel, Silver
 Dielectric Type PTFE
 Number of Shields 2
 Shield Layer 1 Silver Plated Copper Braid
 Shield Layer 2 Silver Plated Copper Braid
 Jacket Material FEP, Tan
 Jacket Diameter 0.195 in [4.95 mm]

Repeated Minimum Bend Radius 1 in [25.4 mm]

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Connectors

Description	Connector 1	Connector 2
Type	SHV Jack Bulkhead	SHV Jack Bulkhead
Specification	MIL-STD-348B	MIL-STD-348B
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold over Nickel over copper	Brass, Gold over Nickel over copper
Dielectric Type	Teflon	Teflon
Body Material and Plating	Brass, Tinned Copper	Brass, Tinned Copper
Coupling Nut Material and Plating	Brass, Tinned Copper	Brass, Tinned Copper
Hex Size	16-Jul Inch	16-Jul Inch

Environmental Specifications

Temperature

Operating Range -55 to +165 deg C

Ingress Protection (IP) Rating IP67 Rated

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

Plotted and Other Data

Notes:

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RF Cable Assemblies Technical Data Sheet

PE3C9503

How to Order

Part Number Configuration:

PE3C9503

- **xx**

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: PE3C9503-12 = 12 inches long cable
PE3C9503-100cm = 100 cm long cable

SHV Jack Bulkhead to SHV Jack Bulkhead Cable Using RG142 Coax 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.

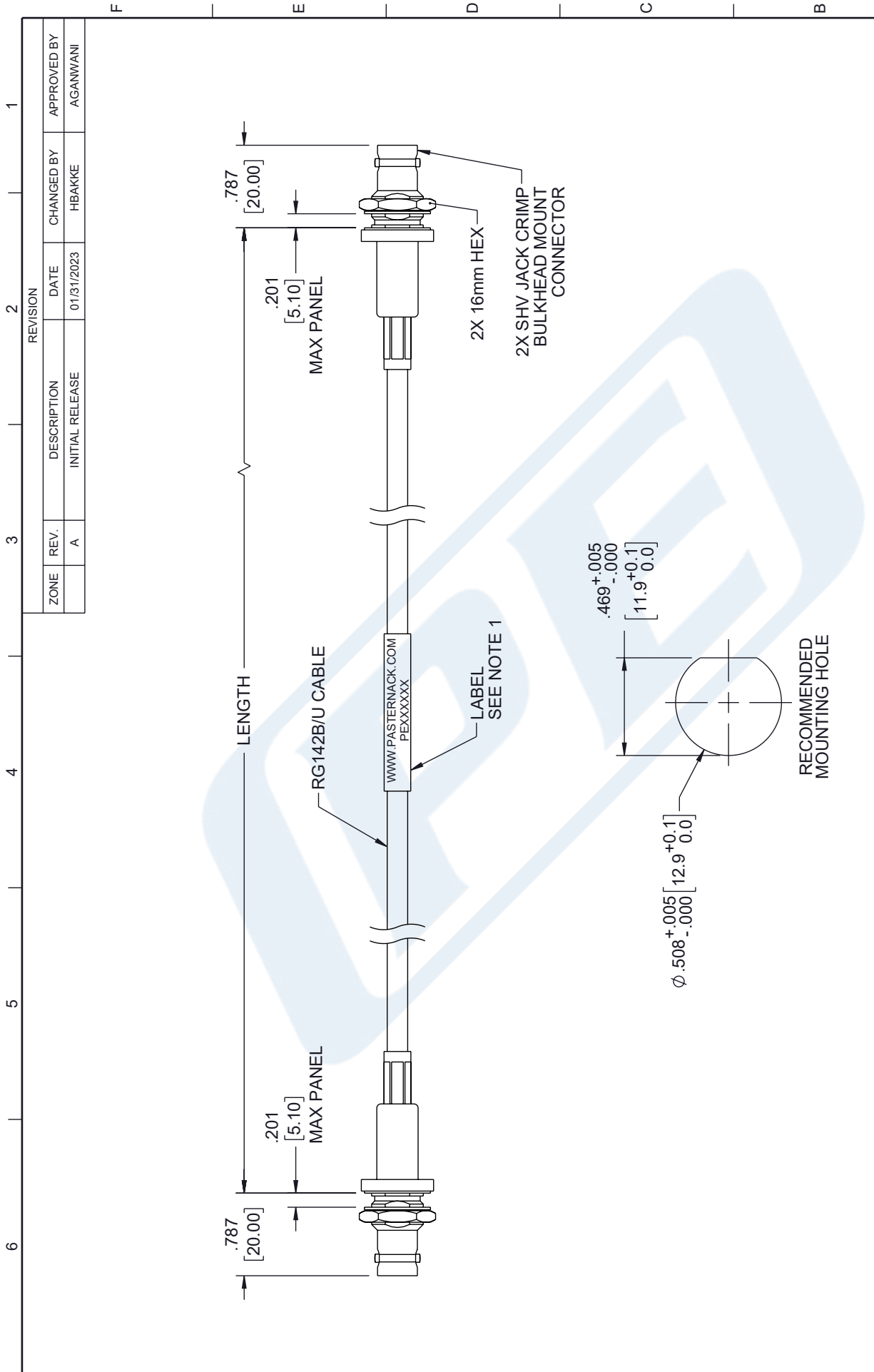
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URL: <https://www.pasternack.com/shv-jack-bulkhead-to-shv-jack-bulkhead-cable-using-rg142-pe3c9503-p.aspx>

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.

PE3C9503 CAD Drawing

SHV Jack Bulkhead to SHV Jack Bulkhead Cable Using RG142 Coax



REVISION		DATE	CHANGED BY	APPROVED BY
ZONE	REV.	DESCRIPTION	INITIAL RELEASE	
	A			AGANWANI

PE PASTERNAK
an INFINITO brand

Website: www.Pasternack.com
Phone: 1.866.727.8376 | 1.949.261.1920

DESCRIPTION: SHV JACK CRIMP BULKHEADS, IP67 MATED TO SHV JACK CRIMP BULKHEADS, IP67 MATED, FOR RG142

SCALE: NONE SHEET: 1 OF 1

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

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

TOLERANCES:

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

CABLE LENGTH TOLERANCES:

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

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

NOTES:

- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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