



## 2.4mm Male to 2.4mm Male Cable Using RG405 Coax

### RF Cable Assemblies Technical Data Sheet

**PE3W10497**

#### Configuration

- Connector 1: 2.4mm Male
- Connector 2: 2.4mm Male
- Cable Type: RG405

#### Features

- Max Frequency 40 GHz
- Shielding Effectivity > -110 dB
- 69.5% Phase Velocity
- 500 Mating Cycles

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W10497 2.4mm male to 2.4mm male cable using RG405 coax is part of our full line of RF components available for same-day shipping. Pasternack's semi-rigid RF cable assemblies are ideal for high performance applications and can be formed, using proper tooling, to the routing pattern required. This Pasternack 2.4mm to 2.4mm cable assembly has a male to male gender configuration with 50 ohm semi-rigid RG405 coax. The PE3W10497 2.4mm male to 2.4mm male cable assembly operates to 40 GHz.

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: [2.4mm Male to 2.4mm Male Cable Using RG405 Coax PE3W10497](#)



## 2.4mm Male to 2.4mm Male Cable Using RG405 Coax

### RF Cable Assemblies Technical Data Sheet

**PE3W10497**

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
VSWR			1.4:1	
Velocity of Propagation		69.5		%
RF Shielding	-110			dB
Capacitance		29.4 [96.46]		pF/ft [pF/m]

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	2.5	5	10	20		GHz
Insertion Loss (Typ.)	0.31	0.47	0.8	1.2		dB/ft
	1.02	1.54	2.62	3.94		dB/m

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as  $0.04 \times \sqrt{\text{fGHz}}$  dB per 2.4mm Male connector.

#### Mechanical Specifications

##### Cable Assembly

Weight 1.013 lbs [459.49 g]

##### Cable

Cable Type RG405  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper Clad Steel, Silver  
 Dielectric Type PTFE  
 Number of Shields 1  
 Outer Conductor Material and Plating Copper

Repeated Minimum Bend Radius 0.05 in [1.27 mm]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4mm Male to 2.4mm Male Cable Using RG405 Coax PE3W10497](#)



2.4mm Male to 2.4mm Male Cable Using RG405 Coax

**RF Cable Assemblies Technical Data Sheet**

**PE3W10497**

**Connectors**

Description	Connector 1	Connector 2
Type	2.4mm Male	2.4mm Male
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	500
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Contact Plating Specification	MIL-G-45204	MIL-G-45204
Dielectric Type	PPO	PPO
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Plating Specification	ASTM-A380	ASTM-A380
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	ASTM-A380	ASTM-A380
Hex Size	5/16 inch	5/16 inch
Torque	8 in-lbs [0.9 Nm]	8 in-lbs [0.9 Nm]

**Environmental Specifications**

**Temperature**

Operating Range -55 to +100 deg C

**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: [2.4mm Male to 2.4mm Male Cable Using RG405 Coax PE3W10497](#)



## 2.4mm Male to 2.4mm Male Cable Using RG405 Coax

### RF Cable Assemblies Technical Data Sheet

**PE3W10497**

#### How to Order

Part Number Configuration:

**PE3W10497**

- **xx**

**uu**

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

Example: PE3W10497-12 = 12 inches long cable  
PE3W10497-100cm = 100 cm long cable

2.4mm Male to 2.4mm Male Cable Using RG405 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.

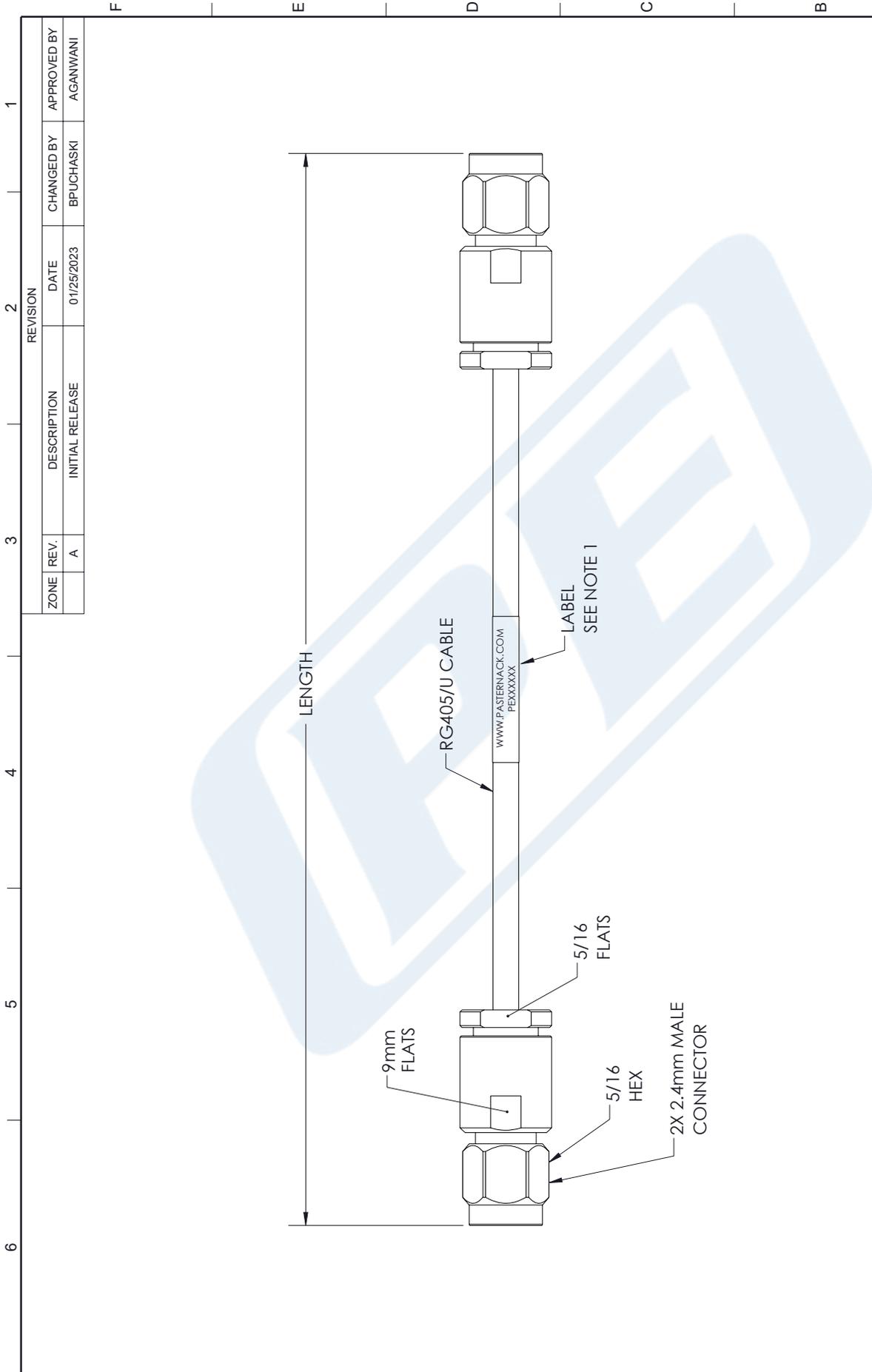
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4mm Male to 2.4mm Male Cable Using RG405 Coax PE3W10497](https://www.pasternack.com/2.4mm-male-to-2.4mm-male-cable-using-rg405-pe3w10497-p.aspx)

URL: <https://www.pasternack.com/2.4mm-male-to-2.4mm-male-cable-using-rg405-pe3w10497-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.

# PE3W10497 CAD Drawing

## 2.4mm Male to 2.4mm Male Cable Using RG405 Coax



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

**TOLERANCES:**

X = ±.2 [ .5 ]    FRACTIONS ± 1/32

.XX = ±.02 [ .1 ]    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.**

Website: [www.Pasternack.com](http://www.Pasternack.com)  
Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE

SHEET: 1 OF 1

**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

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

ZONE	REV.	DESCRIPTION	DATE	CHANGED BY	APPROVED BY
	A	INITIAL RELEASE	01/25/2023	BPUCHASKI	AGANWANI

REV	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	BPUCHASKI	PE3W10497	A