



## TNC Female Bulkhead Mount Hermetically Sealed Connector Clamp/Solder Attachment for RG174, RG188, RG316

### RF Connectors Technical Data Sheet

**PE1964**

#### Configuration

- TNC Female Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: RG174, RG188, RG316
- Bulkhead

#### Features

- Max. Operating Frequency 4.5 GHz
- Excellent VSWR of 1.2:1
- Gold Plated Phosphor Bronze Contact
- Hermetically Sealed

#### Applications

- General Purpose Test
- Rack and Panel Mount Applications
- Custom Cable Assemblies

#### Description

Pasternack's PE1964, TNC, Hermetically Sealed, Connector is part of our full line of RF components available for same-day shipping. Our TNC female connector operates up to a maximum frequency of 4.5 GHz and offers excellent VSWR of 1.2:1. This TNC bulkhead connector 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.

Our TNC female bulkhead connector PE1964 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		4.5	GHz
VSWR			1.2:1	
Insertion Loss			0.212	dB
Operating Voltage (AC)			500	Vrms
Impedance		50		Ohms
Dielectric Withstanding Voltage (AC)			1,500	Vrms
Inner Conductor DC Resistance			1.5	mOhms
Outer Conductor DC Resistance			1	mOhms
Insulation Resistance	5,000			MOhms

#### Mechanical Specifications

##### Size

Length  
Width

1.19 in [30.23 mm]  
0.69 in [17.53 mm]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [TNC Female Bulkhead Mount Hermetically Sealed Connector Clamp/Solder Attachment for RG174, RG188, RG316 PE1964](#)



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Height	0.69 in [17.53 mm]
Weight	0.01 lbs [3.63 g]
Mating Cycles	500 Cycles
Mating Torque	4.1 to 6.1 in-lbs [0.46 to 0.69 Nm]
Cable Retention Force	6.1 lbs 2.77 kg

#### Material Specifications

Description	Material	Plating
Contact	Phosphor Bronze	Gold
Insulation	PTFE	
Body	Brass	Tri-Metal

#### Environmental Specifications

##### Temperature

Operating Range

-65 to +165 deg C

Humidity

MIL-STD-202, Method106

Thermal Shock

MIL-STD-202, Method107, Condition B

Salt Spray

MIL-STD-202, Method101, Condition B

Hermetic Seal

1\*10-6cc/sec helium at 1atm

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

#### Plotted and Other Data

Notes:

TNC Female Bulkhead Mount Hermetically Sealed Connector Clamp/Solder Attachment for RG174, RG188, 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.

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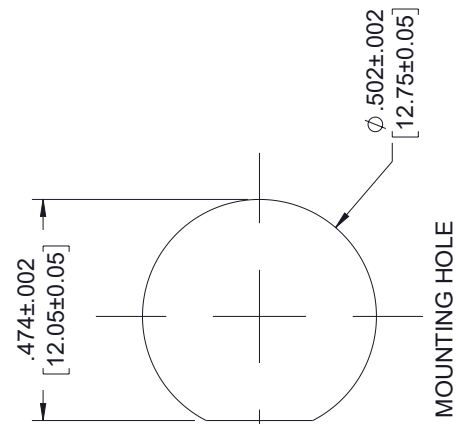
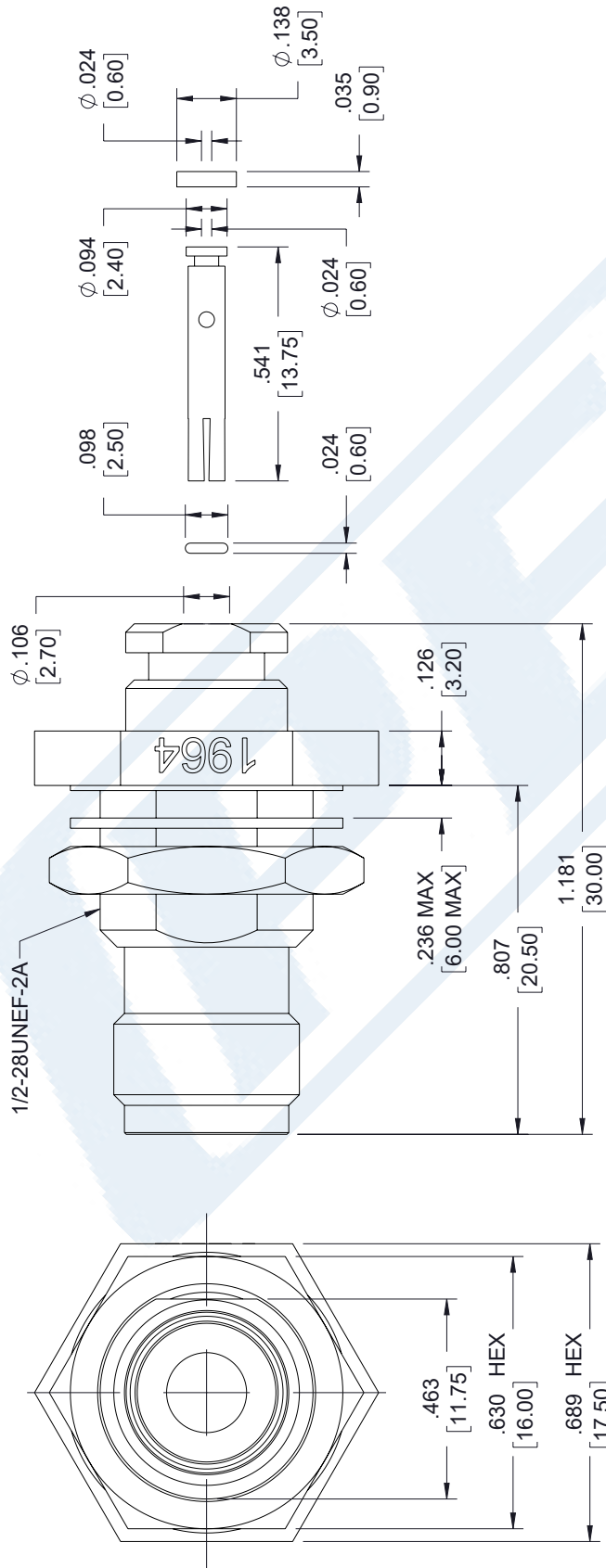
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# PE1964 CAD Drawing

TNC Female Bulkhead Mount Hermetically Sealed Connector  
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	12/13/2022	AGANWANI



THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

**PE PASTERNAK**  
an INFINITE brand

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Fax: 1.949.261.7451  
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E-mail: sales@pasternack.com

SIZE A

CAGE CODE 53919

DRAWN BY HBAKKE

ITEM NO. PE1964

REV A

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

TOLERANCES:

X = ± .2 [5.08] FRACTIONS  
XX = ± .02 [ .51 ] ± 1/32  
XXX = ± .005 [ .13 ] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

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

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

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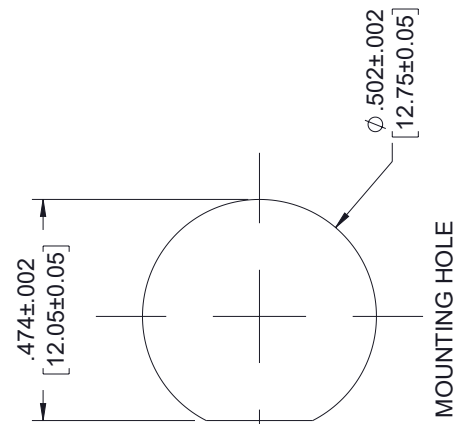
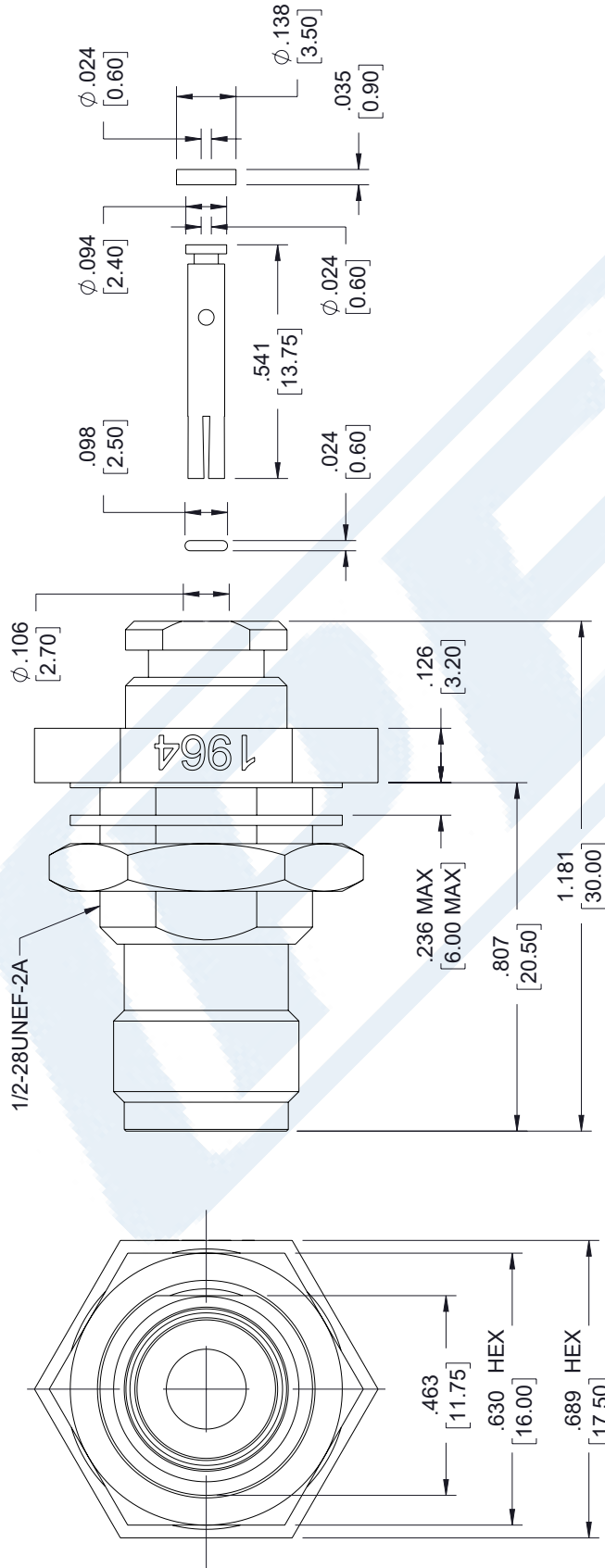
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300 [7620] < L =  $\pm 5\%$  L / -0

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## Low Loss Flexible LMR-100-FR Outdoor Rated Coax Cable Double Shielded with Black FRPE Jacket Fire Rated



### LMR-100A-FR



## Times Microwave Systems Connector Specification

### Configuration

- Low Loss, Outdoor Flexible Cable
- 2 Shield(s)

### Features

- CMR Riser Rated Coax
- Non-Halogen, Low Smoke FRPE Jacket
- Max Operating Frequency of 8 GHz
- Phase Velocity 66% VoP
- Max Operating Temperature +85°C
- Min Install Bend Radius of 0.25 inches

### Applications

- In-Building Riser Runs
- Short Antenna Installs
- RF Test Systems
- General Purpose RF Interconnect
- Laboratory Applications

### Description

LMR-100-FR Fire Rated version of the 100 series Low Loss Coax from Times Microwave is part of the large product offering by Pasternack of radio frequency coaxial cable types specifically stocked to be ready for same-day shipment. Pasternack LMR-100-FR coax cable is manufactured in a flexible design and has a 50 Ohm impedance. This low loss and CMR riser rated 50 Ohm coax cable LMR-100-FR is constructed with a 0.110 inch diameter and Black FRPE jacket.

LMR-100-FR flexible 50 Ohm coax cable with FRPE jacket is rated for a 8 GHz maximum operating frequency. This 50 Ohm 0.110 inch diameter and low loss fire rated coax cable is built with an aluminum double shield count and RF shielding of 90 dB. Times Microwave LMR-100-FR FRPE coax is constructed with PE dielectric and a maximum operating temperature of 85 degrees C. Pasternack's offering of LMR-100-FR coax cable provides specs for this wire on its RF coax cable LMR-100-FR datasheet.

LMR-100-FR cable is part of more than one million RF, microwave parts in stock at Pasternack. This Times Microwave low loss flexible LMR-100-FR coax cable is ready to buy and can be shipped worldwide. Pasternack also maintains a wide selection of other radio frequency coaxial cable types that ship same-day from our warehouse as with the rest of our other RF/microwave components.

\* LMR™ is a trademark of Times Microwave Systems.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		8	GHz
Impedance		50		Ohms
Velocity of Propagation		66		%
Time Delay		1.54 [5.05]		ns/ft [ns/m]
Shielding Effectiveness	90			dB
Dielectric Withstanding Voltage (DC)			500	Vdc
Jacket Spark			2,000	Vrms
Inner Conductor DC Resistance			81	Ohms/1000ft
Outer Conductor DC Resistance			9.5	Ohms/1000ft

## Low Loss Flexible LMR-100-FR Outdoor Rated Coax Cable Double Shielded with Black FRPE Jacket Fire Rated



### LMR-100A-FR

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Nominal Capacitance		30.8 [101.05]		pF/ft [pF/m]
Nominal Inductance		0.077 [0.25]		uH/ft [uH/m]
Input Power (Peak)			600	Watts

#### Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	50	150	220	450	900	MHz
Attenuation, Typ	5.1	8.9	10.9	15.8	22.8	dB/100ft
	16.73	29.2	35.76	51.84	74.8	dB/100m
Input Power (CW), Max	180	100	83	57	39	Watts

Description	F6	F7	F8	F9	F10	Units
Frequency	1.5	1.8	2	2.5	5.8	GHz
Attenuation, Typ	30.1	33.2	35.2	39.8	64.1	dB/100ft
	98.75	108.92	115.49	130.58	210.3	dB/100m
Input Power (CW), Max	29	27	25	22	13	Watts

#### Mechanical Specifications

Diameter	0.11 in [2.79 mm]
Weight	0.009 lbs/ft [0.01 kg/m]
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 [0.14 N-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, 1 Strand	0.018 in [0.46 mm]
Conductor Type	Solid	
Dielectric	PE	0.06 in [1.52 mm]
First Shield	Aluminum Tape	
Second Shield	Tinned Copper	
Jacket	FRPE, Black	0.11 in [2.79 mm]



## Low Loss Flexible LMR-100-FR Outdoor Rated Coax Cable Double Shielded with Black FRPE Jacket Fire Rated



### LMR-100A-FR

#### Environmental Specifications

##### Temperature

Operating Range	-40 to 85 deg C
Installation Range	-40 to 85 deg C
Storage Range	-70 to 85 deg C

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

#### Plotted and Other Data

Notes:

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URL: <https://www.pasternack.com/low-loss-flexible-lmr100fr-frpe-jacket-aluminum-tape-over-tinned-copper-outer-conductor-double-shielded-lmr-100a-fr-p.aspx>

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