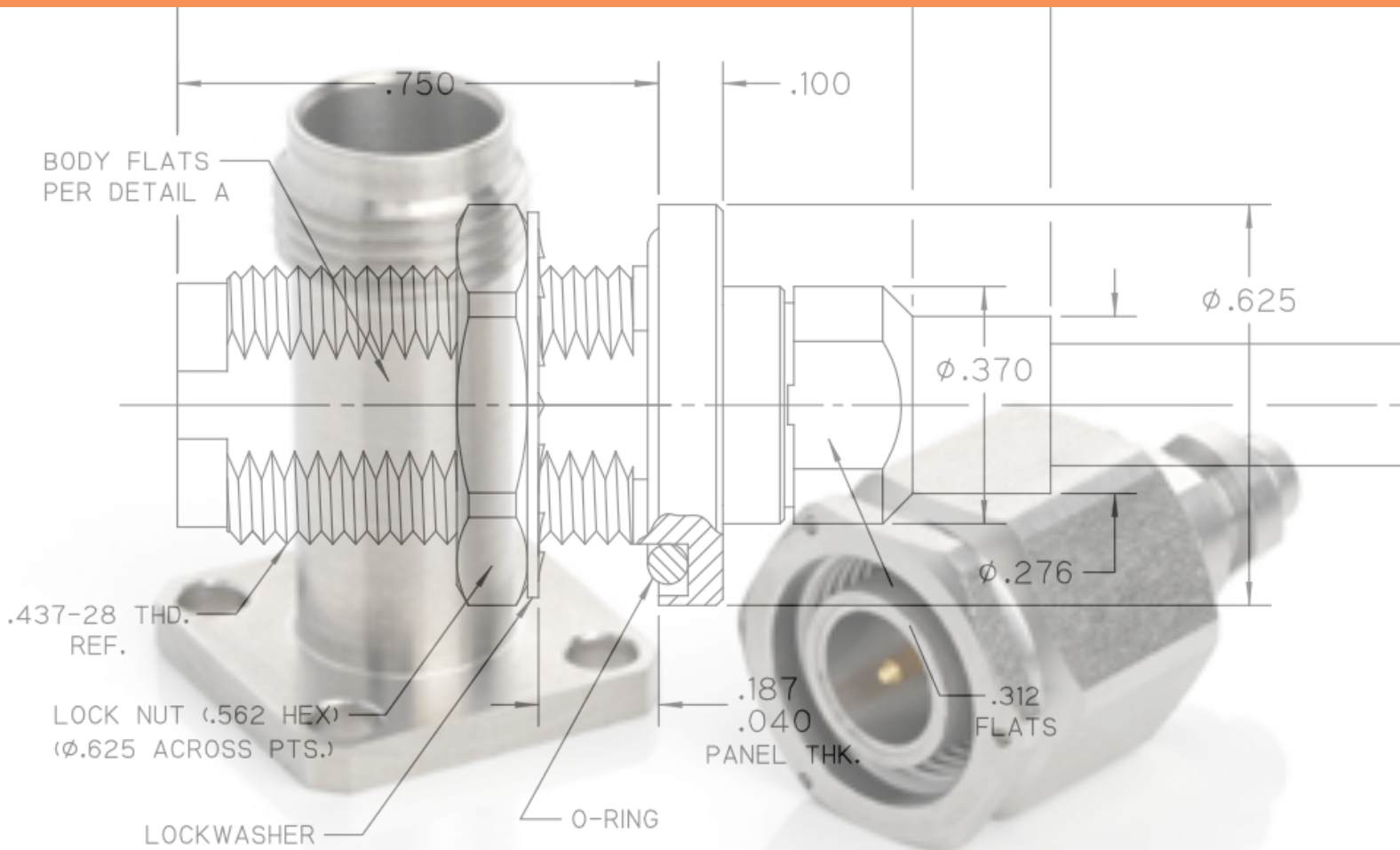


# TNCA

## Precision 18GHz Connectors





# TNCA Precision Connectors

## DESCRIPTION

TNC are miniature, threaded weatherproof units with a constant 50  $\Omega$  impedance and as standard, they operate from 0 - 12.4 GHz. TNC connectors are commonly used for microwave and RF applications requiring higher average peak power handling and good electrical performance. The standard TNC interface utilizes an over-lapping PTFE dielectric for increased voltage breakdown resistance. ConductRF offers the new type of TNCA frequency up to 18GHz, it also can be for low loss flexible cable, receptacles and precision adapter.

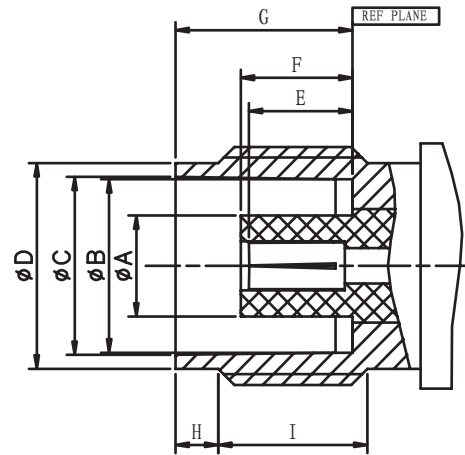
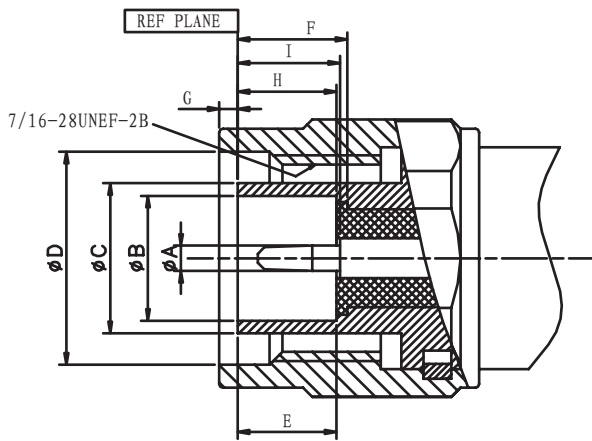
### TNCA Design Features

- Excellent performance up to 18GHz
- Low VSWR and insertion loss
- Rugged construction for reliability

## CONTENTS

1. Descriptions
2. Interface Details
3. Technical Data
4. Cable Configurations
5. Adapter Configurations
6. Receptacles that Accept Pins
7. Receptacles with Tab Contacts

# TNCA INTERFACE



TNCA Male				
	mm		Inch	
	Min	Max	Min	Max
A	1.32	1.37	0.052	0.054
B	6.05	6.15	0.238	0.242
C	7.98	8.08	0.314	0.318
D	11.18	—	0.440	—
E	5.28	—	0.208	—
F	5.38	—	0.212	—
G	5.28	—	0.208	—
H	5.28	—	0.208	—

TNCA Female				
	mm		Inch	
	Min	Max	Min	Max
A	4.62	4.72	0.182	0.186
B	8.10	8.15	0.319	0.321
C	8.31	8.46	0.327	0.333
D	9.60	9.68	0.378	0.381
E	5.03	5.28	0.198	0.208
F	5.03	5.28	0.198	0.208
G	8.31	8.51	0.327	0.335
H	1.73	2.24	0.068	0.088
I	4.75	—	0.187	—

Interface dimensions conformable to the standards: MIL-STD-348A

# TECHNICAL DATA



ELECTRICAL DATA	
Impedance	50 Ohm
Frequency range	DC — 18GHz
Dielectric withstanding voltage	1500V
Insulation resistance	≥ 1000 MΩ
Contact resistance	Inner contact ≤ 1.5 mΩ Outer contact ≤ 0.2 mΩ
VSWR max.	1.15 : 1

MECHANICAL DATA	
Base material	
Center Contact	Copper Beryllium Alloy, Gold-pated
Body	Stainless Steel, Passivated
Insulator	PEI, PTFE
Durability(matings)	≥ 500

ENVIRONMENTAL	
Temperature Range	-55 °C to + 165 °C
Thermal shock	MIL-STD-202, Method 107, Condition B
Corrosion	Saltspray test acc.to MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D

# Cable Configurations



## Description

### TNCA STRAIGHT JACKS

TNCA BULKHEAD JACK, SOLDER CLAMP FOR HARBOUR LL142 CABLE

## ConductRF #

PTF31A-A74S01

### TNCA STRAIGHT PLUGS

TNCA PLUG, SOLDER CLAMP FOR HARBOUR LL120 CABLE

PTM11A-A75S01

TNCA PLUG, SOLDER CLAMP FOR HARBOUR LL142 CABLE

PTM11A-A74S01

TNCA PLUG, SOLDER CLAMP FOR HARBOUR LL142 CABLE (VENTED)

PTM12A-A74S01

TNCA PLUG, SOLDER CLAMP FOR HARBOUR LL335 CABLE (KNURL)

PTM11A-A85S01

TNCA PLUG, SOLDER CLAMP FOR HARBOUR LL335 CABLE

PTM12A-A85S01

TNCA PLUG, SOLDER CLAMP FOR SEMFLEX HP120 CABLE

PTMA11-A76S01

### TNCA RT ANGLE PLUGS

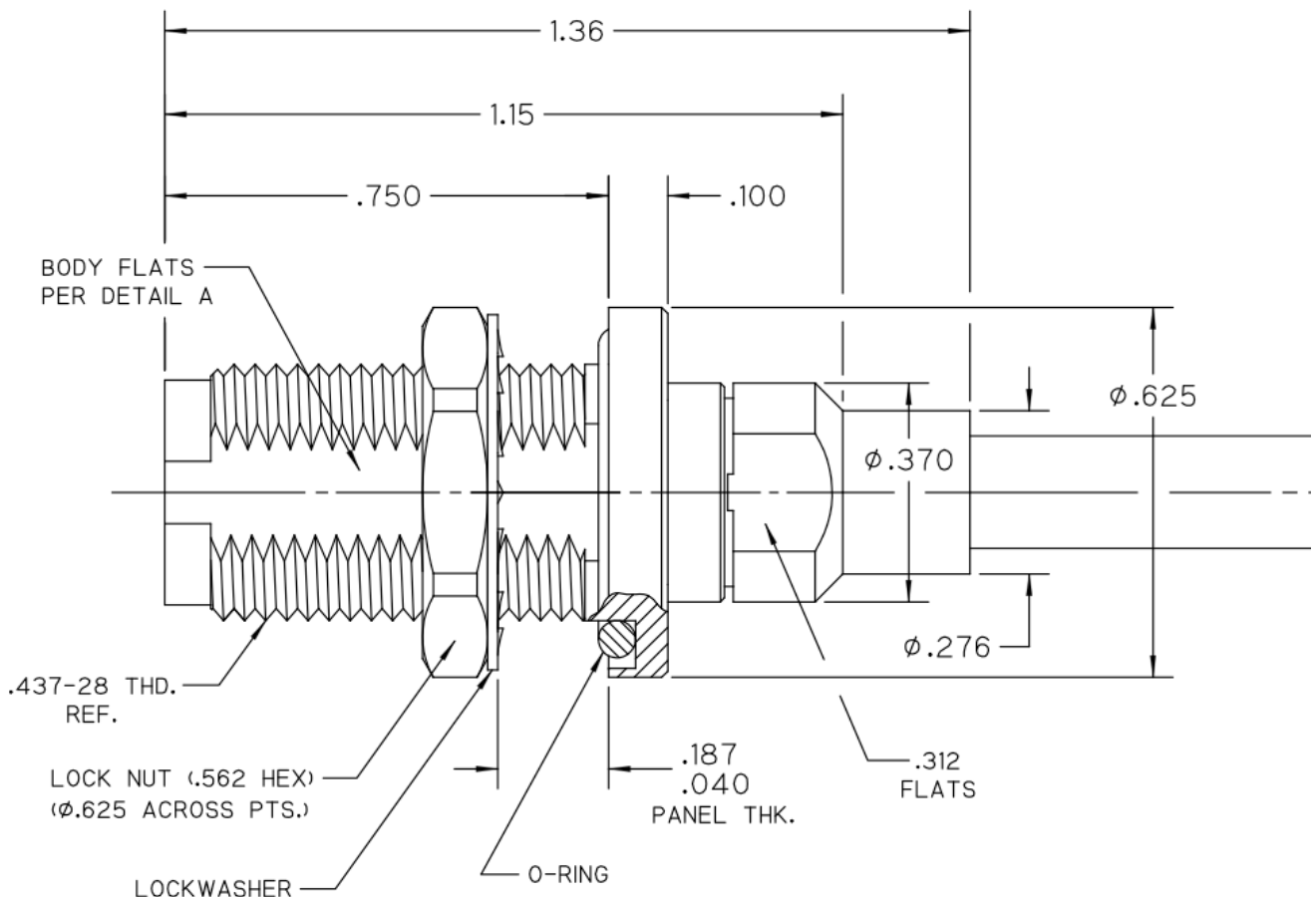
TNCA RT. ANGLE PLUG, SOLDER CLAMP FOR HARBOUR LL142 CABLE

PTM21B-A74S01

TNCA SWEEP 90DEG FOR CONDUCTRF A79UV

PTM21A-A79S01

Drawings available on Request



# Adapter Configurations



## Description

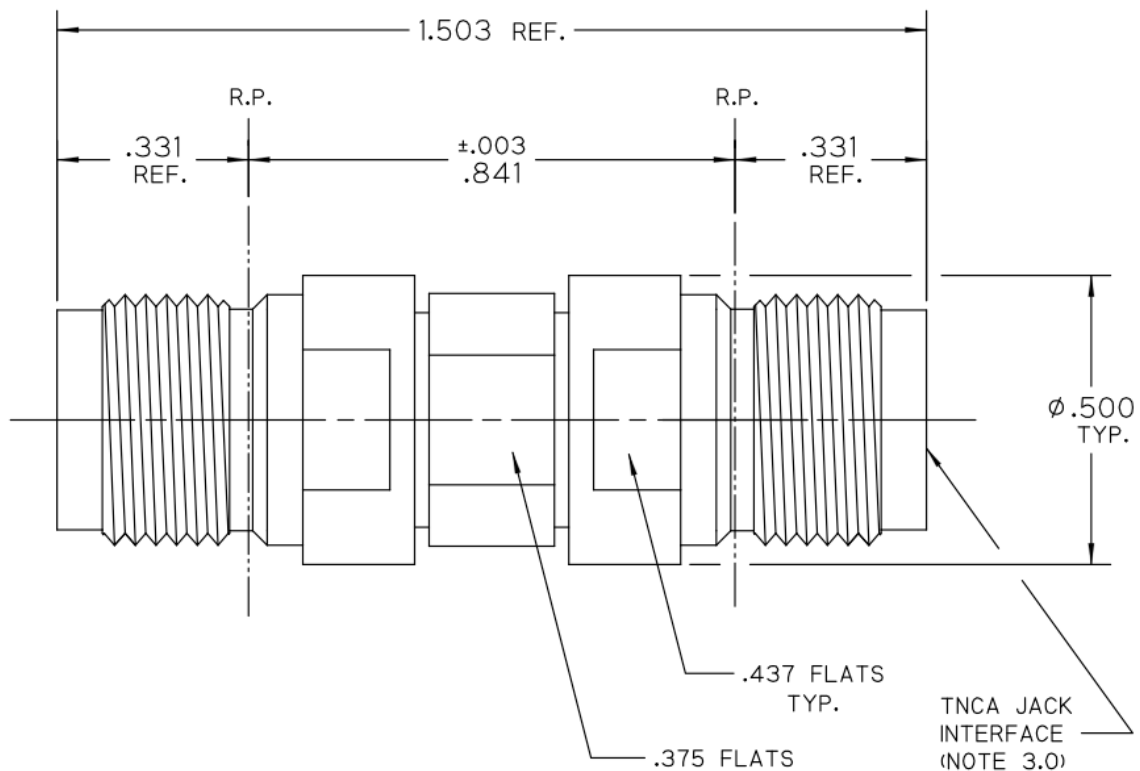
### TNC In-Series Adapters

TNCA JACK TO TNCA PLUG, ADAPTER  
 TNCA JACK TO TNCA JACK, ADAPTER  
 TNCA PLUG TO TNCA PLUG, ADAPTER

## ConductRF #

PTA11A-ADPS01  
 PTF11A-ADPS01  
 PTM11A-ADPS01

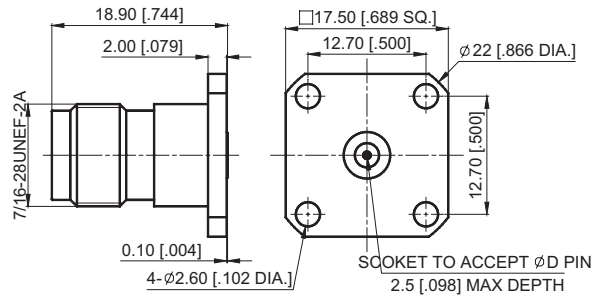
Drawings available on Request



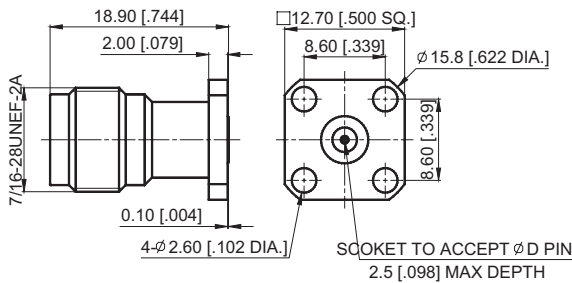
# RECEPTACLES THAT ACCEPTS PIN

## Receptacles, jacks (female), Flange Mount

Part Number	∅ D PIN
PTF41A-4HLS01	0.46 [.018]
PTF42A-4HLS01	0.51 [.020]
PTF43A-4HLS01	0.91 [.036]

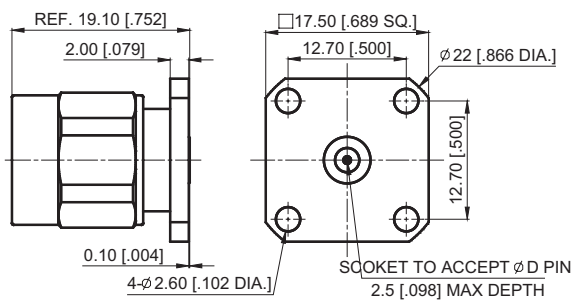


Part Number	∅ D PIN
PTF41B-4HLS01	0.46 [.018]
PTF42B-4HLS01	0.51 [.020]
PTF43B-4HLS01	0.91 [.036]



## Receptacles, plugs (male), Flange Mount

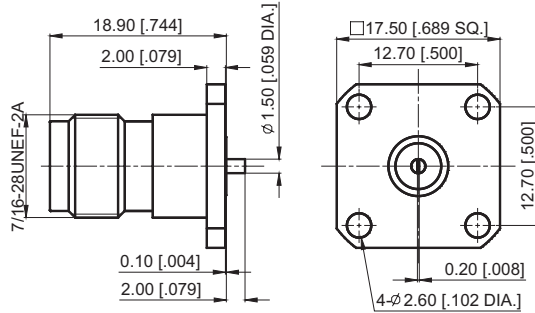
Part Number	∅ D PIN
PTM41A-4HLS01	0.46 [.018]
PTM42A-4HLS01	0.51 [.020]
PTM43A-4HLS01	0.91 [.036]



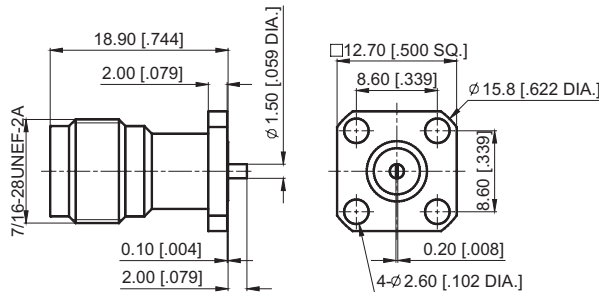
# RECEPTACLES WITH TAB

## Receptacles, jacks (female), Flange Mount

Part Number
PTF41D-4HLS01

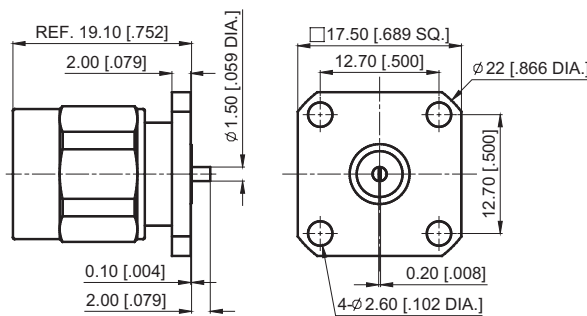


Part Number
PTF41E-4HLS01



## Receptacles, plugs (male), Flange Mount

Part Number
PTM41C-4HLS01





[www.ConductRF.com](http://www.ConductRF.com)

126 Merrimack Street  
Methuen, MA 01844

Tel +1 978 374 6840  
eMail: [sales@ConductRF.com](mailto:sales@ConductRF.com)

