

TLMP RF Connectors

Designed for Military Aerospace and Space Flight



T **TIMES**
MICROWAVE SYSTEMS
AN AMPHENOL COMPANY

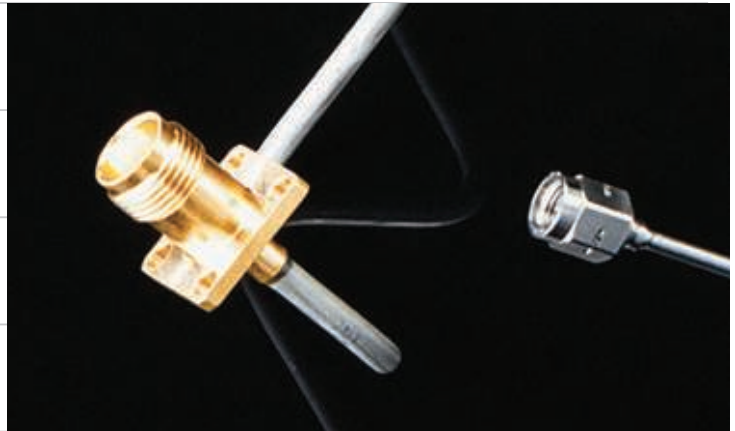
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What is a TLMP Connector?

TLMP connectors address the disadvantages of SMP/SMPM connectors.

T	Times
L	Locking
M	Miniature
P	Push-On



The SMP & SMPM Evolution



SMP/SMPM

- Small Form Factor
- Environmentally, EMI and Power Challenged

MMP

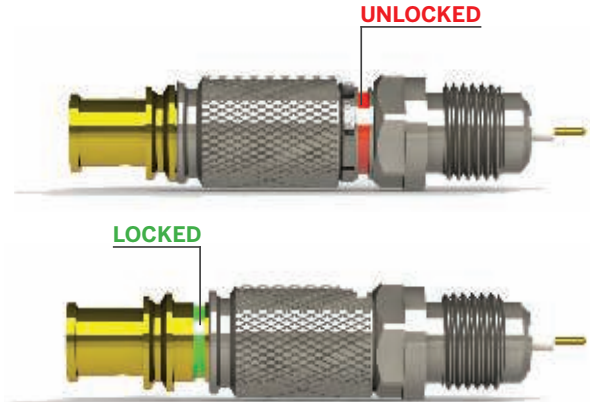
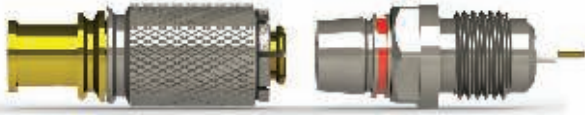
- Small Form Factor
- + Improved Environmental, Shielding and Power
- Difficult to use in a single port configuration

TLMP

- Small Form Factor
- + Improved Environmental, Shielding and Power
- + Single Interconnect
- Frequency from DC to 60 GHz

Positive Locking

VISIBLE "GREEN/RED" COLOR LOCKING



Vibration Proof

Prevents de-mating under vibration and shock

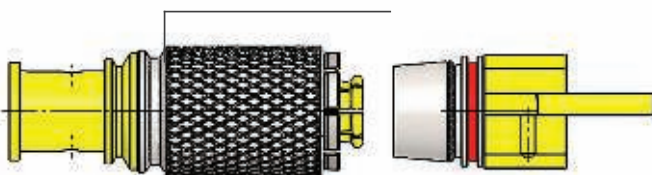
High Power/Voltage

The design overlaps the insulators cutting off a direct path to ground from the center conductor to the outer shield and enabling higher power or voltage functionality at higher altitudes.

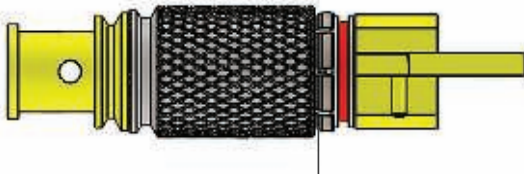
TLMP Mating Sequence

STEP 1

Locking sleeve retracted
Green band obscured



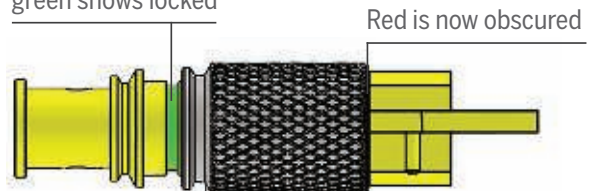
STEP 2 MATED, NOT LOCKED



Locking claw is free to snap into groove

STEP 3 MATED AND LOCKED

Locking sleeve is extended,
green shows locked



Red is now obscured

Locking claw is fully extended
with nub of claw snapped into
corresponding groove

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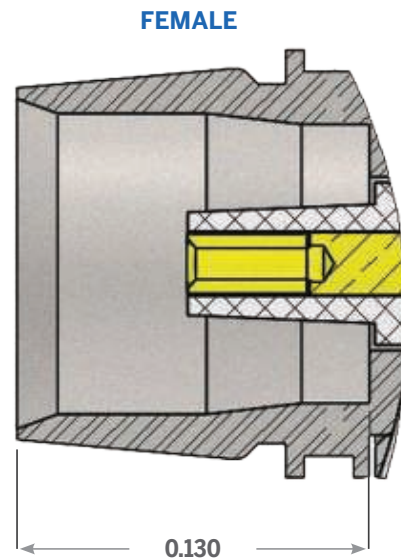
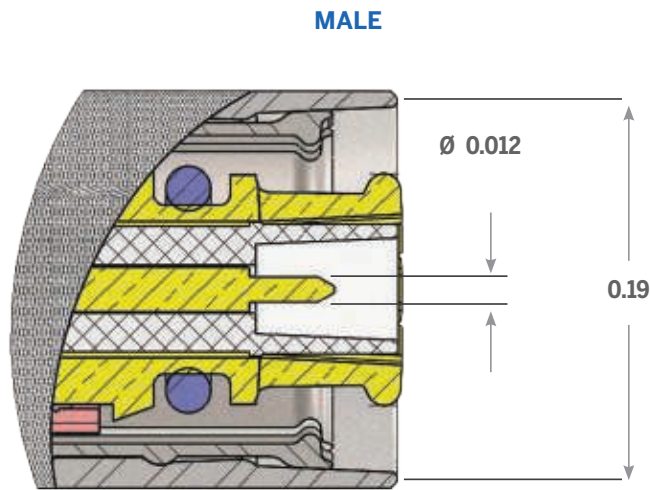
Features

Finish

Gold/Passivated

Mechanical Durability

1000 mating cycles



Component

Component	Material
Bodies	BeCu / Stainless Steel
Contacts	BeCu
Insulators	PTFE

Electrical

	Units	
Frequency Range	GHz	DC to 60
Insulation Resistance	MΩ	> 5000
Dielectric Withstanding Voltage	method 301	per MIL-STD-202
Contact Resistance	mΩ	3
RF Leakage	GHz	-105 dB @ 40
VSWR	GHz	1.05 + (.007 x f (GHz))

Environmental (per MIL-STD-202)

Vibration	Method 202	Test condition D
Mechanical shock	Method 213	Cond I
Thermal shock	Method 107	Cond B
Corrosion	Method 101	Cond B 5% salt solution
Moisture resistance	Method 106	
Corona level	Corona free @ 70,000 feet	(dependent on cable size)
Temperature rating		-65°C to +165°C

TLMP Configurations

FEMALE FOR PCB LAUNCHES



MALE FOR FLEX AND SEMI-RIGID



RIGHT ANGLE MALE FOR FLEX AND SEMI-RIGID (NESTED CONFIGS)



FEMALE FOR MIC PACKAGE MOUNTS



Cables

PTF047	PTFlex 047
PTSRB047	PhaseTrack 047 Semi-Rigid
PTSRB086	PhaseTrack 086 Semi-Rigid
PT110	PhaseTrack 110
MT130	MilTech 130
TFlex405	TFlex405
047 S/R	047 Semi-Rigid
086 S/R	086 Semi-Rigid

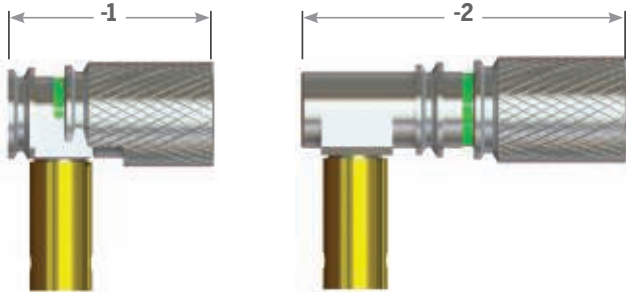


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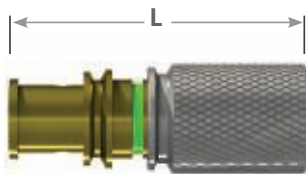
Connectors

Angle Male for Flexible and Semi-Rigid Cable



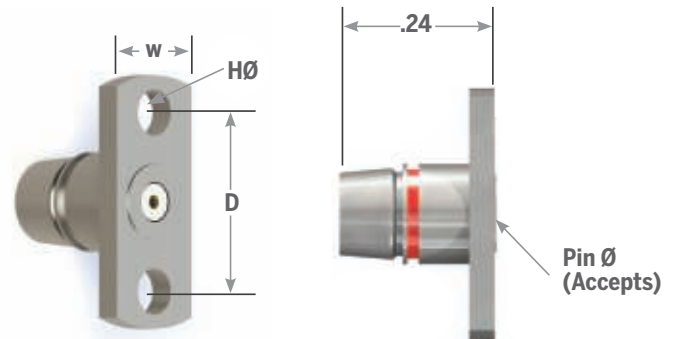
	Cable Type	-1 (in)	-2 (in)
PN 26550-X	PT047	0.370	0.570
PN 26552-X	PT110	0.370	0.570
PN 26553-X	MT130	0.370	0.570
PN 26548-X	TFlex405	0.370	0.570
PN 26551-X	047 S/R	0.370	0.570
PN 26549-X	086 S/R	0.370	0.570
PN 26554-X	PTSRB086	0.370	0.570

Male for Flexible and Semi-Rigid Cable



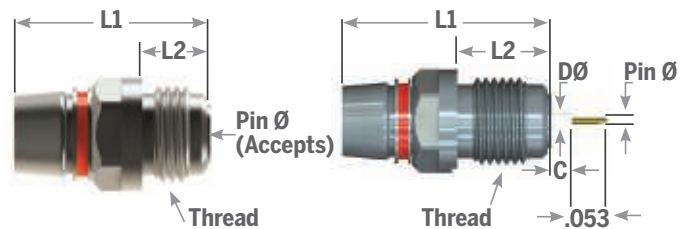
	Cable Type	L(in)
PN 26543	PT047	0.440
PN 26545	PT110	0.500
PN 26546	MT130	0.500
PN 26524	TFlex405	0.500
PN 26544	047 S/R	0.440
PN 26532	086 S/R	0.458
PN 26547	PTSRB086	0.458

Female for MIC Hermetics



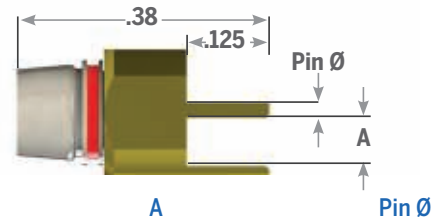
	D	H Ø	W	Pin Ø
PN 26542-1	0.282	0.073	0.165	0.012
PN 26542-2	0.282	0.073	0.165	0.015

Female for MIC Hermetics



	L1	L2	C	Ø D	Pin Ø	Thread
PN 26531	0.392	0.175	0.041	0.032	0.012	0.164.64
PN 26555-1	0.335	0.115			0.012	0.164.64

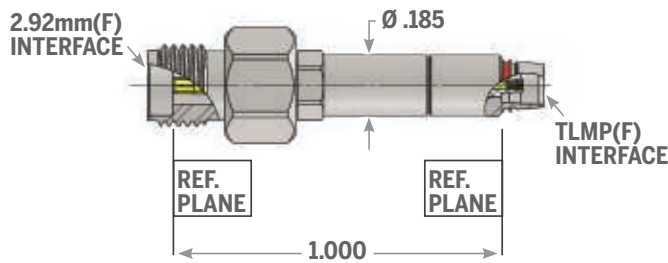
Female PCB Edge Launch



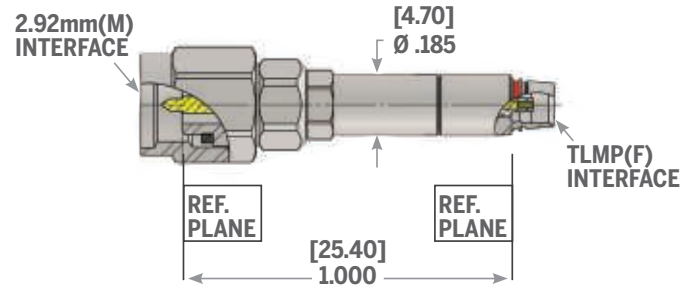
	A	Pin Ø
PN 26540-1	0.073	0.015
PN 26540-2	0.056	0.115

Adapters

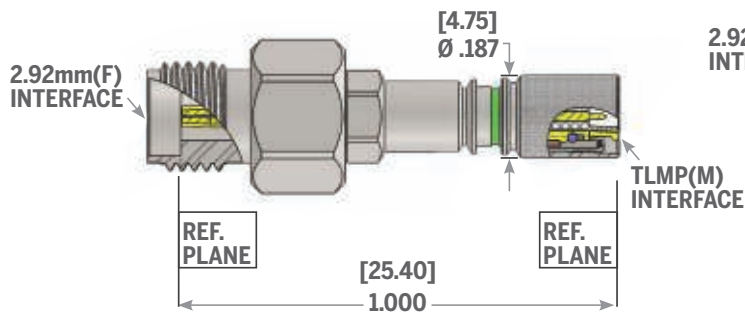
26952



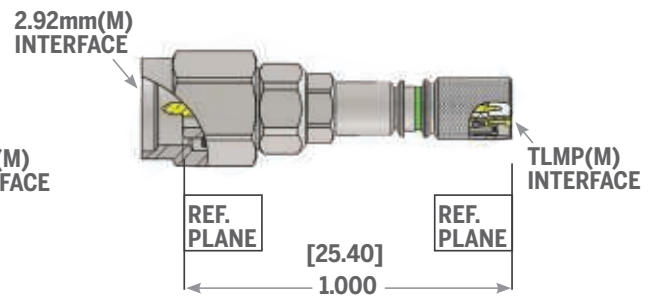
26953



26951



26950



2.9mm Adapters

26952



26953



26951



26950





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