

# Multiport RF Connectors



## INTRODUCTION

Carlisle Interconnect Technologies has added several Multiport RF Connectors to the standard push-on interconnect interfaces to facilitate a higher packaging density for today's RF/Microwave systems. The product range consists of multiple sized 2-, 4- and 6-port board connectors, as well as, panel mount connectors that enable quick connect/disconnect of several RF connections at once. This helps reduce the form-factor of today's packages, while simultaneously simplifying assembly time to reduce overall complexity of these systems.

## FEATURES

- » Frequency Range: DC - 65 GHz
- » 50Ω Impedance; Blindmateable configuration
- » MIL-PRF-39012 compliant
- » Low mating forces
- » Board-mount and panel-mount configurations with complementary straight and right angle cable connectors
- » Custom Multiport Solutions

## MATERIALS AND FINISH (PCB CONNECTORS)

	Metal	Specification
Center Pin/Body	BeCu (Beryllium Copper)	ASTM B196 and/or ASTM B197
	Brass	ASTM B36, B121, B16, B16M
Inserts/Dowell Pins	Stainless Steel	ASTM A484/ A582 or A555/581
Insulator	Virgin PTFE Fluorocarbon	ASTM D1710 and ASTM D1457
	Polyamide-Imide	ASTM D5204 Group 2 Class 1
Finish	Gold	ASTM-B488 Type 1, Class 1
	Nickel (50µ in. Typ.)	SAE AMS-QQ-N-290
	Passivation	ASTM A967

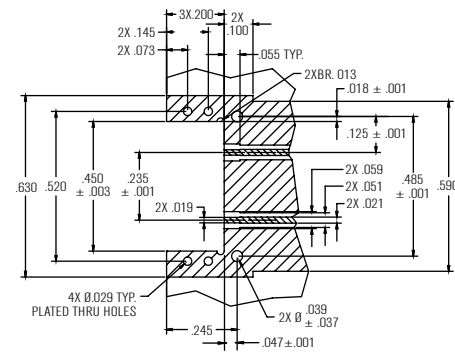
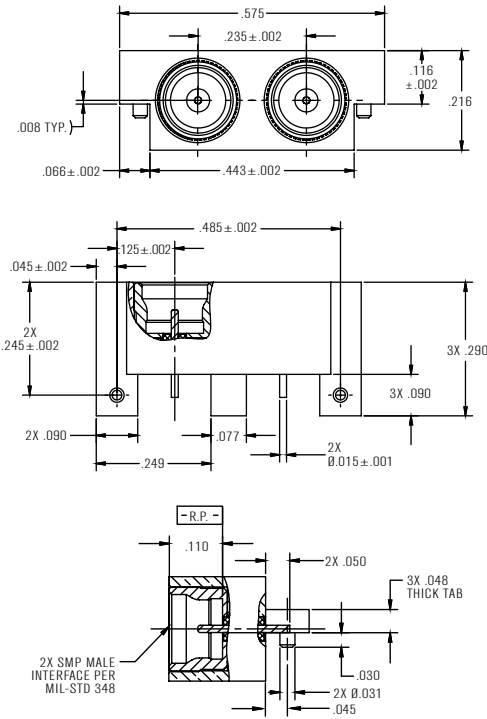
## DETENT FORCES FOR CONNECTORS

	Force to Engage Max		Force to Disengage Min	
	Limited Detent	Smooth Bore	Limited Detent	Smooth Bore
SMP	7 lbs	2 lbs	3 lbs	0.5 lbs
SSMP®	6.5 lbs	2.5 lbs	4 lbs	1.5 lbs
WMP®	2.5 lbs	1.5 lbs	4.5 lbs	1 lbs

# Multiport RF Connectors

## SMP (MALE) PCB MOUNT

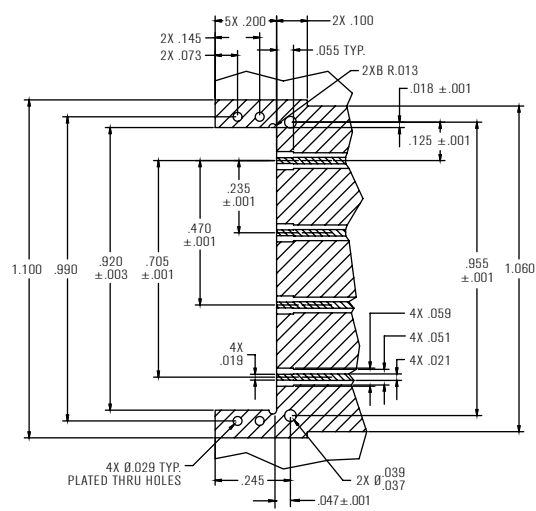
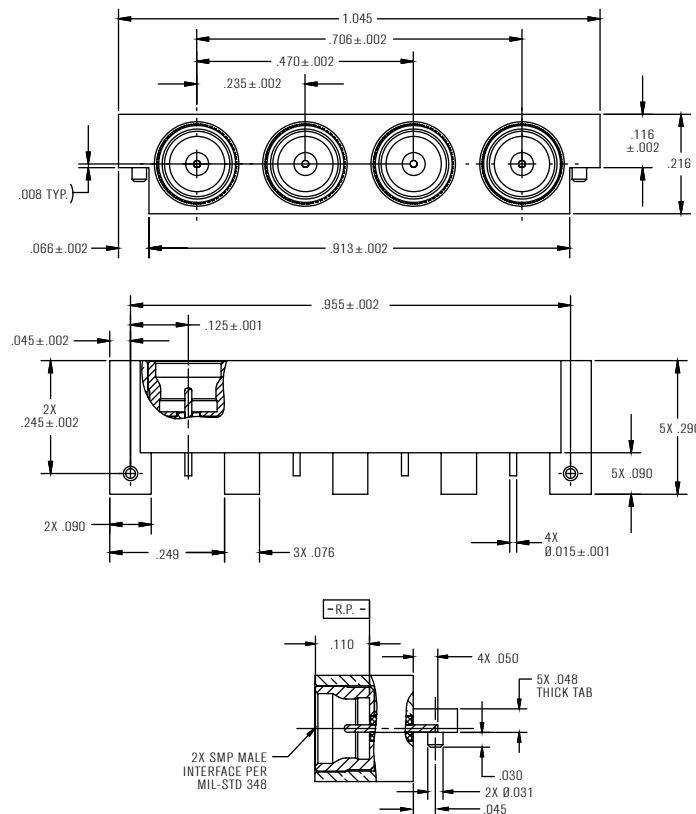
### 2-Position SMP (male) PCB Edge Mount / P606B2



Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

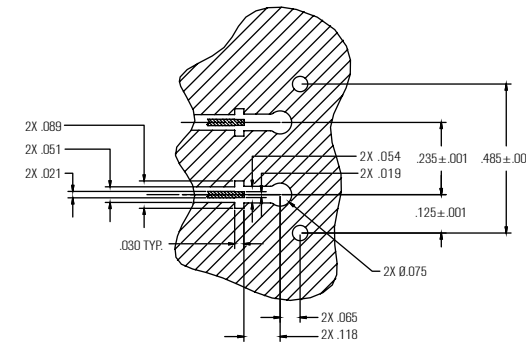
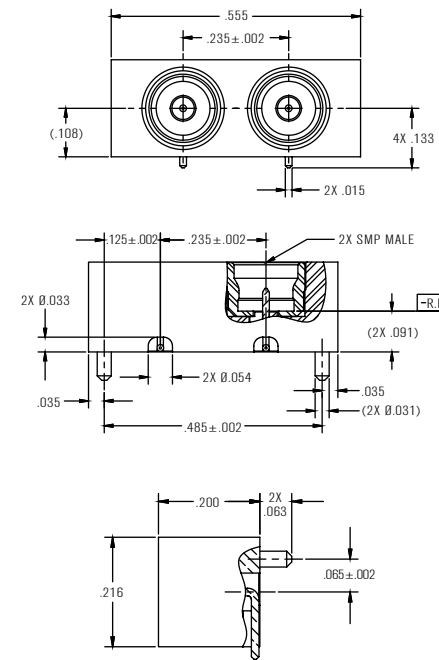
### 4-Position SMP (male) PCB Edge Mount / P606B4



Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

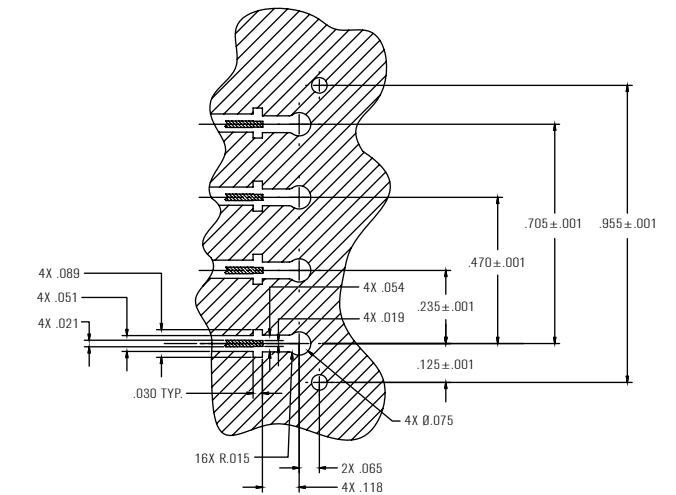
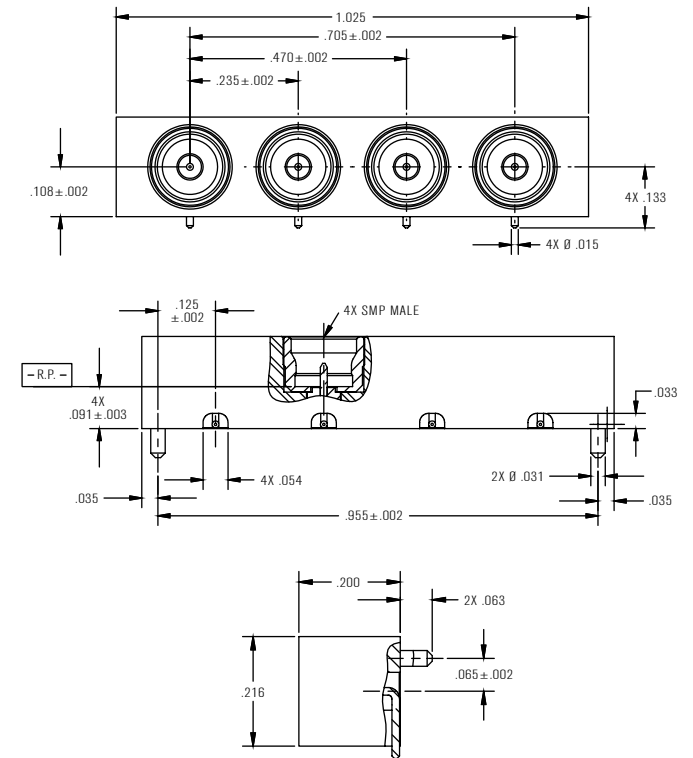
### 2-Position SMP (male) PCB Surface Mount / P703B2



Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

### 4-Position SMP (male) PCB Surface Mount / P703B4



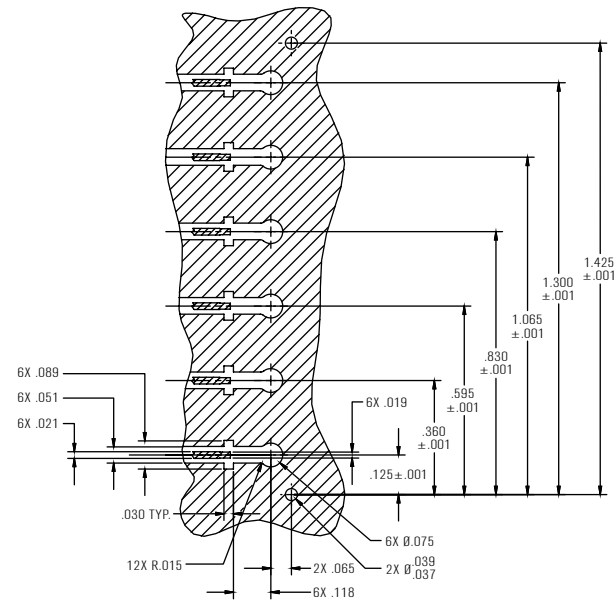
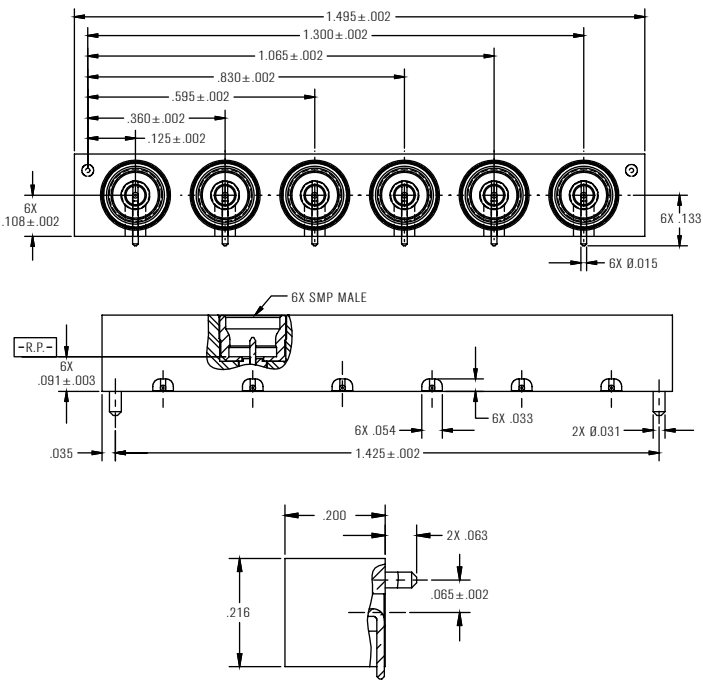
Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

# Multiport RF Connectors

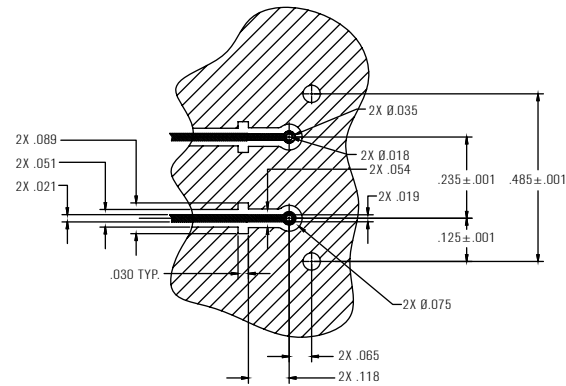
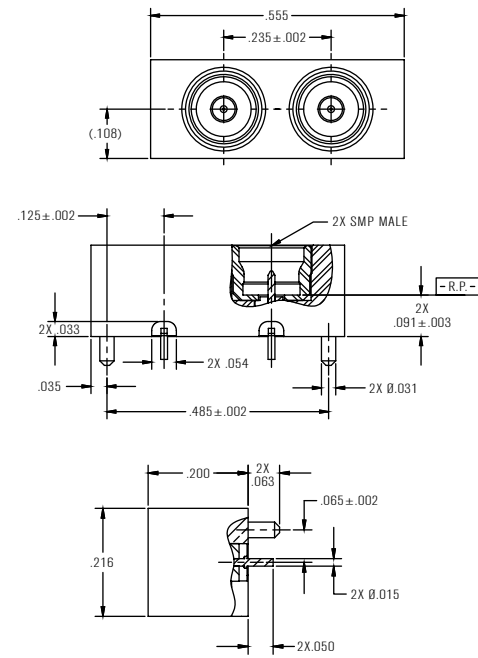
## SMP (MALE) PCB MOUNT (CONTINUED)

### 6-Position SMP (male) PCB Surface Mount / P703B6



Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

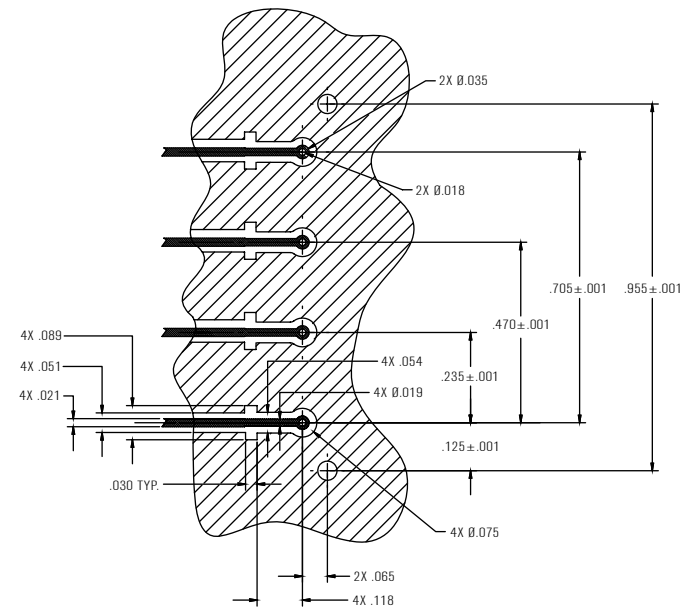
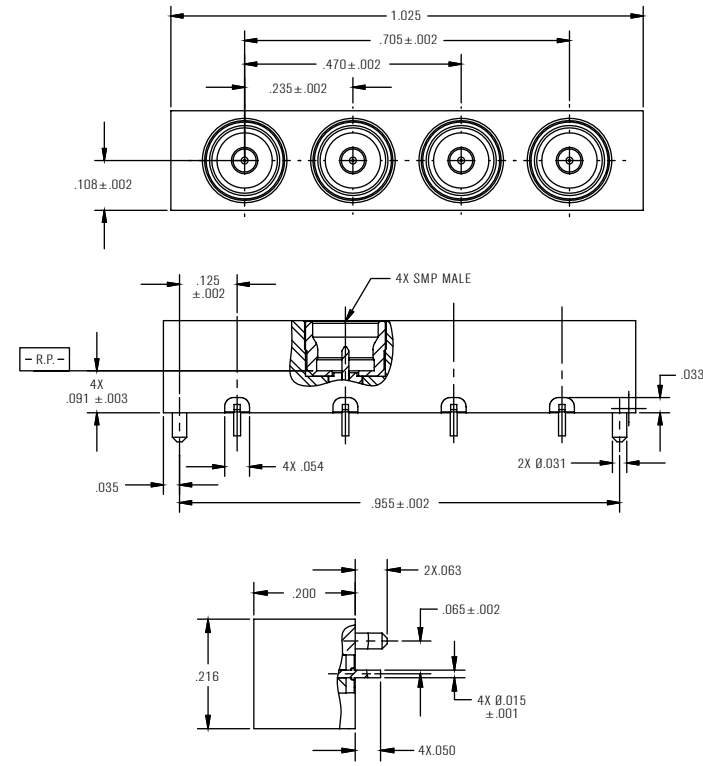
### 2-Position SMP (male) PCB Surface Mount / P775B2



Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

### 4-Position SMP (male) PCB Surface Mount / P775B4

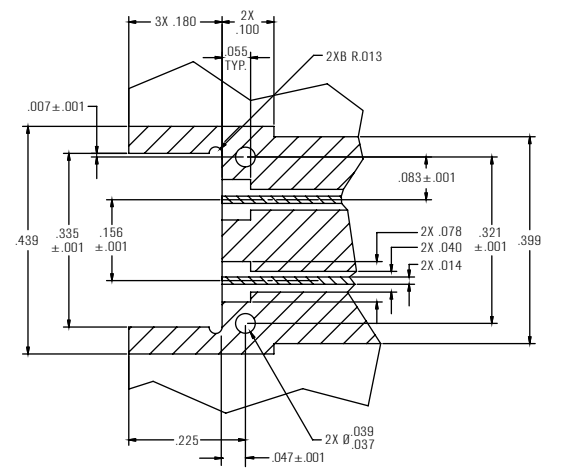
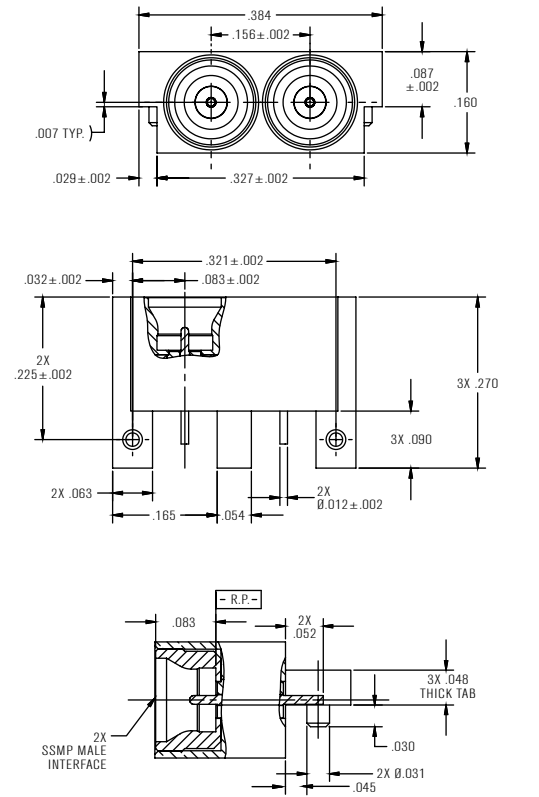


Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

## SSMP® (MALE) PCB MOUNT

### 2-Position SSMP (male) PCB Edge Mount / P351B2



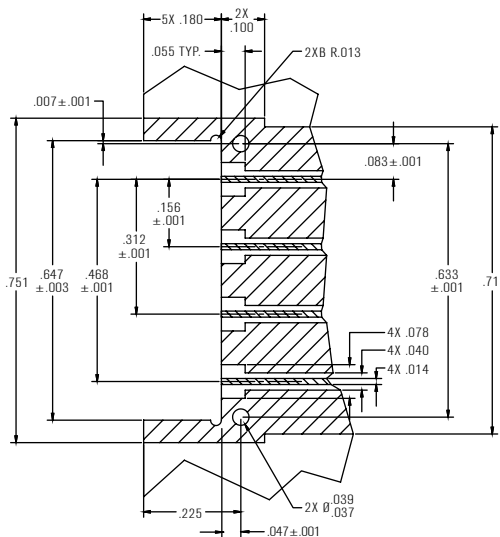
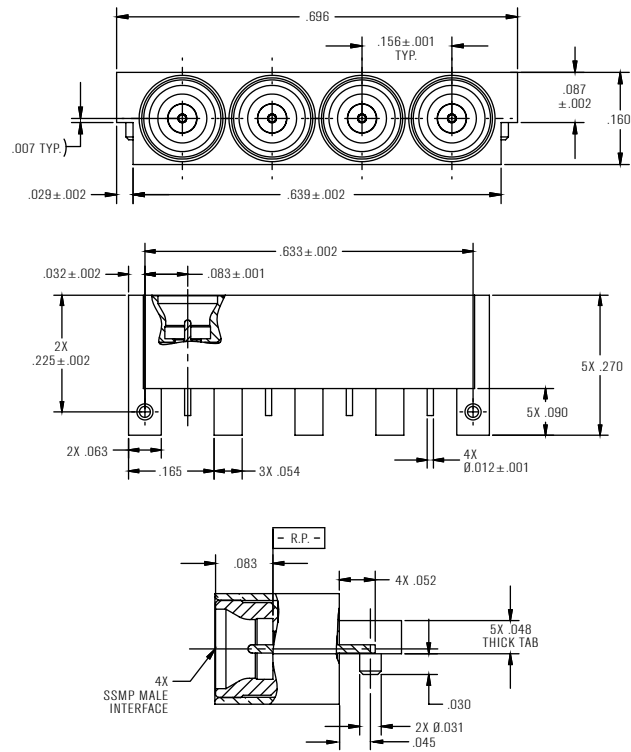
Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

# Multiport RF Connectors

## SSMP® (MALE) PCB MOUNT (CONTINUED)

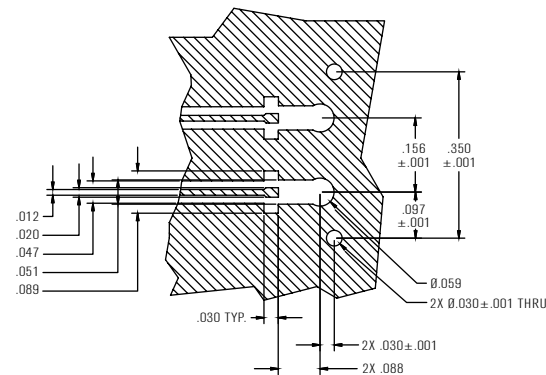
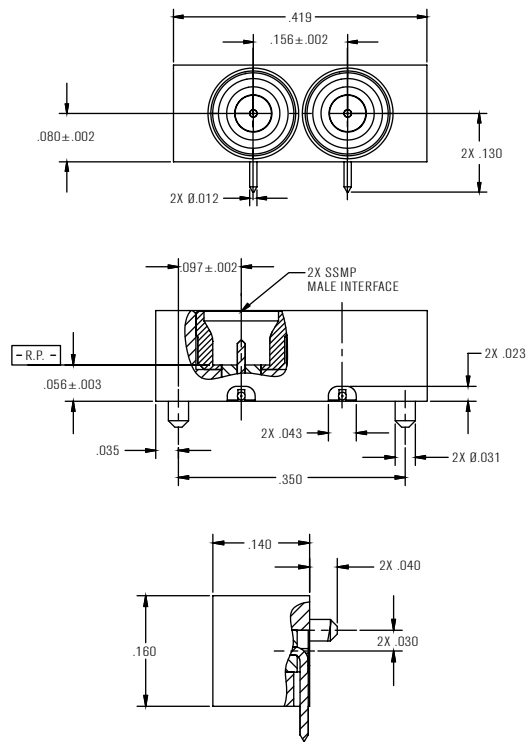
### 4-Position SSMP (male) PCB Edge Mount / P351B4



Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

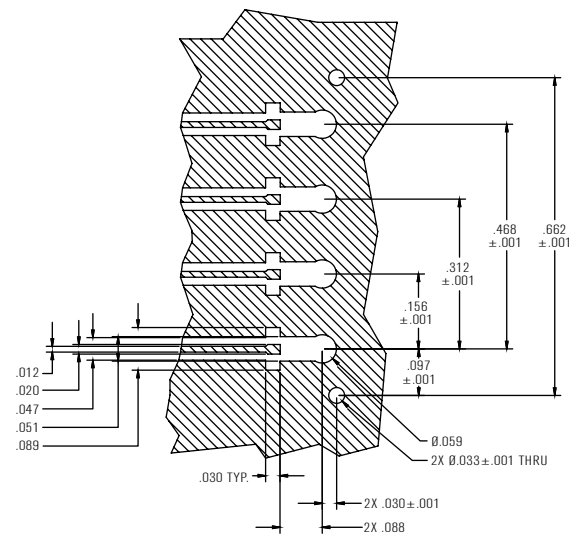
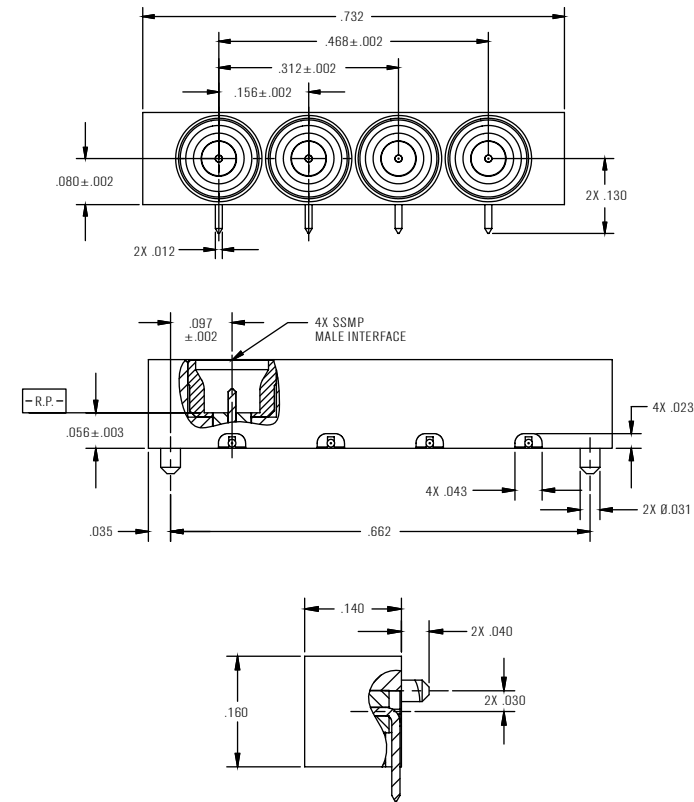
### 2-Position SSMP (male) PCB Surface Mount / P312B2



Surface Mounting Pattern (Top View)\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

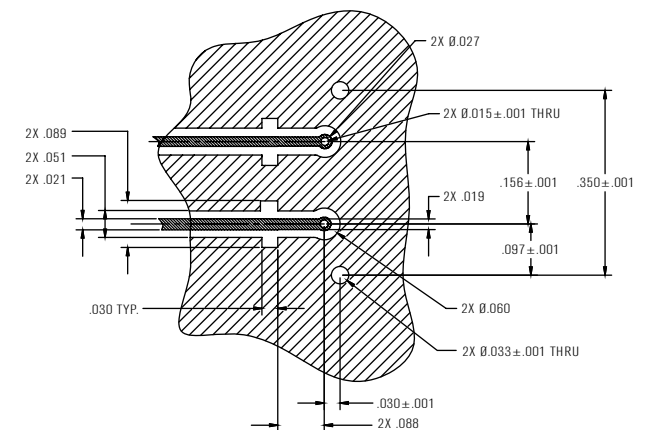
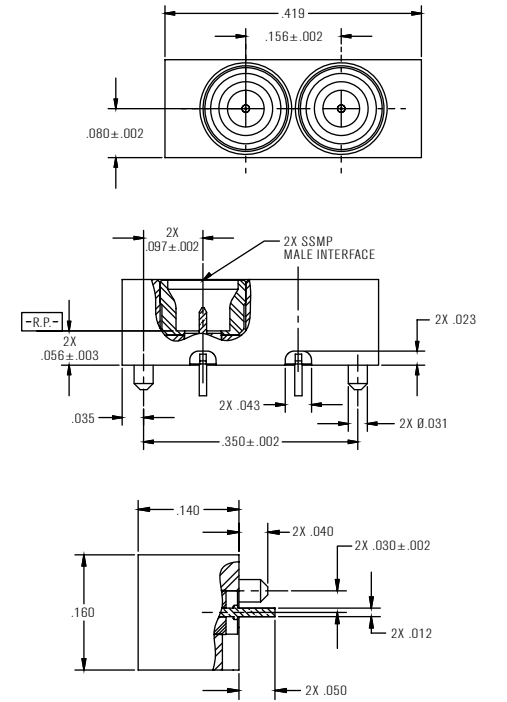
### 4-Position SSMP (male) PCB Surface Mount / P312B4



Surface Mounting Pattern (Top View)\*

Part Number	Interface
-1CC	Limited Detent
-2CC	Smooth Bore

### 2-Position SSMP (male) PCB Surface Mount / P350B2



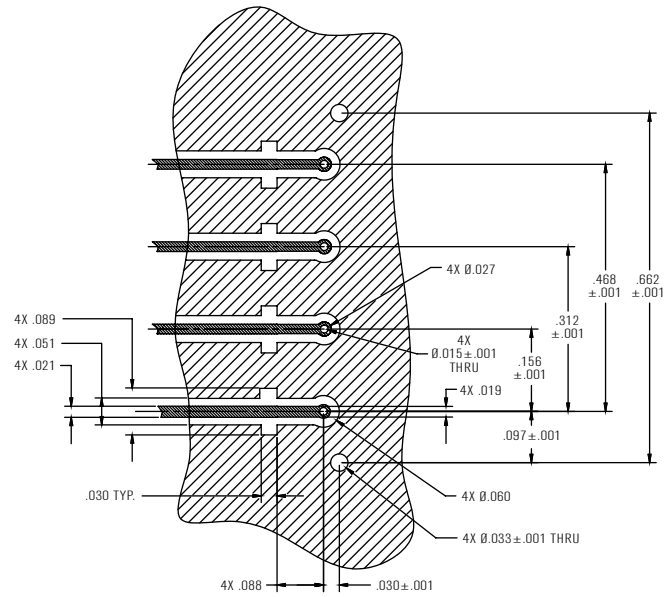
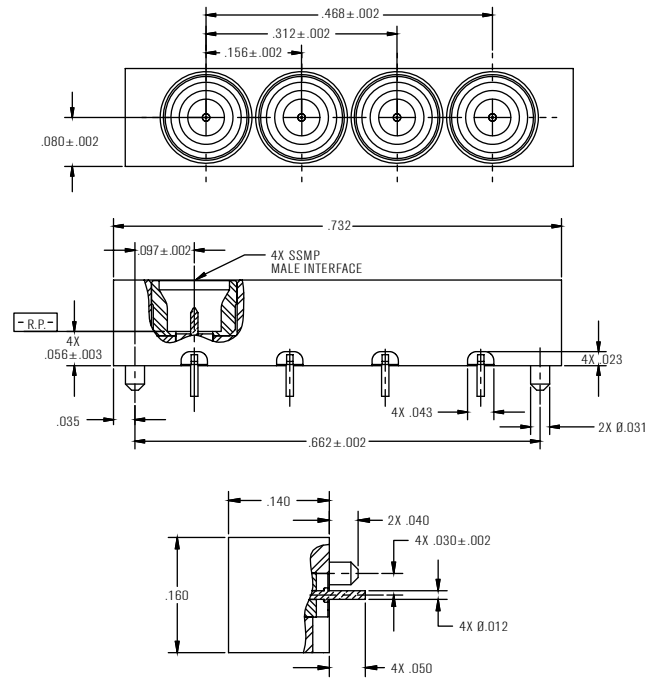
Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Detent
-2CC	Smooth Bore

# Multiport RF Connectors

## SSMP® (MALE) PCB MOUNT (CONTINUED)

### 4-Position SSMP (male) PCB Surface Mount / P350B4

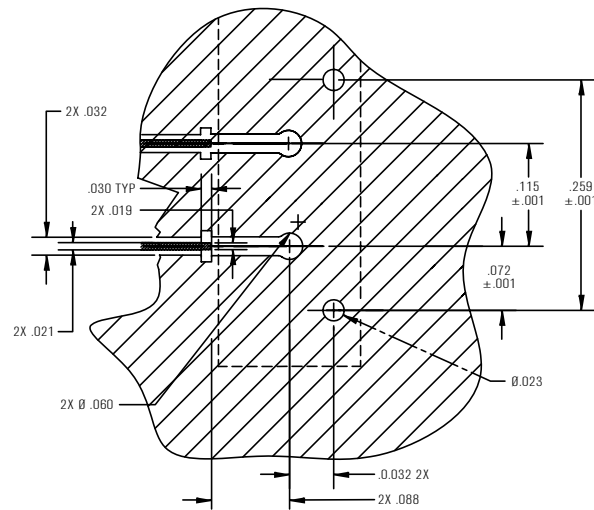
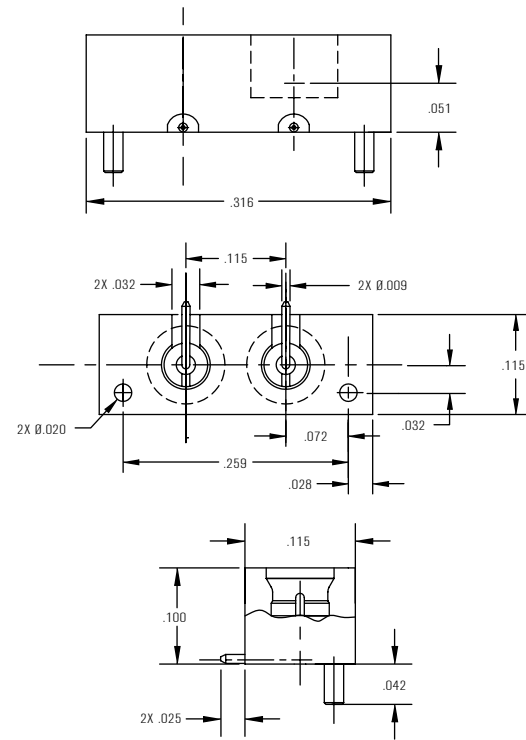


Recommended PCB Foot Print\*

Part Number	Interface
-1CC	Detent
-2CC	Smooth Bore

## WMP® (MALE) PCB MOUNT

### 2-Position WMP (male) PCB Surface Mount / WP312B2

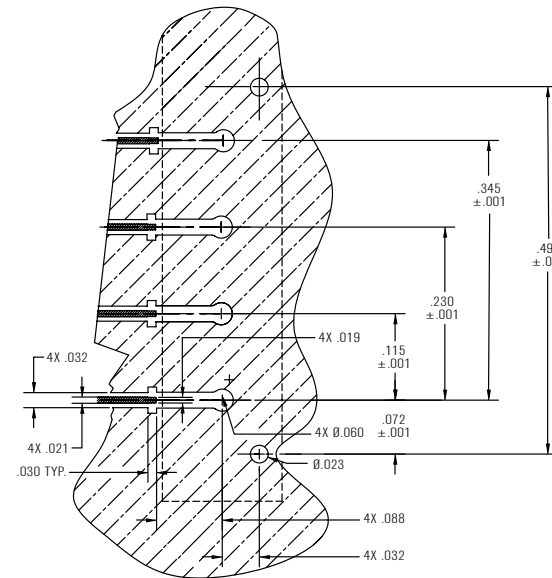
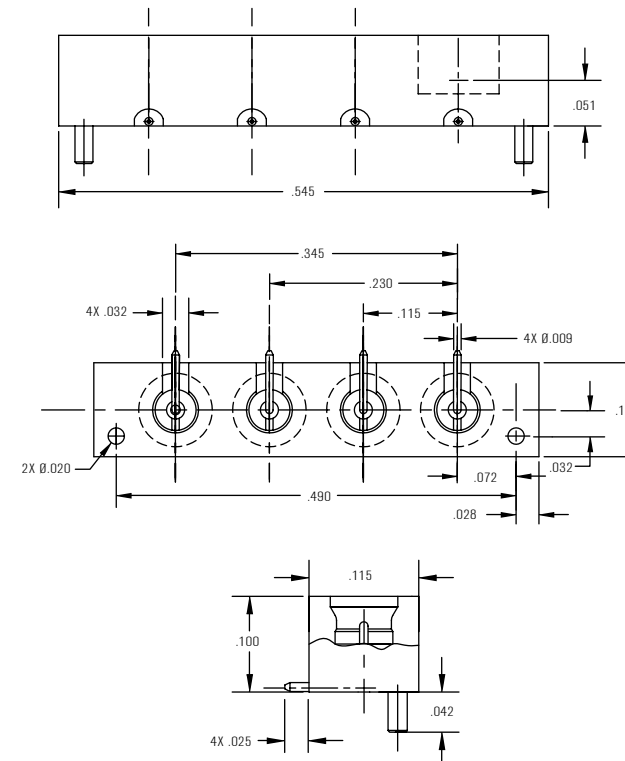


Mounting Hole Pattern\*

Dimensions shown are for Rogers 4350 PCB material. These dimensions may vary depending on PCB material used.

Part Number	Interface
-1CC	Detent
-2CC	Smooth Bore

### 4-Position WMP (male) PCB Surface Mount / WP312B4

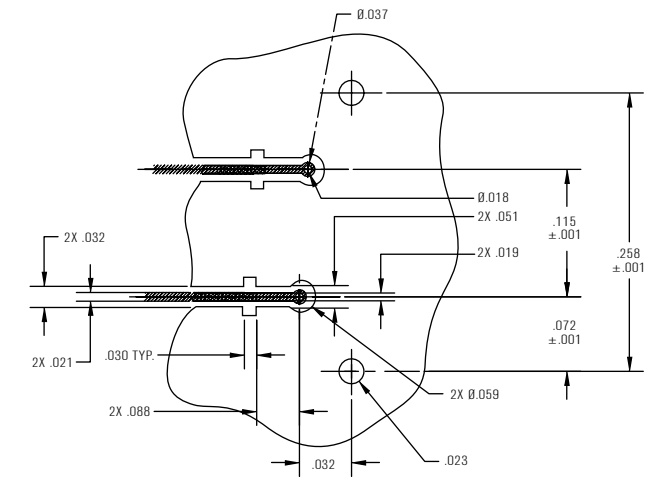
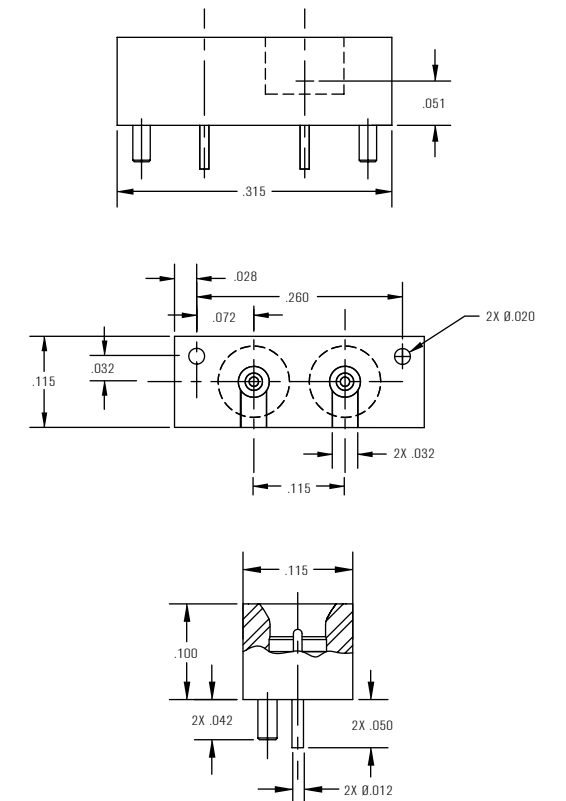


Mounting Hole Pattern\*

Dimensions shown are for Rogers 4350 PCB material. These dimensions may vary depending on PCB material used.

Part Number	Interface
-1CC	Detent
-2CC	Smooth Bore

### 2-Position WMP (male) PCB Surface Mount / WP350B2



Mounting Hole Pattern\*

Dimensions shown are for Rogers 4350 PCB material. These dimensions may vary depending on PCB material used.

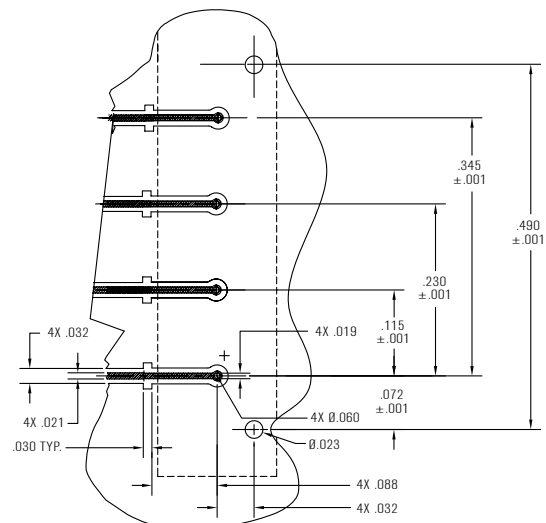
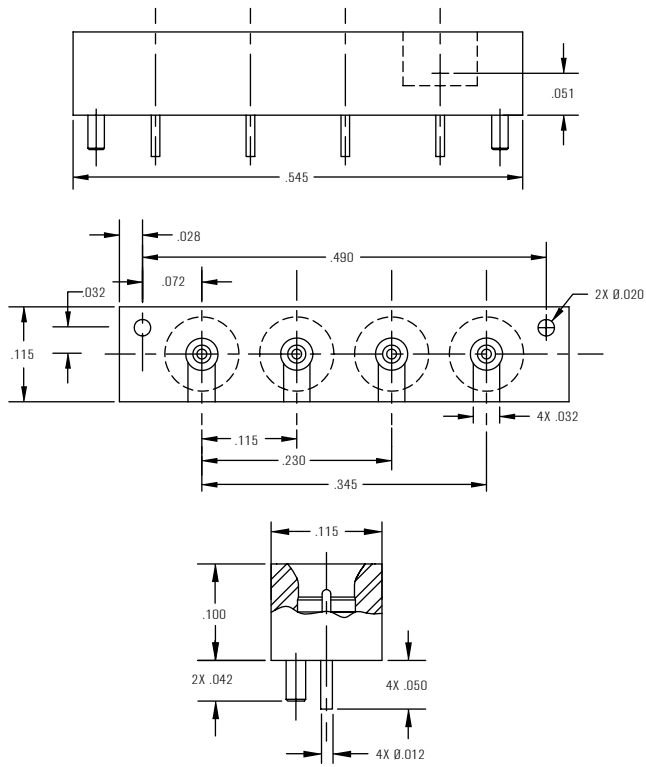
Part Number	Interface
-1CC	Detent
-2CC	Smooth Bore



# Multiport RF Connectors

## WMP® (MALE) PCB MOUNT

### 4-Position WMP (male) PCB Surface Mount / WP350B4



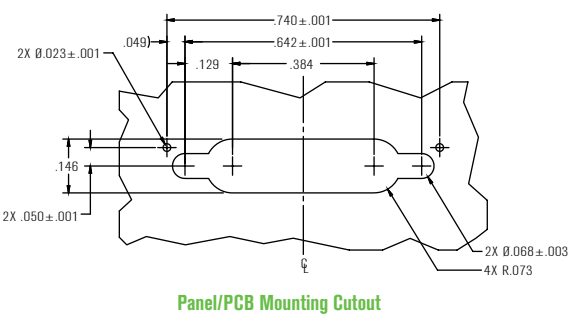
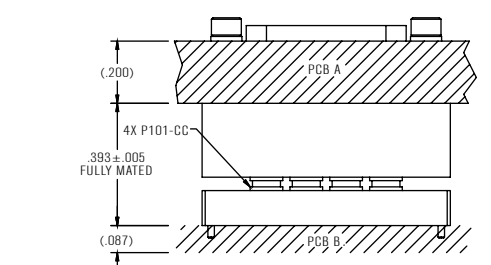
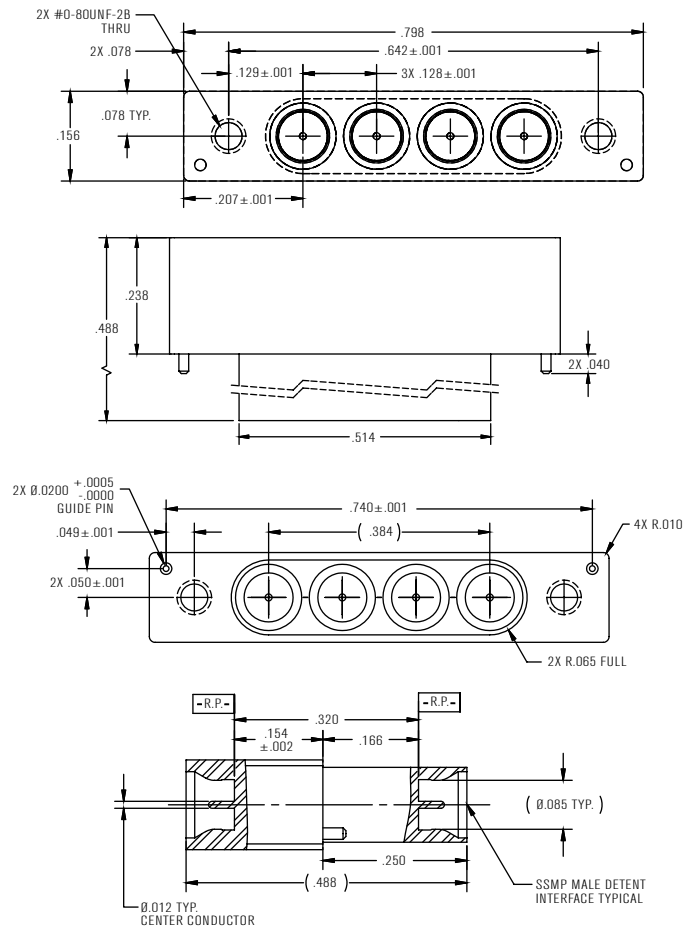
#### Mounting Hole Pattern\*

Dimensions shown are for Rogers 4350 PCB material. These dimensions may vary depending on PCB material used.

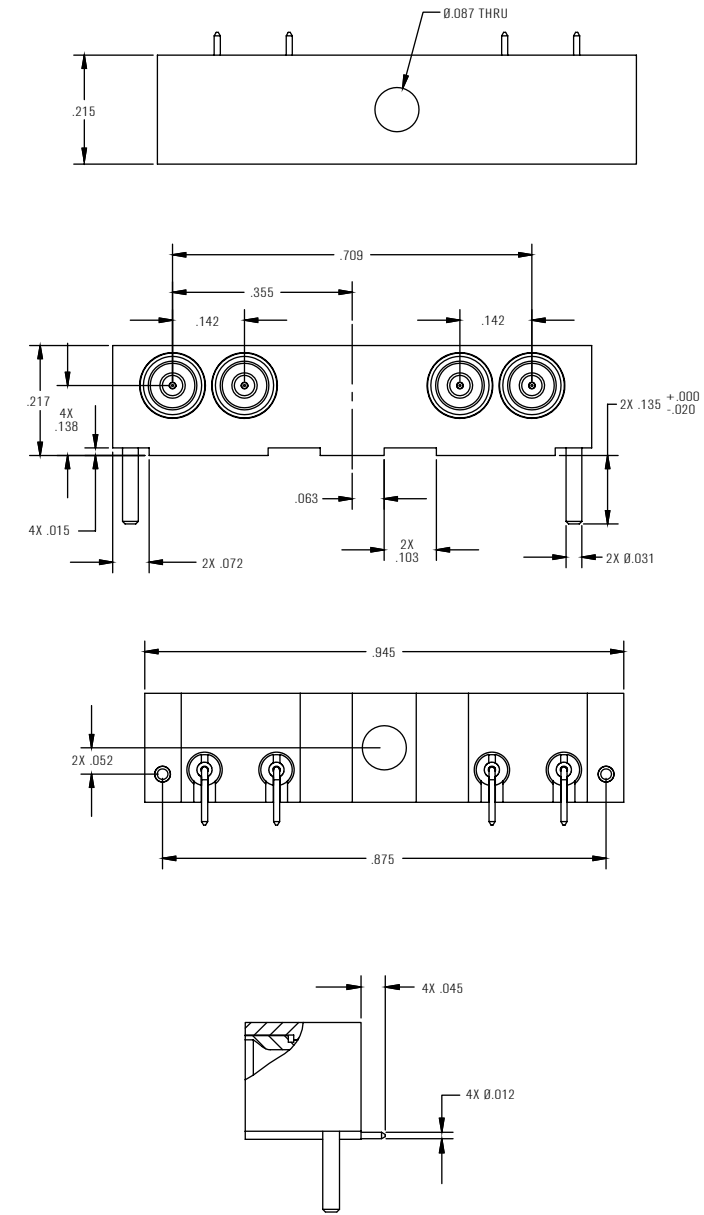
Part Number	Interface
-1CC	Detent
-2CC	Smooth Bore

## CUSTOM

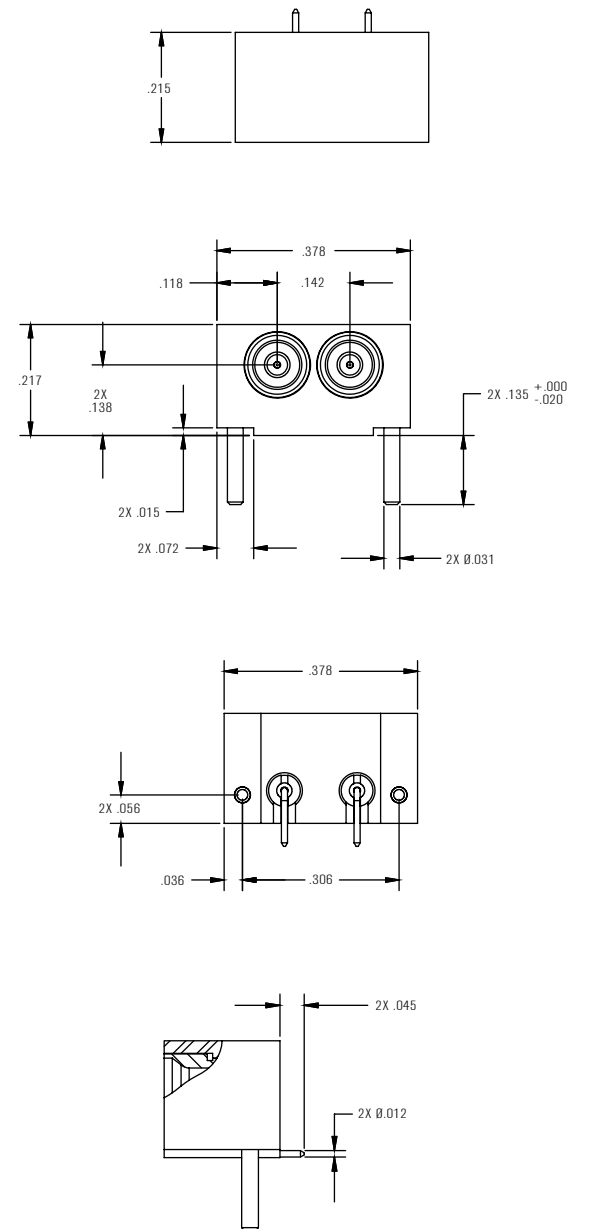
### P100-Special Panel Mount Adapter



### P100-PCB MTG-1



### P100-PCB MTG-2



\* A wide variety of transmission line analysis, PCB board parameters that are dielectric constant, substrate thicknesses and board stackups are applied by the customer. These parameters have an impact on the RF performance of the device. These layouts are not optimized to fit all board configurations regarding RF performance, it represents a recommendation for optimum solderability of the device. To guarantee high RF performance of the device, an RF analysis of the device to the board transition is recommended.

# Ordering Information

Part Number *	Description	Options
P606B2	2-POSITION SMP (male) PCB EDGE MOUNT	Detent and Smooth Bore options available (See outline drawings)
P606B4	4-POSITION SMP (male) PCB EDGE MOUNT	
P703B2	2-POSITION SMP (male) PCB SURFACE MOUNT	
P703B4	4-POSITION SMP (male) PCB SURFACE MOUNT	
P703B6	6-POSITION SMP (male) PCB SURFACE MOUNT	
P775B2	2-POSITION SMP (male) PCB SURFACE MOUNT	
P775B4	4-POSITION SMP (male) PCB SURFACE MOUNT	
P351B2	2-POSITION SSMP (male) PCB EDGE MOUNT	
P351B4	4-POSITION SSMP (male) PCB EDGE MOUNT	
P312B2	2-POSITION SSMP (male) PCB SURFACE MOUNT	
P312B4	4-POSITION SSMP (male) PCB SURFACE MOUNT	
P350B2	2-POSITION SSMP (male) PCB SURFACE MOUNT	
P350B4	4-POSITION SSMP (male) PCB SURFACE MOUNT	
WP312B2	2-POSITION WMP (male) PCB SURFACE MOUNT	Detent and Smooth Bore options available (See outline drawings)
WP312B4	4-POSITION WMP (male) PCB SURFACE MOUNT	
WP350B2	2-POSITION WMP (male) PCB SURFACE MOUNT	
WP350B4	4-POSITION WMP (male) PCB SURFACE MOUNT	

\* Part numbers should also include a suffix to indicate desired detent. See outline drawings

