

# Switching Connectors

MMCX & MC-Card



# Switching Connectors

## MMCX and MC-Card

These microminiature switching connectors automatically switch from an internal circuit and an external circuit when mated. They are ideal for use in applications such as portable computers operating in wireless networks, allowing for automatic switching between the internal antenna and a higher-gain external antenna.

Their frequency range is DC–3 GHz when switched to internal circuits and DC–8.5 GHz when switched to external circuits. They are compatible with all MC-Card and MMCX plugs. See our MC-Card and MMCX brochures for mating connectors.

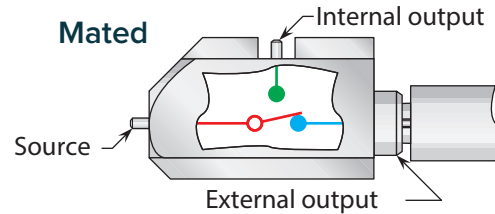
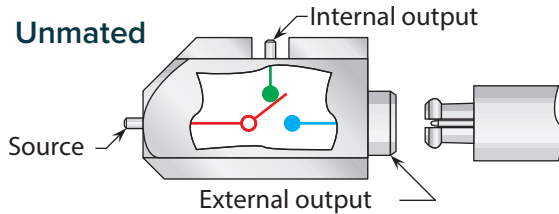


**DELTA**  
Electronics Mfg. Corp.

<b>Switching Circuit Diagram</b> . . . . .	<b>2</b>
<b>VSWR</b> . . . . .	<b>2</b>
<b>Specifications</b> . . . . .	<b>2</b>
<b>MC-Card Jacks</b> . . . . .	<b>3</b>
<b>MMCX Jacks</b> . . . . .	<b>3</b>
<b>Reverse-Polarity MMCX jacks</b> . . . . .	<b>3</b>
<b>Mounting Dimensions</b> . . . . .	<b>4</b>
<b>Tape and Reel Packaging</b> . . . . .	<b>4</b>
<b>Adapters Between Series</b> . . . . .	<b>5</b>

## Circuit Diagram - Switching Connectors

Automatically switch signal from internal circuit to external circuit when mated.



### Specifications\*

#### Electrical:

Nominal Impedance: 50 ohms.  
 Frequency Range: DC-3 GHz internal, DC-8.5 GHz external.  
 Voltage Rating (VRMS max.): MC-Card, 100V; MMCX, 170V.  
 Dielectric Withstanding Voltage : MC-Card, 250 VRMS min.;  
 MMCX, 500 VRMS min.  
 Contact Resistance: Center contact, 5 milliohms max.;  
 Outer Contact, 3 milliohms max.  
 Insulation Resistance: 500 megohms min.

#### Environmental:

Temperature / Humidity Cycling: IEC 68-2-38; -20-80° C,  
 93% humidity, 3 hours, 5 cycles.  
 Vibration: MIL-STD-202, Method 201A; 10-55 Hz,  
 120 cycles, 1 minute / cycle.  
 Thermal Shock: -65-125° C, 30 minutes, 5 cycles.  
 Salt Spray: 35° C, 48 hours, 85% RH, 5% concentration.

#### Mechanical:

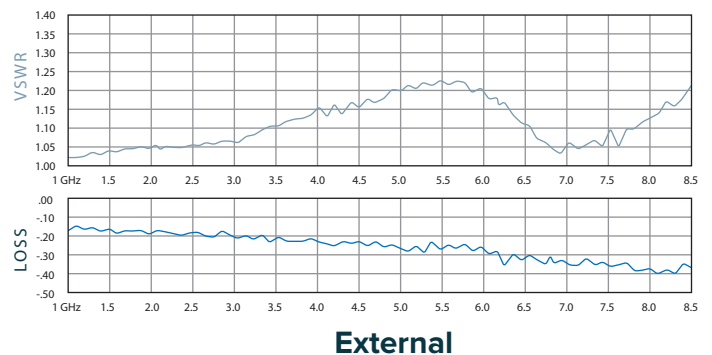
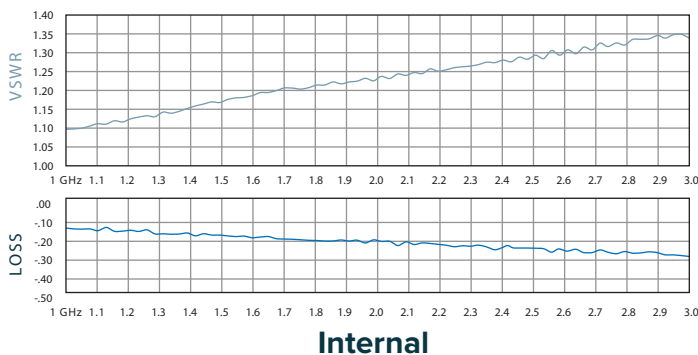
Mating Force: 7.0 N max.  
 Unmating Force: 9.0 N min.  
 Durability: 5,000 cycles.

#### Materials/Finishes:

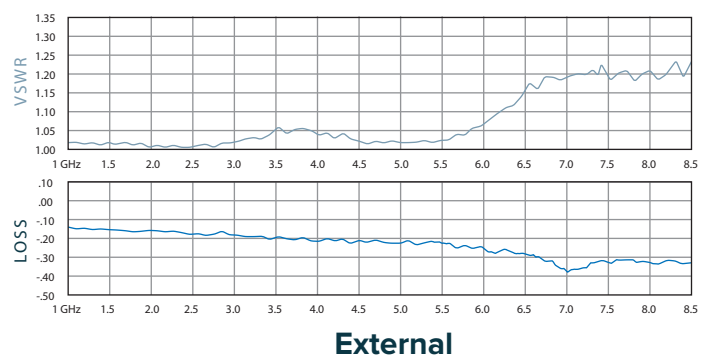
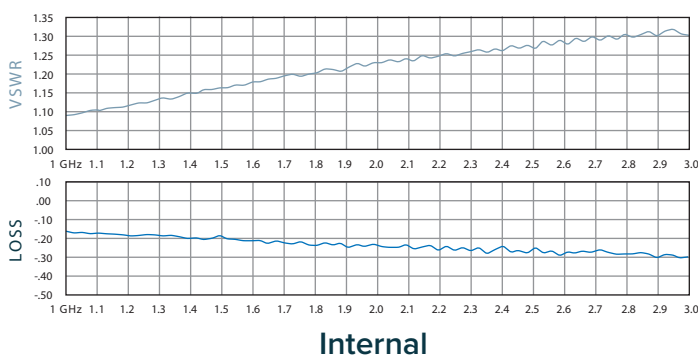
Insulators: Teflon.  
 Inner Contacts: Beryllium Copper.  
 Springs: Stainless Steel.  
 Other Metal Parts: Brass. Finish:  
 All metal parts gold plated.

\*These specifications are typical and may not apply to all connectors. Detailed specifications for individual connectors are available on request.

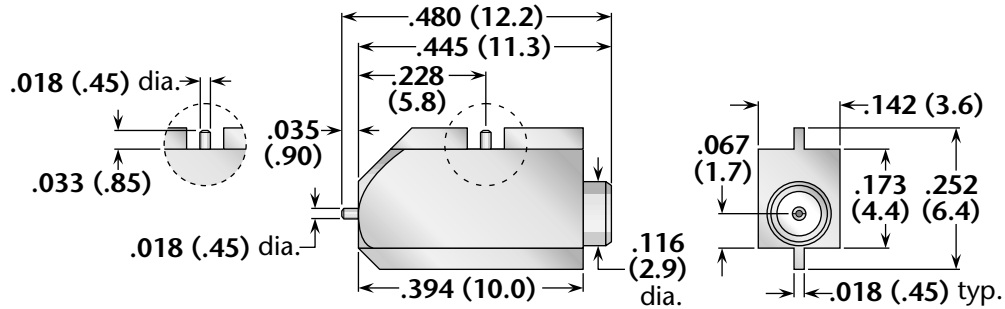
### Electrical Performance - MC-Card Switching Connectors



### Electrical Performance - MMCX Switching Connectors



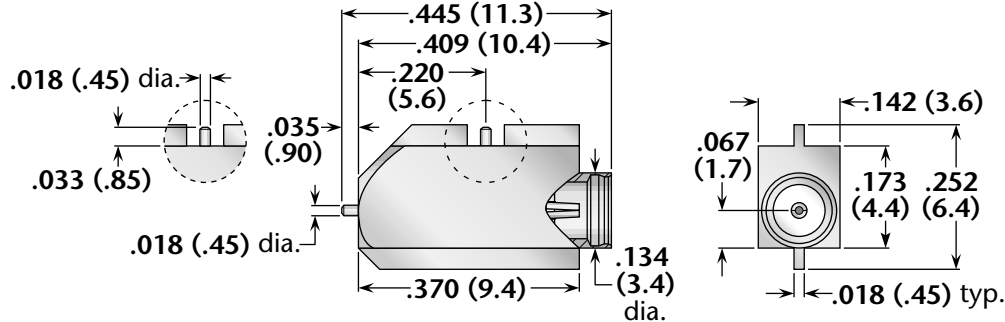
## MC-Card Jack Switch - Edge Card For SMT



Packaging	Delta P/N
Individual	8271000G911-501
Tape & Reel*	8271000G911-500

Dimensions in inches (mm).

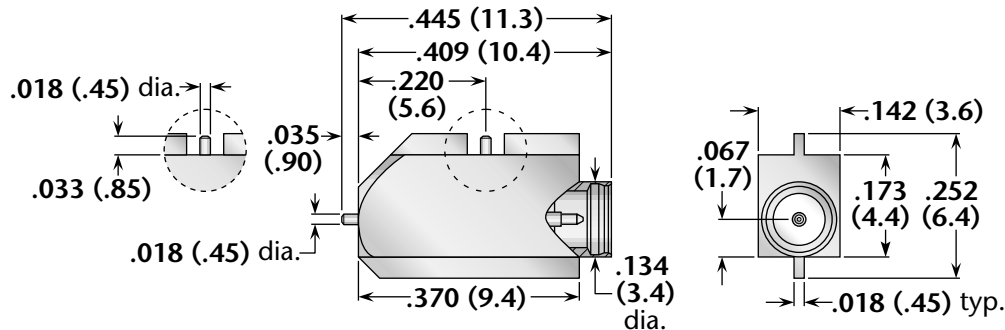
## MMCX Jack Switch - Edge Card For SMT



Packaging	Delta P/N
Individual	9571000G911-501
Tape & Reel*	9571000G911-500

Dimensions in inches (mm).

## MMCX Reverse-Polarity Jack Switch - Edge Card For SMT

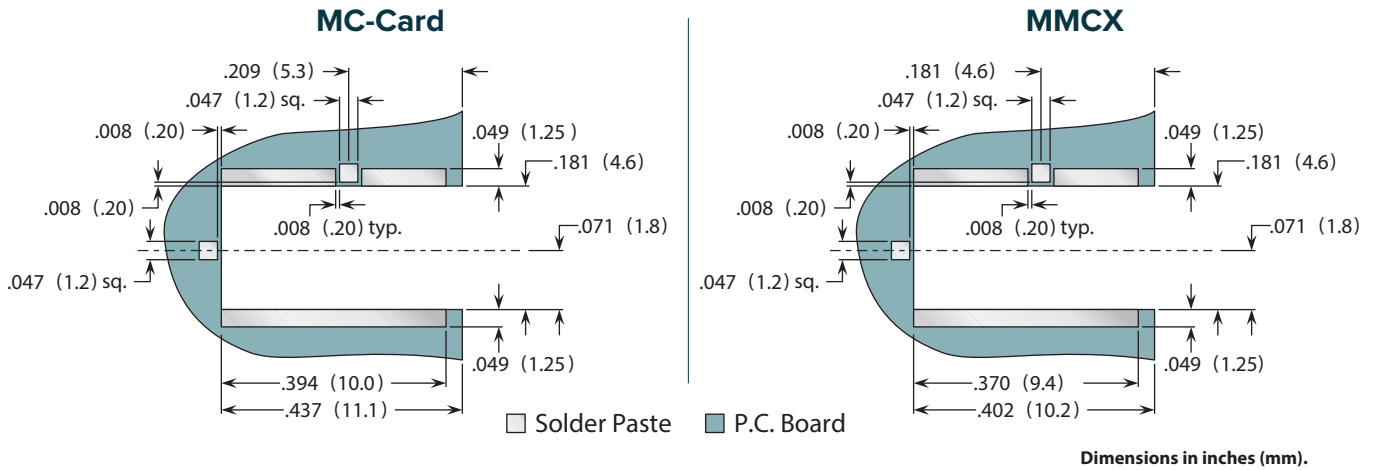


Packaging	Delta P/N
Individual	9571000G912-501
Tape & Reel*	9571000G912-500

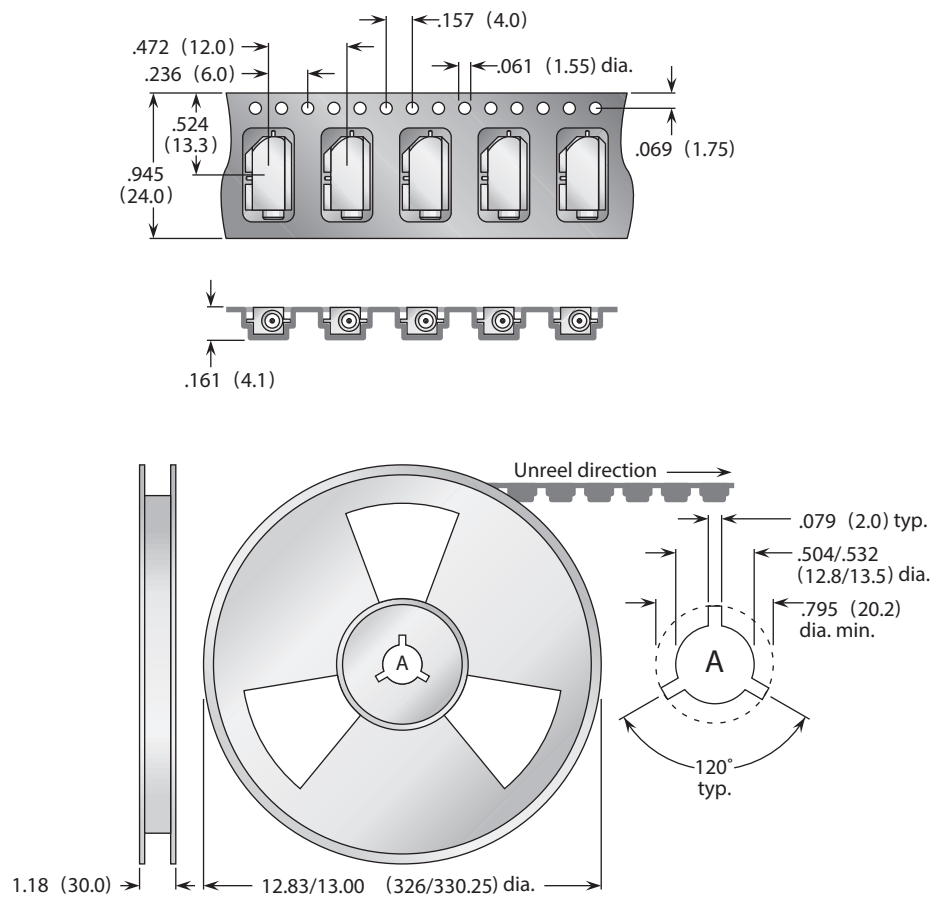
Dimensions in inches (mm).

\*Reel quantities (500 to 1000 per reel) available.  
See page 4 for mounting and tape / reel information.

## P.C.B. Mounting



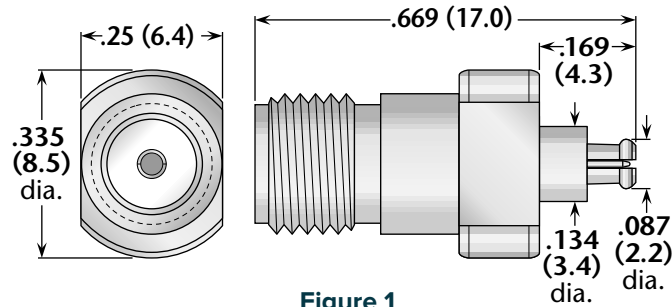
## Tape and Reel Packaging



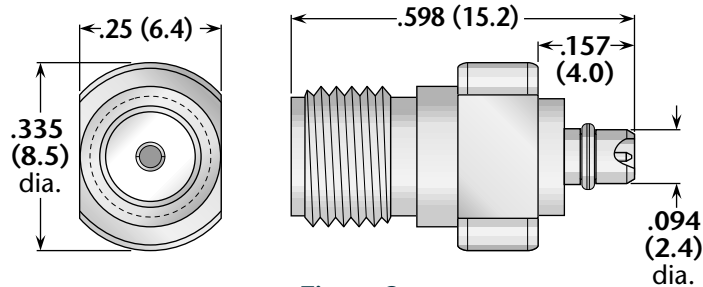
Dimensions in inches (mm).

See following page for between-series adapters.  
 For information on other mating connectors, visit our website at [www.DeltaRF.com](http://www.DeltaRF.com)

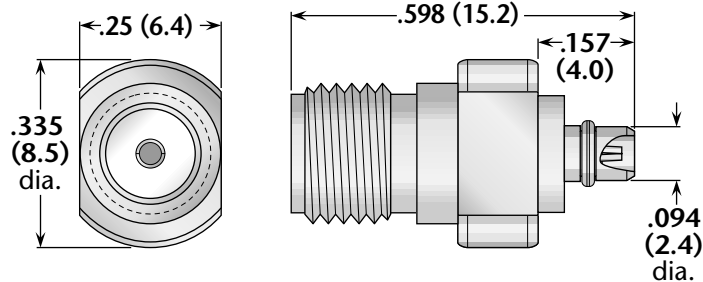
## Adapters to SMA Jack



**Figure 1**



**Figure 2**



**Figure 3**

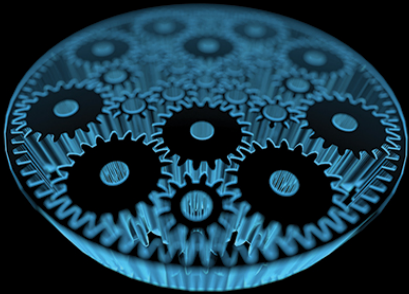
Figure	Right Mating End	Delta P/N
1	MC-Card Plug	2234000G001-504
2	MMCX Plug	2234000G001-501
3	MMCX Plug (Reverse Polarity)	2234000G001-505

Dimensions in inches (mm).

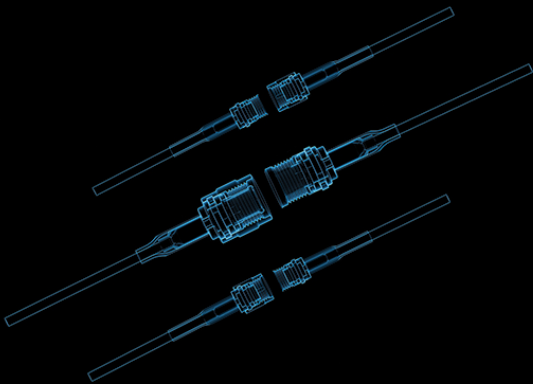
For information on other mating connectors, visit our website at [www.deltarf.com](http://www.deltarf.com)



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