

COAXICON Series Mobile Phone Switching Coax Connectors

Product Facts

- Able to switch RF signal from internal to external antenna
- SMD component for standard pick & place
- Up to 2.4 GHz
- Up to 30,000 life cycles
- High radial and axial tolerance capture
- Low insertion loss
- Right-angle cable plug with floating for alignment tolerance capture
- Application in handsets



Product Specification

108-71000

Technical Features

- Impedance** — 50 Ohms
 - Operating Temperature** — -40°C to +85°C
 - Radial Tolerance Capture** — ±1.0 [.039] (except for 3.5 [.138] height)
 - Axial Tolerance Capture** — 0.6 [.024]
 - Plating** — Outer shell and center contact are gold plated
 - Short Stamped Contact** — Selective gold plating
 - Long Stamp Contact (switch)** — Full gold plating with ink barrier
 - Insertion Loss** — 0.30 dB max. at 2 GHz
 - Isolation** — 26 dB min. at 2 GHz
 - VSWR** — 1.15:1 at 1 GHz, below 1.20:1 at 2 GHz
 - Mated Insertion Loss (after life cycle testing)** — Below 0.30 dB at 1 GHz, below 0.45 dB at 2 GHz
 - Unmated Insertion Loss (after life cycle testing)** — Below 0.20 dB at 1 GHz, below 0.35 dB at 2 GHz
- Packaging on reels for SMD.
For more details, refer to the product specification.

The Tyco Electronics SMD mobile phone connector system offers a low-cost and effective solution to passive switching between an internal and external phone antenna. When implemented in a cradle kit, the connector helps to make possible hands-free operation of the mobile

phone within a vehicle, enhancing safety and permitting compliance with a growing body of legislation. Connection to the external antenna also enhances signal gain and clarity.

The connector design accommodates gross misalignment between the

phone and cradle, which is extremely important when blindmating is necessary. The Tyco Electronics switching coax connector system meets all performance objectives, including up to 30,000 connect/disconnect and switching cycles over the connector's life.

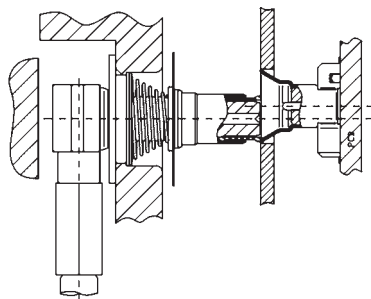


Figure 1 — System Configuration

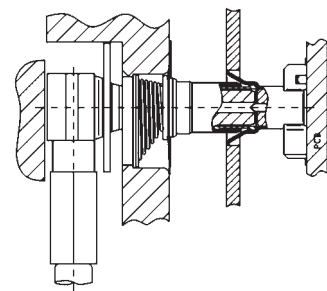
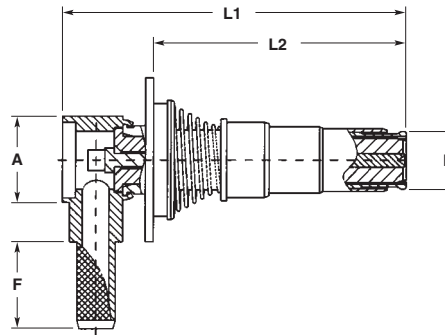


Figure 2 — System Configuration

COAXICON Series Mobile Phone Switching Coax Connectors (Continued)

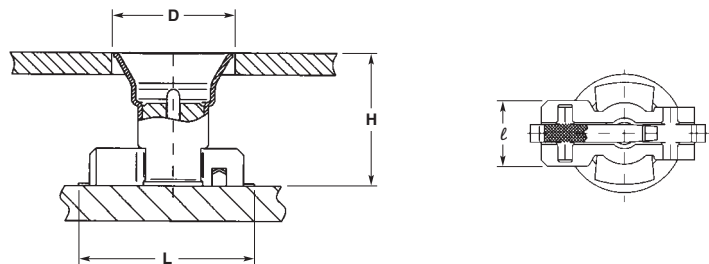
Right-Angle Cable Plugs



Note: Hex Crimp Dim. 3.25 [.128]

RG/U Cable	Dimensions					Single Packed Part No.	Bulk Packed Part No.	
	A	D	F	L1	L2			
RG 174	5x5 Square	3.4 .134	6.9 .272	15.6 .614	10.9 .429	619028-2	5-619028-2	
	5x5 Square	3.4 .134	9.6 .378	15.6 .614	10.9 .429	619028-4	5-619028-4	
		6.0 .236	3.4 .134	6.9 .272	15.8 .622	10.9 .429	619041-2	5-619041-2
		6.0 .236	3.4 .134	9.6 .378	15.8 .622	10.9 .429	619041-4	5-619041-4
		6.0 .236	3.4 .134	6.9 .272	20.3 .799	11.0 .433	619078-1	5-619078-3
		6.0 .236	3.4 .134	9.6 .378	20.3 .799	11.0 .433	619078-2	5-619078-4

SMD Switching Jacks



Dimensions			Diameter D	Part No.
H	L	l		
6.0 .236	8.0 .315	3.2 .126	5.4 .213	619061-1
4.5 .177	8.0 .315	3.2 .126	5.4 .213	619062-1
3.5 .137	8.0 .315	3.2 .126	5.4 .213	619072-1

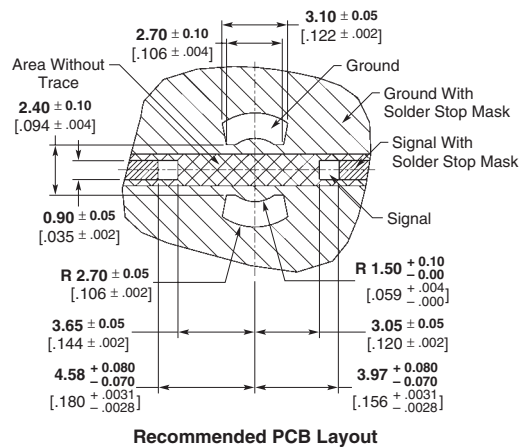
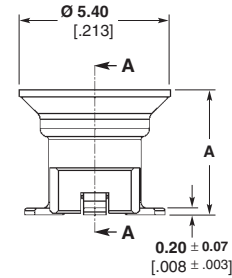
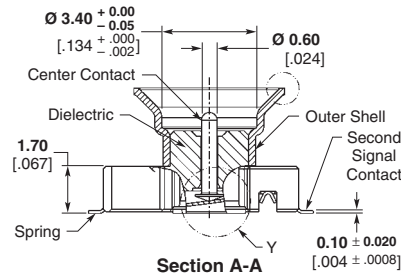
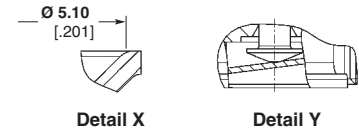
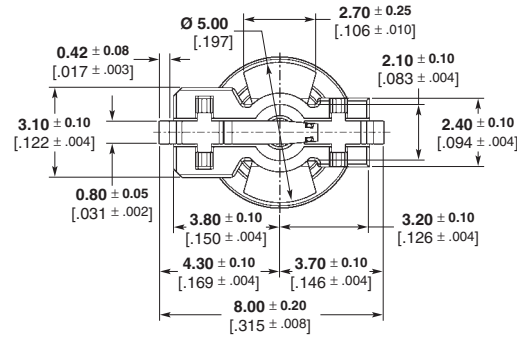
Other models upon request.
For all dimensions, stencil and PCB recommended layout, see customer drawing.
*Dim. l is the width of the connector on the PCB.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

COAXICON Series Mobile Phone Switching Coax Connectors (Continued)

**Switching SMD Jack
Low Profile**

**Part Number 619061-1,
Part Number 619062-1, and
Part Number 619072-1**



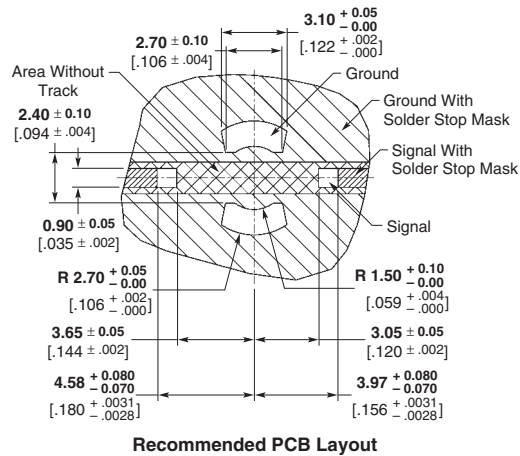
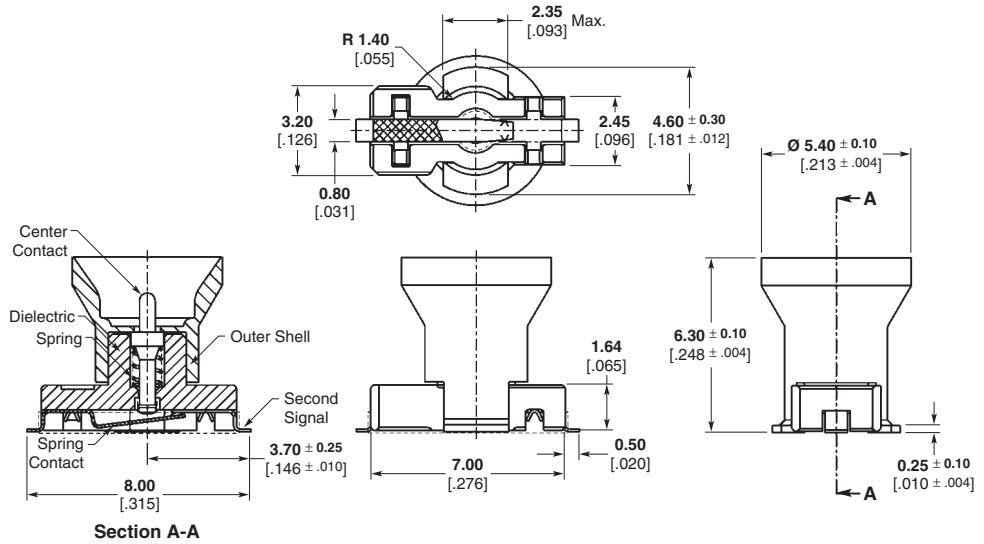
Plating	Dim. A	Part No.
Gold	6.00 ± 0.10 .236 ± .004	619061-1
Gold	4.50 ± 0.10 .177 ± .004	619062-1
Gold	3.50 ± 0.10 .138 ± .004	619072-1

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COAXICON Series Mobile Phone Switching Coax Connectors (Continued)

Switching SMD Jack
ESD Protected
Part Number 619133-3

Plating — Gold

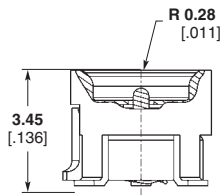


Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

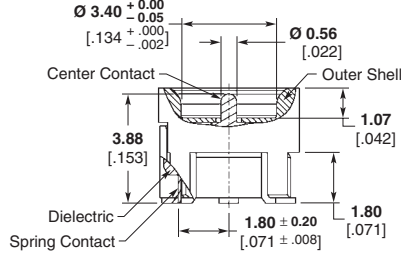
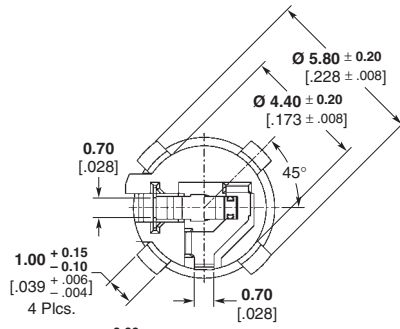
COAXICON Series Mobile Phone Switching Coax Connectors (Continued)

**Switching SMD Jack
ESD Protected
4.1mm Height
Part Number 619201-1***

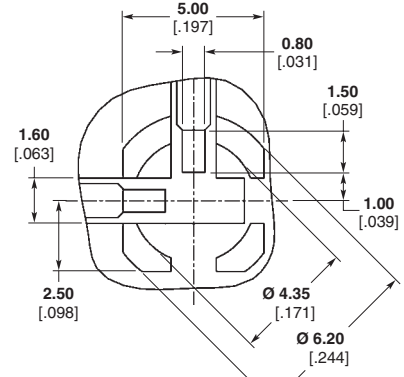
Plating — Gold



Mated Position



Unmated Position

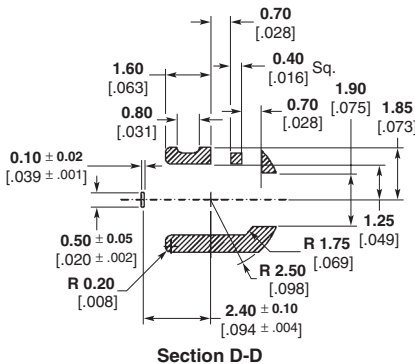


Recommended PCB Layout

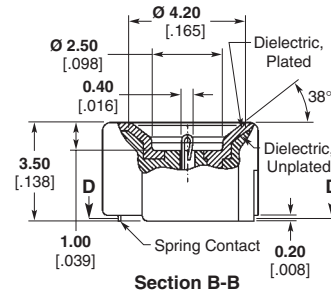
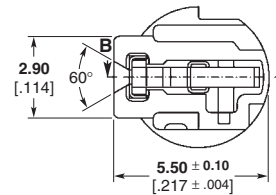
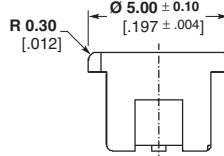
*Mirrored Version of Part Number 619201-1 Also Available Under Part Number 619231-1

**Switching SMD Jack Mid
Part Number 619075-1**

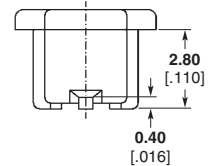
Plating — Gold



Section D-D



Section B-B

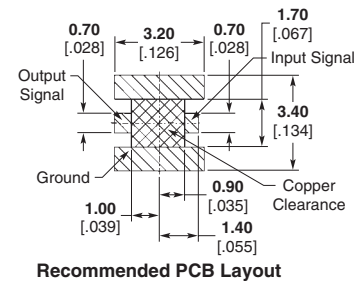
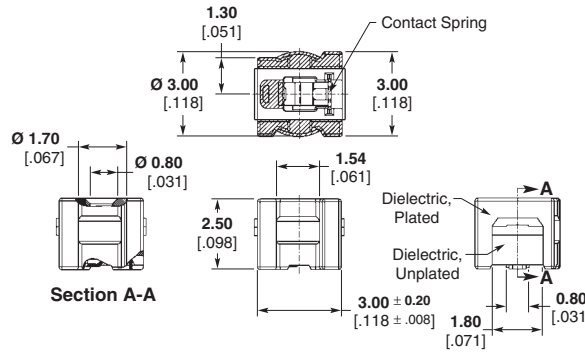


Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

COAXICON Series Mobile Phone Switching Coax Connectors (Continued)

Micro Switching Coax Connector
Part Number 619196-1

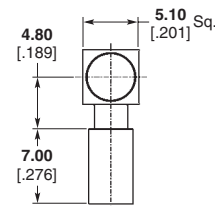
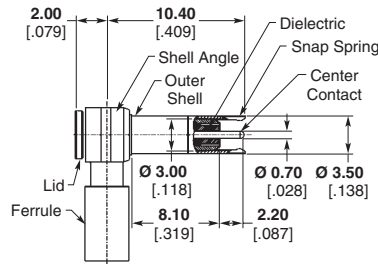
Plating — Gold



Right-Angle Cable Plug For Micro Switching Coax Connector Cable RG 316/ RG 174

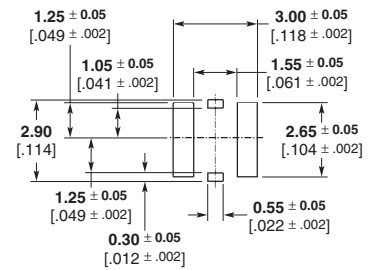
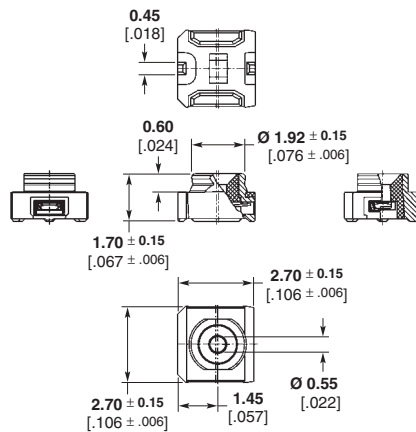
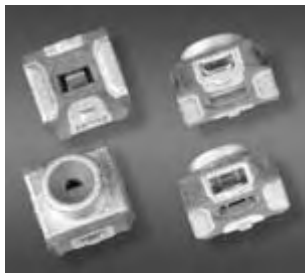
Part Number 619211-2

Plating — Gold



Nano Switching Coax
Part Number 619213-1

Plating — Gold



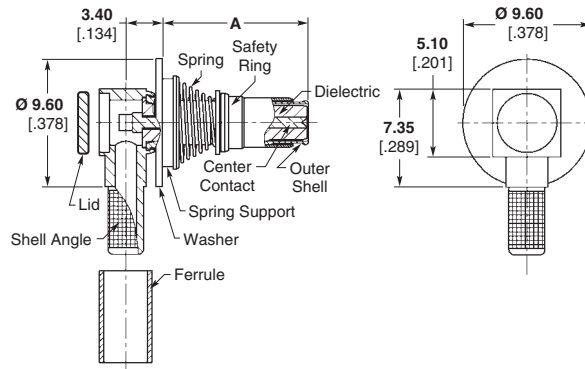
Recommended PCB Layout

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

COAXICON Series Mobile Phone Switching Coax Connectors (Continued)

Protected Front Contact Cable Plug

**Part Number 5-619028-1,
Part Number 5-619078-1,
and Part Number 5-619137-1**



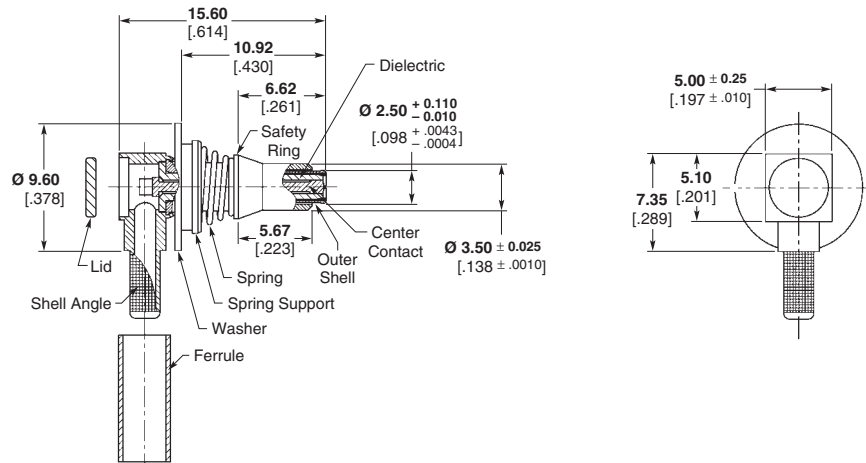
Plating	Dim. A	Part No.
Gold	10.92 .430	5-619028-1
Gold	14.90 .587	5-619078-1
Gold	10.92 .430	5-619137-1*

Bulk packaging.
*Outer conductor without slot.

Protected Front Contact Cable Plug With Cylindrical Interface

Part Number 5-619076-2

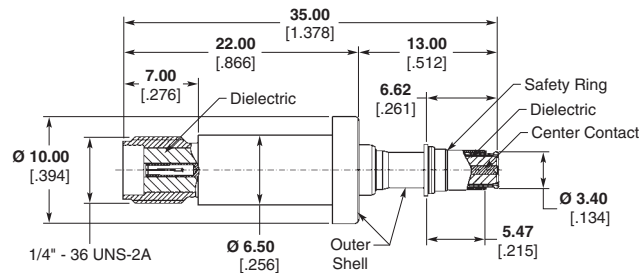
Plating — Gold
Bulk packaging.



Cable Plug/SMA Jack Adapter

Part Number 619052-1

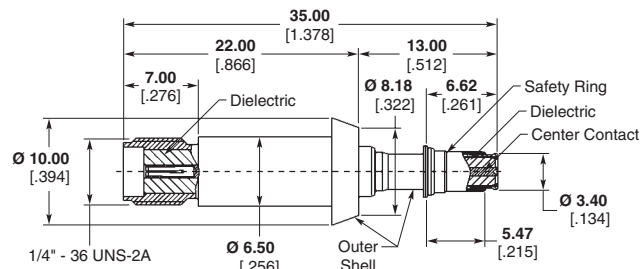
Plating — Gold



Cable Plug/SMA Jack Adapter With Conical Flange

Part Number 619068-1

Plating — Gold



Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

