



# Snap Lock SMA

## Quick Training

P, Duquerroy 30 May 2008

# Introduction

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- **Purpose**

- To introduce the Snap Lock SMA

- **Objectives**

- Explain the features and benefits
- Demonstrate the mating sequence
- Discuss typical applications

- **Content and Learning Time**

- 11 pages / 5 minutes

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Welcome to the TE Snap Lock SMA Series training module. This module will explain the benefits of the Snap Lock feature, demonstrate the mating sequence and discuss typical applications for this product

# Snap Lock SMA Series



Compatible with a standard SMA connector

Traditional mating of the SMA interface requires threading of the plug onto the jack to a specified torque level.

Process time

Wears on mating components

Requires tool to ensure proper torque



TE Snap-Lock Series SMA plugs are designed to replace standard SMA plugs in existing or new designs. The problem with standard SMA plugs is that they have a threaded coupling mechanism which requires a specific torque (typically 7-10 in-lbs or 0,7–1,1 Nm) for optimum connections. This process takes time, involve wear on the mating component and many times requires a separate tool to ensure that the required torque is achieved.

# Snap Lock SMA Series



**Easier, more reliable connection**

**Faster installation**

**Same excellent performance up to 11 GHz**

**Ideal for many applications**

Test and Instrumentation

Cable assemblies

**Backwards compatible**



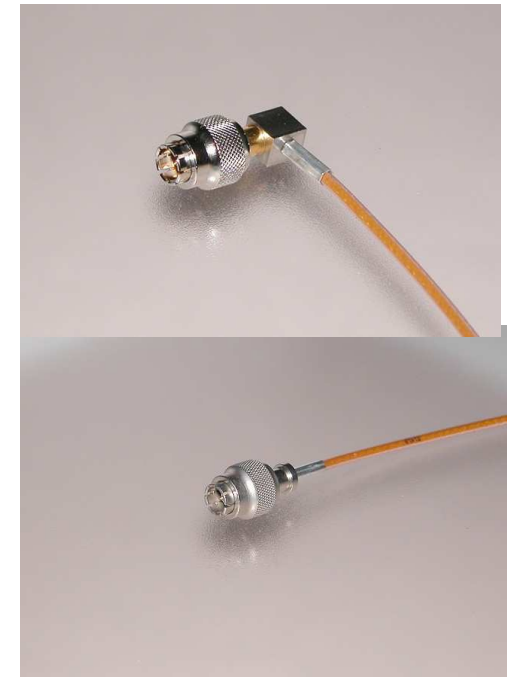
This new Snap Lock Series SMA Connector provides an easier and more reliable connection in a fraction of the installation time. The connection has the same excellent performance as standard SMA mated pair up to 11 GHz. This connector series is ideal for Test & Instrumentation purpose as well for cable assemblies. The Snap Lock SMA is an excellent option for those customers who like the quick release capability and who require backwards compatibility to standard SMA product used on their existing equipment or systems.

# Snap Lock SMA Series – Features & Benefits

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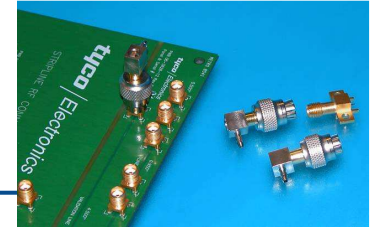
- **Quick engage / release coupling mechanism with positive lock eliminates the need for threaded coupling**
- **Good performance to 11 GHz**
- **No torquing of connector needed**
- **Free rotation on mated connection**
- **Higher packaging density can be achieved**
- **Allows for backwards compatibility with existing systems**



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The quick engage / release mechanism is the unique feature in the new Snap Lock Series. Replacing the threaded coupling mechanism with a true snap on interface allows for more connectors in a given space and reduces installation errors. The Snap Lock SMA plugs mate with standard SMA jack making them adaptable to both new and existing systems

# Snap Lock SMA Series – Mating Sequence



1) Unmated



2) Outer Collar Pulled Back



3) Connectors Engaged



4) Outer Collar Slides Forward and Locks



The above diagrams illustrate the ease with which the Snap Lock SMA is mated and unmated. The Snap Lock connector has inner contact fingers which slide over the thread of the mating Jack and lock into place by engaging the outer collar. Disengagement is achieved by pulling back on the outer collar. This design reduces wear on the component and saves application time.



# Snap Lock SMA Series – Applications



The Snap Lock SMA has a broad range of applications in Wireless Communication and Networking including Satellite communication & Aerospace. This connector series is also ideal for test and instrumentation as well for cable assemblies.

# Snap Lock SMA Specifications



## Performance Characteristics

Operating Frequency:	up to 12,4 GHz
Nominal Impedance:	50 Ohms
VSWR:	1,25 @ 11 GHz
Durability:	500 cycles min
Temperature Rating:	-65 to +165°C

## Material and Finish

Outer contact:	Au plated Copper alloy
Outer sleeve:	Ni plated Brass
Center contact:	Au plated Brass
Inner Locking Collar:	Ni plated Copper alloy
Insulator:	PTFE



General material and finish specifications of the Snap Lock SMA connector are listed here. Some of the performance characteristics do not include the durability rating of 500 cycles, 50 Ohm impedance and operating frequency up to 11 GHz, matching standard SMA connector performance. The Snap Lock Series is RoHS compliant with gold plated mating surfaces.



# Snap Lock SMA Summary



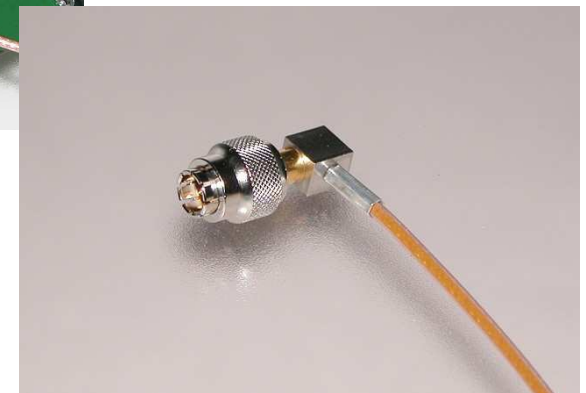
**Quick engage/release coupling mechanism with positive lock eliminates the need for threaded coupling**

**Not necessary to torque a coupling nut**

**Free rotation of mated connection**

**Higher packing density can be achieved**

**Allows for backwards compatibility with existing system**

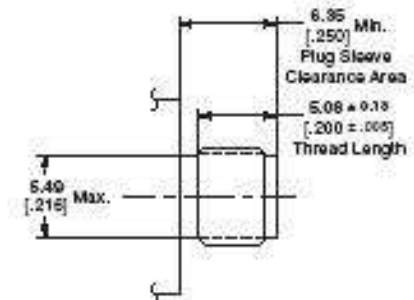
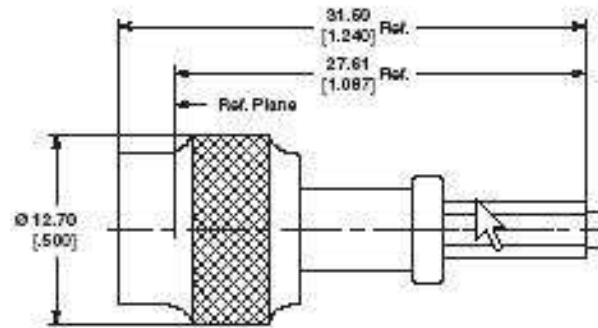


In summary, the quick engage/release mechanism of the new Snap Lock SMA Series connector eliminates the need for threaded mated pair, reduces labor and increases connection accuracy. More connectors can populate a given space because of the free rotation of the mated pair and not having to keep space free for torque wrench. Since the Snap Lock SMA plug mates with a standard SMA jack, it is the perfect choice for those considering a snap-on interface and whose system requires backward compatibility.

# Snap Lock SMA Part Numbers

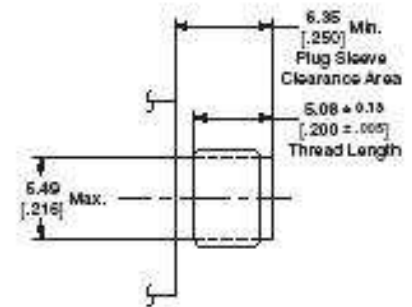
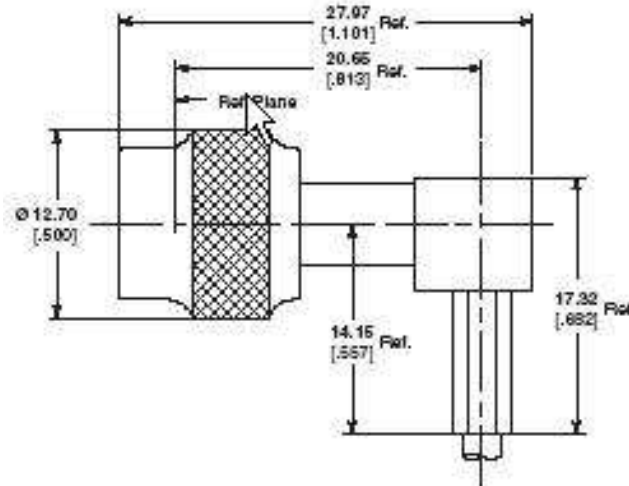
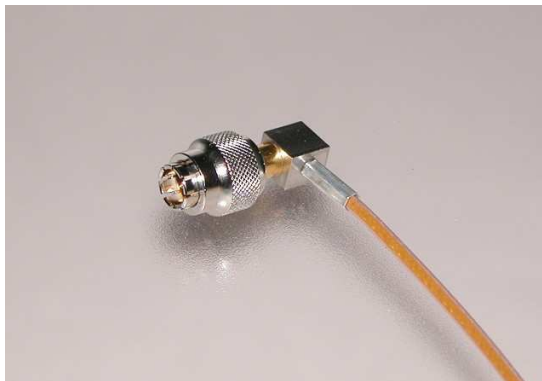


## Snap Lock Straight Cable Plug for RG 316 or similar: PN 1408541-1



Note: Product is designed and qualified to mate with gold plated SMA jacks.

## Snap Lock R/A Cable Plug for RG 316 or similar: PN 1274694-1



Note: Product is designed and qualified to mate with gold plated SMA jacks.

# Snap Lock SMA

## Technical support:

**Patrick M. Duquerroy**

**Tyco Electronics AMP GmbH**

**RF COAX Product Manager EMEA**

**+49-(0)6182-4538 tel**

**+49-(0)6182-781.996 fax**

**+49-(0)171.35.65.433 cell**

**[pduquerroy@tycoelectronics.com](mailto:pduquerroy@tycoelectronics.com)**

# THANK YOU!

