

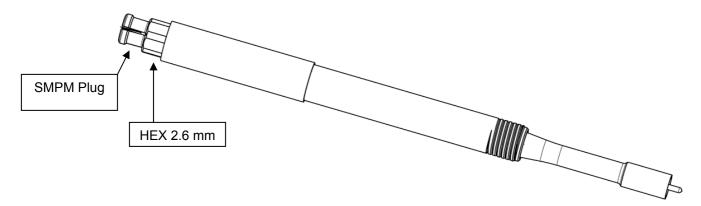
Pico switching coax probes

**114-71042** 17 Dec 09 Rev. B

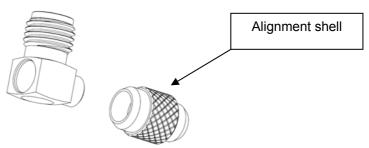
### 1. INTRODUCTION

This specification covers the requirements for application of Tyco Electronics:

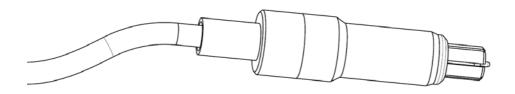
- > PN: 619361-1 Probe for volume production usage
- PN: 619383-1 Adaptor 90°, SMPM SMA Jack
- > PN: 619384-1 Probe for repair center usage
- 1.1 Volume Production Test Probe 619361-1 (50Ω). This Probe is assembled in a test jig. The connector is developed for usage with a dedicated pico coax switch counterpart like described in TE product spec. 108-71086.



1.2 Adaptor 90°, SMPM – SMA Jack 619383-1 (50Ω). This is an adaptor with SMA Jack - SMPM Jack interfaces; counterpart is 619361.



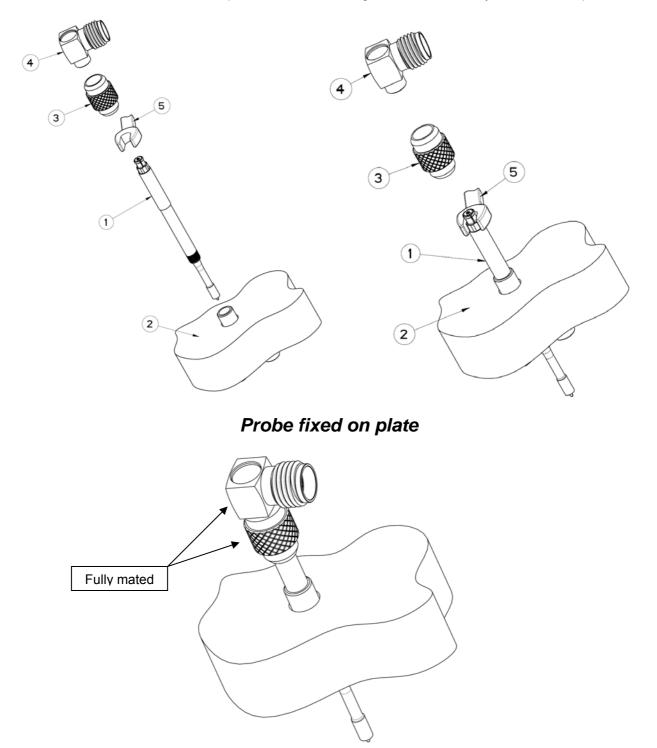
1.3 Probe for repair center usage 619384-1 (50 $\Omega$ ). This connector is developed for a manual usage with a dedicated switch counterpart like described in TE product spec. 108-71086.





## 2. MOUNTING INSTRUCTIONS

- 2.1 Assembly sequence of Volume production probe 619361-1 and Adaptor 90°, SMPM–SMA 619383-1:
  - Insert item 1 (Probe) in item 2 (test jig)
  - Tighten item 1 in item 2 until stop; use torque wrench 5 (0.3 N/m Max. with Hex 2.65 mm)
  - Insert item 3 (Alignment shell) in item 1
  - Fully connect item 4 (Adaptor 90°) on item 1 (Probe)
  - Slide item 3 towards item 4 to prevent connector tilting, item 3 must be fully mated until stop



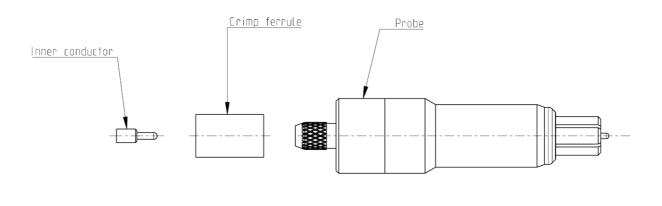


## 2.2 Assembly sequence of Probe for repair center usage 619384-1

#### 2.2.1 Introduction:

The center wire of the cable is soldered on the center contact of the connector The component drawings in this specification may differ from the parts supplied.

#### 2.2.2 Instruction:

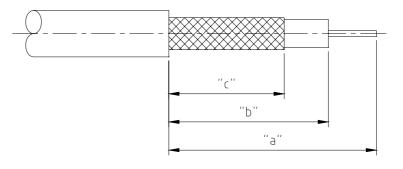


PART NUMBER	CABLE	CRIMPING TOOL
619384-1	RG 178	HEX 2.67 [.105]

2.2.3 Prepare cable:

Single screen braiding, without intermediate layers

- Strip cable jacket to dimension "a" without damaging the screen braiding.
- Shorten dielectric to dimension "b" without damaging inner conductor.
- Trim screen braiding to dimension "c" without damaging dielectric.

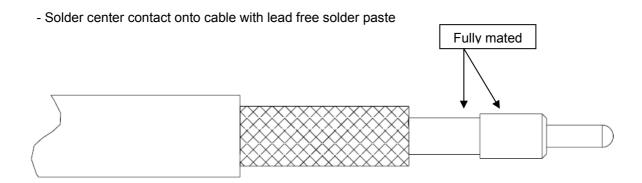


- Dimension table (recommended dimensions):

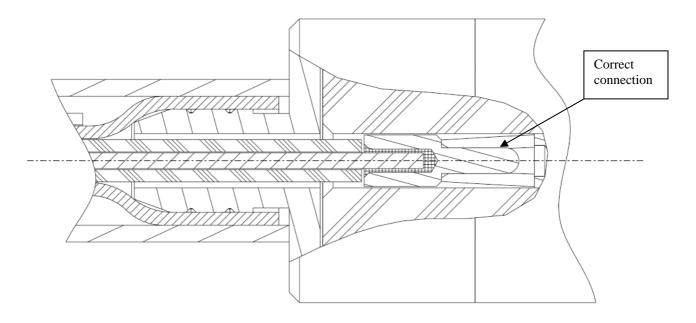
Dimension	"a"	"b"	"c"
	$6.6 \pm 0.2$	5.4 ± 0.1	$3.8 \pm 0.1$



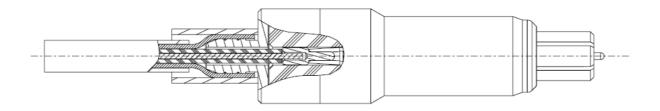
2.2.4 Solder center conductor



- 2.2.5 Crimping outer conductor
- Insert prepared cable into connector body until stop. Braid need to be placed over connector crimpend.

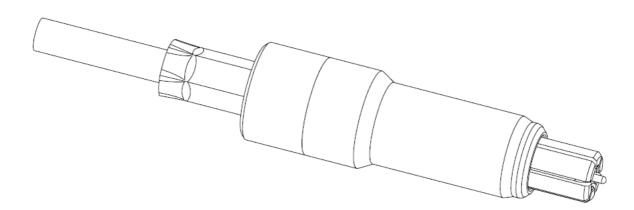


- Push crimp ferrule onto screen braid until stop and crimp. Use a crimping tool in accordance with the table par. 2.2.





# **Probe assembled**

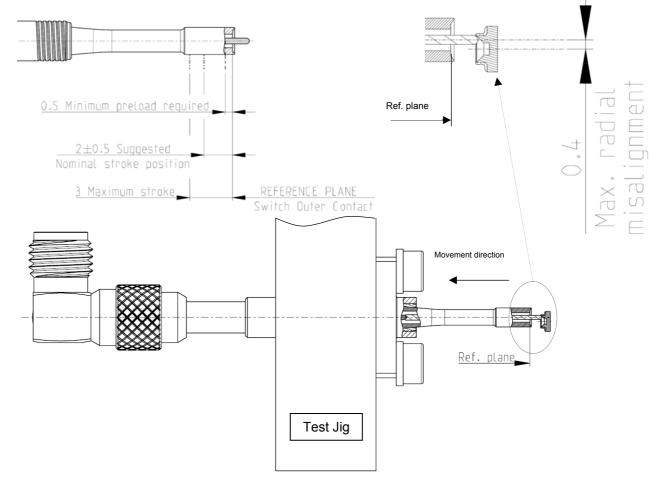


#### **3 WORKING RANGE**

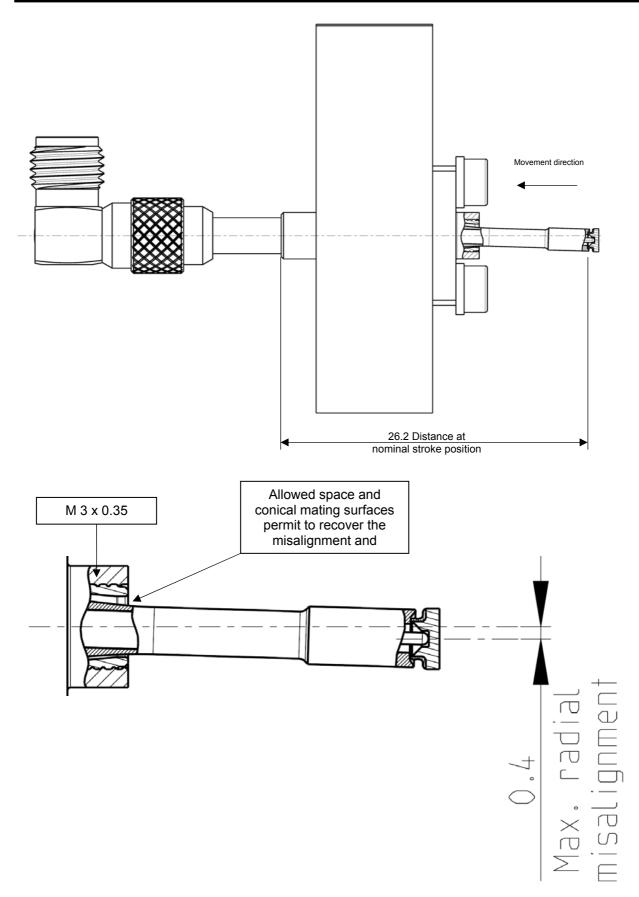
3.1 Volume production probe 619361-1 and Adaptor 90°, SMPM–SMA 619383-1

The probe 619361-1 was designed to recover a maximum of 0.4mm radial misalignment.

Details:









3.2 Probe for repair center usage 619384-1

The probe 619361-1 was designed to be hand mated with its counterpart

