ASSEMBLY, INSTALLATION, AND REMOVAL OF CONTACTS AND MODULES

FOR 40 GHz COAX CONTACTS AND MODULES

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RECEIVER AND ITA CONTACT INSTALLATION AND REMOVAL

PART # 610 102 114

TOOLS REQUIRED

2.92 mm, 3.5 mm, or SMA connector
$^{3}/_{8}$ Wrench
$^{5}/_{16}$ Wrench

INSTALLATION INSTRUCTIONS

1. Attach cable to the rear of the contact via a 2.92 mm, 3.5 mm, or SMA connector and torque per the connector manufacturer's recommendations using the $^{5}/_{16}$ wrench.
   - 2.92 mm - For applications up to 40 GHz
   - 3.5 mm - For applications up to 34 GHz
   - SMA - For applications up to 18 GHz

2. Remove the nut from the front of the contact.

3. Install the contact into the module from the rear (wiring side).

4. Place the nut back on the front of the contact and tighten to 20 in-lbs [2.26 Nm] using a $^{3}/_{8}$ wrench. See **Figure A** for receiver installation and **Figure B** for ITA installation.

REMOVAL INSTRUCTIONS

1. Remove the module from the receiver or ITA frame.
   NOTE: For more information concerning the process of removing the module from the receiver or ITA frame, see module installation and removal instructions in Section 2 of this User Manual.

2. Remove the nut using the $^{3}/_{8}$ wrench.

3. Remove the contact from the back of the module.

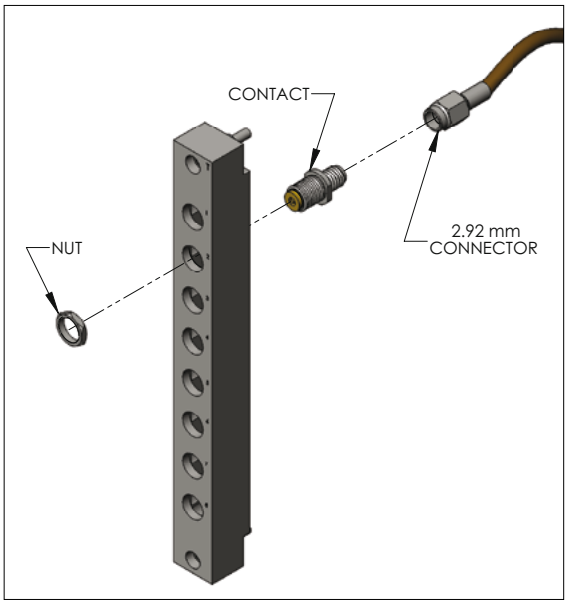

Figure A. Receiver Installation.

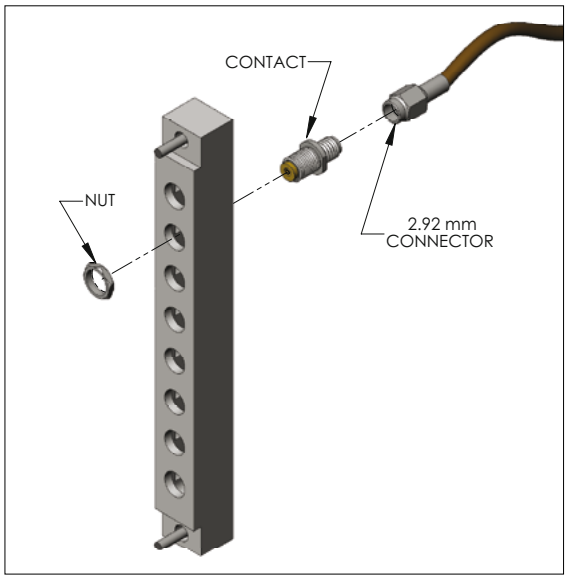

Figure B. ITA Installation.

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90 SERIES MODULE INSTALLATION AND REMOVAL

RECEIVER PART # 510 104 224

ITA PART # 510 108 169

TOOLS REQUIRED

$^{3}/_{32}$ Allen Wrench

INSTALLATION INSTRUCTIONS

1. Place the module in the receiver or ITA until the upper and lower module screws touch the mating holes in the inner frame. Ensure that Position 1 is located at the top for systems in which the modules are oriented vertically or to the left for systems in which the modules are oriented horizontally.

2. Using a $^{3}/_{32}$ Allen wrench, tighten the top screw 1 to 2 full revolutions, while pushing lightly against the face of the module.

3. Maintain this pressure while tightening the bottom screw 1 to 2 full revolutions.

4. Repeat this sequence until the module is seated. Torque the screw to 4 in-lbs [0.45 Nm].

REMOVAL INSTRUCTIONS

1. To remove, loosen the top screw 1 to 2 full revolutions. Loosen bottom screw 1 to 2 full revolutions.

2. Repeat this sequence until the module is separated from the receiver or ITA.

Note: For optimum performance and system longevity, distribute the contact load evenly throughout the module.

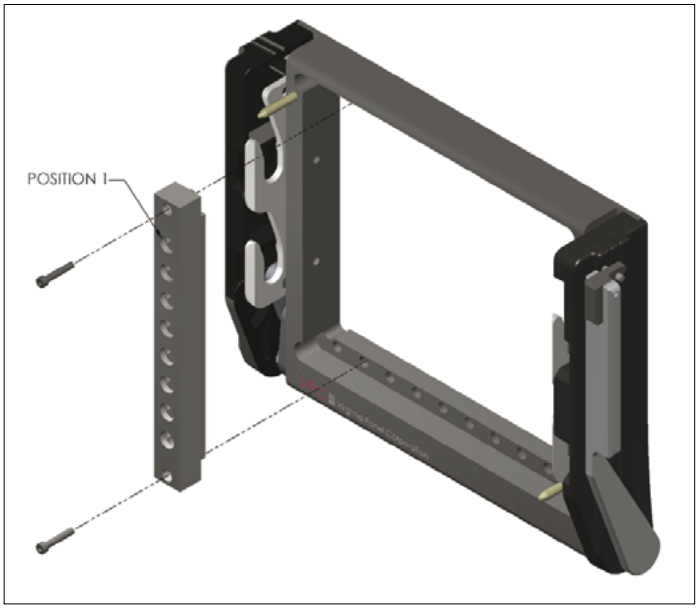

Figure A. Receiver Module.

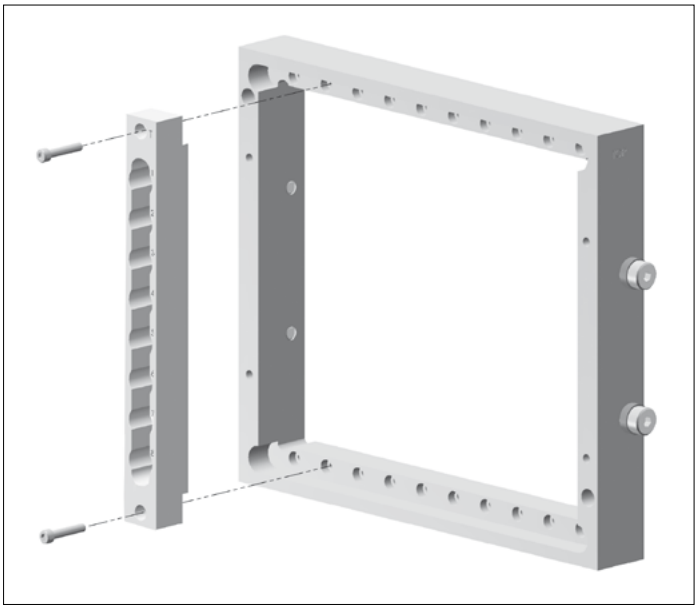

Figure B. ITA Module.

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CROSS REFERENCE TABLES

RECEIVER/ITA CONTACT	STANDARD/90 SERIES ITA MODULE	STANDARD/90 SERIES RECEIVER MODULE
	510 108 169	510 104 224
610 102 114	X	X

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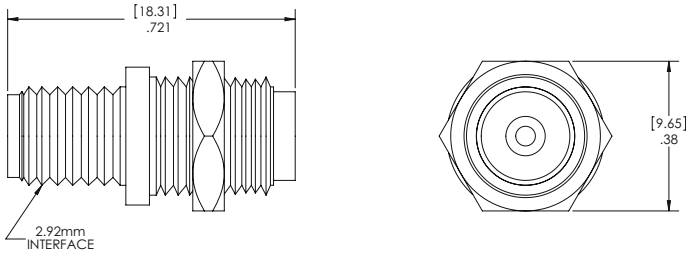
CONTACT PERFORMANCE SPECIFICATIONS



Receiver/ITA Contact
Part # 610 102 114

Dimensions shown: [millimeters]
inches

Electrical Specifications

IMPEDANCE	50 Ohms
TEMPERATURE RANGE	-50°C to 125°C
RECOMMENDED CONNECTOR	SMA for applications up to 18 GHz 3.5 mm for frequencies <26 GHz 2.92 mm for frequencies >26 GHz
CONTACT ISOLATION	-85 dB min

FREQUENCY RANGE (GHZ)	INSERTION LOSS (MAX dB)	VSWR (MAX)
DC - 18	0.3	1.35
18 < 40	1.5	1.55

Mechanical Characteristics

CYCLE LIFE	20,000
MATING FORCE	1.5 lbs max. [0.68 kg]

Material

OUTER SHIELD	**Stainless Steel, Class 303** Passivated per ASTM - A380
CENTER CONDUCTOR	**BeCu per ASTM - B196 or ASTM - B197** Au per MIL-G-45204

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