



# INFINITY CONNECTOR USER MANUAL

---

## INDEX (CLICK TO NAVIGATE TO PAGE)

### PAGE

[1 INFINITY CONNECTOR CONFIGURATION](#)

[2 SIM RECEIVER MODULE FEATURE IDENTIFICATION](#)

[3 SIM ITA MODULE FEATURE IDENTIFICATION](#)

### VTAC

[4 VTAC PASS THRU INSERT FEATURE IDENTIFICATION](#)

[5 VTAC RIGHT ANGLE HEADER PART IDENTIFICATION](#)

[6 VTAC INSERT INSTALLATION /REMOVAL- SIM RECEIVER MODULES](#)

[7 VTAC INSERT INSTALLATION / REMOVAL- SIM ITA MODULES](#)

[8 USING VTAC RIGHT ANGLE HEADER INSTALLATION TOOL](#)

[11 MATING SIM MODULE TO PCB-MOUNTED VTAC HEADERS](#)

### MICRO POWER

[12 MICRO POWER PARTS FEATURE IDENTIFICATION](#)

[13 MICRO POWER INSERTS INSTALLATION/REMOVAL- SIM MODULES](#)

### QUADRAPADDLE

[14 QUADRAPADDLE PARTS FEATURE IDENTIFICATION](#)

[15 QUADRAPADDLE INSERTS INSTALLATION/REMOVAL- SIM MODULES](#)

### PCB

[16 MATING SIM MODULE TO PCB -MOUNTED INFINITY CONNECTOR HEADERS](#)

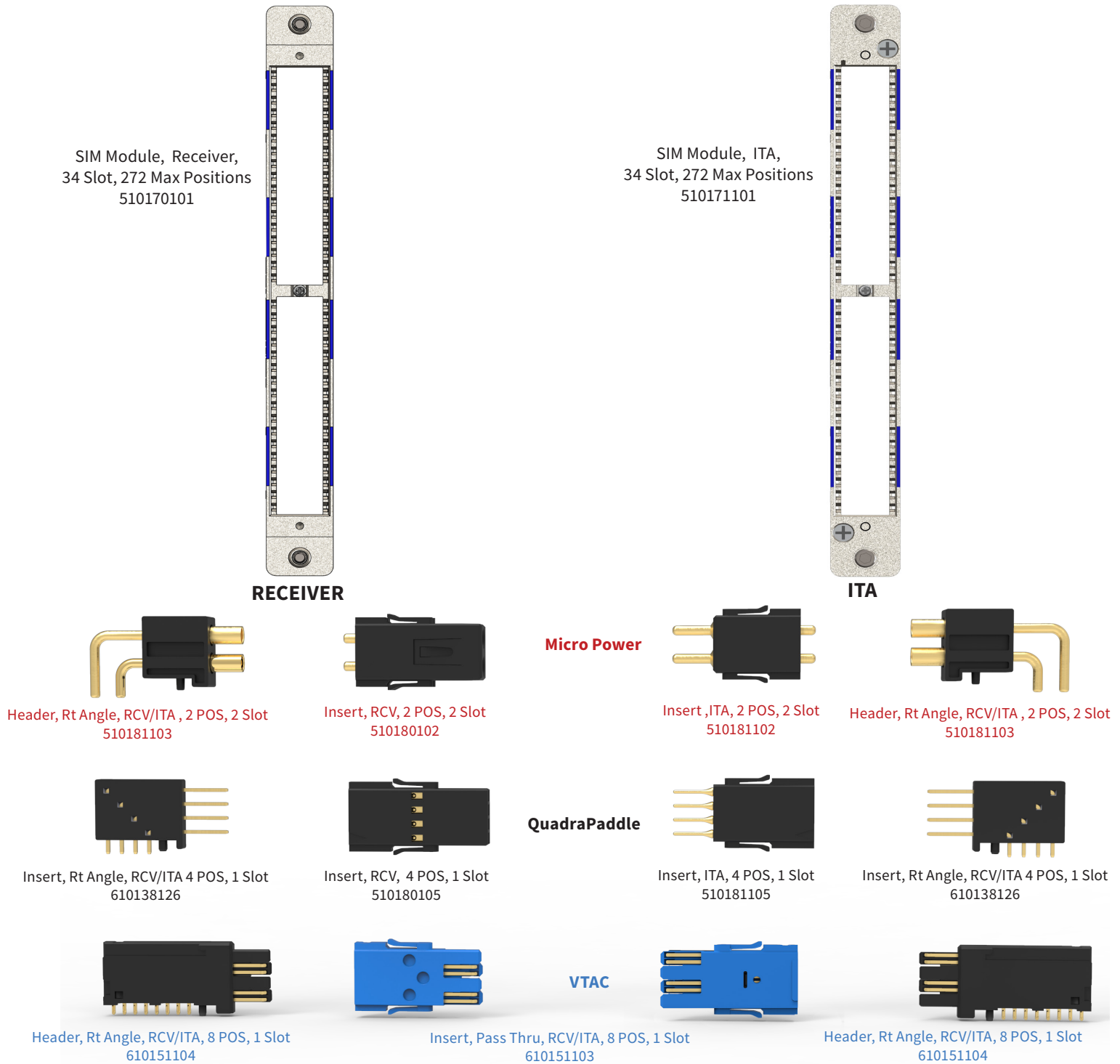
*Please note that any printed or downloaded User Manual may not reflect the most current revisions.  
The information contained herein is subject to change.  
For the most current information available, visit [vpc.com](http://vpc.com).*

## INFINITY CONNECTOR CONFIGURATION

PART # 510 170 101, 510 171 101, 510 181 103, 510 180 102, 510 181 102, 610 138 126,  
510 180 105, 510 181 105, 610 151 104, 610 151 103

The Infinity Connector system is comprised of a multi-piece design with pass thru inserts and right angle headers. Types of I/O available include VTAC, QuadraPaddle, and Micro Power and are used as slotted inserts in VPC's SIM ITA and receiver modules.

The diagram below demonstrates how this multi-piece design is configured.

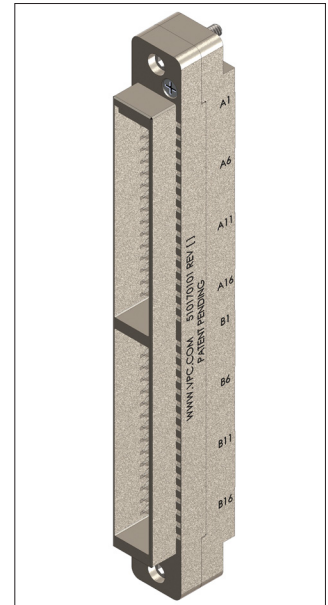


[RETURN TO INDEX](#)

## SIM RECEIVER MODULE FEATURE IDENTIFICATION

PART # 510 170 101

1. The top of the SIM receiver module can be identified by the position A1 notch, located on the front side( **Figure A**). When the module is oriented correctly, the position A1 notch is located in the upper left corner of the front side.
2. The front is the mating side of the module and is also where the extraction tool cavities are located ( **Figure A**).
3. The rear side can be identified as the side with the labeling closest to the edge from the side view ( **Figure B**).
4. The blue shading along the edges of the rear side of the module indicates groups of five slot positions ( **Figure C**).



SIM Receiver Module.

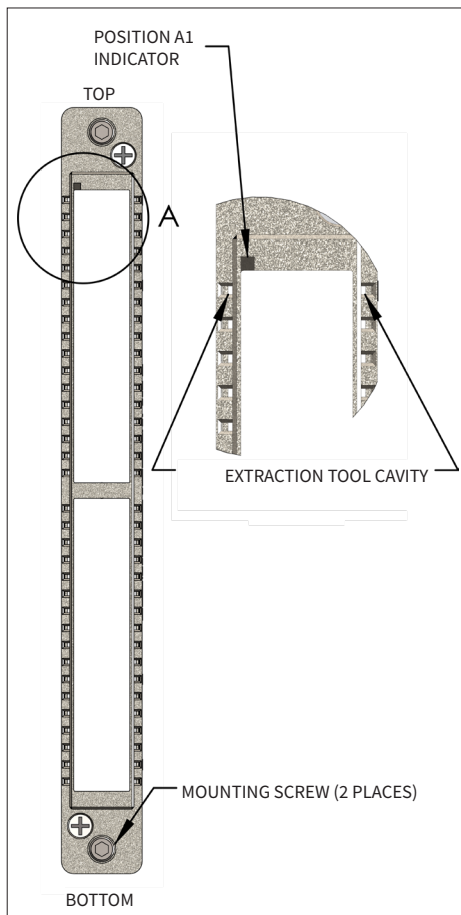


Figure A. Front view (mating side).

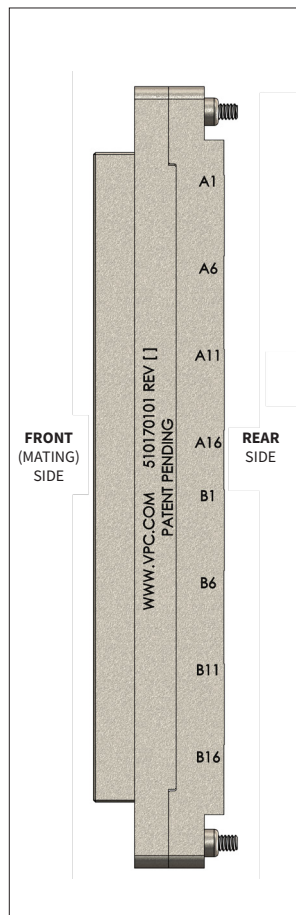


Figure B. Side view.

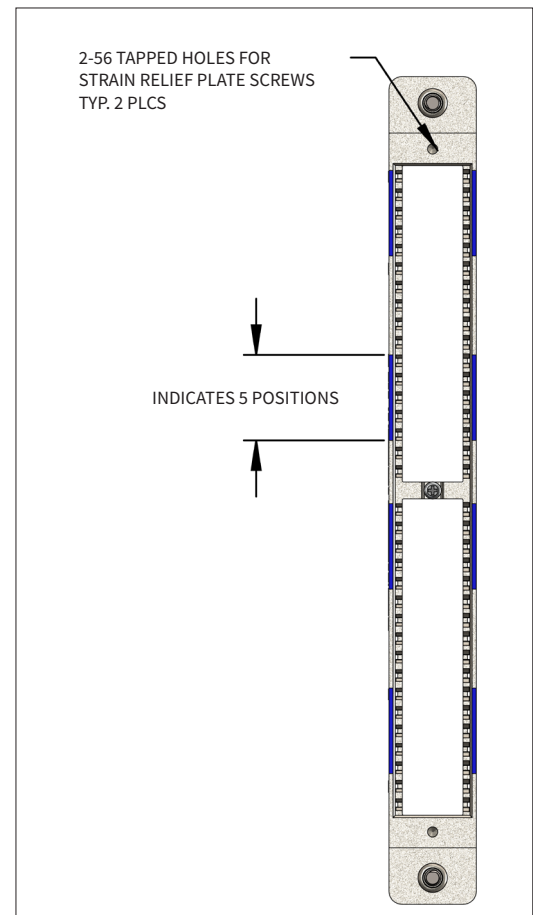
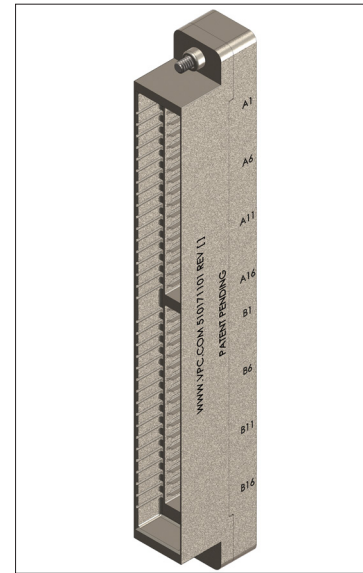


Figure C. Rear side.

## SIM ITA MODULE FEATURE IDENTIFICATION

PART # 510 171 101

1. The top of the SIM ITA module is indicated by the position A1 notch, located on the rear side ( **Figure A**). The rear side can be identified as the side with the labeling closest to the edge from the side view ( **Figure C**). When the module is oriented correctly, the position A1 notch is located in the upper left corner.
2. The front is the mating side of the module and is also where the extraction tool cavities are located ( **Figure B**).
3. The blue shading along the edges of the rear side of the module indicates groups of five slot positions ( **Figure A**).



SIM ITA module

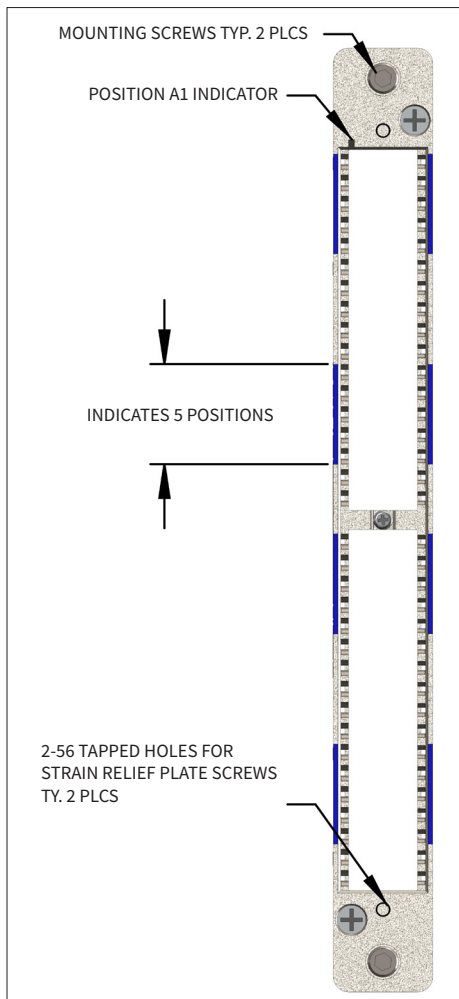


Figure A. ITA module rear.

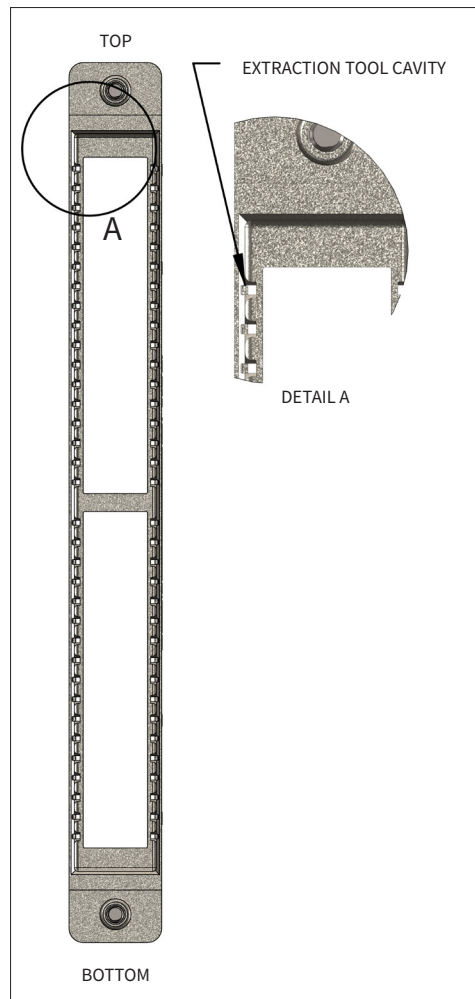


Figure B. ITA module front (mating side).

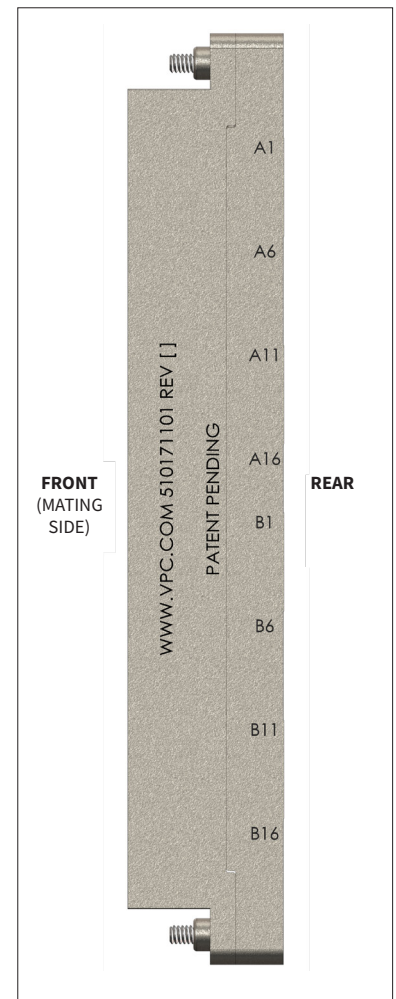


Figure C. ITA module side view.

[RETURN TO INDEX](#)

## VTAC PASS THRU INSERT FEATURE IDENTIFICATION

PART # 610 151 103

1. The VTAC Pass Thru Insert has both a front mating end (**Figure A**) and rear mating end (**Figure B**). When used with the Infinity Connector application, as a pass thru insert, and the rear mating end mates with the VTAC Right Angle Header. The front mating end is used to connect to the front mating end of another VTAC Pass Thru Insert. (**Figure D**).
2. There are two ways to identify Pin Position 1. The first method is a keying feature that creates a large and small side which only allows the insert to be installed one-way to ensure correct orientation (**Figure E**).
3. Pin Position 1 can also be determined by a small indentation located on one side of the insert ( **Figure C**). Note that the insert is positioned with the three circular indentations on the bottom.

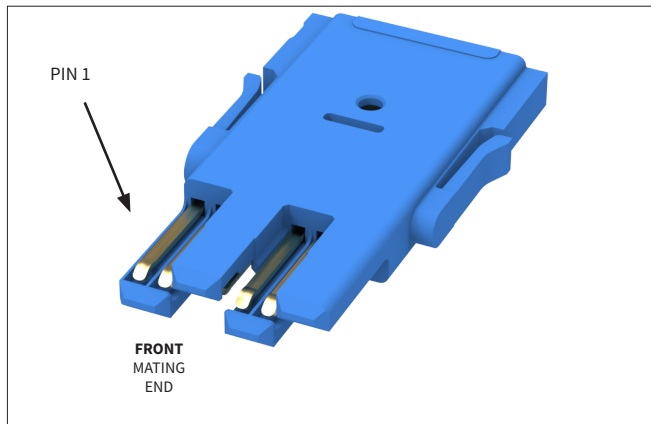


Figure A. Front Mating End

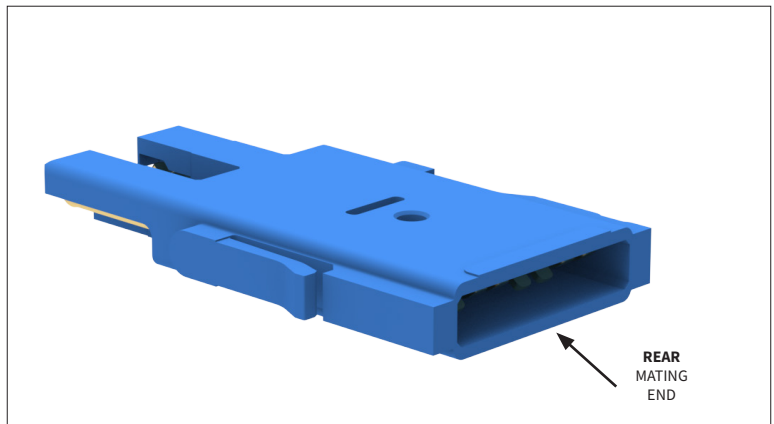


Figure B. Rear Mating End

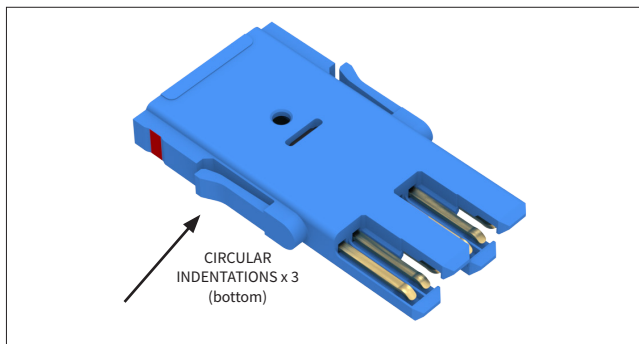


Figure C. Indentation (marked here in red for illustrative purposes) to help identify location of Pin Position 1.

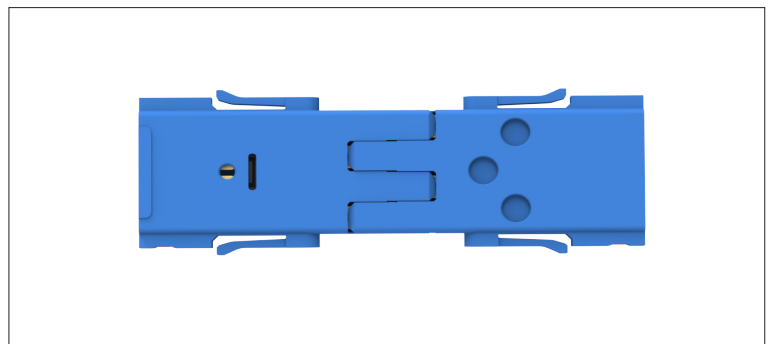


Figure D. Mated inserts

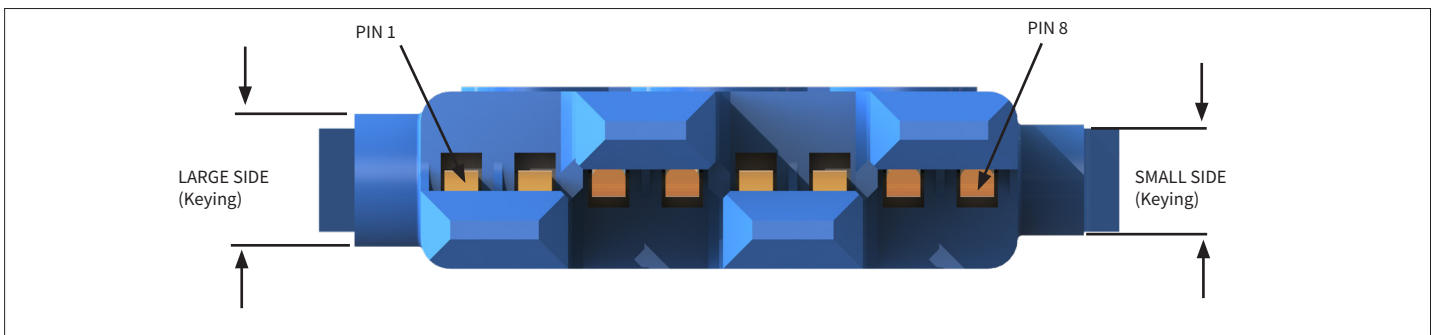


Figure E. Front Mating View

[RETURN TO INDEX](#)

## VTAC RIGHT ANGLE HEADER PART IDENTIFICATION

PART # 610 151 104

1. The top is located opposite of the compliant pins (**Figure A**).
2. The compliant pins and PCB alignment post, mate with the PCB (**Figure A**).
3. The front mates with the VTAC Pass Thru Insert (**Figure B**).
4. Each header contains 8 contacts. The location of Pin Position 1 is identified below (**Figure A**).

**\*NOTE:** The VTAC Right Angle Header can be mated to the VTAC Pass Thru Insert via two different orientations, which will change the location of Pin Position 1.

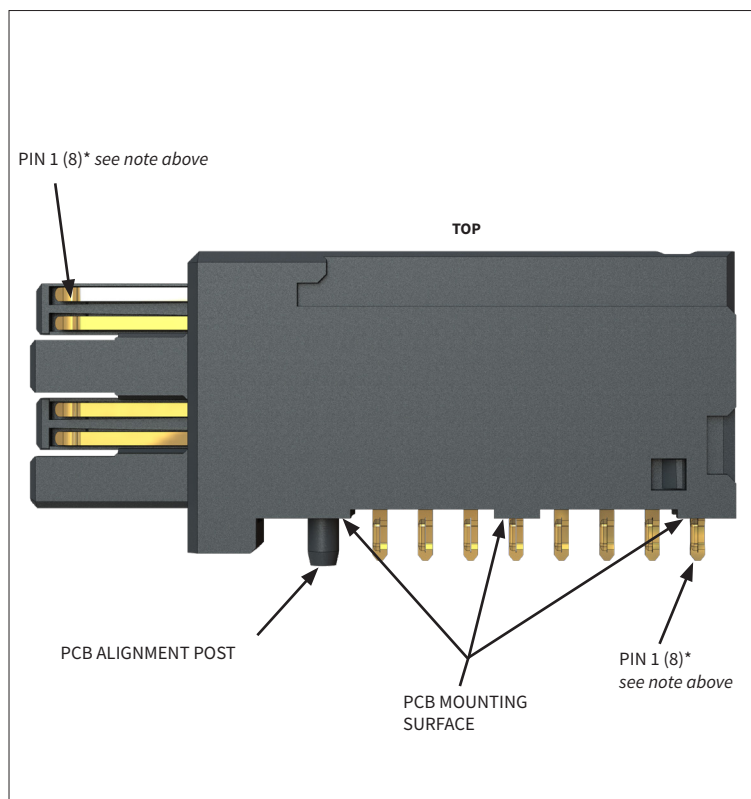


Figure A.

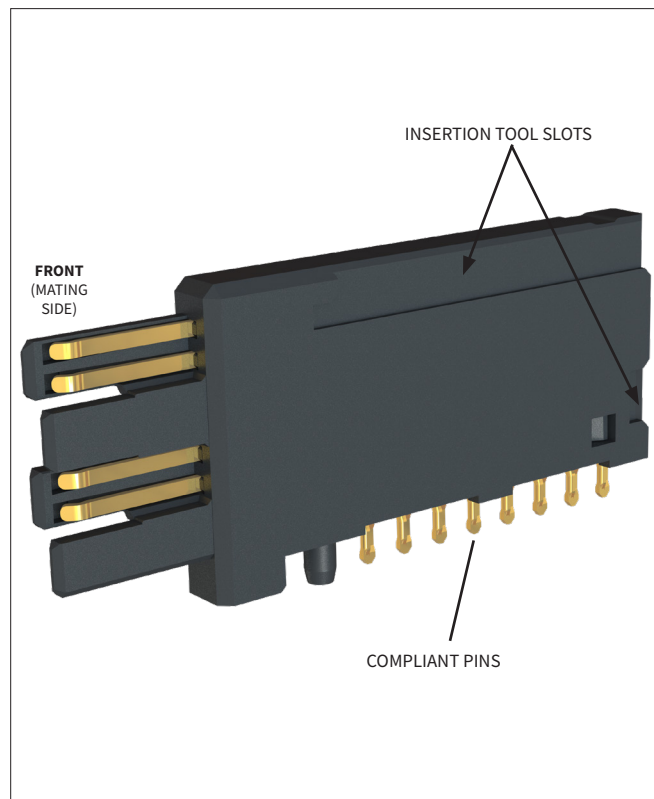


Figure B.



## VTAC INSERT INSTALLATION/REMOVAL- SIM RECEIVER MODULES

PART # 510 170 101, 610 151 103, 910 112 130

### TOOLS REQUIRED

VTAC Extraction Tool Kit

### INSTALLATION

1. Ensure the VTAC Pass Thru Insert is in line with the corresponding module slot. Inserts are installed from the rear side of the receiver module. Place the insert in with the (3) circular indentations facing down (**Figure A**).
2. Apply gentle pressure and the insert should easily snap into place. Force should not be needed when inserting. If force is required, incorrect orientation is being used for installation. Consult the VTAC Insert Feature Identification page in this manual for assistance with proper installation orientation.
3. The insert is fully seated when the rear of the insert is flush with the rear edge of the module frame.

### REMOVAL

1. The VTAC extraction tools may be grouped together to allow for removal of multiple inserts simultaneously. Each tool is magnetized and grooved to make grouping easier.
2. Group the desired number of extraction tools together for insert removal. *It is recommended that users remove only one insert upon first use of the VTAC extraction tool, as a practice to become familiar with it.*
3. The extraction tool is used on the front side of the receiver module. Grasp the tool(s) from the sides and slide the tool pins into the square cavity holes located externally on the frame on either side of the insert(s) to be removed (**Figure B**). If using multiple tools simultaneously, make sure that all pins are properly inserted into each corresponding cavity. The tool frame should be seated against the module body if pins are inserted correctly and completely (**Figure C**).
4. Tool(s) must be seated against the module frame before the plunger is pushed in. Otherwise damage to insert(s) may occur. Push plunger in fully. The insert(s) should be ejected out the opposite side of the module (**Figure D**).
5. Force should not be needed to extract inserts. If inserts do not extract easily, ensure all pins are fully seated in the correct location and try again.

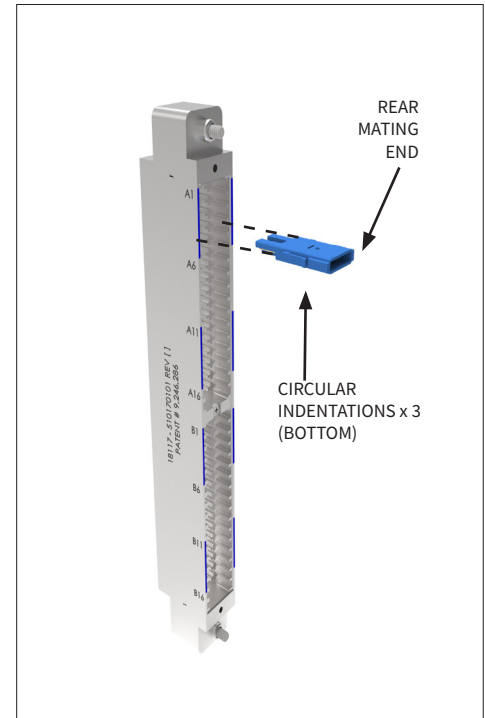


Figure A. Install from module's rear side.

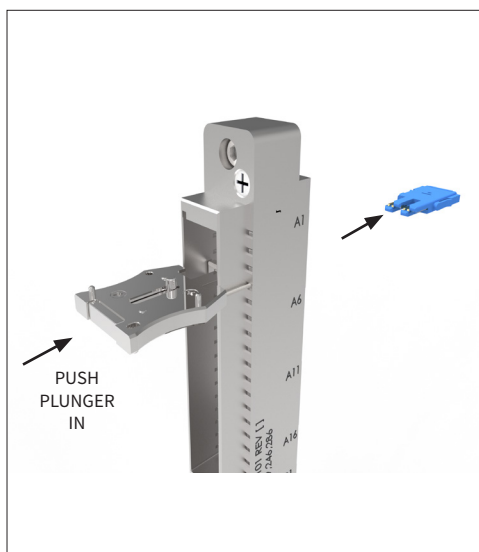


Figure D. Push extraction tool plunger in.

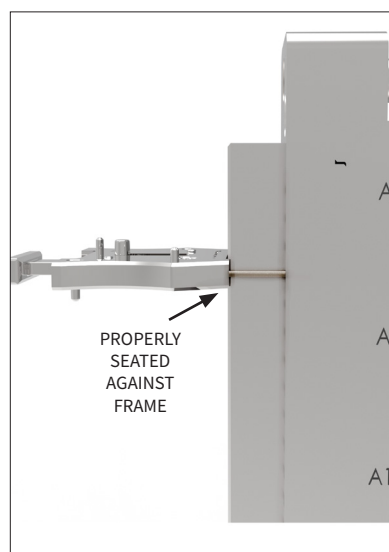


Figure C. Tool properly seated to module frame.

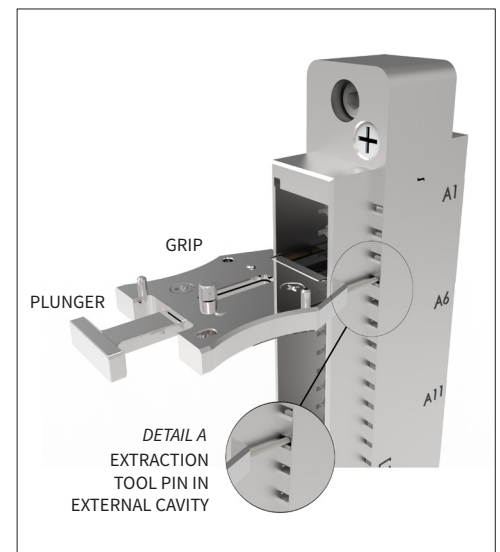


Figure B. Insert extraction tool pins.

[RETURN TO INDEX](#)

## VTAC INSERT INSTALLATION/REMOVAL- SIM ITA MODULES

PART # 510 171 101, 610 151 103, 910 112 130

### TOOLS REQUIRED

VTAC Extraction Tool

### INSTALLATION

1. Ensure the VTAC Pass Thru Insert is in line with the corresponding module slot. Inserts are installed from the rear side of the ITA module. Place the insert in with the (3) circle indentions facing up (**Figure A**).
2. Force should not be needed when inserting. If force is required, incorrect orientation is being used for installation. Consult the VTAC Insert Feature Identification page in this manual for assistance with proper installation orientation.
3. The insert is fully seated when the rear of the insert is flush with the rear edge of the module frame.

### REMOVAL

1. The VTAC extraction tools may be grouped together to allow for removal of multiple inserts simultaneously. Each tool is magnetized and grooved to make grouping easier.
2. Group the desired number of extraction tools together for insert removal. *It is recommended that users remove only one insert upon first use of the VTAC extraction tool, as a practice to become familiar with it.*
3. The extraction tool is used on the front side of the ITA. Grasp the tool(s) from the sides and slide the tool pins into the square cavity holes located inside the frame on both sides of the insert(s) to be removed (**Figure B**). If using multiple tools simultaneously, make sure that all pins are properly inserted into each corresponding cavity. The tool frame should be seated against the module frame if pins are inserted correctly and completely (**Figure C**).
4. Tool(s) must be seated against the module frame before the plunger is pushed in. Otherwise damage to insert(s) may occur. Push plunger in fully. The insert(s) should be ejected out the opposite side of the module (**Figure D**).
5. Force should not be needed to extract inserts. If inserts do not extract easily, ensure all pins are fully seated in the correct cavities and try again.

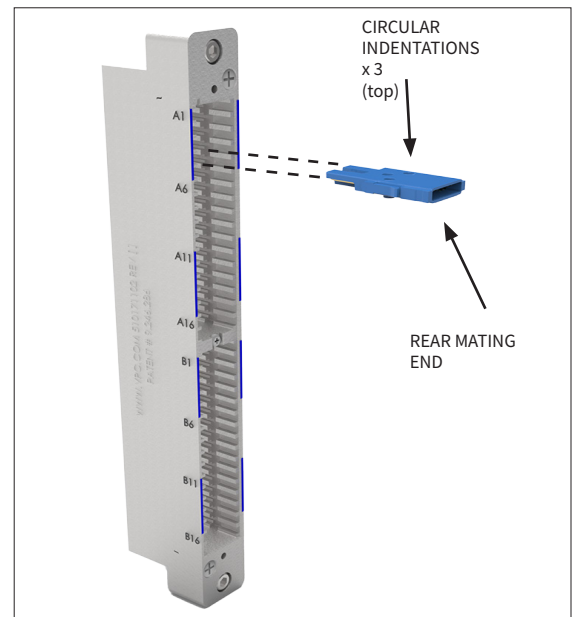


Figure A. Install from module's rear side.

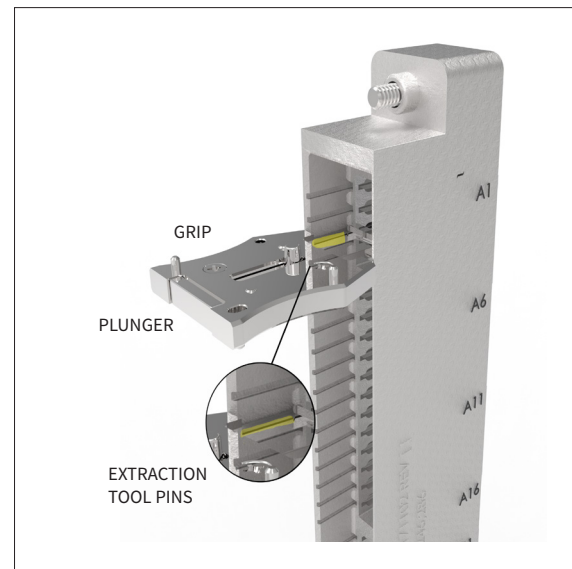


Figure B. Extraction tool pin placement (inside the frame).

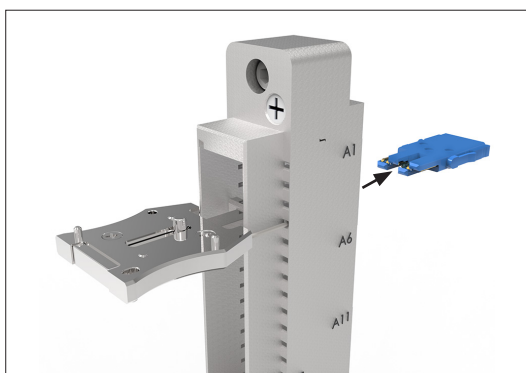


Figure D.

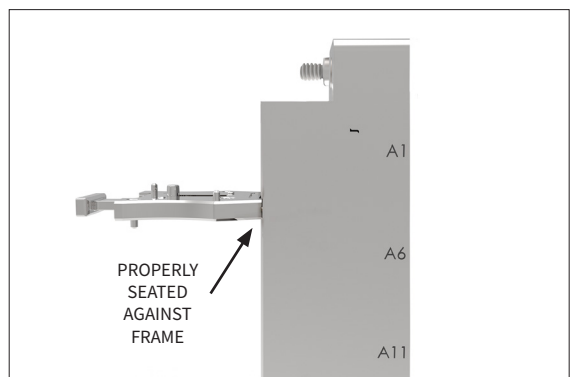


Figure C. Tool properly seated to module frame.

[RETURN TO INDEX](#)



## USING VTAC RIGHT ANGLE HEADER INSTALLATION TOOL

PART # 910 112 132 , 610 151 104

The VTAC Right Angle Header is installed via press fitting, using VPC's special installation tool. For a brief video version of these instructions, please [click here](#) to access a video tutorial on VPC's YouTube channel.

### INSTALLATION

1. Load the desired number of header(s) into the tool. Header(s) should be loaded starting from the center of the tool and evenly distributed outward. The center position is marked by location holes (**Figure A**).
2. Align the front of each header with the edge of the tool (**Figure B**).
3. Position so that the top surface of each header is flush with the inner surface of the tool (**Figure C**).

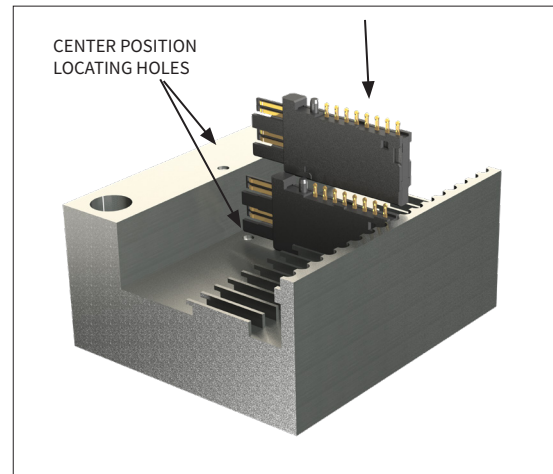


Figure A. Install starting in the center.

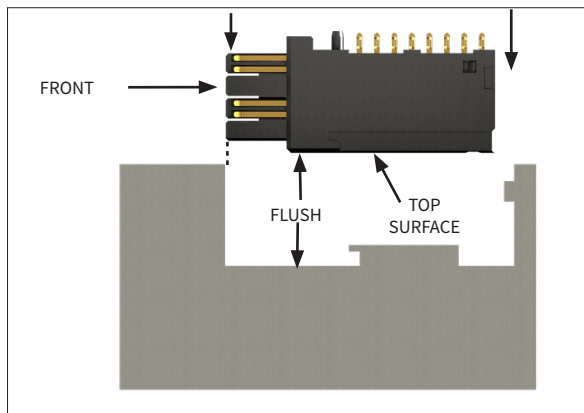


Figure B. Install with front (contact surface) flush with tool edge.

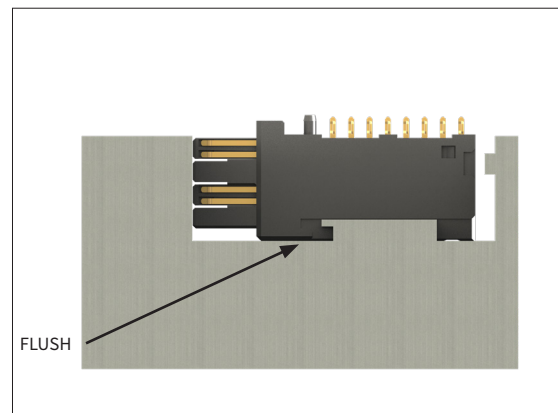


Figure C. Top surface of insert(s) must sit flush with tool surface.

### PROPER SEATING

4. Push each insert to the rear of the tool. Ensure that the rear of each insert is against the rear of the tool (**Figure D**). Make sure that the insert(s) stay in position until located in the board.
5. If necessary, push on the tab to help seat each insert (**Figure E**).

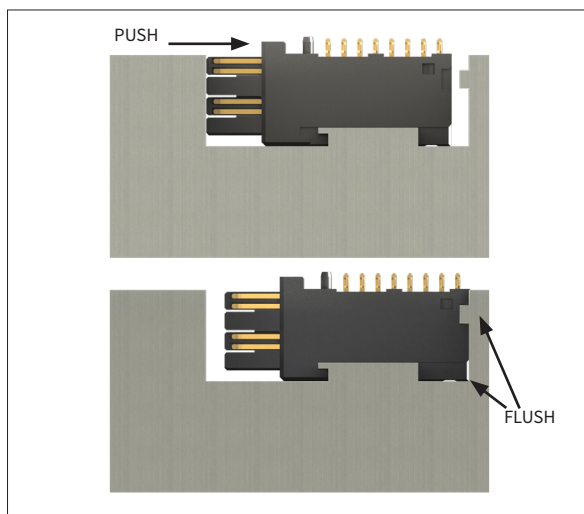


Figure D. Back end of insert(s) should sit flush with tool edge.

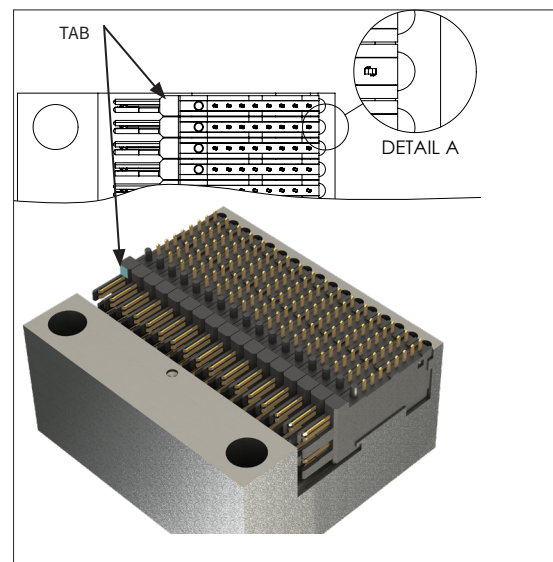


Figure E.

[RETURN TO INDEX](#)

## USING VTAC RIGHT ANGLE HEADER INSTALLATION TOOL (cont'd)

PART # 910 112 132 , 610 151 104

### ALIGNING PCB AND USING PRESS

6. Position the board so that the contacts and alignment pins are aligned with the proper holes (**Figure F**).
7. Place the PCB onto the contacts and hold the board in position (**Figure G**).
8. Place the other half of the tool on top. Hold the two halves together with the board in between. Ensure the contacts and the alignment pins are in the correct holes (**Figure H and I**).

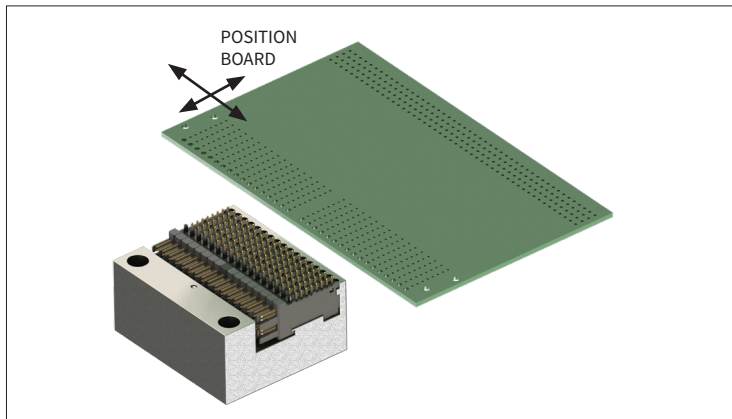


Figure F.

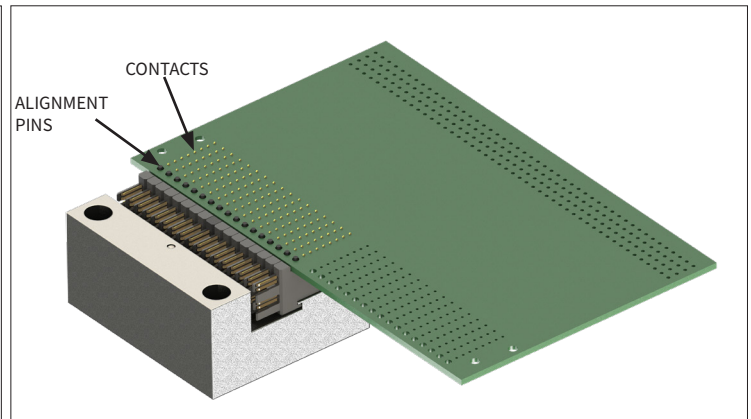


Figure G.

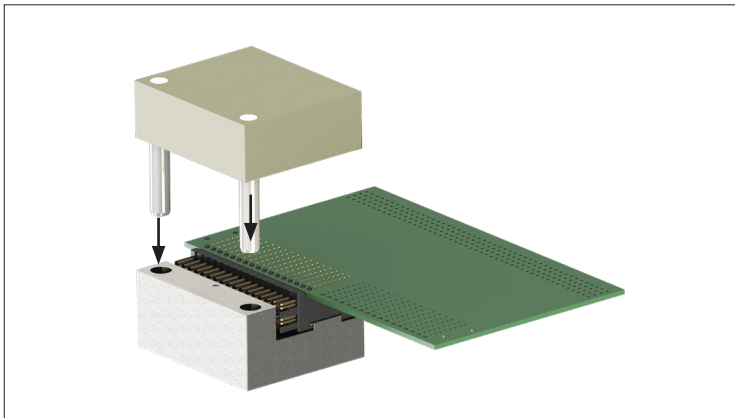


Figure H. Join both halves of tool.

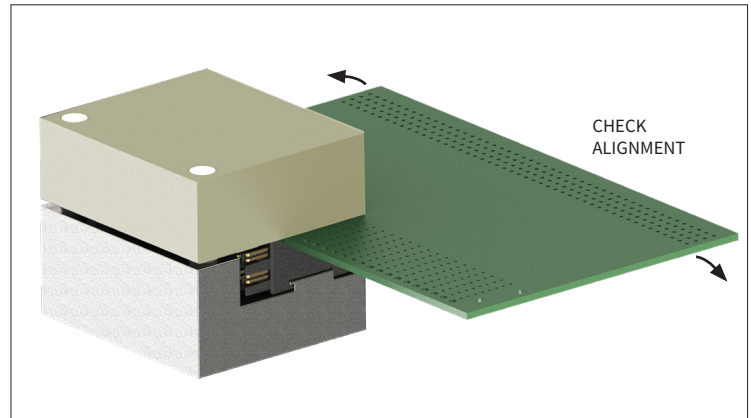


Figure I. Check alignment of contacts and alignment pins with holes.

9. The tool is now loaded and ready to be transferred to a press. The tool should be held together firmly and can be pressed with either side up.
10. Using a press, gently push the base and top of tool together until the contacts are seated. Be careful not to over-press.

## USING VTAC RIGHT ANGLE HEADER INSTALLATION TOOL (cont'd)

PART # 910 112 132 , 610 151 104

### REMOVING FROM PRESS

11. Once done pressing, remove the tool base (**Figure J**).
12. Remove top half of the tool from the PCB assembly by pushing on the front surface. After the tool has been released, lift it off the PCB (**Figure K**).
13. Verify that the header(s) are fully seated against the board along the edge (**Figure L**).

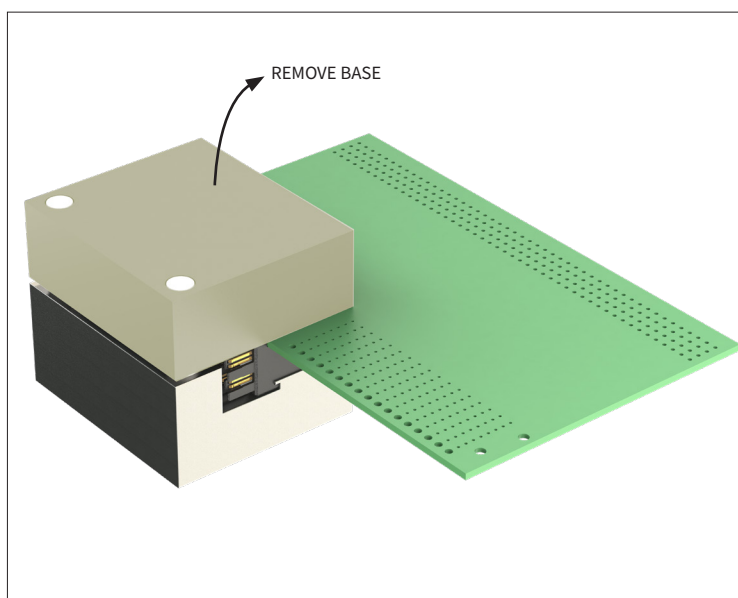


Figure J. Remove base.

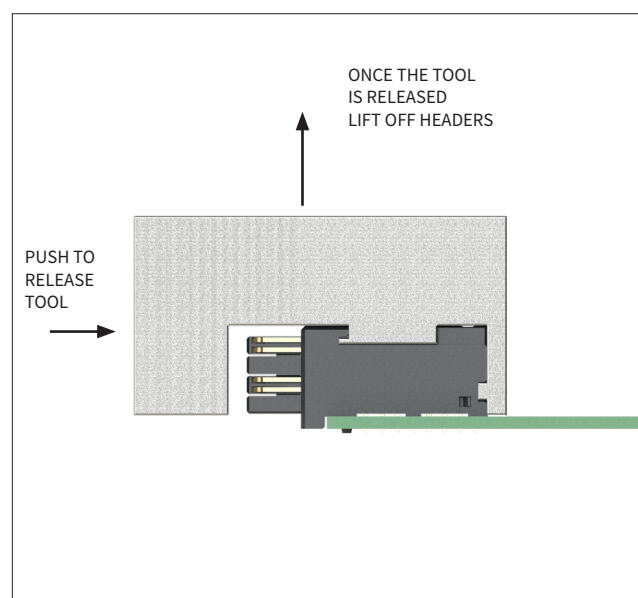


Figure K.

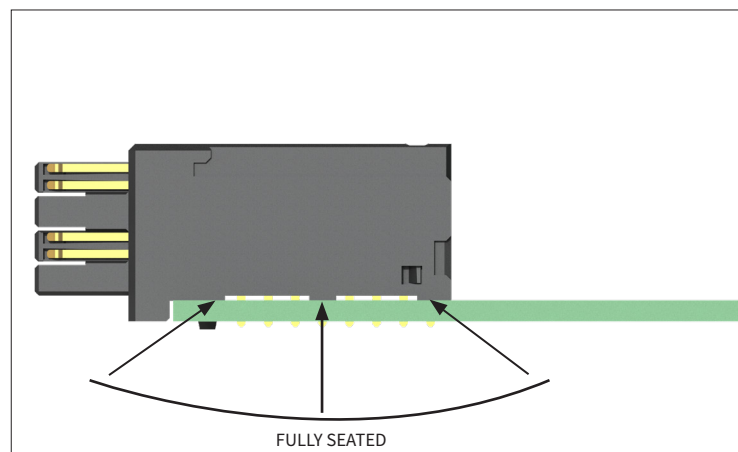


Figure L. Verify proper installation.

## MATING SIM MODULE TO PCB-MOUNTED VTAC HEADERS

PART # 510 170 101, 510 171 101, 610 151 104, 510 109 592

### TOOLS REQUIRED

Phillips screw driver

### INSTALLATION

**NOTE:** Instructions apply to both ITA and receiver SIM modules.

1. Using the previous instructions for installing VTAC Pass Thru Insert(s), install into the appropriate SIM module for mating with the PCB-mounted right angle headers. Ensure that the necessary module slots contain mating inserts for the PCB's mounted headers. For the purpose of this application, the mating side of the VTAC Pass Thru insert is the rear.
2. Mate module with PCB assembly. Both ITA and receiver modules will mate to the PCB via the rear side. The module markings should be on top (**Figure A**).
3. Once the module and PCB are fully mated, use the PCB mounting brackets to fully attach the module to the PCB (**Figure B**). Insert the PCB mounting screws, but do not tighten completely. Insert the module mounting screws. Torque #2-56 and M2 screws to 1.5 in-lbs [0.17Nm] .

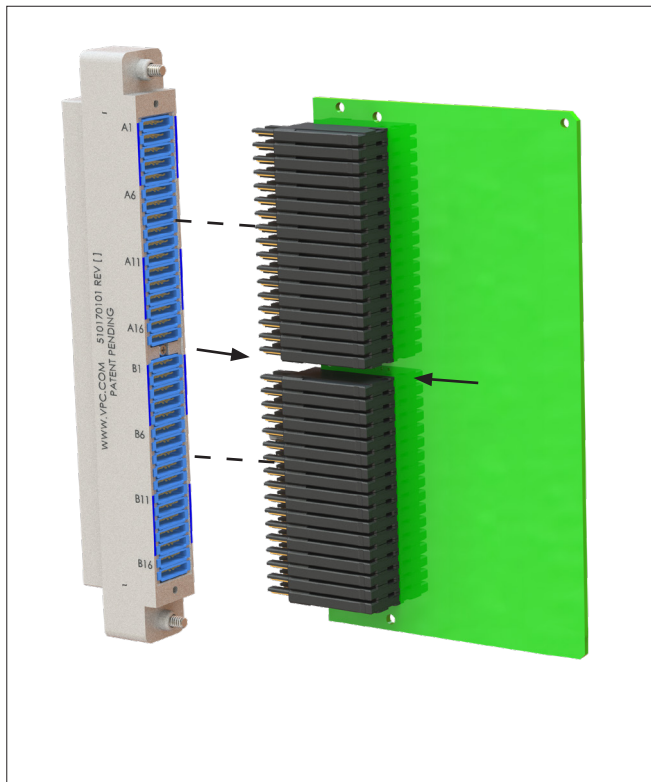


Figure A. Mating Module with PCB Assembly.

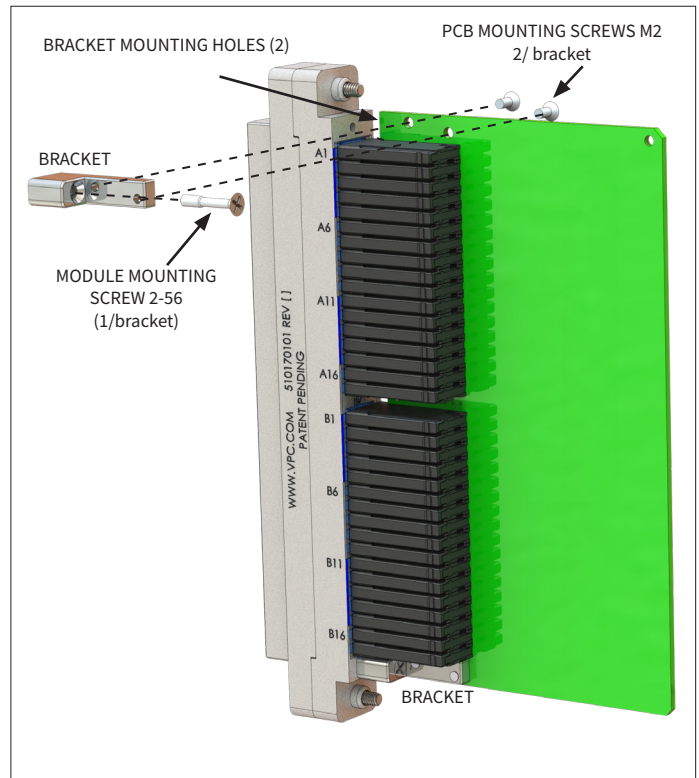


Figure B.

## MICRO POWER PARTS FEATURE IDENTIFICATION

PART # 510 181 103, 510 180 102, 510 181 102

### RIGHT ANGLE HEADER

1. The top is located opposite of the PCB alignment post and PCB mounting surface of the header (**Figure A**).
2. The front of the header contains the contact connections to the micro power contact pass thru inserts. (**Figure A**).
3. The rear contains through-hole pins for PCB connection (**Figure A**).
4. Each header contains two contacts and occupies two slot positions in the SIM module.
5. The header is compatible to function as either an ITA or receiver part.
6. For recommended PCB layout, please consult the product drawing at [vpc.com](http://vpc.com).

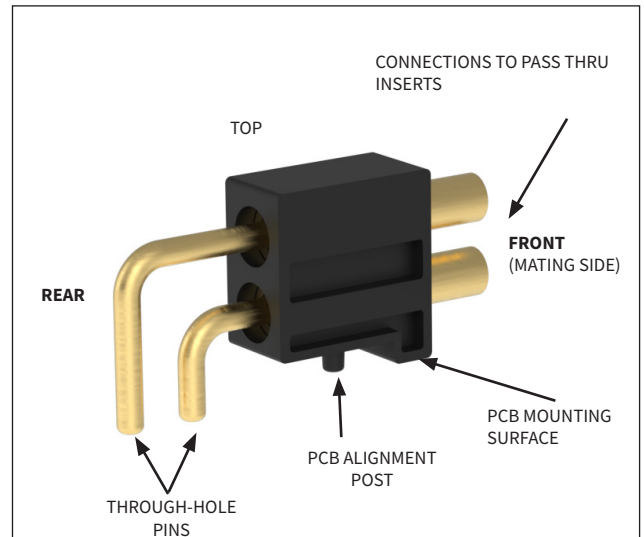


Figure A.

### PASS THRU INSERT- RECEIVER

1. Pin Position 1 is indicated by a dark triangular mark in the rear bottom corner of the insert (**Figure B**). This mark also serves as an indicator as to the direction that the insert is to be installed into the SIM receiver module.
2. As a pass thru insert, there are two mating sides ( front and rear). The rear side mates with the Micro Power Right Angle Header (**Figure A**).
3. The front side mates with the Micro Power ITA Pass Thru insert (**Figure C**), installed in the SIM ITA module.
4. Each insert contains 2 contacts and occupies 2 slots in the SIM receiver module.

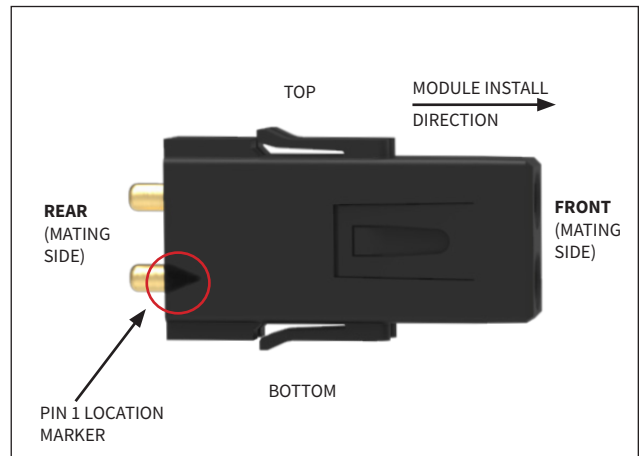


Figure B.

### PASS THRU INSERT- ITA

1. Pin Position 1 is indicated by a dark triangular mark on the top rear side of the insert (**Figure C**). This mark also serves as an indicator as to the direction that the insert is to be installed into the SIM module.
2. As a pass thru insert, there are two mating sides ( front and rear). The rear side (**Figure C**) mates with the Micro Power Right Angle Header (**Figure A**).
3. The front side mates with the Micro Power Receiver Pass Thru Insert (**Figure B**), installed in the SIM receiver module.
4. Each insert contains 2 contacts and occupies 2 slots in the SIM ITA module.

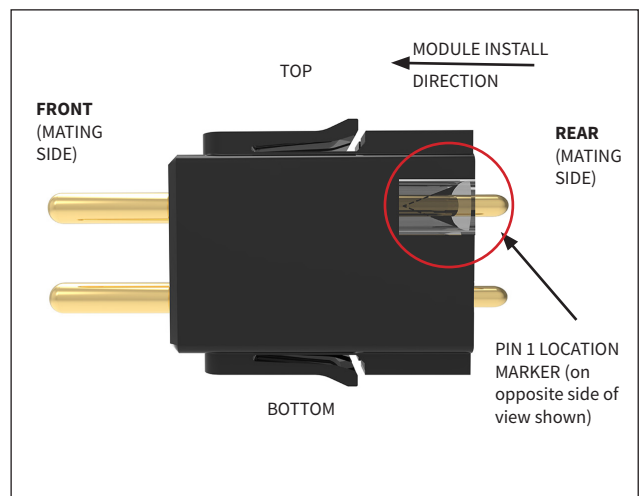


Figure C.

[RETURN TO INDEX](#)



## MICRO POWER INSERTS INSTALLATION/ REMOVAL- SIM MODULES

PART # 510 180 102, 510 181 102, 910 112 130

### TOOLS REQUIRED

VTAC Extraction Tool Kit

### INSTALLATION

1. Ensure the Micro Power Insert is in line with the corresponding module slots. Please note that all Micro Power Infinity components require **two slots** in SIM modules.
2. Inserts are installed from the rear side of either the ITA or receiver module. Both inserts are inserted with the rear mating side to the back and the Pin Position 1 Indicator located on the top and to the rear of the insert (**Figures A and B**).
3. Apply gentle pressure and the insert should easily snap into place. Force should not be needed when inserting. If force is required, incorrect orientation is being used for installation. Consult the Micro Power Parts Feature Identification page in this manual for assistance with proper installation orientation.

### REMOVAL

1. Micro Power Inserts are removed using the same method as VTAC insert extraction and also require the VTAC extraction tool. Since Micro Power Inserts occupy two slots each in SIM modules, two VTAC extraction tools must be paired together, per insert, for extraction.
2. Extraction is performed on the front side of ITA and receiver modules. Grasp the tools from the sides and slide the tool pins into the square cavity holes. On SIM receiver modules these cavities are located outside of the module walls (**Figure C**). On ITA modules these cavities are located on the inside of the module walls (**Figure E**).
3. Be sure all pins are properly inserted into each corresponding cavity. The tool frame should be seated against the module frame if pins are inserted correctly and completely (**Figure D**).
4. Once the tools are seated against the module frame, the plunger may be pushed in. Using the plunger before the tool is fully seated may cause damage to the insert. The insert should eject out the opposite side of the module (**Figure E**).
5. Force should not be needed to extract inserts. If inserts do not extract easily, ensure all pins are fully seated in the correct cavities and try again.

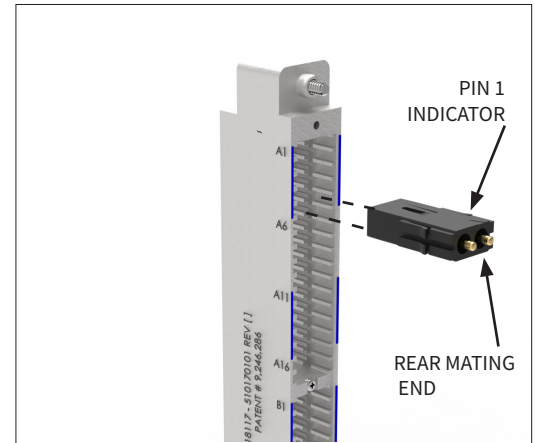


Figure A. Install receiver insert from receiver module's rear side.

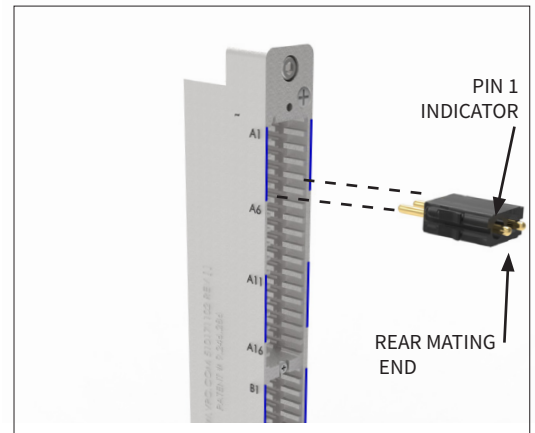


Figure B. Install ITA insert from ITA module's rear side.



Figure E. ITA insert extraction

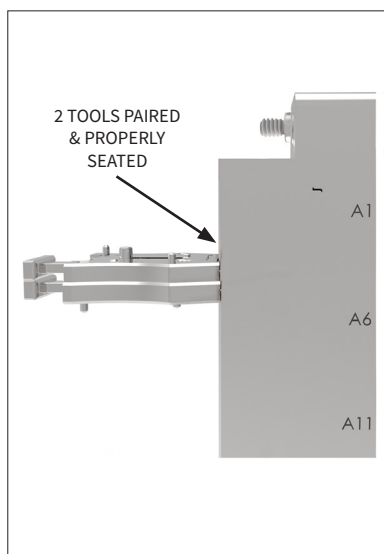


Figure D. Two tools paired and properly seated against ITA module frame.

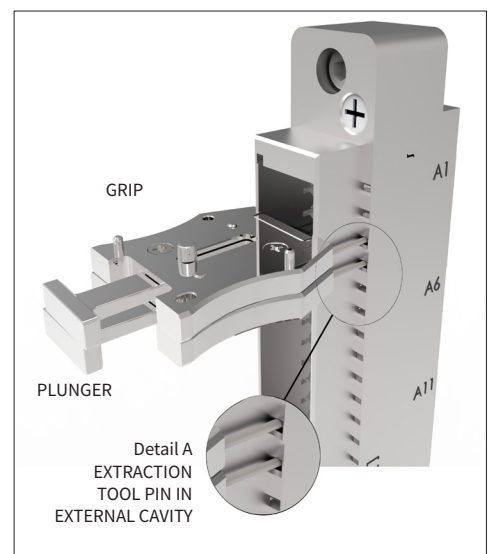


Figure C. Insert extraction tool pins.

[RETURN TO INDEX](#)



## QUADRAPADDLE PARTS FEATURE IDENTIFICATION

PART # 610 138 126, 510 180 105, 510 181 105

### RIGHT ANGLE HEADER

1. The top is located opposite of the PCB alignment post, PCB mounting surface and Through-Hole pins (**Figure A**).
2. The front of the header contains the contact connections to the QuadraPaddle Pass Thru Insert. (**Figure A**).
3. Each header contains 4 contacts and occupies 1 slot in the SIM module.
4. The header may function as either an ITA or receiver part.
5. For recommended PCB layout, please consult the product drawing at [vpc.com](http://vpc.com).

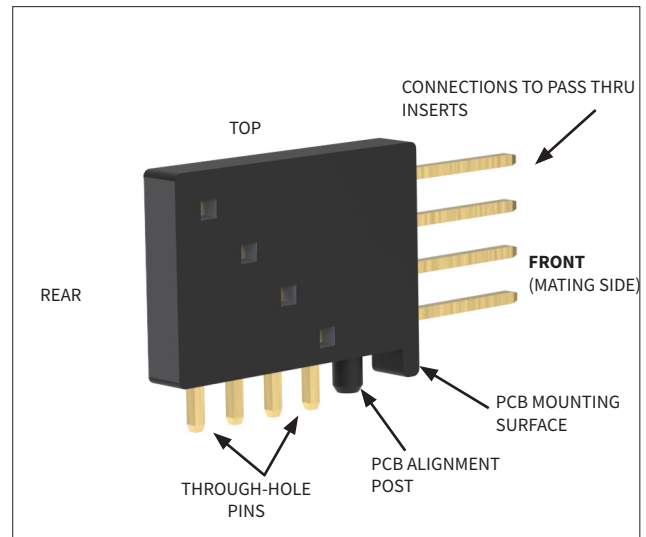


Figure A.

### PASS THRU INSERT- RECEIVER

1. Pin Position 1 is indicated by a dark triangular mark in the rear bottom corner of the insert (**Figure B**). This mark also serves as an indicator as to the direction that the insert is to be installed into the SIM receiver module.
2. As a pass thru insert, there are two mating sides ( front and rear). The rear side mates with the QuadraPaddle Right Angle Header (**Figure A**).
3. The front side mates with the QuadraPaddle ITA Pass Thru Insert (**Figure C**), installed in the SIM ITA module.
4. Each insert contains 4 contact positions and occupies 1 slot in the SIM receiver module.

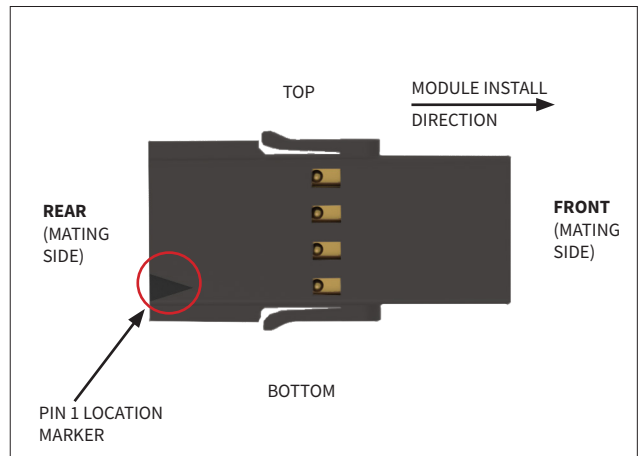


Figure B.

### PASS THRU INSERT- ITA

1. Pin Position 1 is indicated by a dark triangular mark on the top rear side of the insert (**Figure C**). This mark also serves as an indicator as to the direction that the insert is to be installed into the SIM ITA module.
2. As a pass thru insert, there are two mating sides ( front and rear). The rear side (**Figure C**) mates with the QuadraPaddle Right Angle Header (**Figure A**).
3. The front side mates with the QuadraPaddle Receiver Pass Thru Insert (**Figure B**), installed in the SIM receiver module.
4. Each insert contains 4 contact positions and occupies 1 slot in the SIM ITA module.

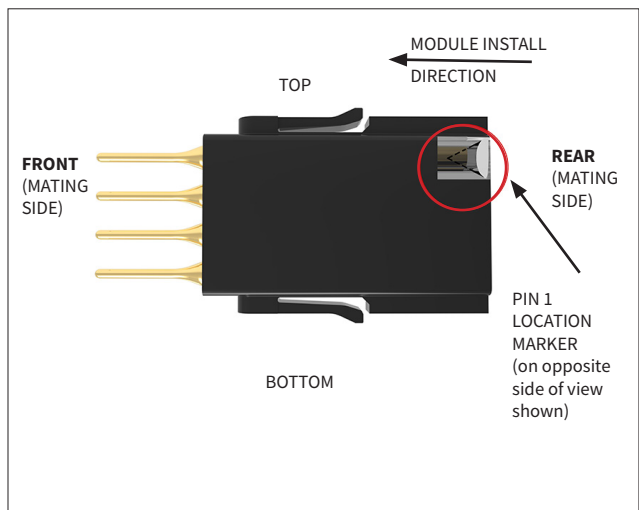


Figure C.

[RETURN TO INDEX](#)

## QUADRAPADDLE INSERT INSTALLATION/ REMOVAL- SIM MODULES

PART# 510 180 105, 510 181 105, 910 112 130

### TOOLS REQUIRED

VTAC Extraction Tool Kit

### INSTALLATION

1. Ensure the QuadraPaddle Pass Thru Insert is in line with the corresponding module slot.
2. Inserts are installed from the rear side of either the ITA or receiver module. Both inserts are installed with the rear mating side facing to the back and the Pin Position 1 Indicator located on top and away from the module. Note the location and orientation of the module's slot identification markings in the illustrations (**Figures A and B**).
3. Apply gentle pressure and the insert should easily snap into place. Force should not be needed when inserting. If force is required, incorrect orientation is being used for installation. Consult the QuadraPaddle Insert Parts Feature Identification page in this manual for additional assistance with proper installation orientation.

### REMOVAL

1. QuadraPaddle Pass Thru inserts are removed using the same method as VTAC insert extraction and also require the VTAC extraction tool.
2. Extraction is performed on the front side of SIM ITA and receiver modules. Grasp the tool from the sides and slide the tool pins into the square cavity holes. On ITA modules these cavities are located on the inside of the module walls (**Figure C**). On SIM receiver modules these cavities are located outside of the module walls (**Figure E**).
3. Be sure all pins are properly inserted into each corresponding cavity. The tool frame should be seated against the frame body if pins are inserted correctly and completely.
4. Once the tools are seated against the frame body, the plunger may be pushed in (**Figure D**). Using the plunger before the tool is fully seated may cause damage to the insert. The insert should eject out the opposite side of the module (**Figure C**).
5. Force should not be needed to extract inserts. If inserts do not extract easily, ensure all pins are fully seated in the correct location and try again.

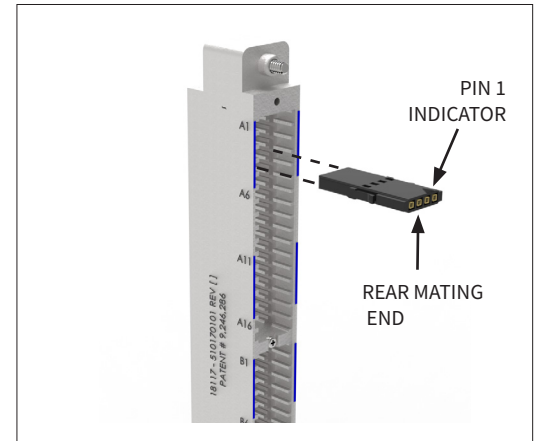


Figure A. Install receiver insert from receiver module's rear side.

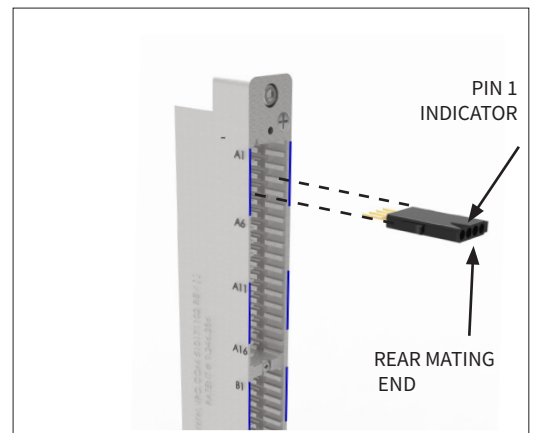


Figure B. Install ITA insert from ITA module's rear side.

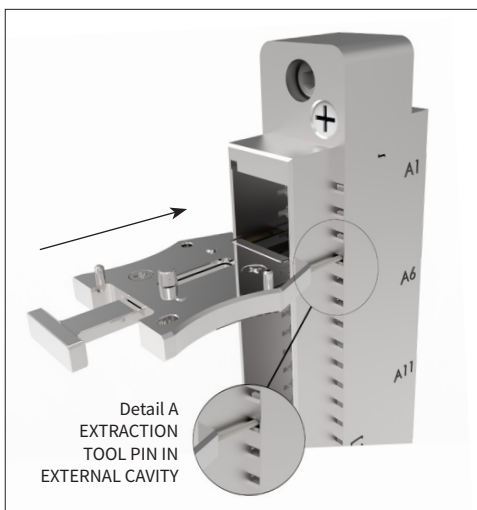


Figure E. Receiver module extraction tool placement

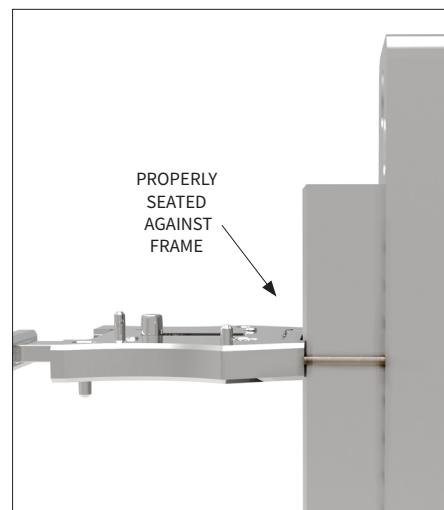


Figure D.

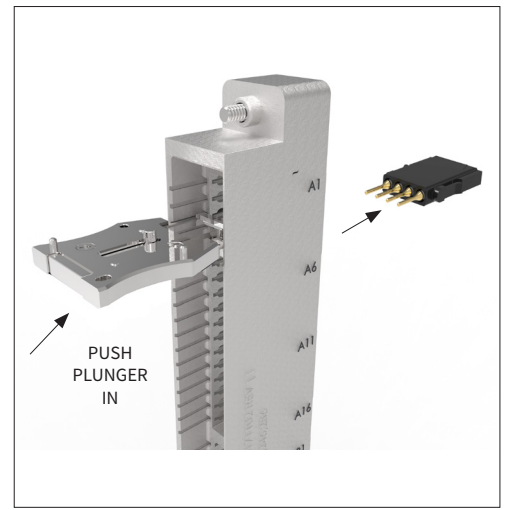


Figure C. ITA insert extraction

[RETURN TO INDEX](#)

## MATING SIM MODULE TO PCB-MOUNTED INFINITY CONNECTOR HEADERS

PART # 510 170 101, 510 171 101, 510 181 103, 610 138 126, 510 180 102, 510 180 105, 510 181 105,  
510 109 592, 610 151 103, 610 151 104

### TOOLS REQUIRED

Phillips screw driver

1. One benefit of the Infinity Connector system, is the ability to combine multiple types of I/O in one application. VTAC, QuadraPaddle, and Micro Power may all be combined and used in one SIM module and mounted onto a corresponding PCB. For recommended PCB layout instructions, please consult the applicable right angle header product drawing at [vpc.com](http://vpc.com).
2. Whether mating the SIM ITA or receiver module to the PCB, the rear side is the mating side and the markings will face up (**Figure A**).
3. Once the desired combination of headers are mounted on the PCB, you may begin mating with the receiver or ITA module. To mate VTAC headers with their corresponding pass thru inserts, take care to ensure each mated pair is properly aligned as described in this manual's earlier instructions. The same process may be followed for mating micro power pass thru inserts with their corresponding PCB-mounted micro power headers.

**Note:** At no time when mating module to mounted PCB headers should extreme force be applied. If extreme force is required for mating, this is most likely an indication that there is a misalignment issue. Proceeding with force can cause damage to parts.

4. When mating QuadraPaddle headers to their respective pass thru inserts, the process can be more difficult, as it requires the mating of multiple small pins on the header to small cavities on the rear side of the QuadraPaddle receiver or ITA pass thru insert. For this reason, there are two methods that may be used for mating these QuadraPaddle components.
  - The first is the standard mating method used for the previous inserts.
  - The second method involves mating the QuadraPaddle Pass Thru Inserts with the PCB-mounted QuadraPaddle Header **prior** to installing into the module. Then, when mating module with header, the insert is installed at that time (**Figure B**).

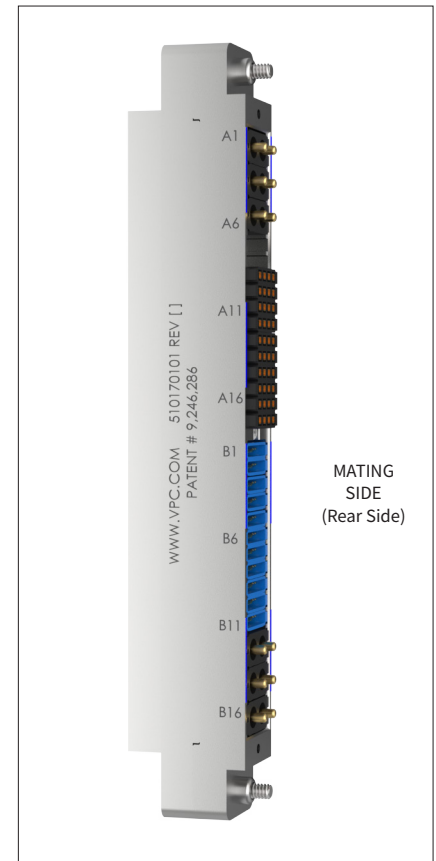


Figure A. Loaded SIM Receiver module

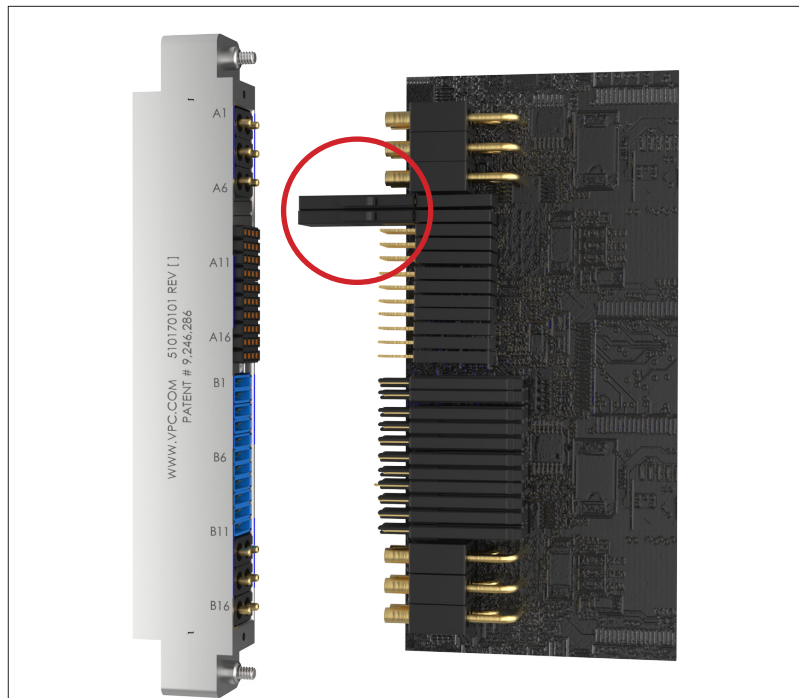


Figure B. QuadraPaddle (QP) receiver pass thru inserts x 2, mated to QP headers prior to module mating.

[RETURN TO INDEX](#)

## MATING SIM MODULE TO PCB-MOUNTED INFINITY CONNECTOR HEADERS (cont'd)

PART # 510 170 101, 510 181 103, 610 138 126, 510 180 102, 510 180 105, 510 109 592

5. When mating insert to header prior to installing into the module, care must be taken to mate the insert in the correct orientation for successful installation into the module. When mating either the ITA or receiver pass thru inserts, the side with the Pin Position 1 Indicator should be oriented facing the direction of where the A1 module slot will be located (**Figures C and D**).
6. Once all QuadraPaddle pass thru inserts have been successfully mated to the PCB-mounted headers, carefully proceed with mating to the module. If using a mix of I/O in the same module, other I/O inserts will mate with their matching inserts already installed in the module, at this time. Take care to install the appropriate inserts into the correct module slots (**Figure E**).

**Note:** At no time when mating module to mounted PCB headers should extreme force be applied. If extreme force is required for mating, this is most likely an indication that there is a misalignment issue. Proceeding with force can cause damage to parts. Instead double-check to ensure each protocol is located in the correct module slot to mate with the corresponding PCB header protocol. For example, slot A5 contains a VTAC Pass Thru Insert and is attempting to be mated to a VTAC Right Angle Header in the matching location on the PCB.

7. Once fully mated, use the PCB mounting brackets to fully attach the module to the PCB. Insert the PCB mounting screws, but do not tighten completely. Insert the module mounting screws. Torque #2-56 and M2 screws to 1.5 in-lbs [0.17Nm] (**Figure F**).

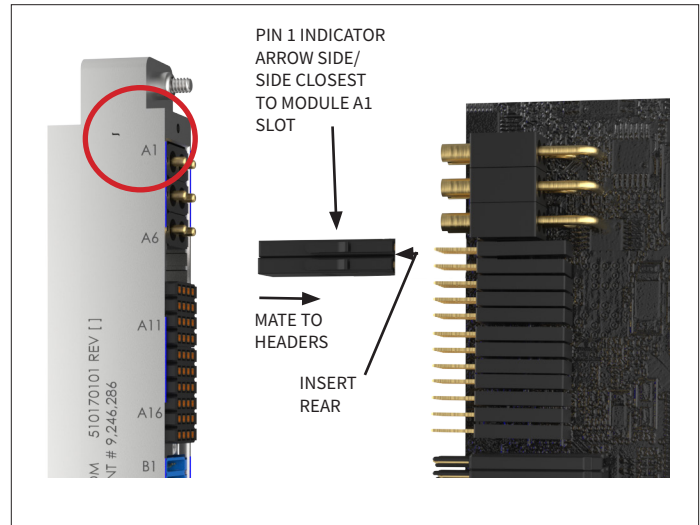


Figure C. Determine proper orientation for mating receiver insert to header.

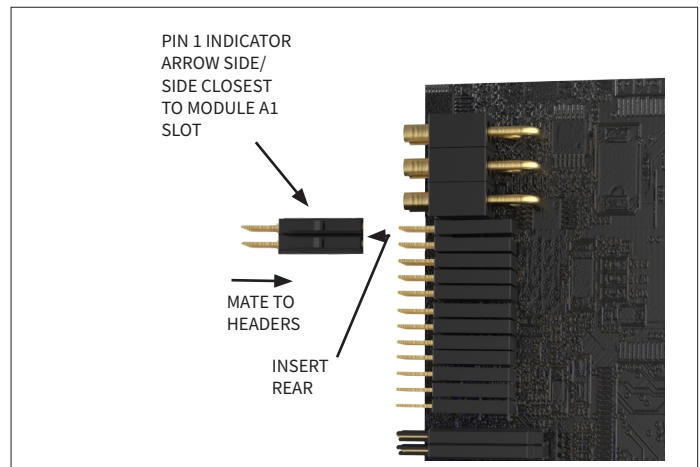


Figure D. Determine proper orientation for mating ITA insert to header.

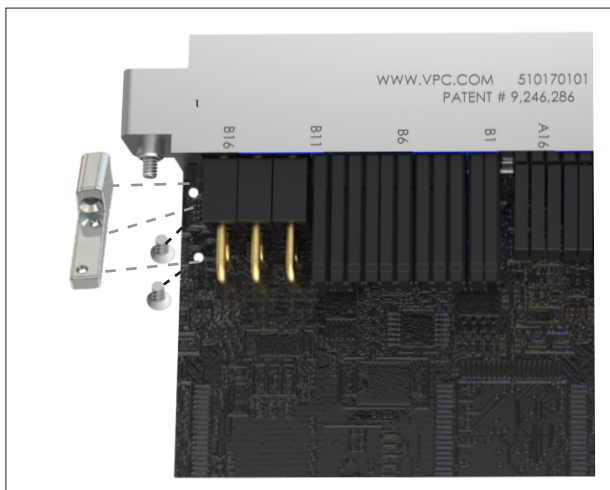


Figure F. Attach PCB brackets on each side.

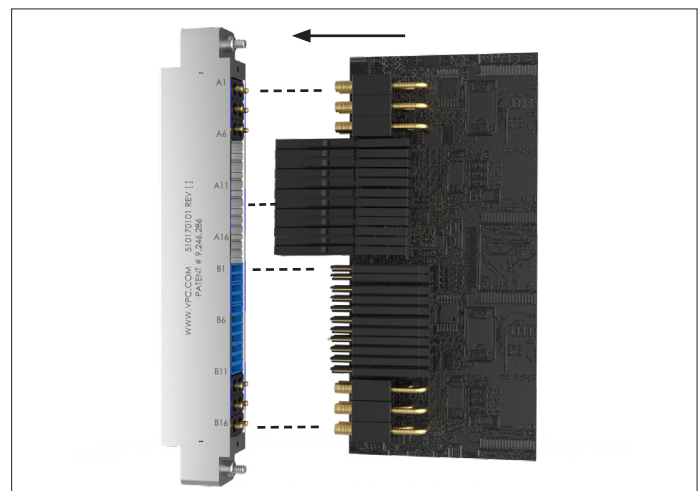


Figure E. Mating PCB to receiver module.

[RETURN TO INDEX](#)