RSA3000B Series Real-Time Spectrum Analyzers
119-7548-XX CPU Card Assembly Replacement

Instructions

www.tektronix.com

075-1028-00

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Service Safety Summary

Only qualified personnel should perform service procedures. Read this *Service Safety Summary* and the *General Safety Summary* located in the *RSA3303B & RSA3308B 3 GHz & 8 GHz Real-Time Spectrum Analyzers Service Manual* or the *RSA3408B 8 GHz Real-Time Spectrum Analyzer Service Manual*, before performing any service procedures.

Do Not Service Alone. Do not perform internal service or adjustments of this product unless another person capable of rendering first aid and resuscitation is present.

Disconnect Power. To avoid electric shock, switch off the instrument power, then disconnect the power cord from the mains power.

Use Care When Servicing With Power On. Dangerous voltages or currents may exist in this product. Disconnect power, remove battery (if applicable), and disconnect test leads before removing protective panels, soldering, or replacing components.

To avoid electric shock, do not touch exposed connections.

Kit Description

This kit describes how to replace the CPU assembly in an RSA3000B Series Real-Time Spectrum Analyzer. Replacing the CPU assembly requires installing a new mechanical bracket to ensure the assembly is properly secured in the instrument.

Products

RSA3303B. B010100 – B020390

RSA3308B. B010100 – B020227

RSA3408B. B010100 – B020386

Kit Parts List

Quantity	Part number	Description
1 ea	075-1028-XX	MANUAL, TECH INSTALLATION, CPU CARD ASSAY, RSA3KB
1 ea	119-7749-XX	CPU CARD; PICMG, W/ CELERON M 320 1.3GHZ CPU, COOLER/FAN, 1GB DDR2 MEMORY, PCA-6008G2, ADVANTECH, SAFETY CONTROLLED
1 ea	348-A117-XX	SHIELD, GASKET; ELEC CONDUCTIVE URETHANE FOAM, 3.5MM X 10MM, 1M L, W/ADHESIVE
1 ea	407-4987-XX	BRACKET, SUPPORT: MEMORY
1 ea	407-4988-XX	BRACKET, STOPPER: CPU BOARD
1 ea	407-4989-XX	BRACKET, BOARD CPU, STL, NI, T1.0

Installation Instructions

Minimum Tool and Equipment List

The following tools are required to remove and install the instrument covers and panels. All tools are standard tools that should be readily available.

Item	Name	Description
1	Screwdriver handle (magnetic)	Torque driver. Accepts ¼ inch hex-head driver tips
2	No. 2 Phillips or Pozidriv tip	Phillips or Pozidriv-driver tip for number 2 size screw heads

These instructions are for qualified service personnel who are familiar with servicing the product. If you need further details for disassembling or reassembling the product, refer to the *RSA3303B & RSA3308B 3 GHz & 8 GHz Real-Time Spectrum Analyzers Service Manual*, Tektronix part number 071-2367-XX or the *RSA3408B 8 GHz Real-Time Spectrum Analyzer Service Manual*, Tektronix part number 071-2366-XX.

NOTE. *If you are installing this kit in an RSA3408B with the optional removable hard drive, refer to the service manual for diagrams and instructions that may help with the installation of this kit.*

Remove External Modules

NOTE. *Right-side or left-side references in these instructions assume you are viewing the instrument from the rear panel.*

WARNING. *To avoid electric shock, switch off the instrument power, then disconnect the power cord from the mains power. Failure to do so can cause injury or death.*

Line Cord

1. *Orient the analyzer:* Set the analyzer so its bottom is down on the work surface and its rear is facing you.
2. *Remove the line cord:* Remove the line cord from the rear cover.

Cabinet

1. *Assemble equipment:* Obtain a #2 Phillips screwdriver.
2. *Remove the cabinet:*
   a. Remove the screw securing each rear foot to the rear panel at each corner.
   b. Remove the center two screws securing the cabinet to the rear panel.
   c. Slide the cabinet backward. As you remove the cabinet, take care not to bind or snag it on the analyzer's internal cabling.

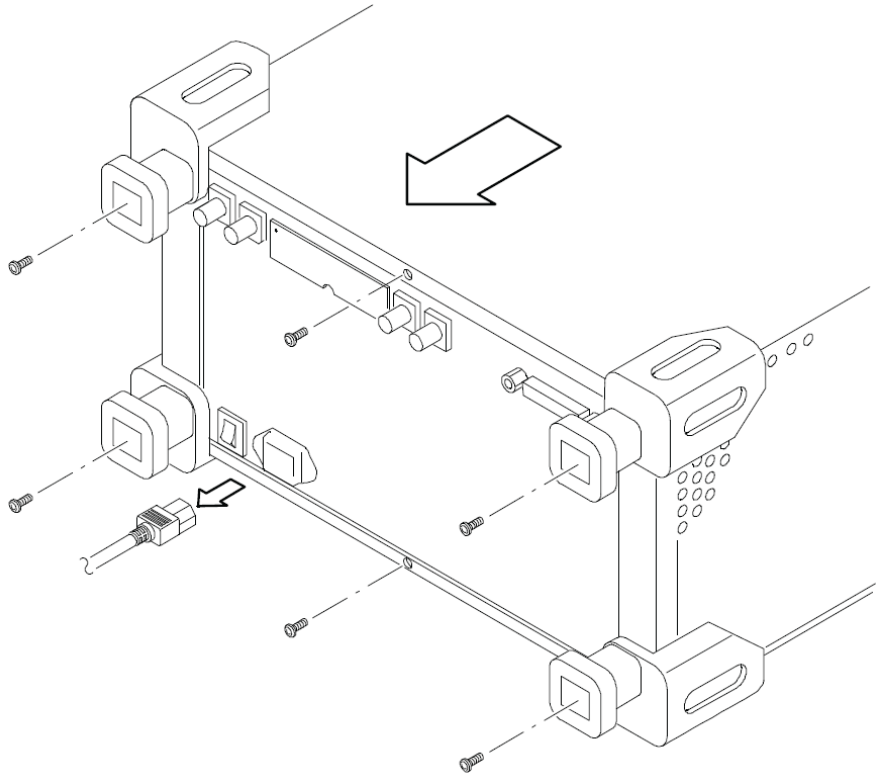


Figure 1: Line cord and cabinet removal

Remove CPU Assembly

1. *Assemble equipment and locate module to be removed:*
   a. You will need a #2 Phillips screwdriver.
   b. Locate the CPU board (closest to the front of the instrument).
2. *Orient the analyzer:* Set the analyzer so its bottom is down on the work surface and its front is facing you.

3. Remove the brackets:

   a. Remove the two screws securing the board stopper bracket to the memory support bracket. Lift the bracket away.
   Retain the two screws but discard the board stopper bracket.

   b. Remove the two screw securing the memory support bracket to the disk bracket. Lift the bracket away.
   Retain the two screws but discard the memory support bracket.

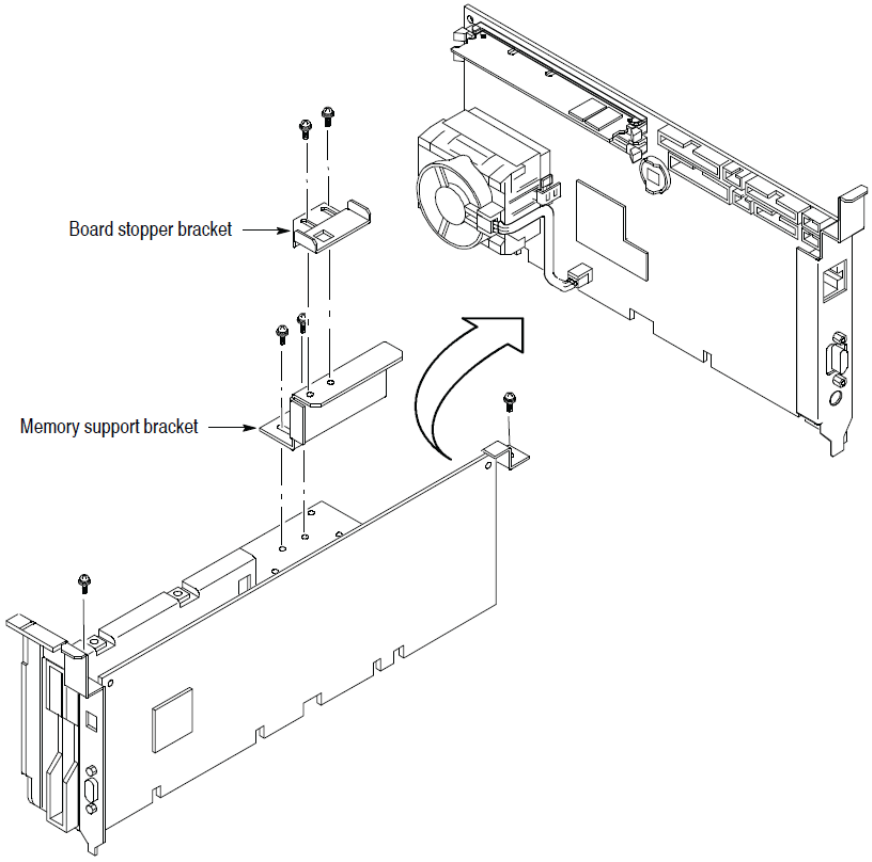


Figure 2: CPU assembly removal

4. Remove the CPU board:

   a. Remove the two jack screws next to the VGA connector.
   Retain the jack screws for reinstallation.

   b. Unplug the cables from the connector FDD1, COM1, IDE1, USB, CN2, and CN3 on the CPU board.

c. Unplug the cable from the connector J102 on the A63 DVO converter attached to the CPU board.

d. Remove the two screw securing the board to the main chassis. Lift the board up away.
Retain the two screws for reinstallation.

Install New CPU Assembly

1. Install the new CPU assembly into the instrument. Reinstall the two screws that secure the CPU assembly. Tighten the screws to 5.5 inch-lbs.

NOTE. *The new CPU assembly consists of the CPU board with it's bracket (407-4989-XX) and Gasket (348-A117-XX) installed.*

2. Reinstall the two jack screws next to the VGA connector.

3. Install the 407-4987-03 memory support bracket:

a. Install the two screws (previously removed) that secure the memory support bracket to the disk bracket. Do not tighten the screws yet.

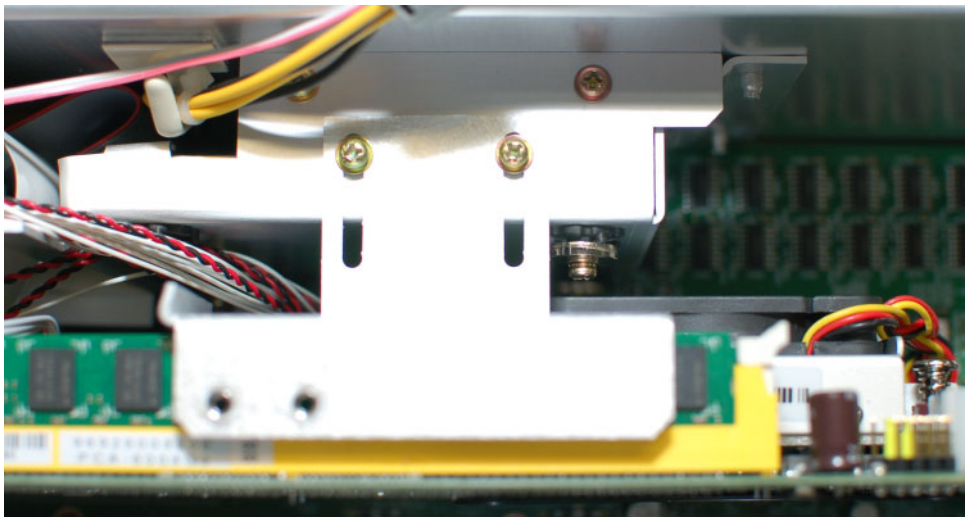


Figure 3: Installing the support memory bracket

b. Slide the memory support bracket against the SIMM cards on the CPU assembly, then tighten the screws. (See Figure 4.)

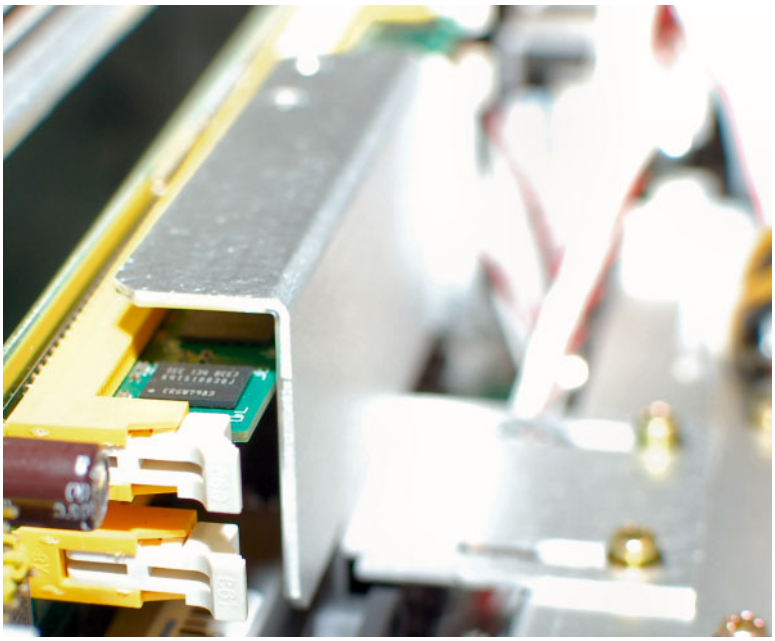
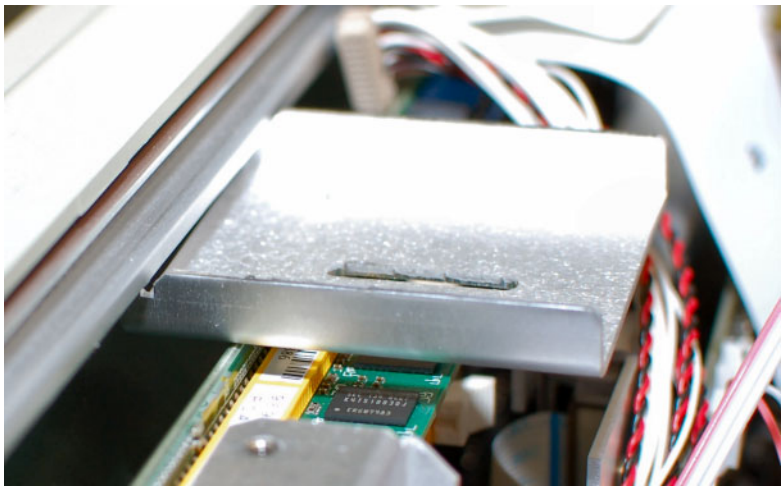


Figure 4: Ensure bracket presses against the SIMMs before tightening the securing screws

4. Mount the CPU stopper bracket on top of the CPU assembly card. Start with the CPU stopper bracket to the right of the memory support bracket. Ensure that the slot in the spacer post fits over the top edge of the CPU card assembly. (See Figure 5.)

Figure 5: Locating the CPU stopper bracket on the CPU card

5. Flex the CPU board slightly and push the CPU Stopper bracket down. Ensure the cutouts in the bracket slide into place against the chassis.



6. Slide the CPU stopper bracket into place. (See Figure 6.)

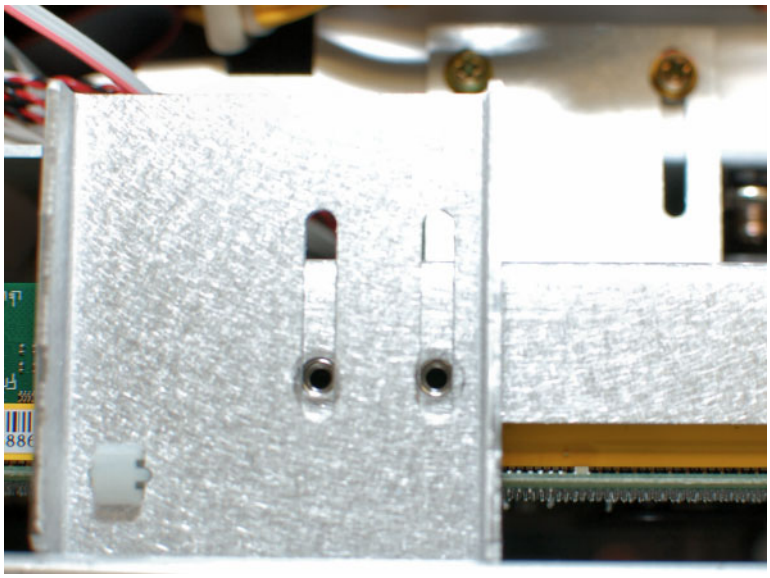


Figure 6: Aligning the CPU stopper bracket

7. Secure the CPU Stopper bracket with the two screws previously removed.
8. Reinstall the FDD1, COM1, IDE1, USB, CN2, and CN3 cables on the CPU board

Reinstall External Modules

Cabinet

1. *Reinstall the cabinet:*
   a. Slide the cabinet forward over the chassis. Take care not to bind or snag the cabinet on the analyzer's internal cabling.
   b. Reinstall the center two screws securing the cabinet to the rear panel.
   c. Reinstall the rear feet on the rear panel at each corner.

Line Cord

1. Reinstall the line cord.

This completes the installation of the 119-7548-XX CPU Card Assembly Replacement.