

MODIFICATION RECOMMENDED –
CORRECTS MANUFACTURING OR DESIGN DEFECTS

E5071B-12C

S E R V I C E N O T E

Supersedes:
E5071B-12B

E5071B RF Network Analyzer, 300kHz to 8.5 GHz

Serial Numbers: JP1KKxxxx, MY421xxxx to MY42402845

When E5071B has the old step attenuator (33321-60059) and fails Internal Test at Step Attenuator Test Group, replace the old attenuator (33321-60059) by improved version (33321-60068), add additional cable and update firmware to 5.02 or later

Parts Required:

Option-214

Option-314/414 (with 1 ea of attenuator)

P/N	Description	Qty.
33321-60068	ATTENUATOR PROGRAMMABLE 35DB 12GHZ	1
E5070-61698	FLAT CBL ASSY	1

Option-314/414 (with 2 ea of attenuators)

P/N	Description	Qty.
33321-60068	ATTENUATOR PROGRAMMABLE 35DB 12GHZ	2
E5070-61698	FLAT CBL ASSY	2

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS: LABOR: 3.0 Hours	
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY: <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input checked="" type="checkbox"/> SEE TEXT	USED PARTS: <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> X SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE		
AGILENT RESPONSIBLE UNTIL: June, 2008			
AUTHOR: jm PRODUCT LINE: WN			
ADDITIONAL INFORMATION: E507xB-06B are revised to E507xB-06C in sync with E507xB-12			

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Situation:

e5070bse139_3

E5071B fails Internal Test at Step Attenuator Test Group, due to the attenuator reliability.

Solution/Action:

When the attenuator (33321-60059) is defective, use new replacement attenuator (33321-60068) and cable (E5070-61698). Make sure that Firmware 5.02 or later is installed.

Detail Procedure

1. Do hardware modification: See next page according to the current option and attenuator combination.
2. Update its firmware to the latest one. (At least **Rev A.05.02** or later is required). Do not forget to update Internal/External VBA programs at the same time. Refer to E5070B/E5071B Service manual appendix C for details. For the additional features that are added by this update, refer to the latest E5070B/E5071B user's guide that is available in <http://www.agilent.com/find/ena>
3. Do adjustment program. (**Rev A.02.40** or later)
4. Do Internal test (InternalTest.vba **Rev A05.00** or later), and External test (ExternalTest.vba **Rev A.03.60** or later).
5. Do performance test (**Rev A.02.30** or later)

Retrofit Time:

Assembly Time: 1.5 hour

Adjustment Time: 0.5 hour

Performance Test Time: 1.0 hour

Total Time: 3.0 hour

Hardware Modification Procedure

**For option 214 (2 port, with 1 ea of A7 attenuator),
option 314 (3 port , with 1 ea of A7 attenuator) and
option 414 (4 port, with 1 ea of A7 attenuator)**

1. Disassemble the product. (Refer to E5070B/E5071B Service manual chapter 6 for details)
2. Make A7 step attenuator assembly by 33321-60068 (1ea), E5070-61698 (1ea), E5070-01213 (1ea), 0515-0372 (2ea) and E5070-61617 (1ea). E5070-61698 is the cable between 33321-60068 and E5070-61617. Scrap 33321-60059.
- 2-1. Scrap the flat cable that comes with the new attenuator (33321-60068).
- 2-2. Connect E5070-61698 to 33321-60068.
- 2-3. Connect E5070-61698 to E5070-61617.

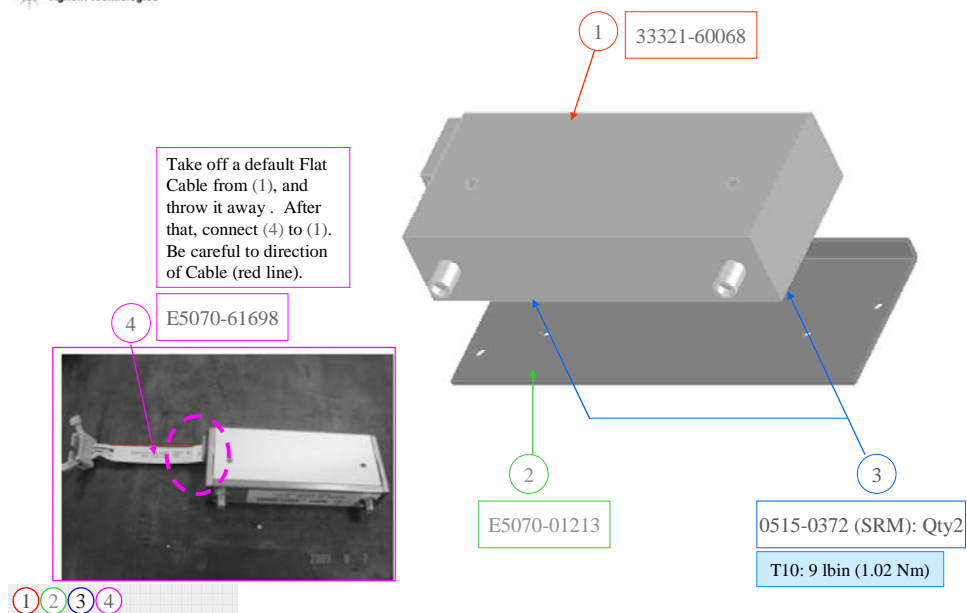


Figure 1 Make A7 assembly (for option 213 and for option314/414 with 1 attenuator)

3. Install A7 assembly with 0515-0372 (2ea).

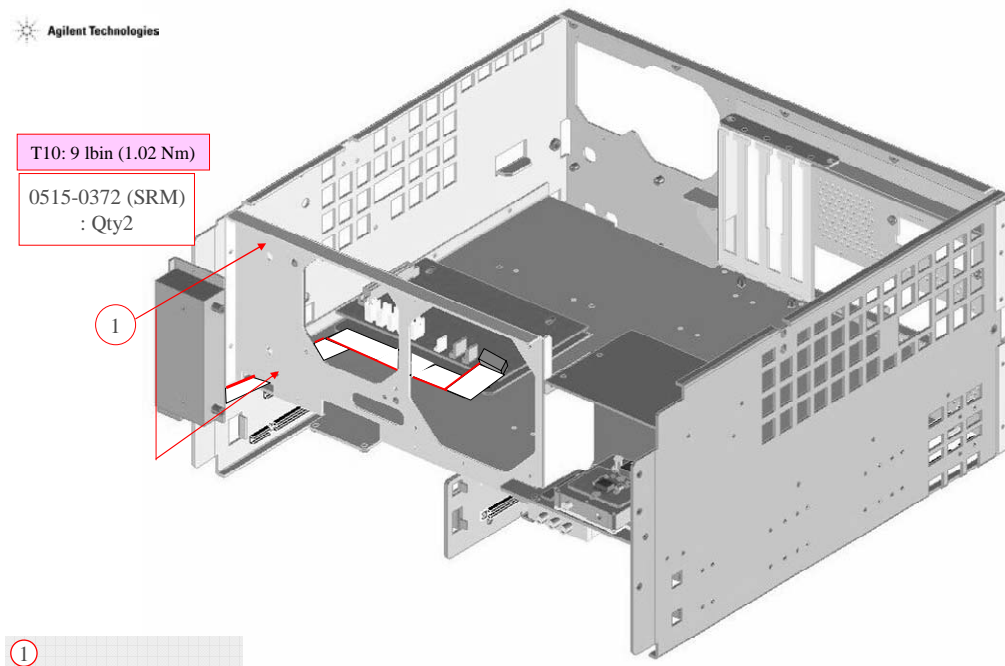


Figure 2 Install A7 attenuator assembly (1)

4. Connect the cable and clamp the cable with the clamer. Be careful to flat cable direction and its connectivity.

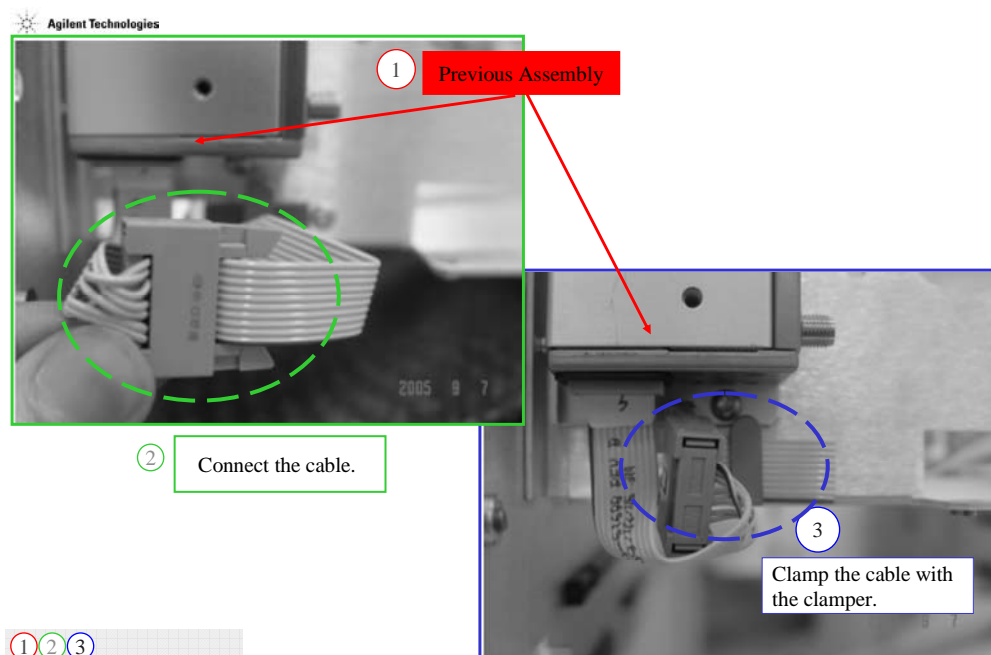


Figure 3 Install A7 attenuator assembly (2)

For option 314 (3 port, with 2 ea of A7 attenuator) and option 414 (4 port, with 2ea of A7 attenuator)

1. Disassemble the product. (Refer to E5070B/E5071B Service manual chapter 6 for details)
2. Make A7 step attenuator assembly by 33321-60068 (2ea), E5070-61698 (2ea), E5070-01214 (1ea), 0515-0372 (4ea) and E5070-61618 (1ea). 2ea of E5070-61698 are the cable between 33321-60068 and E5070-61618. Scrap 33321-60059.
- 2-1. Scrap the flat cable that comes with the new attenuator (33321-60068).
- 2-2. Connect E5070-61698 to 33321-60068. (This is done twice)
- 2-3. Connect E5070-61698 to E5070-61618.

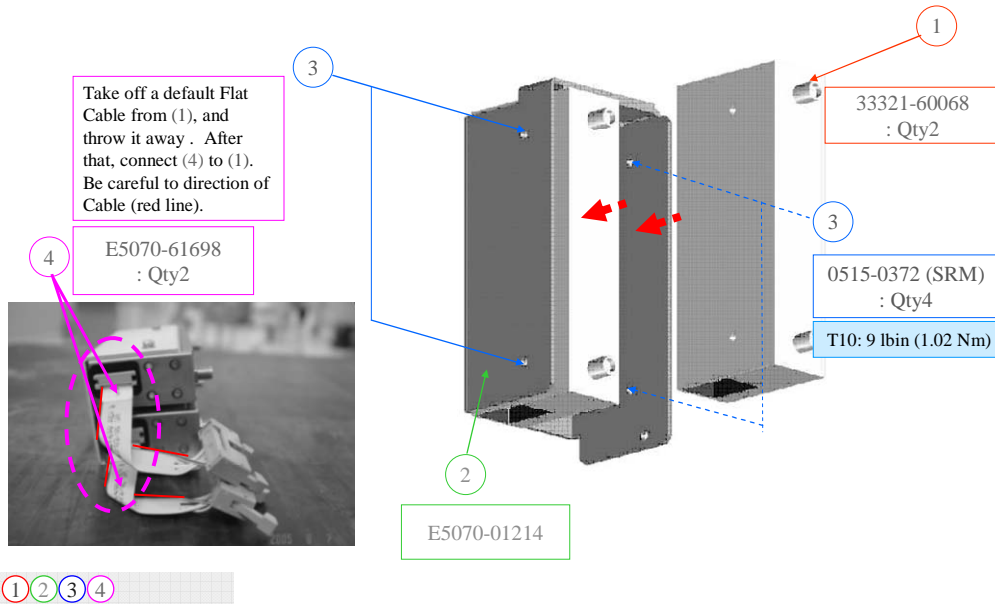
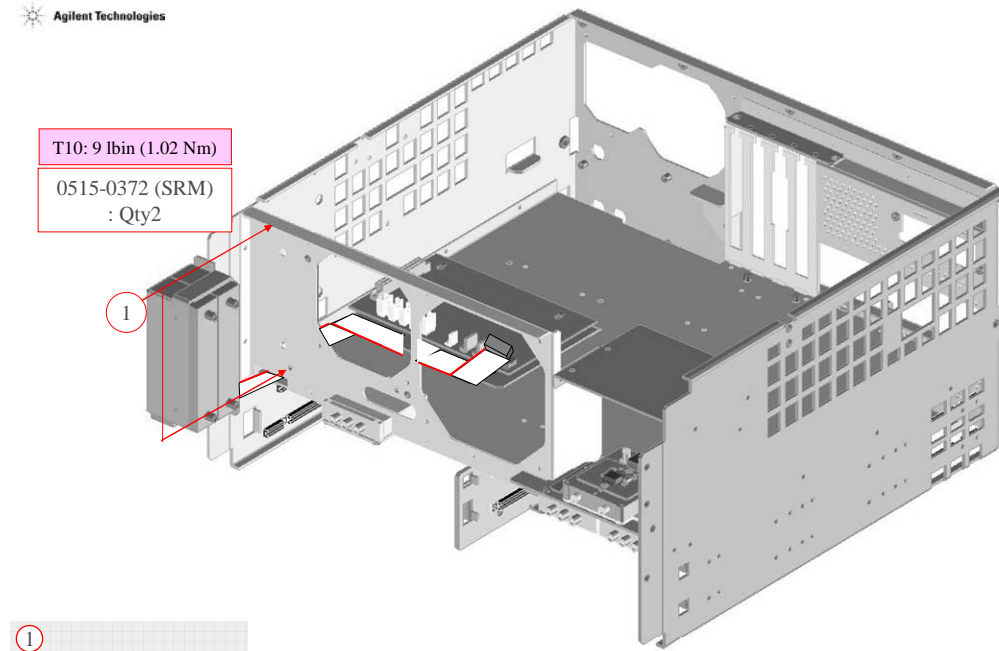
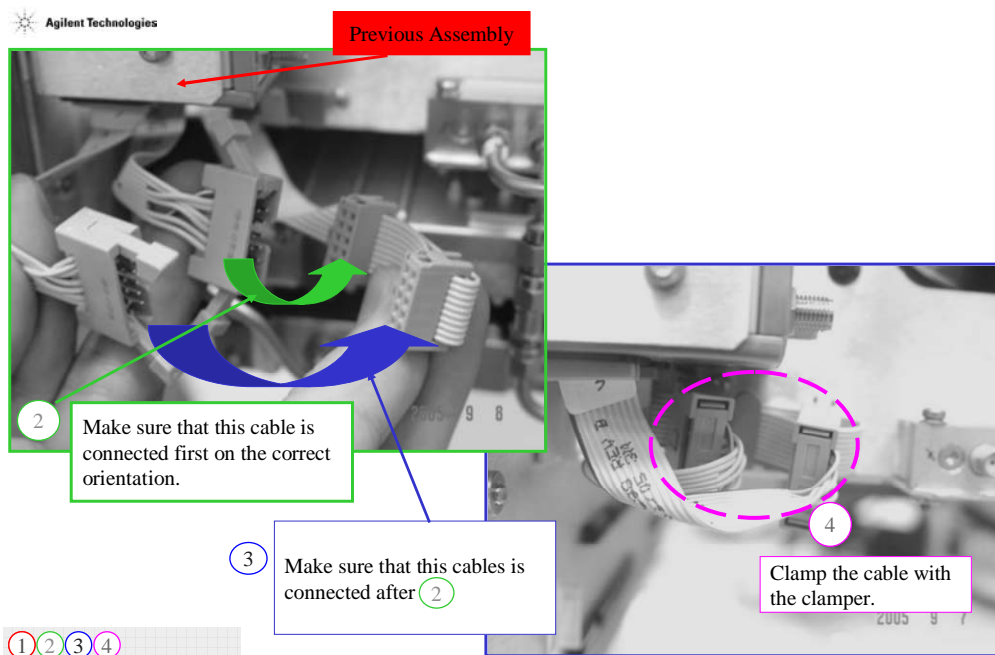


Figure 4 Make A7 assembly (for option 314/414 with 2 attenuators)

3. Install A7 assembly with 0515-0372 (2ea).

**Figure 5** Install A7 attenuator assembly (1)

4. Connect the cable and clamp the cable with the clammer. Be careful to flat cable direction and its connectivity.

**Figure 6** Install A7 attenuator assembly (2)