

MODIFICATION RECOMMENDED

E5070B-12D

S E R V I C E

N O T E

Supersedes:
E5070B-12C

E5070B RF Network Analyzer, 300kHz to 3 GHz

Serial Numbers: JP1KK0000 to JP1KK9999, MY4210000 to MY42401271

When E5070B has the old step attenuator (33321-60059) and Internal Test fails at Step Attenuator test group, replace the old step 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 1ea of attenuator)

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

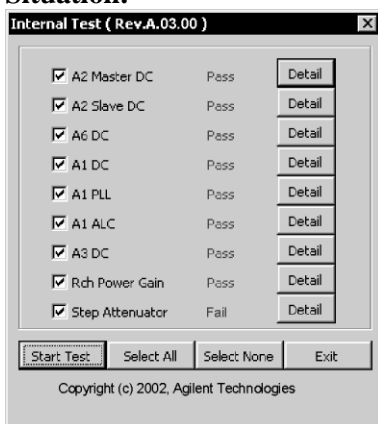
Option-314/414 (with 2ea of attenuator)

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:	X ON SPECIFIED FAILURE [] AGREEABLE TIME	STANDARDS LABOR: 3.0 Hours	
LOCATION CATEGORY:	[] CUSTOMER INSTALLABLE [] ON-SITE X SERVICE CENTER [] CHANNEL PARTNER	SERVICE INVENTORY: [] RETURN [] SCRAP X SEE TEXT	USED PARTS: [] RETURN X SCRAP [] SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE NO CHARGE AVAILABLE UNTIL: June, 2009		
AUTHOR: jm	PRODUCT LINE: WN		
ADDITIONAL INFORMATION:			



Situation:

e5070bse139_3

Internal Test is failed on 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.

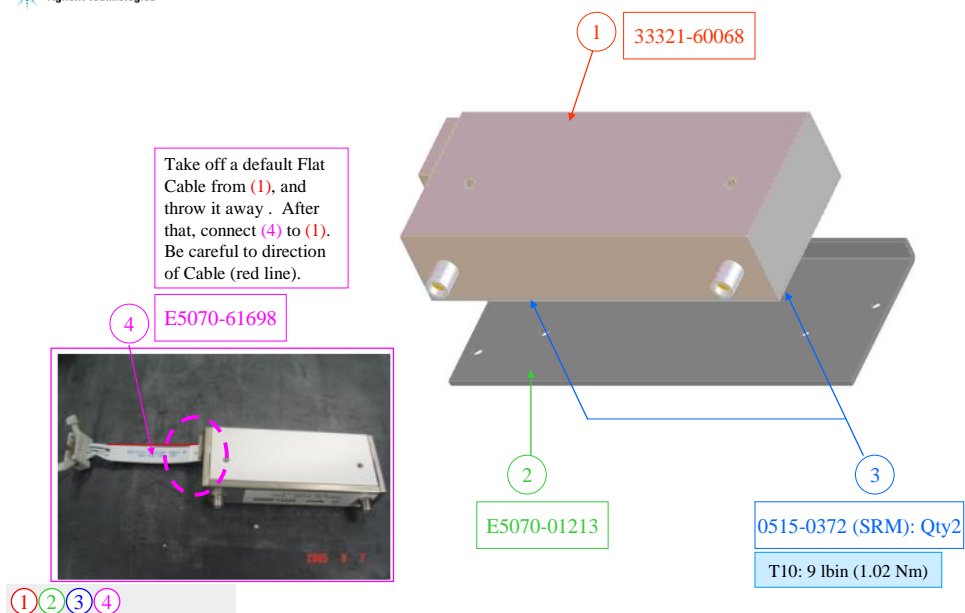
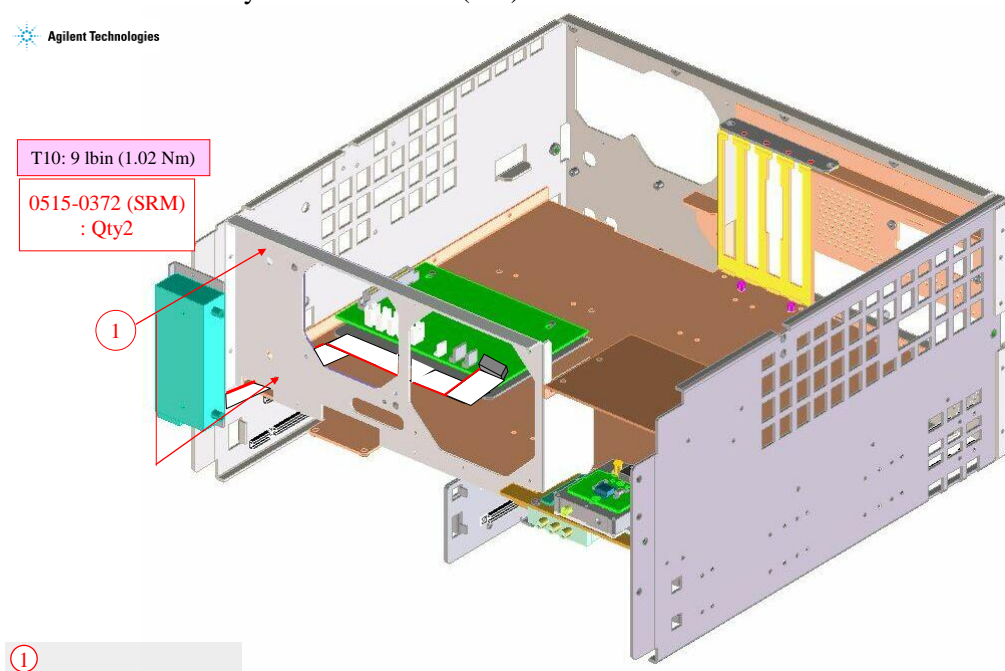
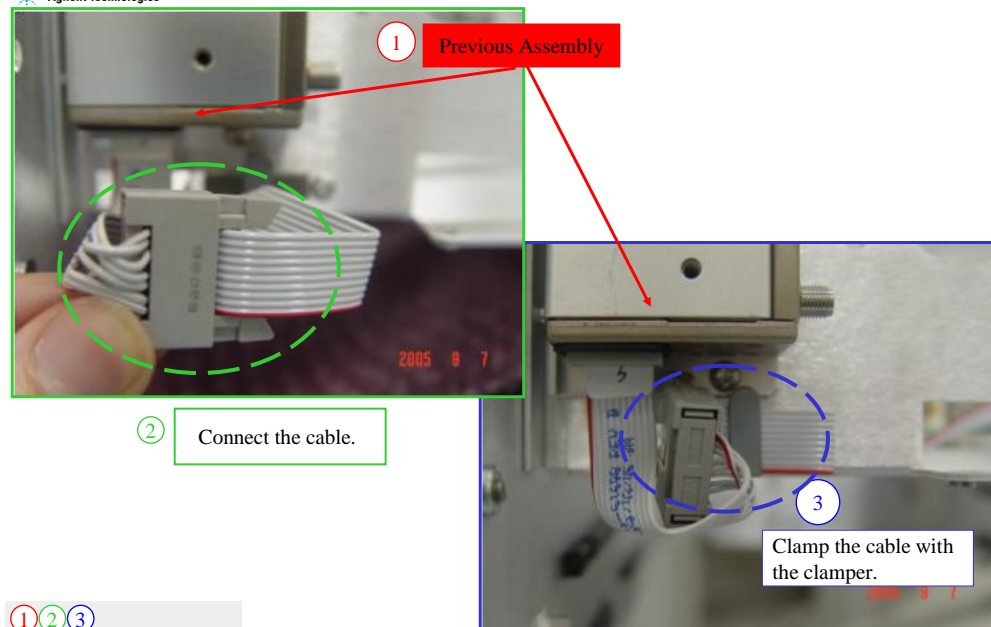


Figure 1 Make A7 assembly (for option 214 & option314/414 with 1 attenuator)

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 clumper. 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.

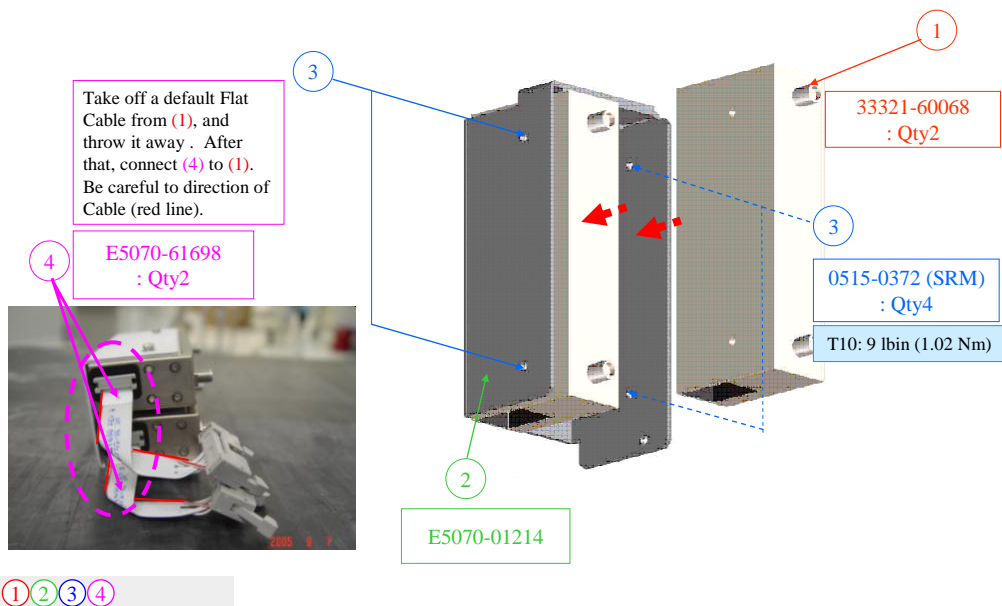
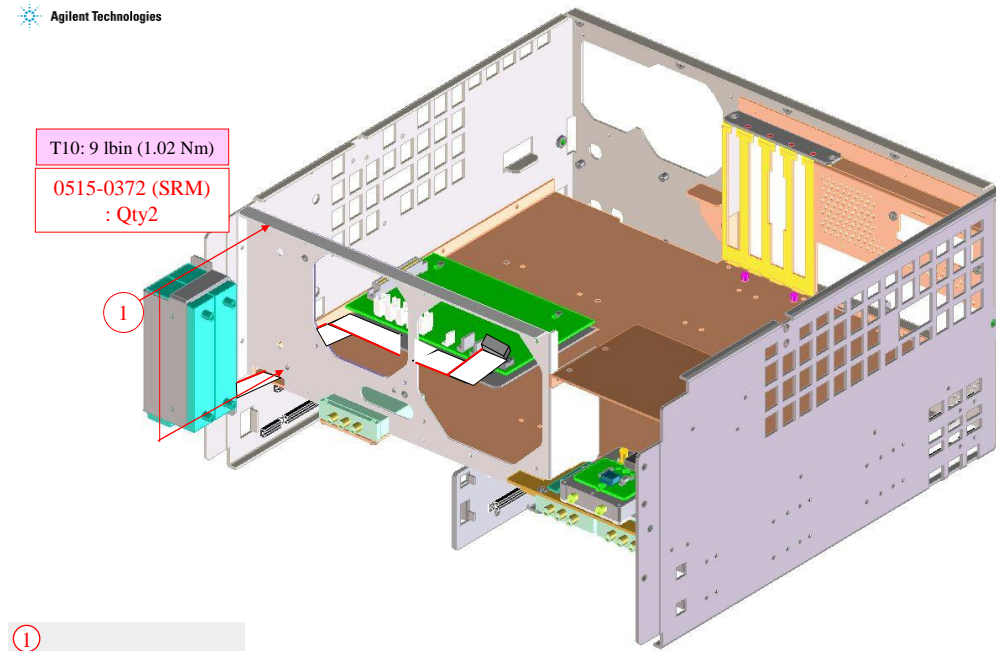
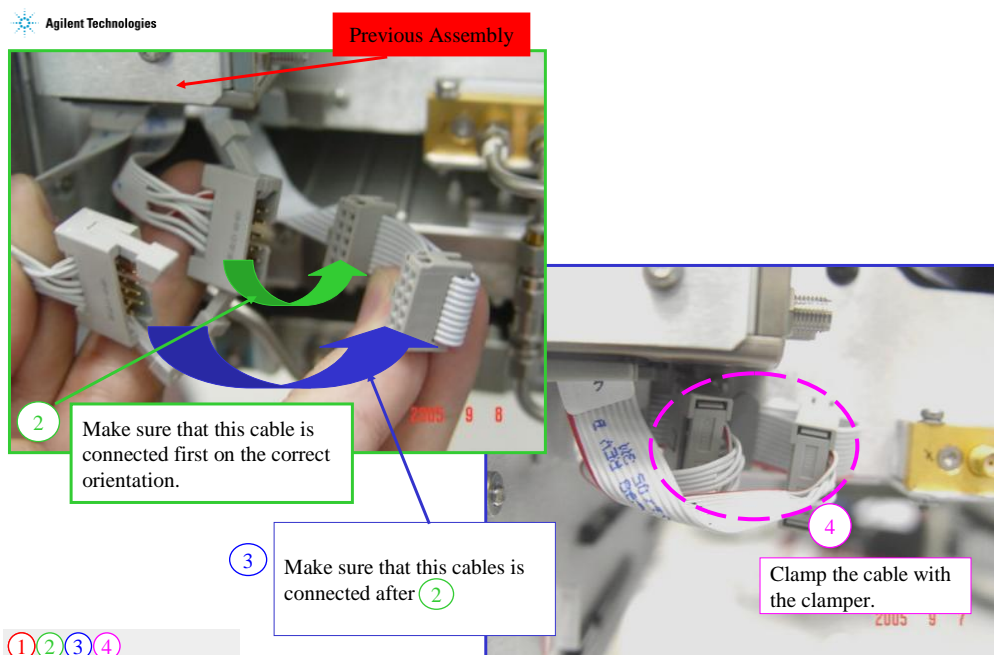


Figure 4 Make A7 assembly (for option 314/414 with 2 attenuators)

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 clamber. Be careful to flat cable direction and its connectivity.

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