

# MODIFICATION RECOMMENDED

## E5071B-12D

# S E R V I C E                      N O T E

Supersedes:  
E5071B-12C

## E5071B RF Network Analyzer, 300kHz to 8.5 GHz

Serial Numbers: JP1KK0000 to JP1KK9999, MY4210000 to MY42402845

**When E5071B has the old step attenuator (33321-60059) and Internal Test fails 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

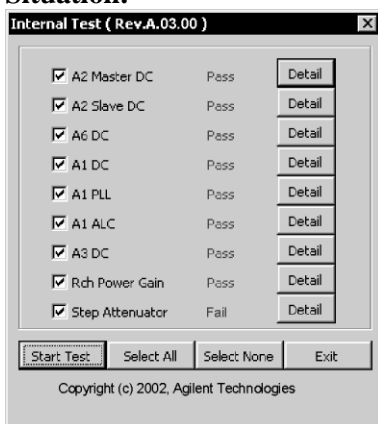
SERVICE NOTE CLASSIFICATION:			
<b>MODIFICATION RECOMMENDED</b>			
ACTION CATEGORY:	X ON SPECIFIED FAILURE [ ] AGREEABLE TIME	STANDARDS LABOR: 3.0 Hours	
LOCATION CATEGORY:	[ ] CUSTOMER INSTALLABLE [ ] ON-SITE X SERVICE CENTER [ ] CHANNEL PARTNER	SERVICE INVENTORY: [ ] RETURN [ ] SCRAP X SEE TEXT	USED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

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**Agilent Technologies**

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**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

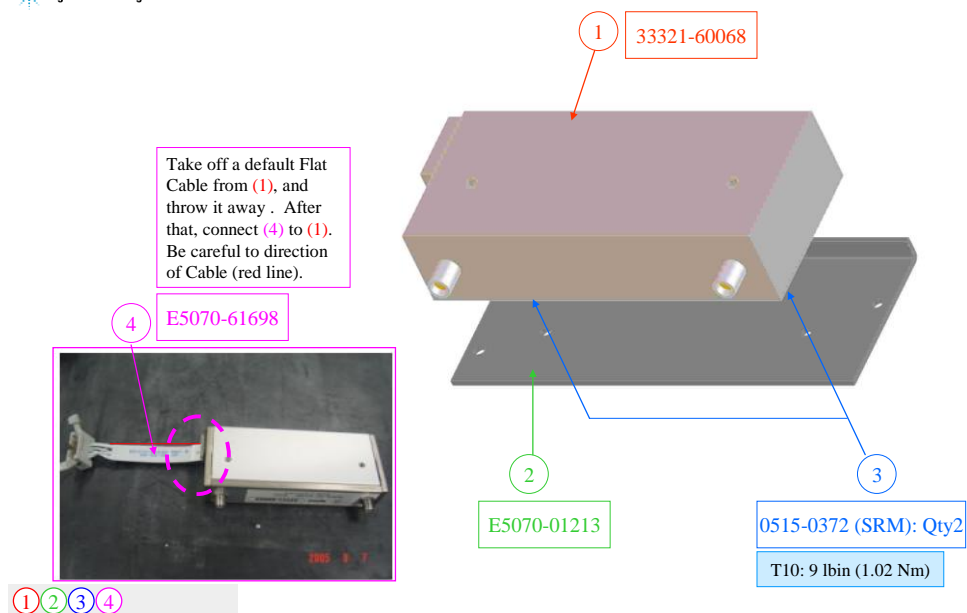
Performance Test Time: 1.0 hour

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Total Time: 3.0 hour

### Hardware Modification Procedure

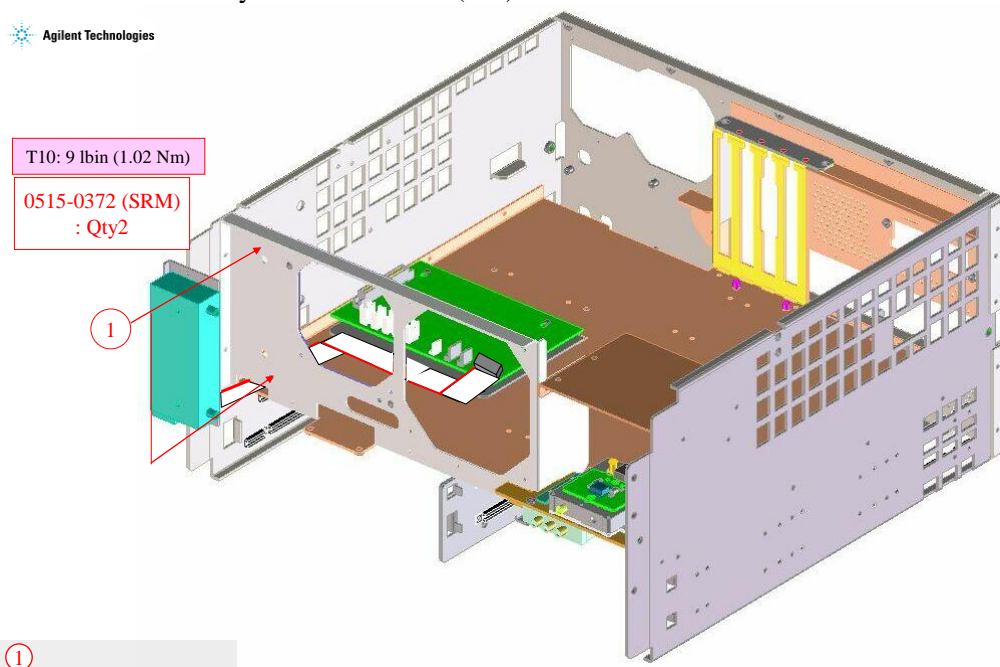
**For option 214 (2 port, with 1 ea of A7 attenuator),  
option 314 (3 port , with 1 ea of A7 attenuator) and  
option 414 (4 port, with 1 ea of A7 attenuator)**

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.

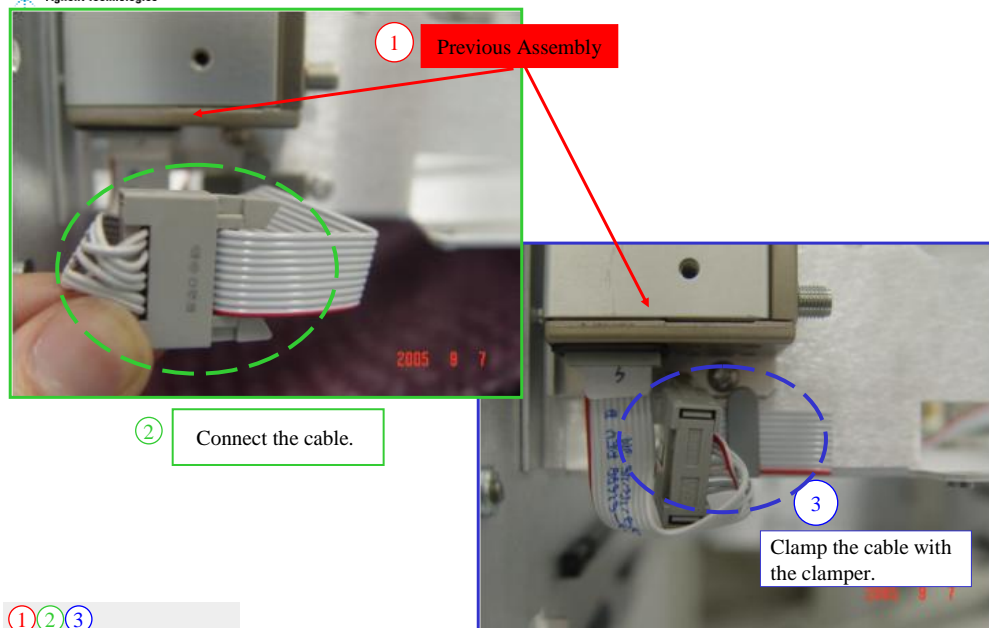


**Figure 1 Make A7 assembly (for option 213 and for option314/414 with 1 attenuator)**

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

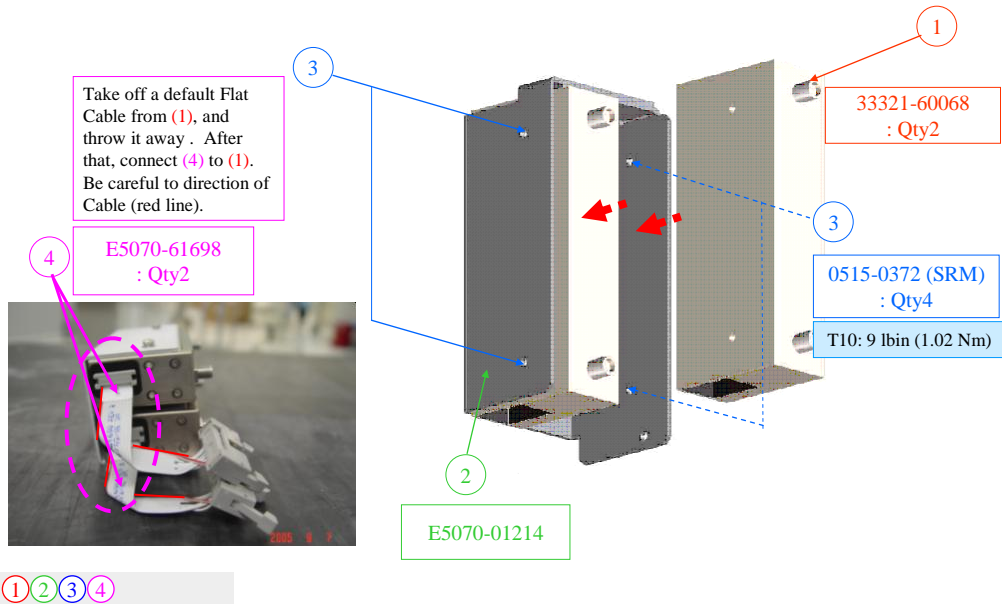
**Figure 2 Install A7 attenuator assembly (1)**

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

**Figure 3 Install A7 attenuator assembly (2)**

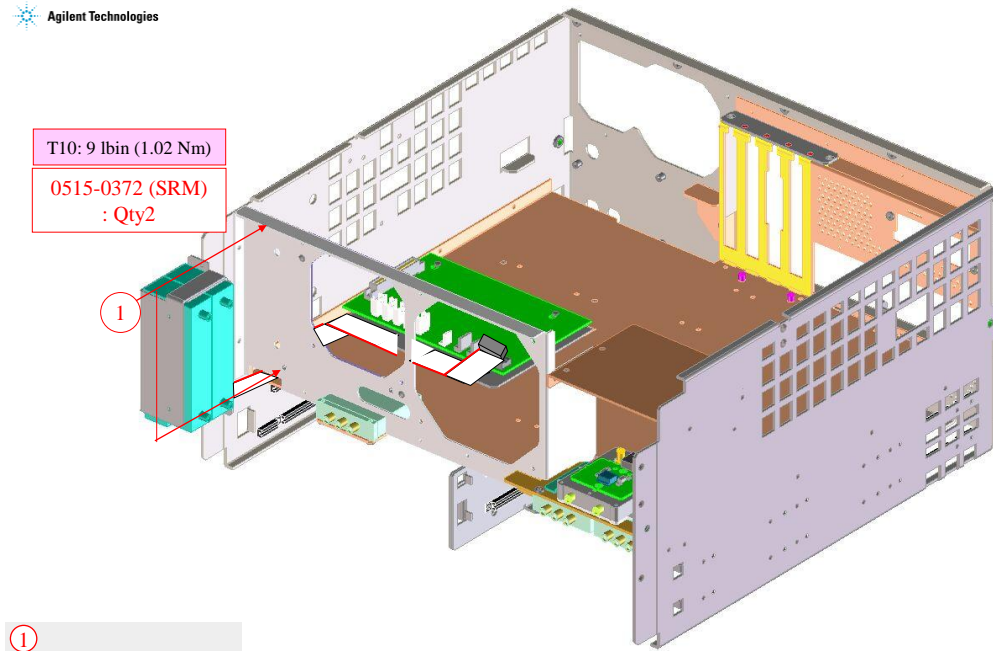
**For option 314 (3 port, with 2 ea of A7 attenuator) and  
option 414 (4 port, with 2ea of A7 attenuator)**

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.

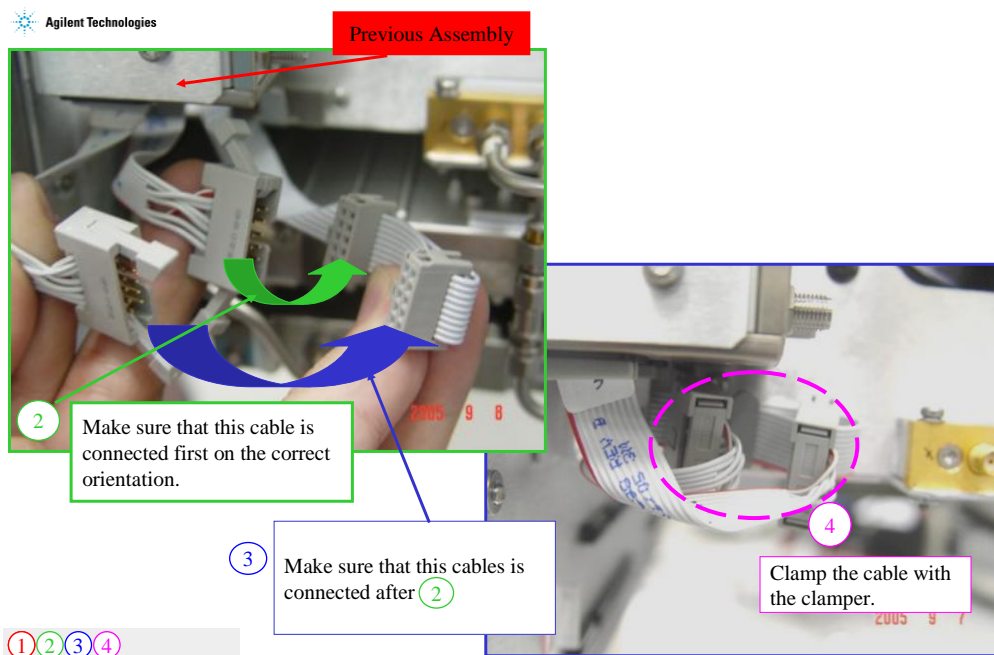


**Figure 4 Make A7 assembly (for option 314/414 with 2 attenuators)**

## 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 clumper. Be careful to flat cable direction and its connectivity.

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