E5071C-13A

S E R V I C E N O T E

Supersedes:
E5071C-13

E5071C – ENA Series Network Analyzer, 9 kHz to 20 GHz

Serial Numbers: MY46100001 to MY46214133, SG46100001 to SG46200280

Step Attenuator Replacement Procedure

Parts Required:

P/N	Description	Qty.
E5071-61685	FLAT CABLE ASSEMBLY	1
E5071-61686	WIRE ASSEMBLY PS STEP ATT	1
33321-60082	STEP ATTENUATOR	1
1400-1334	CABLE CLAMP	3
1400-0584	MOUNT CABLE TIE	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION: **INFORMATION ONLY**	
[X] Calibration Required [[]] Calibration NOT Required	PRODUCT LINE: WN AUTHOR: LS
ADDITIONAL INFORMATION: This service note communicates the additional modifications required when defective step attenuator is repaired	

July 3, 2012

Agilent Technologies

Situation:

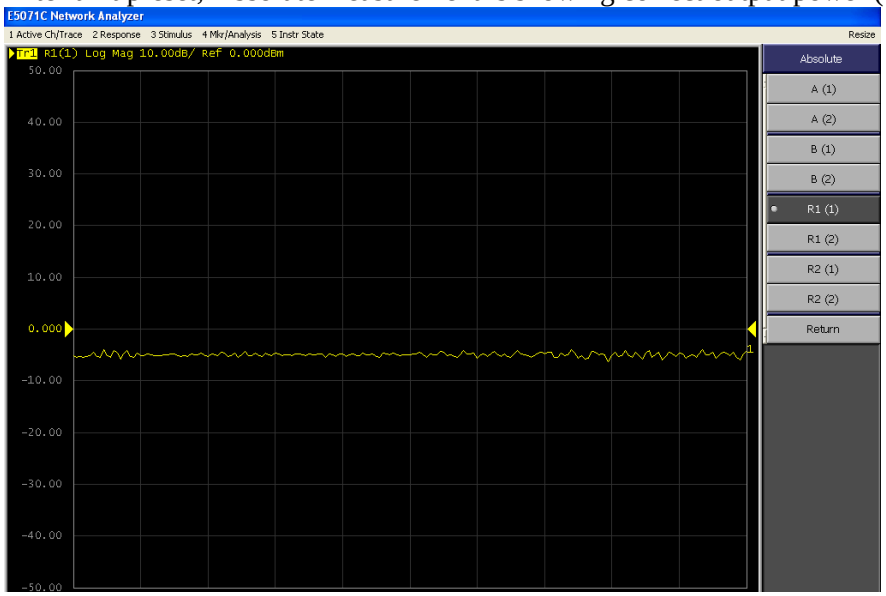
1. Due to Step Attenuator failure, RF Output power level (Over 8.5GHz option) is inaccurate (decreased).
2. After preset, absolute measurement R1(1) , R2(2), R3(3) and R4(4) of the unit is reduced to ~-35dBm.

Instruction on performing Absolute Measurement.

Preset the unit by pressing on “Preset” hard key followed by “OK” soft key.
Press the “Measure” Hard key.
For 2 ports ENA, click on the “Absolute” soft key. Check R1(1) and R2(2) on the signal level.
For 4 ports ENA, press the “down” soft key until “Absolute” is observed. Check the signal level for R1(1), R2(2), R3(3), R4(4)

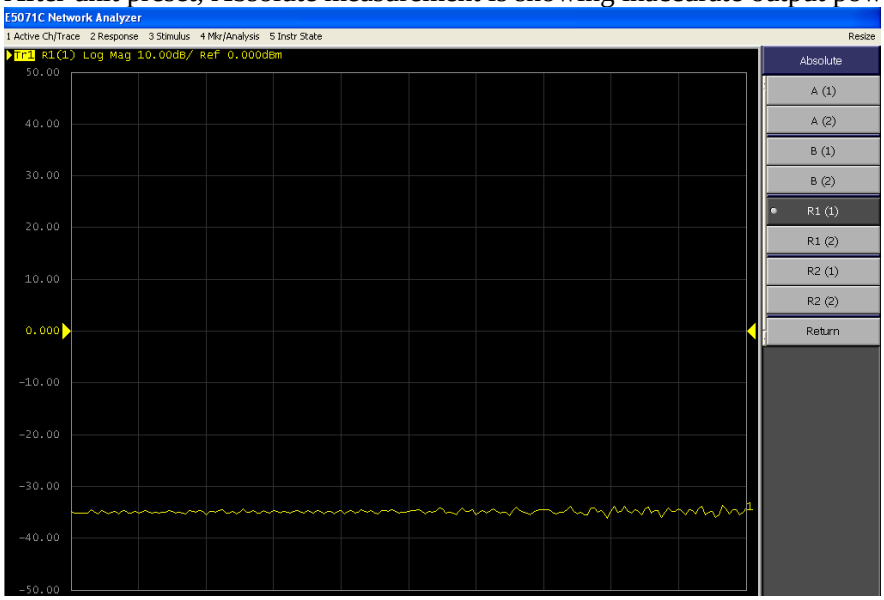
Good unit:

After unit preset, Absolute measurement is showing correct output power (-5 dBm)



Defective unit:

After unit preset, Absolute measurement is showing inaccurate output power (-35 dBm)



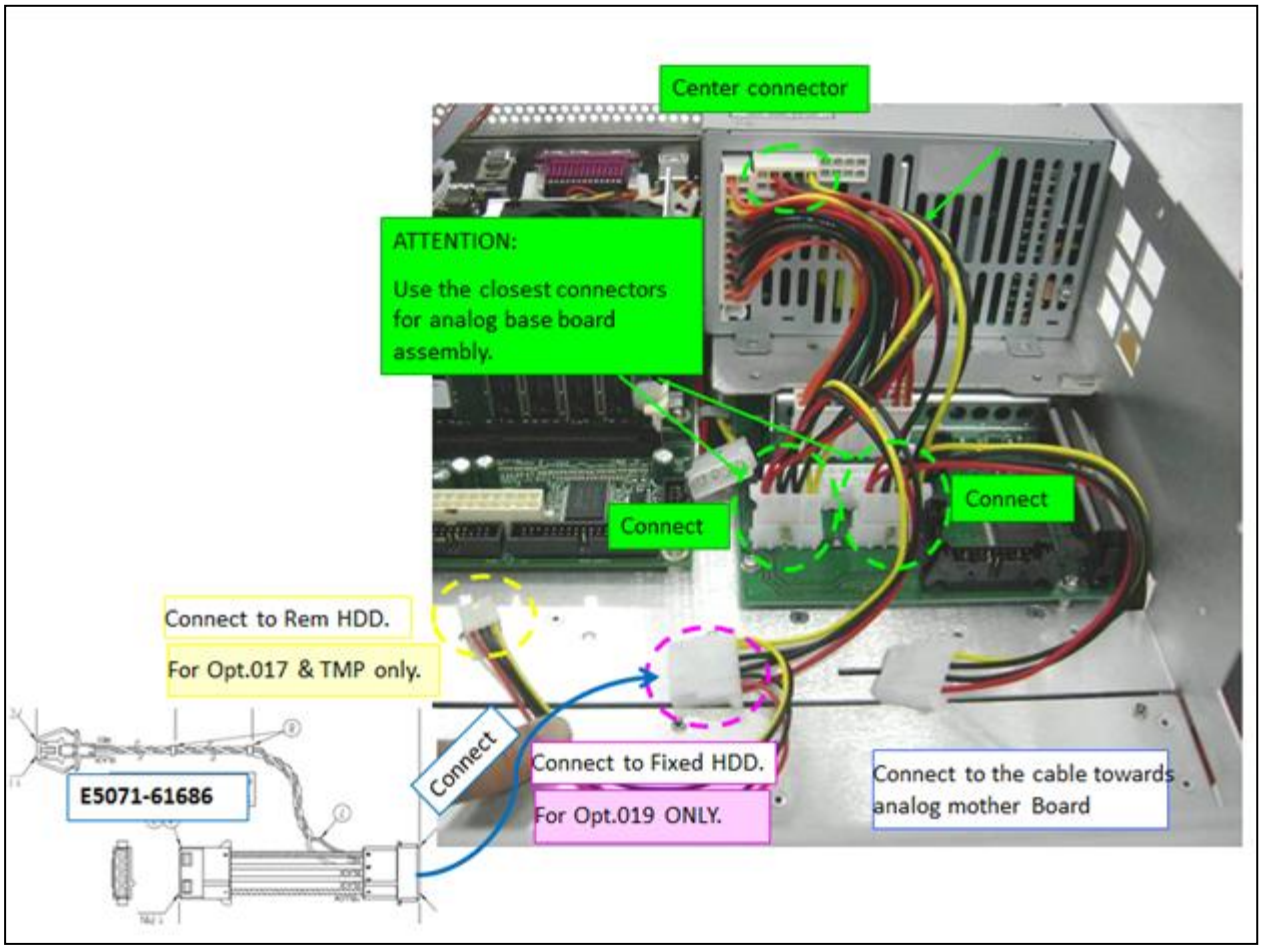
Solution/Action:

1. Replace the Step attenuator module according to part replacement procedure shown on service guide for Over 8.5 GHz Option. Use **33321-60082** when **33321-60065** is broken.

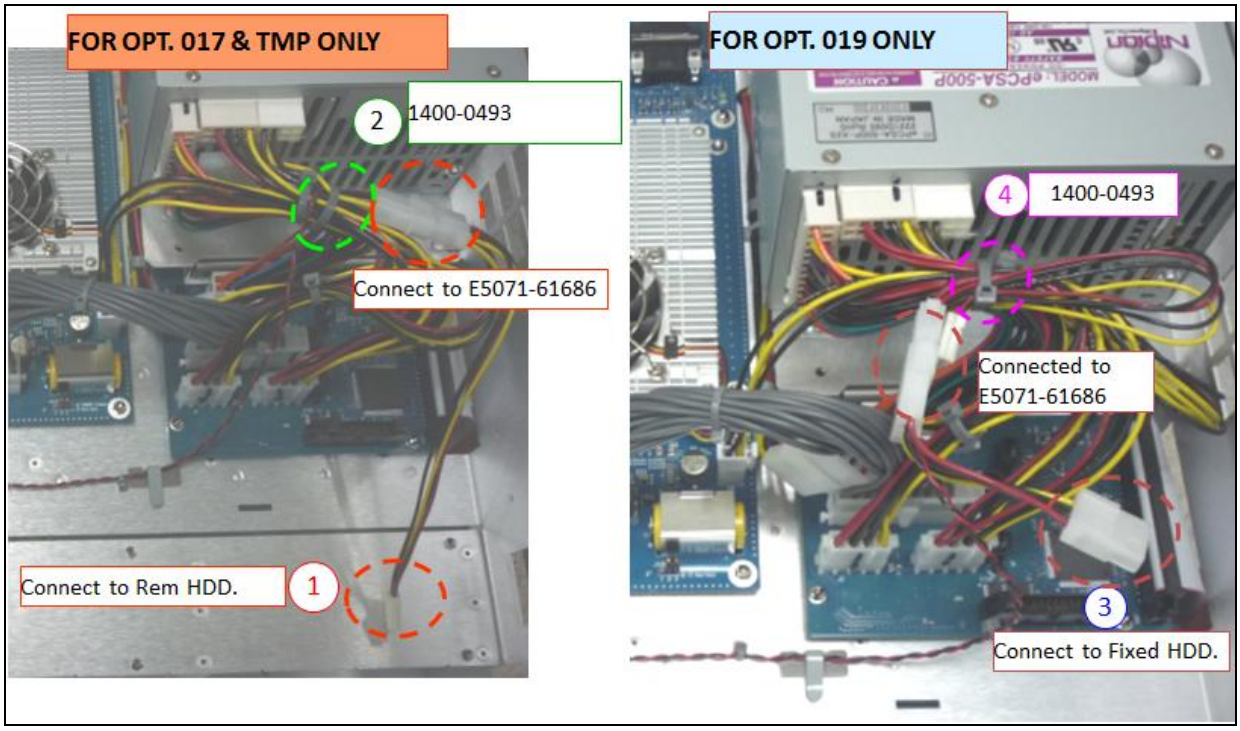
2. After the attenuator and its cable assembly is removed, refer to the below for the procedure on changing the cable assembly.

3. Cable assembly **E5071-61665** is replaced by **E5071-61685** and **E5071-61686**.
E5071-61686 will be the newly added channel power supply to attenuator.

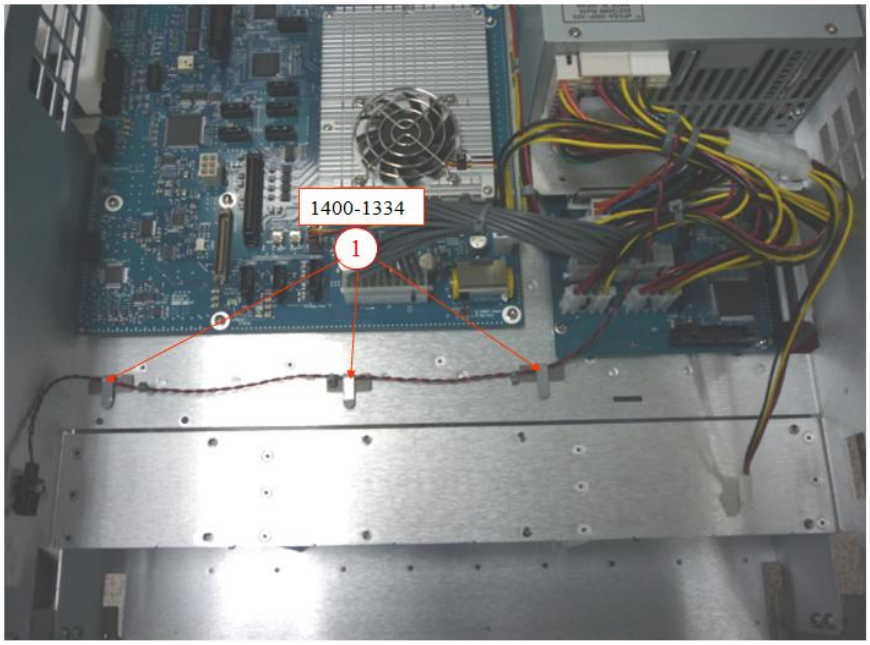
Step 1. Connect the cable assembly to the power supply connector as shown below.



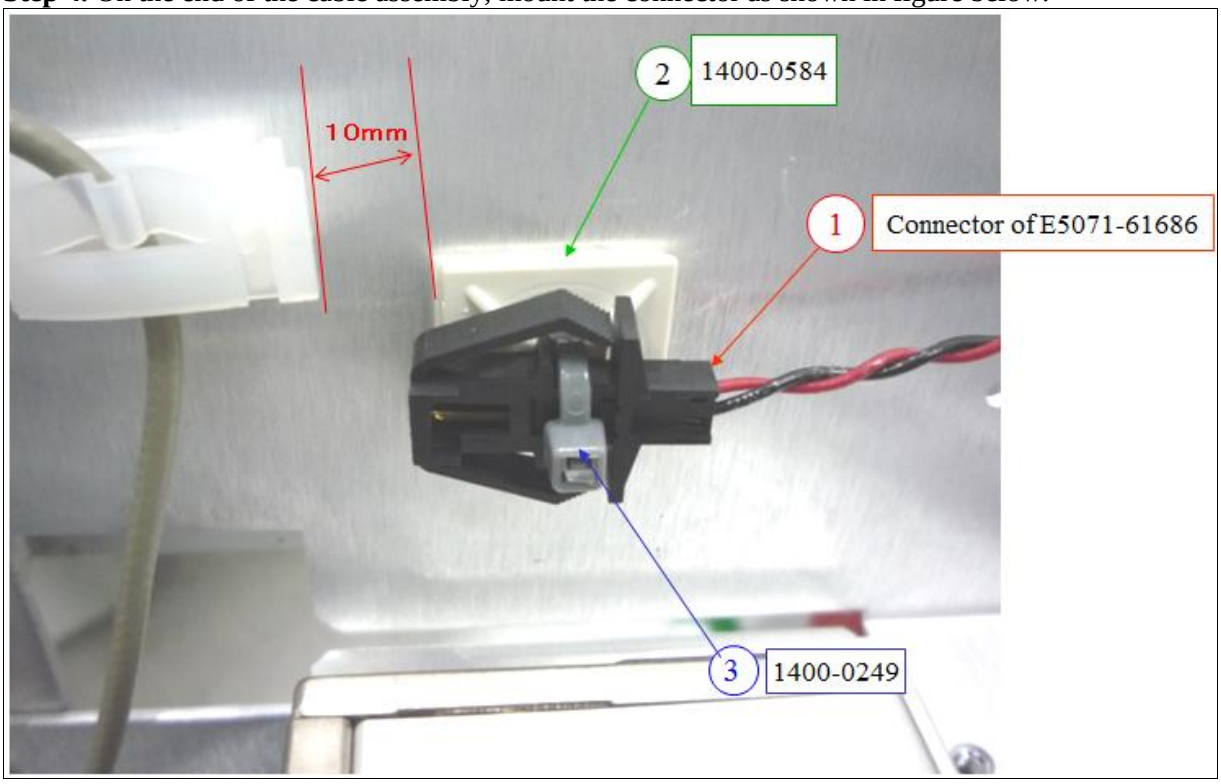
Step 2. Connect one end of the cable assembly to the HDD power connector according to unit options.



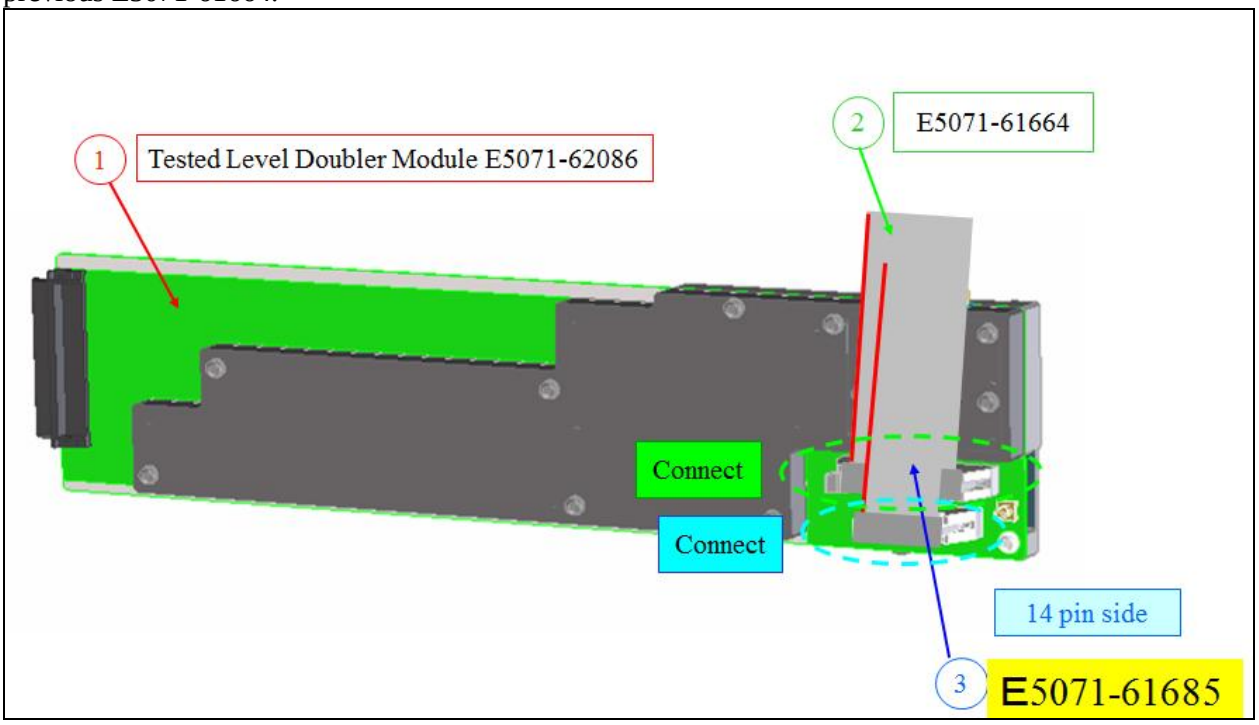
Step 3. Properly install the cable assembly in place with cable clamp as shown.



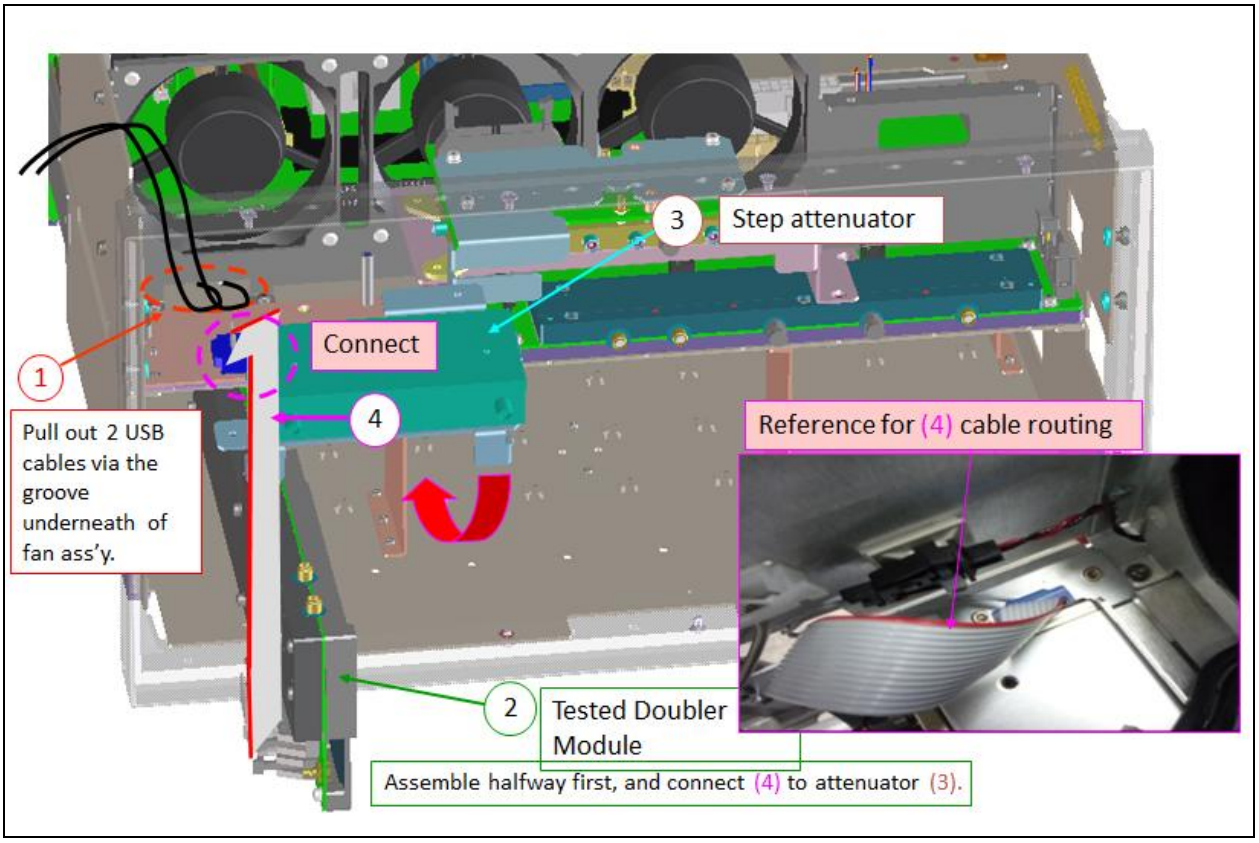
Step 4. On the end of the cable assembly, mount the connector as shown in figure below.



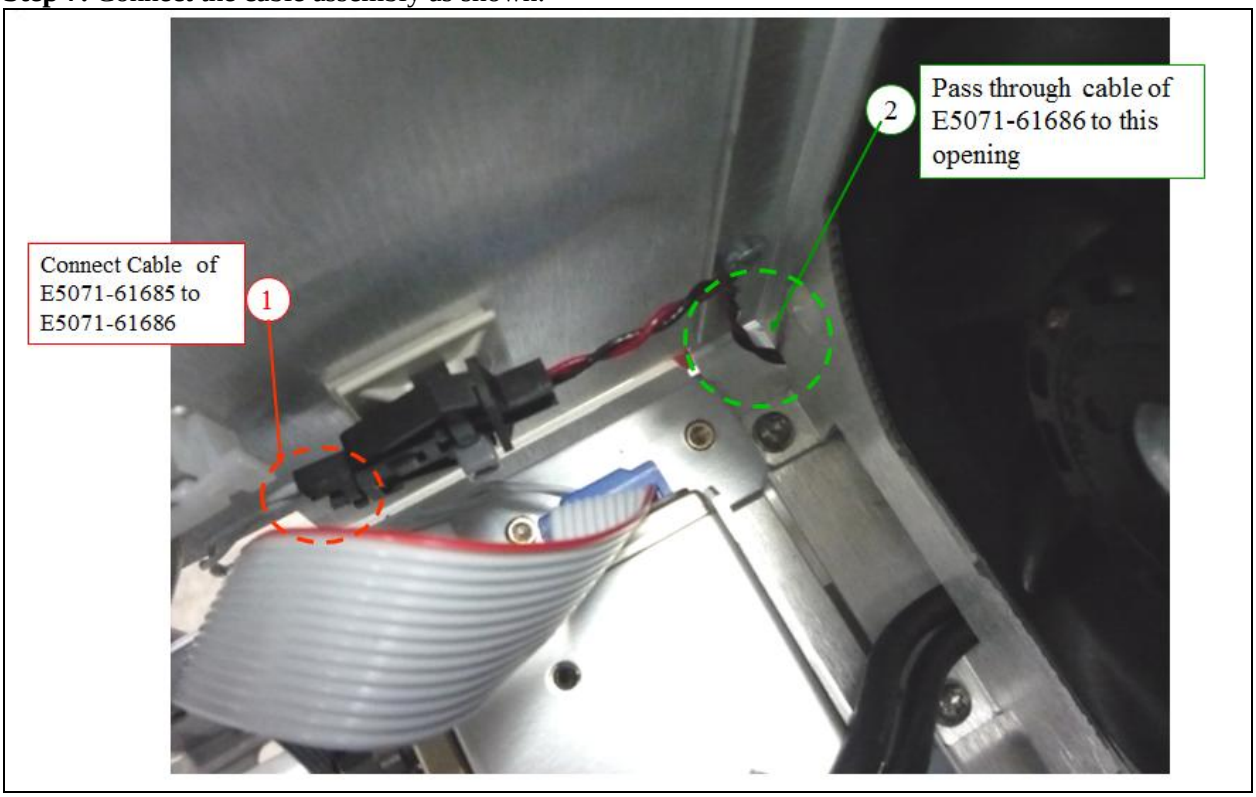
Step 5. Connect the cable assembly E5071-61685 to Tested Doubler Module as shown. Reuse the previous E5071-61664.



Step 6. Install the tested Doubler Module followed by the Step Attenuator.



Step 7. Connect the cable assembly as shown.



Step 8. Perform all Adjustment and Performance Tests.

Shown is the front view of the unit.

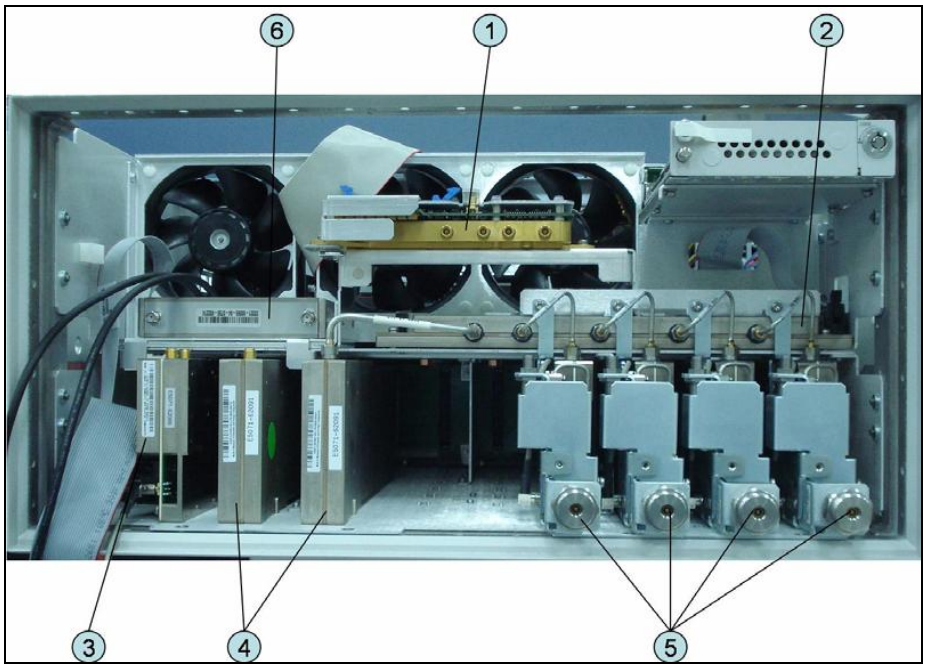


Table 5-9 Front View Over 8.5 GHz Options (Analog)

Ref. Desig.	Agilent Part Number	Qty.	Abbreviation	Description
1	5087-7747	1	IMX	IMIX
2	E5071-61184 (A4)	1	DIS	DISTRIBUTOR MODULE
3	E5071-62086 (A6) E5071-69086	1 1	DBL	TESTED LEVEL DOUBLER MODULE TESTED LEVEL DOUBLER MODULE (Exchange)
4	E5071-62091 (A1) E5071-69091	2 2	SYN	SYNTHESIZER BOARD SYNTHESIZER BOARD (Exchange)
5	See Table 5-29	1	RCV	RECEIVER MODULE ASSEMBLY
6	**33321-60082**	1	ATT	ATTENUATOR 60 dB 20 GHz, PB FREE