# SERVICE NOTE

Supersedes: E4440A-08

E4440A-08A

PSA Series Spectrum Analyzer E4440A, E4443A, E4445A, E4446A and E4448A

Serial Numbers: See List at the end of the Service Note Service Notes: E4440A-08, E4443A-07A, E4445A-07A, E4446A-05A, E4448A-06A

A hardware defect has been detected in the above range of PSA series spectrum analyzers. This defect can cause measurements to be made not to the specified performance of the instrument. The effected assembly is the A7 Digital IF board. Please perform the following procedure to determine if the instrument does require modification. The modification is to replace the A7 Digital IF Assembly with the E4440-69195 Digital IF exchange assembly.

To Be Performed By: Agilent-Qualified Personnel

Parts Required:P/NDescriptionQty.

E4440-69195 Digital IF Exchange Assembly 1

## ADMINISTRATIVE INFORMATION

SERVICE NOTE CLAS	SSIFICATION:	
	MODIFICATION	RECOMMENDED
ACTION CATEGORY:	X IMMEDIATELY [[]] ON SPECIFIED FAILURE X AGREEABLE TIME	STANDARDS: LABOR: 0.0 Hours
LOCATION CATEGORY:	[[]] CUSTOMER INSTALLABLE [[]] ON-SITE x SERVICE CENTER	SERVICE X RETURN USED X RETURN INVENTORY: [[]] SCRAP PARTS: [[]] SCRAP [[]] SEE TEXT [[]] SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: Nov 1, 2006
AUTHOR: BNN	PRODUCT LINE: 12	
ADDITIONAL INFORM	IATION:	
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October 4, 2006

### Situation:

A hardware defect has been detected in the above range of PSA series spectrum analyzers. This defect can cause measurements to be made not to the specified performance of the instrument. The effected assembly is the A7 Digital IF assembly. Customer notifications will begin in early October, 2003. Please perform the following procedure to determine if the instrument does require modification.

To identify if your unit is affected, perform the following procedure with the PSA Series Spectrum Analyzer. No external equipment is required.

- Press the PRESET key.
- Tune the instrument to 50 MHz by pressing the FREQUENCY key followed by 50 MHz.
- Set the span to 1 MHz Hertz by pressing the SPAN key followed by 1 MHz.
- Set the Resolution Bandwidth to 1 MHz by pressing the BW/AVG and setting the Res BW to 1 MHz.
- Turn the 50 MHz calibration signal on by pressing the INPUT/OUTPUT key and selecting the Input Port to be the 50 MHz Amplitude Reference.
- Agiket 8/22/12 Ray 25, 2003

   Avi 25 dBa
   Attan 10 dB

   Avia
   Attan 10 dB
- Set the Reference level to -25 dBm and the Scale/Div to 1 dB by pressing the Amplitude key.

Effected instruments will randomly show an amplitude drop of approximately 2 to 3 dB.

If the instrument is not within the S/N range listed above, or the instrument does not display the error in the procedure stated above, no action is required.

#### Solution/Action:

Replace the A7 Digital IF assembly P/N E4440-60025 or E4440-60195 with the Digital IF exchange assembly P/N E4440-69195. Perform recommended performance verification procedures and possible adjustments. Please reference the PSA Service guide for additional details.

Assembly	Adjustments and Tests	Performance Verification
A7 Digital IF Assembly	Internal Align All Now	Absolute Amplitude Accuracy
		Resolution BW Switching
		Display Scale Fidelity

### Page 3 of 3 Serial Number Effected

l Number Effected			
MY42510054	MY42510233-235	MY42510368	US42512025
MY42510095	MY42510240-242	MY42510370	US42512028
MY42510103	MY42510247-251	MY42510377-384	US42512030
MY42510109	MY42510253-255	MY42510386-387	US42512035
MY42510125	MY42510258-263	MY42510390	US42512037-039
MY42510128	MY42510265-268	MY42510392-393	US42512041
MY42510130	MY42510271-272	MY42510396	US42512047-048
MY42510141	MY42510274	MY42510400	US42512063
MY42510147-149	MY42510277-278	MY42510402-403	US42512066
MY42510158	MY42510285-287	MY42510405-410	US42512068
MY42510172-173	MY42510289-295	MY42510412	US42512071-072
MY42510178-179	MY42510300	MY42510418-421	US42512075-078
MY42510186-188	MY42510302-305	MY42510424,	US42512081
MY42510192	MY42510308-323	MY42510426-430	US42512084
MY42510195	MY42510325-327	MY42510436-439	US42512094
MY42510197-198	MY42510330	MY42510441-443	
MY42510200-210	MY42510333-335	MY42510445-446	
MY42510212-214	MY42510337-340	MY42510448	
my42510216	MY42510342-343	MY42510454-455	
MY42510219-220	MY42510348	US42221891	
MY42510224	MY42510350-354	US42510272	
MY42510226-227	MY42510359	US42510364	
MY42510229-231	MY42510363-364	US42510368	