E5515C-05C

S E R V I C E N O T E

Supersedes:
E5515C-05B

E5515C Wireless Communications Test Set (8960 Series)

Serial Numbers: US00000000/US99999999, GB00000000/GB44059999

Power-On DSP Initialization Failures Require Replacement of the DSP Assembly

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Qty.
E5515-69843	DSP_KIT (Exchange)	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION: **MODIFICATION RECOMMENDED**				
ACTION CATEGORY:	IMMEDIATELY X ON SPECIFIED FAILURE AGREEABLE TIME	STANDARDS: LABOR: 1.0 Hour		
LOCATION CATEGORY:	CUSTOMER INSTALLABLE X ON-SITE X SERVICE CENTER	SERVICE INVENTORY:	X RETURN SCRAP SEE TEXT	USED PARTS: X RETURN SCRAP SEE TEXT
AVAILABILITY: PRODUCT'S SUPPORT LIFE		AGILENT RESPONSIBLE UNTIL: 1 NOV 2006		
AUTHOR: DT/LL PRODUCT LINE: 13 ADDITIONAL INFORMATION:				

Agilent Technologies

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Situation:
The DSP (Digital Signal Processor) Assembly may require replacement to resolve DSP boot initialization failures during test set power-on. The DSP Assembly covered by this Service Note consists of two boards; the DSP Interface (full-size, installed into the Digital Motherboard) and the DSP Processor (smaller, mounted onto the DSP Interface).

DSP Failure Symptoms
Common failure symptoms of the test set include extended time to bootup, failure to bootup completely, or random asserts during normal operation. Communications between the Host/Protocol processors and the DSP processor becomes corrupted, causing the test set to reboot, hang up at DSP initialization, or assert. The frequency of this problem is random, but increases over time.

DSP Interface
A defective SRAM memory chip on the DSP interface board E5515-60167 is the main source of these failures. DSP Assemblies that ***do not*** have this specific Interface Assembly part number are ***not*** covered by this Service Note (see table). The SRAM memory chip on the replacement DSP Interface board has been re-designed to correct this problem.

DSP Assembly P/N	DSP Interface P/N	DSP Processor P/N	Covered by Service Note?
E5515-61218	E5515-60167	E5515-60176	Yes
E5515-61190	E5515-60167	E5515-60168	Yes
E5515-60143 **(See Note 1)**	N/A	N/A	**No**

Note 1: This older version of the DSP Assembly does not use DSP Interface board E5515-60167, and does not contain the defective SRAM memory chip, and is not covered by this Service Note. This version of the DSP Assembly was manufactured by Radisys Corp. and does not have an Agilent P/N label on it. It can be identified visually by silkscreen labeling on the upper right-hand corner of the PC board which says 'RADISYS CORP.' **OR** identified electrically as P/N E5515-60143 by performing an ICONFIG on the test set using an external PC running an internet browser (contact **spokane_service@agilent.com** for more information about ICONFIG)

Solution/Action:
If the test set fails to bootup correctly, takes longer than normal to bootup, or displays messages noted below, replace the DSP Assembly using exchange repair kit E5515-69843. Verify that the test set boots up and operates normally. Re-calibration is not required.

Refer to the test set screen displays (below) for typical failure symptoms:

- **Figure 1** shows the typical point in the test set bootup process where the DSP fails to initialize. The bootup process may stop here and then re-boot, or will eventually complete the bootup process after multiple attempts to initialize the DSP assembly.

NOTE: Figures 2 and 3 show typical error messages due to a defective DSP assembly. While these error messages indicate a failure of the ADC DEMOD SAMPLER 1 or 2 BOARDS, this should not be interpreted as justification for replacing the ADC board.

- **Figure 2** shows a typical message displayed after the test set, with a defective DSP assembly, completes the bootup process.

- **Figure 3** shows the test set's message log with all error messages associated with a defective DSP assembly.

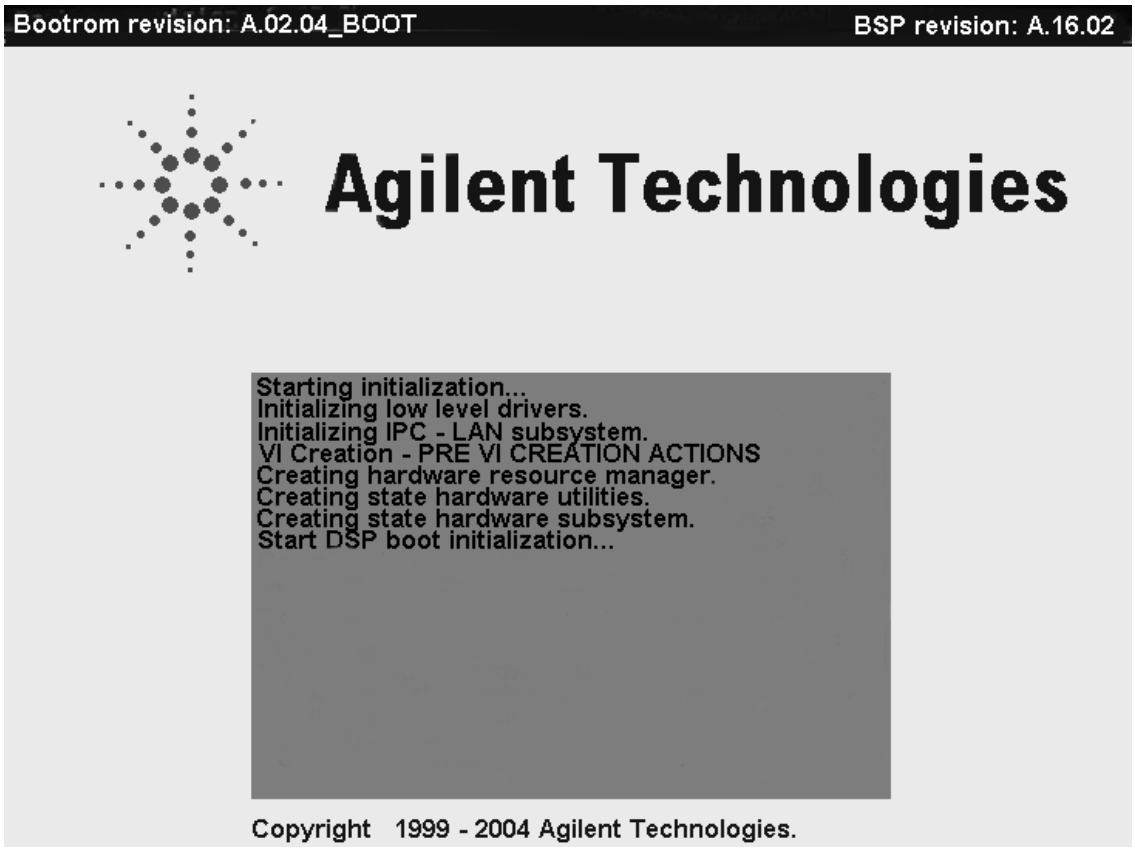

Figure 1 – DSP initialization bootup failure during test set power-on.

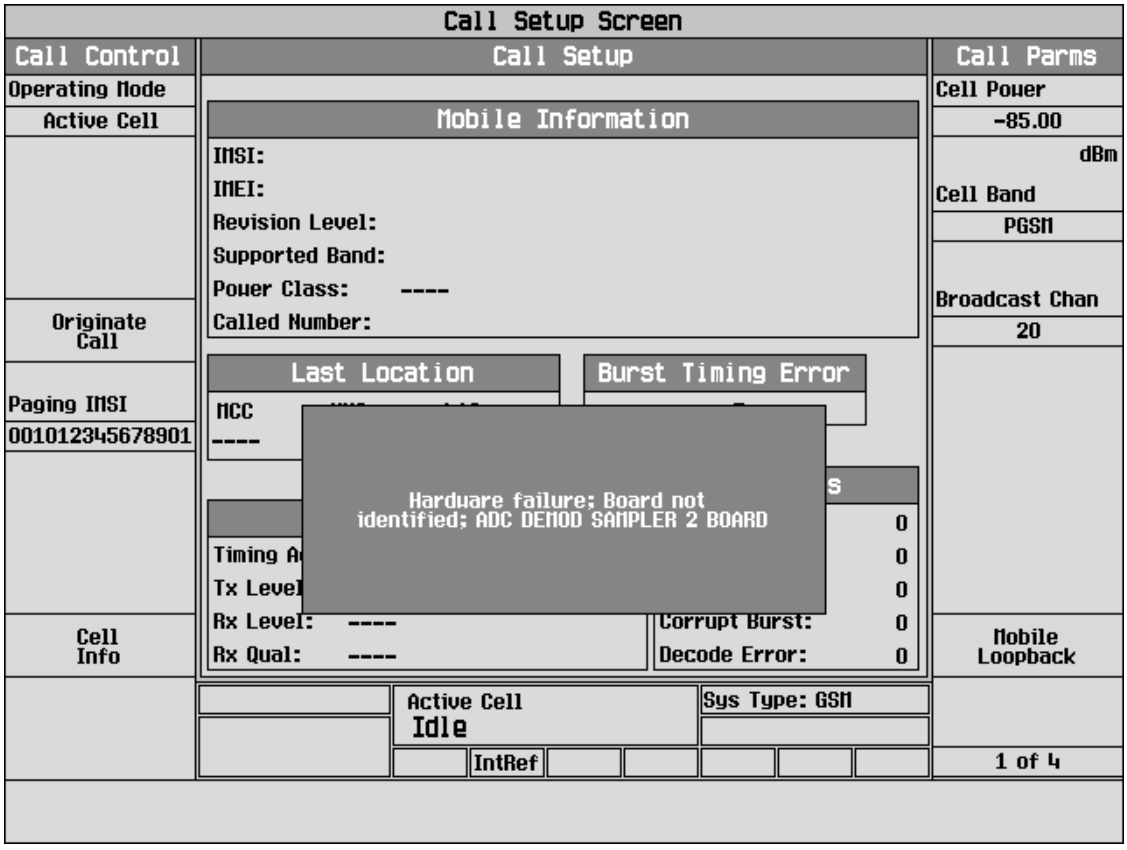

Figure 2 – Test Set display with a typical error message due to defective DSP assembly.

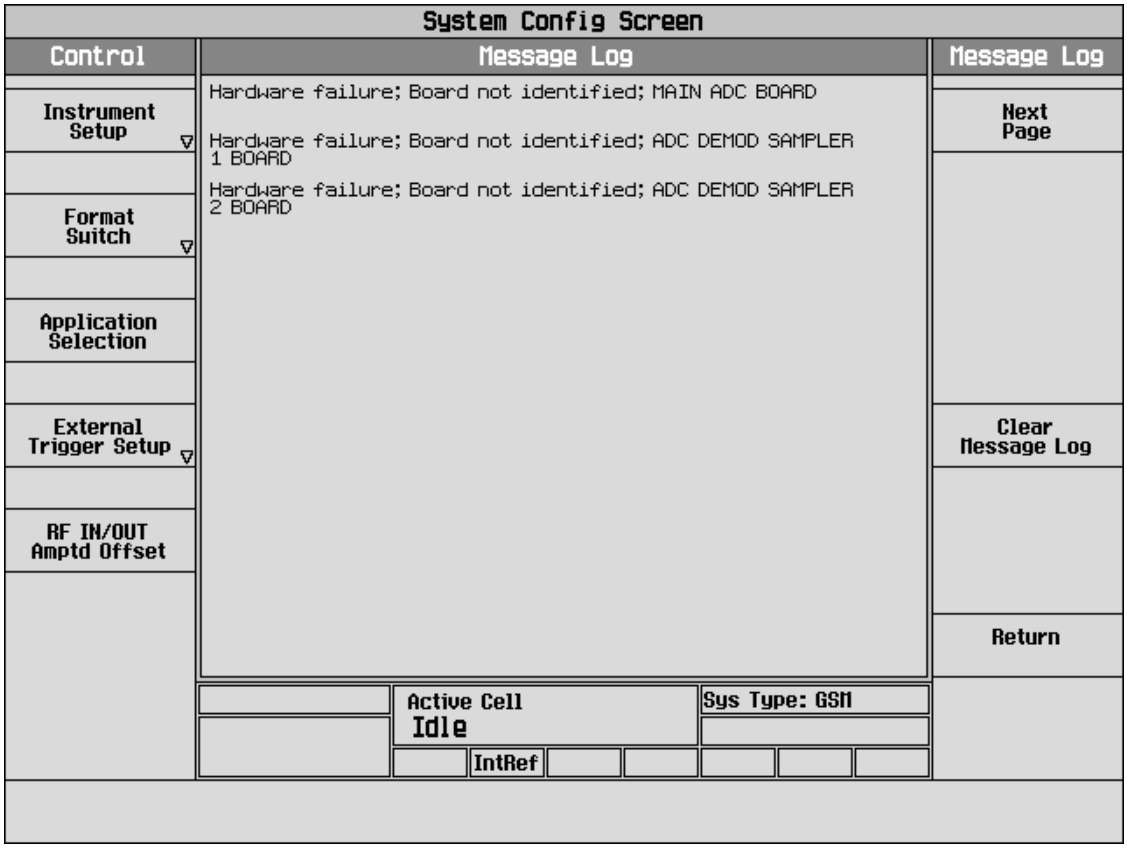

Figure 3 – Test Set Message Log (shows all error messages associated with a defective DSP assembly.