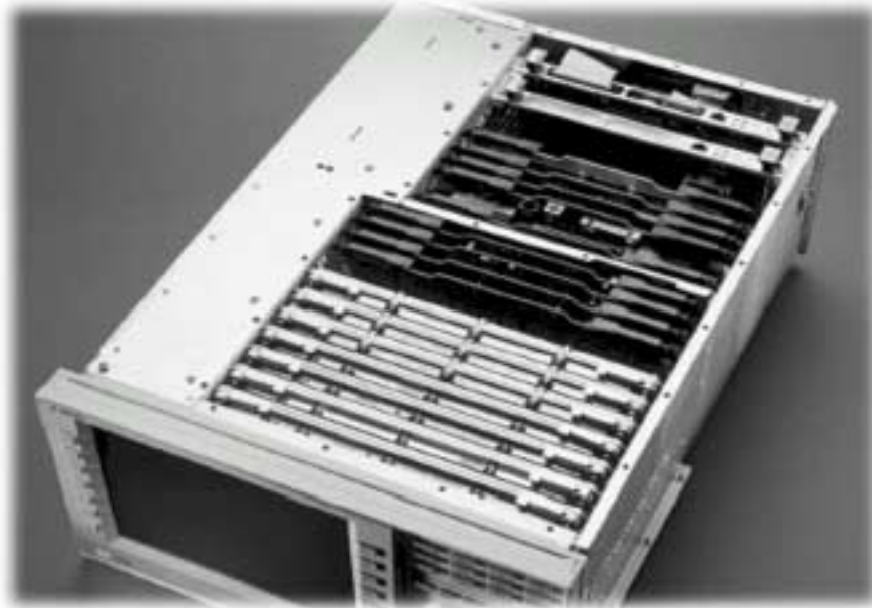# Installation Note

**Agilent Technologies 8960 Wireless Communication Test Set
Installing the Digital Link Sub System
Upgrade Kit Part Number: E5515CU-513**

Notice:
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E5515-90286

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Agilent Technologies 8960 Wireless Communication Test Set Upgrade for the Digital Link Sub System Kit Part Number: E5515CU-513

Product Affected:	E5515C
Serial Numbers:	E5515C <GB46040001
OR Required option:	Option 003
Replaces Board:	E5515-60173
Applications Supported:	All
To Be Performed By:	(X) Agilent Technologies Service Center
	(X) Personnel Qualified by Agilent Technologies
	(X) Customer
Estimated Installation Time:	2.0 hours
Estimated Verification Time:	0.0 hours

Introduction

NOTE: This upgrade kit requires new versions of compatible applications.

Installation includes the following major steps:
1. Install newer versions of applications.
2. Remove incompatible applications.
3. Disassembly
   a. Remove the instrument covers.
   b. Remove the old board.
4. Assembly
   a. Assemble Protocol and DLSS
   b. Install new Board.
5. Replace covers.

Installation Kit Parts List

Item	Qty	Description
1	1	Digital Link Sub System

Tools Required

- TORX T-20 driver
- TORX T-8 driver

Safety Considerations

WARNING	**Before you disassemble the test set, turn the power switch off and unplug the power cord. Failure to unplug the test set can result in personal injury.**

CAUTION	Electrostatic discharge (ESD) can damage or destroy electronic components. All work on electronic assembles should be performed at a static-safe workstation.

Install Newer Versions of Existing Applications:

1. Upgrade all existing compatible applications to the latest revision (see Table 1) and switch to one of the new revisions.
2. Make active one of the new application versions, so after install the hardware the instrument will boot into a compatible application.
3. Follow the Firmware installation instructions that come with the Applications.

E1960A	GSM	NOT COMPATIBLE
E1961A	AMPS/136	A.11.00 or greater
E1962B	CDMA 2000 TA	B.10.00 or greater
E1963A	W-CDMA TA	A.08.00 or greater
E1964A	GPRS TA	NOT COMPATIBLE
E1966A	1xEV-DO TA	A.05.00 or greater
E1968A	GSM/GPRS/EGPRS TA	A.06.00 or greater
E1985A	GSM/GPRS_AMPS/136_W-CDMA	NOT COMPATIBLE
E1985B	GSM/GPRS_AMPS/136_W-CDMA	NOT COMPATIBLE
E1985C	GSM/GPRS_CDMA2000_AMPS/136	NOT COMPATIBLE
E1985E	CDMA2000_1xEV-DO	NOT COMPATIBLE
E1987A	Fast Switch Test App	A.03.00 or greater
E6590A	GSM/GPRS RF Modem	A.04.00 or greater
E6701A	GPRS Lab App	NOT COMPATIBLE
E6701B	GSM/GPRS Lab App B	NOT COMPATIBLE
E6701C	GSM/GPRS Lab App C	NOT COMPATIBLE
E6701D	GSM/GPRS Lab App D	D.03.00 or greater
E6702A	CDMA 2000 Lab App A	NOT COMPATIBLE
E6702B	CDMA 2000 Lab App B	B.03.00 or greater
E6703A	W-CDMA Lab App A	NOT COMPATIBLE
E6703B	W-CDMA Lab App B	NOT COMPATIBLE
E6703C	W-CDMA Lab App C	C.03.00 or greater
E6706A	1xEV-DO Lab App	A.02.00 or greater
E6785A	GSM/GPRS_W-CDMA LA A	NOT COMPATIBLE
E6785B	GSM/GPRS_W-CDMA LA B	NOT COMPATIBLE
E6785C	GSM/GPRS_W-CDMA LA C	C.03.00 or greater

Table 1

Remove Incompatible Applications:

1. Remove all non-compatible applications from the test set. Removing older application revisions prevents improper operation of the test set. The test set must be connected to the PC by a cross-over cable via the test set's LAN port.
    a. Run the Agilent 8960 File Utility
    b. Select the Direct Connection (Single test set) button.
    c. Select the Test Application tab.
    d. Highlight the old revision(s) of application(s) and select the Delete From test set button. All licenses should remain on the instrument. Removing an application does not remove the license for that application.

Disassembly:

Remove outer cover and top cover for the 8960:

1. Remove handles and rear bumpers.
2. Remove the screws on the real panel holding outer cover.
3. Slide outer cover off.
4. Remove the 26 screws holding the top cover on and remove the cover.

Remove the old board:

1. Remove the Protocol Processor Assembly. The Protocol is the second board from the rear of the instrument. Disconnect the ribbon cable from the Protocol Assembly and pull the board straight up using the 2 black cam-outs on the top of the assembly.
2. Disconnect the Digital LSS daughter board from the Protocol Board. There are 6 TORX-10 screws holding the DLSS on the Protocol Board

Assembly:

Install Board

1. With the 6 TORX-10 screws connect the DLSS to the Protocol Board.
2. Install the Protocol Processor Assembly into J1, J3 slots on the Digital Motherboard.
3. Connect the ribbon cable from Analog LSS to… DLSS?.

Reboot the instrument:

1. Tune the instrument on. The instrument should boot into the compatible application last upgraded.

Replace covers:

1. Replace the top cover and secure it with the 26 screws.
2. Slide the outer shroud (cover) on.
3. Replace the screws on the rear.
4. Attach the rear bumpers and handles.

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