

EVLA Correlator Project Contract #31035-059127

AssyNotes: Assembly Notes for the Station Board 25040.

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Version: V1.3

Date: January 21, 2009

Updates

V1.0: First full release for Stage 1 build.

Reference	Description of changes/updates since last release
June 29, 2006	V1.0 release.

V1.1: Full release for Stage 2 build.

Reference	Description of changes/updates since last release
Nov 29, 2007	V1.1 release.
Unpopulated components	R1453-R1472, U31, U70, and G1-G2 added to unpopulated components list.
Serial Numbers	Additional example provided for serial number setup. New serial numbers relevant to this build entered.
Power Supplies	Power supply installation position information added.
Drawings	Drawing references updated.

V1.2: Full release for Stage 3 build.

Reference	Description of changes/updates since last release
Mar. 20, 2008	V1.2 release.
Drawings	Drawing references updated.

V1.2: Full release for Stage 4 full production.

Reference	Description of changes/updates since last release
Oct. 07, 2008	V1.2 production release.
Serial Numbers	Stage 4 full production serial number range information added.
ECO	ECO information updated.
Power Supply	Installation information has been updated to reflect the new power supply as per A25300N0017-25040.

V1.2: Update for Stage 4 full production.

Reference	Description of changes/updates since last release
Socket Soldering	Hand soldering power supply socket pins information added

V1.3: Second Update for Stage 4 full production.

Reference	Description of changes/updates since last release
Revision	Assembly Notes file now refers to final revision of V1.3
Adhesive	Section added for specifications and instructions for adhesive application on parts # 25500-P-000074, # 25500-P-000123, and #25500-P-000168 to secure them to the board.

Introduction

This file contains the assembly notes for the Station Board 25040. Included in this description are instructions and drawings for the assembly that is not self-evident from the BOM and the PCB layout, references to additional more detailed drawings.

Applicable ECOs

ECO	Date	Description
ECO-A25300N0017-25040	08Jul2008	Replacement of short pin power supply with longer pin power supply.

****Note: Changes to BOMaux as per this ECO have already been made****

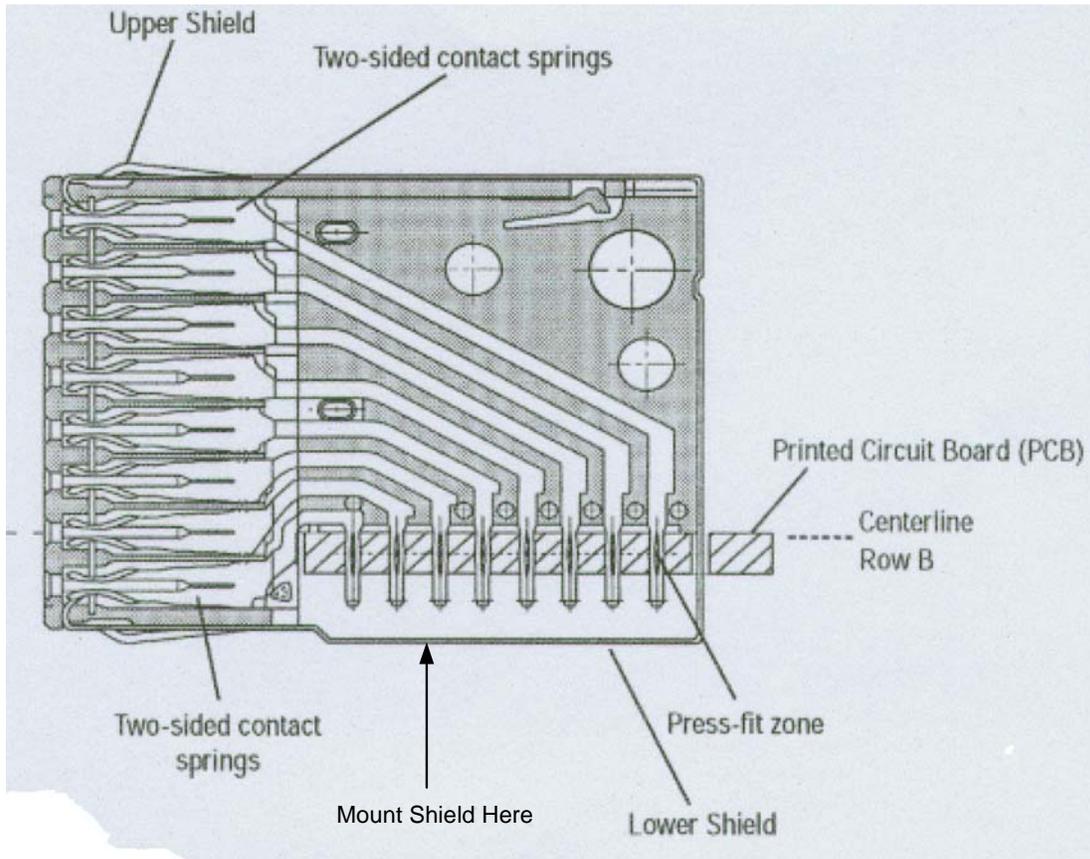
Assembly Instructions

1. Unpopulated Components:

- a. TP1-TP180, U30, J21-J22, U31, U70, G1-G2, and R1453-R1472.

2. Press-Fit Components:

- a. SH15 is the ERNI 11-row shield 25500-M-000003 and is on the bottom.
- b. SH8 is the ERNI 11-row shield 25500-M-000003 and is on the bottom.
- c. SH20 is the ERNI 11-row shield 25500-M-000003 and is on the bottom
- d. SH10 is the ERNI 25-row shield 25500-M-000002 and is on the bottom
- e. SH6 is the ERNI 25-row shield 25500-M-000002 and is on the bottom
- f. J9, J4, and J16 are on the top



Mounting diagram for the ERNI shields (SH15, SH8, SH20, SH10, SH6 and SH19). Lower shields will slightly tilt due to the thickness of the board.

3. Serial Number Setup

Bit Number	Bit[7]	Bit[6]	Bit[5]	Bit[4]	Bit[3]	Bit[2]	Bit[1]	Bit[0]
Ref Des	R540	R541	R542	R543	R544	R545	R546	R547
Install	0	0	0	0	0	0	0	0
S/N (Hex)	0				0			

Bit Number	Bit[15]	Bit[14]	Bit[13]	Bit[12]	Bit[11]	Bit[10]	Bit[9]	Bit[8]
Ref Des	R532	R533	R534	R535	R536	R5377	R538	R539

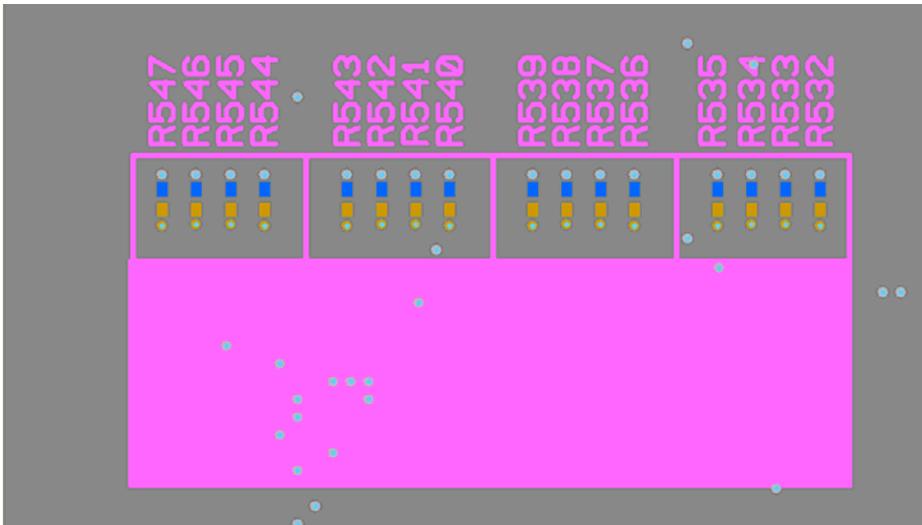
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Install	0	0	0	0	0	0	0	0
S/N (Hex)	0				0			

If a resistor is INSTALLED, then the bit is 1. If a resistor is not installed, then the bit is 0.

EXAMPLES: for S/N 4001 Hex R547 and R533 should be installed; for 4003 Hex R547, R546 and R533 are installed.

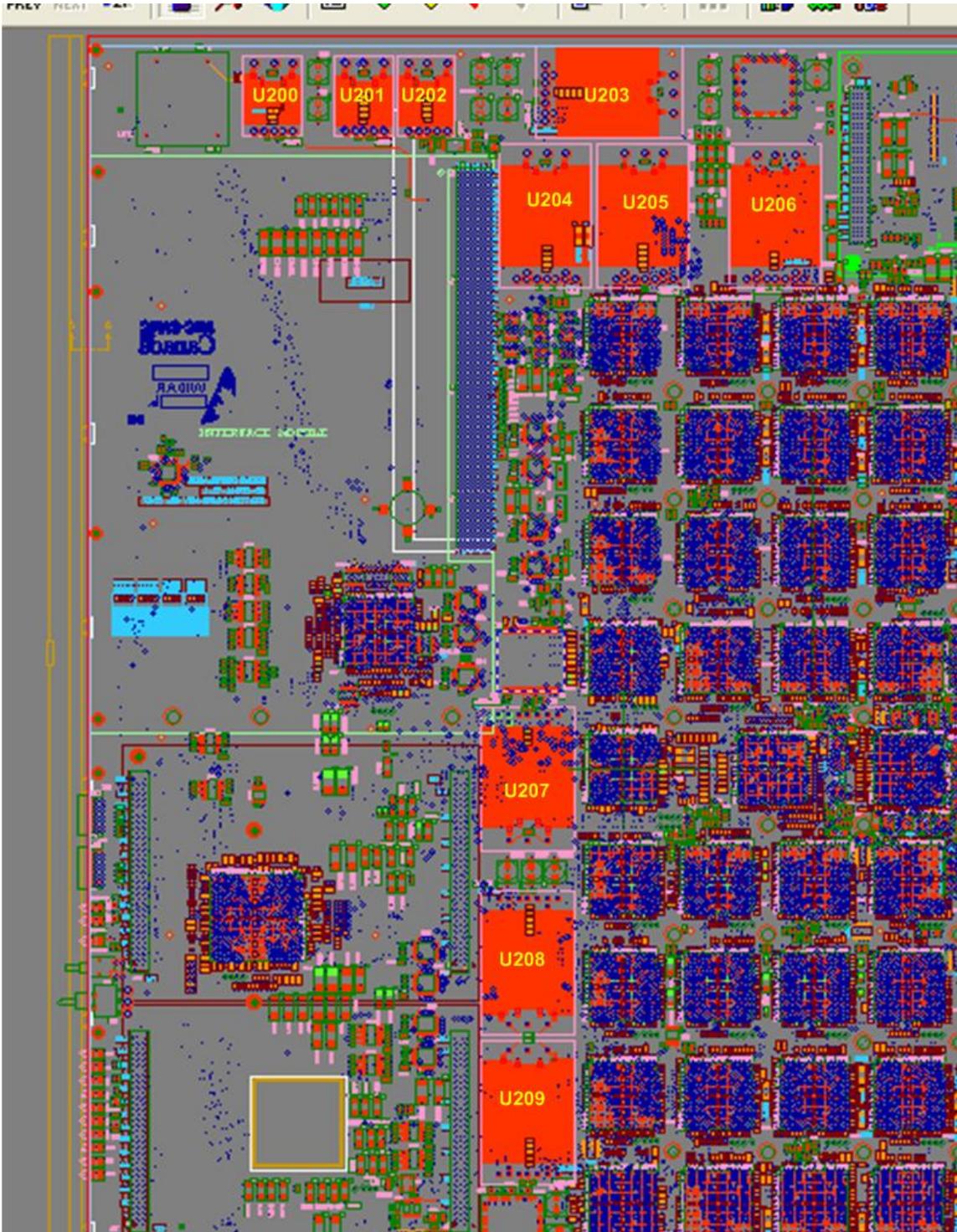
Stage 4 serial number range: 0011-0095



Write S/N in this silkscreen box below the resistors.

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4. Power Supply Locations



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Power supplies, DC/DC converters, installation positions are defined on the picture above. The parts are as follows:

- U200: 25500-A-000128 (+5V 1/16 Brick)
- U201: 25500-A-000140 (+3V3 1/16 Brick)
- U202: 25500-A-000126 (+2V5 1/16 Brick)
- U204: 25500-A-000084 (+1V5 ¼ Brick)
- U203: 25500-A-000083 (+1V2 ¼ Brick)
- U205: 25500-A-000083 (+1V2 ¼ Brick)
- U206: 25500-A-000083 (+1V2 ¼ Brick)
- U207: 25500-A-000083 (+1V2 ¼ Brick)
- U208: 25500-A-000083 (+1V2 ¼ Brick)
- U209: 25500-A-000083 (+1V2 ¼ Brick)

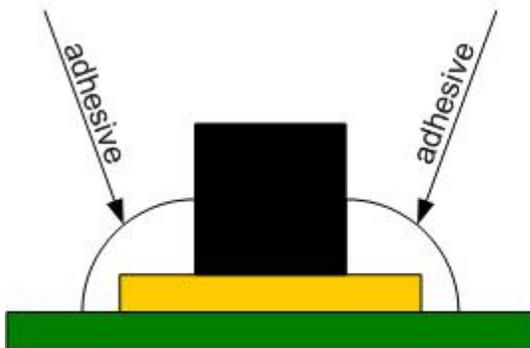
Note that these reference designators have been added to the silkscreen.

5. Power Supply Socket Pins Hands Soldering

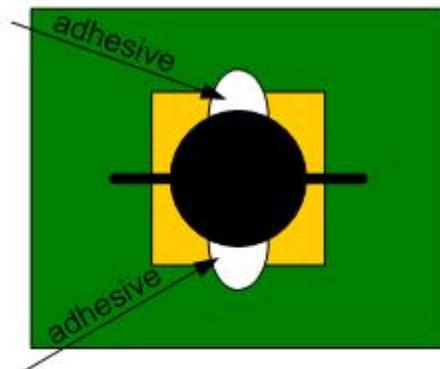
Use no-clean wire solder to hand solder all power supply socket pins from the opposite side after press-fit process. This is for mechanical enforcement on these socket pins.

6. Adhesive Application Instructions

Apply DOW CORNING adhesive 3145 RTV (25500-H-000002) on all electrolytic capacitors 25500-P-000074 (reference designators: C3 and C439) and 25500-P-000123 (reference designators: C5, C6, C9, C12, C13, C14, C338, C339, C340, C435, C3520 and C3521) as indicated below.



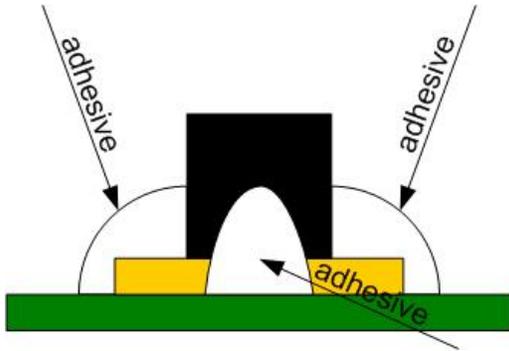
Side View



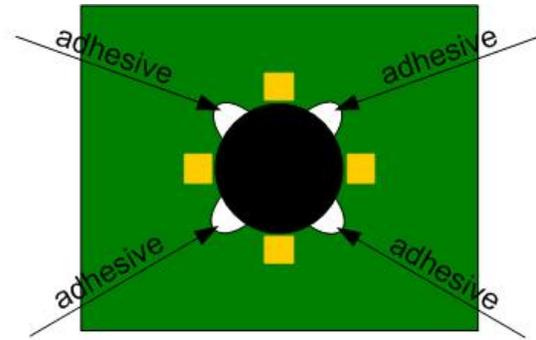
Top View

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Apply DOW CORNING adhesive 3145 RTV (25500-H-000002) on choke 25500-P-000168 (reference designator: L34) as indicated below.



Side View



Top View

References

Drawing	Vers	File name	Description
G25040A0004	V1.2	G25040A0004_SB_TopAssy Drwg_V1.2_Mar18-08	Station Board Top Layer Assembly Drawing
G25040A0005	V1.2	G25040A0005_SB_Bottom AssyDrwg_V1.2_Mar18-08	Station Board Bottom Layer Assembly Drawing