

|                          |          |
|--------------------------|----------|
| <b>HDR SETUP OPTION:</b> | NA       |
| <b>PCB SETUP OPTION:</b> | OPTION 4 |

REVISION

|           |            |         |
|-----------|------------|---------|
| 0         | AC         | G LEWIS |
| 5/29/2012 | ECN-178722 |         |

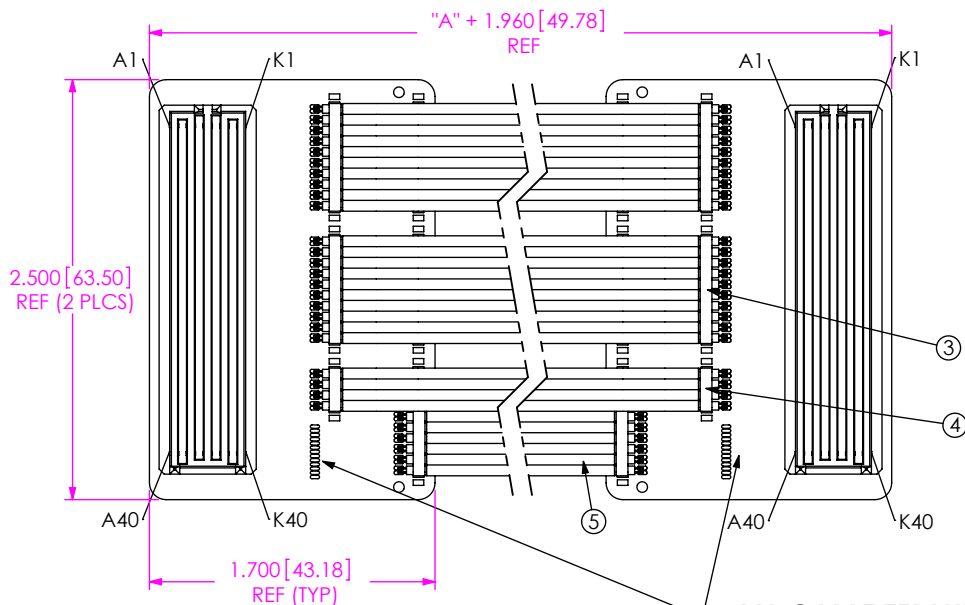
ISSUE FOR REVIEW.

RELEASED FOR LIMITED PRODUCTION

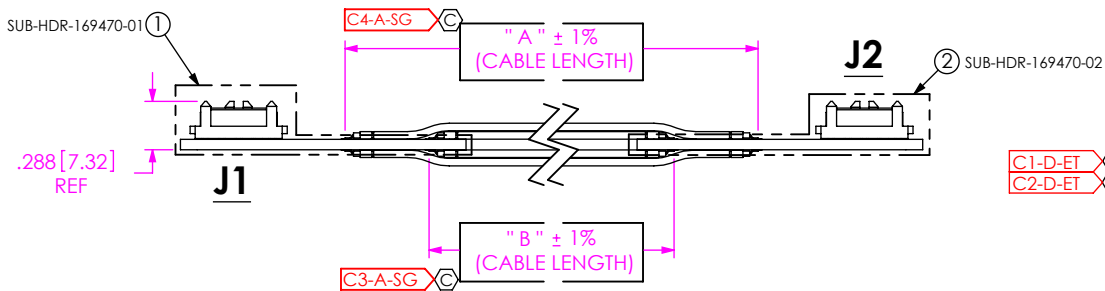
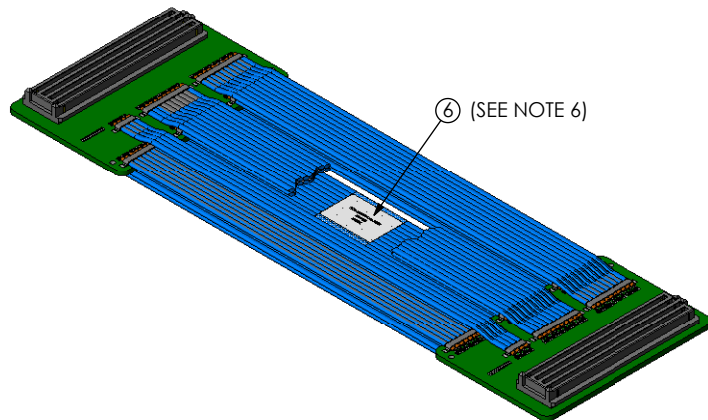
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ACCEPTANCE OF DRAWING ACCEPTED WITH DEVIATIONS LISTED

DATE: \_\_\_\_\_  
 COMPANY: \_\_\_\_\_  
 CUSTOMER SIGNATURE: \_\_\_\_\_  
 PRINTED NAME: \_\_\_\_\_  
 PHONE NO.: \_\_\_\_\_  
 FAX NO.: \_\_\_\_\_



**ALL CABLE TERMINATIONS AND OPEN PADS POSITIONS TO BE POTTED WITH UV EPOXY (SEE SHT 2)**



| PART #        | "A"           | "B"           |
|---------------|---------------|---------------|
| HDR-169470-01 | 9.84 [250.0]  | 8.84 [224.6]  |
| HDR-169470-02 | 19.69 [500.0] | 18.69 [474.6] |

- NOTES:
- CABLE CONFIGURATION IS NOT STANDARD.
  - Ⓢ REPRESENTS A CRITICAL DIMENSION.
  - PARTS TO BE PROCESSED PER SAMTEC ACCEPTABILITY REQUIREMENTS: HDR-PI-01 "CABLE ASSEMBLY WORKMANSHIP STANDARDS".
  - ALL ASSEMBLIES TO BE 100% ELECTRICALLY TESTED.
  - ALL ASSEMBLIES TO BE 100% HI-POT TESTED AT 300V.
  - ITEM 6 TO BE CENTERED ON ITEM 5 AS SHOWN. ITEM 6 TO CONTAIN: LINE 1 - PART NUMBER "HDR-XXXXXX-XX", LINE 2 - SHOP ORDER NUMBER "XXXXXX", AND LINE 3 - DATE CODE "XXXXX". NUMERIC REVISION PRODUCT WILL HAVE ADDITIONAL LABEL INDICATING "RELEASE FOR LIMITED PRODUCTION".
  - FOR PROCESSING INFORMATION ON SUB ASSEMBLY, REFERENCE SUB-HDR-169470-XX TRAVELER.XLS.
  - FOR SUB-ASSEMBLY AND FINISHED GOOD PACKAGING REQUIREMENTS, REFERENCE PACKAGING STANDARD CO-HD-WI-3033-M.
  - PANEL PCB-103814-HDR-XX YIELDS (02) PCB-103814-HDR-01 AND (02) PCB-103814-HDR-02 BOARDS.

| ITEM NO. | PART NUMBER                    | DESCRIPTION  | QTY | MATERIAL              |
|----------|--------------------------------|--------------|-----|-----------------------|
| 1        | SUB-HDR-169470-01              | SUB ASSEMBLY | 1   | SUB ASSEMBLY          |
| 2        | SUB-HDR-169470-02              | SUB ASSEMBLY | 1   | SUB ASSEMBLY          |
| 3        | SUB-TTF-32100-10-01-XX.XX("A") | TWINAX CABLE | 5   | SUB ASSEMBLY          |
| 4        | SUB-TTF-32100-04-01-XX.XX("A") | TWINAX CABLE | 1   | SUB ASSEMBLY          |
| 5        | SUB-TTF-32100-10-01-XX.XX("B") | TWINAX CABLE | 6   | SUB ASSEMBLY          |
| 6        | HDRL-11                        | LABEL        | 1   | SELF LAMINATING VINYL |

TOLERANCES DO NOT APPLY TO REFERENCE DIMENSIONS, UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.  
 TOLERANCES ARE:  
 DECIMALS ANGLES  
 .XX: ± 0.1 [3]  
 .XXX: ± 0.05 [1.3]  
 .XXXX: ± 0.020 [0.51]

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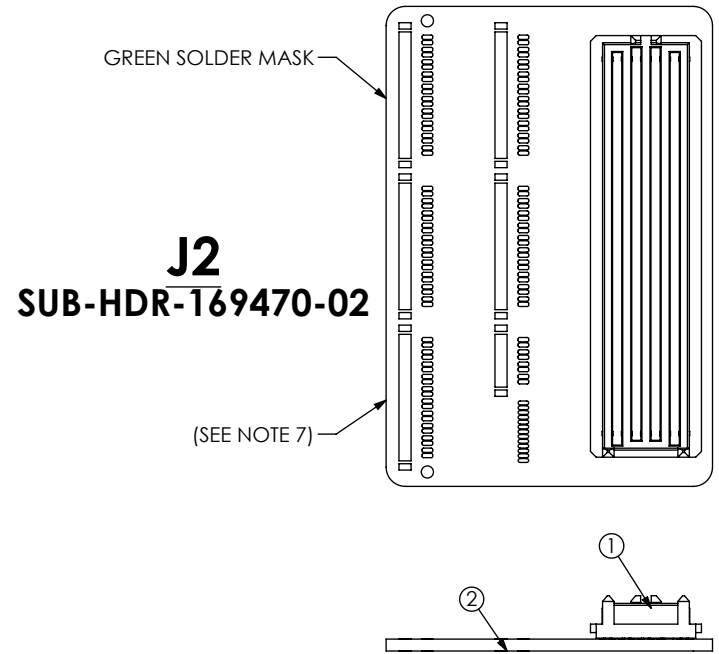
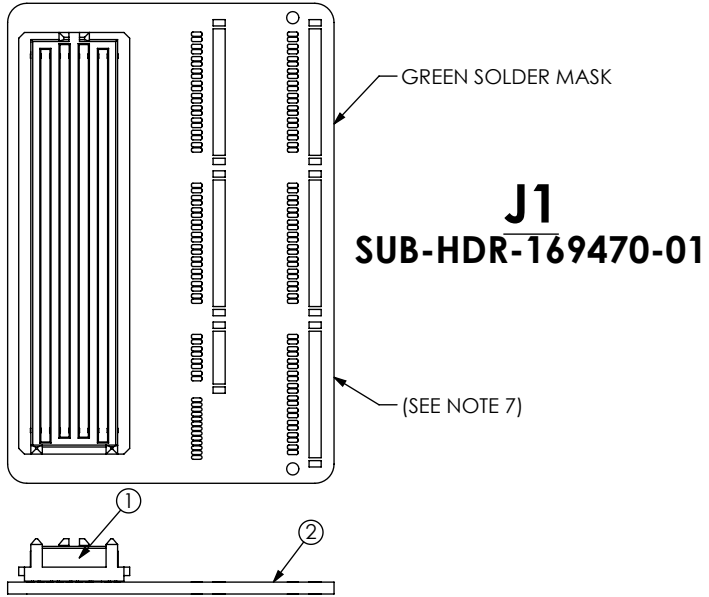
DESCRIPTION: CUSTOM HDR CABLE ASSEMBLY

DWG. NO. HDR-169470-XX

BY: ANDREW C 05/25/2012 SHEET 1 OF 3

**Pb** THIS PRODUCT MANUFACTURED WITH LEAD-FREE PROCESSING

**Pb** THIS PRODUCT MANUFACTURED WITH LEAD-FREE PROCESSING



PACKAGING TUBE TO BE SPECIFIED AT FIRST PRODUCTION RUN.

PACKAGING TUBE TO BE SPECIFIED AT FIRST PRODUCTION RUN.

**SUB-HDR-169470-01 BOM**

| ITEM NO. | PART NUMBER       | QUANTITY | MATERIAL |
|----------|-------------------|----------|----------|
| 1        | ASP-134488-01     | 1        | TERMINAL |
| 2        | PCB-103814-HDR-01 | 1        | PCB      |

**SUB-HDR-169470-02 BOM**

| ITEM NO. | PART NUMBER       | QUANTITY | MATERIAL |
|----------|-------------------|----------|----------|
| 1        | ASP-134488-01     | 1        | TERMINAL |
| 2        | PCB-103814-HDR-02 | 1        | PCB      |

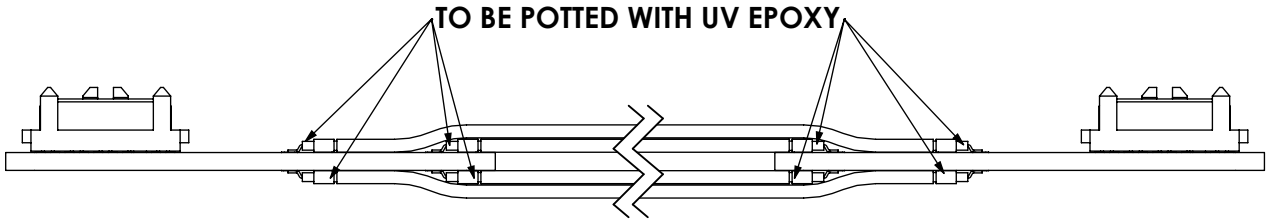
**TABLE 3**  
**NET LIST**

| TYPE           | NETS | POINTS |
|----------------|------|--------|
| POINT TO POINT | 226  | 452    |
| GND            | 159  | 318    |

**CRITICAL DIMENSION INSPECTION INSTRUCTION TABLE**

|                    |                       |
|--------------------|-----------------------|
| ASSEMBLY OPERATION | IN-PROCESS INSPECTION |
| PREP CABLE         | C3                    |
| E-TEST             | C1, C2                |

**ALL CABLE TERMINATIONS AND OPEN PADS POSITIONS TO BE POTTED WITH UV EPOXY**



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DESCRIPTION:  
CUSTOM HDR CABLE ASSEMBLY

DWG. NO.  
**HDR-169470-XX**

BY: ANDREW C 05/25/2012 SHEET 2 OF 3

**TABLE 1**  
**SIGNAL MAPPING**

|    | A         | B             | C         | D             | E         | F         | G          | H           | J          | K          |
|----|-----------|---------------|-----------|---------------|-----------|-----------|------------|-------------|------------|------------|
| 1  | GND       | RES1          | GND       | PG C2M        | GND       | PG M2C    | GND        | VREF A M2C  | GND        | VREF B M2C |
| 2  | DP1_M2C_P | GND           | DP0_C2M_P | GND           | HA01_P_CC | GND       | CLK1_M2C_N | PRSNT_M2C_L | CLK3_M2C_N | GND        |
| 3  | DP1_M2C_N | GND           | DP0_C2M_N | GND           | HA01_N_CC | GND       | CLK1_M2C_P | GND         | CLK3_M2C_P | GND        |
| 4  | GND       | DP9_M2C_P     | GND       | GBTCLK0_M2C_P | GND       | HA00_P_CC | GND        | CLK0_M2C_N  | GND        | CLK2_M2C_N |
| 5  | GND       | DP9_M2C_N     | GND       | GBTCLK0_M2C_N | GND       | HA00_N_CC | GND        | CLK0_M2C_P  | GND        | CLK2_M2C_P |
| 6  | DP2_M2C_P | GND           | DP0_M2C_P | GND           | HA05_P    | GND       | LA00_P_CC  | GND         | HA03_P     | GND        |
| 7  | DP2_M2C_N | GND           | DP0_M2C_N | GND           | HA05_N    | HA04_P    | LA00_N_CC  | LA02_P      | HA03_N     | HA02_P     |
| 8  | GND       | DP8_M2C_P     | GND       | LA01_P_CC     | GND       | HA04_N    | GND        | LA02_N      | GND        | HA02_N     |
| 9  | GND       | DP8_M2C_N     | GND       | LA01_N_CC     | HA09_P    | GND       | LA03_P     | GND         | HA07_P     | GND        |
| 10 | DP3_M2C_P | GND           | LA06_P    | GND           | HA09_N    | HA08_P    | LA03_N     | LA04_P      | HA07_N     | HA06_P     |
| 11 | DP3_M2C_N | GND           | LA06_N    | LA05_P        | GND       | HA08_N    | GND        | LA04_N      | GND        | HA06_N     |
| 12 | GND       | DP7_M2C_P     | GND       | LA05_N        | HA13_P    | GND       | LA08_P     | GND         | HA11_P     | GND        |
| 13 | GND       | DP7_M2C_N     | GND       | GND           | HA13_N    | HA12_P    | LA08_N     | LA07_P      | HA11_N     | HA10_P     |
| 14 | DP4_M2C_P | GND           | LA10_P    | LA09_P        | GND       | HA12_N    | GND        | LA07_N      | GND        | HA10_N     |
| 15 | DP4_M2C_N | GND           | LA10_N    | LA09_N        | HA16_P    | GND       | LA12_P     | GND         | HA14_P     | GND        |
| 16 | GND       | DP6_M2C_P     | GND       | GND           | HA16_N    | HA15_P    | LA12_N     | LA11_P      | HA14_N     | HA17_P_CC  |
| 17 | GND       | DP6_M2C_N     | GND       | LA13_P        | GND       | HA15_N    | GND        | LA11_N      | GND        | HA17_N_CC  |
| 18 | DP5_M2C_P | GND           | LA14_P    | LA13_N        | HA20_P    | GND       | LA16_P     | GND         | HA18_P     | GND        |
| 19 | DP5_M2C_N | GND           | LA14_N    | GND           | HA20_N    | HA19_P    | LA16_N     | LA15_P      | HA18_N     | HA21_P     |
| 20 | GND       | GBTCLK1_M2C_P | GND       | LA17_P_CC     | GND       | HA19_N    | GND        | LA15_N      | GND        | HA21_N     |
| 21 | GND       | GBTCLK1_M2C_N | GND       | LA17_N_CC     | HB03_P    | GND       | LA20_P     | GND         | HA22_P     | GND        |
| 22 | DP1_C2M_P | GND           | LA18_P_CC | GND           | HB03_N    | HB02_P    | LA20_N     | LA19P       | HA22_N     | HA23_P     |
| 23 | DP1_C2M_N | GND           | LA18_N_CC | LA23_P        | GND       | HB02_N    | GND        | LA19_N      | GND        | HA23_N     |
| 24 | GND       | DP9_C2M_P     | GND       | LA23_N        | HB05_P    | GND       | LA22_P     | GND         | HB01_P     | GND        |
| 25 | GND       | DP9_C2M_N     | GND       | GND           | HB05_N    | HB04_P    | LA22_N     | LA21_P      | HB01_N     | HB00_P_CC  |
| 26 | DP2_C2M_P | GND           | LA27_P    | LA26_P        | GND       | HB04_N    | GND        | LA21_N      | GND        | HB00_N_CC  |
| 27 | DP2_C2M_N | GND           | LA27_N    | LA26_N        | HB09_P    | GND       | LA25_P     | GND         | HB07_P     | GND        |
| 28 | GND       | DP8_C2M_P     | GND       | GND           | HB09_N    | HB08_P    | LA25_N     | LA24_P      | HB07_N     | HB06_P_CC  |
| 29 | GND       | DP8_C2M_N     | GND       | TCK           | GND       | HB08_N    | GND        | LA24_N      | GND        | HB06_N_CC  |
| 30 | DP3_C2M_P | GND           | SCL       | TDI           | HB13_P    | GND       | LA29_P     | GND         | HB11_P     | GND        |
| 31 | DP3_C2M_N | GND           | SDA       | TDO           | HB13_N    | HB12_P    | LA29_N     | LA28_P      | HB11_N     | HB10_P     |
| 32 | GND       | DP7_C2M_P     | GND       | 3P3VAUX       | GND       | HB12_N    | GND        | LA28_N      | GND        | HB10_N     |
| 33 | GND       | DP7_C2M_N     | GND       | TMS           | HB19_P    | GND       | LA31_P     | GND         | HB15_P     | GND        |
| 34 | DP4_C2M_P | GND           | GA0       | TRST_L        | HB19_N    | HB16_P    | LA31_N     | LA30_P      | HB15_N     | HB14_P     |
| 35 | DP4_C2M_N | GND           | 12POV     | GA1           | GND       | HB16_N    | GND        | LA30_N      | GND        | HB14_N     |
| 36 | GND       | DP6_C2M_P     | GND       | 3P3V          | HB21_P    | GND       | LA33_P     | GND         | HB18_P     | GND        |
| 37 | GND       | DP6_C2M_N     | 12POV     | GND           | HB21_N    | HB20_P    | LA33_N     | LA32_P      | HB18_N     | HB17_P_CC  |
| 38 | DP5_C2M_P | GND           | GND       | 3P3V          | GND       | HB20_N    | GND        | LA32_N      | GND        | HB17_N_CC  |
| 39 | DP5_C2M_N | GND           | 3P3V      | GND           | VADJ      | GND       | VADJ       | GND         | VIO_B_M2C  | GND        |
| 40 | GND       | RES0          | GND       | 3P3V          | GND       | VADJ      | GND        | VADJ        | GND        | VIO_B_M2C  |

POWER POSITIONS VADJ, VIO\_B\_M2C, VREF\_A\_M2C, VREF\_B\_M2C, 3P3VAUX, 3P3V, AND 12POV (ALL POSITIONS IN RED) ARE NO CONNECTS.

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DWG. NO.  
HDR-169470-XX

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