Notes:
1. High-speed traces:
   - Minimize trace length from device to MXP connectors
   - Target 100 Ohm differential impedance
   - When traces break to connectors, the impedance should be 50 ohm single-ended
   - Tightly couple within a pair; be careful not to couple between pairs
   - Implement stripline routing with 6 mil trace width and 9 mil spacing
   - Backdrill differential through holes

2. The goal is to make the board as small as possible. The placement below is a recommendation

3. There should be four thru-holes on the four corners so that the board may be mounted with mechanical standoffs

4. OK to put MSP430 and power circuitry on the bottom side (except for LEDs and test points)

5. AC coupling caps on the TX nets should have GND cut outs

6. Add ground fill to increase board stiffness

7. Any silkscreen notes you wish to add are okay - the more silkscreen comments the better

~ 6"

~ 4"
Decoupling capacitors for DS125DF1610 VDD Supply

LAYOUT NOTE: Decoupling capacitors should be placed as close to the device as possible, preferably on the bottom side of the board.

0.01µF caps on VDD balls on the bottom of the board.
Pattern checker "ERROR STATUS" indicator LEDs

Pattern Generator "POWER ON" Indicator LEDs

SILKSCREEN: Create a box around this section with a title "Pattern checker Error Checker Error Status Indicators" and label each diode with the channel name i.e "PC0", "PC1", etc.
Label Table

<table>
<thead>
<tr>
<th>Variant</th>
<th>Label Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>8CH_EXT-PSU</td>
</tr>
<tr>
<td>002</td>
<td>16CH_EXT-PSU</td>
</tr>
<tr>
<td>003</td>
<td>16CH_INT-PSU</td>
</tr>
<tr>
<td>004</td>
<td>16CH_INT-PSU</td>
</tr>
</tbody>
</table>

Assembly Notes:

- ZZ1: These assemblies are ESD sensitive. ESD precautions shall be observed.
- ZZ2: These assemblies shall be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.
- ZZ3: These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.
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