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CY3268 PowerPSoC(TM) Lighting Starter Board


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REF-15031

	Schematic		Cover Page	
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	Size	Document Number	Rev	
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Designed By:	SNVN, P V V	Date:	Monday, January 12, 2009	
Drawn By:	VINOD KANNAN	Sheet	1 of 8	
Verified By:	SNVN, P V V			

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DESIGN NOTES AND REVISION HISTORY

Sr	Revision	Date	Designer	Description
01	01	26-APR-08		- Finished creation of initial version of Schematic as per Cypress CY3268 MRD
02	02	02-JULY-08		<p>Design changes:</p> <ul style="list-style-type: none"> - Changed switch pull up resistor R13 560R-0603 Instead of 10K-0603 and no load C23 capacitor. - VCC_VSP & VCC_VCE supply moved to VCC_S - Interchanged signals at port pins 0.3 & 0.4 - Removed Diodes D8,D9,D10,D11 - Added R32 resistor value 10K-0603 - Removed resistor R28 & R29 with 2mm pitch jumper selection. - Changed Resistor resistors R14,R16,R20,R24 value 0.22R with same package instead of 0R1 - Changed RP1 and RP2 resistor packs to in resistors. - Added test points at <ul style="list-style-type: none"> o Both pins of R14 o PowerPSoC pin1 GDD - Changed OCD connector net names. - Added VCC_3 supply at SREGHW part with DR-0A03 resistors option. - Add a 680pF-0603 capacitor in the voltage divider circuit of the SREG. - Changed RS0051VA-30 instead of ZHC3100 diode. - Changed LPS6215-473M/C instead of DR74-470-R at switching node. - Changed LPS4018-473M/C instead of DR74-470-R at SREGSW pin. - Removed C15,C17,C25 and C28 capacitors. <p>Layout changes:</p> <ul style="list-style-type: none"> - Corrected OCD Footprint. - Changed location of reset switch near to 15SP header. - Changed location and corrected footprint of Star point connection.
03	03	15-AUG-08		<p>Design changes:</p> <ul style="list-style-type: none"> - Added C15,C17,C25 and C28 capacitors. <p>Layout changes:</p> <ul style="list-style-type: none"> - Corrected footprint of LED.
04	04	07-OCT-08		<p>Design changes:</p> <ul style="list-style-type: none"> Updated the pin outs 23, 24, 25 and 26 of the device U2 Updated the value of Resistor R12 to 2K0hm Updated the value of the Resistor R17 to 698 Ohm Updated the Value of the Resistor R18 to 20K0hm. Updated the Current rating of the Fuse F1 to 1A with part no 0154001_DRT Updated the Value of the Capacitor C22 to 1300pf Added the 20pF No-load capacitor C34 Parallel to C22 Changed the Header J1 to 6 pin Through hole Female Header. Updated the Pitch Size of the 2 Pin Header J4 and J5 to 2.54mm. The components R15, L5, D4, C22, R18, R17, R28 has been Loaded. The components R42, R29 and C23 has been made as No Load The Regulator U1 and its related components R3, D1, D2, R1, R2, C2, C3 and C4 are removed from the schematics. Updated the Version to 4 .
05	04	10-OCT-08		<p>Design changes:</p> <ul style="list-style-type: none"> -Removed the No load 0 Ohm resistors R29 and R43. -Updated the Part number for the Ferris: Bead F81 and F82 as HF1206J150R-10 in the BOM.
06	04	14-OCT-08		<p>Design changes:</p> <ul style="list-style-type: none"> -Updated the Part number for the Switon S81 as EVQ-0X503W in the BOM. -Updated the Document name as SCH-CY3268-B04 in all the pages. -Added the Block Diagram. -The Optic part has been moved to Do Not Install rows in the BOM. -Added the Part number 3-644456-2 for the 2X1 header J4 and J5. -Updated the part number for the PowerPSoC as CY6LE0400C03-56LTX1 in the BOM. -The part no for the Stand off is updated to 2205 manufactured by Key stone electronics. -The part no for the Screw is updated to PMS 440 0050 PH manufactured by Building Fasteners.
07	04	15-OCT-08		<p>Design changes:</p> <ul style="list-style-type: none"> Updated the value of the resistor R15 to 0.499 ohms with 0603 package with Part no SR731JTD849W. -Removed the 20pF No load capacitor C34
08	04	16-OCT-08		<p>Design changes:</p> <ul style="list-style-type: none"> Updated the part no of the screw to PMS 440 0025 PH manufactured by Building Fasteners which has the length of 0.250" (6.35mm) 1/4".
09	04	11-NOV-08		-Added the Manufacturing Reference No in the Title Block
10	04	09-DEC-08		-Updated the Value of the capacitor C22 to 2.2nF (2200pf),0603,16V with part no C0603C2224RACU

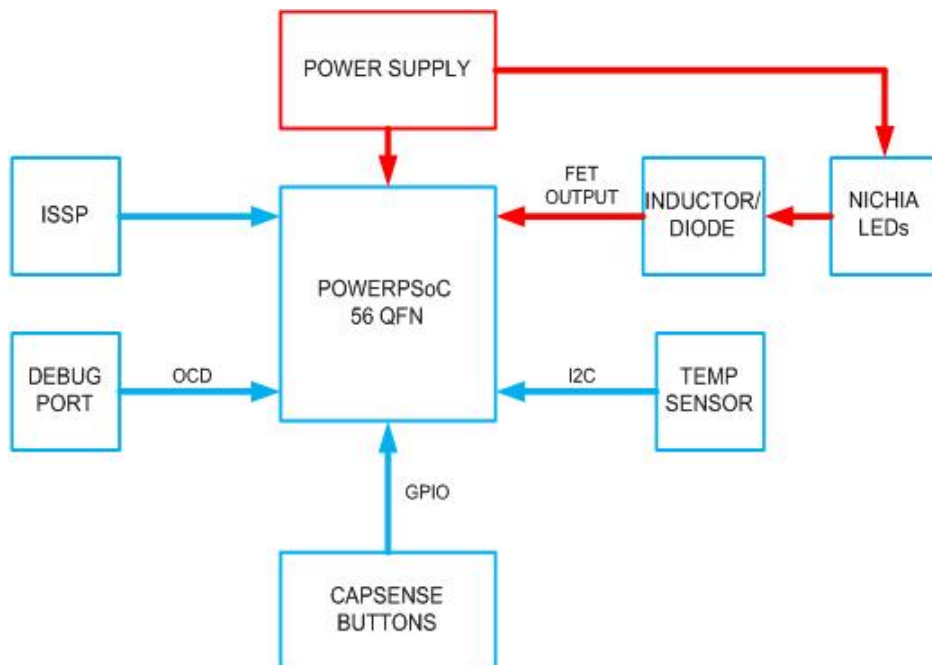
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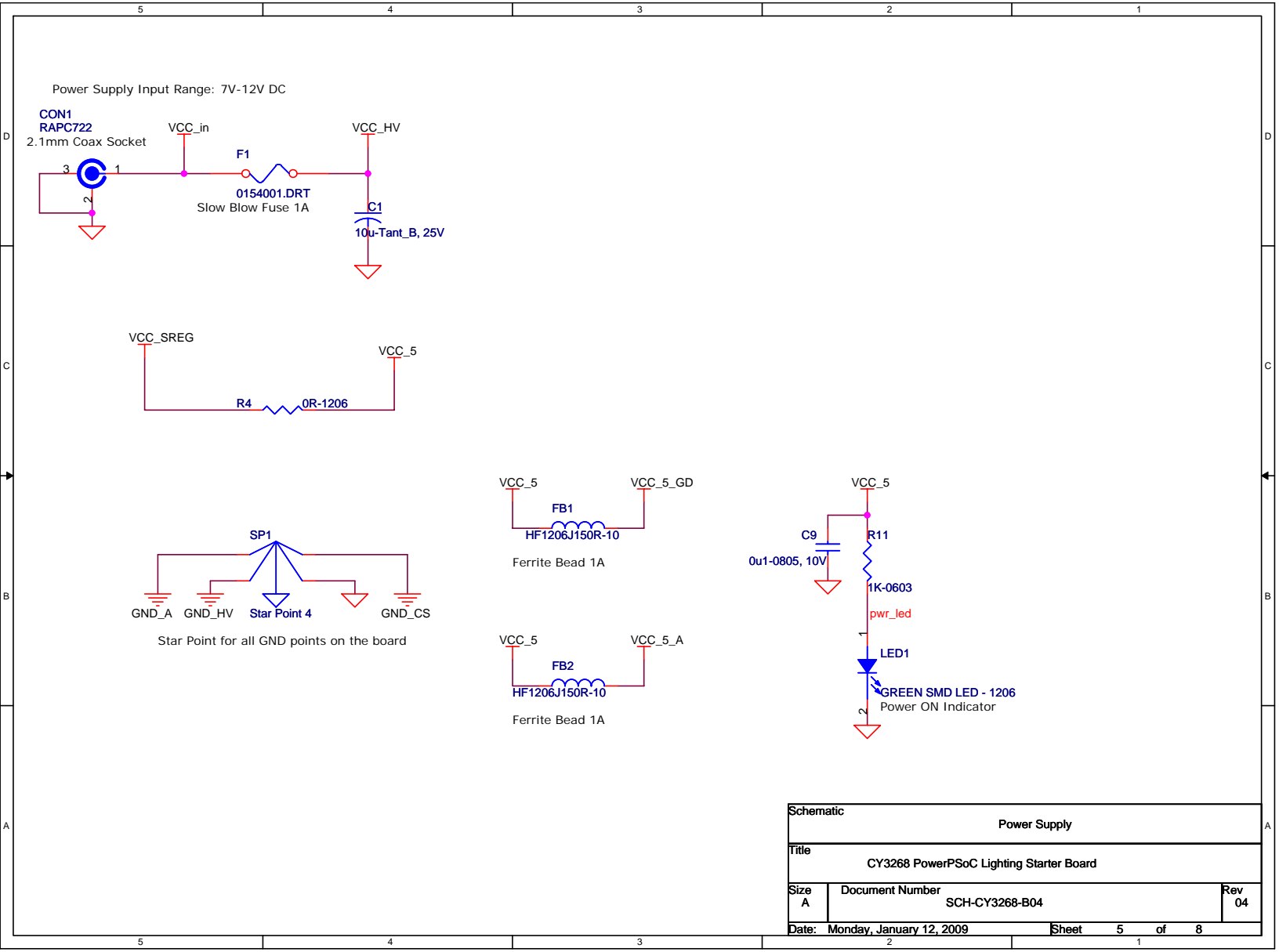
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08	MANUFACTURING POINTS

Schematic		Title Block	
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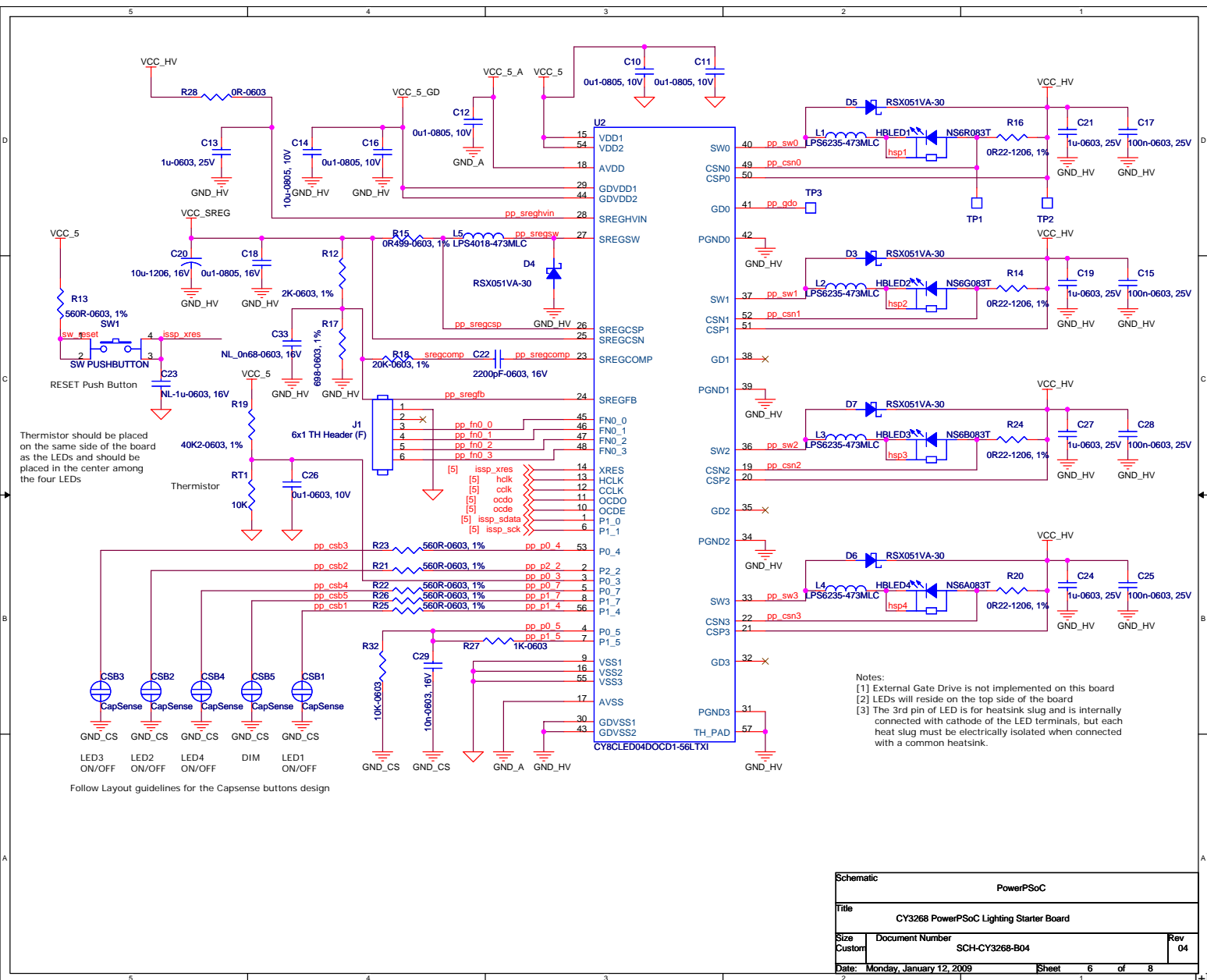
BLOCK DIAGRAM



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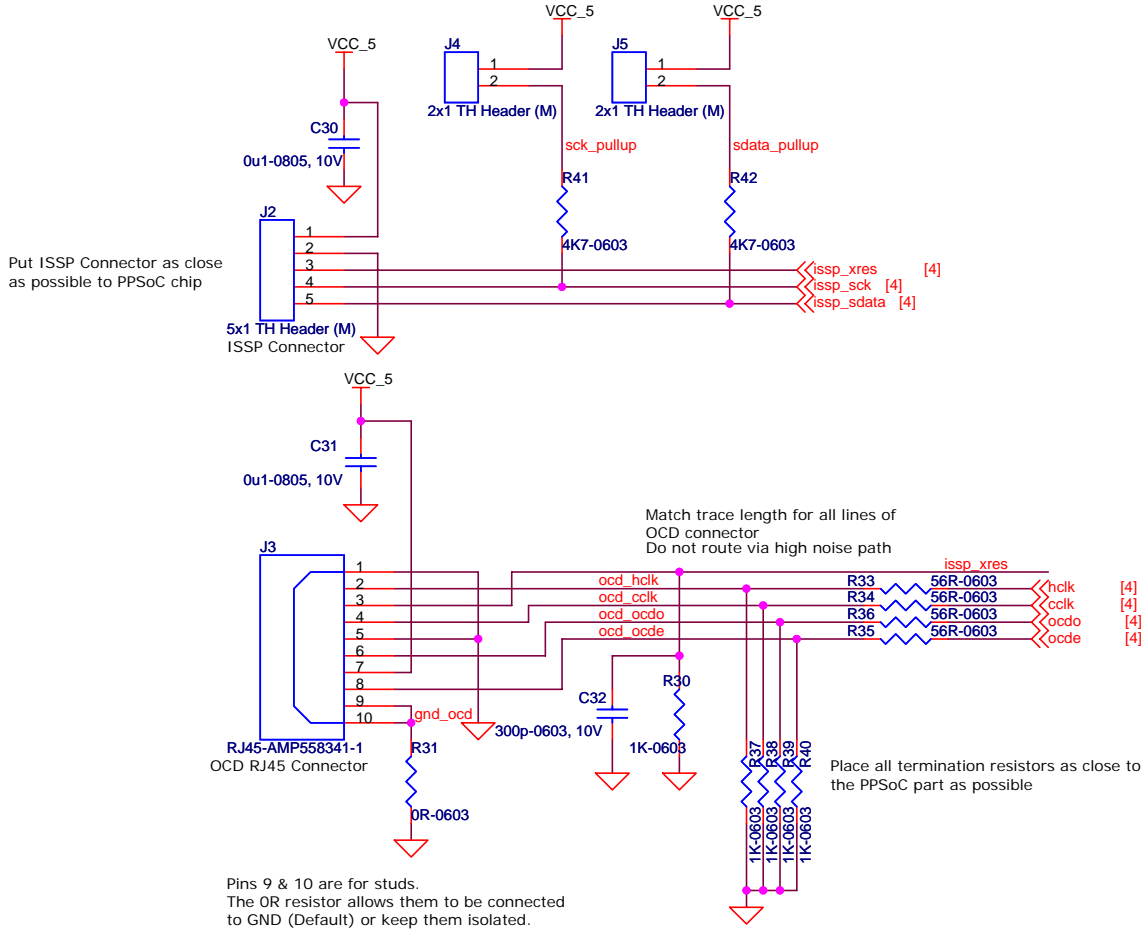


Thermistor should be placed on the same side of the board as the LEDs and should be placed in the center among the four LEDs

Notes:
 [1] External Gate Drive is not implemented on this board
 [2] LEDs will reside on the top side of the board
 [3] The 3rd pin of LED is for heatsink slug and is internally connected with cathode of the LED terminals, but each heat slug must be electrically isolated when connected with a common heatsink.

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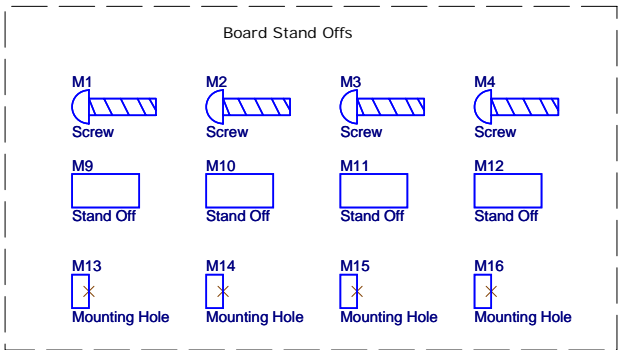
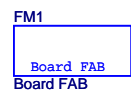
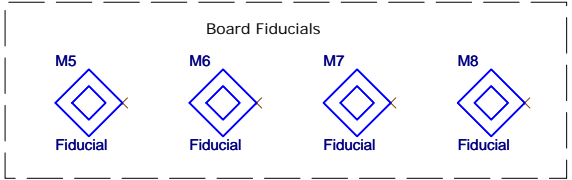
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Schematic		
Programming Headers and Connectors		
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Part	Reference Designator	Dimension (Inch)
Fiducial	M5, M6, M7, M8	0.05
Screw	M1, M2, M3, M4	0.040 dia
Stand Off	M9, M10, M11, M12	0.070 dia
Mounting Hole	M13, M14, M15, M16	0.135 dia
Board FAB	FM1	2.5x3.5

Schematic		Manufacturing Points	
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