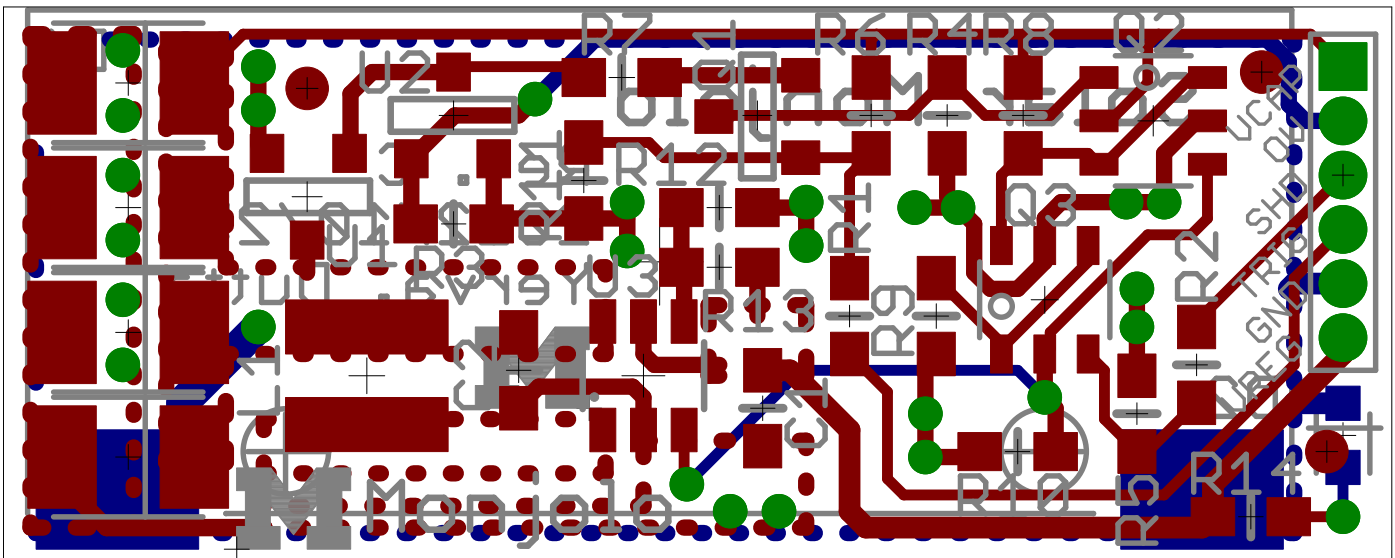
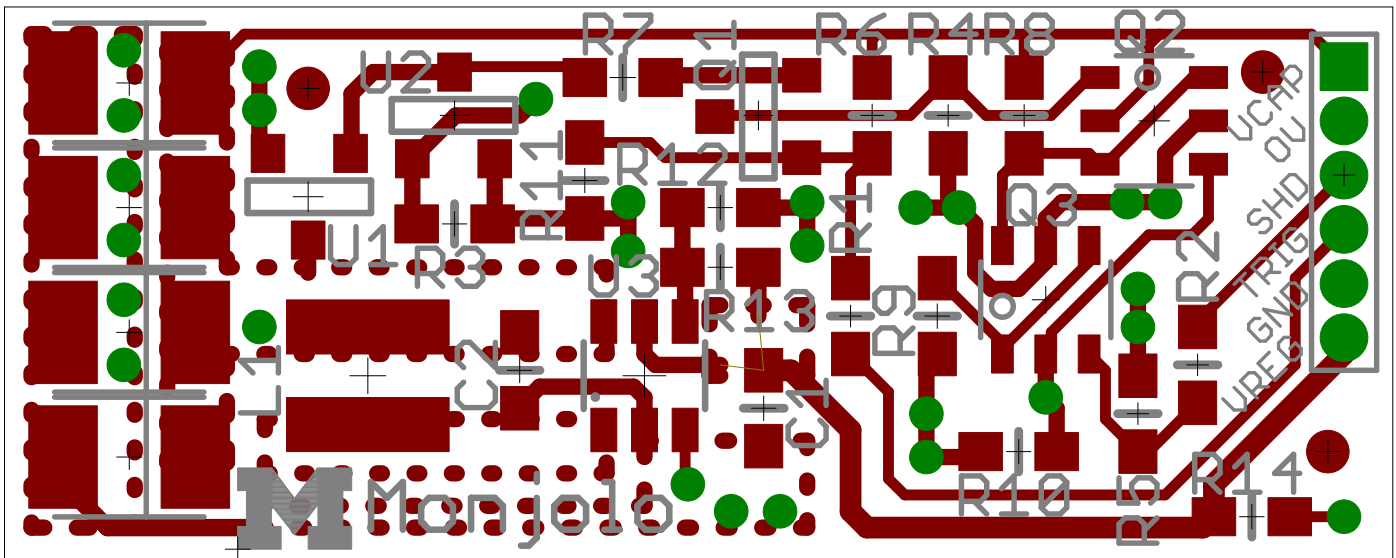


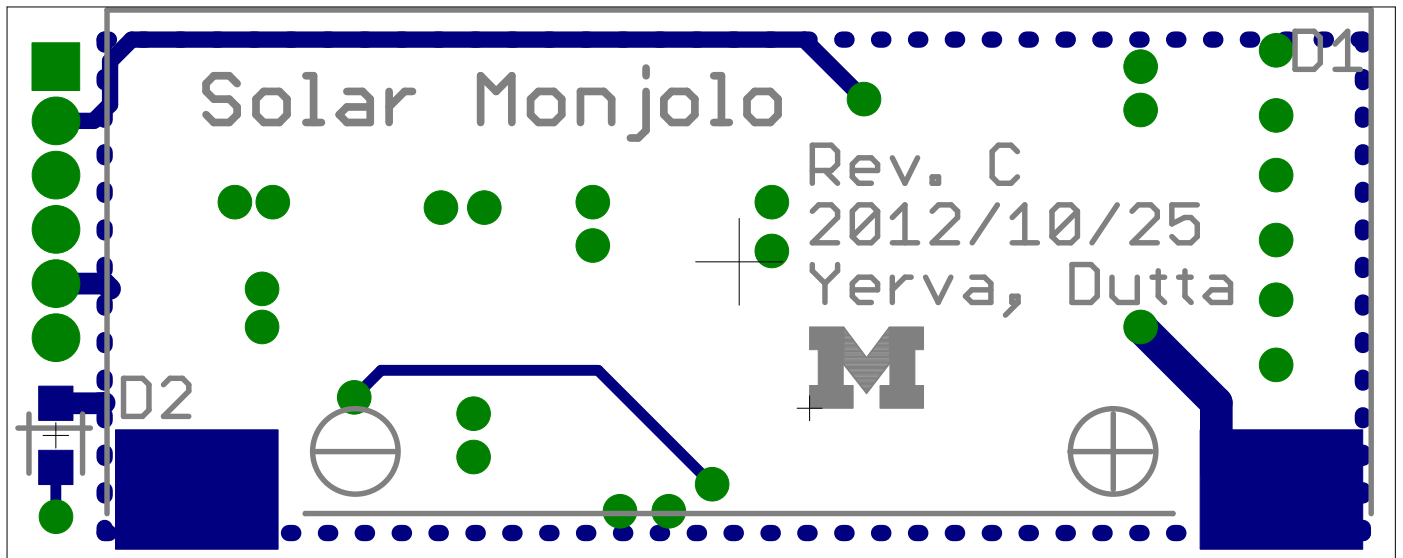
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Lohit Yerva, Prabal Dutta University of Michigan		M
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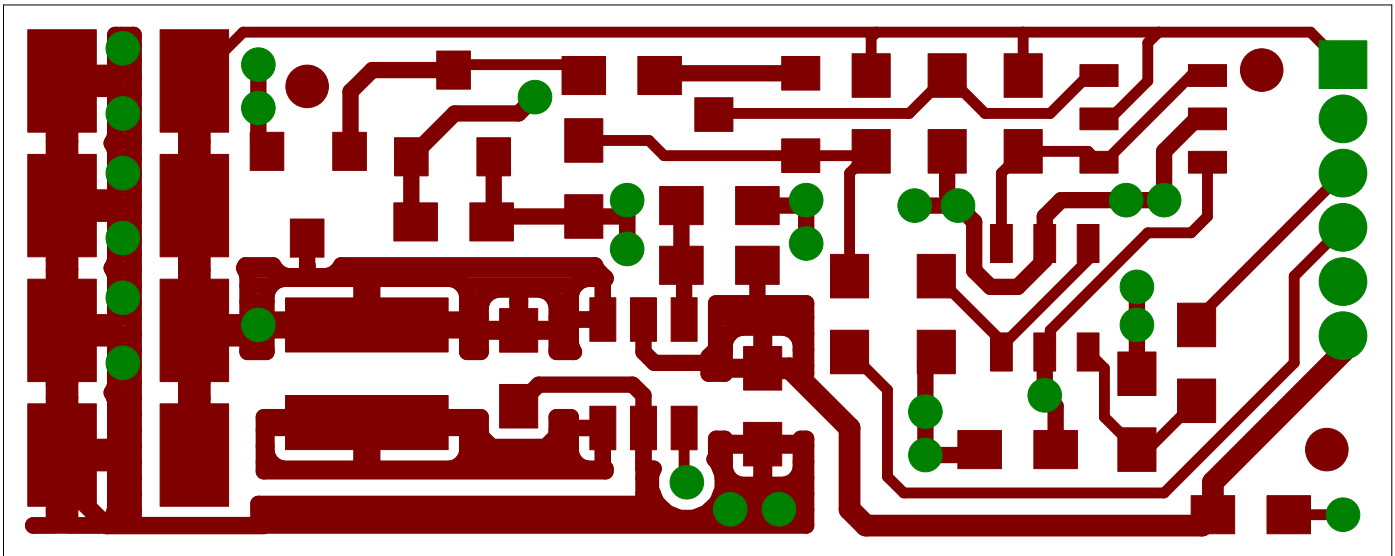
Top and Bottom Layers



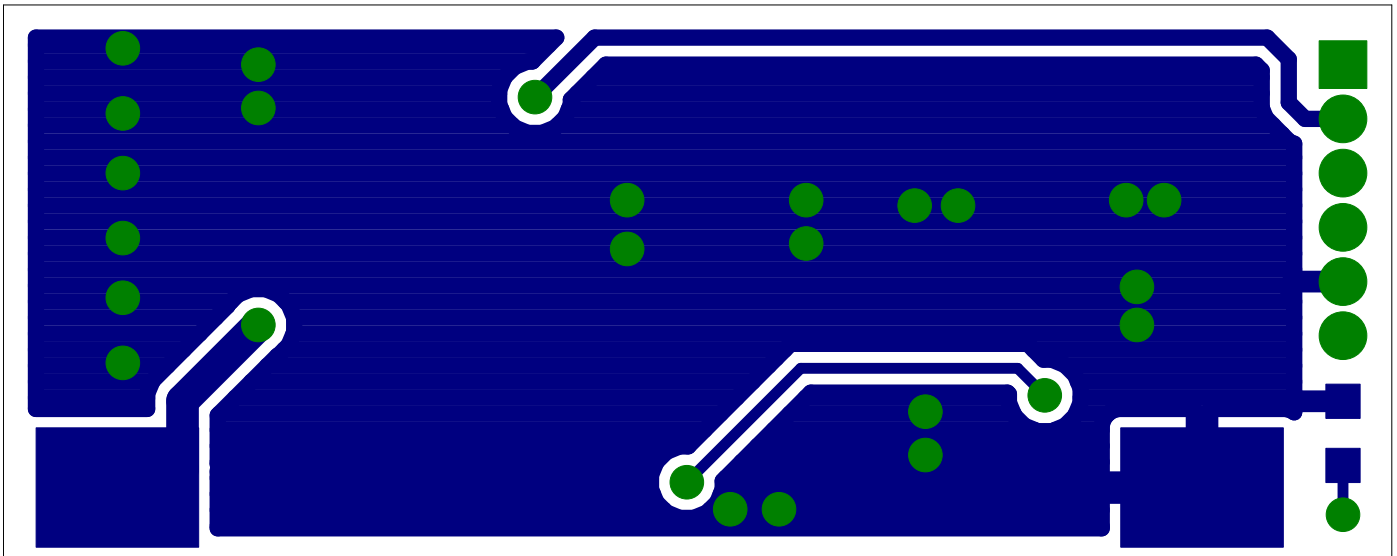


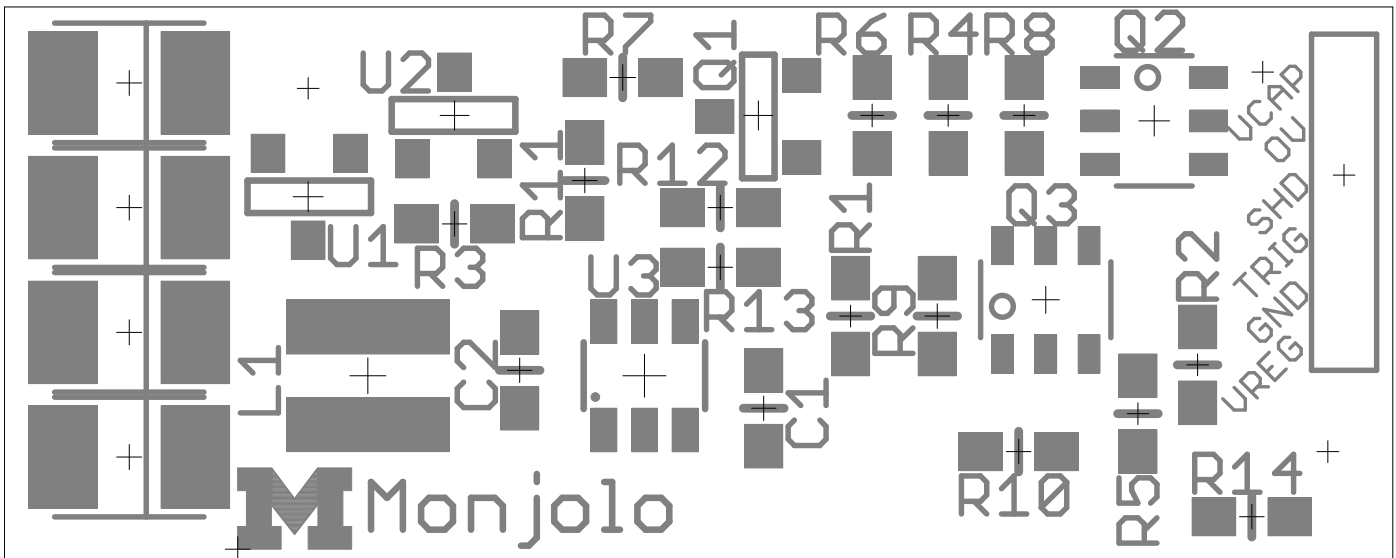


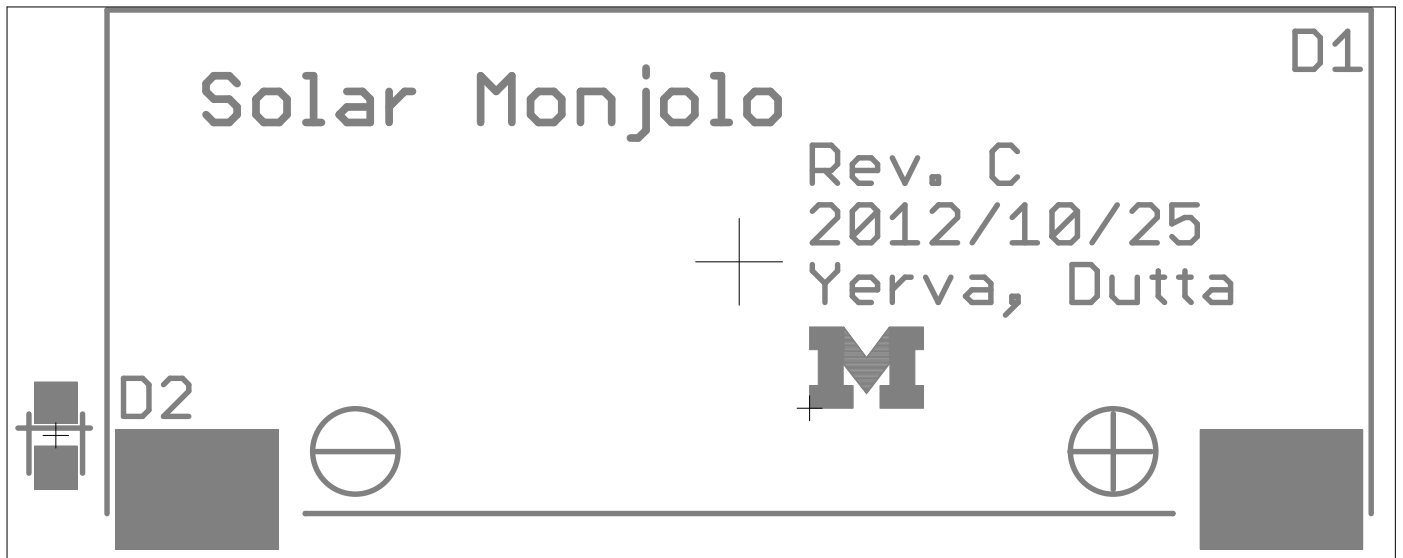
Top Copper Layer



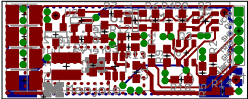
Bottom Copper Layer



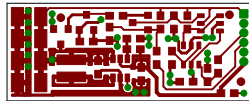




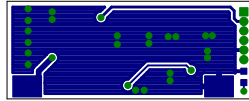
Top and Bottom Layers 1:1 Scale



Top Layer 1:1 Scale



Bottom Copper Layer 1:1 Scale



Order Qty	Value	Layout	Parts
300	1 10uF	C0603	C1
300	1 4.7uF	C0603	C2
1100	4 100uF	C1206	C3, C4, C5, C6
200	1 AM-1437	Solar cell	D1
300	1 LED	LED0603	D2
300	1 4.7uH	L-US	L1
300	1 PMOS	SOT23-3	Q1
550	2 MOSFET NP-CH	6-TSOP	Q2, Q3
1000	3 1K	R0603	R1, R2, R3
1250	4 100K	R0603	R4, R5, R7
DNP	1 100K	R0603	R6
1000	3 470K	R0603	R8, R9, R10
250	1 100K	R0603	R11
300	1 649K	R0603	R12
300	1 976K	R0603	R13
DNP	1 1K	R0603	R14
500	1 470	R0603	R14
300	1 MN1382S 2.0V	SOT23-3	U1
300	1 TC54VC 2.9V	SOT23-3	U2
300	1 MCP1640T	SOT23-6	U3

Digikey Part #

445-7486-6-ND

490-3297-6-ND

478-3130-1-ND

???

160-1184-6-ND

Coilcraft

EPL3012-472MLB

SI2305ADS-T1-GE3DKR-ND

SI3585DV-T1-E3DKR-ND

P1.00KHDKR-ND

P100KHDKR-ND

P100KHDKR-ND

P470KHDKR-ND

P100KHDKR-ND

P649KHDKR-ND

P976KHDKR-ND

P1.0KGDKR-ND

P470GDKR-ND

TC54VC2102ECB713DKR-ND

TC54VC2902ECB71DKR-ND

MCP1640T-I/CHYDKR-ND

Discription

CAP CER 10UF 10V 10% X5R 0603
CAP CER 4.7UF 6.3V 10% X5R 0603
CAP TANT 100UF 6.3V 20% 1210

LED YELLOW CLEAR 0603 SMD
4.7 UH INDUCTOR
MOSFET P-CH 8V 5.4A SOT23-3
MOSFET N/P-CH 20V 2A/1.5A 6-TSOP
RES 1.00K OHM 1/10W 1% 0603 SMD
RES 100K OHM 1/10W 1% 0603 SMD
RES 100K OHM 1/10W 1% 0603 SMD
RES 470K OHM 1/10W 1% 0603 SMD
RES 100K OHM 1/10W 1% 0603 SMD
RES 649K OHM 1/10W 1% 0603 SMD
RES 976K OHM 1/10W 1% 0603 SMD
RES 1.0K OHM 1/10W 5% 0603 SMD
RES 470 OHM 1/10W 5% 0603 SMD
IC VOLT DETECT 2.0V CMOS SMD
IC VOLT DETECTOR 2.9V SOT23A
IC BOOST SYNC ADJ 0.1A SOT23-6

Notes

Much more expensive alternative at 1206 size for 100uF.

Any color LED

Using 470K that was tested, should work with 1M
To use External Trigger solder R11 instead of R6

VREG = 3V (try to use <5mA) select R value appropriately

If supply low: TC54VC2102ECB713CT-ND is a tested alternative
Not needed if not using external Trigger (R6 soldered)

869-1002-ND

MN1382SCPCT-ND