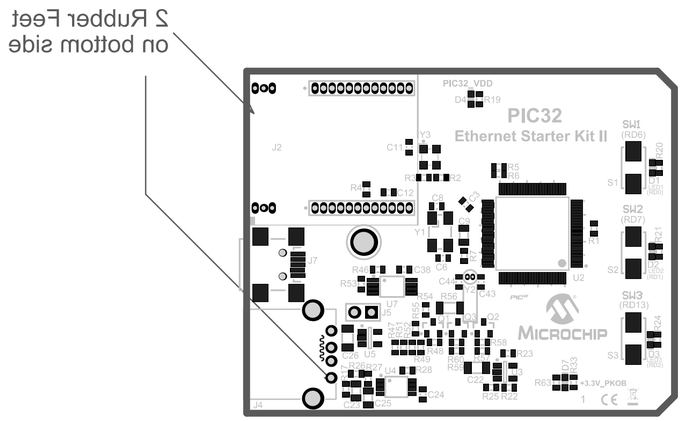
ASSEMBLY NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL COMPONENTS ARE RoHS COMPLIANT.
2.
3. ALL COMPONENTS SHALL BE MOUNTED FLUSH TO THE BOARD.
4. ALL UNUSED COMPONENT PADS SHALL BE FREE OF SOLDER.
5. ALL LEADS SHALL BE TRIMMED TO A MAXIMUM LENGTH OF: N/A
6. MAXIMUM COMPONENT HEIGHT NOT TO EXCEED: N/A
7. THESE COMPONENTS REQUIRE SOCKETS: NONE.
8. UNPOPULATED COMPONENTS: SEE BILL OF MATERIALS.
9. FINISHED BOARD SHALL BE FREE OF ALL RESIDUES.

TOP LAYER



MICROCHIP	ENGINEER: Serban Morea	TITLE: Assembly Drawing PIC32 Ethernet Starter Kit II	
	PCB DESIGNER: Serban Morea		
	DATE: 6/14/2013	DWG NO: 02-10160	REV: 2.0
	FILE NAME: 05-10160_R2.0.PcbDoc		

ASSEMBLY NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL COMPONENTS ARE RoHS COMPLIANT.
2.
3. ALL COMPONENTS SHALL BE MOUNTED FLUSH TO THE BOARD.
4. ALL UNUSED COMPONENT PADS SHALL BE FREE OF SOLDER.
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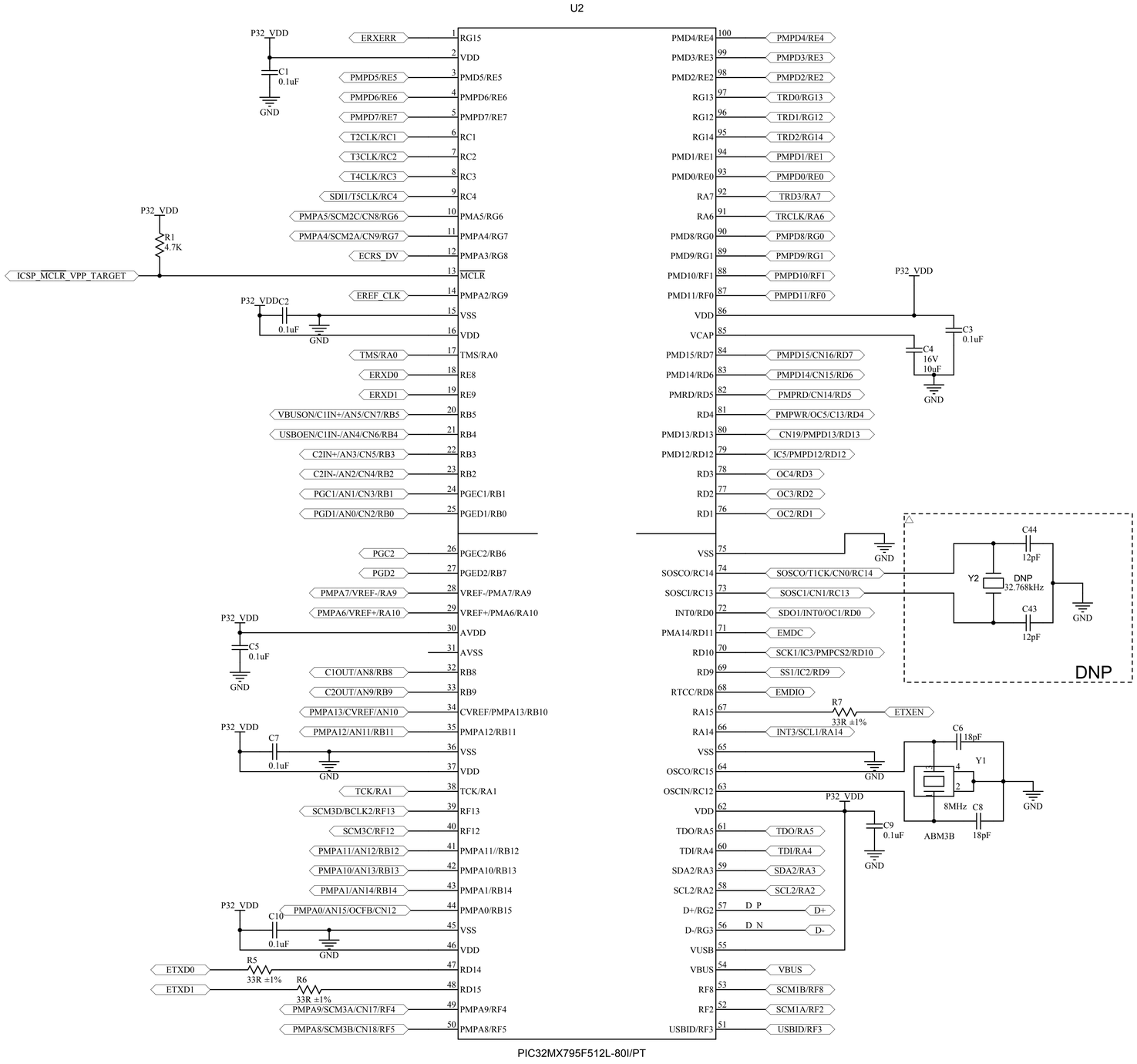
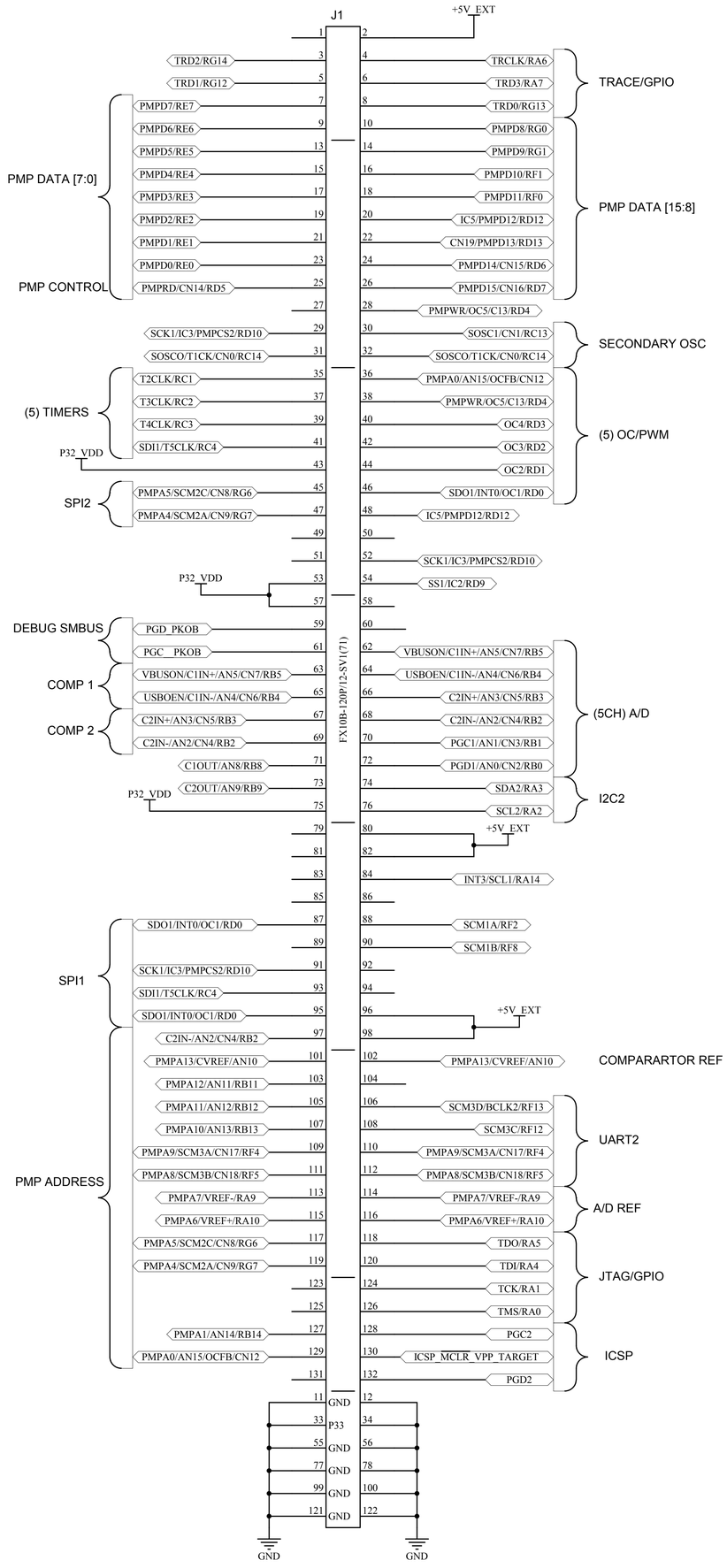
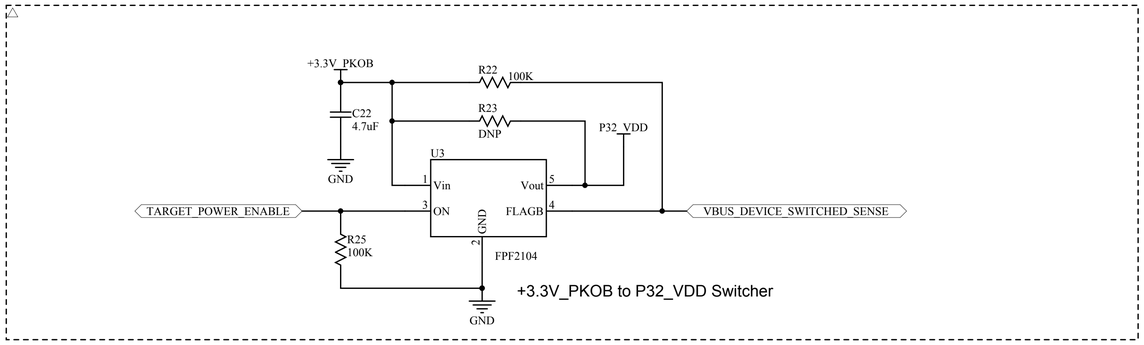
7. THESE COMPONENTS REQUIRE SOCKETS: NONE.
8. UNPOPULATED COMPONENTS: SEE BILL OF MATERIALS.
9. FINISHED BOARD SHALL BE FREE OF ALL RESIDUES.

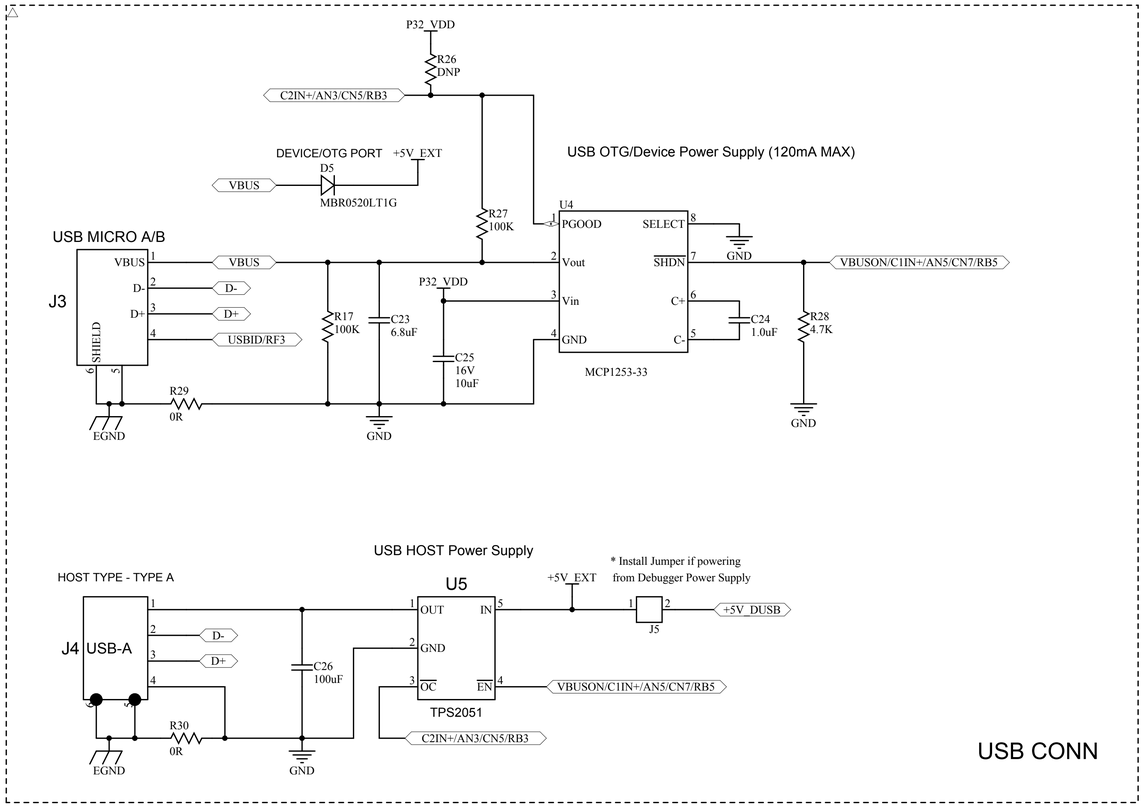
MICROCHIP	ENGINEER: Serban Morea	TITLE: Assembly Drawing PIC32 Ethernet Starter Kit II
	PCB DESIGNER: Serban Morea	
	DATE: 6/14/2013	DWG NO: 02-10160 REV: 2.0
	FILE NAME: 05-10160_R2.0.PcbDoc	

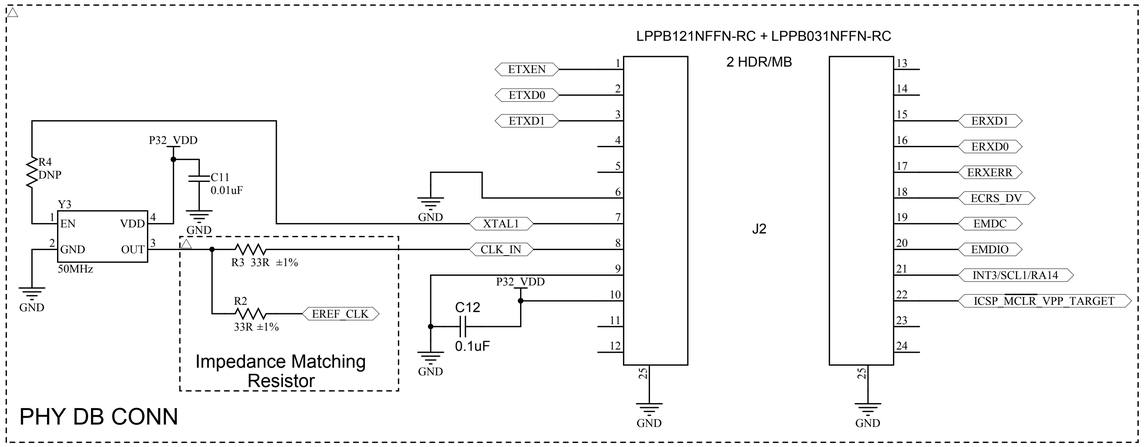


Title	PIC32 Ethernet Starter Kit II - PIC32		
Size: C	Number: 03-10160	Revision: 2.0	Engineer: Serban Morea
Date: 6/14/2013	Time: 10:09:18 AM	Sheet 1 of 3	Drawn By: Serban Morea
File: C:\SVN\HW\Boards\16-07267\PCB Files\Rev 2.0\Project Files\Processor 03-10160_R2.0.SchDoc			





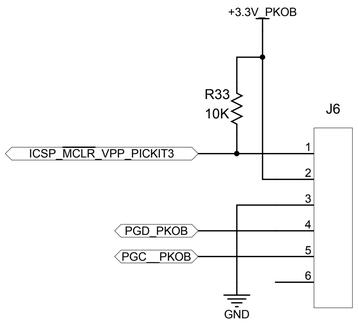


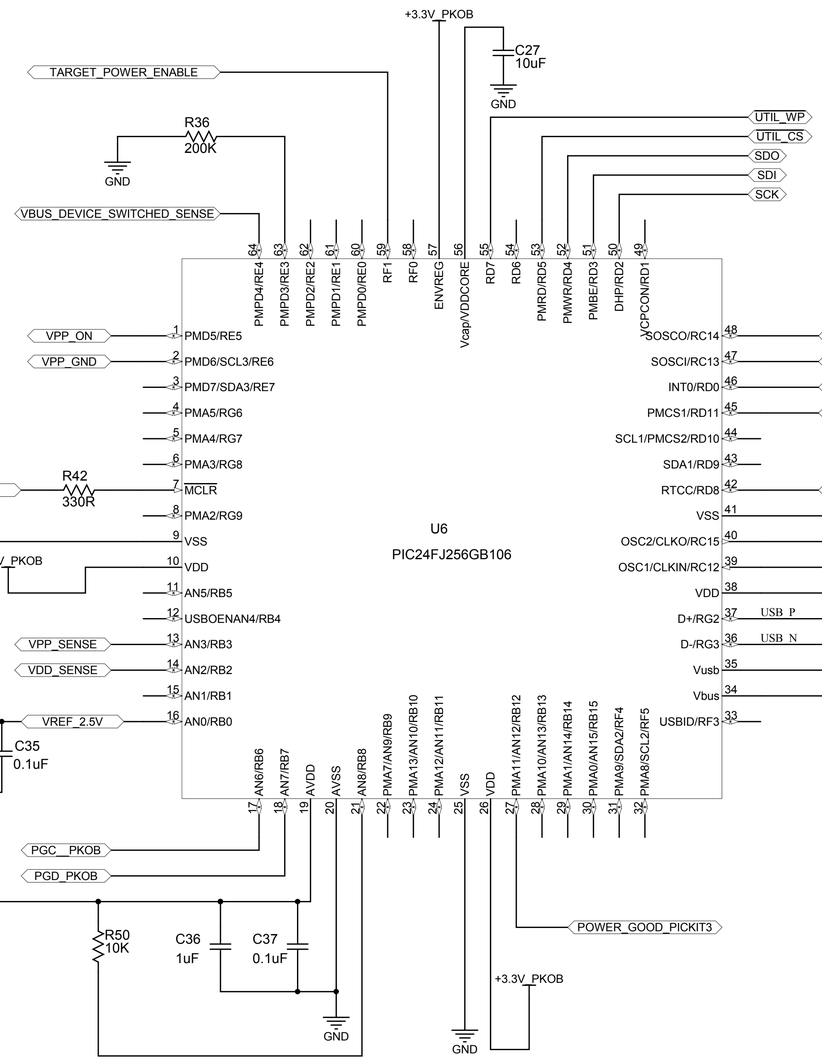


MH1

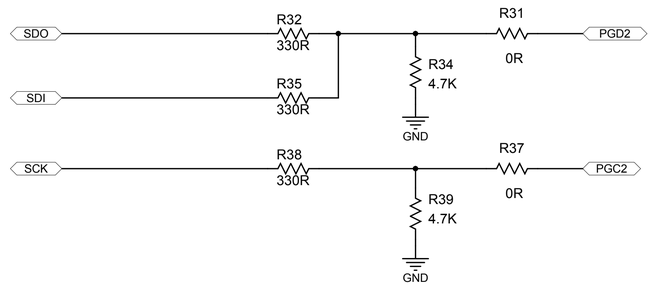
Title: Ethernet SK II - 132CONN/PHY CONN/USB			
Size: C	Number: 03-10160	Revision: 2.0	Engineer: Serban Morea
Date: 6/14/2013	Time: 10:09:19 AM	Sheet 2 of 3	Drawn By: Serban Morea

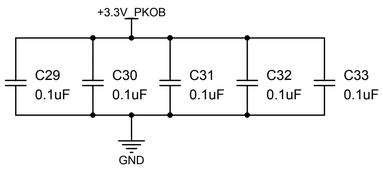
File: C:\SVN\HW\Boards\16-07267\PCB Files\Rev 2.0\Project Files\Phy_USB 03-10160_R2.0.SchDoc



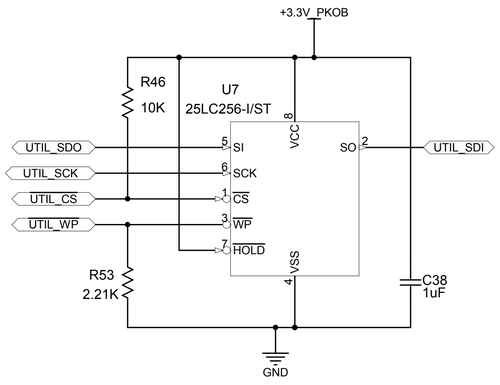


TARGET ICSP SIGNALS

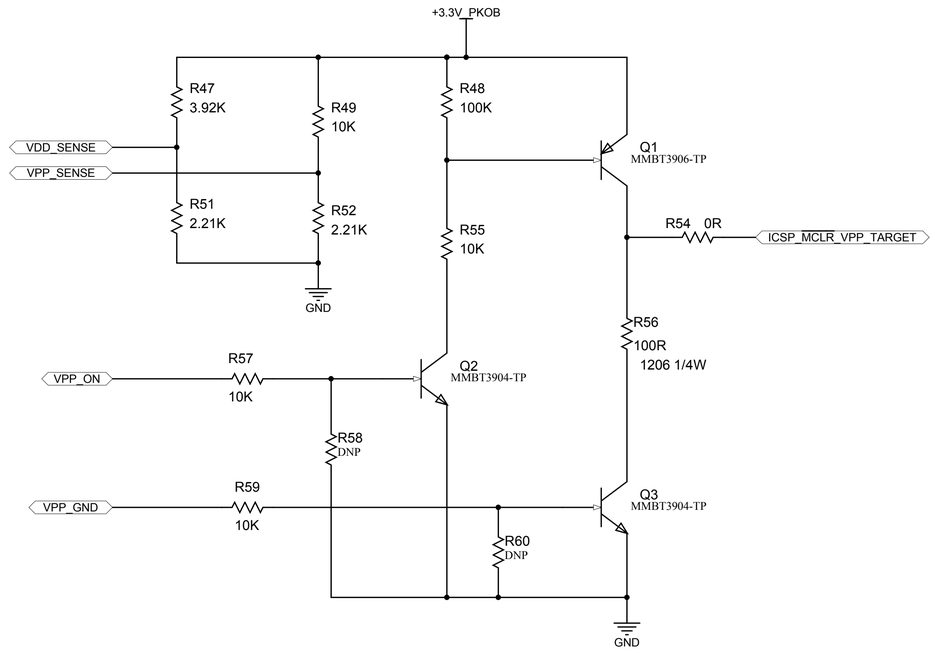




(Local Vdd/Vss bypass/decoupling.)

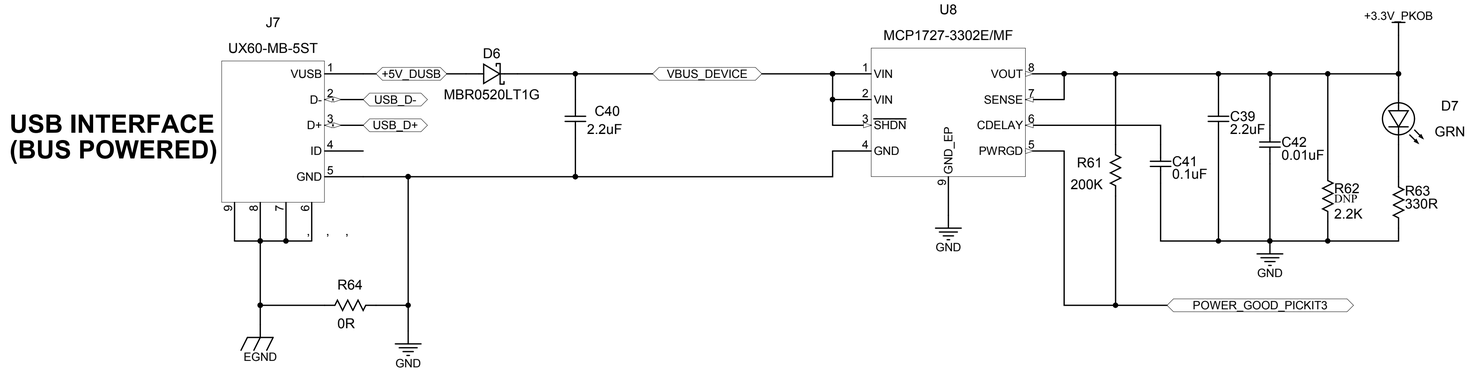


SERIAL EEPROM (25LC256)



POWER DISTRIBUTION/SWITCHING

USB INTERFACE (BUS POWERED)



Title: Ethernet Starter Kit II - PKOB Debug			
Size: C	Number: 03-10160	Revision: 2.0	Engineer: Serban Morea
Date: 6/14/2013	Time: 10:09:19 AM	Sheet 3 of 3	Drawn By: Serban Morea
File: C:\SVN\HW\Boards\16-07267\PCB Files\Rev 2.0\Project Files\PKOB Debug 10160_R2.0.SchDoc			

NOTES:

This PCB to be manufactured to meet all acceptance levels of a CLASS 2 PCB per ANSI/IPC-A-600G.

MATERIAL:**Type FR-4 130Tg**

4 **Layers:**

Layer Stack Up Detail for: 05-10160_R2.0.PcbDoc

Layer Name	Gerber Document	Copper Thickness	Dielectric Height	Dielectric Material	Dielectric Constant	Dielectric Type
Top Solder Mask	(.GTS)		0.4mil	Solder Resist	3.50	
Top Layer	(.GTL)	1.4mil				
			12.6mil	FR-4	4.80	Core
PWR	(.GP1)	1.4mil				
			12.6mil	FR-4	4.80	PrePreg
GND	(.GP2)	1.4mil				
			12.6mil	FR-4	4.80	Core
Bottom Layer	(.GBL)	1.4mil				
Bottom Solder Mask	(.GBS)		0.4mil	Solder Resist	3.50	

Finished overall thickness: .062inch

If board is multilayer, use black oxide on inner layers.

FINISH: [X] Immersion Gold

[ ] Edge connector fingers shall be plated with Nickel/Gold, > 20 microinches gold.

[ ] PB Free HASL

[ ] Immersion Tin

[ ] Soldermask over bare copper (SMOBC) with Lead Free Hot-Air Leveled Solder (HALS).

Copper theiving allowed: [ ] YES [X] NO

Lead Free Hot-Air Leveled Solder (HALS).

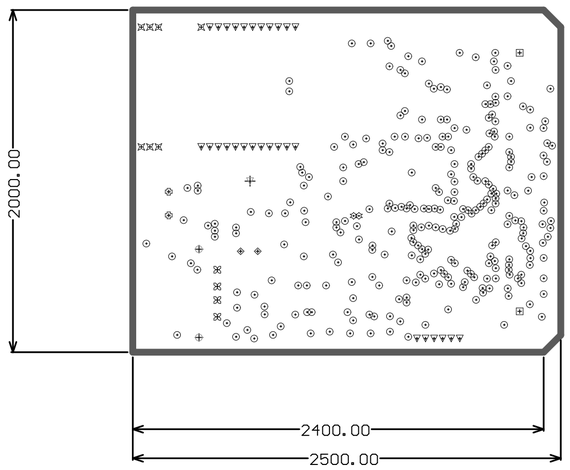
Soldermask color: GREEN

Silkscreen color: White

All holes to be located by the coordinates from the NC drill data provided.

Use artwork set No. 05- 10160 REV. 2.0

Any alternatives to the above specifications must be approved by Microchip.

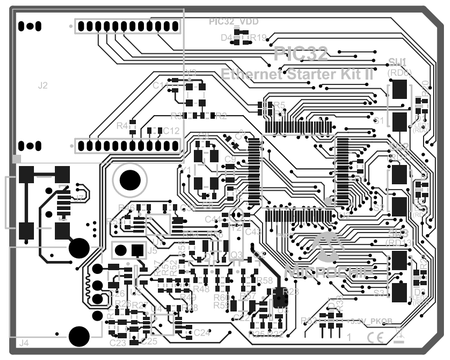


Symbol	Hit Count	Tool Size	Plated	Hole Type
○	285	10mil (0.254mm)	PTH	Round
☼	2	15mil (0.381mm)	PTH	Round
☒	7	25mil (0.635mm)	PTH	Round
▽	29	31mil (0.787mm)	PTH	Round
⊠	4	38mil (0.965mm)	PTH	Round
⌖	2	38.5mil (0.978mm)	NPTH	Round
◇	2	42mil (1.067mm)	PTH	Round
□	2	47.244mil (1.2mm)	NPTH	Round
○	2	90mil (2.286mm)	PTH	Round
▽	1	120mil (3.048mm)	NPTH	Round
	336 Total			

MICROCHIP

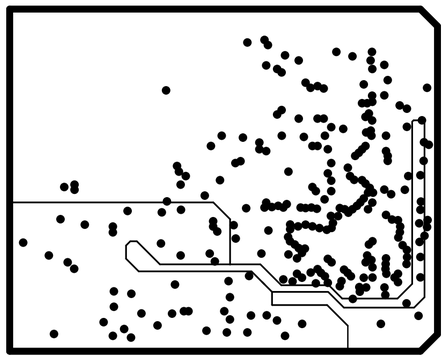
ENGINEER: Serban Morea	TITLE: FAB Drawing PIC32 Ethernet Starter Kit II	
PCB DESIGNER: Serban Morea		
DATE: 6/14/2013	DWG NO: 04-10160	REV: 2.0
FILE NAME: 05-10160_R2.0.PcbDoc		

TOP LAYER



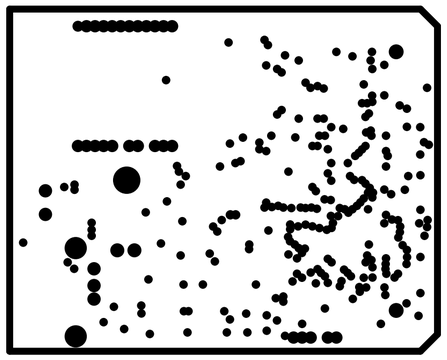
MICROCHIP	ENGINEER: Serban Morea PCB DESIGNER: Serban Morea	TITLE: PIC32 Ethernet Starter Kit II
	DATE: 6/14/2013	DWG NO: 10160 REV: 2.0
	FILE NAME: 05-10160_R2.0.PcbDoc	

PWR LAYER (+3.3V_PKOB/P32_VDD/+5V_EXT)



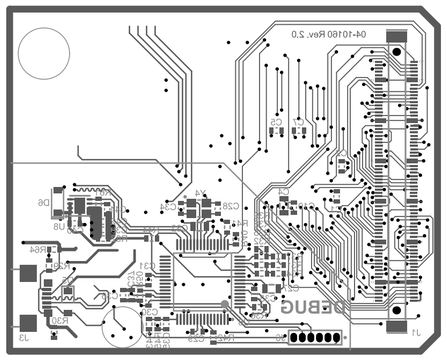
MICROCHIP	ENGINEER: Serban Morea	TITLE: PIC32 Ethernet Starter Kit II	
	PCB DESIGNER: Serban Morea		
	DATE: 6/14/2013	DWG NO: 10160	REV: 2.0
	FILE NAME: 05-10160_R2.0.PcbDoc		

GND

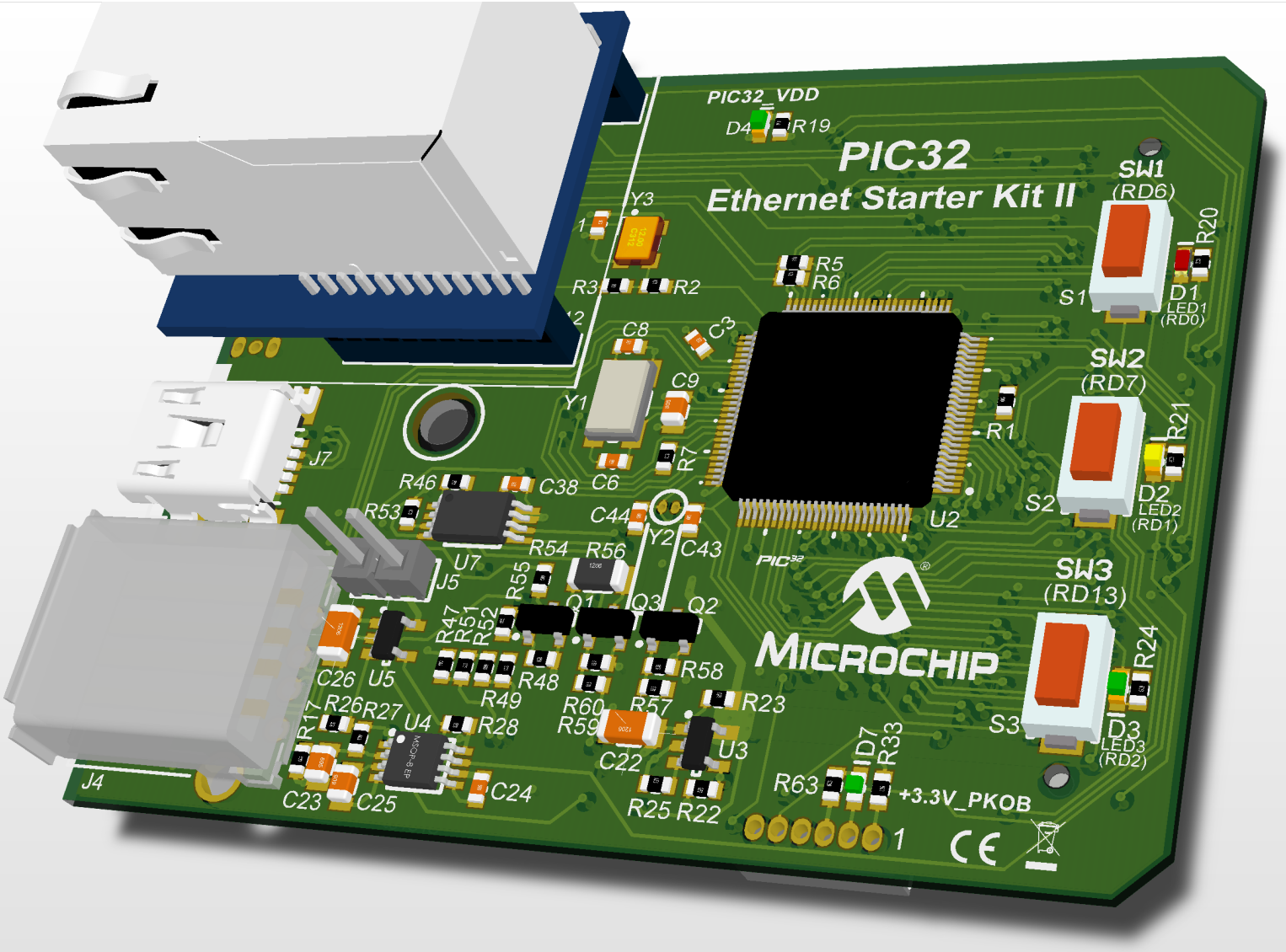


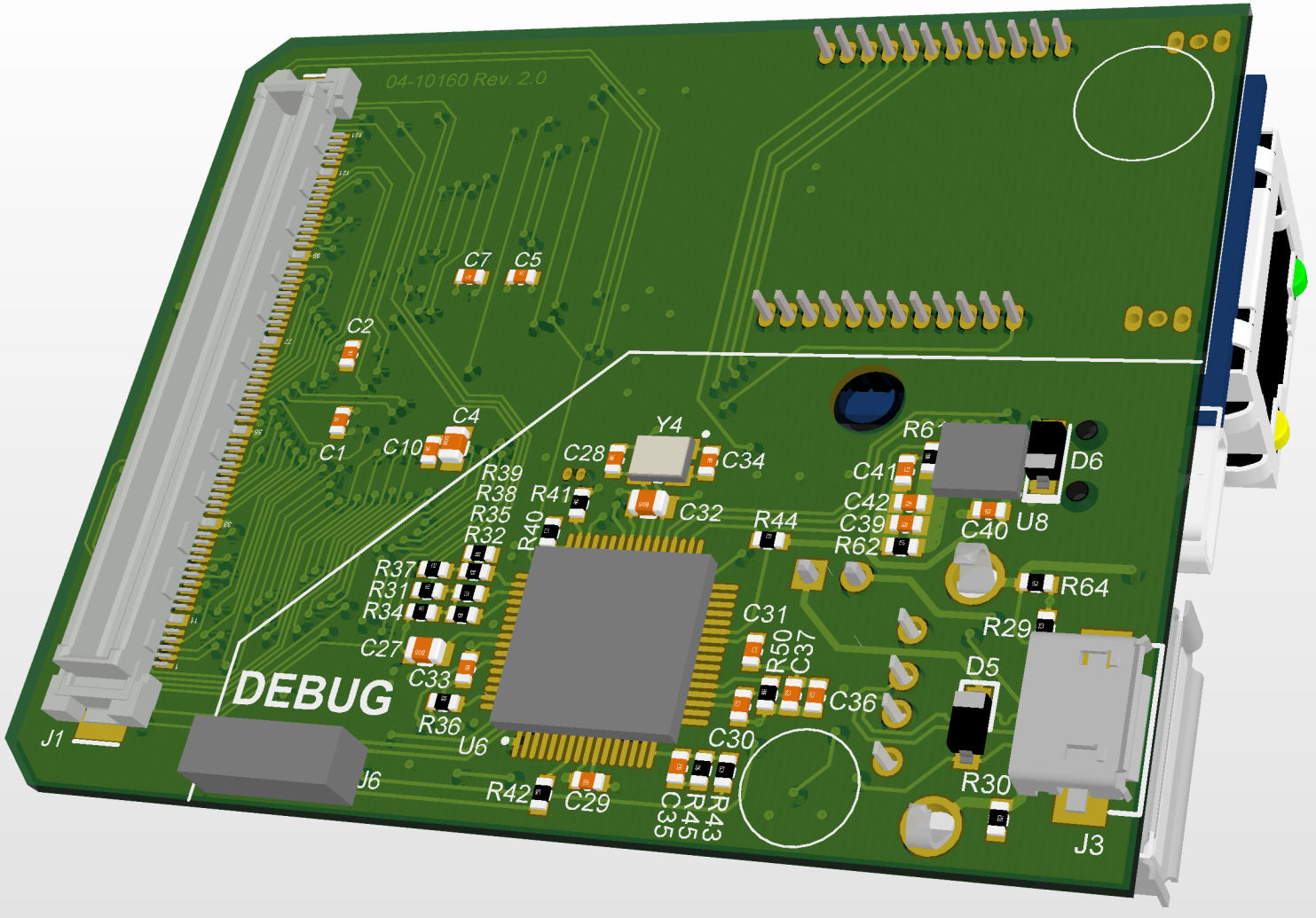
MICROCHIP	ENGINEER: Serban Morea	TITLE: PIC32 Ethernet Starter Kit II	
	PCB DESIGNER: Serban Morea		
	DATE: 6/14/2013	DWG NO: 10160	REV: 2.0
	FILE NAME: 05-10160_R2.0.PcbDoc		

Bottom Layer



MICROCHIP	ENGINEER: Serban Morea	TITLE: PIC32 Ethernet Starter Kit II	
	PCB DESIGNER: Serban Morea		
	DATE: 6/14/2013	DWG NO: 10160	REV: 2.0
	FILE NAME: 05-10160_R2.0.PcbDoc		


PIC32
Ethernet Starter Kit II
PIC32_VDD
D4
R19
SW1
(RD6)
S1
D1
LED1
(RD0)
R20
SW2
(RD7)
S2
D2
LED2
(RD1)
R21
SW3
(RD13)
S3
D3
LED3
(RD2)
R24
MICROCHIP
U2
Y1
Y2
Y3
J4
J5
J7
U3
U4
U5
U7
R1
R2
R3
R5
R6
R7
C3
C6
C8
C9
C22
C23
C24
C25
C26
C38
C43
C44
R17
R23
R25
R26
R27
R28
R33
R46
R47
R48
R49
R51
R52
R53
R54
R55
R56
R57
R58
R59
R60
R63
Q1
Q2
Q3
D7
+3.3V_PKOB


04-10160 Rev. 2.0
DEBUG
C7
C5
C2
C1
C4
C10
Y4
C28
C34
R39
R38
R41
C32
R35
R32
R44
C41
C42
C39
R62
C40
U8
D6
R64
R37
R31
R34
C31
R50
C37
R29
D5
C27
C33
R36
U6
C36
C30
R42
C29
C35
R45
R43
R30
J1
J6
J3