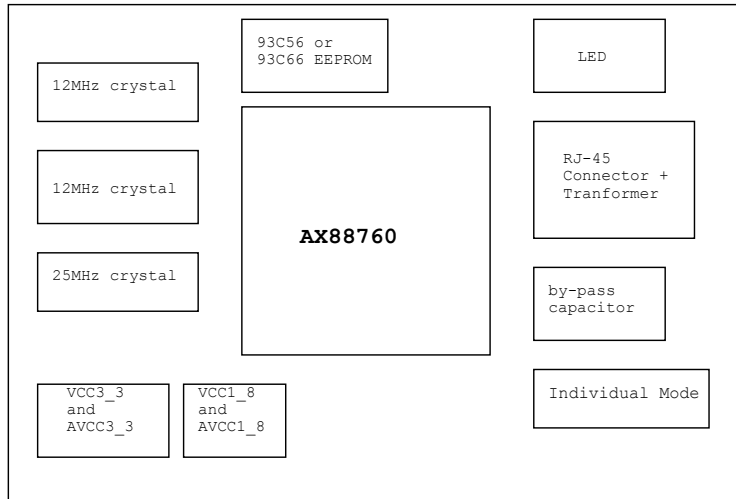
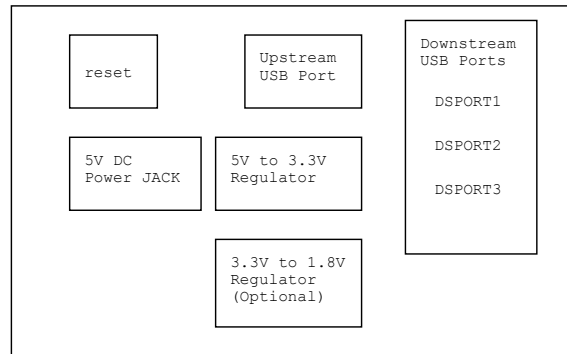


AX88760 Demo Board PCB V2.00 Schematic System Block

PAGE2



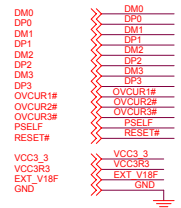
PAGE3



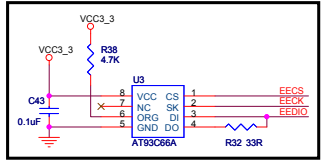
Note:

1. Please refer to AX88760 USB-to-LAN Application Design Note for more AX88760 PCB layout design notes.
2. Please contact ASIX Support (support@asix.com.tw) to get AX88760 EEPROM User Guide for more details about AX88760 EEPROM setting.
3. Please deliver us your AX88760 schematic and AX88760 EEPROM data file for further review.

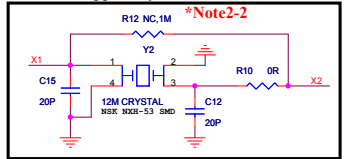
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| ASIX ELECTRONICS CORPORATION | | |
| Title AX88760 Demo Board PCB V2.00 Schematic | | |
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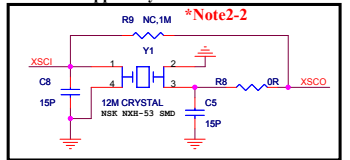
93C56 or 93C66 EEPROM *Note2-1



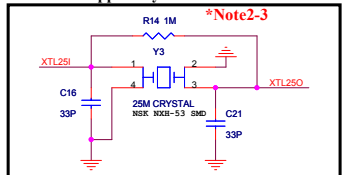
12MHz +-30ppm Crystal for USB HUB Controller



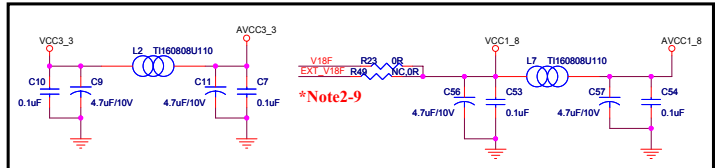
12MHz +-30ppm Crystal for USB LAN Controller



25MHz +- 30ppm Crystal for Ethernet interface



3.3V & 1.8V Power Circuit *Note2-4/*Note2-5



***Note2-1:**
The AX88760 supports 16-bit mode 93C56/93C66 EEPROM.

***Note2-2:**
The 1M feedback resistor is not necessary for 12MHz crystal circuit because it has been integrated into AX88760. The reference 12MHz crystal is the NSK NXH-53 SMD 12MHz crystal with CL 16pF and ESR max. 90 Ohm.

***Note2-3:**
The 1M feedback resistor is required for 25MHz crystal circuit. The reference 25MHz crystal is the NSK NXH-53 SMD 25MHz crystal with CL 20pF and ESR max. 70 Ohm.

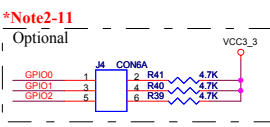
***Note2-4:**
AX88760 on-chip 3.3V to 1.8V regulator is a low dropout regulator (LDO), which requires some large external compensating capacitors on its input and output pins. The C9, C10, C28 and C29 capacitors are the compensating capacitors for the on-chip regulator.

***Note2-5:**
The analog powers and digital powers should be isolated with a Ferrite Bead (L2 and L6).

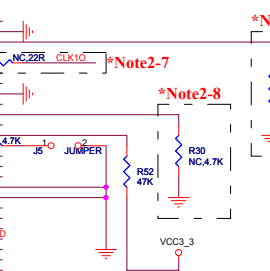
***Note2-6:**
All power pins should be implemented with a by-pass capacitor, and the by-pass capacitors should be as close as the power pins.

***Note2-7:**
Configure 12MCKEN_N pin to enable/disable 12MCK pin 12MHz clock output function
0 : Enable 12MCK pin 12 MHz clock output
1 : Disable 12MCK pin 12 MHz clock output (default)

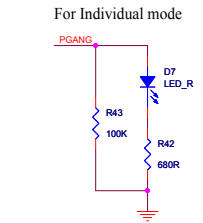
***Note2-8:**
Select 12MHz or 27MHz clock source
0 : The XTLI pin is connected to 27MHz clock source
1 : The XTLI/XTLO pins are connected to 12MHz crystal or the XTLI pin is connected to 12MHz clock source (default)



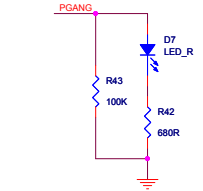
***Note2-11**
Optional



***Note2-7**



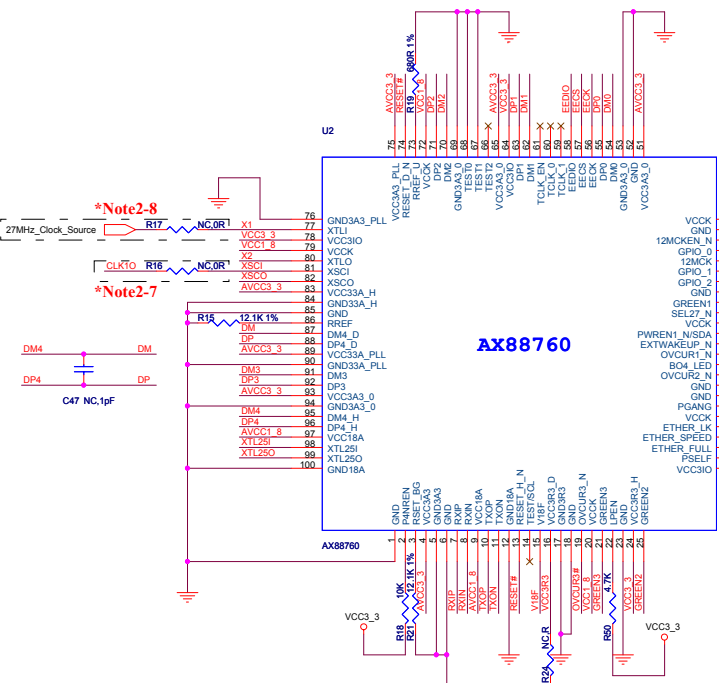
For Individual mode



***Note2-9:**
AX88760 will disable the on-chip voltage regulator when the VCC3R3 (pin16) was connected to GND. Please refer to Appendix A of AX88760 datasheet for more details.
(Enable On-chip regulator -- Mount R23 and unmount R24, R49)
(Disable On-chip regulator -- Mount R24, R49 and unmount R23)

***Note2-10:**
Feature Limitation: Green 1 & Green 2 pull-high concurrently will enable vendor proprietary function that may affect system compatibility. System integrator should evade configuring both port #1 and #2 as non-removable by this strapping feature.

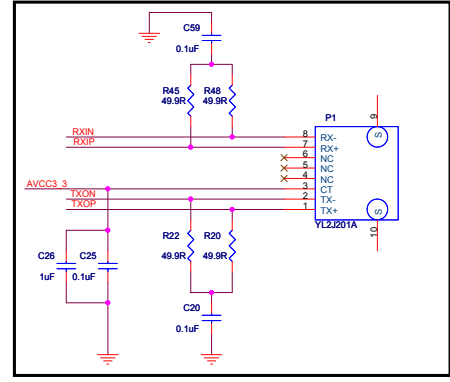
***Note2-11:**
The GPIO0~GPIO2 signals can be floating directly if you don't have special requirements.



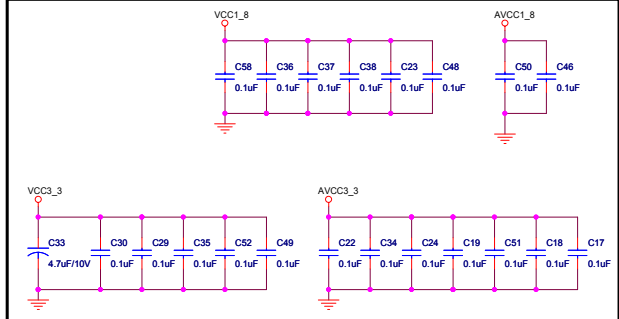
AX88760

Reference Transformer Part No. list
YL2J201A
YuTai Electronics Co.,LTD
TEL:86-574-63620701,63621610
http://www.yutai-eltec.com
EMAIL: nice_yu@yeah.net

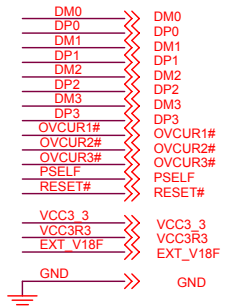
RJ-45 Connector + Transformer (Turns Ratio 1CT:1CT, with auto-MDIX)



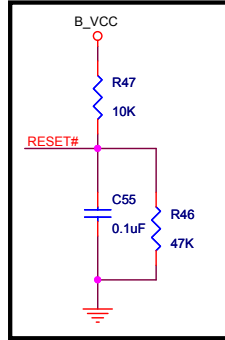
Power and by-pass capacitors *Note2-6



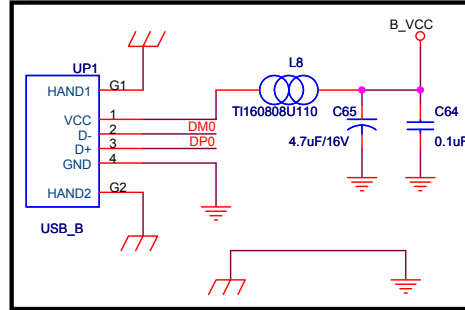
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| ASIX ELECTRONICS CORPORATION | | |
| Title | AX88760 Demo Board PCB V2.00 Schematic | |
| Size | Document Number | Rev |
| C | AX88760 schematic | 2.00 |
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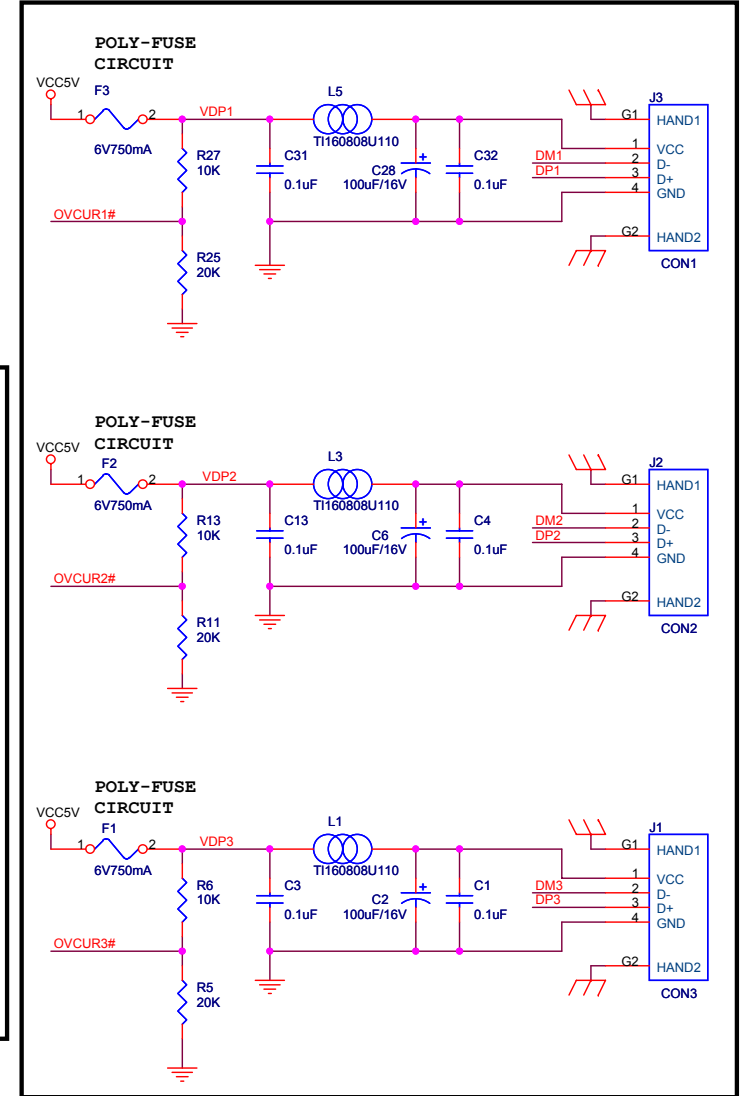
Reset Circuit



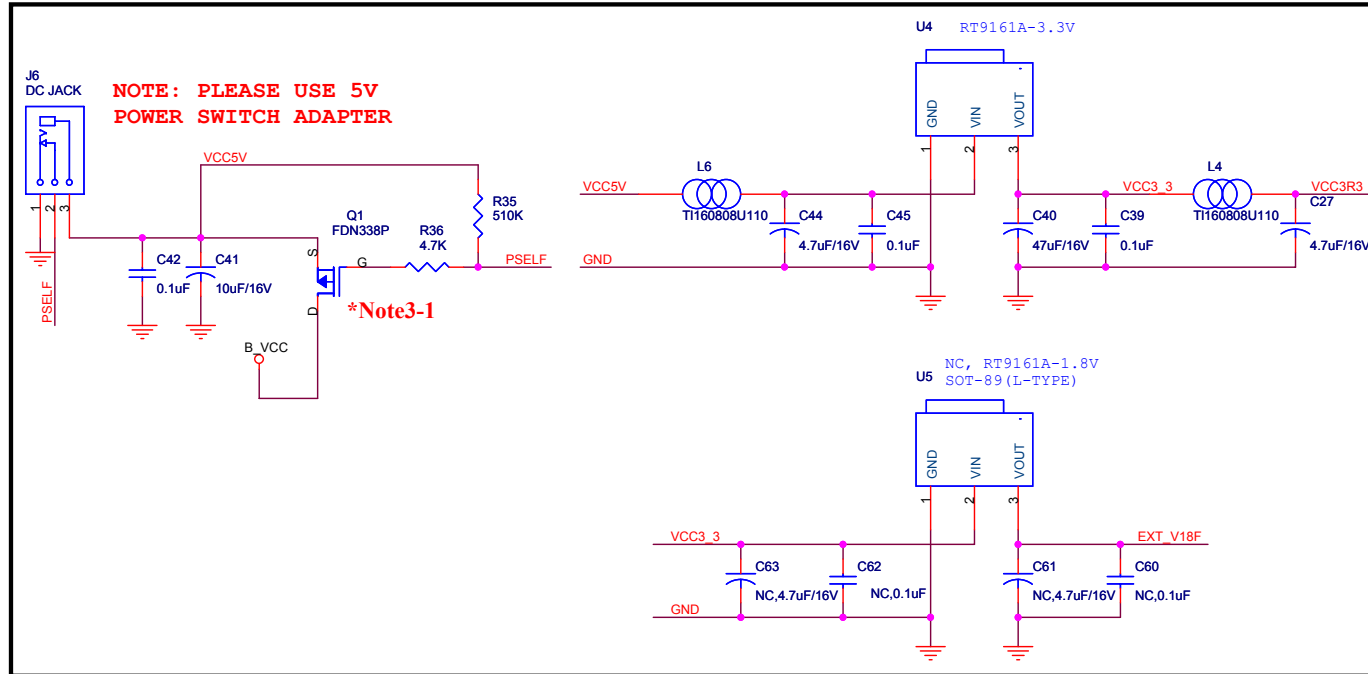
Upstream USB Port



Downstream USB Ports



Power Circuit



***Note3-1:**
 For self-power applications, remove Q1 and pull high the PSELF signal to set AX88760 at self-power mode.

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| ASIX ELECTRONICS CORPORATION | | |
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Revision History

| Revision | Date | Comment |
|----------|------------|--|
| V1.00 | 2009/10/07 | 1.Initial Release. |
| V2.00 | 2009/12/02 | 1.Release for AX88760 PCB V2.00 Demo Board. 2.Added some circuits for external 3.3V to 1.8V regulator solution. 3.Added some note messages in Note2-9. |

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| Size A | Document Number Revision History | Rev 2.00 |
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