Page 2

CPU, Reset, oscillators, jtag/swd/trace connectors

Page 3

Ethernet interface

Page 4

SPI-FLASH and I2C-E2PROM

Page 5

SDRAM

Page 6

External bus buffers

Page 7

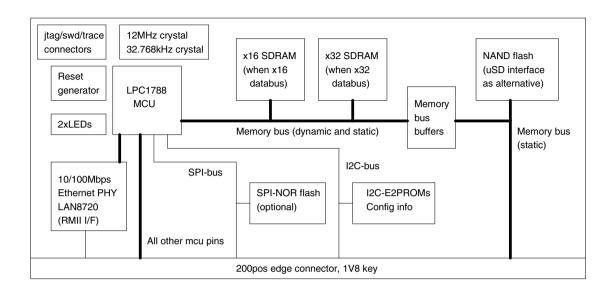
NAND flash

Page 8

LEDs and configuration I2C-E2PROM

Page 9

SODIMM edge connector



UL = UnLoaded = normally not mounted component.

Default jumper settings are indicated in the schematic. However, always check jumper positions on actual boards since there is no guarantee that all jumpers are in default place.

Rev B

Update which components that are mounted. Layout updates.

Rev A

First revision

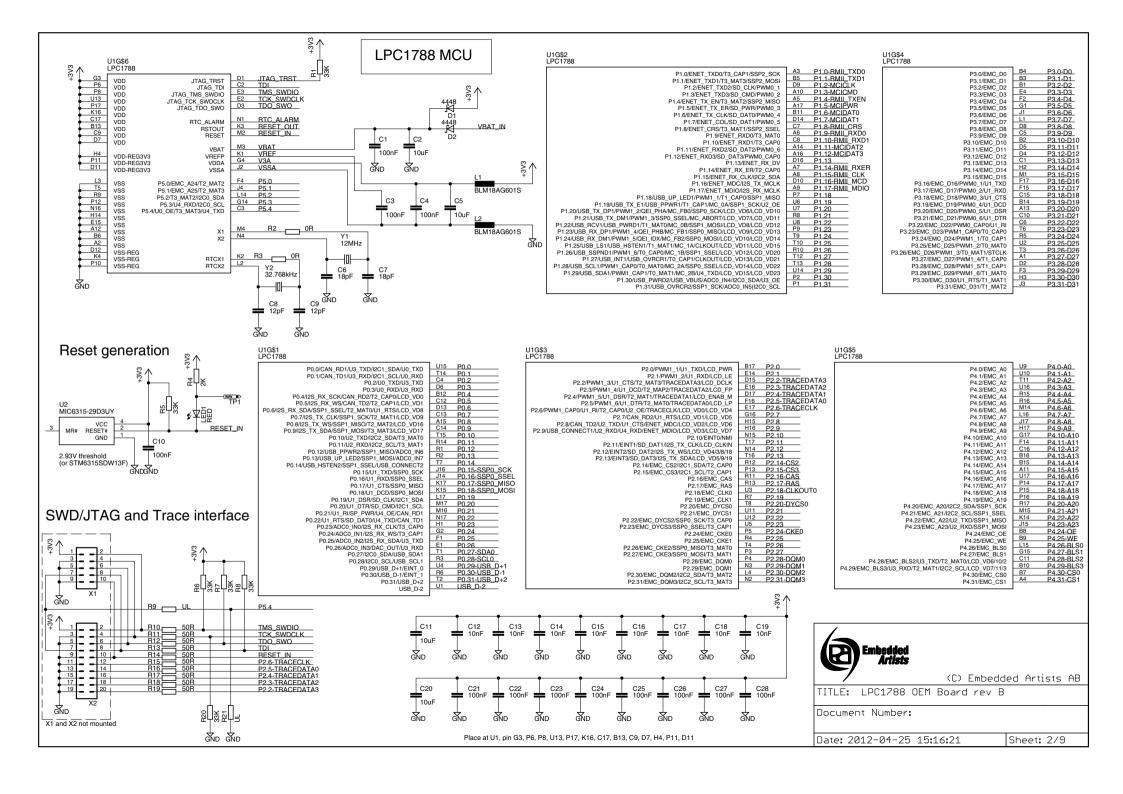


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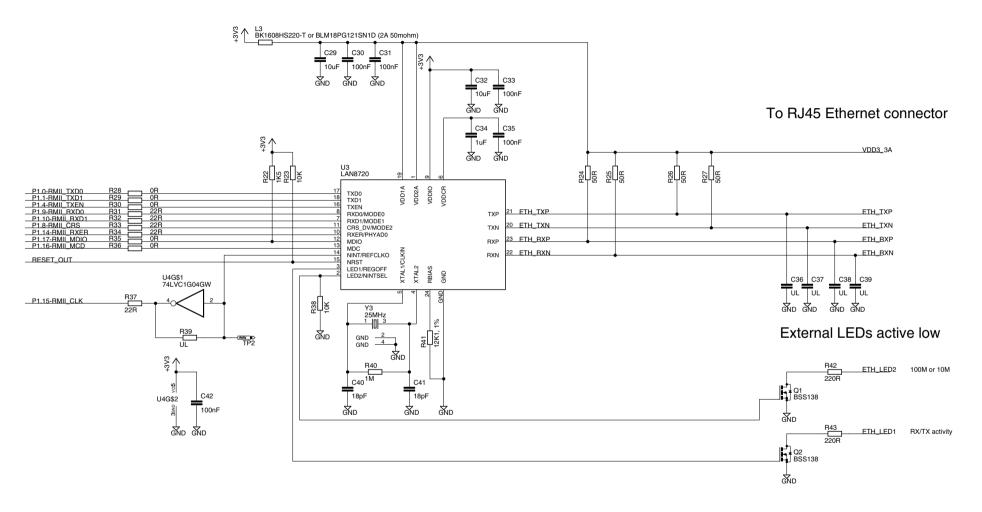
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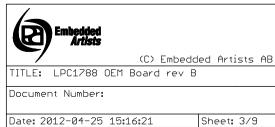
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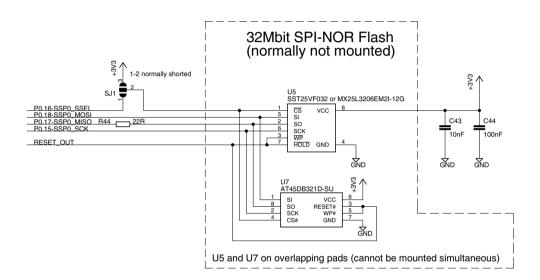


100/10M Ethernet PHY (via RMII interface)

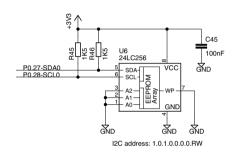




Serial memories (I2C-E2PROM / SPI-FLASH)



256kbit EEPROM





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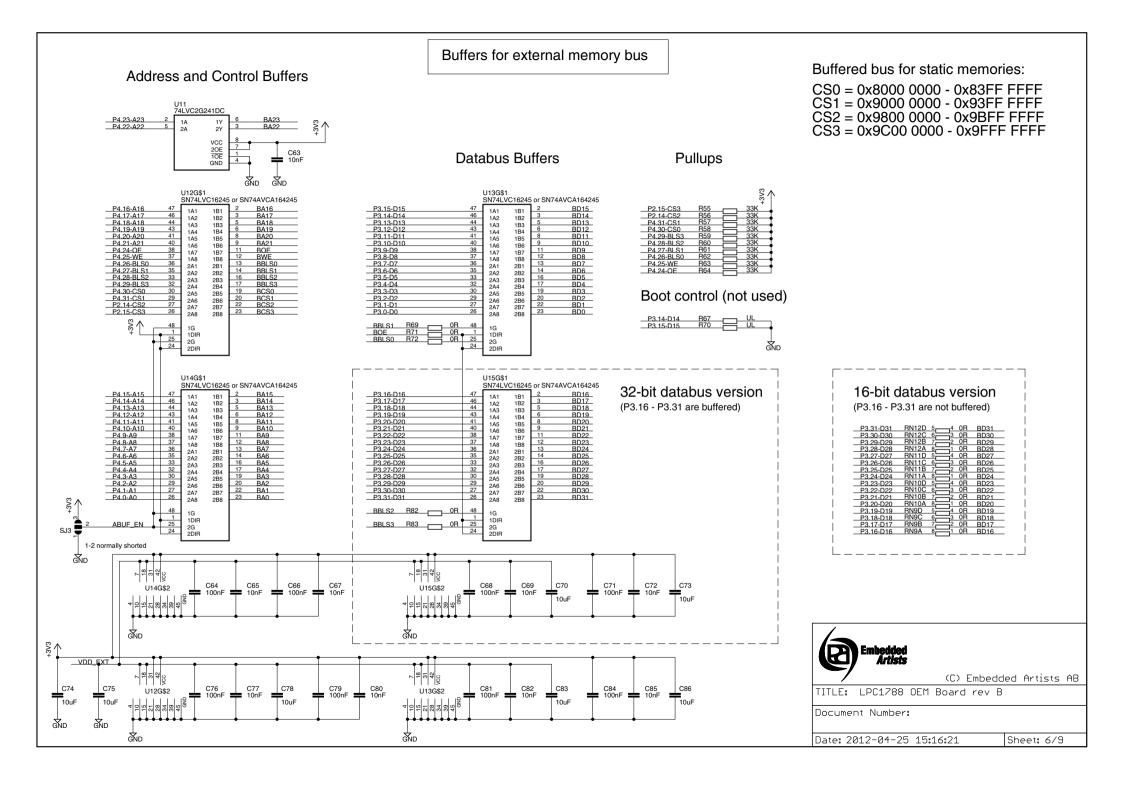
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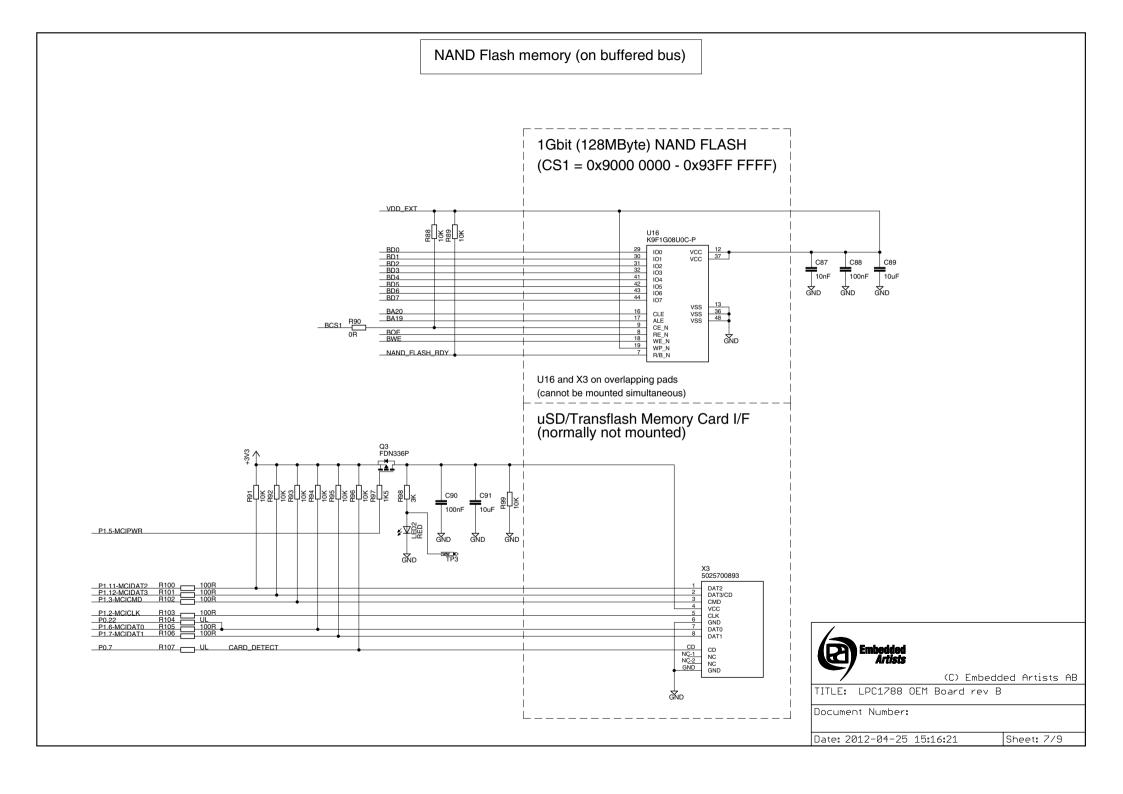
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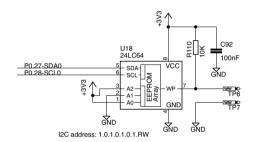
SDRAM 256Mbit (32MByte) SDRAM (DYCS0 = 0xA000 0000 - 0xAFFF FFFF) 16-bit databus version 32-bit databus version U9 K4S561632H or MT48LC16M16 U10 IS42S32800D-7 RN1D 4 5 22R RN1G 3 6 22R RN1G 6 22R RN1B 6 22R RN1B 1 8 22R RN3D 1 5 22R RN3G 3 6 22R RN3G 3 6 22R RN3G 3 6 22R RN3B 2 7 22R RN3B 1 7 22R RN5D 1 6 22R RN5D 2 6 22R RN5D 3 6 22R RN5D 3 6 22R RN5D 4 7 22R RN5D 4 7 22R RN5D 5 22R RN5D 6 2 8 22R RN5D 6 2 8 22R RN5D 6 2 8 22R RN5D 7 2 22R RN5D 6 2 8 22R RN5D 6 2 8 22R A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 N7 D1 R9 D2 P4.1-A1 24 25 4 D1 5 D2 P3.1-D1 P3.2-D2 P4.1-A1 P4.2-A2 G9 F7 DQ1 DQ2 P4.2-A2 26 29 30 31 P3.3-D3 F3 D3 D4 D5 DQ3 G1 G2 8 D4 10 D5 P3.4-D4 P3.5-D5 P4.4-A4 P4.5-A5 P4 4- A4 DQ4 P4.6-A6 P4.7-A7 11 D6 13 D7 P3.6-D6 P3.7-D7 P4.6-A6 P4.7-A7 G3 DO6 H1 L8 DQ7 42 D8 44 D9 45 D10 H2 J3 G7 L2 D8 M3 D9 M2 D10 P1 D11 P4.8-A8 33 34 22 P3.8-D8 P3.9-D9 P4.8-A8 DO8 P4.9-A9 P4.9-A9 D9 DQ9 P4.10-A10 P3.10-D1 P4.10-A10 A10 A11 (A12) D10 A10/AP DQ10 Ρ4 11-Δ11 47 D11 48 D12 P3.11-D1 P3.12-D1 Ρ4 11-Δ11 H9 H3 D11 D12 D11 A11 DQ11 P4.12-A12 P4.12-A12 A12 DQ12 R1 N3 R2 E8 50 D13 P3.13-D13 P4.13-A13 J7 H8 D13 D14 D15 D16 D13 DQ13 DQ14 BA0 BA1 P4 13-A13 20 21 BA0 51 D14 P3 14-D14 P4 14-A14 D14 P4.14-A14 53 D15 P2.17-RAS D15 RAS_N CAS_N RN2D 4 5 22R RN2C 3 6 22R RN2E 2 7 22R RN2A 4 5 22R RN4D 4 5 22R RN4D 5 22R RN4C 3 6 22R RN4C 3 5 22R RN4B 2 7 22R RN4B 2 7 22R RN6C 3 5 22R RN6C 3 5 22R RN6C 3 5 22R RN6C 3 5 22R RNAC 3 5 22R P2.16-CAS K7
P4.25-WE K8
P2.18-CLKOUT0 J1
P2.24-CKE0 J2 P3.16-D16 P3.17-D17 P3.18-D18 P3.19-D19 DQM WE_N D17 P2.28-DQM0 15 14 27 LDQM VDD VDD CLK D18 D19 P2.18-CLKOUT0 38 P2.24-CKE0 37 3 9 43 P2.20-DYCS0 CLK CKE D20 D21 D22 D23 D24 VDDQ CS_N DQM0 P2.24-CKE0 P2 28-DOM0 K9 K1 P3 21-D2 VDDO P2.29-DQM1 P3.22-D2 DQM1 DQM2 VDDQ CS RAS CAS WE F8 F2 P2.20-DYCS0 49 P2.30-DQM2 P2.31-DQM3 P3.23-D23 VDDQ 18 17 16 P2.17-RAS P2.16-CAS P4.25-WE P3.25-D25 P3.26-D26 VSS VSS D25 D26 28 VSS 40 NC P3 28-D2 VSSQ P3.29-D29 VSSQ 46 52 VSSQ VSSQ D30 D31 C46 **→** ŬĹ A7 F9 L7 R7 VSS VSS VSS VSSQ VSSQ VSSQ VDD GND VDD L3 R3 B3 B8 C1 D1 VDD VDD GND VDDQ VDDQ D9 E1 L1 M9 N9 P2 P7 VSSQ VSSQ VDDO E9 L9 M1 VDDQ VSSQ VSSQ VDDQ VDDQ 100nF # 100nF VSSQ VSSQ VSSQ VSSQ VDDQ GND ďΝD GND. άΝD SND GND GND GND = 10nF == 10nF 10nF = 100nF 100nF = 100nF = 10uF άΝD άΝD GND GND ₫ND άΝD 1373 P2 16-CAS P2 28-DOM0 P2.29-DQM1 C100 10nF C101 10nF C95 C96 10nF C97 C98 10nF 100nF 100nF = 100nF ĠND. άνα GND άΝD GND GND GND (C) Embedded Artists AB LPC1788 OEM Board rev B P2.30-DQM2 Document Number: Date: 2012-04-25 15:16:21 Sheet: 5/9

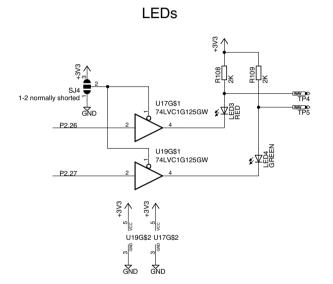




Configuration I2C-E2PROM and LEDs

64kbit Configuration EEPROM (write protected)







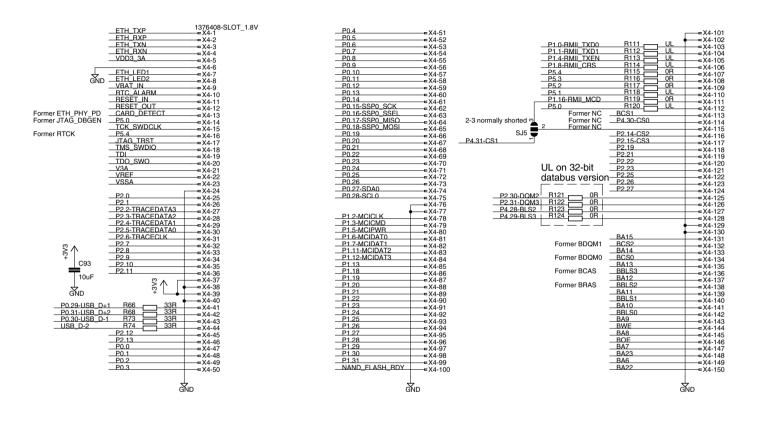
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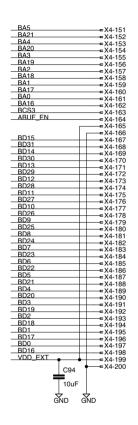
TITLE: LPC1788 OEM Board rev B

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Expansion Connector (SODIMM Edge Connector)







Former DBUS_EN

Normally NC

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