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REVISION HISTORY

Rev	Description	Date	Drawn	Checked	Approved
CM-A10/A20 V1.0	Used to replace the old MarsBoard	2013-12-28	Thomas	Thomas	
CM-A10/A20 V1.1	Modified PHY LED2 output high valid	2014-03-30	Thomas	Thomas	
CM-A10/A20 V2.0	Use 4 x 8bit DDR3, support Max 2G memory	2014-04-28	Thomas	Thomas	





CM-A10/A20

Designed by HAOYU Electronics

www.PowerMCU.com www.MarsBoard.com

		TRONICS	HAOYU	YU Electronics			
Γ	Title: CM	-A10/A20					
Γ	File: IN	DEX			REV: 2.0		
Ī	Create Date:	Wednesday, December 25, 2013		Page Num: 1			
г	Madic. Date.	Monday April 29 2	014	Dogo T	otali O		

CPU₁ U1-1 AC4 AC8 AB5 AB7 AB8 AB4 AC3 SDQ0 SDQ1 SDQ[31:0] < SDQ[31:0] SDQ2 U1-2 SDQ3 DRAM-VCC VDD25-SATA VDD25-0-SATA SDOSBI3:0X SD05 VCC0-DRAM VDD12-SATA SDQ6 VCC1-DRAM VDD25-1-SATA M15 AC3 SDQ6

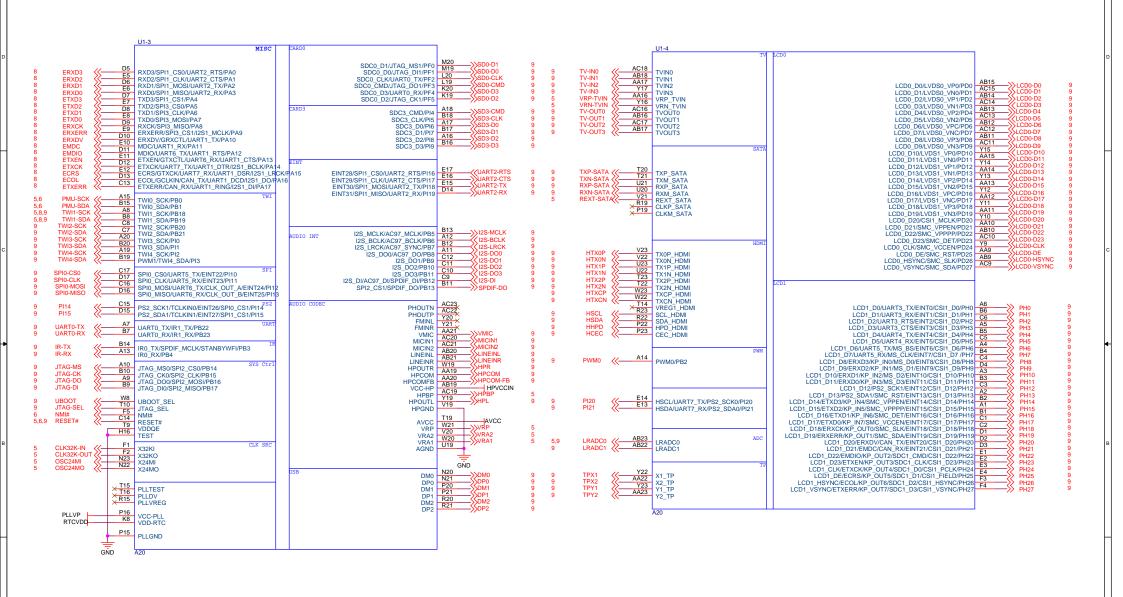
AA1 SDQ7

AC1 SDQ8

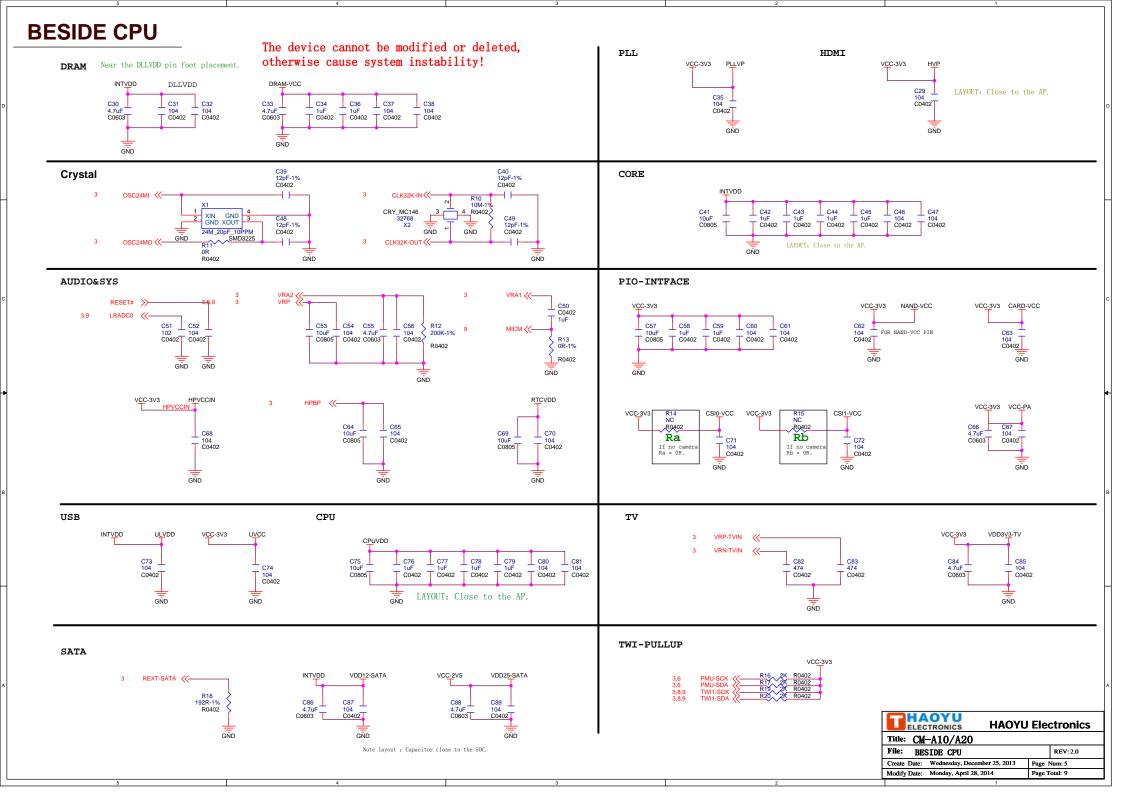
Y1 SDQ9 VCC2-DRAM VCC3-DRAM VDD12-0-SATA VDD12-1-SATA NWF#/SPI0_MOSI/PC0 M22 M5 R5 T5 W5 NALE/SPI0_MISO/PC1 SNALE SDQS[3:0] << AC1 Y1 SDQ9 SDQ10 AC2 SDQ11 VCC4-DRAM VCC5-DRAM NCLE/SPI0 CLK/PC2 HVP NCE1/PC3 NCE1# T13 AB2 SDQ11
AC2 SDQ12
W2 SDQ12
AB3 SDQ14
Y2 SDQ15
T2 SDQ16
N2 SDQ16
U2 SDQ18 NCE0# SDQM[3:0] << NCE0/PC4 VCC6-DRAM VCC-HDM W6 W7 NRE#/PC5 NRE# VCC7-DRAM NRB0/SDC2_CMD/PC6 NRB1/SDC2_CLK/PC7 VCC8-DRAM VCC9-DRAM CPUVDD NDQ0/SDC2_D0/PC8 GND0 VDD0-CPU NDQ1/SDC2 D1/PC9 GND1 NDQ2/SDC2_D2/PC10 VDD1-CPU GND2 NDQ3/SDC2_D3/PC11 NDQ4/PC12 SDO18 VDD2-CPU GND3 H14 VDD3-CPU P1 SDQ18 T1 SDQ19 N5 J12 VDD3-CF0 VDD4-CPU VDD5-CPU GND4 U1 SDQ20 N1 SDQ21 SDQ22 NDQ5/PC13 NDQ6/PC14 GND5 GND6 NDQ7/PC15 NWP/PC16 GND7 M2 SDQ23 M21 VDD0-SYS GND8 J1 SDQ23 L1 SDQ24 H1 SDQ25 K2 SDQ26 L2 SDQ27 G2 SDQ28 NCE2/PC17 NCE3/PC18 VDD1-SYS VDD2-SYS GND9 M9 GND10 N10 K10 NCE4/SPI2_CS0/PC19 NCE5/SPI2_CLK/PC20 VDD3-SYS GND11 VDD4-SYS GND12 NCE6/SPI2_MOSI/PC21 VDD5-SYS NCE7/SPI2_MISO/PC22 SPI0_CS0/PC23 VDD6-SYS VDD7-SYS GND14 K12 SDQ29 M1 SDQ29 SDQ30 SDQ31 R9 H2 SDU30 H3 SVREF0 Y5 SVREF1 AA8 SVREF2 AA6 SVREF3 AC5 SDQS0 AB1 SDQS1 AA2 SDQS1 AB1 SDQS1 F1 SDQS2# J2 SDQS2 J2 SDQS3 AC6 SDQS3# NDQS/PC24 VDD8-SYS GND16 CPU-REF << VDD9-SYS GND17 INTVDD GND18 M8 GND19 M1 VDD0-DLL VDD1-DLL GND20 M11 GND21 M12 VDD2-DLL VCC-3V3 GND22 VCC2-LVDS GND23 VCC1-LVDS VCC0-LVDS GND24 DRAM GND25 GND26 TS0_CLK/CSI0_PCLK/PE0 E23 H8 H9 VCC1 VCC1 VCC2 GND27 GND28 R12 TS0_ERR/CSI0_MCLK/PE1
TS0_SYNC/CSI0_HSYNC/PE2 CSI0-MCLK CSI0-HSYNC GND29 CSI0-VSYNC TS0_DVLD/CSI0_VSYNC/PE3 VCC3 GND30 TS0_D0/CSI0_D0/PE4 TS0_D1/CSI0_D1/PE5 VCC4 VCC5 GND31 TSO/CSIO CSI0-D1 CSI0-D2 GND32 B23 VCC-PA SCK-N SCK TS0_D2/CSI0_D2/PE6
TS0_D3/CSI0_D3/PE7 GND33 GND34 VCC0-PA VCC-PC SCKE TS0_D4/CSI0_D4/PE8 TS0_D5/CSI0_D5/PE9 CSI0-D4 VCC1-PA VCC0-PC GND35 CSI0-D5 CARD-VCC GND36 J19 VCC0-PC VCC1-PC VCC-PF TS0_D6/CSI0_D6/PE10 TS0_D7/CSI0_D7/PE11 CSI0-D6 GND37 CSI0-VCC GND38 CSI1-VCC N13 GND39 N14 VCC-PE VCC-PG GND40 GND41 P14 VDD3V3-TV GND42 VCC-2V5 VCC33-TVOUT W16 W17 VCC33-TVIN VDD25-TVIN TS1/CSI1 GND33-TVIN W18 GND44 AA18 TS1_CLK/CSI1_PCLK/SDC1_CMD/PG0 E21 CSI1-MCLK TS1_ERR/CSI1_MLCK/SDC1_CLK/PG1 TS1_SYNC/CSI1_HSYNC/SDC1_D0/PG2 GND25-TVIN UVCC CSI1-HSYNC TS1_DVLD/CSI1_VSYNC/SDC1_D1/PG3 -TS1_D0/CSI1_D0/SDC1_D2/CSI0_D8/PG4 -SCSI1-VSYNO VCC0-USB VCC1-USB ULVDD NC1 R14 × R16 × GND TS1_D1/CSI1_D1/SDC1_D3/CSI0_D9/PG5
TS1_D2/CSI1_D2/UART3_TX/CSI0_D10/PG6 CSI1-D1 VDD-USB TS1_D3/CSI1_D3/UART3_RX/CSI0_D11/PG7 D1! SCSI1-D3 A20 TS1_D4/CSI1_D4/UART3_RTS/CSI0_D12/PG8 C19 CSI1-D5 CSI1-D6 K4 SBA1 SBA2 SWE T3 SWE U3 SCAS T4 SCAS SCS0 AA6 SCS0 SWE SCAS SRAS SCS SRST SODT AA6 SCS0
AA5 SRST
ODT
SZQ
R8 SDDBG0
N8 SDDBG1
SADBG FRGA441C80P19X19 GND MarsBoard www.MarsBoard.com Title: CM-A10/A20 REV: 2.0 CPU1 Create Date: Wednesday, December 25, 2013 Page Num: 2 Modify Date: Monday, April 28, 2014 Page Total: 9

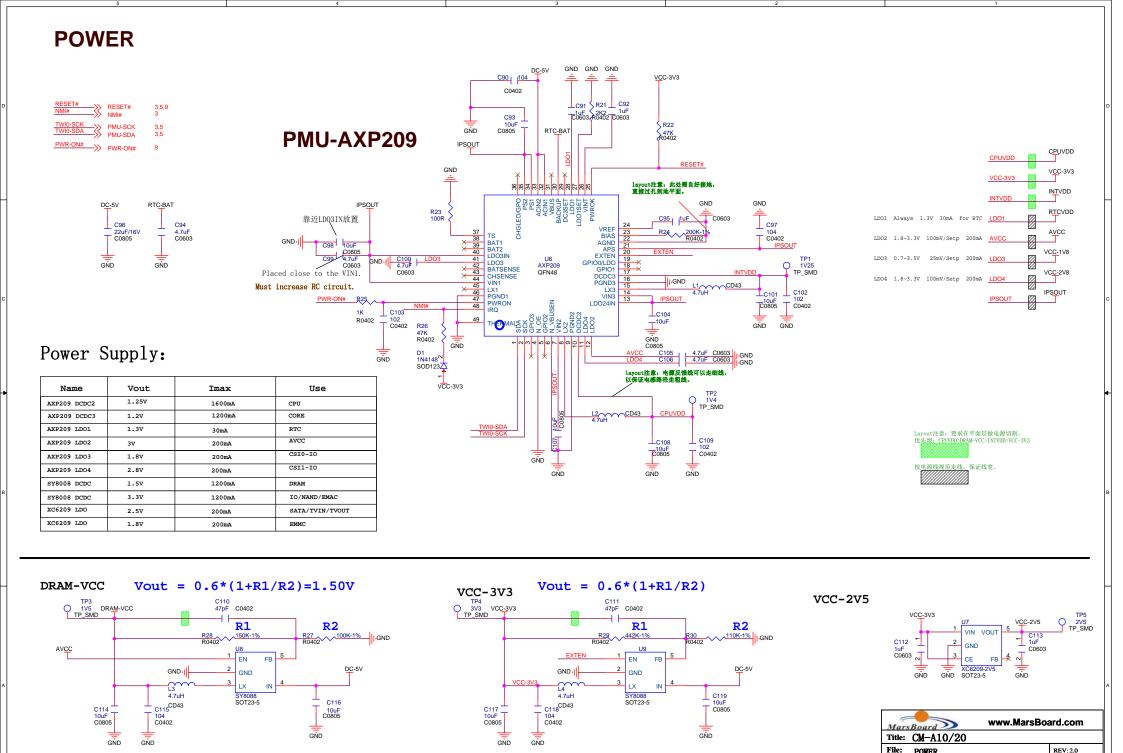
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CPU₂



HAOYU Electronics					
Title: CM-A10/A20					
File: CPU2		REV: 2.0			
Create Date: Wednesday, December 25, 2013	Page 1	Page Num: 3			
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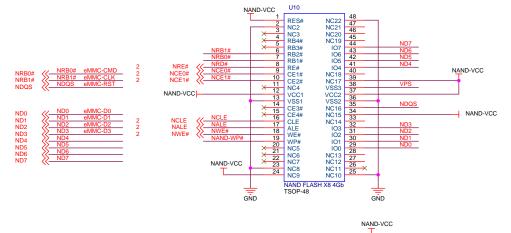
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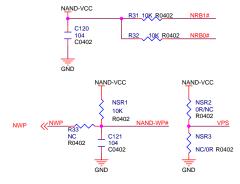
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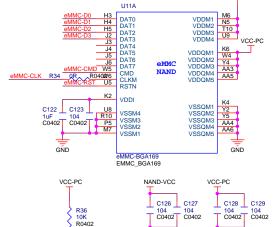
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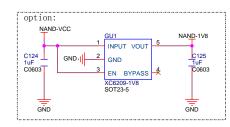


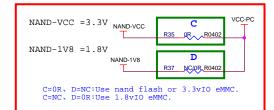
If paste Intel, Toshiba, Samsung 2xnm TSOP Nand, NSR2=0R, NSR3=NC; Other NSR2=NC, NSR3=0R.



GND

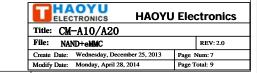
eMMC-CMD

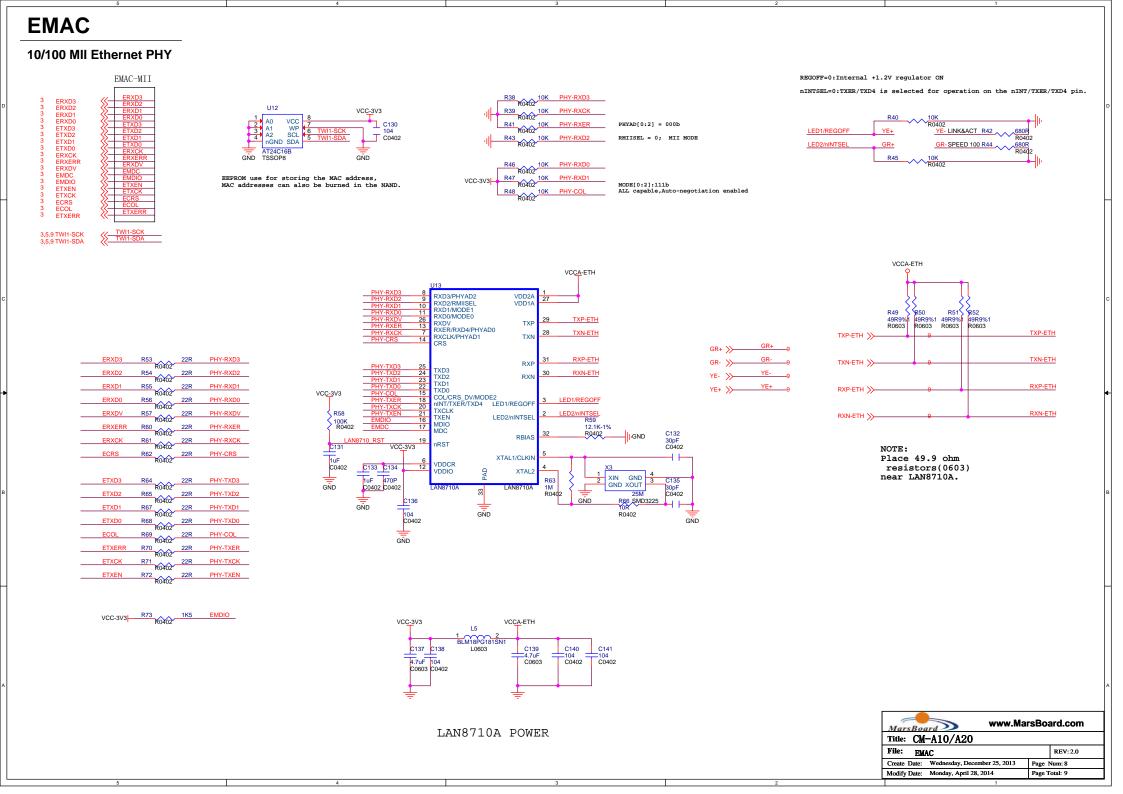




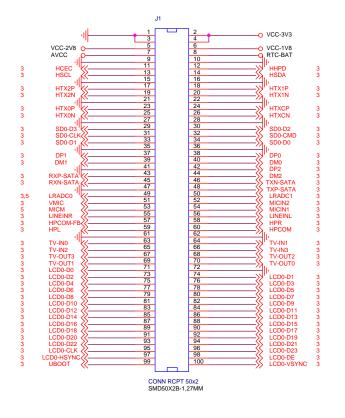
Note layout :Put the eMMC in TSOP48, producing two choose one..

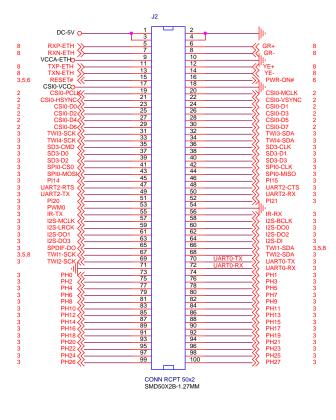
GND

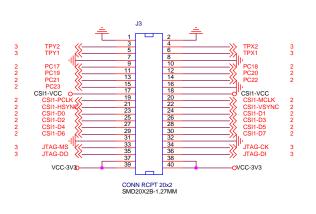


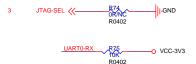


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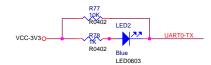


Indicator

POWER Indicator



TX Indicator use for Debug



T1 T2 T3 T4
MARK MARK MARK MARK

