CompuLab CL-SOM-AM57x - 204-pin SO-DIMM edge connector

Source: CompuLab CL-SOM-AM57x Reference Guide, rev. April 2018, ch. 5.1, 6, 7
Module used in Formlabs Form 3/3+ (u-boot board cl-som-am57x)

VSYS +5V 12 pins: 10, 28, 46, 64, 78, 96, 114, 132, 150, 168, 186, 204. Recommended 4.2-5.0 V; operating 3.8-5.25 V; absolute max 6 V. Module draws 2.5-6.5 W.

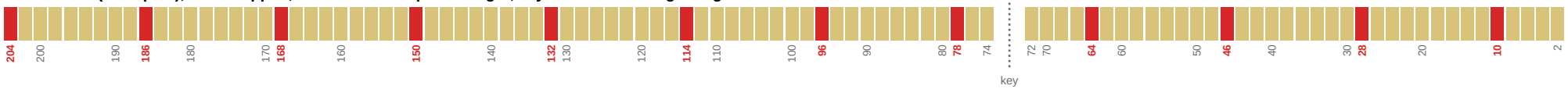
GND **11 pins: 1, 19, 37, 55, 71, 87, 105, 123, 141, 159, 177 + AUD_GND 195 (audio ground). All VSYS pins are even, all GND pins odd: no VSYS pad sits next to a GND pad on the same face.**

VCC_RTC **Pin 183, RTC backup battery input, 1.4-5.5 V (not part of the 5 V rail). Power control: PWRON 165, ENABLE1 198, COLD_RESET_IN 171, RESETN 187, ALT_BOOT 185.**

Top face (SoC side, odd pins), contacts down: pin 1 at left, key 24.3 mm from left edge



Bottom face (even pins), board flipped, contacts down: pin 2 at right, key 24.3 mm from right edge



Signal pins show one function and its GPIO; most are muxed with several more (full lists in guide ch. 6). Face assignment and key position follow the standard 204-pin SO-DIMM layout and CompuLab figs 4-5; confirm on a known-good module.

1 GND	2 RESERVED	53 LVDS_N2	54 HDMI1_HPD GPIO1_14	**105 GND**	106 UART5_RXD GPIO8_0	157 MMC4_CLK GPIO7_24	158 HUBUSB3_DN
3 MCASP5_FSR	4 ETH1_LED_ACT	**55 GND**	56 HDMI1_CEC GPIO1_15	107 ETH0_LED_ACT	108 UART5_TXD GPIO8_1	**159 GND**	160 HUBUSB3_DP
5 MCASP5_ACLKR	6 ETH1_MDI0N	57 LVDS_P3	58 MMC3_DAT2 GPIO7_1	109 ETH0_LED_LINK1000	110 VOUT1_D2 GPIO8_2	161 SPI3_CS1 GPIO4_21	162 HUB_USB_OCN GPIO5_4
7 MCASP5_AXR0	8 ETH1_MDI0P	59 LVDS_N3	60 MMC4_SDCD GPIO7_22	111 UART3_TXD GPIO5_19	112 VOUT1_D3 GPIO8_3	163 MMC3_DAT5 GPIO1_23	164 HUBUSB2_DN
9 MCASP5_AXR1	**10 VSYS**	61 MMC1_SDCD GPIO6_27	62 MMC4_SDWP GPIO7_23	113 UART10_TXD GPIO6_15	**114 VSYS**	165 PWRON	166 HUBUSB2_DP
11 MCASP4_FSR	12 ETH1_MDI1N	63 MMC3_DAT0 GPIO6_31	**64 VSYS**	115 UART10_RXD GPIO6_14	116 VOUT1_D4 GPIO8_4	167 PCIE_RXN1	**168 VSYS**
13 MCASP4_ACLKR	14 ETH1_MDI1P	65 MMC3_DAT1 GPIO7_0	66 SPI1_D0 GPIO7_9	117 UART3_RXD GPIO5_18	118 VOUT1_D5 GPIO8_5	169 PCIE_RXP1	170 HUBUSB1_DN
15 MCASP4_AXR0	16 ETH1_LED_LINK1000	67 MMC1_SDWP GPIO6_28	68 SPI1_D1 GPIO7_8	119 LJCB_CLKP	120 VOUT1_D6 GPIO8_6	171 COLD_RESET_IN	172 HUBUSB1_DP
17 MCASP4_AXR1	18 ETH1_MDI2N	69 MMC3_CMD GPIO6_30	70 SPI1_SCLK GPIO7_7	121 LJCB_CLKN	122 VOUT1_D7 GPIO8_7	173 PCIE_TXN1	174 VIN1A_D3
19 GND	20 ETH1_MDI2P	**71 GND**	72 SPI1_CS0 GPIO7_10	**123 GND**	124 UART6_RXD GPIO8_8	175 PCIE_TXP1	176 USB1_DP
21 SATA1_TXP0	22 ETH1_LED_LINK10_100	73 UART9_TXD GPIO4_0	74 VOUT1_D22 GPIO8_22	125 PCIE_TXP0	126 UART6_TXD GPIO8_9	**177 GND**	178 USB1_DM
23 SATA1_TXN0	24 ETH1_MDI3N	75 MMC3_CLK GPIO6_29	76 SPI3_CS3 GPIO8_23	127 PCIE_TXN0	128 VOUT1_D10 GPIO8_10	179 MMC3_DAT7 GPIO1_25	180 RESERVED
25 HDMI1_DDC_SCL	26 ETH1_MDI3P	77 ETH0_MDI1N GPIO1_26	**78 VSYS**	129 UART6_TXD GPIO5_3	130 VOUT1_D11 GPIO8_11	181 SATA1_LED GPIO7_11	182 PCIE_RXP1
27 SATA1_RXP0	**28 VSYS**	79 ETH0_MDI1P GPIO1_27	80 MMC1_CLK GPIO6_21	131 PCIE_RXP0	**132 VSYS**	**183 VCC_RTC**	184 PCIE_RXN1
29 SATA1_RXN0	30 HDMI1_CLOCKX	81 SPI4_CS3 GPIO2_4	82 MMC1_CMD GPIO6_22	133 PCIE_RXN0	134 VOUT1_D12 GPIO8_12	185 ALT_BOOT	**186 VSYS**
31 HDMI1_DDC_SDA	32 HDMI1_CLOCKY	83 ETH0_MDI0N GPIO1_28	84 MMC1_DAT0 GPIO6_23	135 UART6_RXD GPIO5_2	136 VOUT1_D13 GPIO8_13	187 RESETN	188 PCIE_TXP1
33 LVDS_CLKN	34 HDMI1_CEC GPIO7_13	85 ETH0_MDI0P GPIO1_29	86 MMC1_DAT1 GPIO6_24	137 MCASP2_ACLKX	138 VOUT1_D14 GPIO8_14	189 EEPROM_WP	190 PCIE_TXN1
35 LVDS_CLKP	36 HDMI1_DATA0X	**87 GND**	88 MMC1_DAT2 GPIO6_25	139 MCASP2_AXR0	140 VOUT1_D15 GPIO8_15	191 MICBIAS	192 GPIO1_1
37 GND	38 HDMI1_DATA0Y	89 ETH0_MDI2N GPIO7_5	90 MMC1_DAT3 GPIO6_26	**141 GND**	142 VOUT1_D18 GPIO8_18	193 MICIN GPIO6_19	194 MMC3_DAT6 GPIO1_24
39 LVDS_P0	40 HDMI1_HPD GPIO7_12	91 ETH0_MDI2P GPIO7_6	92 UART7_TXD GPIO8_17	143 MCASP2_AXR1	144 VOUT1_D19 GPIO8_19	**195 AUD_GND**	196 RESERVED
41 LVDS_N0	42 HDMI1_DATA1X	93 VIN2A_DE0 GPIO3_29	94 UART7_RXD GPIO8_16	145 MCASP2_FSX	146 VOUT1_D20 GPIO8_20	197 RLINEIN	198 ENABLE1
43 I2C3_SCL GPIO6_11	44 HDMI1_DATA1Y	95 SPI4_CS1 GPIO2_2	**96 VSYS**	147 MMC4_CMD GPIO7_25	148 VOUT1_D21 GPIO8_21	199 LLINEIN GPIO5_13	200 USB1_DRVVBUS GPIO6_12
45 LVDS_P1	**46 VSYS**	97 ETH0_LED_LINK10_100 GPIO6_20	98 SPI3_CS0 GPIO4_19	149 MMC4_DAT3 GPIO1_17	**150 VSYS**	201 RHPOUT	202 MMC3_DAT4 GPIO1_22
47 LVDS_N1	48 HDMI1_DATA2X	99 CLKOUT1 GPIO6_16	100 SPI3_D0 GPIO4_22	151 MMC4_DAT2 GPIO1_16	152 MCASP5_AHCLKX GPIO6_17	203 LHPOUT GPIO5_14	**204 VSYS**
49 I2C3_SDA GPIO6_10	50 HDMI1_DATA2Y	101 ETH0_MDI3N GPIO7_3	102 SPI3_SCLK GPIO4_23	153 MMC4_DAT1 GPIO7_27	154 MCASP2_AHCLKX GPIO6_18		
51 LVDS_P2	52 MMC3_DAT3 GPIO7_2	103 ETH0_MDI3P GPIO7_4	104 SPI3_D1 GPIO4_20	155 MMC4_DAT0 GPIO7_26	156 HUB_USB_PWREN GPIO6_13		