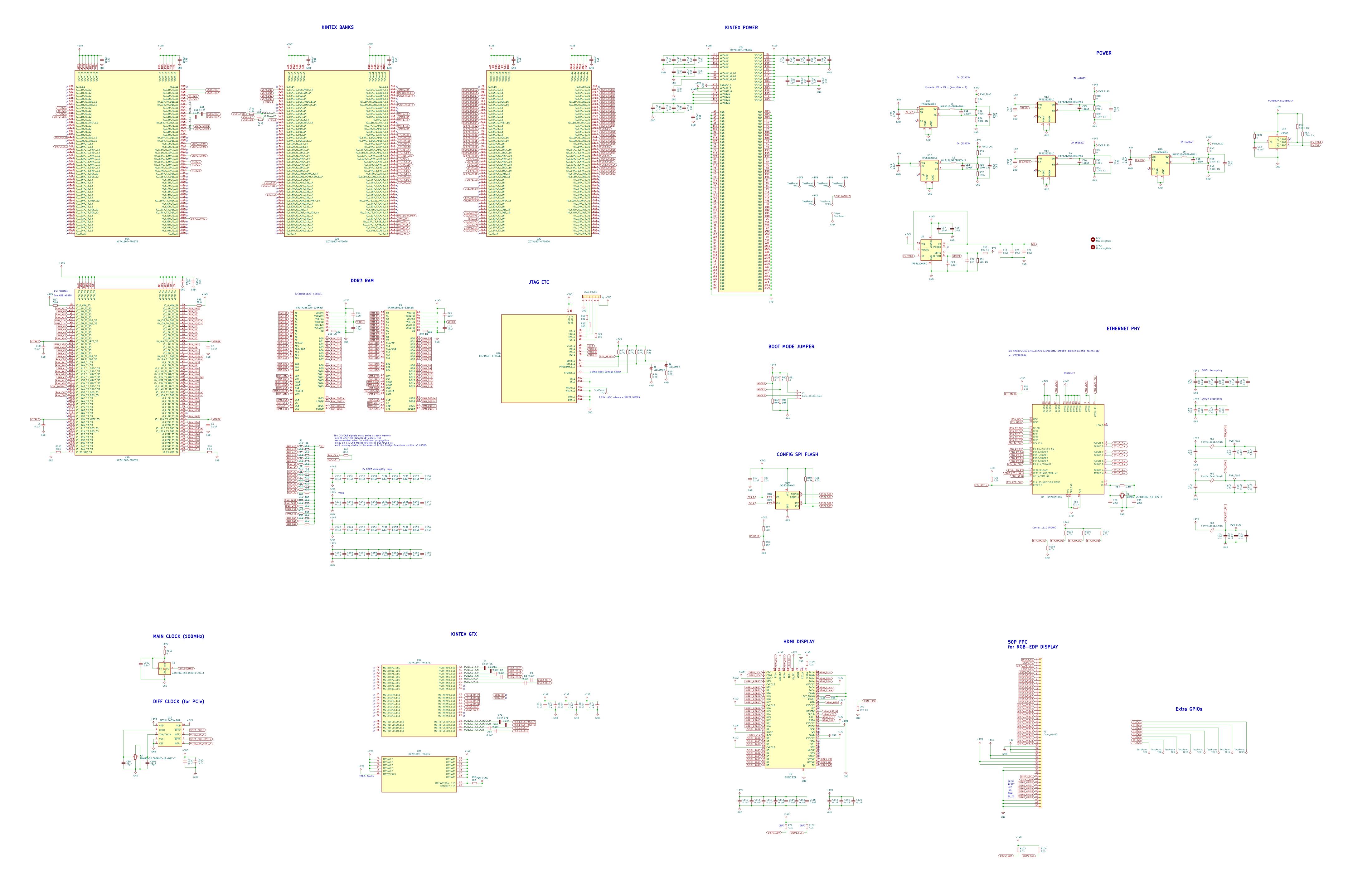
## MNT REFORM CPU CONNECTOR up to 5A supply +5٧ +5٧ card edge, mates with TE 1717254-1 or TE 1473005-1 U1 MNT Reform 2.0 SoM Socket GND TRX3\_N PMIC\_ON\_REQ SLOW\_CLK ETHO\_D-ETHO\_D+ TRX3\_P SD2\_DATA0 TRX2\_N SD2\_DATA2 SD2\_DATA3 SD2\_CMD SD Card (3.3V) Ethernet (1Gbit) GND ETHO\_B-ETHO\_B+ SD2\_CLK WIFI\_RESET SD2\_CD TRX1 N GND TRX0\_N TRX0\_P BT\_HOST\_WAKE UART3\_TXD UART (optional) to System Controller (LPC) UART3\_RXD 32 UART3\_RX GND WL\_EN 40 EDP\_RESETIN USB1\_OTG\_ID UART3\_CTS PCIE\_RST\_B PCIE\_DIS\_B PCIE1\_RESETn GND CSI\_P2\_D0\_N CSI\_P2\_D0\_P BT\_EN GND 46 PCIE1\_TX\_P 48 PCIE1\_TX\_N PCIE1\_TX\_P PCIe HOST 1 GND CSI\_P2\_D1\_N PCIE1\_TX\_N GND CSI\_P2\_D1\_N CSI\_P2\_D1\_P GND CSI\_P2\_D2\_N CSI\_P2\_D2\_P GND CSI\_P2\_D3\_N CSI\_P2\_D3\_P PCIE1\_RX\_P PCIE1\_RX\_N 52 PCIE1\_RX\_P FCIE1\_RX\_N GND PCIE1\_REFCLK\_P PCIE1\_REFCLK\_N PCIE1\_CLK\_P PCIE1\_CLK\_N PCIe slot 1 reference clock coming from this module PCIE1\_REFCLK\_N GND 62 PCIE2\_REFCLK\_P 64 PCIE2\_CLK\_P 66 GND 68 PCIe slot 2 reference clock coming from motherboard synthesizer GND CSI\_P2\_CK\_N CSI\_P2\_CK\_P GND PCIE2\_TX\_P 70 PCIE2\_TX\_P 72 PCIE2\_TX\_N 74 GND JTAG\_TCK JTAG JTAG\_TDI PCIe HOST 2 JTAG\_TMS JTAG\_MOD ETHO\_LED\_RX ETH LEDs JTAG\_NTRST JTAG\_TDO QSPIA\_DATA4 QSPIA\_DATA3 (JTAG optional on MB) ETHO\_LED\_LINK1 85 SOC\_RESETN 87 91 93 CAMERA\_CLK QSPIA\_DATA2 QSPIA\_DATA1 QSPIA\_DATA0 EXT\_RESET\_N ECSPI2\_SS0 MountingHole\_Pad RESET SPI to LPC (optional) ECSPI2\_MOSI ECSPI2\_MISO QSPIA\_NSSO GND QSPIA\_CLK GND \_\_ MountingHole\_Pad ECSPI2\_SCLK GND USB1\_D\_N GND 12C3\_SCL USB1\_D\_P GND 06 06 08 08 USB1\_TX\_N 10 USB3.0/2.0 HOST 1 USB1\_TX\_N GPI01\_I010 DSI/EDP BRIDGE CTRL TI SN65DSI86 12C4\_SCL 12C4\_SDA USB1\_TX\_P GND 12 USB1\_RX\_N 14 USB1\_RX\_P USB1\_RX\_N USB1\_RX\_P GND USB2\_TX\_P 111 USB2\_TX\_P USB2\_TX\_N 111 GND GND USB2\_RX\_P 111 USB2\_RX\_P USB2\_RX\_N 121 USB2\_RX\_N 6ND USB1\_VBUS 18 USB1\_VBUS 120 USB1\_OC 20 UART2\_RXD 22 <u>UART2\_RX</u> UART2\_TXD 26 <u>UART1\_RX</u> UART1\_TXD 26 <u>UART1\_TX</u> UART1\_TXD 26 <u>UART1\_TX</u> USB PWRGOOD USB3.0/2.0 HOST 2 122 GND USB2\_DN 125 USB2\_D\_N USB2\_DP 127 USB2\_D\_P 129 GND CONSOLE UARTs UART1\_TXD SAI1\_MCLK USB\_RESETn 131 USB\_HUB\_RESET SAI1\_TXD1 SAI1\_TXD2 SAI1\_TXD3 FPGA, RAM, Support USB1\_OTG\_PWR\_EN UART4\_TXD UART4\_RXD FAST\_BOOT SAI1\_TXD4 SAI1\_TXD5 CONFIG (dip switches) File: RAM.kicad\_sch RTC\_IRQ GP\_M4\_NMI GPI01\_I03 SAI1\_TXD6 SAI1\_TXD7 SAI1\_RXD1 SAI1\_RXD2 SAI1\_RXD3 NAND\_NCE1 NAND\_NCE3 NAND\_CLE NAND\_NREADY SAI1\_RXD4 SAI1\_RXD5 SAI1\_RXD6 SAI1\_RXD7 SAI1\_RXC NAND\_DATA05 NAND\_NWP SAI1\_RXC SAI1\_RXFS 62 SPDIF\_RX/PWM2 SAI2\_RXD 66 DAC\_DIN SAI2\_RXFS SAI2\_TXC 72 DAC\_TXFS NAND\_DQS GND HDMI\_CLK\_N HDMI\_CLK\_P BACKLIGHT GND HDMI\_TXO\_N HDMI\_DO+ 17 HDMI\_TXO\_P SAI2\_TXFS SAI2\_RXC AUDIO HDM\_D0+ 17 HDM\_IXO\_P 173 GND HDM\_D1- 175 HDM\_TX1\_N HDM\_D1+ 177 HDMI\_TX1\_P 179 GND 76 DAC\_MCLK 78 DAC\_DOUT SAI2\_MCLK HDMI or external PCIe SAI2\_TXD SAI3\_MCLK/PWM4 HDMI\_D2+ 18 HDMI\_TX2\_N SAI1\_TXFS SAI1\_TXC SAI1\_RXD0 SAI1\_TXD0 SAI3\_TXFS IDMI\_TX2\_P (HDMI\_D2+) GND HDMI\_AUX\_P GND HDML\_SDA 19 HDML\_DDC\_SDA HDML\_SCL 19 HDML\_DDC\_SCL HDML\_CEC 19 HDML\_CEC HDML\_HPD HDML\_HPD SAI3\_RXFS SAI3\_RXC GND GND CERN Open Hardware Licence Version 2 — Strongly Reciprocal Engineer: Lukas F. Hartmann https://mntre.com MNT Research GmbH Sheet: / File: reform-kintex.kicad\_sch Title: MNT Reform Kintex-7 SoM (MNT RKX7) Size: A3 Date: 2022-10-03 KiCad E.D.A. kicad 607.44 Rev: D-2



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Sheet: /FPGA, RAM, Support/
File: RAM.kicad\_sch

Title: MNT Reform Kintex-7 Som (MNT RKX7)

Size: A0 Date: 2022-10-03

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