

OCuLink connector J1 G14A421211112HR VACT_RX_3V3 VACT_TX_3V3 VACT_TX_3V3 **→**12C0{12C} I2CO.SCL I2CO.SDA SCL A9 SDA A10 850hm-diff_PCle -DPClerefo{PCleref} R46 OR PCIEREFO.CK+ R47 OR PCIEREFO.CK-PCIeREFO_R.CK+ PCIeREFO_R.CK-PERST 412 PERSTC R50 OR OPERST CPRSNT A13 CPRSNTC R51 OR OPERST CWAKE B10 WAKEC R52 OR OWAKE →PClex4{PCle} PCIex4.RX0+ PCIex4.RX0-PETO+ PETO-PClex4.RX1+ PCIex4.RX1-PET1-PCIe_x4.RX2+ PCIex4.RX2-PET2-PCIe_x4.RX3+ PCIe_x4.RX3-PET3+ PET3-PCIex4.TX0+ PER0+ PCIex4.TX0-PERO-PCle_x4.TX1+ PCle_x4.TX1-PER1+ PER1-PCIe_x4.TX2+ PCIe_x4.TX2-PER2+ PER2-PCIex4.TX3+ PCIex4.TX3-PER3+ A18 PER3- A19 GND TX/RX swapped because we need host-like naming to connect to host side of PCIe x16 connector PCIex4.RX0+ PCIex4.RX0-PCIex4.RX1+ PCIex4.RX1-PCIex4.TX0+ PCIex4.TX0-PCIex4.TX1+ PCIex4.TX1-WAKEC PCIeREFO_R.CK+ 4 PCIeREFO_R.CK- 5 D12 ESD204DQAR D14 ESD204DQAR D5 ESD204DQAR GND PCle_{x4},RX2+ 1 PCle_{x4},RX2- 2 PCle_{x4},RX3+ 4 PCle_{x4},RX3- 5 PCIex4.TX2+ 1 PCIex4.TX2- 2 PCIex4.TX3+ 4 PCIex4.TX3- 5 D13 ESD204DQAR D15 ESD204DQAR GND www.antmicro.com Antmicro Ltd Sheet: /OCuLink/ File: oculink.kicad_sch Title: OCuLink to PCIe adapter Size: A3 Date: 2025-06-18 KiCad E.D.A. 9.0.2

PCIe x16 connector PCle_x4{PCle}♦ +3/3 +12V +12V J2B 10146070-113Y0LF 10146070-113Y0LF SZSMF4L12AT3G GND +3V3 I2C0{I2C}**◇**— BA B4 B5 B5 B5 B6 B6 B6 B7 B7 B8 B8 B9 B9 B9 B10 B10 B11 B11 B12 B12 B13 B13 B14 B14 B15 B15 B16 B16 B17 B17 B18 B18 B19 B19 B10 B20 B21 B21 B22 B22 B23 B23 B24 B24 B25 B25 B26 B26 B27 B27 B28 B28 B29 B29 B30 B30 B31 B31 B32 B32 B33 B33 B34 B34 B35 B35 B36 B36 B37 B37 B38 B38 B39 B39 B40 B40 B41 B41 I2CO.SCL I2CO.SDA ± C37 PClerefo{PCleref} PCIeREFO.CK+ PCIeREFO.CK-PCIex4.TX0+ PCIex4.TX0-PCIex4.RX0+ PCIex4.TX1+ PCIex4.TX1-PCIe_x4.RX1+ PCIe_x4.RX1-PCIex4.TX2+ PCIex4.TX2-PClex4.RX2+ PCIex4.RX2-PCIex4.TX3+ PCIex4.TX3-PCIex4.RX3+ PCIex4.RX3www.antmicro.com Antmicro Ltd Sheet: /PCle-connector/ File: pcie-connector.kicad_sch Title: OCuLink to PCIe adapter Size: A3 KiCad E.D.A. 9.0.2 Date: 2025-06-18

+3V3 DC/DC converter Power supply ORing Ideal-diode-0 U1 TPS56C230RJER C1 100n +12V BST 1 3V3_BST | L1 1u8/6.8A File: ideal-diode.kicad_sch 3V3_EN + C29 + C30 150u + 150u C2 C15 C4 22u 22u 22u 25V 25V 25V PWR PWR_FLAG Ideal-diode-1 3413.0326.11 VCC_DC_CONN_1D VOUTE File: ideal-diode.kicad_sch → PWR_FLAG GND GND GND GND 10.0V UVLO (VENH = 1.3V) F2 70 3413.0326.11 VCC_DC_CONN_2D == D8 SZSMF4L12AT3G File: ideal-diode.kicad_sch PERST and CPRSNT control Power indicator LEDs and testpoints R15 TP8 C12 100n GND 74AUP2G132 D PERST R7 100k GND PERST_CONN R41 www.antmicro.com

Powers need to be OK and host needs to want device out of reset for $\overline{\text{PERST}}$ to be deasserted

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Sheet: /Power/
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