

**FPGA - CONFIGURATION - BANK 0 / BANK 14****20150112 PG 27**

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|      |                   |                       |
|------|-------------------|-----------------------|
| AF35 | FPGA_TCK          | TCK_0                 |
| AF34 | FPGA_TMS          | TMS_0                 |
| AG34 | FPGA_TDO          | TDO_0                 |
| AG35 | FPGA_TDI          | TDI_0                 |
| AE10 | FPGA_PROG         | PROGRAM_B_0           |
| AE11 | FPGA_DONE         | DONE_0                |
| AE34 | SCK - FLASH       | CCLK_0                |
| BC27 | SI/IO0 - FLASH    | IO_L1P_T0_D00_MOSI_14 |
| BD27 | SO/IO1 - FLASH    | IO_L2P_T0_D02_14      |
| BD29 | WP#/IO2 - FLASH   | IO_L2N_T0_D03_14      |
| BD30 | HOLD#/IO3 - FLASH | IO_L2N_T0_D03_14      |
| BA29 | FLASH_CS#         | IO_L6P_T0_FCS_B_14    |

**FPGA - GENERAL PURPOSE I/O - BANK 14**

|      |            |                   |   |                              |
|------|------------|-------------------|---|------------------------------|
| AY31 | OUTPUT     | FPGA_CLK_SYNCn    | SYNC CDCM6208 clock outputs (not really needed) | IO_L9P_T1_DQS_14             |
| BA31 | OUTPUT     | FPGA_CLK_RSTn     | Reset CDCM6208 clock chip                       | IO_L9NT1_DQS_D13_14          |
| AY28 | OUTPUT     | FPGA_CLKSEL       | Switch between local oscillator and ATLAS clock | IO_L10P_T1_D14_14            |
| AV29 | OPEN DRAIN | FPGA_SCL0         | I2C clock line, from IPMC Sensor 0              | IO_L14N_T2_SRCC_14           |
| AN27 | OPEN DRAIN | FPGA_SDA0         | I2C data line                                   | IO_L15P_T2_DQS_RDWR_B_14     |
| AP27 | OPEN DRAIN | FPGA_SCL1         | I2C clock line, to Clock Synthesizer            | IO_L15N_T2_DQS_DOUT_CSO_B_14 |
| AT28 | OPEN DRAIN | FPGA_SDA1         | I2C data line                                   | IO_L16P_T2_CSI_B_14          |
| AP29 | INPUT      | FPGA_IPMC_PGOOD_A | Power Good                                      | IO_L17P_T2_A14_D30_14        |
| AP30 | INPUT      | FPGA_IPMC_PGOOD_B |   | IO_L17N_T2_A13_D29_14        |
| AR28 | INPUT      | FPGA_IPMC_ALARM_B |   | IO_L18P_T2_A12_D28_14        |
| AK28 | INPUT      | CLK_STATUS0       | Status bit from CDCM6208 clock chip             | IO_L21N_T3_DQS_A06_D22_14    |
| AM27 | INPUT      | CLK_STATUS1       | Status bit from CDCM6208 clock chip             | IO_L22P_T3_A05_D21_14        |

## FPGA - AMC2 LVDS - BANK 14

## PG 27

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|      |                |                       |
|------|----------------|-----------------------|
| AV27 | AMC2_LVDS_TX1P | IO_L12P_T1_MRCC_14    |
| AV28 | AMC2_LVDS_TX1N | IO_L12N_T1_MRCC_14    |
| AU30 | AMC2_LVDS_RX1P | IO_L13P_T2_MRCC_14    |
| AV30 | AMC2_LVDS_RX1N | IO_L13N_T2_MRCC_14    |
| BB30 | AMC2_LVDS_TX2P | IO_L4P_T0_D04_14      |
| BC30 | AMC2_LVDS_TX2N | IO_L4N_T0_D05_14      |
| BC28 | AMC2_LVDS_RX2P | IO_L5P_T0_D06_14      |
| BC29 | AMC2_LVDS_RX2N | IO_L5N_T0_D07_14      |
| AW29 | AMC2_LVDS_TX3P | IO_L7P_T1_D09_14      |
| AY29 | AMC2_LVDS_TX3N | IO_L7N_T1_D10_14      |
| AW27 | AMC2_LVDS_RX3P | IO_L8P_T1_D11_14      |
| AY27 | AMC2_LVDS_RX3N | IO_L8N_T1_D12_14      |
| AJ29 | AMC2_LVDS_TX4P | IO_L23P_T3_A03_D19_14 |
| AK29 | AMC2_LVDS_TX4N | IO_L23N_T3_A02_D18_14 |
| AL28 | AMC2_LVDS_RX4P | IO_L24P_T3_A01_D17_14 |
| AL29 | AMC2_LVDS_RX4N | IO_L24N_T3_A00_D16_14 |

## FPGA - AMC1 XAUI PORTS - BANK 114

## PG 36

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|     |                |                  |
|-----|----------------|------------------|
| AF4 | AMC1_XAUI_TX0P | MGTXTXP0_114_AF4 |
| AF3 | AMC1_XAUI_TX0N | MGTXTXN0_114_AF3 |
| AD8 | AMC1_XAUI_RX0P | MGTXRXPO_114_AD8 |
| AD7 | AMC1_XAUI_RX0N | MGTXRXNO_114_AD7 |
| AE2 | AMC1_XAUI_TX1P | MGTXTXP1_114_AE2 |
| AE1 | AMC1_XAUI_TX1N | MGTXTXN1_114_AE1 |
| AC6 | AMC1_XAUI_RX1P | MGTXRX1P_114_AC6 |
| AC5 | AMC1_XAUI_RX1N | MGTXRXN1_114_AC5 |
| AD4 | AMC1_XAUI_TX2P | MGTXTXP2_114_AD4 |
| AD3 | AMC1_XAUI_TX2N | MGTXTXN2_114_AD3 |
| AA6 | AMC1_XAUI_RX2P | MGTXRX2P_114_AA6 |
| AA5 | AMC1_XAUI_RX2N | MGTXRXN2_114_AA5 |
| AC2 | AMC1_XAUI_TX3P | MGTXTXP3_114_AC2 |
| AC1 | AMC1_XAUI_TX3N | MGTXTXN3_114_AC1 |
| Y8  | AMC1_XAUI_RX3P | MGTXRX3P_114_Y8  |
| Y7  | AMC1_XAUI_RX3N | MGTXRXN3_114_Y7  |

## FPGA - AMC2 XAUI PORTS - BANK 115

## PG 36

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|     |                 |                     |
|-----|-----------------|---------------------|
| AB4 | AMC2_XAUI_TX0P  | MGTXTXP0_115_AB4    |
| AB3 | AMC2_XAUI_TX0N  | MGTXTXN0_115_AB3    |
| W6  | AMC2_XAUI_RX0P  | MGTXRXPO_115_W6     |
| W5  | AMC2_XAUI_RX0N  | MGTXRXNO_115_W5     |
| AA2 | AMC2_XAUI_TX1P  | MGTXTXP1_115_AA2    |
| AA1 | AMC2_XAUI_TX1N  | MGTXTXN1_115_AA1    |
| V8  | AMC2_XAUI_RX1P  | MGTXRX1P_115_V8     |
| V7  | AMC2_XAUI_RX1N  | MGTXRXN1_115_V7     |
| Y4  | AMC2_XAUI_TX2P  | MGTXTXP2_115_Y4     |
| Y3  | AMC2_XAUI_TX2N  | MGTXTXN2_115_Y3     |
| U6  | AMC2_XAUI_RX2P  | MGTXRX2P_115_U6     |
| U5  | AMC2_XAUI_RX2N  | MGTXRXN2_115_U5     |
| W2  | AMC2_XAUI_TX3P  | MGTXTXP3_115_W2     |
| W1  | AMC2_XAUI_TX3N  | MGTXTXN3_115_W1     |
| T8  | AMC2_XAUI_RX3P  | MGTXRX3P_115_T8     |
| T7  | AMC2_XAUI_RX3N  | MGTXRXN3_115_T7     |
| U10 | BK115_XAUI_CLK+ | MGTREFCLK0P_115_U10 |
| U9  | BK115_XAUI_CLK- | MGTREFCLK0N_115_U9  |

## FPGA - AMC3 XAUI PORTS - BANK 116

PG 37

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|    |                |                 |
|----|----------------|-----------------|
| V4 | AMC3_XAUI_TX0P | MGTXTXP0_116_V4 |
| V3 | AMC3_XAUI_TX0N | MGTXTXN0_116_V3 |
| R6 | AMC3_XAUI_RX0P | MGTXRXPO_116_R6 |
| R5 | AMC3_XAUI_RX0N | MGTXRXNO_116_R5 |
| U2 | AMC3_XAUI_TX1P | MGTXTXP1_116_U2 |
| U1 | AMC3_XAUI_TX1N | MGTXTXN1_116_U1 |
| P8 | AMC3_XAUI_RX1P | MGTXRX1P_116_P8 |
| P7 | AMC3_XAUI_RX1N | MGTXRXN1_116_P7 |
| T4 | AMC3_XAUI_TX2P | MGTXTXP2_116_T4 |
| T3 | AMC3_XAUI_TX2N | MGTXTXN2_116_T3 |
| N6 | AMC3_XAUI_RX2P | MGTXRX2P_116_N6 |
| N5 | AMC3_XAUI_RX2N | MGTXRXN2_116_N5 |
| R2 | AMC3_XAUI_TX3P | MGTXTXP3_116_R2 |
| R1 | AMC3_XAUI_TX3N | MGTXTXN3_116_R1 |
| M8 | AMC3_XAUI_RX3P | MGTXRX3P_116_M8 |
| M7 | AMC3_XAUI_RX3N | MGTXRXN3_116_M7 |

## FPGA - AMC4 XAUI PORTS - BANK 117

PG 37

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|    |                |                 |
|----|----------------|-----------------|
| P4 | AMC4_XAUI_TX0P | MGTXTXP0_117_P4 |
| P3 | AMC4_XAUI_TX0N | MGTXTXN0_117_P3 |
| L6 | AMC4_XAUI_RX0P | MGTXRXPO_117_L6 |
| L5 | AMC4_XAUI_RX0N | MGTXRXNO_117_L5 |
| N2 | AMC4_XAUI_TX1P | MGTXTXP1_117_N2 |
| N1 | AMC4_XAUI_TX1N | MGTXTXN1_117_N1 |
| K8 | AMC4_XAUI_RX1P | MGTXRX1P_117_K8 |
| K7 | AMC4_XAUI_RX1N | MGTXRXN1_117_K7 |
| M4 | AMC4_XAUI_TX2P | MGTXTXP2_117_M4 |
| M3 | AMC4_XAUI_TX2N | MGTXTXN2_117_M3 |
| J6 | AMC4_XAUI_RX2P | MGTXRX2P_117_J6 |
| J5 | AMC4_XAUI_RX2N | MGTXRXN2_117_J5 |
| L2 | AMC4_XAUI_TX3P | MGTXTXP3_117_L2 |
| L1 | AMC4_XAUI_TX3N | MGTXTXN3_117_L1 |
| H8 | AMC4_XAUI_RX3P | MGTXRX3P_117_H8 |
| H7 | AMC4_XAUI_RX3N | MGTXRXN3_117_H7 |

## FPGA - XAUI FABRIC CHANNEL 1 - BANK 118

## PG 37

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|     |                    |                     |
|-----|--------------------|---------------------|
| K4  | Z2_BK118_XAUI_TX0P | MGTXTXP0_118_K4     |
| K3  | Z2_BK118_XAUI_TX0N | MGTXTXN0_118_K3     |
| G6  | Z2_BK118_XAUI_RX0P | MGTXRXPO_118_G6     |
| G5  | Z2_BK118_XAUI_RX0N | MGTXRXNO_118_G5     |
| J2  | Z2_BK118_XAUI_TX1P | MGTXTXP1_118_J2     |
| J1  | Z2_BK118_XAUI_TX1N | MGTXTXN1_118_J1     |
| F8  | Z2_BK118_XAUI_RX1P | MGTXRX1P_118_F8     |
| F7  | Z2_BK118_XAUI_RX1N | MGTXRX1N_118_F7     |
| H4  | Z2_BK118_XAUI_TX2P | MGTXTXP2_118_H4     |
| H3  | Z2_BK118_XAUI_TX2N | MGTXTXN2_118_H3     |
| E6  | Z2_BK118_XAUI_RX2P | MGTXRX2P_118_E6     |
| E5  | Z2_BK118_XAUI_RX2N | MGTXRX2N_118_E5     |
| G2  | Z2_BK118_XAUI_TX3P | MGTXTXP3_118_G2     |
| G1  | Z2_BK118_XAUI_TX3N | MGTXTXN3_118_G1     |
| D8  | Z2_BK118_XAUI_RX3P | MGTXRX3P_118_D8     |
| D7  | Z2_BK118_XAUI_RX3N | MGTXRX3N_118_D7     |
| E10 | BK118_XAUI_CLK+    | MGTREFCLKOP_118_E10 |
| E9  | BK118_XAUI_CLK-    | MGTREFCLKON_118_E9  |



## FPGA - XAUI FABRIC CHANNEL 2 - BANK 119

PG 37

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|    |                    |                 |
|----|--------------------|-----------------|
| F4 | Z2_BK119_XAUI_TX0P | MGTXTXP0_119_F4 |
| F3 | Z2_BK119_XAUI_TX0N | MGTXTXN0_119_F3 |
| D4 | Z2_BK119_XAUI_RX0P | MGTXRXPO_119_D4 |
| D3 | Z2_BK119_XAUI_RX0N | MGTXRXNO_119_D3 |
| E2 | Z2_BK119_XAUI_TX1P | MGTXTXP1_119_E2 |
| E1 | Z2_BK119_XAUI_TX1N | MGTXTXN1_119_E1 |
| C6 | Z2_BK119_XAUI_RX1P | MGTXRX1P_119_C6 |
| C5 | Z2_BK119_XAUI_RX1N | MGTXRXN1_119_C5 |
| C2 | Z2_BK119_XAUI_TX2P | MGTXTXP2_119_C2 |
| C1 | Z2_BK119_XAUI_TX2N | MGTXTXN2_119_C1 |
| B8 | Z2_BK119_XAUI_RX2P | MGTXRX2P_119_B8 |
| B7 | Z2_BK119_XAUI_RX2N | MGTXRXN2_119_B7 |
| B4 | Z2_BK119_XAUI_TX3P | MGTXTXP3_119_B4 |
| B3 | Z2_BK119_XAUI_TX3N | MGTXTXN3_119_B3 |
| A6 | Z2_BK119_XAUI_RX3P | MGTXRX3P_119_A6 |
| A5 | Z2_BK119_XAUI_RX3N | MGTXRXN3_119_A5 |

## FPGA - GBT ZONE 3 - BANK 213

## PG 38

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|      |                   |                   |
|------|-------------------|-------------------|
| AK41 | Z3_BK213_GBT_TX0P | MGTXTXP0_213_AK41 |
| AK42 | Z3_BK213_GBT_TX0N | MGTXTXN0_213_AK42 |
| AK37 | Z3_BK213_GBT_RX0P | MGTXRXPO_213_AK37 |
| AK38 | Z3_BK213_GBT_RX0N | MGTXRXNO_213_AK38 |
| AJ43 | Z3_BK213_GBT_TX1P | MGTXTXP1_213_AJ43 |
| AJ44 | Z3_BK213_GBT_TX1N | MGTXTXN1_213_AJ44 |
| AJ39 | Z3_BK213_GBT_RX1P | MGTXRX1P_213_AJ39 |
| AJ40 | Z3_BK213_GBT_RX1N | MGTXRXN1_213_AJ40 |
| AH41 | Z3_BK213_GBT_TX2P | MGTXTXP2_213_AH41 |
| AH42 | Z3_BK213_GBT_TX2N | MGTXTXN2_213_AH42 |
| AG39 | Z3_BK213_GBT_RX2P | MGTXRX2P_213_AG39 |
| AG40 | Z3_BK213_GBT_RX2N | MGTXRXN2_213_AG40 |
| AG43 | Z3_BK213_GBT_TX3P | MGTXTXP3_213_AG43 |
| AG44 | Z3_BK213_GBT_TX3N | MGTXTXN3_213_AG44 |
| AE39 | Z3_BK213_GBT_RX3P | MGTXRX3P_213_AE39 |
| AE40 | Z3_BK213_GBT_RX3N | MGTXRXN3_213_AE40 |

## FPGA - GBT AMC1 &amp; ZONE 3 - BANK 214

## PG 38

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|      |                    |                      |
|------|--------------------|----------------------|
| AF41 | Z3_BK213_GBT_TX0P  | MGTXTXP0_214_AF41    |
| AF42 | Z3_BK213_GBT_TX0N  | MGTXTXN0_214_AF42    |
| AD37 | Z3_BK213_GBT_RX0P  | MGTXRXPO_214_AD37    |
| AD38 | Z3_BK213_GBT_RX0N  | MGTXRXNO_214_AD38    |
| AE43 | Z3_BK213_GBT_TX1P  | MGTXTXP1_214_AE43    |
| AE44 | Z3_BK213_GBT_TX1N  | MGTXTXN1_214_AE44    |
| AC39 | Z3_BK213_GBT_RX1P  | MGTXRX1P_214_AC39    |
| AC40 | Z3_BK213_GBT_RX1N  | MGTXRXN1_214_AC40    |
| AD41 | Z3_BK213_GBT_TX2P  | MGTXTXP2_214_AD41    |
| AD42 | Z3_BK213_GBT_TX2N  | MGTXTXN2_214_AD42    |
| AA39 | Z3_BK213_GBT_RX2P  | MGTXRX2P_214_AA39    |
| AA40 | Z3_BK213_GBT_RX2N  | MGTXRXN2_214_AA40    |
| AC43 | Z3_BK213_GBT_TX3P  | MGTXTXP3_214_AC43    |
| AC44 | Z3_BK213_GBT_TX3N  | MGTXTXN3_214_AC44    |
| Y37  | Z3_BK213_GBT_RX3P  | MGTXRX3P_214_Y37     |
| Y38  | Z3_BK213_GBT_RX3N  | MGTXRXN3_214_Y38     |
| AA35 | GBT_REFCLK0_BK214+ | MGTREFCLK0P_214_AA35 |
| AA36 | GBT_REFCLK0_BK214- | MGTREFCLK0N_214_AA36 |
| AB37 | GBT_REFCLK1_BK214+ | MGTREFCLK1P_214_AB37 |
| AB38 | GBT_REFCLK1_BK214- | MGTREFCLK1N_214_AB38 |

## FPGA - GBT AMC2 &amp; ZONE 3 - BANK 215

PG 38

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|      |                  |                   |
|------|------------------|-------------------|
| AB41 | Z3_AMC2_GBT_TX0P | MGTXTXP0_215_AB41 |
| AB42 | Z3_AMC2_GBT_TX0N | MGTXTXN0_215_AB42 |
| W39  | Z3_AMC2_GBT_RX0P | MGTXRXPO_215_W39  |
| W40  | Z3_AMC2_GBT_RX0N | MGTXRXNO_215_W40  |
| AA43 | AMC2_GBT_TX1P    | MGTXTXP1_215_AA43 |
| AA44 | AMC2_GBT_TX1N    | MGTXTXN1_215_AA44 |
| V37  | AMC2_GBT_RX1P    | MGTXRX1P_215_V37  |
| V38  | AMC2_GBT_RX1N    | MGTXRXN1_215_V38  |
| Y41  | AMC2_GBT_TX2P    | MGTXTXP2_215_Y41  |
| Y42  | AMC2_GBT_TX2N    | MGTXTXN2_215_Y42  |
| U39  | AMC2_GBT_RX2P    | MGTXRX2P_215_U39  |
| U40  | AMC2_GBT_RX2N    | MGTXRXN2_215_U40  |
| W43  | AMC2_GBT_TX3P    | MGTXTXP3_215_W43  |
| W44  | AMC2_GBT_TX3N    | MGTXTXN3_215_W44  |
| T37  | AMC2_GBT_RX3P    | MGTXRX3P_215_T37  |
| T38  | AMC2_GBT_RX3N    | MGTXRXN3_215_T38  |

## FPGA - GBT AMC3 &amp; ZONE 3 - BANK 216

## PG 39

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|     |                  |                  |
|-----|------------------|------------------|
| V41 | Z3_AMC3_GBT_TX0P | MGTXTXP0_216_V41 |
| V42 | Z3_AMC3_GBT_TX0N | MGTXTXN0_216_V42 |
| R39 | Z3_AMC3_GBT_RX0P | MGTXRXPO_216_R39 |
| R40 | Z3_AMC3_GBT_RX0N | MGTXRXNO_216_R40 |
| U43 | AMC3_GBT_TX1P    | MGTXTXP1_216_U43 |
| U44 | AMC3_GBT_TX1N    | MGTXTXN1_216_U44 |
| P37 | AMC3_GBT_RX1P    | MGTXRX1P_216_P37 |
| P38 | AMC3_GBT_RX1N    | MGTXRXN1_216_P38 |
| T41 | AMC3_GBT_TX2P    | MGTXTXP2_216_T41 |
| T42 | AMC3_GBT_TX2N    | MGTXTXN2_216_T42 |
| N39 | AMC3_GBT_RX2P    | MGTXRX2P_216_N39 |
| N40 | AMC3_GBT_RX2N    | MGTXRXN2_216_N40 |
| R43 | AMC3_GBT_TX3P    | MGTXTXP3_216_R43 |
| R44 | AMC3_GBT_TX3N    | MGTXTXN3_216_R44 |
| M37 | AMC3_GBT_RX3P    | MGTXRX3P_216_M37 |
| M38 | AMC3_GBT_RX3N    | MGTXRXN3_216_M38 |

## FPGA - GBT AMC4 &amp; ZONE 3 - BANK 217

## PG 39

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|     |                    |                     |
|-----|--------------------|---------------------|
| P41 | Z3_AMC4_GBT_TX0P   | MGTXTXP0_217_P41    |
| P42 | Z3_AMC4_GBT_TX0N   | MGTXTXN0_217_P42    |
| L39 | Z3_AMC4_GBT_RX0P   | MGTXRXPO_217_L39    |
| L40 | Z3_AMC4_GBT_RX0N   | MGTXRXNO_217_L40    |
| N43 | AMC4_GBT_TX1P      | MGTXTXP1_217_N43    |
| N44 | AMC4_GBT_TX1N      | MGTXTXN1_217_N44    |
| K37 | AMC4_GBT_RX1P      | MGTXRX1P_217_K37    |
| K38 | AMC4_GBT_RX1N      | MGTXRXN1_217_K38    |
| M41 | AMC4_GBT_TX2P      | MGTXTXP2_217_M41    |
| M42 | AMC4_GBT_TX2N      | MGTXTXN2_217_M42    |
| J39 | AMC4_GBT_RX2P      | MGTXRX2P_217_J39    |
| J40 | AMC4_GBT_RX2N      | MGTXRXN2_217_J40    |
| L43 | AMC4_GBT_TX3P      | MGTXTXP3_217_L43    |
| L44 | AMC4_GBT_TX3N      | MGTXTXN3_217_L44    |
| H37 | AMC4_GBT_RX3P      | MGTXRX3P_217_H37    |
| H38 | AMC4_GBT_RX3N      | MGTXRXN3_217_H38    |
| J35 | GBT_REFCLK0_BK217+ | MGTREFCLK0P_217_J35 |
| J36 | GBT_REFCLK0_BK217- | MGTREFCLK0N_217_J36 |
| L35 | GBT_REFCLK1_BK217+ | MGTREFCLK1P_217_L35 |
| L36 | GBT_REFCLK1_BK217- | MGTREFCLK1N_217_L36 |

## FPGA - GbE AMC1 - 4 - BANK 218

## PG 39

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|     |                   |                     |
|-----|-------------------|---------------------|
| K41 | AMC1_GbE_TX0P     | MGTXTXP0_218_K41    |
| K42 | AMC1_GbE_TX0N     | MGTXTXN0_218_K42    |
| G39 | AMC1_GbE_RX0P     | MGTXRXPO_218_G39    |
| G40 | AMC1_GbE_RX0N     | MGTXRXNO_218_G40    |
|     |                   |                     |
| J43 | AMC2_GbE_TX0P     | MGTXTXP1_218_J43    |
| J44 | AMC2_GbE_TX0N     | MGTXTXN1_218_J44    |
| F37 | AMC2_GbE_RX0P     | MGTXRX1_218_F37     |
| F38 | AMC2_GbE_RX0N     | MGTXRXN1_218_F38    |
|     |                   |                     |
| H41 | AMC3_GbE_TX0P     | MGTXTXP2_218_H41    |
| H42 | AMC3_GbE_TX0N     | MGTXTXN2_218_H42    |
| E39 | AMC3_GbE_RX0P     | MGTXRX2_218_E39     |
| E40 | AMC3_GbE_RX0N     | MGTXRXN2_218_E40    |
|     |                   |                     |
| G43 | AMC4_GbE_TX0P     | MGTXTXP3_218_G43    |
| G44 | AMC4_GbE_TX0N     | MGTXTXN3_218_G44    |
| D37 | AMC4_GbE_RX0P     | MGTXRX3_218_D37     |
| D38 | AMC4_GbE_RX0N     | MGTXRXN3_218_D38    |
|     |                   |                     |
| E35 | GbE_REFCLK_BK218+ | MGTREFCLKOP_218_E35 |
| E36 | GbE_REFCLK_BK218- | MGTREFCLKON_218_E36 |

## FPGA - GbE TO IPMC &amp; ZONE 2 &amp; 3 - BANK 219

## PG 39

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|     |                     |                  |
|-----|---------------------|------------------|
| F41 | FPGA_BK219_GbE_TX0P | MGTXTXP0_219_F41 |
| F42 | FPGA_BK219_GbE_TX0N | MGTXTXN0_219_F42 |
| D41 | FPGA_BK219_GbE_RX0P | MGTXRXPO_219_D41 |
| D42 | FPGA_BK219_GbE_RX0N | MGTXRXNO_219_D42 |
| E43 | Z2_BK219_GbE_TX1P   | MGTXTXP1_219_E43 |
| E44 | Z2_BK219_GbE_TX1N   | MGTXTXN1_219_E44 |
| C39 | Z2_BK219_GbE_RX1P   | MGTXRX1P_219_C39 |
| C40 | Z2_BK219_GbE_RX1N   | MGTXRXN1_219_C40 |
| C43 | Z2_BK219_GbE_TX2P   | MGTXTXP2_219_C43 |
| C44 | Z2_BK219_GbE_TX2N   | MGTXTXN2_219_C44 |
| B37 | Z2_BK219_GbE_RX2P   | MGTXRX2P_219_B37 |
| B38 | Z2_BK219_GbE_RX2N   | MGTXRXN2_219_B38 |
| B41 | Z3_BK219_GbE_TX3P   | MGTXTXP3_219_B41 |
| B42 | Z3_BK219_GbE_TX3N   | MGTXTXN3_219_B42 |
| A39 | Z3_BK219_GbE_RX3P   | MGTXRX3P_219_A39 |
| A40 | Z3_BK219_GbE_RX3N   | MGTXRXN3_219_A40 |



**DDR3 MEMORY INTERFACE - BANK 34****PG 40**

|      |           |                    |
|------|-----------|--------------------|
| BA18 | DDRdm0    | IO_L1P_T0-34       |
| BB18 | DDRdata0  | IO_L1N_T0_34       |
| BC19 | DDRdata1  | IO_L2P_T0_34       |
| BC18 | DDRdata2  | IO_L2N_T0_34       |
| BB17 | DDRdqs0   | IO_L3P_T0_DQS_34   |
| BC17 | DDRdqs0n  | IO_L3N_T0_DQS_34   |
| BD17 | DDRdata3  | IO_L4P_T0_34       |
| BD16 | DDRdata4  | IO_L4N_T0_34       |
| BC15 | DDRdata5  | IO_L5P_T0_34       |
| BD15 | DDRdata6  | IO_L5N_T0_34       |
| BB16 | DDRdata7  | IO_L6P_T0_34       |
| AW17 | DDRdm1    | IO_L7P_T1_34       |
| AY16 | DDRdata8  | IO_L7N_T1_34       |
| AY18 | DDRdata9  | IO_L8P_T1_34       |
| AY17 | DDRdata10 | IO_L8N_T1_34       |
| AW16 | DDRdqs1   | IO_L9P_T1_DQS_34   |
| AW15 | DDRdqs1n  | IO_L9N_T1_DQS_34   |
| BA16 | DDRdata11 | IO_L10P_T1_34      |
| BA15 | DDRdata12 | IO_L10N_T1_34      |
| AV18 | DDRdata13 | IO_L11P_T1_SRCC_34 |
| AV17 | DDRdata14 | IO_L11N_T1_SRCC_34 |
| AU15 | DDRdata15 | IO_L12P_T1_MRCC_34 |

**DDR3 MEMORY INTERFACE - BANK 35****PG 41**

|      |         |                       |
|------|---------|-----------------------|
| BB22 | DDRad13 | IO_L1P_T0_AD4P_35     |
| BB21 | DDRad12 | IO_L1N_T0_AD4N_35     |
| BC22 | DDRad11 | IO_L2P_T0_AD12P_35    |
| BD22 | DDRad10 | IO_L2P_T0_AD12N_35    |
| BC20 | DDRCLKp | IO_L3P_T0_DQS_AD5P_35 |
| BD19 | DDRCLKn | IO_L3N_T0_DQS_AD5N_35 |
| BD21 | DDRad9  | IO_L4P_T0_35          |
| BD20 | DDRad8  | IO_L4N_T0_35          |
| BA21 | DDRad7  | IO_L5P_T0_AD13P_35    |
| BB20 | DDRad6  | IO_L5N_T0_AD13N_35    |
| BA20 | DDRad5  | IO_L6P_T0_35          |
| BA19 | DDRad4  | IO_L6N_T0_VREF_35     |
| AW22 | DDRad3  | IO_L7P_T1_AD6P_35     |
| AY22 | DDRad2  | IO_L7N_T1_AD6N_35     |
| AV20 | DDRad1  | IO_L8P_T1_AD14P_35    |
| AW20 | DDRad0  | IO_L8N_T1_AD14N_35    |
| AW21 | DDRba2  | IO_L9P_T1_DQS_AD7P_35 |
| AY21 | DDRba1  | IO_L9N_T1_DQS_AD7N_35 |
| AW19 | DDRba0  | IO_L10P_T1_AD15P_35   |
| AY19 | DDRrasn | IO_L10N_T1_AD15N_35   |
| AU22 | DDRcasn | IO_L11P_T1_SRCC_35    |
| AV22 | DDRwen  | IO_L11N_T1_SRCC_35    |
| AU20 | DDRcsn  | IO_L12P_T1_MRCC_35    |
| AT21 | SYSCLKp | IO_L13P_T2_MRCC_35    |
| AU21 | SYSCLKn | IO_L13N_T2_MRCC_35    |
| AP21 | DDRcke  | IO_L15P_T2_DQS_35     |
| AP20 | DDRodt  | IO_L15N_T2_DQS_35     |

**DDR3 MEMORY INTERFACE - BANK 36****PG 42**

|      |           |                    |
|------|-----------|--------------------|
| AV14 | DDRdata24 | IO_L13P_T2_MRCC_36 |
| AW14 | DDRdata25 | IO_L13N_T2_MRCC_36 |
| AW11 | DDRdata26 | IO_L14P_T2_SRCC_36 |
| AW10 | DDRdata27 | IO_L14N_T2_SRCC_36 |
| AY13 | DDRdqs3   | IO_L15P_T2_DQS_36  |
| BA13 | DDRdqs3n  | IO_L15N_T2_DQS_36  |
| AY12 | DDRdm3    | IO_L16P_T2_36      |
| AY11 | DDRdata28 | IO_L16N_T2_36      |
| BA11 | DDRdata29 | IO_L17P_T2_36      |
| BA10 | DDRdata30 | IO_L17N_T2_36      |
| AY14 | DDRdata31 | IO_L18P_T2_36      |
| BA14 | DDRrstn   | IO_L18N_T2_36      |
| BB11 | DDRdm2    | IO_L19P_T3_36      |
| BB12 | DDRdata16 | IO_L20P_T3_36      |
| BC12 | DDRdata17 | IO_L20N_T3_36      |
| BD12 | DDRdqs2   | IO_L21P_T3_DQS_36  |
| BD11 | DDRdqs2n  | IO_L21N_T3_DQS_36  |
| BB13 | DDRdata18 | IO_L22P_T3_36      |
| BC13 | DDRdata19 | IO_L22N_T3_36      |
| BC14 | DDRdata20 | IO_L23P_T3_36      |
| BD14 | DDRdata21 | IO_L23N_T3_36      |
| BC10 | DDRdata22 | IO_L24P_T3_36      |
| BD10 | DDRdata23 | IO_L24N_T3_36      |

**FPGA - GPIO - BANK 15****PG 43**

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|      |                |                            |
|------|----------------|----------------------------|
| BA24 | GPIO_LED_0_LS  | IO_L6P_T0_15_BA24          |
| BA25 | GPIO_LED_1_LS  | IO_L6N_T0_VREF_15_BA25     |
| BA26 | GPIO_LED_2_LS  | IO_L5P_T0_AD9P_15_BA26     |
| BB26 | GPIO_LED_3_LS  | IO_L5N_T0_AD9N_15_BB26     |
| BB25 | GPIO_LED_4_LS  | IO_L3P_T0_DQS_AD1P_15_BB25 |
| AY23 | GPIO_LED_5_LS  | IO_L8P_T1_AD10P_15_AY23    |
| BA23 | GPIO_LED_6_LS  | IO_L8N_T1_AD10N_15_BA23    |
| AV23 | GPIO_LED_7_LS  | IO_L11P_T1_SRCC_15_AV23    |
| <br> |                |                            |
| AU25 | RECOVERED_CLKP | IO_L12P_T1_MRCC_15_AU25    |
| AU26 | RECOVERED_CLKN | IO_L12N_T1_MRCC_15_AU26    |

## FPGA - AMC1 LVDS - BANK 16

## PG 44

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|      |                |                         |
|------|----------------|-------------------------|
| AU33 | AMC1_LVDS_TX1P | IO_L12P_T1_MRCC_16_AU33 |
| AV33 | AMC1_LVDS_TX1N | IO_L12N_T1_MRCC_16_AV33 |
| AV32 | AMC1_LVDS_RX1P | IO_L13P_T2_MRCC_16_AV32 |
| AW32 | AMC1_LVDS_RX1N | IO_L13N_T2_MRCC_16_AW32 |
| AJ32 | AMC1_LVDS_TX2P | IO_L4P_T0_16_AJ32       |
| AK32 | AMC1_LVDS_TX2N | IO_L4N_T0_16_AK32       |
| AL30 | AMC1_LVDS_RX2P | IO_L5P_T0_16_AL30       |
| AM31 | AMC1_LVDS_RX2N | IO_L5N_T0_16_AM31       |
| AN32 | AMC1_LVDS_TX3P | IO_L7P_T1_16_AN32       |
| AN33 | AMC1_LVDS_TX3N | IO_L7N_T1_16_AN33       |
| AR33 | AMC1_LVDS_RX3P | IO_L8P_T1_16_AR33       |
| AT33 | AMC1_LVDS_RX3N | IO_L8N_T1_16_AT33       |
| BD31 | AMC1_LVDS_TX4P | IO_L23P_T3_16_BD31      |
| BD32 | AMC1_LVDS_TX4N | IO_L23N_T3_16_BD32      |
| BD34 | AMC1_LVDS_RX4P | IO_L24P_T3_16_BD34      |
| BD35 | AMC1_LVDS_RX4N | IO_L24N_T3_16_BD35      |

## FPGA - AMC4 LVDS - BANK 18

## PG 45

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|     |                |                        |
|-----|----------------|------------------------|
| H30 | AMC4_LVDS_TX1P | IO_L12P_T1_MRCC_18_H30 |
| G30 | AMC4_LVDS_TX1N | IO_L12N_T1_MRCC_18_G30 |
| H32 | AMC4_LVDS_RX1P | IO_L13P_T2_MRCC_18_H32 |
| H33 | AMC4_LVDS_RX1N | IO_L13N_T2_MRCC_18_H33 |
| C32 | AMC4_LVDS_TX2P | IO_L4P_T0_18_C32       |
| C33 | AMC4_LVDS_TX2N | IO_L4N_T0_18_C33       |
| B31 | AMC4_LVDS_RX2P | IO_L5P_T0_18_B31       |
| B32 | AMC4_LVDS_RX2N | IO_L5N_T0_18_B32       |
| E31 | AMC4_LVDS_TX3P | IO_L7P_T1_18_E31       |
| D32 | AMC4_LVDS_TX3N | IO_L7N_T1_18_D32       |
| E32 | AMC4_LVDS_RX3P | IO_L8P_T1_18_E32       |
| E33 | AMC4_LVDS_RX3N | IO_L8N_T1_18_E33       |
| U32 | AMC4_LVDS_TX4P | IO_L23P_T3_18_U32      |
| U33 | AMC4_LVDS_TX4N | IO_L23N_T3_18_U33      |
| T33 | AMC4_LVDS_RX4P | IO_L24P_T3_18_T33      |
| R33 | AMC4_LVDS_RX4N | IO_L24N_T3_18_R33      |

## FPGA - AMC3 LVDS - BANK 19

## PG 46

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|     |                |                        |
|-----|----------------|------------------------|
| H28 | AMC3_LVDS_TX1P | IO_L12P_T1_MRCC_19_H28 |
| H29 | AMC3_LVDS_TX1N | IO_L12N_T1_MRCC_19_H29 |
| K27 | AMC3_LVDS_RX1P | IO_L13P_T2_MRCC_19_K27 |
| J27 | AMC3_LVDS_RX1N | IO_L13N_T2_MRCC_19_J27 |
| C28 | AMC3_LVDS_TX2P | IO_L4P_T0_19_C28       |
| B28 | AMC3_LVDS_TX2N | IO_L4N_T0_19_B28       |
| B26 | AMC3_LVDS_RX2P | IO_L5P_T0_19_B26       |
| A26 | AMC3_LVDS_RX2N | IO_L5N_T0_19_A26       |
| G28 | AMC3_LVDS_TX3P | IO_L7P_T1_19_G28       |
| F28 | AMC3_LVDS_TX3N | IO_L7N_T1_19_F28       |
| F26 | AMC3_LVDS_RX3P | IO_L8P_T1_19_F26       |
| E26 | AMC3_LVDS_RX3N | IO_L8N_T1_19_E26       |
| R27 | AMC3_LVDS_TX4P | IO_L23P_T3_19_R27      |
| P27 | AMC3_LVDS_TX4N | IO_L23N_T3_19_P27      |
| U27 | AMC3_LVDS_RX4P | IO_L24P_T3_19_U27      |
| U28 | AMC3_LVDS_RX4N | IO_L24N_T3_19_U28      |