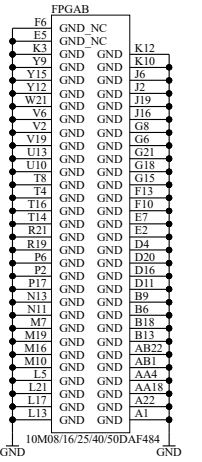
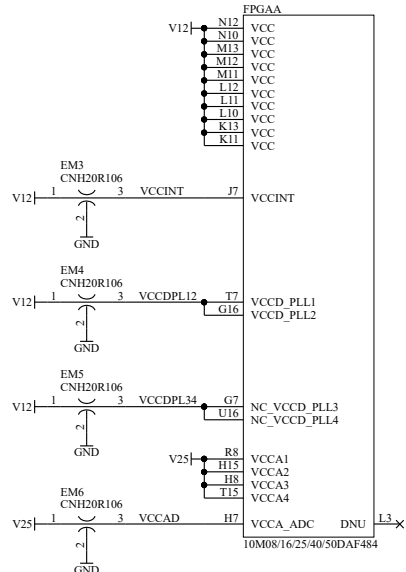
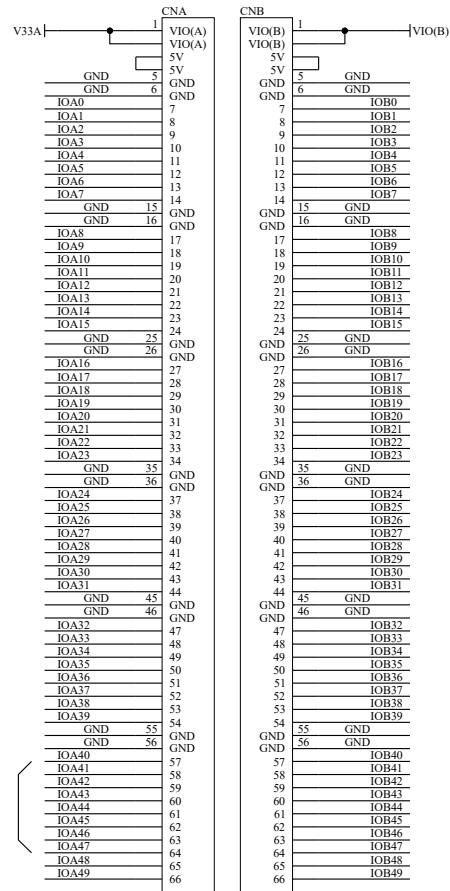
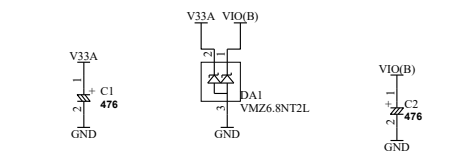
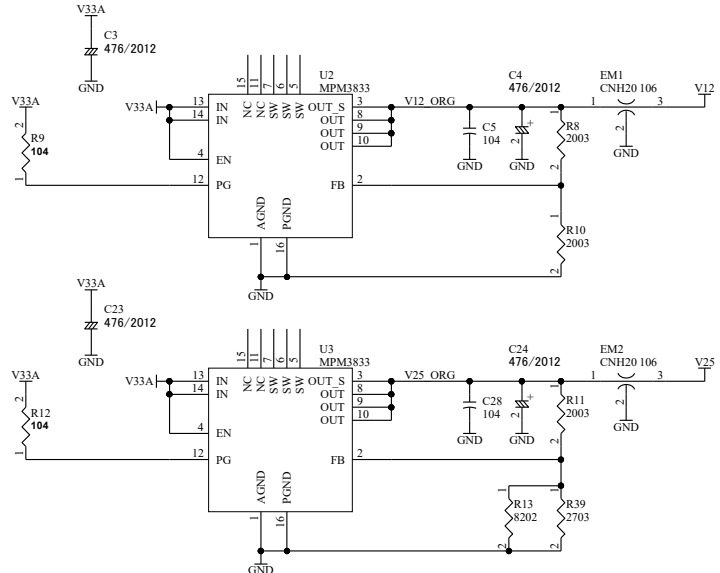
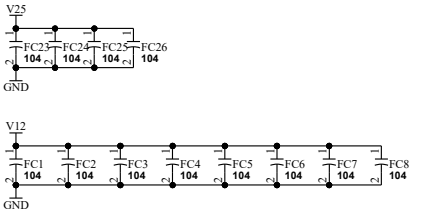
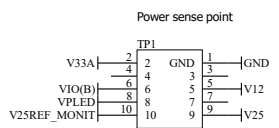
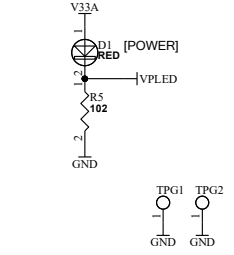
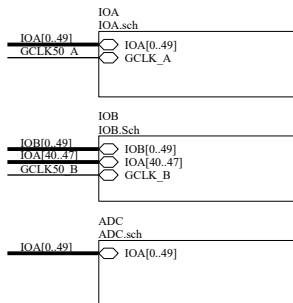
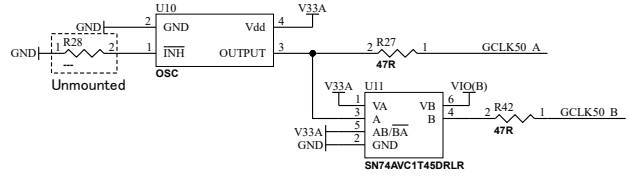


V12  
V25  
V33A  
VIO(B)  
GND



IOA40 to IOA47 are parallelly connected to ADC Pins



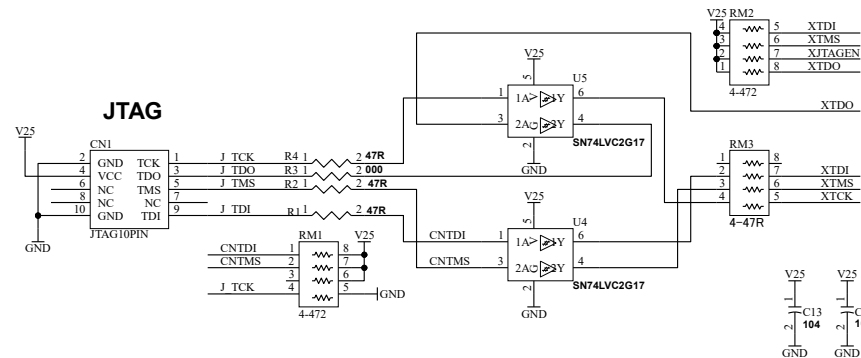
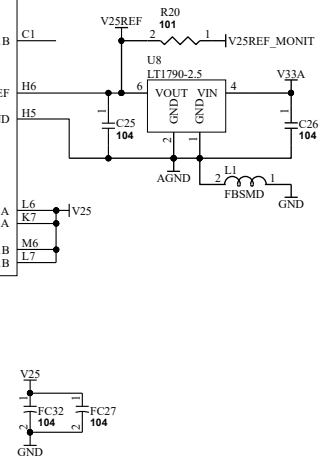
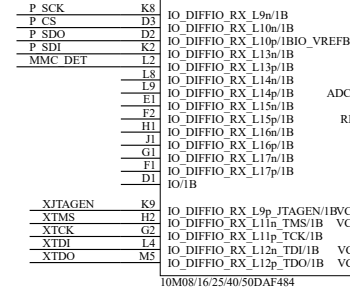
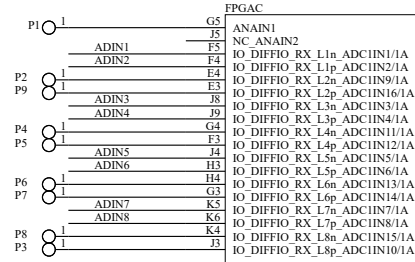
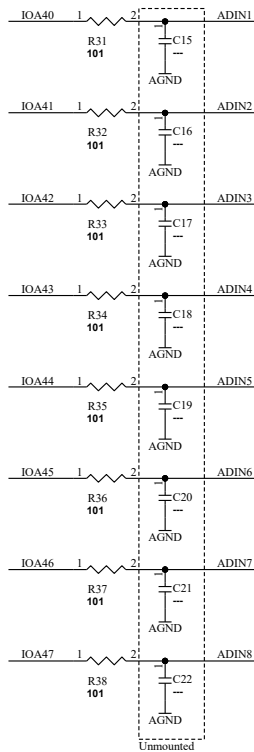
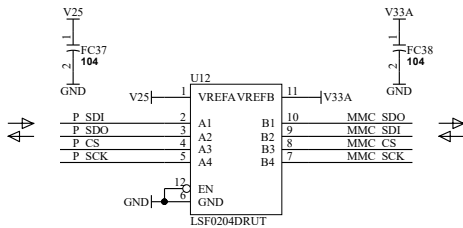
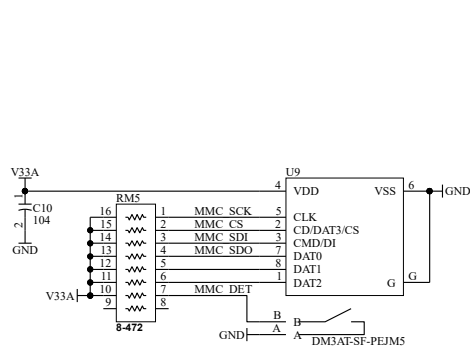
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|                   |                                |
|-------------------|--------------------------------|
| DSN:              | TITLE: Intel MAX 10 FPGA board |
| DOC. No:          | <b>ACM-030</b>                 |
| FILE: ACM030C.sch | DATE: 2023/09/07 10:07:37      |
| Sheet: 1 / 4      | <b>C</b>                       |

ACM030R3-SCH-C.pdf

V12  
V25  
V33A  
VIO(B)  
GND

IOA[0..49]



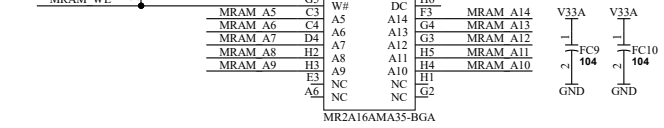
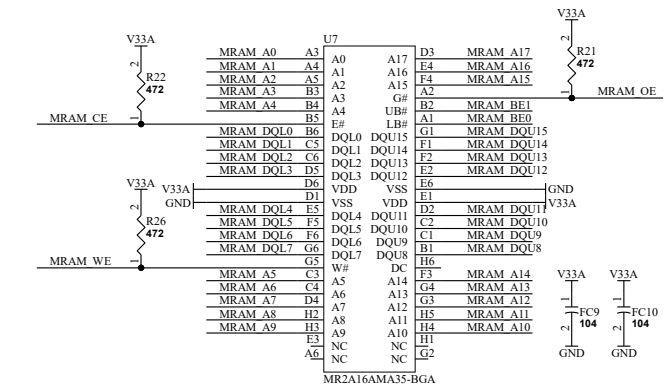
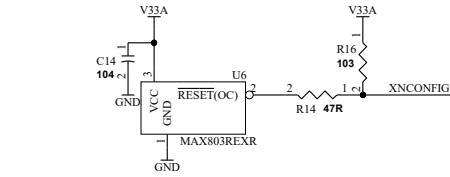
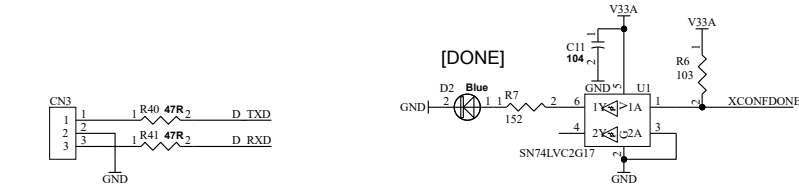
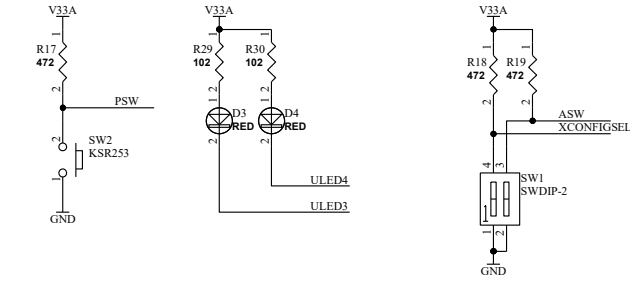
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|               |                                |              |
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| DOC. No:      | <b>ACM-030</b>                 |              |
| FILE: ADC.sch | DATE: 2023/09/07 10:07:37      | Sheet: 2 / 4 |

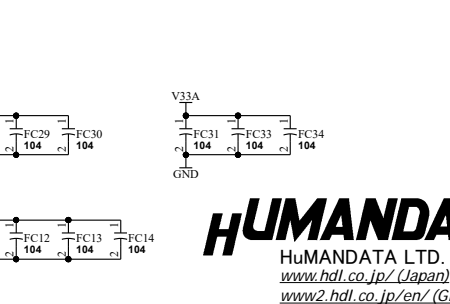
V12  
V25  
V33A  
VIO(B)  
GND

IOA[0..49] IOA[0..49]  
GCLK\_A GCLK50\_A



| FPGA       |      |                     |
|------------|------|---------------------|
| MRAM OE    | U11  | IO DIFFIO_RX R1p/5  |
| MRAM DQ08  | U17  | IO DIFFIO_RX R1n/5  |
| MRAM BE1   | AA22 | IO DIFFIO_RX R2n/5  |
| MRAM BE0   | AA21 | IO DIFFIO_RX R2p/5  |
|            | R14  | IO DIFFIO_RX R3n/5  |
|            | T22  | IO DIFFIO_RX R3p/5  |
| MRAM A2    | T21  | IO DIFFIO_RX R4n/5  |
| MRAM CE    | T21  | IO DIFFIO_RX R4p/5  |
| MRAM DQ09  | T18  | IO DIFFIO_RX R5n/5  |
| MRAM A0    | T19  | IO DIFFIO_RX R5p/5  |
| MRAM DQ010 | R20  | IO DIFFIO_RX R6n/5  |
| MRAM DQ012 | T20  | IO DIFFIO_RX R6p/5  |
| MRAM A1    | U22  | IO DIFFIO_RX R7n/5  |
| MRAM A3    | U21  | IO DIFFIO_RX R7p/5  |
|            | P14  | IO DIFFIO_RX R8n/5  |
|            | P15  | IO DIFFIO_RX R8p/5  |
| MRAM DQ02  | N22  | IO DIFFIO_RX R9n/5  |
| MRAM DQ00  | P21  | IO DIFFIO_RX R9p/5  |
| MRAM A5    | P18  | IO DIFFIO_RX R10n/5 |
| MRAM DQ011 | R18  | IO DIFFIO_RX R10p/5 |
| MRAM A14   | P20  | IO DIFFIO_RX R11n/5 |
| MRAM A17   | P19  | IO DIFFIO_RX R11p/5 |
| MRAM DQ04  | L22  | IO DIFFIO_RX R12n/5 |
| MRAM DQ03  | M21  | IO DIFFIO_RX R12p/5 |
| MRAM DQ04  | M22  | IO DIFFIO_RX R13n/5 |
| MRAM DQ01  | N21  | IO DIFFIO_RX R13p/5 |
| MRAM A4    | R22  | IO5                 |

| FPGA       |      |                                   |
|------------|------|-----------------------------------|
| GCLK50_A   | N15  | IO DIFFIO_RX R14n_CLK2n/6         |
|            | N14  | IO DIFFIO_RX R14p_CLK2p/6         |
| IOA2       | H21  | IO DIFFIO_RX R15n/6               |
| IOA3       | H22  | IO DIFFIO_RX R15p/6               |
| IOA48      | K21  | IO DIFFIO_RX R16n_CLK3n/6         |
| IOA49      | K22  | IO DIFFIO_RX R16p_CLK3p/6         |
| IOA0       | J21  | IO DIFFIO_RX R17n/6               |
| IOA1       | J22  | IO DIFFIO_RX R17p/6               |
| MRAM WE    | G19  | IO DIFFIO_RX R18n/6               |
| MRAM A8    | G20  | IO DIFFIO_RX R18p/6               |
| IOA4       | F22  | IO DIFFIO_RX R19n/6               |
| IOA5       | G22  | IO DIFFIO_RX R19p/6               |
| MRAM DQ07  | M14  | IO DIFFIO_RX R20n/6               |
| MRAM A12   | M15  | IO DIFFIO_RX R20p/6               |
| IOA6       | E21  | IO DIFFIO_RX R21n/6               |
| IOA7       | E22  | IO DIFFIO_RX R21p/6               |
| MRAM A7    | N19  | IO DIFFIO_RX R22n/6               |
| MRAM A16   | N18  | IO DIFFIO_RX R22p/6               |
| MRAM A6    | N20  | IO DIFFIO_RX R23n/6               |
| MRAM DQ05  | M20  | IO DIFFIO_RX R23p/6               |
| MRAM DQ014 | F20  | IO DIFFIO_RX R24n/6               |
| MRAM DQ015 | F21  | IO DIFFIO_RX R24p/6               |
| IOA8       | C22  | IO DIFFIO_RX R25n/6               |
| IOA9       | D22  | IO DIFFIO_RX R25p/6               |
| IOA86      | L15  | IO DIFFIO_RX R26n_DPCLK2/6        |
| IOA87      | L14  | IO DIFFIO_RX R26p_DPCLK3/6        |
| MRAM A13   | L18  | IO DIFFIO_RX R27n/6               |
| MRAM A15   | M18  | IO DIFFIO_RX R27p/6               |
| MRAM A11   | L20  | IO DIFFIO_RX R28n/6               |
| MRAM A10   | L19  | IO DIFFIO_RX R28p/6               |
| MRAM A9    | F18  | IO DIFFIO_RX R29n/6               |
| MRAM DQ013 | F19  | IO DIFFIO_RX R29p/6               |
| IOA16      | K15  | IO DIFFIO_RX R30n/6               |
| IOA10      | D19  | IO DIFFIO_RX R30p/6               |
| IOA11      | C20  | IO_VREFB6N0/6                     |
| IOA44      | G17  | IO_VREFB6N0/6                     |
| IOA45      | H17  | IO DIFFIO_RX R33n_PLL_R_CLKOUTn/6 |
| IOA13      | E18  | IO DIFFIO_RX R33p_PLL_R_CLKOUTp/6 |
| IOA12      | D18  | IO DIFFIO_RX R34n/6               |
|            | C21  | IO DIFFIO_RX R34p/6               |
|            | IO/6 | VCCIO6                            |
|            |      | VCCIO6                            |
|            |      | VCCIO6                            |
|            |      | VCCIO6                            |
|            |      | VCCIO6                            |
|            |      | VCCIO6                            |
|            |      | VCCIO6                            |
|            |      | VCCIO6                            |
|            |      | VCCIO6                            |
|            |      | VCCIO6                            |



| FPGA  |     |                     |
|-------|-----|---------------------|
| IOA18 | E15 | IO DIFFIO_RX_T1n/7  |
| IOA19 | E16 | IO DIFFIO_RX_T1p/7  |
| IOA14 | C17 | IO DIFFIO_RX_T2n/7  |
| IOA15 | D17 | IO DIFFIO_RX_T2p/7  |
|       | W22 | IO DIFFIO_RX_T3n/7  |
|       | W19 | IO DIFFIO_RX_T3p/7  |
|       | H14 | IO DIFFIO_RX_T4n/7  |
|       | C13 | IO DIFFIO_RX_T4p/7  |
| IOA21 | J13 | IO DIFFIO_RX_T5n/7  |
| IOA20 | C14 | IO DIFFIO_RX_T5p/7  |
| IOA22 | B14 | IO DIFFIO_RX_T6n/7  |
| IOA23 | A14 | IO DIFFIO_RX_T6p/7  |
| IOA25 | E13 | IO DIFFIO_RX_T7n/7  |
| IOA24 | D14 | IO DIFFIO_RX_T7p/7  |
| IOA26 | D13 | IO DIFFIO_RX_T8n/7  |
| IOA27 | E12 | IO DIFFIO_RX_T8p/7  |
| IOA28 | J11 | IO DIFFIO_RX_T9n/7  |
| IOA29 | H12 | IO DIFFIO_RX_T9p/7  |
| IOA35 | A8  | IO DIFFIO_RX_T9n/7  |
| IOA34 | A7  | IO DIFFIO_RX_T9p/7  |
| IOA31 | C9  | IO DIFFIO_RX_T10n/7 |
| IOA30 | B10 | IO DIFFIO_RX_T10p/7 |
| IOA32 | B8  | IO DIFFIO_RX_T11n/7 |
| IOA33 | A9  | IO DIFFIO_RX_T11p/7 |
|       | A15 | IO/7                |

| IO_VREFB7N0/7 |     |        |
|---------------|-----|--------|
|               | B15 | VCCIO7 |
|               |     | VCCIO7 |
|               |     | VCCIO7 |
|               |     | VCCIO7 |
|               |     | VCCIO7 |
|               |     | VCCIO7 |
|               |     | VCCIO7 |
|               |     | VCCIO7 |
|               |     | VCCIO7 |
|               |     | VCCIO7 |

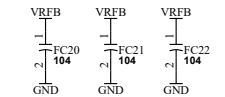
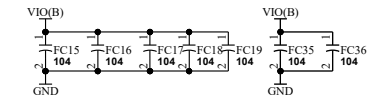
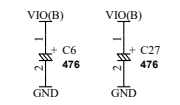
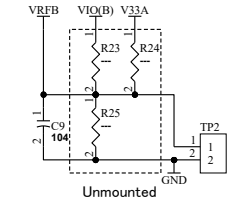
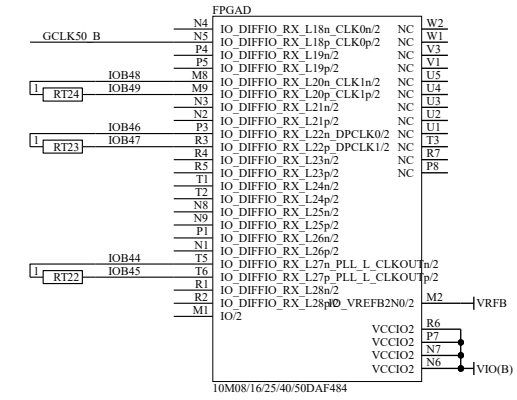
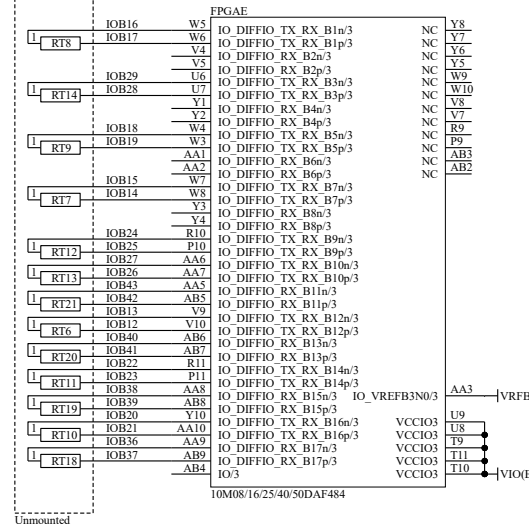
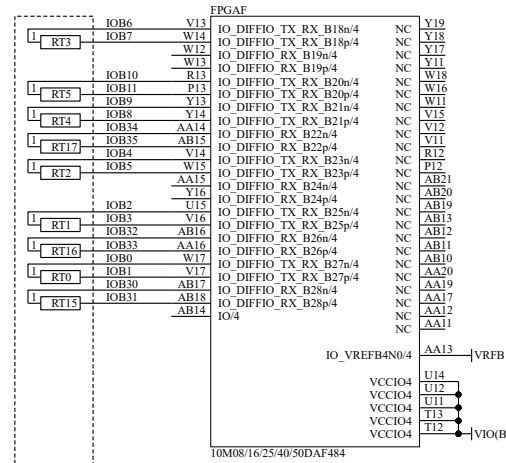
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|-----------|-----|-------------------------------|
| E10       |     | IO DIFFIO_RX_T12n/8           |
| E11       |     | IO DIFFIO_RX_T12p/8           |
| C7        |     | IO DIFFIO_RX_T13n/8           |
| C8        |     | IO DIFFIO_RX_T13p/8           |
| H11       |     | IO DIFFIO_RX_T14n/8           |
|           |     | IO DIFFIO_RX_T14p/8           |
|           |     | IO DIFFIO_RX_T15n/8           |
|           |     | IO DIFFIO_RX_T15p/8           |
| IOA36     | A6  | IO DIFFIO_RX_T16n_DEV_CLRn/8  |
| IOA37     | B7  | IO DIFFIO_RX_T16p_DEV_CLRn/8  |
|           | D8  | IO DIFFIO_RX_T16n_DEV_OEN/8   |
| IOA38     | A4  | IO DIFFIO_RX_T17n/8           |
| IOA39     | A5  | IO DIFFIO_RX_T17p/8           |
|           | E9  | IO DIFFIO_RX_T18n/8           |
|           | D10 | IO DIFFIO_RX_T18p_DEV_OEN/8   |
| IOA42     | A3  | IO DIFFIO_RX_T19n/8           |
| IOA43     | A2  | IO DIFFIO_RX_T19p/8           |
| IOA40     | B4  | IO DIFFIO_RX_T20n/8           |
| IOA41     | B3  | IO DIFFIO_RX_T20p/8           |
|           | C4  | IO DIFFIO_RX_T21n/8           |
|           | B5  | IO DIFFIO_RX_T21p/8           |
|           | F7  | IO DIFFIO_RX_T22n_CRC_ERROR/8 |
|           | E8  | IO DIFFIO_RX_T22p_CRC_ERROR/8 |
|           | C5  | IO DIFFIO_RX_T23n/8           |
|           | C6  | IO DIFFIO_RX_T23p/8           |
| XCONFDONE | F8  | IO DIFFIO_RX_T24n_CONF_DONE/8 |
| XNSTATUS  | G9  | IO DIFFIO_RX_T24p_CONF_DONE/8 |
|           | B1  | IO DIFFIO_RX_T25n/8           |
|           | B2  | IO DIFFIO_RX_T25p/8           |
|           | E6  | IO DIFFIO_RX_T26n/8           |
|           | E7  | IO DIFFIO_RX_T26p/8           |
|           | B6  | IO DIFFIO_RX_T27n/8           |
|           | B7  | IO DIFFIO_RX_T27p/8           |
|           | C2  | IO DIFFIO_RX_T27n/8           |
|           | C6  | IO DIFFIO_RX_T27p/8           |
|           | H10 | IO_CONFIG_SEL/8               |



|               |                                |
|---------------|--------------------------------|
| DSN:          | TITLE: Intel MAX 10 FPGA board |
| DOC. No:      | ACM-030                        |
| FILE: IOA.sch | DATE: 2023/09/07 10:07:37      |
|               | Sheet: 3 / 4                   |

V12  
V25  
V33A  
VIO(B)  
GND

IOB[0..49] IOB[0..491]  
IOA[40..47] IOA[40..471]  
GCLK\_B GCLK50\_B



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|               |                                |
|---------------|--------------------------------|
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| DOC. No:      | ACM-030                        |
| FILE: IOB_Sch | DATE: 2023/09/07 10:07:38      |
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