Copyright 1986-2018 Xilinx, Inc. All Rights Reserved.

-------------------------------------------------------------------------------------------------

| Tool Version : Vivado v.2018.3 (win64) Build 2405991 Thu Dec 6 23:38:27 MST 2018

| Date : Thu Oct 17 09:48:08 2024

| Host : Samuel running 64-bit major release (build 9200)

| Command : report\_io -file hello\_world\_arty\_a7\_io\_placed.rpt

| Design : hello\_world\_arty\_a7

| Device : xc7a100ti

| Speed File : -1L

| Package : csg324

| Package Version : FINAL 2012-07-17

| Package Pin Delay Version : VERS. 2.0 2012-07-17

-------------------------------------------------------------------------------------------------

IO Information

Table of Contents

-----------------

1. Summary

2. IO Assignments by Package Pin

1. Summary

----------

+---------------+

| Total User IO |

+---------------+

| 3 |

+---------------+

2. IO Assignments by Package Pin

--------------------------------

+------------+-------------+------------+------------------------------+-------------+-------------+---------+------------+------+---------------------+----------------------+---------+------------+-----------+----------+------+------------------+--------------+-------------------+--------------+

| Pin Number | Signal Name | Bank Type | Pin Name | Use | IO Standard | IO Bank | Drive (mA) | Slew | On-Chip Termination | Off-Chip Termination | Voltage | Constraint | Pull Type | DQS Bias | Vref | Signal Integrity | Pre Emphasis | Lvds Pre Emphasis | Equalization |

+------------+-------------+------------+------------------------------+-------------+-------------+---------+------------+------+---------------------+----------------------+---------+------------+-----------+----------+------+------------------+--------------+-------------------+--------------+

| A1 | | High Range | IO\_L9N\_T1\_DQS\_AD7N\_35 | User IO | | 35 | | | | | | | | | | | | | |

| A2 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| A3 | | High Range | IO\_L8N\_T1\_AD14N\_35 | User IO | | 35 | | | | | | | | | | | | | |

| A4 | | High Range | IO\_L8P\_T1\_AD14P\_35 | User IO | | 35 | | | | | | | | | | | | | |

| A5 | | High Range | IO\_L3N\_T0\_DQS\_AD5N\_35 | User IO | | 35 | | | | | | | | | | | | | |

| A6 | | High Range | IO\_L3P\_T0\_DQS\_AD5P\_35 | User IO | | 35 | | | | | | | | | | | | | |

| A7 | | High Range | VCCO\_35 | VCCO | | 35 | | | | | 3.30 | | | | | | | | |

| A8 | | High Range | IO\_L12N\_T1\_MRCC\_16 | User IO | | 16 | | | | | | | | | | | | | |

| A9 | | High Range | IO\_L14N\_T2\_SRCC\_16 | User IO | | 16 | | | | | | | | | | | | | |

| A10 | | High Range | IO\_L14P\_T2\_SRCC\_16 | User IO | | 16 | | | | | | | | | | | | | |

| A11 | | High Range | IO\_L4N\_T0\_15 | User IO | | 15 | | | | | | | | | | | | | |

| A12 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| A13 | | High Range | IO\_L9P\_T1\_DQS\_AD3P\_15 | User IO | | 15 | | | | | | | | | | | | | |

| A14 | | High Range | IO\_L9N\_T1\_DQS\_AD3N\_15 | User IO | | 15 | | | | | | | | | | | | | |

| A15 | | High Range | IO\_L8P\_T1\_AD10P\_15 | User IO | | 15 | | | | | | | | | | | | | |

| A16 | | High Range | IO\_L8N\_T1\_AD10N\_15 | User IO | | 15 | | | | | | | | | | | | | |

| A17 | | High Range | VCCO\_15 | VCCO | | 15 | | | | | any\*\* | | | | | | | | |

| A18 | | High Range | IO\_L10N\_T1\_AD11N\_15 | User IO | | 15 | | | | | | | | | | | | | |

| B1 | | High Range | IO\_L9P\_T1\_DQS\_AD7P\_35 | User IO | | 35 | | | | | | | | | | | | | |

| B2 | | High Range | IO\_L10N\_T1\_AD15N\_35 | User IO | | 35 | | | | | | | | | | | | | |

| B3 | | High Range | IO\_L10P\_T1\_AD15P\_35 | User IO | | 35 | | | | | | | | | | | | | |

| B4 | | High Range | IO\_L7N\_T1\_AD6N\_35 | User IO | | 35 | | | | | | | | | | | | | |

| B5 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| B6 | | High Range | IO\_L2N\_T0\_AD12N\_35 | User IO | | 35 | | | | | | | | | | | | | |

| B7 | | High Range | IO\_L2P\_T0\_AD12P\_35 | User IO | | 35 | | | | | | | | | | | | | |

| B8 | | High Range | IO\_L12P\_T1\_MRCC\_16 | User IO | | 16 | | | | | | | | | | | | | |

| B9 | | High Range | IO\_L11N\_T1\_SRCC\_16 | User IO | | 16 | | | | | | | | | | | | | |

| B10 | | High Range | VCCO\_16 | VCCO | | 16 | | | | | 3.30 | | | | | | | | |

| B11 | | High Range | IO\_L4P\_T0\_15 | User IO | | 15 | | | | | | | | | | | | | |

| B12 | | High Range | IO\_L3N\_T0\_DQS\_AD1N\_15 | User IO | | 15 | | | | | | | | | | | | | |

| B13 | | High Range | IO\_L2P\_T0\_AD8P\_15 | User IO | | 15 | | | | | | | | | | | | | |

| B14 | | High Range | IO\_L2N\_T0\_AD8N\_15 | User IO | | 15 | | | | | | | | | | | | | |

| B15 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| B16 | | High Range | IO\_L7P\_T1\_AD2P\_15 | User IO | | 15 | | | | | | | | | | | | | |

| B17 | | High Range | IO\_L7N\_T1\_AD2N\_15 | User IO | | 15 | | | | | | | | | | | | | |

| B18 | | High Range | IO\_L10P\_T1\_AD11P\_15 | User IO | | 15 | | | | | | | | | | | | | |

| C1 | | High Range | IO\_L16N\_T2\_35 | User IO | | 35 | | | | | | | | | | | | | |

| C2 | | High Range | IO\_L16P\_T2\_35 | User IO | | 35 | | | | | | | | | | | | | |

| C3 | | High Range | VCCO\_35 | VCCO | | 35 | | | | | 3.30 | | | | | | | | |

| C4 | | High Range | IO\_L7P\_T1\_AD6P\_35 | User IO | | 35 | | | | | | | | | | | | | |

| C5 | | High Range | IO\_L1N\_T0\_AD4N\_35 | User IO | | 35 | | | | | | | | | | | | | |

| C6 | | High Range | IO\_L1P\_T0\_AD4P\_35 | User IO | | 35 | | | | | | | | | | | | | |

| C7 | | High Range | IO\_L4N\_T0\_35 | User IO | | 35 | | | | | | | | | | | | | |

| C8 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| C9 | | High Range | IO\_L11P\_T1\_SRCC\_16 | User IO | | 16 | | | | | | | | | | | | | |

| C10 | | High Range | IO\_L13N\_T2\_MRCC\_16 | User IO | | 16 | | | | | | | | | | | | | |

| C11 | | High Range | IO\_L13P\_T2\_MRCC\_16 | User IO | | 16 | | | | | | | | | | | | | |

| C12 | | High Range | IO\_L3P\_T0\_DQS\_AD1P\_15 | User IO | | 15 | | | | | | | | | | | | | |

| C13 | | High Range | VCCO\_15 | VCCO | | 15 | | | | | any\*\* | | | | | | | | |

| C14 | | High Range | IO\_L1N\_T0\_AD0N\_15 | User IO | | 15 | | | | | | | | | | | | | |

| C15 | | High Range | IO\_L12N\_T1\_MRCC\_15 | User IO | | 15 | | | | | | | | | | | | | |

| C16 | | High Range | IO\_L20P\_T3\_A20\_15 | User IO | | 15 | | | | | | | | | | | | | |

| C17 | | High Range | IO\_L20N\_T3\_A19\_15 | User IO | | 15 | | | | | | | | | | | | | |

| C18 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| D1 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| D2 | | High Range | IO\_L14N\_T2\_SRCC\_35 | User IO | | 35 | | | | | | | | | | | | | |

| D3 | | High Range | IO\_L12N\_T1\_MRCC\_35 | User IO | | 35 | | | | | | | | | | | | | |

| D4 | | High Range | IO\_L11N\_T1\_SRCC\_35 | User IO | | 35 | | | | | | | | | | | | | |

| D5 | | High Range | IO\_L11P\_T1\_SRCC\_35 | User IO | | 35 | | | | | | | | | | | | | |

| D6 | | High Range | VCCO\_35 | VCCO | | 35 | | | | | 3.30 | | | | | | | | |

| D7 | | High Range | IO\_L6N\_T0\_VREF\_35 | User IO | | 35 | | | | | | | | | | | | | |

| D8 | | High Range | IO\_L4P\_T0\_35 | User IO | | 35 | | | | | | | | | | | | | |

| D9 | reset | High Range | IO\_L6N\_T0\_VREF\_16 | INPUT | LVCMOS33 | 16 | | | | NONE | | FIXED | | | | NONE | | | |

| D10 | uart\_tx | High Range | IO\_L19N\_T3\_VREF\_16 | OUTPUT | LVCMOS33 | 16 | 12 | SLOW | | FP\_VTT\_50 | | FIXED | | | | NONE | | | |

| D11 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| D12 | | High Range | IO\_L6P\_T0\_15 | User IO | | 15 | | | | | | | | | | | | | |

| D13 | | High Range | IO\_L6N\_T0\_VREF\_15 | User IO | | 15 | | | | | | | | | | | | | |

| D14 | | High Range | IO\_L1P\_T0\_AD0P\_15 | User IO | | 15 | | | | | | | | | | | | | |

| D15 | | High Range | IO\_L12P\_T1\_MRCC\_15 | User IO | | 15 | | | | | | | | | | | | | |

| D16 | | High Range | VCCO\_15 | VCCO | | 15 | | | | | any\*\* | | | | | | | | |

| D17 | | High Range | IO\_L16N\_T2\_A27\_15 | User IO | | 15 | | | | | | | | | | | | | |

| D18 | | High Range | IO\_L21N\_T3\_DQS\_A18\_15 | User IO | | 15 | | | | | | | | | | | | | |

| E1 | | High Range | IO\_L18N\_T2\_35 | User IO | | 35 | | | | | | | | | | | | | |

| E2 | | High Range | IO\_L14P\_T2\_SRCC\_35 | User IO | | 35 | | | | | | | | | | | | | |

| E3 | clock | High Range | IO\_L12P\_T1\_MRCC\_35 | INPUT | LVCMOS33 | 35 | | | | NONE | | FIXED | | | | NONE | | | |

| E4 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| E5 | | High Range | IO\_L5N\_T0\_AD13N\_35 | User IO | | 35 | | | | | | | | | | | | | |

| E6 | | High Range | IO\_L5P\_T0\_AD13P\_35 | User IO | | 35 | | | | | | | | | | | | | |

| E7 | | High Range | IO\_L6P\_T0\_35 | User IO | | 35 | | | | | | | | | | | | | |

| E8 | | Dedicated | VCCBATT\_0 | Config | | 0 | | | | | | | | | | | | | |

| E9 | | Dedicated | CCLK\_0 | Config | | 0 | | | | | | | | | | | | | |

| E10 | | Dedicated | TCK\_0 | Config | | 0 | | | | | | | | | | | | | |

| E11 | | Dedicated | TDI\_0 | Config | | 0 | | | | | | | | | | | | | |

| E12 | | Dedicated | TMS\_0 | Config | | 0 | | | | | | | | | | | | | |

| E13 | | Dedicated | TDO\_0 | Config | | 0 | | | | | | | | | | | | | |

| E14 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| E15 | | High Range | IO\_L11P\_T1\_SRCC\_15 | User IO | | 15 | | | | | | | | | | | | | |

| E16 | | High Range | IO\_L11N\_T1\_SRCC\_15 | User IO | | 15 | | | | | | | | | | | | | |

| E17 | | High Range | IO\_L16P\_T2\_A28\_15 | User IO | | 15 | | | | | | | | | | | | | |

| E18 | | High Range | IO\_L21P\_T3\_DQS\_15 | User IO | | 15 | | | | | | | | | | | | | |

| F1 | | High Range | IO\_L18P\_T2\_35 | User IO | | 35 | | | | | | | | | | | | | |

| F2 | | High Range | VCCO\_35 | VCCO | | 35 | | | | | 3.30 | | | | | | | | |

| F3 | | High Range | IO\_L13N\_T2\_MRCC\_35 | User IO | | 35 | | | | | | | | | | | | | |

| F4 | | High Range | IO\_L13P\_T2\_MRCC\_35 | User IO | | 35 | | | | | | | | | | | | | |

| F5 | | High Range | IO\_0\_35 | User IO | | 35 | | | | | | | | | | | | | |

| F6 | | High Range | IO\_L19N\_T3\_VREF\_35 | User IO | | 35 | | | | | | | | | | | | | |

| F7 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| F8 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| F9 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| F10 | | | VCCBRAM | VCCBRAM | | | | | | | | | | | | | | | |

| F11 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| F12 | | | VCCAUX | VCCAUX | | | | | | | 1.80 | | | | | | | | |

| F13 | | High Range | IO\_L5P\_T0\_AD9P\_15 | User IO | | 15 | | | | | | | | | | | | | |

| F14 | | High Range | IO\_L5N\_T0\_AD9N\_15 | User IO | | 15 | | | | | | | | | | | | | |

| F15 | | High Range | IO\_L14P\_T2\_SRCC\_15 | User IO | | 15 | | | | | | | | | | | | | |

| F16 | | High Range | IO\_L14N\_T2\_SRCC\_15 | User IO | | 15 | | | | | | | | | | | | | |

| F17 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| F18 | | High Range | IO\_L22N\_T3\_A16\_15 | User IO | | 15 | | | | | | | | | | | | | |

| G1 | | High Range | IO\_L17N\_T2\_35 | User IO | | 35 | | | | | | | | | | | | | |

| G2 | | High Range | IO\_L15N\_T2\_DQS\_35 | User IO | | 35 | | | | | | | | | | | | | |

| G3 | | High Range | IO\_L20N\_T3\_35 | User IO | | 35 | | | | | | | | | | | | | |

| G4 | | High Range | IO\_L20P\_T3\_35 | User IO | | 35 | | | | | | | | | | | | | |

| G5 | | High Range | VCCO\_35 | VCCO | | 35 | | | | | 3.30 | | | | | | | | |

| G6 | | High Range | IO\_L19P\_T3\_35 | User IO | | 35 | | | | | | | | | | | | | |

| G7 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| G8 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| G9 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| G10 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| G11 | | | VCCBRAM | VCCBRAM | | | | | | | | | | | | | | | |

| G12 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| G13 | | High Range | IO\_0\_15 | User IO | | 15 | | | | | | | | | | | | | |

| G14 | | High Range | IO\_L15N\_T2\_DQS\_ADV\_B\_15 | User IO | | 15 | | | | | | | | | | | | | |

| G15 | | High Range | VCCO\_15 | VCCO | | 15 | | | | | any\*\* | | | | | | | | |

| G16 | | High Range | IO\_L13N\_T2\_MRCC\_15 | User IO | | 15 | | | | | | | | | | | | | |

| G17 | | High Range | IO\_L18N\_T2\_A23\_15 | User IO | | 15 | | | | | | | | | | | | | |

| G18 | | High Range | IO\_L22P\_T3\_A17\_15 | User IO | | 15 | | | | | | | | | | | | | |

| H1 | | High Range | IO\_L17P\_T2\_35 | User IO | | 35 | | | | | | | | | | | | | |

| H2 | | High Range | IO\_L15P\_T2\_DQS\_35 | User IO | | 35 | | | | | | | | | | | | | |

| H3 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| H4 | | High Range | IO\_L21N\_T3\_DQS\_35 | User IO | | 35 | | | | | | | | | | | | | |

| H5 | | High Range | IO\_L24N\_T3\_35 | User IO | | 35 | | | | | | | | | | | | | |

| H6 | | High Range | IO\_L24P\_T3\_35 | User IO | | 35 | | | | | | | | | | | | | |

| H7 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| H8 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| H9 | | Dedicated | GNDADC\_0 | XADC | | 0 | | | | | | | | | | | | | |

| H10 | | Dedicated | VCCADC\_0 | XADC | | 0 | | | | | | | | | | | | | |

| H11 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| H12 | | | VCCAUX | VCCAUX | | | | | | | 1.80 | | | | | | | | |

| H13 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| H14 | | High Range | IO\_L15P\_T2\_DQS\_15 | User IO | | 15 | | | | | | | | | | | | | |

| H15 | | High Range | IO\_L19N\_T3\_A21\_VREF\_15 | User IO | | 15 | | | | | | | | | | | | | |

| H16 | | High Range | IO\_L13P\_T2\_MRCC\_15 | User IO | | 15 | | | | | | | | | | | | | |

| H17 | | High Range | IO\_L18P\_T2\_A24\_15 | User IO | | 15 | | | | | | | | | | | | | |

| H18 | | High Range | VCCO\_15 | VCCO | | 15 | | | | | any\*\* | | | | | | | | |

| J1 | | High Range | VCCO\_35 | VCCO | | 35 | | | | | 3.30 | | | | | | | | |

| J2 | | High Range | IO\_L22N\_T3\_35 | User IO | | 35 | | | | | | | | | | | | | |

| J3 | | High Range | IO\_L22P\_T3\_35 | User IO | | 35 | | | | | | | | | | | | | |

| J4 | | High Range | IO\_L21P\_T3\_DQS\_35 | User IO | | 35 | | | | | | | | | | | | | |

| J5 | | High Range | IO\_25\_35 | User IO | | 35 | | | | | | | | | | | | | |

| J6 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| J7 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| J8 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| J9 | | Dedicated | VREFN\_0 | XADC | | 0 | | | | | | | | | | | | | |

| J10 | | Dedicated | VP\_0 | XADC | | 0 | | | | | | | | | | | | | |

| J11 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| J12 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| J13 | | High Range | IO\_L17N\_T2\_A25\_15 | User IO | | 15 | | | | | | | | | | | | | |

| J14 | | High Range | IO\_L19P\_T3\_A22\_15 | User IO | | 15 | | | | | | | | | | | | | |

| J15 | | High Range | IO\_L24N\_T3\_RS0\_15 | User IO | | 15 | | | | | | | | | | | | | |

| J16 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| J17 | | High Range | IO\_L23P\_T3\_FOE\_B\_15 | User IO | | 15 | | | | | | | | | | | | | |

| J18 | | High Range | IO\_L23N\_T3\_FWE\_B\_15 | User IO | | 15 | | | | | | | | | | | | | |

| K1 | | High Range | IO\_L23N\_T3\_35 | User IO | | 35 | | | | | | | | | | | | | |

| K2 | | High Range | IO\_L23P\_T3\_35 | User IO | | 35 | | | | | | | | | | | | | |

| K3 | | High Range | IO\_L2P\_T0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| K4 | | High Range | VCCO\_34 | VCCO | | 34 | | | | | any\*\* | | | | | | | | |

| K5 | | High Range | IO\_L5P\_T0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| K6 | | High Range | IO\_0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| K7 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| K8 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| K9 | | Dedicated | VN\_0 | XADC | | 0 | | | | | | | | | | | | | |

| K10 | | Dedicated | VREFP\_0 | XADC | | 0 | | | | | | | | | | | | | |

| K11 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| K12 | | | VCCAUX | VCCAUX | | | | | | | 1.80 | | | | | | | | |

| K13 | | High Range | IO\_L17P\_T2\_A26\_15 | User IO | | 15 | | | | | | | | | | | | | |

| K14 | | High Range | VCCO\_15 | VCCO | | 15 | | | | | any\*\* | | | | | | | | |

| K15 | | High Range | IO\_L24P\_T3\_RS1\_15 | User IO | | 15 | | | | | | | | | | | | | |

| K16 | | High Range | IO\_25\_15 | User IO | | 15 | | | | | | | | | | | | | |

| K17 | | High Range | IO\_L1P\_T0\_D00\_MOSI\_14 | User IO | | 14 | | | | | | | | | | | | | |

| K18 | | High Range | IO\_L1N\_T0\_D01\_DIN\_14 | User IO | | 14 | | | | | | | | | | | | | |

| L1 | | High Range | IO\_L1P\_T0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| L2 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| L3 | | High Range | IO\_L2N\_T0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| L4 | | High Range | IO\_L5N\_T0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| L5 | | High Range | IO\_L6N\_T0\_VREF\_34 | User IO | | 34 | | | | | | | | | | | | | |

| L6 | | High Range | IO\_L6P\_T0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| L7 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| L8 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| L9 | | Dedicated | DXN\_0 | Temp Sensor | | 0 | | | | | | | | | | | | | |

| L10 | | Dedicated | DXP\_0 | Temp Sensor | | 0 | | | | | | | | | | | | | |

| L11 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| L12 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| L13 | | High Range | IO\_L6P\_T0\_FCS\_B\_14 | User IO | | 14 | | | | | | | | | | | | | |

| L14 | | High Range | IO\_L2P\_T0\_D02\_14 | User IO | | 14 | | | | | | | | | | | | | |

| L15 | | High Range | IO\_L3P\_T0\_DQS\_PUDC\_B\_14 | User IO | | 14 | | | | | | | | | | | | | |

| L16 | | High Range | IO\_L3N\_T0\_DQS\_EMCCLK\_14 | User IO | | 14 | | | | | | | | | | | | | |

| L17 | | High Range | VCCO\_14 | VCCO | | 14 | | | | | any\*\* | | | | | | | | |

| L18 | | High Range | IO\_L4P\_T0\_D04\_14 | User IO | | 14 | | | | | | | | | | | | | |

| M1 | | High Range | IO\_L1N\_T0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| M2 | | High Range | IO\_L4N\_T0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| M3 | | High Range | IO\_L4P\_T0\_34 | User IO | | 34 | | | | | | | | | | | | | |

| M4 | | High Range | IO\_L16P\_T2\_34 | User IO | | 34 | | | | | | | | | | | | | |

| M5 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| M6 | | High Range | IO\_L18P\_T2\_34 | User IO | | 34 | | | | | | | | | | | | | |

| M7 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| M8 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| M9 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| M10 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| M11 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| M12 | | | VCCAUX | VCCAUX | | | | | | | 1.80 | | | | | | | | |

| M13 | | High Range | IO\_L6N\_T0\_D08\_VREF\_14 | User IO | | 14 | | | | | | | | | | | | | |

| M14 | | High Range | IO\_L2N\_T0\_D03\_14 | User IO | | 14 | | | | | | | | | | | | | |

| M15 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| M16 | | High Range | IO\_L10P\_T1\_D14\_14 | User IO | | 14 | | | | | | | | | | | | | |

| M17 | | High Range | IO\_L10N\_T1\_D15\_14 | User IO | | 14 | | | | | | | | | | | | | |

| M18 | | High Range | IO\_L4N\_T0\_D05\_14 | User IO | | 14 | | | | | | | | | | | | | |

| N1 | | High Range | IO\_L3N\_T0\_DQS\_34 | User IO | | 34 | | | | | | | | | | | | | |

| N2 | | High Range | IO\_L3P\_T0\_DQS\_34 | User IO | | 34 | | | | | | | | | | | | | |

| N3 | | High Range | VCCO\_34 | VCCO | | 34 | | | | | any\*\* | | | | | | | | |

| N4 | | High Range | IO\_L16N\_T2\_34 | User IO | | 34 | | | | | | | | | | | | | |

| N5 | | High Range | IO\_L13P\_T2\_MRCC\_34 | User IO | | 34 | | | | | | | | | | | | | |

| N6 | | High Range | IO\_L18N\_T2\_34 | User IO | | 34 | | | | | | | | | | | | | |

| N7 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| N8 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| N9 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| N10 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| N11 | | | VCCINT | VCCINT | | | | | | | | | | | | | | | |

| N12 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| N13 | | High Range | VCCO\_14 | VCCO | | 14 | | | | | any\*\* | | | | | | | | |

| N14 | | High Range | IO\_L8P\_T1\_D11\_14 | User IO | | 14 | | | | | | | | | | | | | |

| N15 | | High Range | IO\_L11P\_T1\_SRCC\_14 | User IO | | 14 | | | | | | | | | | | | | |

| N16 | | High Range | IO\_L11N\_T1\_SRCC\_14 | User IO | | 14 | | | | | | | | | | | | | |

| N17 | | High Range | IO\_L9P\_T1\_DQS\_14 | User IO | | 14 | | | | | | | | | | | | | |

| N18 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| P1 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| P2 | | High Range | IO\_L15P\_T2\_DQS\_34 | User IO | | 34 | | | | | | | | | | | | | |

| P3 | | High Range | IO\_L14N\_T2\_SRCC\_34 | User IO | | 34 | | | | | | | | | | | | | |

| P4 | | High Range | IO\_L14P\_T2\_SRCC\_34 | User IO | | 34 | | | | | | | | | | | | | |

| P5 | | High Range | IO\_L13N\_T2\_MRCC\_34 | User IO | | 34 | | | | | | | | | | | | | |

| P6 | | High Range | VCCO\_34 | VCCO | | 34 | | | | | any\*\* | | | | | | | | |

| P7 | | Dedicated | INIT\_B\_0 | Config | | 0 | | | | | | | | | | | | | |

| P8 | | Dedicated | CFGBVS\_0 | Config | | 0 | | | | | 3.30 | | | | | | | | |

| P9 | | Dedicated | PROGRAM\_B\_0 | Config | | 0 | | | | | | | | | | | | | |

| P10 | | Dedicated | DONE\_0 | Config | | 0 | | | | | | | | | | | | | |

| P11 | | Dedicated | M2\_0 | Config | | 0 | | | | | | | | | | | | | |

| P12 | | Dedicated | M0\_0 | Config | | 0 | | | | | | | | | | | | | |

| P13 | | Dedicated | M1\_0 | Config | | 0 | | | | | | | | | | | | | |

| P14 | | High Range | IO\_L8N\_T1\_D12\_14 | User IO | | 14 | | | | | | | | | | | | | |

| P15 | | High Range | IO\_L13P\_T2\_MRCC\_14 | User IO | | 14 | | | | | | | | | | | | | |

| P16 | | High Range | VCCO\_14 | VCCO | | 14 | | | | | any\*\* | | | | | | | | |

| P17 | | High Range | IO\_L12P\_T1\_MRCC\_14 | User IO | | 14 | | | | | | | | | | | | | |

| P18 | | High Range | IO\_L9N\_T1\_DQS\_D13\_14 | User IO | | 14 | | | | | | | | | | | | | |

| R1 | | High Range | IO\_L17P\_T2\_34 | User IO | | 34 | | | | | | | | | | | | | |

| R2 | | High Range | IO\_L15N\_T2\_DQS\_34 | User IO | | 34 | | | | | | | | | | | | | |

| R3 | | High Range | IO\_L11P\_T1\_SRCC\_34 | User IO | | 34 | | | | | | | | | | | | | |

| R4 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| R5 | | High Range | IO\_L19N\_T3\_VREF\_34 | User IO | | 34 | | | | | | | | | | | | | |

| R6 | | High Range | IO\_L19P\_T3\_34 | User IO | | 34 | | | | | | | | | | | | | |

| R7 | | High Range | IO\_L23P\_T3\_34 | User IO | | 34 | | | | | | | | | | | | | |

| R8 | | High Range | IO\_L24P\_T3\_34 | User IO | | 34 | | | | | | | | | | | | | |

| R9 | | Dedicated | VCCO\_0 | VCCO | | 0 | | | | | 3.30 | | | | | | | | |

| R10 | | High Range | IO\_25\_14 | User IO | | 14 | | | | | | | | | | | | | |

| R11 | | High Range | IO\_0\_14 | User IO | | 14 | | | | | | | | | | | | | |

| R12 | | High Range | IO\_L5P\_T0\_D06\_14 | User IO | | 14 | | | | | | | | | | | | | |

| R13 | | High Range | IO\_L5N\_T0\_D07\_14 | User IO | | 14 | | | | | | | | | | | | | |

| R14 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| R15 | | High Range | IO\_L13N\_T2\_MRCC\_14 | User IO | | 14 | | | | | | | | | | | | | |

| R16 | | High Range | IO\_L15P\_T2\_DQS\_RDWR\_B\_14 | User IO | | 14 | | | | | | | | | | | | | |

| R17 | | High Range | IO\_L12N\_T1\_MRCC\_14 | User IO | | 14 | | | | | | | | | | | | | |

| R18 | | High Range | IO\_L7P\_T1\_D09\_14 | User IO | | 14 | | | | | | | | | | | | | |

| T1 | | High Range | IO\_L17N\_T2\_34 | User IO | | 34 | | | | | | | | | | | | | |

| T2 | | High Range | VCCO\_34 | VCCO | | 34 | | | | | any\*\* | | | | | | | | |

| T3 | | High Range | IO\_L11N\_T1\_SRCC\_34 | User IO | | 34 | | | | | | | | | | | | | |

| T4 | | High Range | IO\_L12N\_T1\_MRCC\_34 | User IO | | 34 | | | | | | | | | | | | | |

| T5 | | High Range | IO\_L12P\_T1\_MRCC\_34 | User IO | | 34 | | | | | | | | | | | | | |

| T6 | | High Range | IO\_L23N\_T3\_34 | User IO | | 34 | | | | | | | | | | | | | |

| T7 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| T8 | | High Range | IO\_L24N\_T3\_34 | User IO | | 34 | | | | | | | | | | | | | |

| T9 | | High Range | IO\_L24P\_T3\_A01\_D17\_14 | User IO | | 14 | | | | | | | | | | | | | |

| T10 | | High Range | IO\_L24N\_T3\_A00\_D16\_14 | User IO | | 14 | | | | | | | | | | | | | |

| T11 | | High Range | IO\_L19P\_T3\_A10\_D26\_14 | User IO | | 14 | | | | | | | | | | | | | |

| T12 | | High Range | VCCO\_14 | VCCO | | 14 | | | | | any\*\* | | | | | | | | |

| T13 | | High Range | IO\_L23P\_T3\_A03\_D19\_14 | User IO | | 14 | | | | | | | | | | | | | |

| T14 | | High Range | IO\_L14P\_T2\_SRCC\_14 | User IO | | 14 | | | | | | | | | | | | | |

| T15 | | High Range | IO\_L14N\_T2\_SRCC\_14 | User IO | | 14 | | | | | | | | | | | | | |

| T16 | | High Range | IO\_L15N\_T2\_DQS\_DOUT\_CSO\_B\_14 | User IO | | 14 | | | | | | | | | | | | | |

| T17 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| T18 | | High Range | IO\_L7N\_T1\_D10\_14 | User IO | | 14 | | | | | | | | | | | | | |

| U1 | | High Range | IO\_L7P\_T1\_34 | User IO | | 34 | | | | | | | | | | | | | |

| U2 | | High Range | IO\_L9P\_T1\_DQS\_34 | User IO | | 34 | | | | | | | | | | | | | |

| U3 | | High Range | IO\_L8N\_T1\_34 | User IO | | 34 | | | | | | | | | | | | | |

| U4 | | High Range | IO\_L8P\_T1\_34 | User IO | | 34 | | | | | | | | | | | | | |

| U5 | | High Range | VCCO\_34 | VCCO | | 34 | | | | | any\*\* | | | | | | | | |

| U6 | | High Range | IO\_L22N\_T3\_34 | User IO | | 34 | | | | | | | | | | | | | |

| U7 | | High Range | IO\_L22P\_T3\_34 | User IO | | 34 | | | | | | | | | | | | | |

| U8 | | High Range | IO\_25\_34 | User IO | | 34 | | | | | | | | | | | | | |

| U9 | | High Range | IO\_L21P\_T3\_DQS\_34 | User IO | | 34 | | | | | | | | | | | | | |

| U10 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| U11 | | High Range | IO\_L19N\_T3\_A09\_D25\_VREF\_14 | User IO | | 14 | | | | | | | | | | | | | |

| U12 | | High Range | IO\_L20P\_T3\_A08\_D24\_14 | User IO | | 14 | | | | | | | | | | | | | |

| U13 | | High Range | IO\_L23N\_T3\_A02\_D18\_14 | User IO | | 14 | | | | | | | | | | | | | |

| U14 | | High Range | IO\_L22P\_T3\_A05\_D21\_14 | User IO | | 14 | | | | | | | | | | | | | |

| U15 | | High Range | VCCO\_14 | VCCO | | 14 | | | | | any\*\* | | | | | | | | |

| U16 | | High Range | IO\_L18P\_T2\_A12\_D28\_14 | User IO | | 14 | | | | | | | | | | | | | |

| U17 | | High Range | IO\_L17P\_T2\_A14\_D30\_14 | User IO | | 14 | | | | | | | | | | | | | |

| U18 | | High Range | IO\_L17N\_T2\_A13\_D29\_14 | User IO | | 14 | | | | | | | | | | | | | |

| V1 | | High Range | IO\_L7N\_T1\_34 | User IO | | 34 | | | | | | | | | | | | | |

| V2 | | High Range | IO\_L9N\_T1\_DQS\_34 | User IO | | 34 | | | | | | | | | | | | | |

| V3 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| V4 | | High Range | IO\_L10N\_T1\_34 | User IO | | 34 | | | | | | | | | | | | | |

| V5 | | High Range | IO\_L10P\_T1\_34 | User IO | | 34 | | | | | | | | | | | | | |

| V6 | | High Range | IO\_L20N\_T3\_34 | User IO | | 34 | | | | | | | | | | | | | |

| V7 | | High Range | IO\_L20P\_T3\_34 | User IO | | 34 | | | | | | | | | | | | | |

| V8 | | High Range | VCCO\_34 | VCCO | | 34 | | | | | any\*\* | | | | | | | | |

| V9 | | High Range | IO\_L21N\_T3\_DQS\_34 | User IO | | 34 | | | | | | | | | | | | | |

| V10 | | High Range | IO\_L21P\_T3\_DQS\_14 | User IO | | 14 | | | | | | | | | | | | | |

| V11 | | High Range | IO\_L21N\_T3\_DQS\_A06\_D22\_14 | User IO | | 14 | | | | | | | | | | | | | |

| V12 | | High Range | IO\_L20N\_T3\_A07\_D23\_14 | User IO | | 14 | | | | | | | | | | | | | |

| V13 | | | GND | GND | | | | | | | 0.0 | | | | | | | | |

| V14 | | High Range | IO\_L22N\_T3\_A04\_D20\_14 | User IO | | 14 | | | | | | | | | | | | | |

| V15 | | High Range | IO\_L16P\_T2\_CSI\_B\_14 | User IO | | 14 | | | | | | | | | | | | | |

| V16 | | High Range | IO\_L16N\_T2\_A15\_D31\_14 | User IO | | 14 | | | | | | | | | | | | | |

| V17 | | High Range | IO\_L18N\_T2\_A11\_D27\_14 | User IO | | 14 | | | | | | | | | | | | | |

| V18 | | High Range | VCCO\_14 | VCCO | | 14 | | | | | any\*\* | | | | | | | | |

+------------+-------------+------------+------------------------------+-------------+-------------+---------+------------+------+---------------------+----------------------+---------+------------+-----------+----------+------+------------------+--------------+-------------------+--------------+

\* Default value

\*\* Special VCCO requirements may apply. Please consult the device family datasheet for specific guideline on VCCO requirements.