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 Versio	n : FINAL 2012-07-17
Package Pin De	elay Version : VERS. 2.0 2012-07-17
IO Information Table of Content:	S
1. Summary	
2. IO Assignment	s by Package Pin
1. Summary	
++	
Total User IO	
++	
3	
++	

+ +	+++++
Orive (m	mber Signal Name Bank Type Pin Name Use IO Standard IO Bank IA) Slew On-Chip Termination Off-Chip Termination Voltage Constraint Pull Type S Vref Signal Integrity Pre Emphasis Lvds Pre Emphasis Equalization
+	++++++
A1 	High Range IO_L9N_T1_DQS_AD7N_35 User IO 35
A2 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
A7	High Range VCCO_35
A8	High Range IO_L12N_T1_MRCC_16 User IO 16
A9	High Range IO_L14N_T2_SRCC_16
A10	High Range IO_L14P_T2_SRCC_16 User IO 16
A11	High Range IO_L4N_T0_15 User IO 15
A12 0.0	

```
| High Range | IO_L9P_T1_DQS_AD3P_15 | User IO | 15 |
| A13
      | High Range | IO_L9N_T1_DQS_AD3N_15 | User IO | 15 |
| A14
     | |
     | High Range | IO L8P T1 AD10P 15 | User IO | 15 |
I A15
       | High Range | IO_L8N_T1_AD10N_15 | User IO |
| A16
      | A17
| A18
      | High Range | IO L10N T1 AD11N 15 | User IO |
          | User IO |
      | High Range | IO_L9P_T1_DQS_AD7P_35
| B1
      | High Range | IO L10N T1 AD15N 35
   User IO |
| B2
                              35 |
        | High Range | IO L10P T1 AD15P 35 | User IO |
| B3
        | B4
      I B5
| 0.0 |
      | B6
      | B7
      | High Range | IO_L2P_T0_AD12P_35 | User IO |
       | High Range | IO_L12P_T1_MRCC_16 | User IO |
I B8
                             16 l
   ١
     | High Range | IO_L11N_T1_SRCC_16 | User IO |
| B9
                           | 16|
      | B10
   | High Range | VCCO_16 | VCCO | 16 |
   | 3.30 | | | | |
                  | B11
```

```
| B12
 | High Range | IO_L3N_T0_DQS_AD1N_15 | User IO | 15 |
    | B13
  1
    | B14
      1
    | High Range | IO_L7P_T1_AD2P_15 | User IO |
    | High Range | IO_L7N_T1_AD2N_15 | User IO | |
| B17
  | B18
    | High Range | IO L10P T1 AD11P 15 | User IO |
       | C1
                    35 | |
  | | High Range | IO_L16P_T2_35 | User IO |
| C2
                   | 35 |
    | C3
    | C4
    | C5
   | High Range | IO_L1N_TO_AD4N_35 | User IO |
                     35 |
      | C6
      | C7
   | |GND |GND | | | | |
1 C8
| 0.0 |
  | High Range | IO_L11P_T1_SRCC_16 | User IO | 16 |
    | C10
      | High Range | IO_L13P_T2_MRCC_16 | User IO |
| C11
```

```
| C13
    | High Range | IO_L1N_T0_AD0N_15 | User IO | |
| C14
     | High Range | IO L12N T1 MRCC 15 | User IO |
I C15
      - 1
  | | High Range | IO_L20N_T3_A19_15 | User IO | | 15 |
| C17
     | GND |
| D2
     | High Range | IO_L12N_T1_MRCC_35 | User IO |
| D3
     | High Range | IO_L11N_T1_SRCC_35 | User IO |
| D4
    | High Range | IO_L11P_T1_SRCC_35 | User IO |
I D5
                      35 l
      | D6
| High Range | IO_L6N_T0_VREF_35 | User IO | 35 |
| D7
  l D8
  | reset | High Range | IO_L6N_T0_VREF_16 | INPUT | LVCMOS33 |
   | NONE | | FIXED | | | NONE |
1 1
12 | SLOW | | FP_VTT_50 | | FIXED | | | NONE
```

```
| High Range | IO_L6N_T0_VREF_15 | User IO | 15 |
  1
| D13
    | D14
     | High Range | IO L12P T1 MRCC 15 | User IO |
I D15
      | D16
1
  | | High Range | IO_L16N_T2_A27_15 | User IO | | 15 |
| D17
    | | | | - | - | - | - | |
   | High Range | IO_L21N_T3_DQS_A18_15 | User IO | 15 |
| D18
    | E1
  | High Range | IO_L14P_T2_SRCC_35 | User IO | 35 |
  1
  | High Range | IO_L5N_T0_AD13N_35 | User IO | | 35 |
    |
    1 E6
    | | Dedicated | VCCBATT_0 | Config | | 0 | | |
| E8
  1
            | Dedicated | CCLK_0
| E9
           | Config |
                  0 |
  | E10
```

```
| Dedicated | TMS 0
         | Config |
| E12
              0 |
   | E13
 1
             0 |
| High Range | IO_L16P_T2_A28_15 | User IO | |
 | E17
                15 |
    | High Range | IO L21P T3 DQS 15 | User IO |
| E18
     | F1
              | 35 | | |
  | F2
   | High Range | IO L13N T2 MRCC 35 | User IO |
 | F3
   | High Range | IO_L13P_T2_MRCC_35 | User IO |
              | 35 |
   | F5
              35 | | |
  | F6
  1
    | GND
        |GND | | | | |
  | | VCCINT
        | VCCINT |
            | VCCBRAM |
| F10 | | | VCCBRAM
             | | |
        | GND |
```

```
| F12
    | F13
     | F14
    | High Range | IO_L14P_T2_SRCC_15 | User IO | |
| F15
                   15 |
     | High Range | IO L14N T2 SRCC 15 | User IO |
     | High Range | IO_L22N_T3_A16_15 | User IO | 15 |
| F18
    | G1
    1
    | G2
  1
                  - 1
  | High Range | IO_L20N_T3_35 | User IO |
I G3
                   35 | | |
    | | High Range | IO_L20P_T3_35 | User IO | | | | | | |
                 | 35 | | |
| G4
            1
  | | High Range | IO_L19P_T3_35 | User IO | | 35 | | |
I G6
  1 1
          | GND |
 i I
| 0.0 | | | | |
| G9 | | | VCCINT
          | VCCINT | | | | |
| G10 | | | GND
         | GND
|       |
          | GND | | |
                  | 0.0 | | | |
              | VCCBRAM |
                - 1
```

```
| G13
  | High Range | IO L15N T2 DQS ADV B 15 | User IO | 15 |
| G14
   1 1
 | G15
   | High Range | IO L13N T2 MRCC 15 | User IO |
I G16
   | | High Range | IO_L22P_T3_A17_15 | User IO | | 15 |
| G18
   | High Range | IO L17P T2 35 | User IO |
             | 35 |
| H1
   | |GND | GND | | | | |
| H3
 | High Range | IO_L21N_T3_DQS_35 | User IO | 35 |
 35 | | |
I H6
| VCCINT | | | | |
```

```
| | High Range | IO_L15P_T2_DQS_15 | User IO | | 15 |
   | High Range | IO_L19N_T3_A21_VREF_15 | User IO | 15 |
| H15
  | High Range | IO_L13P_T2_MRCC_15 | User IO | 15 |
| H16
   | High Range | IO_L18P_T2_A24_15 | User IO | 15 | |
  I H18
| J1
| J2
1
 | J3
1
 | | High Range | IO_L21P_T3_DQS_35 | User IO | | 35 |
 1
1
       | VCCINT |
            | J11 | | | VCCINT
       | VCCINT | | | | |
```

```
| J13
    | High Range | IO L19P T3 A22 15 | User IO |
| J14
    | High Range | IO_L24N_T3_RS0_15 | User IO |
| J15
               | 15 |
    | High Range | IO L23P T3 FOE B 15 | User IO |
    | High Range | IO_L23N_T3_FWE_B_15 | User IO |
               | 15 |
  1
  | High Range | IO_L23N_T3_35 | User IO |
| K1
 1
              | 35 | |
1
   - 1
| K2
 | | High Range | IO L23P T3 35
          User IO
               35 |
  1
   | K3
1
  l K4
  | High Range | IO_L5P_T0_34 | User IO | 34 |
| K5
  - 1
              | Dedicated | VN 0
```

```
| K15
 | K16
| K17
| | High Range | IO_L1N_T0_D01_DIN_14 | User IO | | 14 | |
| L1
| L4
1 1 1
|GND | | | | | |
```

```
| High Range | IO L3P TO DQS PUDC B 14 | User IO | 14 |
| L15
    | High Range | IO_L3N_T0_DQS_EMCCLK_14 | User IO | 14 |
| L16
    1 1
  | L17
   | High Range | IO_L4P_T0_D04_14 | User IO |
| L18
                   | 14 |
    | High Range | IO L1N TO 34
             User IO
| M1
                  | 34 |
  - 1
    34 |
| M2
    - 1
  | High Range | IO_L4P_T0_34
             User IO
| M3
                    34 |
    | High Range | IO_L16P_T2_34 | User IO |
                   34 |
  1 1
| | VCCINT
 | VCCINT | | | | |
      | GND |
      | GND
          | 0...
               | M9 | | | | |
| 0.0 | | | | |
          | VCCINT | | | | |
| M10 | | | VCCINT
  |GND | | |
  | GND
| 0.0 | | | | |
```

```
| M13
   | M14
   | M15
0.0 |
    | High Range | IO L10P T1 D14 14 | User IO |
| M16
     - |
   | High Range | IO_L4N_T0_D05_14 | User IO | |
| M18
  14 |
     1
   | High Range | IO L3N TO DQS 34 | User IO |
| N1
     1
   | N2
   1
  | N3
  | N4
   | High Range | IO_L13P_T2_MRCC_34 | User IO |
                 | 34 |
   | High Range | IO_L18N_T2_34 | User IO | |
                 34 | | |
  | | VCCINT | VCCINT | |
               | GND |
   | GND
              | 0.0 | | | |
         | VCCINT | | | | |
| N10 | | GND
         | GND |
              ן שאט ן
| 0.0 | | | |
             VCCINT | |
        | | GND
         |GND | | | | |
| 0.0 | | | |
```

```
N13
      | N14
       | High Range | IO_L11P_T1_SRCC_14 | User IO |
| N15
                             | 14 |
       | High Range | IO_L11N_T1_SRCC_14 | User IO |
| N16
                            14 |
         | High Range | IO L9P T1 DQS 14 | User IO |
I N17
        | | GND | GND
                    1 1 1
| P1
   | High Range | IO L15P T2 DQS 34 | User IO |
| P2
                             | 34 |
       | P3
      | High Range | IO L14P T2 SRCC 34 | User IO |
I P4
   34 l
         | High Range | IO L13N T2 MRCC 34 | User IO |
| P5
        | High Range | VCCO_34
| P6
                   | VCCO | | 34 | | | |
    | any** | | | | | |
   | Dedicated | INIT_B_0 | Config |
I P7
                             0 I
    - 1
| P8
      | Dedicated | CFGBVS_0
                   | Config | | 0 |
    | 3.30 | | | | |
- 1
                        | P9
      | Dedicated | PROGRAM B 0
                    | Config | | 0 | | |
    | Dedicated | DONE 0
I P10
                    | Config |
                            0 |
      1
| P11
      | Dedicated | M2 0
                   | Config |
                            0 |
            | P12
      | Dedicated | M0 0
                   | Config |
                            0 |
    - 1
      - 1
                        | Dedicated | M1_0
l P13
                   | Config |
                          1
                            0 |
```

```
| P14
     | High Range | IO L13P T2 MRCC 14 | User IO |
| P15
       | P16
  | any** | | | | | |
    | P17
     | High Range | IO L9N T1 DQS D13 14 | User IO |
I P18
      | R1
1
  | R2
  | High Range | IO L11P T1 SRCC 34 | User IO |
| R3
      l R5
    | High Range | IO L19P T3 34 | User IO |
| R6
                    34 |
    | R7
    | High Range | IO_L23P_T3_34
             User IO
  | High Range | IO_L24P_T3_34
             User IO
IR8
                    34 |
    1 1
    | Dedicated | VCCO_0
            VCCO |
| R9
                 | 0| |
  3.30 | | | |
- 1
                   - 1
    | High Range | IO 25 14
             | User IO | | 14 |
| R10
    | High Range | IO_0_14
             | User IO | | 14 |
| R11
    | R12
    | R13
     1
|R14 | | |GND |GND | |
```

```
| R15
   | High Range | IO_L13N_T2_MRCC_14 | User IO | 14 |
      | High Range | IO L15P T2 DQS RDWR B 14 | User IO | 14 |
| R16
   | R17
         | High Range | IO L7P T1 D09 14 | User IO |
I R18
        | T1
| T2
  | High Range | IO L11N T1 SRCC 34 | User IO |
| T3
                        | 34 |
         | T4
     | High Range | IO_L12N_T1_MRCC_34 | User IO |
                        | 34 |
   1
    | High Range | IO_L12P_T1_MRCC_34 | User IO | 34 |
| T5
  1
       | T6
    | | GND | GND |
| | | | | |
                 1
| 0.0 |
  | T8
  | High Range | IO_L24P_T3_A01_D17_14 | User IO | 14 |
| T9
     | T10
     | High Range | IO L24N T3 A00 D16 14 | User IO |
      | High Range | IO_L19P_T3_A10_D26_14 | User IO |
| T11
                           14 l
     | T12
     | T13
     1
   - 1
   | High Range | IO_L14P_T2_SRCC_14 | User IO | 14 |
l T14
```

```
| T16
   1 1
|T17 | | GND | GND | | | | | | |
   | U1
1
  | High Range | IO_L9P_T1_DQS_34 | User IO | 34 |
| U2
   | U3
  | High Range | IO L8N T1 34
          User IO
             | 34 |
   1 1
   | High Range | IO_L8P_T1_34 | User IO |
| U4
  1
 | U5
  - 1
         | User IO | | 34 |
 | High Range | IO L22N T3 34
I U6
  1
 | U7
 I U8
 | High Range | IO_L21P_T3_DQS_34 | User IO | 34 | |
| U9
  1
| High Range | IO_L19N_T3_A09_D25_VREF_14 | User IO | 14 |
l U11
  | U12
   | U13 |
```

```
| U14
| U15
   | U16
    | High Range | IO_L17P_T2_A14_D30_14 | User IO |
| U17
    | U18
    1 1
1
 | V1
  | | High Range | IO_L9N_T1_DQS_34 | User IO | | 34 |
  | High Range | IO_L10N_T1_34 | User IO |
| V4
                  | 34 |
    | | High Range | IO_L10P_T1_34
             | User IO |
| V5
                   34 |
  | High Range | IO_L20N_T3_34
             User IO
| V6
                   34 |
  1 1
    | High Range | IO L20P T3 34
l V7
             User IO
                   34 l
  | V8
   | V9
  | High Range | IO_L21P_T3_DQS_14 | User IO | 14 |
I V10
     | High Range | IO_L21N_T3_DQS_A06_D22_14 | User IO | 14 |
| V11
1 1
```

V12 	High Range IO_L20N_T3_A07_D23_14	
V13 0.0	GND	I
V14 	High Range IO_L22N_T3_A04_D20_14	
V15 	High Range IO_L16P_T2_CSI_B_14 User IO 14	I
V16 	High Range IO_L16N_T2_A15_D31_14	
V17 	High Range IO_L18N_T2_A11_D27_14 User IO 14	
V18 	High Range VCCO_14	
-+	+++++++	

^{*} Default value

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