Copyright 1986-2016 Xilinx, Inc. All Rights Reserved. _____ | Tool Version : Vivado v.2016.2 (win64) Build 1577090 Thu Jun 2 16:32:40 MDT 2016 : Thu Feb 16 20:35:32 2017 | Date : DESKTOP-JK482SK running 64-bit major release (build 9200) I Host : report_io -file lab3top_io_placed.rpt | Command | Design : lab3top | Device : xc7a35t | Speed File : -1 | Package : cpg236 **IO** Information **Table of Contents** _____ 1. Summary 2. IO Assignments by Package Pin 1. Summary | Total User IO | +----+ 10 | +----+ 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 | ----+ | GND | A1 I GND

0.0

- 1

```
| MGTPTXN1_216 | Gigabit | |
| A2
         | A3
         | GND
                  | GND |
      0.0
          | Gigabit
I A4
         | MGTPRXN0 216
          | GND |
| A5
         | GND
      0.01
| A6
         | MGTPRXN1 216
                 | Gigabit
                  | GND |
| A7
         | GND
          0.0
         | MGTREFCLK0N_216 | Gigabit
| A8
                             - 1
                    | GND |
| A9
      0.0
         | MGTREFCLK1N_216 | Gigabit
| A10
         | Temp Sensor |
       | Dedicated | DXP_0
| A11
                                0 |
          | Dedicated | VP_0
| A12
                  |XADC |
                            | 0| |
      | XADC
                             | 0| |
I A13
       | A14
                              | 16|
      | High Range | IO_L6N_T0_VREF_16 | User IO
I A15
                                  16 |
| High Range | IO_L12P_T1_MRCC_16 | User IO
| A16
                                  16 |
      | High Range | IO_L12N_T1_MRCC_16
| A17
                      | User IO
                                | 16|
      | High Range | IO_L19N_T3_VREF_16
| A18
                      | User IO
                                  16 |
        | GND
                  | GND
| A19
      1
                      0.0
| B1
         | MGTPTXP1_216 | Gigabit
| B2
                 | GND
| B3
                  | GND |
                         1 1 1 1
      0.0
```

```
| MGTPRXP0_216 | Gigabit
| B4
           | GND
| B5
                     | GND |
        0.0
            | Gigabit
| | |
I B6
           | MGTPRXP1 216
           | GND
I B7
           | GND
        0.01
           | MGTREFCLK0P_216 | Gigabit
| B8
                     | GND |
| B9
           | GND
           0.0
           | MGTREFCLK1P_216 | Gigabit
| B10
           | Temp Sensor |
        | Dedicated | DXN_0
| B11
                                     0 |
        | | |
I B12
                        | XADC
                                   1 01
        | B13
        | Dedicated | VN_0
                       | XADC
                                 | 0|
           | B14
        | GND
                     | GND
                          0.0 | | | |
        | High Range | IO_L11N_T1_SRCC_16 | User IO
| B15
                                        16 |
       | B16
        | High Range | IO_L13N_T2_MRCC_16
                            | User IO
                                        16 |
I B17
        | High Range | IO_L14N_T2_SRCC_16
                          l User IO
                                        16 |
       1 1
        | B18
                                   | 16|
         1 1
                          | VCCO
| B19
        | High Range | VCCO_16
                                     16 |
           | any**|
| C1
           | MGTAVCC
                     | Gigabit Power |
|
            | C2
           | GND
                     | GND
                          0.0
            | C3
           | GND
                     | GND
    0.0
            | C4
                     | GND
           | GND
        0.0
           | Gigabit Power |          |
| C5
           | MGTAVTT
```

```
| C6
      | | MGTRREF_216 | Gigabit | |
| C7
                            I C8
      | C9
                        | 0|
I C10
      0.0 | | | |
      | Dedicated | CCLK_0
| C11
                  | Config
                          | 0|
      | XADC
      | Dedicated | GNDADC_0
| C12
                              0 |
      | C13
                              0 |
      | C14
                             16 |
| High Range | IO_L11P_T1_SRCC_16 | User IO
| C15
                                16 |
      | C16
      | High Range | IO_L13P_T2_MRCC_16 | User IO
                                16 |
      | |
      | High Range | IO_L14P_T2_SRCC_16 | User IO
| C17
                                16 |
      1 1
      | High Range | VCCO_16 | VCCO
| C18
                             16 |
                 | any**|
|GND |
      | GND
I C19
      0.0 | | | |
                | Gigabit
      | | MGTPTXN0_216
| D1
        ID2
         | GND |
ID3
        0.0
      | D17
                          | 14|
      | High Range | IO_L1P_T0_D00_MOSI_14 | User IO |
| D18
                                14
      | High Range | IO_L1N_T0_D01_DIN_14 | User IO
| D19
                                14 |
| |
      | | MGTAVCC | Gigabit Power | | |
| E1
```

```
|MGTAVTT |Gigabit Power | |
| E2
| E3
          | GND
                   | GND
          0.0
          | GND
       1
                   | GND |
          0.0
| E18
    | High Range | IO_L3P_T0_DQS_PUDC_B_14 | User IO
          Ya | High Range | IO_L3N_T0_DQS_EMCCLK_14 | OUTPUT |
| E19
LVCMOS33 | 14 | 12 | SLOW |
                        FP_VTT_50 | | FIXED |
I
   | NONE
          | GND
| F1
                   | GND
   ı
       0.0
          1
          | GND
| F2
                   | GND
          1
       0.0
| F3
          | MGTAVCC
                | Gigabit Power |
       |
                                  14 |
| F17
| High Range | IO_L2N_T0_D03_14
I F18
                        | User IO
                                   14 I
       1 1
                        | GND
| F19
                  | GND
       0.0
         | GND
| G1
       0.0
| G2
       | High Range | IO_L1N_T0_AD4N_35
                       | User IO
                                    35 |
       | |
                        | G3
       | High Range | IO_L1P_T0_AD4P_35
                        | User IO
                                    35 |
          | | | |
| Gigabit Power |
| G7
          | MGTAVTT
                                    |
                   | GND
| G8
                   | GND | |
          0.0
                  | Gigabit Power | |
          MGTAVCC
| G9
          | G10
                   | VCCINT | | | | |
          |GND |
I G11
       | GND
                           0.0
                   |VCCO | | 0| |
       | Dedicated | VCCO_0
| G12
    | G13
                               | 16|
                            | any** | | | | |
```

```
| G17
         | High Range | IO_L5N_T0_D07_14
                             | User IO
                                            14 |
          | G18
         | High Range | IO_L2P_T0_D02_14
                              | User IO
                                            14 |
           1 1
I G19
         | High Range | IO_L4N_T0_D05_14
                                            14 I
                              | User IO
| High Range | IO_L3P_T0_DQS_AD5P_35 | User IO |
                                              35
| H1
          1
         | High Range | IO_L2P_T0_AD12P_35
| H2
                                             35 |
    | User IO
        | |
         | High Range | VCCO_35
                            | VCCO
| H3
                                          35 |
                        | any**|
| H7
             | GND
                        | GND
         0.0
             | H8
             | GND
                        | GND
         0.0
             I
                        | Gigabit Power |
| H9
             | MGTAVCC
             1 1
                        | VCCINT
                        | VCCINT |
| H10
             | H11
             | GND
                        | GND
                              0.0
         | GND
I H12
             | GND
         0.0
             | H13
         | VCCAUX
                       | VCCAUX
                                 1.80
                              I H17
         | High Range | IO_L5P_T0_D06_14
                             | User IO
                                            14 I
1
              | H18
                    | GND
         | GND
                               1 1
         0.0
| H19
         | User IO
                                            14 |
| High Range | IO_L3N_T0_DQS_AD5N_35 | User IO |
                                              35
| J1
        1
| J2
         | High Range | IO_L2N_T0_AD12N_35
                                             35 |
                              | User IO
| High Range | IO_L7P_T1_AD6P_35
                             | User IO
| J3
                                            35 |
| High Range | VCCO_35 | VCCO
                                   35 | |
| J7
            | any**| |
                        | | GND
                        | GND
| J8
                              - [
         0.0
```

```
| GND
                         |GND | | |
| J9
          0.0
                         | J10
               | VCCINT
                             | VCCINT
                                    | J11
                             | GND
               | GND
          0.0
                | GND
| J12
               | GND
          0.0
| J13
               | VCCAUX
                             | VCCAUX
          1.80 |
| J17
           | High Range | IO_L7P_T1_D09_14
                                    | User IO
                                                    14 |
| J18
           | High Range | IO_L7N_T1_D10_14
                                  | User IO
                                                    14 |
| High Range | IO_L6N_T0_D08_VREF_14 | User IO
                                                    | 14
| J19
| K1
          | High Range | VCCO_35
                                                  35 |
          | any** |
| K2
          | High Range | IO_L5P_T0_AD13P_35
                                    | User IO
                                                     35 |
          | |
                                    | K3
          | High Range | IO_L7N_T1_AD6N_35
                                                     35 |
                                   | User IO
          35 |
| K7
          | High Range | VCCO_35
                                 | VCCO
| any**|
                            | K8
              | GND
                             | GND
                                    0.0
                 | High Range | VCCO_14
                                  | VCCO
                                                  14 |
| K12
1 1
          | 3.30|
                                | K13
           | High Range | VCCO_14
                                  | VCCO
                                                  14 |
          | 3.30| |
| K17
           | High Range | IO_L12N_T1_MRCC_14
                                                   | 14|
                                   | User IO
          | High Range | IO_L8N_T1_D12_14
| K18
                                    | User IO
                                                  | 14|
| K19
           | High Range | IO_L6P_T0_FCS_B_14
                                                  | 14|
                                     | User IO
          | High Range | IO_L6N_T0_VREF_35
| L1
                                                     35 |
                                     | User IO
| |
| L2
          | High Range | IO_L5N_T0_AD13N_35
                                                     35 |
                                     | User IO
1 1
          | High Range | IO_L8P_T1_AD14P_35
                                     | User IO
| L3
                                                     35 |
```

```
| High Range | VCCO_35 | VCCO
| L7
                                         35 |
                        · | · | |
        | any**| |
| L8
            | GND
                       | GND
             0.0
| L9
                       | GND
            | GND
        0.0
            | VCCINT
                        | VCCINT |
| L10
            | L11
             | GND
                        | GND |
        0.0
            | High Range | VCCO_14
                           | VCCO
| L12
                                         14 |
1 1
        | 3.30|
| L13
         | High Range | VCCO_14
                                         14 |
        | 3.30 | | | |
| High Range | IO_L12P_T1_MRCC_14 | User IO
| L17
                                          | 14|
        | L18
        | User IO
1 1
            | L19
            | GND
                    | GND
        0.0
| M1
         | High Range | IO_L9N_T1_DQS_AD7N_35
                               | User IO
        35 |
         | High Range | IO_L9P_T1_DQS_AD7P_35
| M2
                               | User IO
       35 |
| M3
         | High Range | IO_L8N_T1_AD14N_35 | User IO
                                            35 |
        | M7
        | High Range | VCCO_35
                         | VCCO
                                         35 I
        | any**|
                      | High Range | VCCO_34
| M8
                                         34 |
| |
           | 3.30|
                       | GND |
I M9
            | GND
            0.0
                       | VCCINT |
| M10
             | VCCINT
                                      1 1
| M11
             | VCCBRAM
                         | VCCBRAM
                       | High Range | VCCO_14
| M12
                        I VCCO
                                       14 |
| 3.30 |
                       | GND
                       |GND |
| M13
         0.0
        | High Range | VCCO_14 | VCCO | 3.30 | | | |
| M17
                                          14 |
```

```
| M18
                | High Range | IO_L11P_T1_SRCC_14
                                                         | User IO
                                                                                14 |
| M19
                | High Range | IO_L11N_T1_SRCC_14
                                                         | User IO
                                                                                14 |
                                | N1
                | High Range | IO_L10N_T1_AD15N 35
                                                                               35 |
                                                        | User IO
| N2
                | High Range | IO_L10P_T1_AD15P_35
                                                        | User IO
                                                                               35 |
| N3
                | High Range | IO_L12P_T1_MRCC_35
                                                        | User IO
                                                                               35 |
| VCCO
| N7
                | High Range | VCCO_34
                                                                         34 |
| 3.30 |
| N8
                | High Range | VCCO_34
                                                  IVCCO
                                                                         34 |
                            | 3.30 |
                       | GND
| N9
                                          | GND
               0.0
| N10
                       | VCCINT
                                            | VCCINT
                        | N11
                       | VCCBRAM
                                              | VCCBRAM
                       | N12
                       | GND
                                           | GND
               0.0
| N13
                | GND
                                           | GND
               0.0
| N17
                | High Range | IO_L13P_T2_MRCC_14
                                                         | User IO
                                                                                14 |
                | High Range | IO_L9P_T1_DQS_14
| N18
                                                       | User IO
                                                                              14 |
| N19
                | High Range | IO_L9N_T1_DQS_D13_14
                                                          | User IO
                                                                                 14
| P1
                | High Range | IO_L19N_T3_VREF_35
                                                       | User IO
                                                                               35 |
| P2
                      | GND
                                          | GND
               0.0
| P3
               | High Range | IO_L12N_T1_MRCC_35
                                                        | User IO
                                                                               35 |
                                                                                14 |
| P17
                | High Range | IO_L13N_T2_MRCC_14
                                                         | User IO
                | High Range | IO_L14P_T2_SRCC_14
| P18
                                                                                14 |
                                                        | User IO
| P19
                | High Range | IO_L10P_T1_D14_14
                                                                              14 |
                                                       | User IO
```

```
| R1
              | High Range | VCCO_34
                                            | VCCO
                                                                   34 |
                         | 3.30|
| R2
              | High Range | IO_L1P_T0_34
                                               | User IO
                                                                   34 |
                            | High Range | IO_L2P_T0_34
| R3
                                                                   34 |
                                              | User IO
                            | R17
               | High Range | VCCO_14
                                             | VCCO
                                                                   14 |
                         | 3.30 |
| R18
               | High Range | IO_L14N_T2_SRCC_14
                                                                        14 |
                                                   | User IO
                           | R19
              | High Range | IO_L10N_T1_D15_14
                                                 | User IO
                                                                       14 |
| T1
              | High Range | IO_L3P_T0_DQS_34
                                                 | User IO
                                                                      34 |
| T2
              | High Range | IO_L1N_T0_34
                                              | User IO
                                                                   34 |
              | High Range | IO_L2N_T0_34
                                                                   34 |
| T3
                                              | User IO
                   | T17
              | High Range | IO_L17P_T2_A14_D30_14
                                                                         14
                                                    | User IO
                                 | T18
              | High Range | IO_L17N_T2_A13_D29_14
                                                                         14
                                                    | User IO
                                | GND
| T19
                                      | GND
                                                        0.0
| U1
              | High Range | IO_L3N_T0_DQS_34
                                                 | User IO
                                                                       34 |
| U2
              | High Range | IO_L9N_T1_DQS_34
                                                 | User IO
                                                                       34 |
                  | High Range | IO_L9P_T1_DQS_34
                                                 | User IO
| U3
                                                                      34 |
| U4
              | High Range | IO_L11P_T1_SRCC_ 34
                                                                       34 |
                                                  | User IO
              | High Range | IO_L16P_T2_34
| U5
                                               | User IO
                                                                    34 |
| U6
                    | GND
                                      | GND
              0.0
| U7
              | High Range | IO_L19P_T3_34
                                                                    34 |
                                               | User IO
       | High Range | IO_L14P_T2_SRCC_34
                                                                        34 |
| U8
                                                | User IO
                                | U9
                    | GND
                                      | GND
              0.0
```

```
| U10
           | Dedicated | M2_0
                               | Config
                                               0 | |
                                      | U11
           | Dedicated | INIT_B_0
                                | Config
                                                0 |
                   | Dedicated | DONE_0
I U12
                                                0 |
                                 | Config
                                 | U13
           | High Range | VCCO_14
                                  | VCCO
                                              | 14|
                   | 3.30 |
     14 |
     12 | SLOW | FP_VTT_50 | FIXED | | |
NONE
U15 | Rb | High Range | IO L23P T3 A03 D19 14 | OUTPUT |
LVCMOS33 | 14 | 12 | SLOW | | FP_VTT_50 | | FIXED |
| | NONE
U16 | Ra | High Range | IO_L23N_T3_A02_D18_14 | OUTPUT |
LVCMOS33 | 14 | 12 | SLOW | | FP_VTT_50 | | FIXED |
I I NONE
           | High Range | IO_L18P_T2_A12_D28_14
                                       | User IO
| U17
      1
                                                      14
           | High Range | IO_L18N_T2_A11_D27_14
                                                       14
| U18
                                       | User IO
                   U19 | Ga | High Range | IO_L15P_T2_DQS_RDWR_B_14 | OUTPUT |
LVCMOS33 | 14 | 12 | SLOW | | FP_VTT_50 | | FIXED |
| | NONE |
| V1
           | High Range | VCCO_34
                                 | VCCO
                                                  34 |
     | 3.30|
1 1
                                    | V2
          | High Range | IO_L5P_T0_34
                                  | User IO
                                                  34 |
| V3
          | High Range | IO_L6P_T0_34
                                  | User IO
                                                  34 |
              | |
| V4
          | High Range | IO_L11N_T1_SRCC_34
                                   | User IO
                                                     34 |
1 1
              | V5
          | High Range | IO_L16N_T2_34
                                   | User IO
                                                   34 |
| V6
          | High Range | VCCO_34
                                 I VCCO
                                                  34 |
| 3.30 |
          | High Range | IO_L19N_T3_VREF_34
| V7
                                                     34 |
                                     | User IO
                                                  1 1
           | High Range | IO_L14N_T2_SRCC_34 | User IO
| V8
                                                     34 |
| |
               | V9
                                                 0 |
          | Dedicated | VCCO_0
                                | VCCO
                                         | any** | |
```

```
| Dedicated | PROGRAM_B_0 | Config | 0 |
| V10
                          | V11
         | Dedicated | CFGBVS_0
                           | Config
                                     | 0|
            | Dedicated | M0_0
I V12
                         | Config |
                                   | 0|
         | V13
V14 | Gb | High Range | IO L24N T3 A00 D16 14 | OUTPUT
LVCMOS33 | 14 | 12 | SLOW | | FP_VTT_50 | | FIXED |
| | NONE
         | High Range | IO_L21P_T3_DQS_14 | User IO |
| V15 |
                                          | 14|
               | High Range | IO_L19P_T3_A10_D26_14 | User IO |
| V16 |
                                             14
         V17 | rst | High Range | IO_L19N_T3_A09_D25_VREF_14 | INPUT
LVCMOS33 | 14 | | | NONE | | FIXED |
NONE
| V18 |
            | GND
                       | GND
            0.0
V19 | Gw | High Range | IO_L15N_T2_DQS_DOUT_CSO_B_14 | OUTPUT |
LVCMOS33 | 14 | 12 | SLOW | | FP_VTT 50 | | FIXED |
| | NONE |
| W1
         | | GND
                    | GND
                                  | | | |
        0.0 |
         | High Range | IO_L5N_T0_34
                             | User IO |
| W2
                                       | 34 |
        | High Range | IO_L6N_T0_VREF 34
| W3
                              | User IO
                                            34 |
        | High Range | IO_L12N_T1_MRCC_34
                             | User IO
                                             34 |
| W4
    | W5
| 34| | | NONE| | FIXED | | |
NONE I
| W6
         | High Range | IO_L13N_T2_MRCC 34
                                | User IO
                                             34 |
| High Range | IO_L13P_T2_MRCC_34
| W7
                                             34 |
                                | User IO
| Dedicated | TDO_0
                                        0 |
| W8
                          | Config
               - 1
                           | W9
         | Dedicated | TMS_0
                           | Config
                                        0 |
```

W10		Dedicated TDI_0	Config	1	0	1	
	- 1						
W11		Dedicated M1_0	Config	1	0		
				I			
W12		GND	GND	1 1	I	1 1	
	- 1	0.0					
W13		High Range IO_L22	P_T3_A05_D21_14	User IO	- 1	- 1	14
W14		High Range IO_L22	N_T3_A04_D20_14	User IO		-	14
W15		High Range IO_L21	N_T3_DQS_A06_D2	22_14 Use	r IO		
14						- 1	
W16		High Range IO_L20	P_T3_A08_D24_14	User IO	- 1		14
W17		High Range IO_L20	N_T3_A07_D23_14	User IO		-	14
W18	Rw	High Range IO_L1	16P_T2_CSI_B_14	OUTPU	Τļ	LVCMO	<mark>S33</mark>
14	12	SLOW	FP_VTT_50	FIXED		1	
NONE							
W19		High Range IO_L16	N_T2_A15_D31_14	User IO			14
+	+	+	+	+	+	+	
+	+	+	-++	+	+	+	
+							

^{*} Default value

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