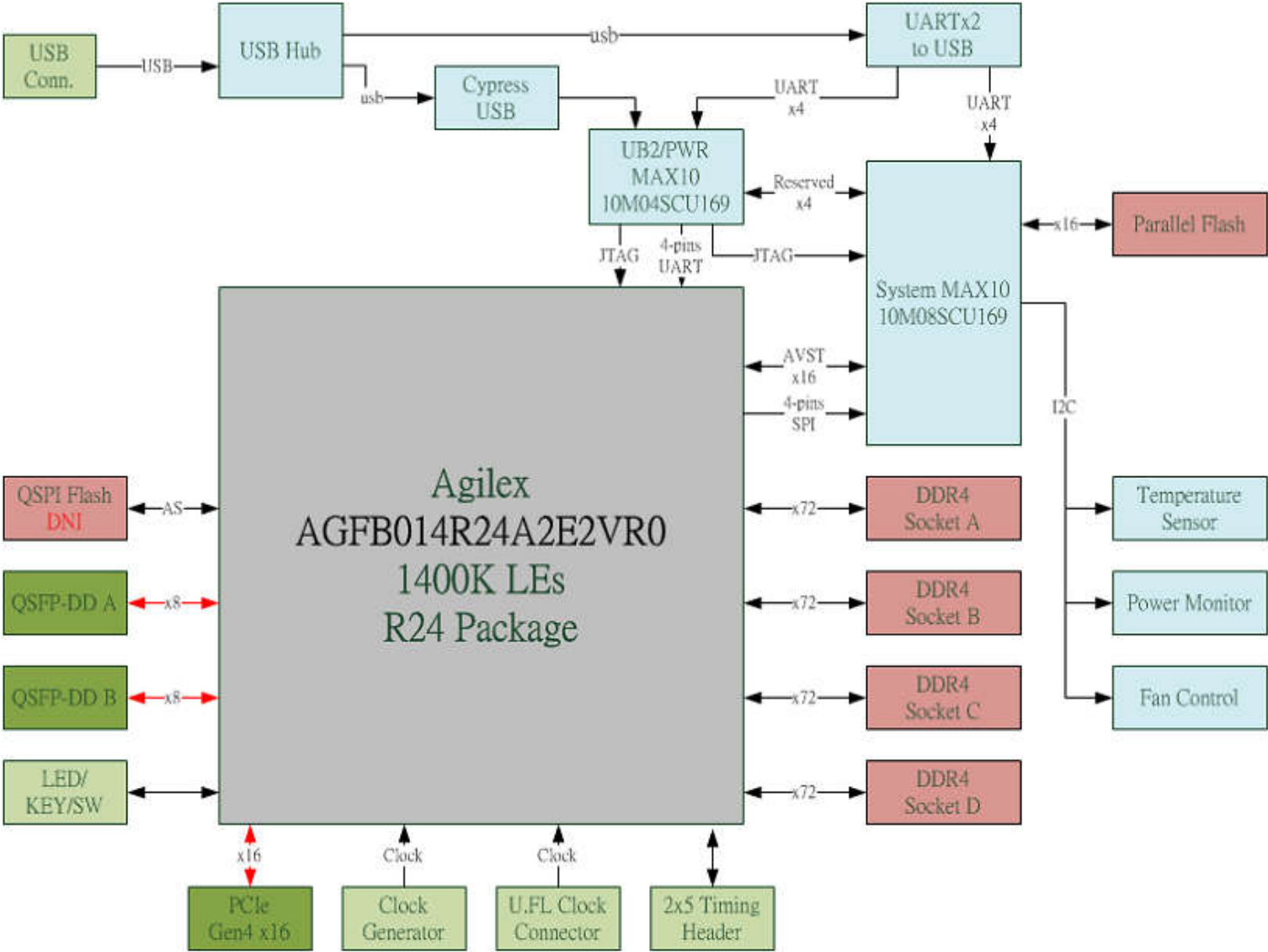
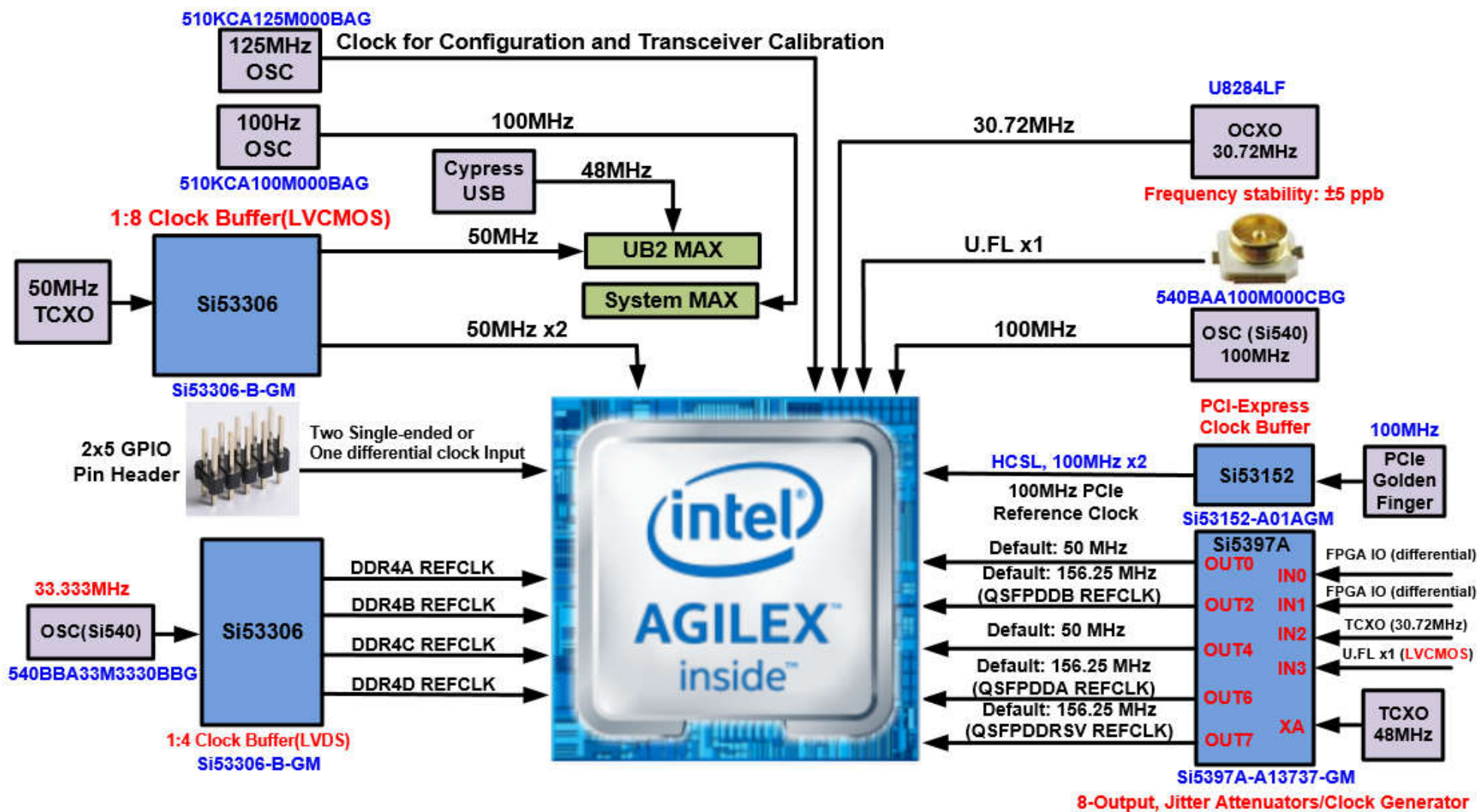


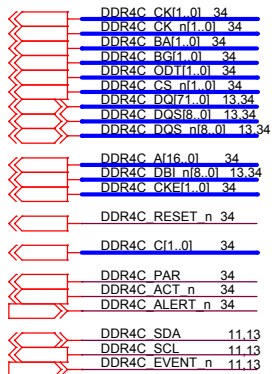
Block Diagram



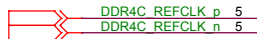
Clock Tree



DDR4 SO-DIMM C

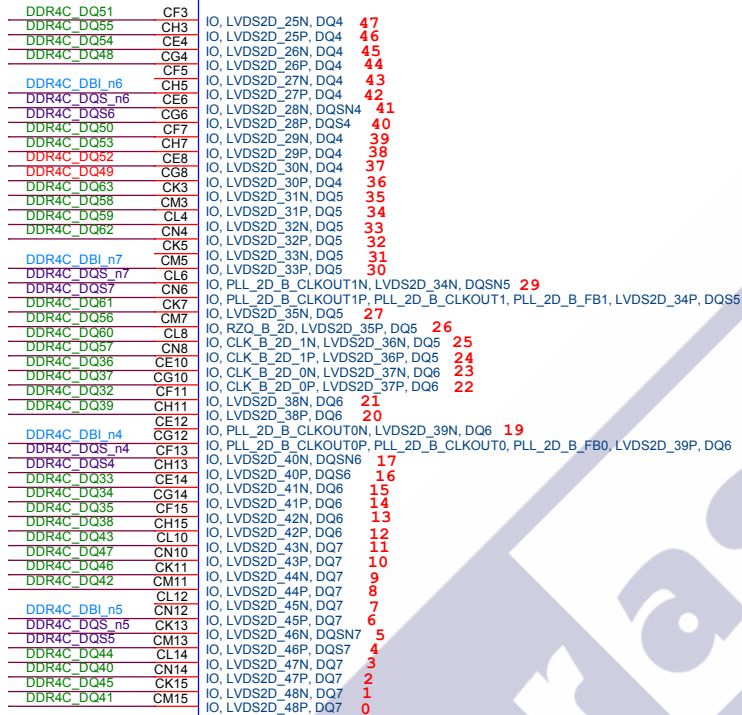


RAS_n is a multiplexed function with A16
CAS_n is a multiplexed function with A15
WE_n is a multiplexed function with A14



FPGA Bank - 2D

U157B



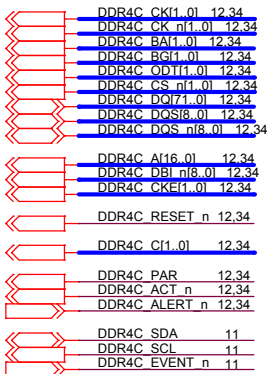
BOT TOP

Bank 2D vccio = 1.2v

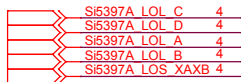
AGFB014R24B1E1V

| | | |
|--|---------------------------------|----------------|
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| Title DE10-Agilex Board | | |
| Size B | Document Number FPGA Bank 2D | Rev C |
| Date: | Thursday, October 07, 2021 | Sheet 12 of 52 |

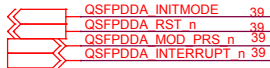
DDR4 SO-DIMM C



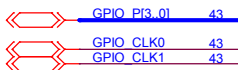
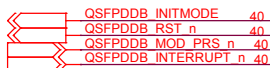
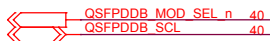
RAS_n is a multiplexed function with A16
CAS_n is a multiplexed function with A15
WE_n is a multiplexed function with A14



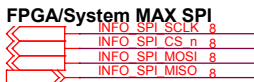
QSFPDD Port A Control Interface



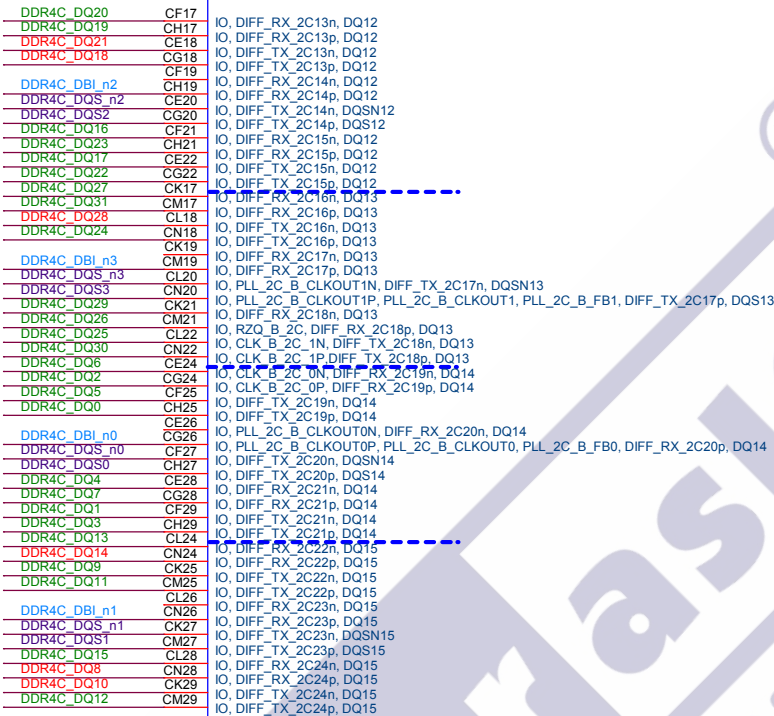
QSFPDD Port B Control Interface



OCXO 30.72MHz clock



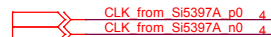
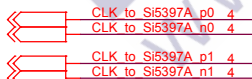
U157C



BOT TOP

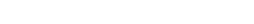
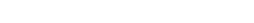
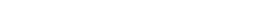
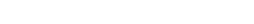
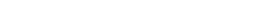
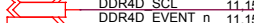
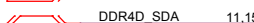
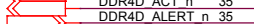
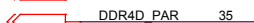
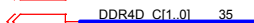
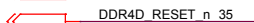
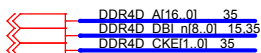
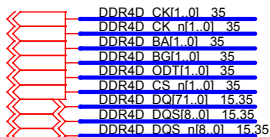
Bank 2C vccio = 1.2v

AGFB014R24B1E1V



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|--|----------------------------|----------------|
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| Title | | |
| DE10-Agilex Board | | |
| Size | Document Number | Rev |
| B | FPGA Bank 2C | C |
| Date: | Thursday, October 07, 2021 | Sheet 13 of 52 |

DDR4 SO-DIMM D



DDR4D_CK1_01_35

DDR4D_CK1_01_35

DDR4D_CK1_01_35

DDR4D_CK1_01_35

DDR4D_CK1_01_35

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DDR4D_CK1_01_35

DDR4D_CK1_01_35

DDR4D_CK1_01_35

DDR4D_CK1_01_35

DDR4D_CK1_01_35

U157D

IO, LVDS2B_25N, DQ20 47
IO, LVDS2B_25P, DQ20 46
IO, LVDS2B_26N, DQ20 45
IO, LVDS2B_26P, DQ20 44
IO, LVDS2B_27N, DQ20 43
IO, LVDS2B_27P, DQ20 42
IO, LVDS2B_28N, DQSN20 41
IO, LVDS2B_28P, DQSN20 40
IO, LVDS2B_29N, DQ20 39
IO, LVDS2B_29P, DQ20 38
IO, LVDS2B_30N, DQ20 37
IO, LVDS2B_30P, DQ20 36
IO, LVDS2B_31N, DQ21 35
IO, LVDS2B_31P, DQ21 34
IO, LVDS2B_32N, DQ21 33
IO, LVDS2B_32P, DQ21 32
IO, LVDS2B_33N, DQ21 31
IO, LVDS2B_33P, DQ21 30
IO, PLL_2B_B_CLKOUT1N, LVDS2B_34N, DQSN21 29
IO, PLL_2B_B_CLKOUT1P, PLL_2B_B_CLKOUT1, PLL_2B_B_FB1, LVDS2B_34P, DQSN21 28
IO, LVDS2B_35N, DQ21 27
IO, RZQ_B_2B, LVDS2B_35P, DQ21 26
IO, CLK_B_2B_1N, LVDS2B_36N, DQ21 25
IO, CLK_B_2B_1P, LVDS2B_36P, DQ21 24
IO, CLK_B_2B_0N, LVDS2B_37N, DQ22 23
IO, CLK_B_2B_0P, LVDS2B_37P, DQ22 22
IO, LVDS2B_38N, DQ22 21
IO, LVDS2B_38P, DQ22 20
IO, PLL_2B_B_CLKOUT0N, LVDS2B_39N, DQ22 19
IO, PLL_2B_B_CLKOUT0P, PLL_2B_B_CLKOUT0, PLL_2B_B_FB0, LVDS2B_39P, DQ22 18
IO, LVDS2B_40N, DQSN22 17
IO, LVDS2B_40P, DQSN22 16
IO, LVDS2B_41N, DQ22 15
IO, LVDS2B_41P, DQ22 14
IO, LVDS2B_42N, DQ22 13
IO, LVDS2B_42P, DQ22 12
IO, LVDS2B_43N, DQ23 11
IO, LVDS2B_43P, DQ23 10
IO, LVDS2B_44N, DQ23 9
IO, LVDS2B_44P, DQ23 8
IO, LVDS2B_45N, DQ23 7
IO, LVDS2B_45P, DQ23 6
IO, LVDS2B_46N, DQSN23 5
IO, LVDS2B_46P, DQSN23 4
IO, LVDS2B_47N, DQ23 3
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IO, LVDS2B_48P, DQ23 0

BOT

TOP

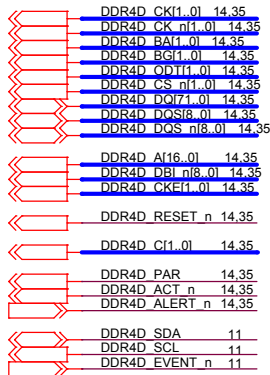
Bank 2B VCCIO = 1.2V

AGFB014R24B1E1V

IO, LVDS2B_1N, DQ16
IO, LVDS2B_1P, DQ16
IO, LVDS2B_2N, DQ16
IO, LVDS2B_2P, DQ16
IO, LVDS2B_3N, DQ16
IO, LVDS2B_3P, DQ16
IO, LVDS2B_4N, DQSN16
IO, LVDS2B_4P, DQSN16
IO, LVDS2B_5N, DQ16
IO, LVDS2B_5P, DQ16
IO, LVDS2B_6N, DQ16
IO, LVDS2B_6P, DQ16
IO, LVDS2B_7N, DQ17
IO, LVDS2B_7P, DQ17
IO, LVDS2B_8N, DQ17
IO, LVDS2B_8P, DQ17
IO, LVDS2B_9N, DQ17
IO, LVDS2B_9P, DQ17
IO, PLL_2B_T_CLKOUT1N, LVDS2B_10N, DQSN17
IO, PLL_2B_T_CLKOUT1P, PLL_2B_T_CLKOUT1, PLL_2B_T_FB1, LVDS2B_10P, DQSN17
IO, LVDS2B_11N, DQ17
IO, RZQ_T_2B, LVDS2B_11P, DQ17
IO, CLK_T_2B_1N, LVDS2B_12N, DQ17
IO, CLK_T_2B_1P, LVDS2B_12P, DQ17
IO, CLK_T_2B_0N, LVDS2B_13N, DQ18
IO, CLK_T_2B_0P, LVDS2B_13P, DQ18
IO, LVDS2B_14N, DQ18
IO, LVDS2B_14P, DQ18
IO, PLL_2B_T_CLKOUT0N, LVDS2B_15N, DQ18
IO, PLL_2B_T_CLKOUT0P, PLL_2B_T_CLKOUT0, PLL_2B_T_FB0, LVDS2B_15P, DQ18
IO, LVDS2B_16N, DQSN18
IO, LVDS2B_16P, DQSN18
IO, LVDS2B_17N, DQ18
IO, LVDS2B_17P, DQ18
IO, LVDS2B_18N, DQ18
IO, LVDS2B_18P, DQ18
IO, LVDS2B_19N, DQ19
IO, LVDS2B_19P, DQ19
IO, LVDS2B_20N, DQ19
IO, LVDS2B_20P, DQ19
IO, LVDS2B_21N, DQ19
IO, LVDS2B_21P, DQ19
IO, LVDS2B_22N, DQSN19
IO, LVDS2B_22P, DQSN19
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IO, LVDS2B_24P, DQ19

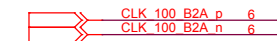
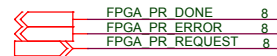
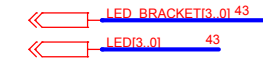
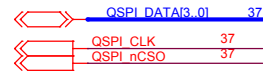
CT43 DDR4D_DQ66
CV43 DDR4D_DQ67
CR42 DDR4D_DQ65
CU42 DDR4D_DQ70
CT41
CV41 DDR4D_DBI_n8
CR40 DDR4D_DQS_n8
CU40 DDR4D_DQS8
CT39 DDR4D_DQ89
CV39 DDR4D_DQ84
CR38 DDR4D_DQ88
CU38 DDR4D_DQ71
CY43 DDR4D_DQ32
DB43 DDR4D_DQ36
DA42 DDR4D_DQ33
DC42 DDR4D_DQ37
CY41
DB41 DDR4D_DBI_n4
DA40 DDR4D_DQS_n4
DC40 DDR4D_DQS4
CV39 DDR4D_DQ38
DB39 DDR4D_DQ39
DA38 DDR4D_DQ35
DC38 DDR4D_DQ34
CR36 DDR4D_DQ57
CU36 DDR4D_DQ63
CT35 DDR4D_DQ59
CV35 DDR4D_DQ58
CR34
CU34 DDR4D_DBI_n7
CT33 DDR4D_DQS_n7
CV33 DDR4D_DQS7
CR32 DDR4D_DQ62
CU32 DDR4D_DQ60
CT31 DDR4D_DQ56
CV31 DDR4D_DQ61
DA36 DDR4D_DQ48
DC36 DDR4D_DQ53
CY35 DDR4D_DQ52
DB35 DDR4D_DQ54
DA34
DC34 DDR4D_DBI_n6
CY33 DDR4D_DQS_n6
DB33 DDR4D_DQS6
DA32 DDR4D_DQ55
DC32 DDR4D_DQ49
CY31 DDR4D_DQ50
DB31 DDR4D_DQ51

DDR4 SO-DIMM D

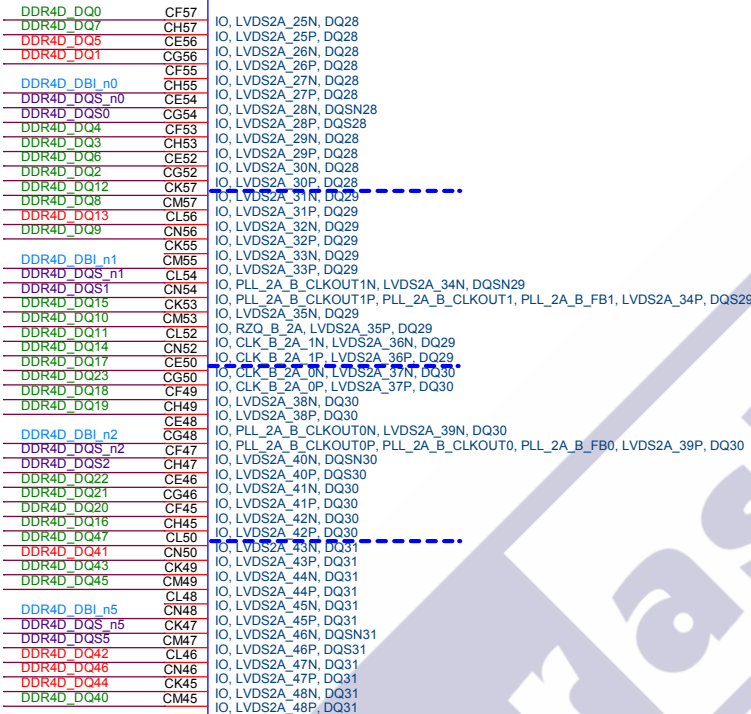
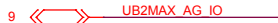


RAS_n is a multiplexed function with A16
CAS_n is a multiplexed function with A15
WE_n is a multiplexed function with A14

QSPI Flash Interface

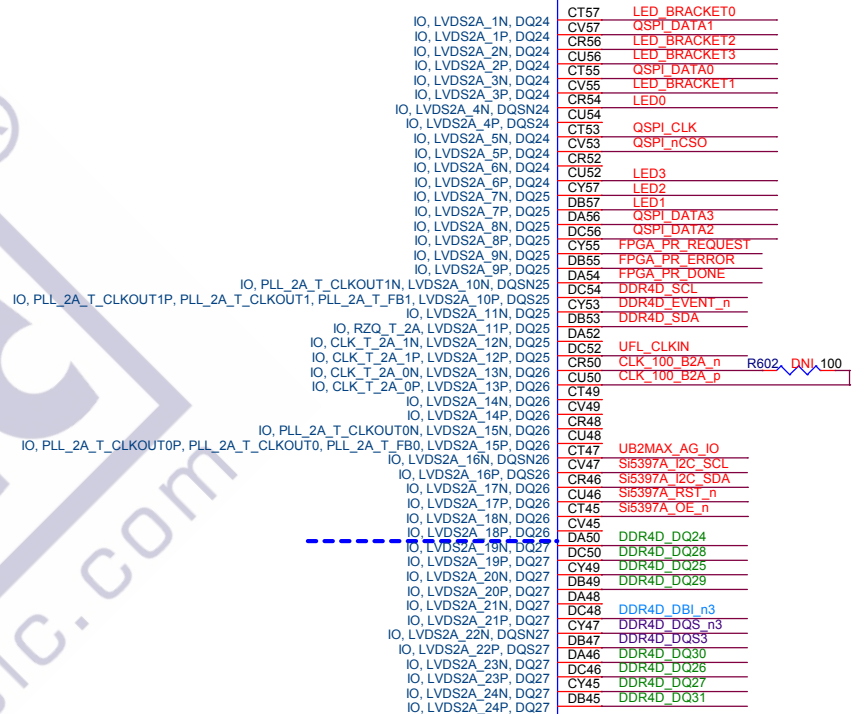


FPGA / UB2 MAX communication signal

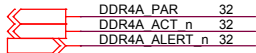
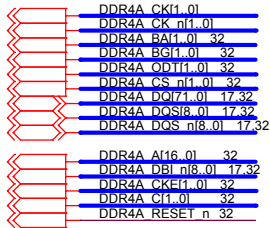


BOT TOP

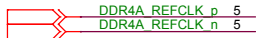
Bank 2AVCCIO = 1.2V



DDR4 SO-DIMM A



RAS_n is a multiplexed function with A16
CAS_n is a multiplexed function with A15
WE_n is a multiplexed function with A14



| | | | |
|--------------|-----|---|----|
| DDR4A_DQ22 | V5 | IO, LVDS3D_25N, DQ36 | 47 |
| DDR4A_DQ21 | T5 | IO, LVDS3D_25P, DQ36 | 46 |
| DDR4A_DQ18 | W6 | IO, LVDS3D_26N, DQ36 | 45 |
| DDR4A_DQ16 | U6 | IO, LVDS3D_26P, DQ36 | 44 |
| DDR4A_DBI_n2 | T7 | IO, LVDS3D_27N, DQ36 | 43 |
| DDR4A_DQS_n2 | W8 | IO, LVDS3D_27P, DQ36 | 42 |
| DDR4A_DQS2 | U8 | IO, LVDS3D_28N, DQSN36 | 41 |
| DDR4A_DQ17 | V9 | IO, LVDS3D_28P, DQ36 | 40 |
| DDR4A_DQ19 | T9 | IO, LVDS3D_29N, DQ36 | 39 |
| DDR4A_DQ20 | W10 | IO, LVDS3D_29P, DQ36 | 38 |
| DDR4A_DQ23 | U10 | IO, LVDS3D_30N, DQ36 | 37 |
| DDR4A_DQ9 | P5 | IO, LVDS3D_30P, DQ36 | 36 |
| DDR4A_DQ15 | M5 | IO, LVDS3D_31N, DQ37 | 35 |
| DDR4A_DQ12 | N6 | IO, LVDS3D_31P, DQ37 | 34 |
| DDR4A_DQ10 | L6 | IO, LVDS3D_32N, DQ37 | 33 |
| DDR4A_DBI_n1 | P7 | IO, LVDS3D_32P, DQ37 | 32 |
| DDR4A_DQS_n1 | M7 | IO, LVDS3D_33N, DQ37 | 31 |
| DDR4A_DQS1 | N8 | IO, LVDS3D_33P, DQ37 | 30 |
| DDR4A_DQS1 | L8 | IO, PLL_3D_B_CLKOUT1N, LVDS3D_34N, DQSN37 | 29 |
| DDR4A_DQ13 | P9 | IO, PLL_3D_B_CLKOUT1P, PLL_3D_B_CLKOUT1, PLL_3D_B_FB1, LVDS3D_34P, DQSN37 | 28 |
| DDR4A_DQ14 | M9 | IO, LVDS3D_35N, DQ37 | 27 |
| DDR4A_DQ8 | N10 | IO, RZQ_B_3D, LVDS3D_35P, DQ37 | 26 |
| DDR4A_DQ11 | L10 | IO, CLK_B_3D_1N, LVDS3D_36N, DQ37 | 25 |
| DDR4A_DQ0 | W12 | IO, CLK_B_3D_1P, LVDS3D_36P, DQ37 | 24 |
| DDR4A_DQ2 | U12 | IO, CLK_B_3D_0N, LVDS3D_37N, DQ38 | 23 |
| DDR4A_DQ3 | V13 | IO, CLK_B_3D_0P, LVDS3D_37P, DQ38 | 22 |
| DDR4A_DQ6 | T13 | IO, LVDS3D_38N, DQ38 | 21 |
| DDR4A_DBI_n0 | W14 | IO, LVDS3D_38P, DQ38 | 20 |
| DDR4A_DQS_n0 | U14 | IO, PLL_3D_B_CLKOUT0N, LVDS3D_39N, DQ38 | 19 |
| DDR4A_DQS0 | V15 | IO, PLL_3D_B_CLKOUT0P, PLL_3D_B_CLKOUT0, PLL_3D_B_FB0, LVDS3D_39P, DQ38 | 18 |
| DDR4A_DQ1 | T15 | IO, LVDS3D_40N, DQSN38 | 17 |
| DDR4A_DQ7 | W16 | IO, LVDS3D_40P, DQ38 | 16 |
| DDR4A_DQ5 | U16 | IO, LVDS3D_41N, DQ38 | 15 |
| DDR4A_DQ4 | V17 | IO, LVDS3D_41P, DQ38 | 14 |
| DDR4A_DQ31 | T17 | IO, LVDS3D_42N, DQ38 | 13 |
| DDR4A_DQ25 | N12 | IO, LVDS3D_42P, DQ38 | 12 |
| DDR4A_DQ28 | L12 | IO, LVDS3D_43N, DQ39 | 11 |
| DDR4A_DQ29 | P13 | IO, LVDS3D_43P, DQ39 | 10 |
| DDR4A_DBI_n3 | M13 | IO, LVDS3D_44N, DQ39 | 9 |
| DDR4A_DQS_n3 | N14 | IO, LVDS3D_44P, DQ39 | 8 |
| DDR4A_DQS3 | L14 | IO, LVDS3D_45N, DQ39 | 7 |
| DDR4A_DQS3 | P15 | IO, LVDS3D_45P, DQ39 | 6 |
| DDR4A_DQ24 | M15 | IO, LVDS3D_46N, DQSN39 | 5 |
| DDR4A_DQ30 | N16 | IO, LVDS3D_46P, DQ39 | 4 |
| DDR4A_DQ27 | L16 | IO, LVDS3D_47N, DQ39 | 3 |
| DDR4A_DQ26 | P17 | IO, LVDS3D_47P, DQ39 | 2 |
| DDR4A_DQ26 | M17 | IO, LVDS3D_48N, DQ39 | 1 |
| DDR4A_DQ26 | M17 | IO, LVDS3D_48P, DQ39 | 0 |

BOT TOP

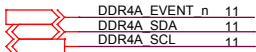
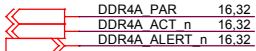
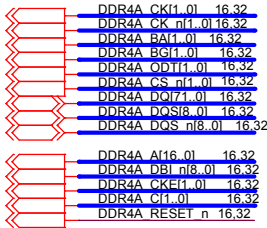
Bank 3D VCCIO = 1.2V

AGFB014R24B1E1V

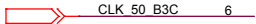
| | | |
|---|-----|----------------|
| IO, LVDS3D_1N, DQ32 | H5 | DDR4A_CK_n1 |
| IO, LVDS3D_1P, DQ32 | F5 | DDR4A_CK1 |
| IO, LVDS3D_2N, DQ32 | J6 | |
| IO, LVDS3D_2P, DQ32 | G6 | |
| IO, LVDS3D_3N, DQ32 | H7 | |
| IO, LVDS3D_3P, DQ32 | F7 | |
| IO, LVDS3D_4N, DQSN32 | J8 | |
| IO, LVDS3D_4P, DQ32 | G8 | |
| IO, LVDS3D_5N, DQ32 | H9 | |
| IO, LVDS3D_5P, DQ32 | F9 | |
| IO, LVDS3D_6N, DQ32 | J10 | DDR4A_C1 |
| IO, LVDS3D_6P, DQ32 | G10 | DDR4A_C0 |
| IO, LVDS3D_7N, DQ32 | D5 | DDR4A_BG0 |
| IO, LVDS3D_7P, DQ32 | B5 | DDR4A_BA1 |
| IO, LVDS3D_8N, DQ32 | C6 | DDR4A_BA0 |
| IO, LVDS3D_8P, DQ32 | A6 | DDR4A_ALERT_n |
| IO, LVDS3D_9N, DQ32 | D7 | DDR4A_A16 |
| IO, LVDS3D_9P, DQ32 | B7 | DDR4A_A15 |
| IO, PLL_3D_T_CLKOUT1N, LVDS3D_10N, DQSN33 | C8 | DDR4A_A14 |
| IO, PLL_3D_T_CLKOUT1P, PLL_3D_T_CLKOUT1, PLL_3D_T_FB1, LVDS3D_10P, DQSN33 | A8 | DDR4A_A13 |
| IO, LVDS3D_11N, DQ33 | D9 | DDR4A_A12 |
| IO, LVDS3D_11P, DQ33 | B9 | DDR4A_RZQ |
| IO, RZQ_T_3D, LVDS3D_11P, DQ33 | C10 | DDR4A_REFCLK_n |
| IO, CLK_T_3D_1N, LVDS3D_12N, DQ33 | A10 | DDR4A_REFCLK_p |
| IO, CLK_T_3D_1P, LVDS3D_12P, DQ33 | J12 | DDR4A_A11 |
| IO, CLK_T_3D_0N, LVDS3D_13N, DQ34 | G12 | DDR4A_A10 |
| IO, CLK_T_3D_0P, LVDS3D_13P, DQ34 | H13 | DDR4A_A9 |
| IO, LVDS3D_14N, DQ34 | F13 | DDR4A_A8 |
| IO, LVDS3D_14P, DQ34 | J14 | DDR4A_A7 |
| IO, PLL_3D_T_CLKOUT0N, LVDS3D_15N, DQ34 | G14 | DDR4A_A6 |
| IO, PLL_3D_T_CLKOUT0P, PLL_3D_T_CLKOUT0, PLL_3D_T_FB0, LVDS3D_15P, DQ34 | H15 | DDR4A_A5 |
| IO, LVDS3D_16N, DQSN34 | F15 | DDR4A_A4 |
| IO, LVDS3D_16P, DQ34 | J16 | DDR4A_A3 |
| IO, LVDS3D_17N, DQ34 | G16 | DDR4A_A2 |
| IO, LVDS3D_17P, DQ34 | H17 | DDR4A_A1 |
| IO, LVDS3D_18N, DQ34 | F17 | DDR4A_A0 |
| IO, LVDS3D_18P, DQ34 | C12 | DDR4A_PAR |
| IO, LVDS3D_19N, DQ35 | A12 | DDR4A_CS_n1 |
| IO, LVDS3D_19P, DQ35 | D13 | DDR4A_CK_n0 |
| IO, LVDS3D_20N, DQ35 | B13 | DDR4A_CK0 |
| IO, LVDS3D_20P, DQ35 | C14 | DDR4A_CKE1 |
| IO, LVDS3D_21N, DQ35 | A14 | DDR4A_CKE0 |
| IO, LVDS3D_21P, DQ35 | D15 | DDR4A_ODT1 |
| IO, LVDS3D_22N, DQSN35 | B15 | DDR4A_ODT0 |
| IO, LVDS3D_22P, DQ35 | C16 | DDR4A_ACT_n |
| IO, LVDS3D_23N, DQ35 | A16 | DDR4A_CS_n0 |
| IO, LVDS3D_23P, DQ35 | D17 | DDR4A_RESET_n |
| IO, LVDS3D_24N, DQ35 | B17 | DDR4A_BG1 |
| IO, LVDS3D_24P, DQ35 | | |



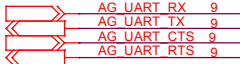
DDR4 SO-DIMM A



RAS_n is a multiplexed function with A16
CAS_n is a multiplexed function with A15
WE_n is a multiplexed function with A14



FPGA UART to USB



DDR4 SO-DIMM B



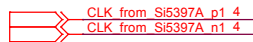
U157G

| | | |
|--------------|-----|---|
| DDR4A_DQ57 | V19 | IO, LVDS3C_25N, DQ44 |
| DDR4A_DQ63 | T19 | IO, LVDS3C_25P, DQ44 |
| DDR4A_DQ60 | W20 | IO, LVDS3C_28N, DQ44 |
| DDR4A_DQ59 | U20 | IO, LVDS3C_28P, DQ44 |
| DDR4A_DBI_n7 | V21 | IO, LVDS3C_27N, DQ44 |
| DDR4A_DQS_n7 | T21 | IO, LVDS3C_27P, DQ44 |
| DDR4A_DQ37 | W22 | IO, LVDS3C_28N, DQSN44 |
| DDR4A_DQ56 | V23 | IO, LVDS3C_28P, DQSN44 |
| DDR4A_DQ61 | T23 | IO, LVDS3C_29N, DQ44 |
| DDR4A_DQ62 | W24 | IO, LVDS3C_29P, DQ44 |
| DDR4A_DQ58 | U24 | IO, LVDS3C_30N, DQ44 |
| DDR4A_DQ68 | P19 | IO, LVDS3C_30P, DQ44 |
| DDR4A_DQ69 | M19 | IO, LVDS3C_31N, DQ45 |
| DDR4A_DQ65 | N20 | IO, LVDS3C_31P, DQ45 |
| DDR4A_DQ66 | L20 | IO, LVDS3C_32N, DQ45 |
| DDR4A_DBI_n8 | P21 | IO, LVDS3C_32P, DQ45 |
| DDR4A_DQS_n8 | M21 | IO, LVDS3C_33N, DQ45 |
| DDR4A_DQ35 | N22 | IO, LVDS3C_33P, DQ45 |
| DDR4A_DQ67 | P23 | IO, PLL_3C_B_CLKOUT1N, LVDS3C_34N, DQSN45 |
| DDR4A_DQ64 | M23 | IO, PLL_3C_B_CLKOUT1P, PLL_3C_B_CLKOUT1, PLL_3C_B_FB1, LVDS3C_34P, DQSN45 |
| DDR4A_DQ71 | N24 | IO, LVDS3C_35N, DQ45 |
| DDR4A_DQ70 | L24 | IO, RZQ_B_3C, LVDS3C_35P, DQ45 |
| DDR4A_DQ50 | W26 | IO, CLK_B_3C_1N, LVDS3C_36N, DQ45 |
| DDR4A_DQ53 | U26 | IO, CLK_B_3C_1P, LVDS3C_36P, DQ45 |
| DDR4A_DQ52 | V27 | IO, CLK_B_3C_0N, LVDS3C_37N, DQ46 |
| DDR4A_DQ48 | T27 | IO, CLK_B_3C_0P, LVDS3C_37P, DQ46 |
| DDR4A_DBI_n6 | U28 | IO, LVDS3C_38N, DQ46 |
| DDR4A_DQS_n6 | V29 | IO, LVDS3C_38P, DQ46 |
| DDR4A_DQ36 | T29 | IO, PLL_3C_B_CLKOUT0N, LVDS3C_39N, DQ46 |
| DDR4A_DQ35 | W30 | IO, PLL_3C_B_CLKOUT0P, PLL_3C_B_CLKOUT0, PLL_3C_B_FB0, LVDS3C_39P, DQ46 |
| DDR4A_DQ49 | U30 | IO, LVDS3C_40N, DQSN46 |
| DDR4A_DQ51 | V31 | IO, LVDS3C_40P, DQSN46 |
| DDR4A_DQ54 | T31 | IO, LVDS3C_41N, DQ46 |
| DDR4A_DQ41 | N26 | IO, LVDS3C_41P, DQ46 |
| DDR4A_DQ45 | L26 | IO, LVDS3C_42N, DQ46 |
| DDR4A_DQ44 | P27 | IO, LVDS3C_42P, DQ46 |
| DDR4A_DQ40 | M27 | IO, LVDS3C_43N, DQ47 |
| DDR4A_DBI_n5 | L28 | IO, LVDS3C_43P, DQ47 |
| DDR4A_DQS_n5 | P29 | IO, LVDS3C_44N, DQ47 |
| DDR4A_DQ35 | M29 | IO, LVDS3C_44P, DQ47 |
| DDR4A_DQ42 | N30 | IO, LVDS3C_45N, DQ47 |
| DDR4A_DQ46 | L30 | IO, LVDS3C_45P, DQ47 |
| DDR4A_DQ43 | P31 | IO, LVDS3C_46N, DQSN47 |
| DDR4A_DQ47 | M31 | IO, LVDS3C_46P, DQSN47 |
| | | IO, LVDS3C_47N, DQ47 |
| | | IO, LVDS3C_47P, DQ47 |
| | | IO, LVDS3C_48N, DQ47 |
| | | IO, LVDS3C_48P, DQ47 |

AGFB014R24B1E1V

BOT TOP

Bank 3C VCCIO = 1.2V



| | | |
|--|---------------------------------|----------------|
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| Title DE10-Agilex Board | | |
| Size B | Document Number FPGA Bank 3C | Rev C |
| Date: | Thursday, October 07, 2021 | Sheet 17 of 52 |

DDR4 SO-DIMM B

DDR4B_CK[1..0]_33
DDR4B_CK_n[1..0]_33
DDR4B_BA[1..0]_33
DDR4B_BG[1..0]_33
DDR4B_ODT[1..0]_33
DDR4B_CS_n[1..0]_33
DDR4B_DQ[71..0]_19_33
DDR4B_DQS[8..0]_19_33
DDR4B_DQS_n[8..0]_19_33

DDR4B_A[16..0]_33
DDR4B_DB[16..0]_19_33
DDR4B_CKE[1..0]_33

DDR4B_RESET_n_33

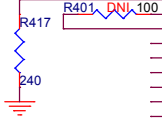
DDR4B_C[1..0]_33

DDR4B_PAR_33
DDR4B_ACT_n_33
DDR4B_ALERT_n_33

DDR4B_SDA_11.17
DDR4B_SCL_11.19
DDR4B_EVENT_n_11.19

RAS_n is a multiplexed function with A16
CAS_n is a multiplexed function with A15
WE_n is a multiplexed function with A14

DDR4B_REFCLK_p_5
DDR4B_REFCLK_n_5



DDR4B_CK_n1 V45
DDR4B_CK1 T45
W44
U44
V43
T43
W42
U42
V41
T41
W40
U40
P45
M45
N44
L44
P43
M43
N42
L42
P41
M41
N40
L40
W38
U38
V37
T37
W36
U36
V35
T35
W34
U34
V33
T33
N38
L38
P37
M37
N36
L36
P35
M35
N34
L34
P33
M33

U157H

IO, LVDS3B_25N, DQ52 47
IO, LVDS3B_25P, DQ52 46
IO, LVDS3B_26N, DQ52 45
IO, LVDS3B_26P, DQ52 44
IO, LVDS3B_27N, DQ52 43
IO, LVDS3B_27P, DQ52 42
IO, LVDS3B_28N, DQ52 41
IO, LVDS3B_28P, DQ52 40
IO, LVDS3B_29N, DQ52 39
IO, LVDS3B_29P, DQ52 38
IO, LVDS3B_30N, DQ52 37
IO, LVDS3B_30P, DQ52 36
IO, LVDS3B_31N, DQ53 35
IO, LVDS3B_31P, DQ53 34
IO, LVDS3B_32N, DQ53 33
IO, LVDS3B_32P, DQ53 32
IO, LVDS3B_33N, DQ53 31
IO, LVDS3B_33P, DQ53 30
IO, PLL_3B_B_CLKOUT1N, LVDS3B_34N, DQSN53 29
IO, PLL_3B_B_CLKOUT1P, PLL_3B_B_CLKOUT1, PLL_3B_B_FB1, LVDS3B_34P, DQ53 28
IO, LVDS3B_35N, DQ53 27
IO, RZQ_B_3B, LVDS3B_35P, DQ53 26
IO, CLK_B_3B_1N, LVDS3B_36N, DQ53 25
IO, CLK_B_3B_1P, LVDS3B_36P, DQ53 24
IO, CLK_B_3B_0N, LVDS3B_37N, DQ54 23
IO, CLK_B_3B_0P, LVDS3B_37P, DQ54 22
IO, LVDS3B_38N, DQ54 21
IO, LVDS3B_38P, DQ54 20
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IO, PLL_3B_B_CLKOUT0P, PLL_3B_B_CLKOUT0, PLL_3B_B_FB0, LVDS3B_39P, DQ54 18
IO, LVDS3B_40N, DQSN54 17
IO, LVDS3B_40P, DQ54 16
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IO, LVDS3B_41P, DQ54 14
IO, LVDS3B_42N, DQ54 13
IO, LVDS3B_42P, DQ54 12
IO, LVDS3B_43N, DQ55 11
IO, LVDS3B_43P, DQ55 10
IO, LVDS3B_44N, DQ55 9
IO, LVDS3B_44P, DQ55 8
IO, LVDS3B_45N, DQ55 7
IO, LVDS3B_45P, DQ55 6
IO, LVDS3B_46N, DQSN55 5
IO, LVDS3B_46P, DQ55 4
IO, LVDS3B_47N, DQ55 3
IO, LVDS3B_47P, DQ55 2
IO, LVDS3B_48N, DQ55 1
IO, LVDS3B_48P, DQ55 0

BOT TOP

Bank 3B VCCIO = 1.2V

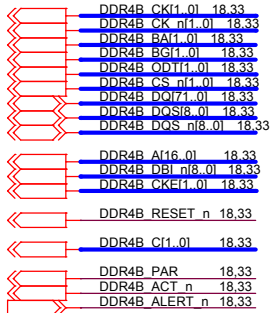
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IO, LVDS3B_2N, DQ48
IO, LVDS3B_2P, DQ48
IO, LVDS3B_3N, DQ48
IO, LVDS3B_3P, DQ48
IO, LVDS3B_4N, DQSN48
IO, LVDS3B_4P, DQ548
IO, LVDS3B_5N, DQ48
IO, LVDS3B_5P, DQ48
IO, LVDS3B_6N, DQ48
IO, LVDS3B_6P, DQ48
IO, LVDS3B_7N, DQ49
IO, LVDS3B_7P, DQ49
IO, LVDS3B_8N, DQ49
IO, LVDS3B_8P, DQ49
IO, LVDS3B_9N, DQ49
IO, LVDS3B_9P, DQ49
IO, PLL_3B_T_CLKOUT1N, LVDS3B_10N, DQSN49
IO, PLL_3B_T_CLKOUT1P, PLL_3B_T_CLKOUT1, PLL_3B_T_FB1, LVDS3B_10P, DQ549
IO, LVDS3B_11N, DQ49
IO, RZQ_T_3B, LVDS3B_11P, DQ49
IO, CLK_T_3B_1N, LVDS3B_12N, DQ49
IO, CLK_T_3B_1P, LVDS3B_12P, DQ49
IO, CLK_T_3B_0N, LVDS3B_13N, DQ50
IO, CLK_T_3B_0P, LVDS3B_13P, DQ50
IO, LVDS3B_14N, DQ50
IO, LVDS3B_14P, DQ50
IO, PLL_3B_T_CLKOUT0N, LVDS3B_15N, DQ50
IO, PLL_3B_T_CLKOUT0P, PLL_3B_T_CLKOUT0, PLL_3B_T_FB0, LVDS3B_15P, DQ50
IO, LVDS3B_16N, DQSN50
IO, LVDS3B_16P, DQ50
IO, LVDS3B_17N, DQ50
IO, LVDS3B_17P, DQ50
IO, LVDS3B_18N, DQ50
IO, LVDS3B_18P, DQ50
IO, LVDS3B_19N, DQ51
IO, LVDS3B_19P, DQ51
IO, LVDS3B_20N, DQ51
IO, LVDS3B_20P, DQ51
IO, LVDS3B_21N, DQ51
IO, LVDS3B_21P, DQ51
IO, LVDS3B_22N, DQSN51
IO, LVDS3B_22P, DQ51
IO, LVDS3B_23N, DQ51
IO, LVDS3B_23P, DQ51
IO, LVDS3B_24N, DQ51
IO, LVDS3B_24P, DQ51

H45 DDR4B_DQ4
F45 DDR4B_DQ5
J44 DDR4B_DQ0
G44 DDR4B_DQ2
H43
F43 DDR4B_DBI_n0
J42 DDR4B_DQS_n0
G42 DDR4B_DQS0
H41 DDR4B_DQ6
F41 DDR4B_DQ3
J40 DDR4B_DQ1
G40 DDR4B_DQ7
D45 DDR4B_DQ20
B45 DDR4B_DQ18
C44 DDR4B_DQ19
A44 DDR4B_DQ22
D43
B43 DDR4B_DBI_n2
C42 DDR4B_DQS_n2
A42 DDR4B_DQS2
D41 DDR4B_DQ16
B41 DDR4B_DQ23
C40 DDR4B_DQ21
A40 DDR4B_DQ17
J38 DDR4B_DQ12
G38 DDR4B_DQ13
H37 DDR4B_DQ9
F37 DDR4B_DQ14
J36
G36 DDR4B_DBI_n1
H35 DDR4B_DQS_n1
F35 DDR4B_DQS1
J34 DDR4B_DQ8
G34 DDR4B_DQ15
H33 DDR4B_DQ10
F33 DDR4B_DQ11
C38 DDR4B_DQ31
A38 DDR4B_DQ27
D37 DDR4B_DQ26
B37 DDR4B_DQ30
C36
A36 DDR4B_DBI_n3
D35 DDR4B_DQS_n3
B35 DDR4B_DQS3
C34 DDR4B_DQ29
A34 DDR4B_DQ25
D33 DDR4B_DQ28
B33 DDR4B_DQ24

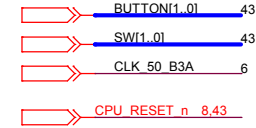
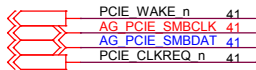
| | | | | | |
|-------------------|----------------------------|--|--|----|-------|
| terasic | | | Copyright (c) 2017 by Terasic Inc. Taiwan. All rights reserved. No part of this schematic design may be reproduced, duplicated, or used without the prior written permission of Terasic. | | |
| Title | | | | | |
| DE10-Agilex Board | | | | | |
| Size | Document Number | | | | Rev |
| B | FPGA Bank 3B | | | | C |
| Date: | Thursday, October 07, 2021 | | Sheet | 18 | of 52 |

DDR4 SO-DIMM B

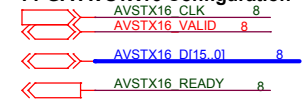


RAS_n is a multiplexed function with A16
CAS_n is a multiplexed function with A15
WE_n is a multiplexed function with A14

PCIe Control signal



FPGA AVSTX16 Configuration



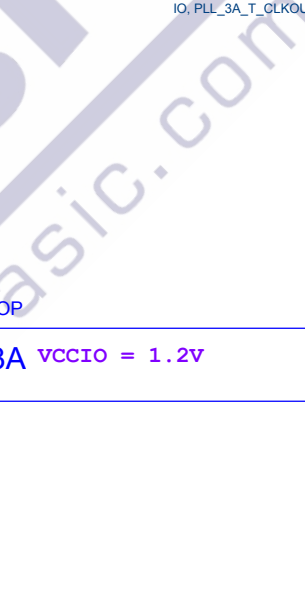
| | | |
|--------------|-----|--|
| DDR4B_DQ57 | V59 | IO, LVDS3A_25N, DQ60 |
| DDR4B_DQ62 | T59 | IO, LVDS3A_25P, DQ60 |
| DDR4B_DQ56 | W58 | IO, LVDS3A_26N, DQ60 |
| DDR4B_DQ58 | U58 | IO, LVDS3A_26P, DQ60 |
| DDR4B_DBI_n7 | V57 | IO, LVDS3A_27N, DQ60 |
| DDR4B_DQS_n7 | T57 | IO, LVDS3A_27P, DQ60 |
| DDR4B_DQS7 | W56 | IO, LVDS3A_28N, DQSN60 |
| DDR4B_DQ59 | V55 | IO, LVDS3A_28P, DQ560 |
| DDR4B_DQ61 | T55 | IO, LVDS3A_29N, DQ60 |
| DDR4B_DQ63 | W54 | IO, LVDS3A_29P, DQ60 |
| DDR4B_DQ60 | U54 | IO, LVDS3A_30N, DQ60 |
| DDR4B_DQ61 | P59 | IO, LVDS3A_30P, DQ60 |
| DDR4B_DQ55 | M59 | IO, LVDS3A_31N, DQ61 |
| DDR4B_DQ54 | N58 | IO, LVDS3A_31P, DQ61 |
| DDR4B_DQ48 | L58 | IO, LVDS3A_32P, DQ61 |
| DDR4B_DBI_n6 | P57 | IO, LVDS3A_33N, DQ61 |
| DDR4B_DQS_n6 | M57 | IO, LVDS3A_33P, DQ61 |
| DDR4B_DQS6 | N56 | IO, PLL_3A_B_CLKOUT1N, LVDS3A_34N, DQSN61 |
| DDR4B_DQ50 | L56 | IO, PLL_3A_B_CLKOUT1P, PLL_3A_B_CLKOUT1, PLL_3A_B_FB1, LVDS3A_34P, DQS61 |
| DDR4B_DQ53 | M55 | IO, LVDS3A_35N, DQ61 |
| DDR4B_DQ52 | N54 | IO, RZQ_B_3A, LVDS3A_35P, DQ61 |
| DDR4B_DQ49 | L54 | IO, CLK_B_3A_1N, LVDS3A_36N, DQ61 |
| DDR4B_DQ46 | W52 | IO, CLK_B_3A_1P, LVDS3A_36P, DQ61 |
| DDR4B_DQ42 | U52 | IO, CLK_B_3A_0N, LVDS3A_37N, DQ62 |
| DDR4B_DQ47 | V51 | IO, CLK_B_3A_0P, LVDS3A_37P, DQ62 |
| DDR4B_DQ44 | T51 | IO, LVDS3A_38N, DQ62 |
| DDR4B_DBI_n5 | W50 | IO, PLL_3A_B_CLKOUT0N, LVDS3A_39N, DQ62 |
| DDR4B_DQS_n5 | U50 | IO, PLL_3A_B_CLKOUT0P, PLL_3A_B_CLKOUT0, PLL_3A_B_FB0, LVDS3A_39P, DQ62 |
| DDR4B_DQS5 | V49 | IO, LVDS3A_40N, DQSN62 |
| DDR4B_DQ43 | T49 | IO, LVDS3A_40P, DQ562 |
| DDR4B_DQ40 | W48 | IO, LVDS3A_41N, DQ62 |
| DDR4B_DQ41 | U48 | IO, LVDS3A_41P, DQ62 |
| DDR4B_DQ45 | T47 | IO, LVDS3A_42N, DQ62 |
| DDR4B_DQ71 | N52 | IO, LVDS3A_42P, DQ62 |
| DDR4B_DQ70 | L52 | IO, LVDS3A_43N, DQ63 |
| DDR4B_DQ68 | P51 | IO, LVDS3A_43P, DQ63 |
| DDR4B_DQ67 | M51 | IO, LVDS3A_44N, DQ63 |
| DDR4B_DBI_n8 | N50 | IO, LVDS3A_45N, DQ63 |
| DDR4B_DQS_n8 | L50 | IO, LVDS3A_45P, DQ63 |
| DDR4B_DQS8 | P49 | IO, LVDS3A_46N, DQSN63 |
| DDR4B_DQ65 | M49 | IO, LVDS3A_46P, DQ563 |
| DDR4B_DQ64 | N48 | IO, LVDS3A_47N, DQ63 |
| DDR4B_DQ65 | L48 | IO, LVDS3A_47P, DQ63 |
| DDR4B_DQ69 | P47 | IO, LVDS3A_48N, DQ63 |
| DDR4B_DQ69 | M47 | IO, LVDS3A_48P, DQ63 |

U1571

AGFB014R24B1E1V

BOT TOP

Bank 3A VCCIO = 1.2V



| | | |
|---|-----|---------------|
| IO, LVDS3A_1N, DQ56 | H59 | AVSTX16_READY |
| IO, LVDS3A_1P, DQ56 | F59 | DDR4B_EVENT_n |
| IO, LVDS3A_2N, DQ56 | J58 | CPU_RESET_n |
| IO, LVDS3A_2P, DQ56 | G58 | DDR4B_SCL |
| IO, LVDS3A_3N, DQ56 | H57 | PCIE_CLKREQ_n |
| IO, LVDS3A_3P, DQ56, AVST_READY | F57 | BUTTON0 |
| IO, LVDS3A_4N, DQSN56, SDM_MISSION_DATA31 | J56 | BUTTON1 |
| IO, LVDS3A_4P, DQ56, SDM_MISSION_DATA30 | G56 | DDR4B_DQ36 |
| IO, LVDS3A_5N, DQ56, SDM_MISSION_DATA29 | H55 | DDR4B_DQ35 |
| IO, LVDS3A_5P, DQ56, SDM_MISSION_DATA28 | F55 | DDR4B_DQ39 |
| IO, LVDS3A_6N, DQ56, SDM_MISSION_DATA27 | G54 | DDR4B_DQ34 |
| IO, LVDS3A_6P, DQ56, SDM_MISSION_DATA26 | J54 | |
| IO, LVDS3A_7N, DQ57, SDM_MISSION_DATA25 | H61 | |
| IO, LVDS3A_7P, DQ57, SDM_MISSION_DATA24 | F61 | |
| IO, LVDS3A_8N, DQ57, SDM_MISSION_DATA23 | D59 | |
| IO, LVDS3A_8P, DQ57, SDM_MISSION_DATA22 | C58 | |
| IO, LVDS3A_9N, DQ57, SDM_MISSION_DATA21 | D57 | |
| IO, LVDS3A_9P, DQ57, SDM_MISSION_DATA20 | B57 | |
| IO, PLL_3A_T_CLKOUT1N, LVDS3A_10N, DQSN57, SDM_MISSION_DATA19 | C56 | |
| IO, PLL_3A_T_CLKOUT1P, PLL_3A_T_CLKOUT1, PLL_3A_T_FB1, LVDS3A_10P, DQ57, SDM_MISSION_DATA18 | A56 | |
| IO, LVDS3A_11N, DQ57, SDM_MISSION_DATA17 | D55 | |
| IO, RZQ_T_3A, LVDS3A_11P, DQ57, SDM_MISSION_DATA16 | C54 | |
| IO, CLK_T_3A_1N, LVDS3A_12N, DQ57 | A54 | |
| IO, CLK_T_3A_1P, LVDS3A_12P, DQ57 | J52 | |
| IO, CLK_T_3A_0N, LVDS3A_13N, DQ58 | G52 | |
| IO, CLK_T_3A_0P, LVDS3A_13P, DQ58 | H51 | |
| IO, LVDS3A_14N, DQ58 | F51 | |
| IO, LVDS3A_14P, DQ58 | J50 | |
| IO, PLL_3A_T_CLKOUT0N, LVDS3A_15N, DQ58 | G50 | |
| IO, PLL_3A_T_CLKOUT0P, PLL_3A_T_CLKOUT0, PLL_3A_T_FB0, LVDS3A_15P, DQ58 | H49 | |
| IO, LVDS3A_16N, DQSN58, SDM_MISSION_CLK | F49 | |
| IO, LVDS3A_16P, DQ58, SDM_MISSION_DATA15 | J48 | |
| IO, LVDS3A_17N, DQ58, SDM_MISSION_DATA14 | G48 | |
| IO, LVDS3A_17P, DQ58, SDM_MISSION_DATA13 | H47 | |
| IO, LVDS3A_18N, DQ58, SDM_MISSION_DATA12 | F47 | |
| IO, LVDS3A_18P, DQ58, SDM_MISSION_DATA11 | C52 | |
| IO, LVDS3A_19N, DQ59, SDM_MISSION_DATA10 | A52 | |
| IO, LVDS3A_19P, DQ59, SDM_MISSION_DATA9 | D51 | |
| IO, LVDS3A_20N, DQ59, SDM_MISSION_DATA8 | B51 | |
| IO, LVDS3A_20P, DQ59, SDM_MISSION_DATA7 | C50 | |
| IO, LVDS3A_21N, DQ59, SDM_MISSION_DATA6 | A50 | |
| IO, LVDS3A_21P, DQ59, SDM_MISSION_DATA5 | D49 | |
| IO, LVDS3A_22N, DQSN59, SDM_MISSION_DATA4 | B49 | |
| IO, LVDS3A_22P, DQ59, SDM_MISSION_DATA3 | C48 | |
| IO, LVDS3A_23N, DQ59, SDM_MISSION_DATA2 | A48 | |
| IO, LVDS3A_23P, DQ59, SDM_MISSION_DATA1 | D47 | |
| IO, LVDS3A_24N, DQ59, SDM_MISSION_DATA0 | B47 | |
| IO, LVDS3A_24P, DQ59, SDM_MISSION_DATA0 | | |

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| Title | | |
| DE10-Agilex Board | | |
| Size | Document Number | Rev |
| B | FPGA Bank 3A | C |
| Date: | Thursday, October 07, 2021 | Sheet 19 of 52 |

FPGA Bank - HPS

U157J

AH5 HPS_IOA_1, GPIO0_IO0, SPIM0_SS1_N, SPIS0_CLK, UART0_CTS_N, NAND_ADQ0, USB0_CLK, SDMMC_CCLK
AD1 HPS_IOA_2, GPIO0_IO1, SPIM1_SS1_N, SPIS0_MOSI, UART0_RTS_N, NAND_ADQ1, USB0_STP, SDMMC_CMD
AG6 HPS_IOA_3, GPIO0_IO2, SPIS0_SS0_N, UART0_TX, I2C1_SDA, NAND_WE_N, USB0_DIR, SDMMC_DATA0
AB1 HPS_IOA_4, GPIO0_IO3, SPIS0_MISO, UART0_RX, I2C1_SCL, NAND_RE_N, USB0_DATA0, SDMMC_DATA1
AG4 HPS_IOA_5, GPIO0_IO4, SPIM0_CLK, UART1_CTS_N, I2C0_SDA, NAND_WP_N, USB0_DATA1, SDMMC_DATA2
AD3 HPS_IOA_6, GPIO0_IO5, SPIM0_MOSI, UART1_RTS_N, I2C0_SCL, NAND_ADQ2, USB0_NXT, SDMMC_DATA3
AF5 HPS_IOA_7, GPIO0_IO6, SPIM0_MISO, MDIO2_MDIO, UART1_TX, I2C_EMAC2_SDA, NAND_ADQ3, USB0_DATA2, SDMMC_DATA4
AC2 HPS_IOA_8, GPIO0_IO7, SPIM0_SS0_N, MDIO2_MDC, UART1_RX, I2C_EMAC2_SCL, NAND_CLE, USB0_DATA3, SDMMC_DATA5
AF1 HPS_IOA_9, GPIO0_IO8, SPIM1_CLK, SPIS1_CLK, MDIO1_MDIO, I2C_EMAC1_SDA, NAND_ADQ4, USB0_DATA4, SDMMC_DATA6
AB3 HPS_IOA_10, GPIO0_IO9, SPIM1_MOSI, SPIS1_MOSI, MDIO1_MDC, I2C_EMAC1_SCL, NAND_ADQ5, USB0_DATA5, SDMMC_DATA7
AF3 HPS_IOA_11, GPIO0_IO10, SPIM1_MISO, SPIS1_SS0_N, MDIO0_MDIO, I2C_EMAC0_SDA, NAND_ADQ6, USB0_DATA6
AA2 HPS_IOA_12, GPIO0_IO11, SPIM1_SS0_N, SPIS1_MISO, MDIO0_MDC, I2C_EMAC0_SCL, NAND_ADQ7, USB0_DATA7
AC4 HPS_IOA_13, GPIO0_IO12, NAND_ALE, USB1_CLK, EMAC0_TX_CLK
V1 HPS_IOA_14, GPIO0_IO13, NAND_RB, USB1_STP, EMAC0_TX_CTL
AA4 HPS_IOA_15, GPIO0_IO14, NAND_CE_N, USB1_DIR, EMAC0_RX_CLK
T1 HPS_IOA_16, GPIO0_IO15, USB1_DATA0, EMAC0_RX_CTL
AD5 HPS_IOA_17, GPIO0_IO16, NAND_ADQ8, USB1_DATA1, EMAC0_TXD0
P1 HPS_IOA_18, GPIO0_IO17, NAND_ADQ9, USB1_NXT, EMAC0_TXD1
AF7 HPS_IOA_19, GPIO0_IO18, NAND_ADQ10, USB1_DATA2, EMAC0_RXD0
M1 HPS_IOA_20, GPIO0_IO19, SPIM1_SS1_N, NAND_ADQ11, USB1_DATA3, EMAC0_RXD1
AF9 HPS_IOA_21, GPIO0_IO20, SPIM1_CLK, SPIS0_CLK, UART0_CTS_N, I2C1_SDA, NAND_ADQ12, USB1_DATA4, EMAC0_TXD2
W2 HPS_IOA_22, GPIO0_IO21, SPIM1_MOSI, SPIS0_MOSI, UART0_RTS_N, I2C1_SCL, NAND_ADQ13, USB1_DATA5, EMAC0_TXD3
AB5 HPS_IOA_23, GPIO0_IO22, SPIM1_MISO, SPIS0_SS0_N, UART0_TX, I2C0_SDA, NAND_ADQ14, USB1_DATA6, EMAC0_RXD2
U2 HPS_IOA_24, GPIO0_IO23, SPIM1_SS0_N, SPIS0_MISO, UART0_RX, I2C0_SCL, NAND_ADQ15, USB1_DATA7, EMAC0_RXD3
AC6 HPS_IOB_1, GPIO1_IO0, SPIM1_CLK, UART0_CTS_N, NAND_ADQ0, EMAC1_TX_CLK
H1 HPS_IOB_2, GPIO1_IO1, SPIM1_MOSI, UART0_RTS_N, NAND_ADQ1, EMAC1_TX_CTL
F1 HPS_IOB_3, GPIO1_IO2, SPIM1_MISO, UART0_TX, I2C0_SDA, NAND_WE_N, EMAC1_RX_CLK
AD7 HPS_IOB_4, GPIO1_IO3, SPIM1_SS0_N, UART0_RX, I2C0_SCL, NAND_RE_N, EMAC1_RX_CTL
N2 HPS_IOB_5, GPIO1_IO4, SPIM1_SS1_N, SPIS1_CLK, UART1_CTS_N, NAND_WP_N, EMAC1_TXD0
AB7 HPS_IOB_6, GPIO1_IO5, SPIS1_MOSI, UART1_RTS_N, NAND_ADQ2, EMAC1_TXD1
L2 HPS_IOB_7, GPIO1_IO6, SPIS1_SS0_N, UART1_TX, I2C1_SDA, NAND_ADQ3, EMAC1_RXD0
AC8 HPS_IOB_8, GPIO1_IO7, SPIS1_MISO, UART1_RX, I2C1_SCL, NAND_CLE, EMAC1_RXD1
J2 HPS_IOB_9, GPIO1_IO8, JTAG_TCK, SPIS0_CLK, MDIO2_MDIO, I2C_EMAC2_SDA, NAND_ADQ4, EMAC1_TXD2
AA8 HPS_IOB_10, GPIO1_IO9, JTAG_TMS, SPIS0_MOSI, MDIO2_MDC, I2C_EMAC2_SCL, NAND_ADQ5, EMAC1_TXD3
G2 HPS_IOB_11, GPIO1_IO10, JTAG_TDO, SPIS0_SS0_N, MDIO0_MDIO, I2C_EMAC0_SDA, NAND_ADQ6, EMAC1_RXD2
AD9 HPS_IOB_12, GPIO1_IO11, JTAG_TDI, SPIS0_MISO, MDIO0_MDC, I2C_EMAC0_SCL, NAND_ADQ7, EMAC1_RXD3
V3 HPS_IOB_13, GPIO1_IO12, I2C1_SDA, NAND_ALE, SDMMC_DATA0, EMAC2_TX_CLK
AB9 HPS_IOB_14, GPIO1_IO13, I2C1_SCL, NAND_RB, SDMMC_CMD, EMAC2_TX_CTL
T3 HPS_IOB_15, GPIO1_IO14, UART1_TX, NAND_CE_N, SDMMC_CCLK, EMAC2_RX_CLK
AC10 HPS_IOB_16, GPIO1_IO15, UART1_RX, SDMMC_DATA1, EMAC2_RX_CTL
P3 HPS_IOB_17, GPIO1_IO16, UART1_CTS_N, NAND_ADQ8, SDMMC_DATA2, EMAC2_TXD0
AD11 HPS_IOB_18, GPIO1_IO17, SPIM0_SS1_N, UART1_RTS_N, NAND_ADQ9, SDMMC_DATA3, EMAC2_TXD1
M3 HPS_IOB_19, GPIO1_IO18, SPIM0_MISO, MDIO1_MDIO, I2C_EMAC1_SDA, NAND_ADQ10, SDMMC_DATA4, EMAC2_RXD0
AC12 HPS_IOB_20, GPIO1_IO19, SPIM0_SS0_N, MDIO1_MDC, I2C_EMAC1_SCL, NAND_ADQ11, SDMMC_DATA5, EMAC2_RXD1
H3 HPS_IOB_21, GPIO1_IO20, SPIM0_CLK, SPIS1_CLK, I2C_EMAC2_SDA, NAND_ADQ12, SDMMC_DATA6, EMAC2_TXD2
AD13 HPS_IOB_22, GPIO1_IO21, SPIM0_MOSI, SPIS1_MOSI, I2C_EMAC2_SCL, NAND_ADQ13, SDMMC_DATA7, EMAC2_TXD3
F3 HPS_IOB_23, GPIO1_IO22, SPIM0_MISO, SPIS1_SS0_N, MDIO0_MDIO, I2C_EMAC0_SDA, NAND_ADQ14, EMAC2_RXD2
HPS_IOB_24, GPIO1_IO23, SPIM0_SS0_N, SPIS1_MISO, MDIO0_MDC, I2C_EMAC0_SCL, NAND_ADQ15, EMAC2_RXD3

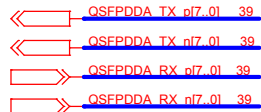
AH19 DNU6
AJ20 DNU7

HPS IO VCCIO = 1.8V

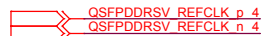
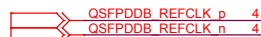
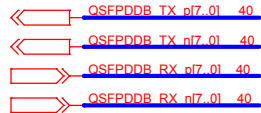
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| Title | | |
| DE10-Agilex Board | | |
| Size | Document Number | Rev |
| B | FPGA Bank HPS | C |
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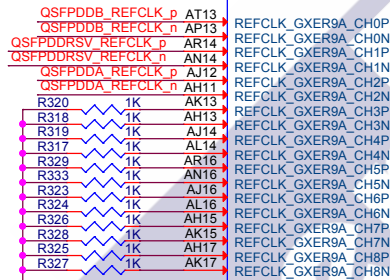
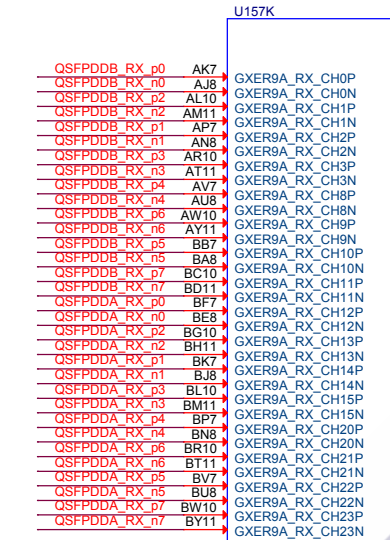
QSFPDD Port A Transceivers



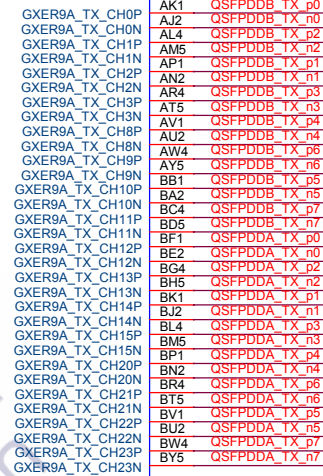
QSFPDD Port B Transceivers



FPGA Temperature diode



Bank 9A

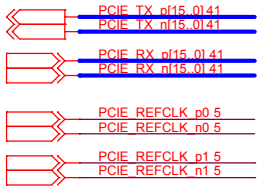


IO_AUX_RREF20

TEMPDIODE4P
TEMPDIODE4N

DNU16
DNU17
DNU18
DNU19

PCIe Transceiver



PCIE_PERST_n_41

FPGA Temperature diode



Bank 10A

| | | |
|--|----------------------------|----------------|
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| Title | | |
| DE10-Agilex Board | | |
| Size | Document Number | Rev |
| B | FPGA Bank 10A P-file | C |
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