| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| | | DNU | | | | | C25 | | |
| | | DNU | | | | | D25 | | |
| | | RREF_TL | | | | | D26 | | |
| GXB_L1 | | GXB_TX_L8n | | | | | E23 | | |
| GXB_L1 | | GXB_TX_L8p | | | | | E24 | | |
| GXB_L1 | | GXB_RX_L8p,GXB_REFCLK_L8p | | | | | F26 | | |
| GXB_L1 | | GXB_RX_L8n,GXB_REFCLK_L8n | | | | | F25 | | |
| GXB_L1 | | GXB_TX_L7n | | | | | G23 | | |
| GXB_L1 | | GXB_TX_L7p | | | | | G24 | | |
| GXB_L1 | | GXB_RX_L7p,GXB_REFCLK_L7p | | | | | H26 | | |
| GXB_L1 | | GXB_RX_L7n,GXB_REFCLK_L7n | | | | | H25 | | |
| GXB_L1 | | GXB_TX_L6n | | | | | J23 | | |
| GXB_L1 | | GXB_TX_L6p | | | | | J24 | | |
| GXB_L1 | | GXB_RX_L6p,GXB_REFCLK_L6p | | | | | K26 | | |
| GXB_L1 | | GXB_RX_L6n,GXB_REFCLK_L6n | | | | | K25 | | |
| GXB_L1 | | REFCLK2Ln | | | | | N19 | | |
| GXB_L1 | | REFCLK2Lp | | | | | N18 | | |
| GXB_L0 | | REFCLK1Ln | | | | | R19 | | |
| GXB_L0 | | REFCLK1Lp | | | | | R18 | | |
| GXB_L0 | | GXB_TX_L5n | | | | | L23 | | |
| GXB_L0 | | GXB_TX_L5p | | | | | L24 | | |
| GXB_L0 | | GXB_RX_L5p,GXB_REFCLK_L5p | | | | | M26 | | |
| GXB_L0 | | GXB_RX_L5n,GXB_REFCLK_L5n | | | | | M25 | | |
| GXB_L0 | | GXB_TX_L4n | | | | | N23 | | |
| GXB_L0 | | GXB_TX_L4p | | | | | N24 | | |
| GXB_L0 | | GXB_RX_L4p,GXB_REFCLK_L4p | | | | | P26 | | |
| GXB_L0 | | GXB_RX_L4n,GXB_REFCLK_L4n | | | | | P25 | | |
| GXB_L0 | | GXB_TX_L3n | | | | | R23 | | |
| GXB_L0 | | GXB_TX_L3p | | | | | R24 | | |
| GXB_L0 | | GXB_RX_L3p,GXB_REFCLK_L3p | | | | | T26 | | |
| GXB_L0 | | GXB_RX_L3n,GXB_REFCLK_L3n | | | | | T25 | | |
| GXB_L0 | | GXB_TX_L2n | | | | | U23 | | |
| GXB_L0 | | GXB_TX_L2p | | | | | U24 | | |
| GXB_L0 | | GXB_RX_L2p,GXB_REFCLK_L2p | | | | | V26 | | |
| GXB_L0 | | GXB_RX_L2n,GXB_REFCLK_L2n | | | | | V25 | | |
| GXB_L0 | | GXB_TX_L1n | | | | | W23 | | |
| GXB_L0 | | GXB_TX_L1p | | | | | W24 | | |
| GXB_L0 | | GXB_RX_L1p,GXB_REFCLK_L1p | | | | | Y26 | | |
| GXB_L0 | | GXB_RX_L1n,GXB_REFCLK_L1n | | | | | Y25 | | |
| GXB_L0 | | GXB_TX_L0n | | | | | AA23 | | |
| GXB_L0 | | GXB_TX_L0p | | | | | AA24 | | |
| GXB_L0 | | GXB_RX_L0p,GXB_REFCLK_L0p | | | | | AB26 | | |
| GXB_L0 | | GXB_RX_L0n,GXB_REFCLK_L0n | | | | | AB25 | | |
| GXB_L0 | | REFCLK0Ln | | | | | U19 | | |
| GXB_L0 | | REFCLK0Lp | | | | | U18 | | |
| | | DNU | | | | | V20 | | |
| 3A | | TDO | | TDO | | | AE26 | | |
| 3A | | TMS | | TMS | | | Y22 | | |
| 3A | | TCK | | TCK | | | AE24 | | |
| 3A | | TDI | | TDI | | | AD24 | | |
| 3A | | DCLK | | DCLK | | | AC23 | | |
| 3A | | nCSO | | DATA4 | | | AD26 | | |
| 3A | | AS_DATA3 | | DATA3 | | | AD25 | | |
| 3A | | AS_DATA2 | | DATA2 | | | AF25 | | |
| 3A | | AS_DATA1 | | DATA1 | | | AE25 | | |
| 3A | | AS_DATA0,ASDO | | DATA0 | | | AF24 | | |
| 3A | VREFB3AN0 | IO | RZQ_0 | | DIFFIO_TX_B1n | DIFFOUT_B1n | AA20 | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B1p | DIFFOUT_B1p | AB19 | DQ1B | |
| 3A | VREFB3AN0 | IO | CLK0n | | DIFFIO_RX_B2n | DIFFOUT_B2n | AB21 | DQ1B | |
| 3A | VREFB3AN0 | IO | CLK0p | | DIFFIO_RX_B2p | DIFFOUT_B2p | AC21 | DQ1B | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B3n | DIFFOUT_B3n | Y21 | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B3p | DIFFOUT_B3p | AA21 | DQ1B | |
| 3A | VREFB3AN0 | IO | CLK1n | | DIFFIO_RX_B4n | DIFFOUT_B4n | AC22 | DQSn1B/QK1B | |
| 3A | VREFB3AN0 | IO | CLK1p | | DIFFIO_RX_B4p | DIFFOUT_B4p | AD22 | DQS1B/CQ1B/CQn1B/QKn1B | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT1,FPLL_BL_CLKOUTn | | DIFFIO_TX_B5n | DIFFOUT_B5n | AD23 | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT0,FPLL_BL_CLKOUTp,FPLL_BL_FB0 | | DIFFIO_TX_B5p | DIFFOUT_B5p | AE23 | DQ1B | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT3,FPLL_BL_FBn | | DIFFIO_RX_B6n | DIFFOUT_B6n | AF22 | DQ1B | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT2,FPLL_BL_FBp,FPLL_BL_FB1 | | DIFFIO_RX_B6p | DIFFOUT_B6p | AF23 | DQ1B | |
| 3A | VREFB3AN0 | IO | VREFB3AN0 | | | | Y20 | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| 3A | VREFB3AN0 | IO | | | | | Y19 | DQ1B | |
| 3A | VREFB3AN0 | IO | CLK2n | | DIFFIO_RX_B7n | DIFFOUT_B7n | AE21 | DQ1B | |
| 3A | VREFB3AN0 | IO | CLK2p | | DIFFIO_RX_B7p | DIFFOUT_B7p | AF21 | DQ1B | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8n | DIFFOUT_B8n | AC20 | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8p | DIFFOUT_B8p | AD20 | | |
| 3A | VREFB3AN0 | IO | CLK3n | | DIFFIO_RX_B9n | DIFFOUT_B9n | AF19 | | |
| 3A | VREFB3AN0 | IO | CLK3p | | DIFFIO_RX_B9p | DIFFOUT_B9p | AF20 | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10n | DIFFOUT_B10n | AC19 | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10p | DIFFOUT_B10p | AD19 | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11n | DIFFOUT_B11n | AE19 | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11p | DIFFOUT_B11p | AF18 | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B31n | DIFFOUT_B31n | AA18 | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B31p | DIFFOUT_B31p | AB18 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B32n | DIFFOUT_B32n | AD18 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B32p | DIFFOUT_B32p | AE18 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B33n | DIFFOUT_B33n | Y17 | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B33p | DIFFOUT_B33p | AA17 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B34n | DIFFOUT_B34n | W18 | DQSn2B/QK2B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B34p | DIFFOUT_B34p | Y18 | DQS2B/CQ2B/CQn2B/QKn2B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B35n | DIFFOUT_B35n | AC17 | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B35p | DIFFOUT_B35p | AD17 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B36n | DIFFOUT_B36n | AB16 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B36p | DIFFOUT_B36p | AC16 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | VREFB3DN0 | | | | Y16 | | |
| 3D | VREFB3DN0 | IO | | | | | AA16 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | CLK4n | | DIFFIO_RX_B37n | DIFFOUT_B37n | V16 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | CLK4p | | DIFFIO_RX_B37p | DIFFOUT_B37p | W16 | DQ2B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B38n | DIFFOUT_B38n | AD16 | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B38p | DIFFOUT_B38p | AE16 | DQ3B | DQ1B |
| 3D | VREFB3DN0 | IO | CLK5n | | DIFFIO_RX_B39n | DIFFOUT_B39n | AF15 | DQ3B | DQ1B |
| 3D | VREFB3DN0 | IO | CLK5p | | DIFFIO_RX_B39p | DIFFOUT_B39p | AF16 | DQ3B | DQ1B |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT1,FPLL_BC_CLKOUTn | | DIFFIO_TX_B40n | DIFFOUT_B40n | AA15 | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT0,FPLL_BC_CLKOUTp,FPLL_BC_FB0 | | DIFFIO_TX_B40p | DIFFOUT_B40p | AB15 | DQ3B | DQ1B |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT3,FPLL_BC_FBn | | DIFFIO_RX_B41n | DIFFOUT_B41n | V15 | DQSn3B/QK3B | DQSn1B/QK1B |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT2,FPLL_BC_FBp,FPLL_BC_FB1 | | DIFFIO_RX_B41p | DIFFOUT_B41p | W15 | DQS3B/CQ3B/CQn3B/QKn3B | DQS1B/CQ1B/CQn1B/QKn1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B42n | DIFFOUT_B42n | AD15 | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B42p | DIFFOUT_B42p | AE15 | DQ3B | DQ1B |
| 3D | VREFB3DN0 | IO | CLK6n | | DIFFIO_RX_B43n | DIFFOUT_B43n | AC14 | DQ3B | DQ1B |
| 3D | VREFB3DN0 | IO | CLK6p | | DIFFIO_RX_B43p | DIFFOUT_B43p | AD14 | DQ3B | DQ1B |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B44n | DIFFOUT_B44n | Y14 | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B44p | DIFFOUT_B44p | AA14 | DQ3B | DQ1B |
| 3D | VREFB3DN0 | IO | CLK7n | | DIFFIO_RX_B45n | DIFFOUT_B45n | AF14 | DQ3B | DQ1B |
| 3D | VREFB3DN0 | IO | CLK7p | | DIFFIO_RX_B45p | DIFFOUT_B45p | AF13 | DQ3B | DQ1B |
| | | VCCD_FPLL | | | | | U13 | | |
| | | VCCA_FPLL | | | | | U14 | | |
| | | DNU | | | | | V14 | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B46n | DIFFOUT_B46n | V13 | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B46p | DIFFOUT_B46p | W13 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B47n | DIFFOUT_B47n | AB13 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B47p | DIFFOUT_B47p | AC13 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B48n | DIFFOUT_B48n | Y13 | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B48p | DIFFOUT_B48p | AA13 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B49n | DIFFOUT_B49n | AD13 | DQSn4B/QK4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B49p | DIFFOUT_B49p | AE13 | DQS4B/CQ4B/CQn4B/QKn4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B50n | DIFFOUT_B50n | V12 | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B50p | DIFFOUT_B50p | W12 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B51n | DIFFOUT_B51n | AD12 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B51p | DIFFOUT_B51p | AE12 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | VREFB4DN0 | | | | AA12 | | |
| 4D | VREFB4DN0 | IO | | | | | AB12 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B52n | DIFFOUT_B52n | AF12 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B52p | DIFFOUT_B52p | AF11 | DQ4B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B53n | DIFFOUT_B53n | AC11 | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B53p | DIFFOUT_B53p | AD11 | DQ5B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B54n | DIFFOUT_B54n | AC10 | DQ5B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B54p | DIFFOUT_B54p | AD10 | DQ5B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B55n | DIFFOUT_B55n | Y11 | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B55p | DIFFOUT_B55p | AA11 | DQ5B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B56n | DIFFOUT_B56n | AE10 | DQSn5B/QK5B | DQSn2B/QK2B |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B56p | DIFFOUT_B56p | AF9 | DQS5B/CQ5B/CQn5B/QKn5B | DQS2B/CQ2B/CQn2B/QKn2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B57n | DIFFOUT_B57n | AD9 | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B57p | DIFFOUT_B57p | AE9 | DQ5B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B58n | DIFFOUT_B58n | V10 | DQ5B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B58p | DIFFOUT_B58p | W10 | DQ5B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B59n | DIFFOUT_B59n | Y10 | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B59p | DIFFOUT_B59p | AA10 | DQ5B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B60n | DIFFOUT_B60n | AB9 | DQ5B | DQ2B |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B60p | DIFFOUT_B60p | AC9 | DQ5B | DQ2B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B61n | DIFFOUT_B61n | V9 | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B61p | DIFFOUT_B61p | W9 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B62n | DIFFOUT_B62n | AC8 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B62p | DIFFOUT_B62p | AD8 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B63n | DIFFOUT_B63n | Y9 | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B63p | DIFFOUT_B63p | AA9 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B64n | DIFFOUT_B64n | AF8 | DQSn6B/QK6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B64p | DIFFOUT_B64p | AF7 | DQS6B/CQ6B/CQn6B/QKn6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B65n | DIFFOUT_B65n | AE6 | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B65p | DIFFOUT_B65p | AF6 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B66n | DIFFOUT_B66n | AC7 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B66p | DIFFOUT_B66p | AD7 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | VREFB4CN0 | | | | Y8 | | |
| 4C | VREFB4CN0 | IO | | | | | AA8 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B67n | DIFFOUT_B67n | AF5 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B67p | DIFFOUT_B67p | AE4 | DQ6B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B68n | DIFFOUT_B68n | AD6 | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B68p | DIFFOUT_B68p | AC5 | DQ7B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B69n | DIFFOUT_B69n | AE3 | DQ7B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B69p | DIFFOUT_B69p | AF3 | DQ7B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B70n | DIFFOUT_B70n | Y7 | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B70p | DIFFOUT_B70p | AA7 | DQ7B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B71n | DIFFOUT_B71n | AD5 | DQSn7B/QK7B | DQSn3B/QK3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B71p | DIFFOUT_B71p | AD4 | DQS7B/CQ7B/CQn7B/QKn7B | DQS3B/CQ3B/CQn3B/QKn3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B72n | DIFFOUT_B72n | AC3 | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B72p | DIFFOUT_B72p | AD3 | DQ7B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B73n | DIFFOUT_B73n | AB2 | DQ7B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B73p | DIFFOUT_B73p | AC1 | DQ7B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B74n | DIFFOUT_B74n | AB6 | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B74p | DIFFOUT_B74p | AC6 | DQ7B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B75n | DIFFOUT_B75n | AB4 | DQ7B | DQ3B |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B75p | DIFFOUT_B75p | AB3 | DQ7B | DQ3B |
| 4A | VREFB4AN0 | IO | | DATA10 | DIFFIO_TX_B83n | DIFFOUT_B83n | AA1 | | |
| 4A | VREFB4AN0 | IO | | DATA11 | DIFFIO_TX_B83p | DIFFOUT_B83p | AB1 | DQ8B | |
| 4A | VREFB4AN0 | IO | | DATA5 | DIFFIO_RX_B84n | DIFFOUT_B84n | Y1 | DQ8B | |
| 4A | VREFB4AN0 | IO | | DATA6 | DIFFIO_RX_B84p | DIFFOUT_B84p | AA2 | DQ8B | |
| 4A | VREFB4AN0 | IO | | DATA12 | DIFFIO_TX_B85n | DIFFOUT_B85n | W7 | | |
| 4A | VREFB4AN0 | IO | | DATA13 | DIFFIO_TX_B85p | DIFFOUT_B85p | W6 | DQ8B | |
| 4A | VREFB4AN0 | IO | | DATA7 | DIFFIO_RX_B86n | DIFFOUT_B86n | AA3 | DQSn8B/QK8B | |
| 4A | VREFB4AN0 | IO | | DATA8 | DIFFIO_RX_B86p | DIFFOUT_B86p | AA4 | DQS8B/CQ8B/CQn8B/QKn8B | |
| 4A | VREFB4AN0 | IO | | DATA14 | DIFFIO_TX_B87n | DIFFOUT_B87n | AA5 | | |
| 4A | VREFB4AN0 | IO | | DATA15 | DIFFIO_TX_B87p | DIFFOUT_B87p | AA6 | DQ8B | |
| 4A | VREFB4AN0 | IO | | DATA9 | DIFFIO_RX_B88n | DIFFOUT_B88n | Y5 | DQ8B | |
| 4A | VREFB4AN0 | IO | | CLKUSR | DIFFIO_RX_B88p | DIFFOUT_B88p | Y4 | DQ8B | |
| 4A | VREFB4AN0 | IO | VREFB4AN0 | | | | V7 | | |
| 4A | VREFB4AN0 | IO | RZQ_1 | | | | V6 | DQ8B | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B89n | DIFFOUT_B89n | W3 | DQ8B | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B89p | DIFFOUT_B89p | W4 | DQ8B | |
| | | RREF_BR | | | | | AE1 | | |
| | | DNU | | | | | AD1 | | |
| | | DNU | | | | | AD2 | | |
| 5A | VREFB5AN0 | IO | | | | | W1 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | V1 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | T7 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | VREFB5AN0 | | | | U7 | | |
| 5A | VREFB5AN0 | IO | | | | | V4 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | V5 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | W2 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | V2 | | |
| 5A | VREFB5AN0 | IO | | | | | V3 | DQS1R/CQ1R/CQn1R/QKn1R | DQS1R/CQ1R/CQn1R/QKn1R |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| 5A | VREFB5AN0 | IO | | | | | U3 | DQSn1R/QK1R | DQSn1R/QK1R |
| 5A | VREFB5AN0 | IO | | | | | U5 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | U6 | | |
| 5A | VREFB5AN0 | IO | | | | | T1 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | U1 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | T3 | DQ1R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | T4 | | |
| 5A | VREFB5AN0 | IO | | | | | T2 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | R3 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | T6 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | R5 | | |
| 5A | VREFB5AN0 | IO | | | | | P1 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | R2 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | P3 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | P4 | | |
| 5A | VREFB5AN0 | IO | CLK15p | | | | N2 | DQS2R/CQ2R/CQn2R/QKn2R | DQ1R |
| 5A | VREFB5AN0 | IO | CLK15n | | | | N3 | DQSn2R/QK2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | R6 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | P6 | | |
| 5A | VREFB5AN0 | IO | CLK14p | | | | M1 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | CLK14n | | | | N1 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | N5 | DQ2R | DQ1R |
| 5A | VREFB5AN0 | IO | | | | | N6 | | |
| 6A | VREFB6AN0 | IO | CLK13p | | | | M2 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | CLK13n | | | | L1 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | M3 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | M4 | | |
| 6A | VREFB6AN0 | IO | CLK12p | | | | H1 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | CLK12n | | | | J1 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | L3 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | L4 | | |
| 6A | VREFB6AN0 | IO | FPLL_RC_CLKOUT2,FPLL_RC_FBp,FPLL_RC_FB1 | | | | K2 | DQS3R/CQ3R/CQn3R/QKn3R | DQS2R/CQ2R/CQn2R/QKn2R |
| 6A | VREFB6AN0 | IO | FPLL_RC_CLKOUT3,FPLL_RC_FBn | | | | K3 | DQSn3R/QK3R | DQSn2R/QK2R |
| 6A | VREFB6AN0 | IO | FPLL_RC_CLKOUT0,FPLL_RC_CLKOUTp,FPLL_RC_FB0 | | | | M6 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | FPLL_RC_CLKOUT1,FPLL_RC_CLKOUTn | | | | L6 | | |
| 6A | VREFB6AN0 | IO | | | | | J2 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | J3 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | F1 | DQ3R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | E1 | | |
| 6A | VREFB6AN0 | IO | | | | | F2 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | G2 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | K4 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | VREFB6AN0 | | | | K5 | | |
| 6A | VREFB6AN0 | IO | | | | | G3 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | H3 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | J4 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | J5 | | |
| 6A | VREFB6AN0 | IO | | | | | D1 | DQS4R/CQ4R/CQn4R/QKn4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | D2 | DQSn4R/QK4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | K6 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | K7 | | |
| 6A | VREFB6AN0 | IO | | | | | E3 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | F3 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | B1 | DQ4R | DQ2R |
| 6A | VREFB6AN0 | IO | | | | | C1 | | |
| | | DNU | | | | | H6 | | |
| 7A | | GND | | | | | G5 | | |
| 7A | VREFB7AN0 | IO | | | DIFFIO_RX_T1p | DIFFOUT_T1p | F4 | DQ1T | |
| 7A | VREFB7AN0 | IO | | | DIFFIO_RX_T1n | DIFFOUT_T1n | G4 | DQ1T | |
| 7A | VREFB7AN0 | IO | | | | | J6 | DQ1T | |
| 7A | VREFB7AN0 | IO | VREFB7AN0 | | | | J7 | | |
| 7A | VREFB7AN0 | IO | | DEV_OE | DIFFIO_RX_T2p | DIFFOUT_T2p | C3 | DQ1T | |
| 7A | VREFB7AN0 | IO | | DEV_CLRn | DIFFIO_RX_T2n | DIFFOUT_T2n | C2 | DQ1T | |
| 7A | VREFB7AN0 | IO | RZQ_5 | | | | G6 | DQ1T | |
| 7A | VREFB7AN0 | IO | | nPERSTL0 | | | F6 | | |
| 7A | VREFB7AN0 | IO | | CvP_CONFDONE | DIFFIO_RX_T4p | DIFFOUT_T4p | A2 | DQS1T/CQ1T/CQn1T/QKn1T | |
| 7A | VREFB7AN0 | IO | | CRC_ERROR | DIFFIO_RX_T4n | DIFFOUT_T4n | A3 | DQSn1T/QK1T | |
| 7A | VREFB7AN0 | IO | | PR_DONE | DIFFIO_TX_T5p | DIFFOUT_T5p | D4 | DQ1T | |
| 7A | VREFB7AN0 | IO | | PR_REQUEST | DIFFIO_TX_T5n | DIFFOUT_T5n | E4 | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| 7A | VREFB7AN0 | IO | | INIT_DONE | DIFFIO_RX_T6p | DIFFOUT_T6p | C4 | DQ1T | |
| 7A | VREFB7AN0 | IO | | nCEO | DIFFIO_RX_T6n | DIFFOUT_T6n | B3 | DQ1T | |
| 7A | VREFB7AN0 | IO | | PR_ERROR | DIFFIO_TX_T7p | DIFFOUT_T7p | A4 | DQ1T | |
| 7A | VREFB7AN0 | IO | | PR_READY | DIFFIO_TX_T7n | DIFFOUT_T7n | B4 | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T15p | DIFFOUT_T15p | D6 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T15n | DIFFOUT_T15n | E6 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T16p | DIFFOUT_T16p | J9 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T16n | DIFFOUT_T16n | J8 | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T17p | DIFFOUT_T17p | E7 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T17n | DIFFOUT_T17n | F7 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T18p | DIFFOUT_T18p | C5 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T18n | DIFFOUT_T18n | D5 | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T19p | DIFFOUT_T19p | A5 | DQS2T/CQ2T/CQn2T/QKn2T | DQS1T/CQ1T/CQn1T/QKn1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T19n | DIFFOUT_T19n | A6 | DQSn2T/QK2T | DQSn1T/QK1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T20p | DIFFOUT_T20p | F8 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T20n | DIFFOUT_T20n | G8 | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T21p | DIFFOUT_T21p | B6 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T21n | DIFFOUT_T21n | C6 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T22p | DIFFOUT_T22p | B7 | DQ2T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T22n | DIFFOUT_T22n | C7 | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T23p | DIFFOUT_T23p | G9 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T23n | DIFFOUT_T23n | H9 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | | | E10 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | VREFB7CN0 | | | | F10 | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T24p | DIFFOUT_T24p | C8 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T24n | DIFFOUT_T24n | D8 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T25p | DIFFOUT_T25p | A8 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T25n | DIFFOUT_T25n | A9 | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T26p | DIFFOUT_T26p | D9 | DQS3T/CQ3T/CQn3T/QKn3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T26n | DIFFOUT_T26n | E9 | DQSn3T/QK3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T27p | DIFFOUT_T27p | J10 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T27n | DIFFOUT_T27n | K10 | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T28p | DIFFOUT_T28p | G10 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T28n | DIFFOUT_T28n | H10 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T29p | DIFFOUT_T29p | B9 | DQ3T | DQ1T |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T29n | DIFFOUT_T29n | C9 | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T30p | DIFFOUT_T30p | B10 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T30n | DIFFOUT_T30n | C10 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T31p | DIFFOUT_T31p | F11 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T31n | DIFFOUT_T31n | G11 | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T32p | DIFFOUT_T32p | J11 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T32n | DIFFOUT_T32n | K12 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T33p | DIFFOUT_T33p | C11 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T33n | DIFFOUT_T33n | D11 | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T34p | DIFFOUT_T34p | A11 | DQS4T/CQ4T/CQn4T/QKn4T | DQS2T/CQ2T/CQn2T/QKn2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T34n | DIFFOUT_T34n | A12 | DQSn4T/QK4T | DQSn2T/QK2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T35p | DIFFOUT_T35p | F12 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T35n | DIFFOUT_T35n | G12 | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T36p | DIFFOUT_T36p | H12 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T36n | DIFFOUT_T36n | J12 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T37p | DIFFOUT_T37p | D12 | DQ4T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T37n | DIFFOUT_T37n | E12 | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T38p | DIFFOUT_T38p | B12 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T38n | DIFFOUT_T38n | C12 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | | | G13 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | VREFB7DN0 | | | | H13 | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T39p | DIFFOUT_T39p | A13 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T39n | DIFFOUT_T39n | B13 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T40p | DIFFOUT_T40p | C14 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T40n | DIFFOUT_T40n | D14 | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T41p | DIFFOUT_T41p | D13 | DQS5T/CQ5T/CQn5T/QKn5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T41n | DIFFOUT_T41n | E13 | DQSn5T/QK5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T42p | DIFFOUT_T42p | F14 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T42n | DIFFOUT_T42n | G14 | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T43p | DIFFOUT_T43p | A15 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T43n | DIFFOUT_T43n | A14 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T44p | DIFFOUT_T44p | J13 | DQ5T | DQ2T |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T44n | DIFFOUT_T44n | J14 | | |
| | | VCCA_FPLL | | | | | L13 | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| | | VCCD_FPLL | | | | | L12 | | |
| | | DNU | | | | | K14 | | |
| 8D | VREFB8DN0 | IO | CLK19p | | DIFFIO_RX_T45p | DIFFOUT_T45p | G15 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | CLK19n | | DIFFIO_RX_T45n | DIFFOUT_T45n | H15 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T46p | DIFFOUT_T46p | J15 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T46n | DIFFOUT_T46n | K15 | | |
| 8D | VREFB8DN0 | IO | CLK18p | | DIFFIO_RX_T47p | DIFFOUT_T47p | B15 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | CLK18n | | DIFFIO_RX_T47n | DIFFOUT_T47n | C15 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T48p | DIFFOUT_T48p | D15 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T48n | DIFFOUT_T48n | E15 | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT2,FPLL_TC_FBp,FPLL_TC_FB1 | | DIFFIO_RX_T49p | DIFFOUT_T49p | H16 | DQS6T/CQ6T/CQn6T/QKn6T | DQS3T/CQ3T/CQn3T/QKn3T |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT3,FPLL_TC_FBn | | DIFFIO_RX_T49n | DIFFOUT_T49n | J16 | DQSn6T/QK6T | DQSn3T/QK3T |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT0,FPLL_TC_CLKOUTp,FPLL_TC_FB0 | | DIFFIO_TX_T50p | DIFFOUT_T50p | F16 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT1,FPLL_TC_CLKOUTn | | DIFFIO_TX_T50n | DIFFOUT_T50n | G16 | | |
| 8D | VREFB8DN0 | IO | CLK17p | | DIFFIO_RX_T51p | DIFFOUT_T51p | A17 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | CLK17n | | DIFFIO_RX_T51n | DIFFOUT_T51n | A16 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T52p | DIFFOUT_T52p | D16 | DQ6T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T52n | DIFFOUT_T52n | E16 | | |
| 8D | VREFB8DN0 | IO | CLK16p | | DIFFIO_RX_T53p | DIFFOUT_T53p | B16 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | CLK16n | | DIFFIO_RX_T53n | DIFFOUT_T53n | C17 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | | | F17 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | VREFB8DN0 | | | | G17 | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T54p | DIFFOUT_T54p | J17 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T54n | DIFFOUT_T54n | K17 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T55p | DIFFOUT_T55p | J18 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T55n | DIFFOUT_T55n | K18 | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T56p | DIFFOUT_T56p | D17 | DQS7T/CQ7T/CQn7T/QKn7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T56n | DIFFOUT_T56n | C18 | DQSn7T/QK7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T57p | DIFFOUT_T57p | E18 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T57n | DIFFOUT_T57n | F18 | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T58p | DIFFOUT_T58p | G18 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T58n | DIFFOUT_T58n | H18 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T59p | DIFFOUT_T59p | B18 | DQ7T | DQ3T |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T59n | DIFFOUT_T59n | A19 | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T79p | DIFFOUT_T79p | C19 | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T79n | DIFFOUT_T79n | D19 | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T80p | DIFFOUT_T80p | E19 | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T80n | DIFFOUT_T80n | F19 | | |
| 8A | VREFB8AN0 | IO | CLK23p | | DIFFIO_RX_T81p | DIFFOUT_T81p | A20 | | |
| 8A | VREFB8AN0 | IO | CLK23n | | DIFFIO_RX_T81n | DIFFOUT_T81n | B19 | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T82p | DIFFOUT_T82p | A21 | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T82n | DIFFOUT_T82n | A22 | | |
| 8A | VREFB8AN0 | IO | CLK22p | | DIFFIO_RX_T83p | DIFFOUT_T83p | B21 | DQ8T | |
| 8A | VREFB8AN0 | IO | CLK22n | | DIFFIO_RX_T83n | DIFFOUT_T83n | C21 | DQ8T | |
| 8A | VREFB8AN0 | IO | | | | | F20 | DQ8T | |
| 8A | VREFB8AN0 | IO | VREFB8AN0 | | | | G20 | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT2,FPLL_TL_FBp,FPLL_TL_FB1 | | DIFFIO_RX_T84p | DIFFOUT_T84p | C20 | DQ8T | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT3,FPLL_TL_FBn | | DIFFIO_RX_T84n | DIFFOUT_T84n | D20 | DQ8T | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT0,FPLL_TL_CLKOUTp,FPLL_TL_FB0 | | DIFFIO_TX_T85p | DIFFOUT_T85p | G21 | DQ8T | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT1,FPLL_TL_CLKOUTn | | DIFFIO_TX_T85n | DIFFOUT_T85n | H21 | | |
| 8A | VREFB8AN0 | IO | CLK21p | | DIFFIO_RX_T86p | DIFFOUT_T86p | B22 | DQS8T/CQ8T/CQn8T/QKn8T | |
| 8A | VREFB8AN0 | IO | CLK21n | | DIFFIO_RX_T86n | DIFFOUT_T86n | A23 | DQSn8T/QK8T | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T87p | DIFFOUT_T87p | H19 | DQ8T | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T87n | DIFFOUT_T87n | J19 | | |
| 8A | VREFB8AN0 | IO | CLK20p | | DIFFIO_RX_T88p | DIFFOUT_T88p | C23 | DQ8T | |
| 8A | VREFB8AN0 | IO | CLK20n | | DIFFIO_RX_T88n | DIFFOUT_T88n | C22 | DQ8T | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T89p | DIFFOUT_T89p | D21 | DQ8T | |
| 8A | VREFB8AN0 | IO | RZQ_6 | | DIFFIO_TX_T89n | DIFFOUT_T89n | E21 | | |
| 8A | | MSEL0 | | MSEL0 | | | A24 | | |
| 8A | | MSEL1 | | MSEL1 | | | K20 | | |
| 8A | | MSEL2 | | MSEL2 | | | A25 | | |
| 8A | | MSEL3 | | MSEL3 | | | B24 | | |
| 8A | | MSEL4 | | MSEL4 | | | B25 | | |
| 8A | | CONF_DONE | | CONF_DONE | | | F22 | | |
| 8A | | nSTATUS | | nSTATUS | | | J20 | | |
| 8A | | nCE | | nCE | | | H22 | | |
| 8A | | nCONFIG | | nCONFIG | | | C24 | | |
| 8A | | GND | | | | | B26 | | |
| | | GND | | | | | AA22 | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | AA25 | | |
| | | GND | | | | | AA26 | | |
| | | GND | | | | | AB23 | | |
| | | GND | | | | | AB24 | | |
| | | GND | | | | | AC24 | | |
| | | GND | | | | | AC25 | | |
| | | GND | | | | | AC26 | | |
| | | GND | | | | | C26 | | |
| | | GND | | | | | D23 | | |
| | | GND | | | | | D24 | | |
| | | GND | | | | | E22 | | |
| | | GND | | | | | E25 | | |
| | | GND | | | | | E26 | | |
| | | GND | | | | | F23 | | |
| | | GND | | | | | F24 | | |
| | | GND | | | | | G22 | | |
| | | GND | | | | | G25 | | |
| | | GND | | | | | G26 | | |
| | | GND | | | | | H23 | | |
| | | GND | | | | | H24 | | |
| | | GND | | | | | J22 | | |
| | | GND | | | | | J25 | | |
| | | GND | | | | | J26 | | |
| | | GND | | | | | K23 | | |
| | | GND | | | | | K24 | | |
| | | GND | | | | | L19 | | |
| | | GND | | | | | L20 | | |
| | | GND | | | | | L22 | | |
| | | GND | | | | | L25 | | |
| | | GND | | | | | L26 | | |
| | | GND | | | | | M19 | | |
| | | GND | | | | | M23 | | |
| | | GND | | | | | M24 | | |
| | | GND | | | | | N20 | | |
| | | GND | | | | | N22 | | |
| | | GND | | | | | N25 | | |
| | | GND | | | | | N26 | | |
| | | GND | | | | | P19 | | |
| | | GND | | | | | P23 | | |
| | | GND | | | | | P24 | | |
| | | GND | | | | | R20 | | |
| | | GND | | | | | R22 | | |
| | | GND | | | | | R25 | | |
| | | GND | | | | | R26 | | |
| | | GND | | | | | T19 | | |
| | | GND | | | | | T21 | | |
| | | GND | | | | | T23 | | |
| | | GND | | | | | T24 | | |
| | | GND | | | | | U20 | | |
| | | GND | | | | | U25 | | |
| | | GND | | | | | U26 | | |
| | | GND | | | | | V18 | | |
| | | GND | | | | | V19 | | |
| | | GND | | | | | V21 | | |
| | | GND | | | | | V22 | | |
| | | GND | | | | | V23 | | |
| | | GND | | | | | V24 | | |
| | | GND | | | | | W22 | | |
| | | GND | | | | | W25 | | |
| | | GND | | | | | W26 | | |
| | | GND | | | | | Y23 | | |
| | | GND | | | | | Y24 | | |
| | | VCCP | | | | | L11 | | |
| | | VCCP | | | | | L15 | | |
| | | VCCP | | | | | L9 | | |
| | | VCCP | | | | | M8 | | |
| | | VCCP | | | | | N17 | | |
| | | VCCP | | | | | R17 | | |
| | | VCCP | | | | | T8 | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| | | VCCP | | | | | U11 | | |
| | | VCCP | | | | | U15 | | |
| | | VCCP | | | | | U9 | | |
| | | VCCA_FPLL | | | | | P18 | | |
| | | VCCA_FPLL | | | | | P7 | | |
| | | VCCA_FPLL | | | | | M18 | | |
| | | VCCBAT | | | | | J21 | | |
| | | VCC_AUX | | | | | L10 | | |
| | | VCC_AUX | | | | | L17 | | |
| | | VCC_AUX | | | | | U10 | | |
| | | VCC_AUX | | | | | U17 | | |
| | | VCCD_FPLL | | | | | T18 | | |
| | | VCCD_FPLL | | | | | N7 | | |
| | | VCCD_FPLL | | | | | L18 | | |
| | | VCCA_GXBL0 | | | | | T20 | | |
| | | VCCA_GXBL1 | | | | | M20 | | |
| | | VCCH_GXBL0 | | | | | P20 | | |
| | | VCCH_GXBL1 | | | | | L21 | | |
| | | VCCL_GXBL0 | | | | | P21 | | |
| | | VCCL_GXBL0 | | | | | P22 | | |
| | | VCCL_GXBL1 | | | | | K22 | | |
| | | VCCR_GXBL | | | | | K21 | | |
| | | VCCR_GXBL | | | | | N21 | | |
| | | VCCR_GXBL | | | | | U21 | | |
| | | VCCR_GXBL | | | | | U22 | | |
| | | VCCT_GXBL0 | | | | | R21 | | |
| | | VCCT_GXBL0 | | | | | T22 | | |
| | | VCCT_GXBL1 | | | | | M21 | | |
| | | VCCT_GXBL1 | | | | | M22 | | |
| | | VCC | | | | | M10 | | |
| | | VCC | | | | | M12 | | |
| | | VCC | | | | | M14 | | |
| | | VCC | | | | | M16 | | |
| | | VCC | | | | | N11 | | |
| | | VCC | | | | | N13 | | |
| | | VCC | | | | | N15 | | |
| | | VCC | | | | | N9 | | |
| | | VCC | | | | | P10 | | |
| | | VCC | | | | | P14 | | |
| | | VCC | | | | | P16 | | |
| | | VCC | | | | | P9 | | |
| | | VCC | | | | | R11 | | |
| | | VCC | | | | | R13 | | |
| | | VCC | | | | | R15 | | |
| | | VCC | | | | | R9 | | |
| | | VCC | | | | | T10 | | |
| | | VCC | | | | | T12 | | |
| | | VCC | | | | | T14 | | |
| | | VCC | | | | | T16 | | |
| | | VCC | | | | | P12 | | |
| | | VCCIO3A | | | | | AA19 | | |
| | | VCCIO3A | | | | | AB22 | | |
| | | VCCIO3A | | | | | AD21 | | |
| | | VCCIO3D | | | | | AC15 | | |
| | | VCCIO3D | | | | | AC18 | | |
| | | VCCIO3D | | | | | AF17 | | |
| | | VCCIO3D | | | | | Y15 | | |
| | | VCCIO4A | | | | | Y3 | | |
| | | VCCIO4A | | | | | Y6 | | |
| | | VCCIO4C | | | | | AB7 | | |
| | | VCCIO4C | | | | | AC4 | | |
| | | VCCIO4C | | | | | AE7 | | |
| | | VCCIO4C | | | | | AF4 | | |
| | | VCCIO4D | | | | | AB10 | | |
| | | VCCIO4D | | | | | AC12 | | |
| | | VCCIO4D | | | | | AF10 | | |
| | | VCCIO4D | | | | | Y12 | | |
| | | VCCIO5A | | | | | N4 | | |
| | | VCCIO5A | | | | | R1 | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| | | VCCIO5A | | | | | R4 | | |
| | | VCCIO5A | | | | | U4 | | |
| | | VCCIO6A | | | | | G1 | | |
| | | VCCIO6A | | | | | K1 | | |
| | | VCCIO6A | | | | | M5 | | |
| | | VCCIO6A | | | | | H4 | | |
| | | VCCIO7A | | | | | D3 | | |
| | | VCCIO7A | | | | | F5 | | |
| | | VCCIO7C | | | | | A7 | | |
| | | VCCIO7C | | | | | D7 | | |
| | | VCCIO7C | | | | | F9 | | |
| | | VCCIO7C | | | | | G7 | | |
| | | VCCIO7D | | | | | A10 | | |
| | | VCCIO7D | | | | | C13 | | |
| | | VCCIO7D | | | | | D10 | | |
| | | VCCIO7D | | | | | F13 | | |
| | | VCCIO8A | | | | | D22 | | |
| | | VCCIO8A | | | | | F21 | | |
| | | VCCIO8A | | | | | G19 | | |
| | | VCCIO8D | | | | | A18 | | |
| | | VCCIO8D | | | | | C16 | | |
| | | VCCIO8D | | | | | D18 | | |
| | | VCCIO8D | | | | | F15 | | |
| | | VCCPD3 | | | | | V17 | | |
| | | VCCPD3 | | | | | W19 | | |
| | | VCCPD4A | | | | | V8 | | |
| | | VCCPD4BCD | | | | | U12 | | |
| | | VCCPD4BCD | | | | | V11 | | |
| | | VCCPD5 | | | | | R7 | | |
| | | VCCPD5 | | | | | P8 | | |
| | | VCCPD6 | | | | | M7 | | |
| | | VCCPD6 | | | | | L7 | | |
| | | VCCPD7A | | | | | K8 | | |
| | | VCCPD7BCD | | | | | K13 | | |
| | | VCCPD7BCD | | | | | K9 | | |
| | | VCCPD8 | | | | | K16 | | |
| | | VCCPD8 | | | | | K19 | | |
| | | VCCPGM | | | | | H7 | | |
| | | VCCPGM | | | | | W21 | | |
| | | GND | | | | | AB11 | | |
| | | GND | | | | | AB14 | | |
| | | GND | | | | | AB17 | | |
| | | GND | | | | | AB20 | | |
| | | GND | | | | | AB5 | | |
| | | GND | | | | | AB8 | | |
| | | GND | | | | | AC2 | | |
| | | GND | | | | | AE11 | | |
| | | GND | | | | | AE14 | | |
| | | GND | | | | | AE17 | | |
| | | GND | | | | | AE2 | | |
| | | GND | | | | | AE20 | | |
| | | GND | | | | | AE22 | | |
| | | GND | | | | | AE5 | | |
| | | GND | | | | | AE8 | | |
| | | GND | | | | | AF2 | | |
| | | GND | | | | | B11 | | |
| | | GND | | | | | B14 | | |
| | | GND | | | | | B17 | | |
| | | GND | | | | | B2 | | |
| | | GND | | | | | B20 | | |
| | | GND | | | | | B23 | | |
| | | GND | | | | | B5 | | |
| | | GND | | | | | B8 | | |
| | | GND | | | | | E11 | | |
| | | GND | | | | | E14 | | |
| | | GND | | | | | E17 | | |
| | | GND | | | | | E2 | | |
| | | GND | | | | | E20 | | |
| | | GND | | | | | E5 | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F672 | DQS for X8/X9 | DQS for X16/ X18 |
|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | E8 | | |
| | | GND | | | | | H11 | | |
| | | GND | | | | | H14 | | |
| | | GND | | | | | H17 | | |
| | | GND | | | | | H2 | | |
| | | GND | | | | | H20 | | |
| | | GND | | | | | H5 | | |
| | | GND | | | | | H8 | | |
| | | GND | | | | | K11 | | |
| | | GND | | | | | L14 | | |
| | | GND | | | | | L16 | | |
| | | GND | | | | | L2 | | |
| | | GND | | | | | L5 | | |
| | | GND | | | | | L8 | | |
| | | GND | | | | | M11 | | |
| | | GND | | | | | M13 | | |
| | | GND | | | | | M15 | | |
| | | GND | | | | | M17 | | |
| | | GND | | | | | M9 | | |
| | | GND | | | | | N10 | | |
| | | GND | | | | | N14 | | |
| | | GND | | | | | N16 | | |
| | | GND | | | | | N8 | | |
| | | GND | | | | | P11 | | |
| | | GND | | | | | P13 | | |
| | | GND | | | | | P15 | | |
| | | GND | | | | | P17 | | |
| | | GND | | | | | P2 | | |
| | | GND | | | | | P5 | | |
| | | GND | | | | | R10 | | |
| | | GND | | | | | R12 | | |
| | | GND | | | | | R14 | | |
| | | GND | | | | | R16 | | |
| | | GND | | | | | R8 | | |
| | | GND | | | | | T11 | | |
| | | GND | | | | | T13 | | |
| | | GND | | | | | T15 | | |
| | | GND | | | | | T17 | | |
| | | GND | | | | | T5 | | |
| | | GND | | | | | T9 | | |
| | | GND | | | | | U16 | | |
| | | GND | | | | | U2 | | |
| | | GND | | | | | U8 | | |
| | | GND | | | | | W11 | | |
| | | GND | | | | | W14 | | |
| | | GND | | | | | W17 | | |
| | | GND | | | | | W20 | | |
| | | GND | | | | | W5 | | |
| | | GND | | | | | W8 | | |
| | | GND | | | | | Y2 | | |
| | | GND | | | | | N12 | | |

Notes:
(1) For more information about pin definitions and pin connection guidelines, refer to the
Arria V Device Family Pin Connection Guidelines.
(2) The GXB_REFCLK pin is not supported in the current Quartus II version, but will be supported in the future Quartus II release version.

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | | DNU | | | | | E29 | | | |
| | | DNU | | | | | F29 | | | |
| | | RREF_TL | | | | | F30 | | | |
| GXB_L1 | | GXB_TX_L8n | | | | | G27 | | | |
| GXB_L1 | | GXB_TX_L8p | | | | | G28 | | | |
| GXB_L1 | | GXB_RX_L8p,GXB_REFCLK_L8p | | | | | H30 | | | |
| GXB_L1 | | GXB_RX_L8n,GXB_REFCLK_L8n | | | | | H29 | | | |
| GXB_L1 | | GXB_TX_L7n | | | | | J27 | | | |
| GXB_L1 | | GXB_TX_L7p | | | | | J28 | | | |
| GXB_L1 | | GXB_RX_L7p,GXB_REFCLK_L7p | | | | | K30 | | | |
| GXB_L1 | | GXB_RX_L7n,GXB_REFCLK_L7n | | | | | K29 | | | |
| GXB_L1 | | GXB_TX_L6n | | | | | L27 | | | |
| GXB_L1 | | GXB_TX_L6p | | | | | L28 | | | |
| GXB_L1 | | GXB_RX_L6p,GXB_REFCLK_L6p | | | | | M30 | | | |
| GXB_L1 | | GXB_RX_L6n,GXB_REFCLK_L6n | | | | | M29 | | | |
| GXB_L1 | | REFCLK2Ln | | | | | R23 | | | |
| GXB_L1 | | REFCLK2Lp | | | | | R22 | | | |
| GXB_L0 | | REFCLK1Ln | | | | | U23 | | | |
| GXB_L0 | | REFCLK1Lp | | | | | U22 | | | |
| GXB_L0 | | GXB_TX_L5n | | | | | N27 | | | |
| GXB_L0 | | GXB_TX_L5p | | | | | N28 | | | |
| GXB_L0 | | GXB_RX_L5p,GXB_REFCLK_L5p | | | | | P30 | | | |
| GXB_L0 | | GXB_RX_L5n,GXB_REFCLK_L5n | | | | | P29 | | | |
| GXB_L0 | | GXB_TX_L4n | | | | | R27 | | | |
| GXB_L0 | | GXB_TX_L4p | | | | | R28 | | | |
| GXB_L0 | | GXB_RX_L4p,GXB_REFCLK_L4p | | | | | T30 | | | |
| GXB_L0 | | GXB_RX_L4n,GXB_REFCLK_L4n | | | | | T29 | | | |
| GXB_L0 | | GXB_TX_L3n | | | | | U27 | | | |
| GXB_L0 | | GXB_TX_L3p | | | | | U28 | | | |
| GXB_L0 | | GXB_RX_L3p,GXB_REFCLK_L3p | | | | | V30 | | | |
| GXB_L0 | | GXB_RX_L3n,GXB_REFCLK_L3n | | | | | V29 | | | |
| GXB_L0 | | GXB_TX_L2n | | | | | W27 | | | |
| GXB_L0 | | GXB_TX_L2p | | | | | W28 | | | |
| GXB_L0 | | GXB_RX_L2p,GXB_REFCLK_L2p | | | | | Y30 | | | |
| GXB_L0 | | GXB_RX_L2n,GXB_REFCLK_L2n | | | | | Y29 | | | |
| GXB_L0 | | GXB_TX_L1n | | | | | AA27 | | | |
| GXB_L0 | | GXB_TX_L1p | | | | | AA28 | | | |
| GXB_L0 | | GXB_RX_L1p,GXB_REFCLK_L1p | | | | | AB30 | | | |
| GXB_L0 | | GXB_RX_L1n,GXB_REFCLK_L1n | | | | | AB29 | | | |
| GXB_L0 | | GXB_TX_L0n | | | | | AC27 | | | |
| GXB_L0 | | GXB_TX_L0p | | | | | AC28 | | | |
| GXB_L0 | | GXB_RX_L0p,GXB_REFCLK_L0p | | | | | AD30 | | | |
| GXB_L0 | | GXB_RX_L0n,GXB_REFCLK_L0n | | | | | AD29 | | | |
| GXB_L0 | | REFCLK0Ln | | | | | W23 | | | |
| GXB_L0 | | REFCLK0Lp | | | | | W22 | | | |
| | | DNU | | | | | AB26 | | | |
| 3A | | TDO | | TDO | | | AF30 | | | |
| 3A | | TMS | | TMS | | | AG30 | | | |
| 3A | | TCK | | TCK | | | AG29 | | | |
| 3A | | TDI | | TDI | | | AF29 | | | |
| 3A | | DCLK | | DCLK | | | AJ29 | | | |
| 3A | | nCSO | | DATA4 | | | AA25 | | | |
| 3A | | AS_DATA3 | | DATA3 | | | AH30 | | | |
| 3A | | AS_DATA2 | | DATA2 | | | AJ30 | | | |
| 3A | | AS_DATA1 | | DATA1 | | | AK29 | | | |
| 3A | | AS_DATA0,ASDO | | DATA0 | | | AK28 | | | |
| 3A | VREFB3AN0 | IO | RZQ_0 | | DIFFIO_TX_B1n | DIFFOUT_B1n | AF28 | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B1p | DIFFOUT_B1p | AG28 | DQ1B | | |
| 3A | VREFB3AN0 | IO | CLK0n | | DIFFIO_RX_B2n | DIFFOUT_B2n | AF27 | DQ1B | | |
| 3A | VREFB3AN0 | IO | CLK0p | | DIFFIO_RX_B2p | DIFFOUT_B2p | AG27 | DQ1B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B3n | DIFFOUT_B3n | AE27 | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B3p | DIFFOUT_B3p | AE26 | DQ1B | | |
| 3A | VREFB3AN0 | IO | CLK1n | | DIFFIO_RX_B4n | DIFFOUT_B4n | AH28 | DQSn1B/QK1B | | |
| 3A | VREFB3AN0 | IO | CLK1p | | DIFFIO_RX_B4p | DIFFOUT_B4p | AJ28 | DQS1B/CQ1B/CQn1B/QKn1B | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT1,FPLL_BL_CLKOUTn | | DIFFIO_TX_B5n | DIFFOUT_B5n | AJ27 | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT0,FPLL_BL_CLKOUTp,FPLL_BL_FB0 | | DIFFIO_TX_B5p | DIFFOUT_B5p | AK27 | DQ1B | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT3,FPLL_BL_FBn | | DIFFIO_RX_B6n | DIFFOUT_B6n | AB25 | DQ1B | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT2,FPLL_BL_FBp,FPLL_BL_FB1 | | DIFFIO_RX_B6p | DIFFOUT_B6p | AC25 | DQ1B | | |
| 3A | VREFB3AN0 | IO | VREFB3AN0 | | | | AD25 | | | |
| 3A | VREFB3AN0 | IO | | | | | AE25 | DQ1B | | |
| 3A | VREFB3AN0 | IO | CLK2n | | DIFFIO_RX_B7n | DIFFOUT_B7n | AG26 | DQ1B | | |
| 3A | VREFB3AN0 | IO | CLK2p | | DIFFIO_RX_B7p | DIFFOUT_B7p | AH26 | DQ1B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8n | DIFFOUT_B8n | AK26 | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8p | DIFFOUT_B8p | AK25 | DQ2B | | |
| 3A | VREFB3AN0 | IO | CLK3n | | DIFFIO_RX_B9n | DIFFOUT_B9n | AF25 | DQ2B | | |
| 3A | VREFB3AN0 | IO | CLK3p | | DIFFIO_RX_B9p | DIFFOUT_B9p | AG25 | DQ2B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10n | DIFFOUT_B10n | AB23 | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10p | DIFFOUT_B10p | AB24 | DQ2B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11n | DIFFOUT_B11n | AH25 | DQSn2B/QK2B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11p | DIFFOUT_B11p | AJ25 | DQS2B/CQ2B/CQn2B/QKn2B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B12n | DIFFOUT_B12n | AC24 | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B12p | DIFFOUT_B12p | AD24 | DQ2B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B13n | DIFFOUT_B13n | AF24 | DQ2B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B13p | DIFFOUT_B13p | AG24 | DQ2B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B14n | DIFFOUT_B14n | AD23 | | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B14p | DIFFOUT_B14p | AE23 | DQ2B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B15n | DIFFOUT_B15n | AJ24 | DQ2B | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B15p | DIFFOUT_B15p | AK24 | DQ2B | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B31n | DIFFOUT_B31n | AC22 | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B31p | DIFFOUT_B31p | AD22 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B32n | DIFFOUT_B32n | AA22 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B32p | DIFFOUT_B32p | AB22 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B33n | DIFFOUT_B33n | AB21 | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B33p | DIFFOUT_B33p | AC21 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B34n | DIFFOUT_B34n | AG23 | DQSn3B/QK3B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B34p | DIFFOUT_B34p | AH23 | DQS3B/CQ3B/CQn3B/QKn3B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B35n | DIFFOUT_B35n | AD21 | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B35p | DIFFOUT_B35p | AE22 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B36n | DIFFOUT_B36n | AF22 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B36p | DIFFOUT_B36p | AG22 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | VREFB3DN0 | | | | AA21 | | | |
| 3D | VREFB3DN0 | IO | | | | | Y20 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | CLK4n | | DIFFIO_RX_B37n | DIFFOUT_B37n | AH22 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | CLK4p | | DIFFIO_RX_B37p | DIFFOUT_B37p | AJ22 | DQ3B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B38n | DIFFOUT_B38n | AD20 | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B38p | DIFFOUT_B38p | AE20 | DQ4B | DQ1B | |
| 3D | VREFB3DN0 | IO | CLK5n | | DIFFIO_RX_B39n | DIFFOUT_B39n | AF21 | DQ4B | DQ1B | |
| 3D | VREFB3DN0 | IO | CLK5p | | DIFFIO_RX_B39p | DIFFOUT_B39p | AG21 | DQ4B | DQ1B | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT1,FPLL_BC_CLKOUTn | | DIFFIO_TX_B40n | DIFFOUT_B40n | AA19 | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT0,FPLL_BC_CLKOUTp,FPLL_BC_FB0 | | DIFFIO_TX_B40p | DIFFOUT_B40p | AB19 | DQ4B | DQ1B | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT3,FPLL_BC_FBn | | DIFFIO_RX_B41n | DIFFOUT_B41n | AG20 | DQSn4B/QK4B | DQSn1B/QK1B | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT2,FPLL_BC_FBp,FPLL_BC_FB1 | | DIFFIO_RX_B41p | DIFFOUT_B41p | AH20 | DQS4B/CQ4B/CQn4B/QKn4B | DQS1B/CQ1B/CQn1B/QKn1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B42n | DIFFOUT_B42n | AA20 | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B42p | DIFFOUT_B42p | AB20 | DQ4B | DQ1B | |
| 3D | VREFB3DN0 | IO | CLK6n | | DIFFIO_RX_B43n | DIFFOUT_B43n | AJ21 | DQ4B | DQ1B | |
| 3D | VREFB3DN0 | IO | CLK6p | | DIFFIO_RX_B43p | DIFFOUT_B43p | AK22 | DQ4B | DQ1B | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B44n | DIFFOUT_B44n | AC19 | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B44p | DIFFOUT_B44p | AD19 | DQ4B | DQ1B | |
| 3D | VREFB3DN0 | IO | CLK7n | | DIFFIO_RX_B45n | DIFFOUT_B45n | AK20 | DQ4B | DQ1B | |
| 3D | VREFB3DN0 | IO | CLK7p | | DIFFIO_RX_B45p | DIFFOUT_B45p | AK21 | DQ4B | DQ1B | |
| | | VCCD_FPLL | | | | | W15 | | | |
| | | VCCA_FPLL | | | | | W16 | | | |
| | | DNU | | | | | Y16 | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B46n | DIFFOUT_B46n | AJ19 | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B46p | DIFFOUT_B46p | AK19 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B47n | DIFFOUT_B47n | AF19 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B47p | DIFFOUT_B47p | AG19 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B48n | DIFFOUT_B48n | AC18 | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B48p | DIFFOUT_B48p | AD18 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B49n | DIFFOUT_B49n | AH19 | DQSn5B/QK5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B49p | DIFFOUT_B49p | AH18 | DQS5B/CQ5B/CQn5B/QKn5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B50n | DIFFOUT_B50n | AA18 | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B50p | DIFFOUT_B50p | AB18 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B51n | DIFFOUT_B51n | AE18 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B51p | DIFFOUT_B51p | AF18 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | VREFB4DN0 | | | | AD17 | | | |
| 4D | VREFB4DN0 | IO | | | | | AE17 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B52n | DIFFOUT_B52n | AA17 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B52p | DIFFOUT_B52p | AB17 | DQ5B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B53n | DIFFOUT_B53n | AA16 | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B53p | DIFFOUT_B53p | AB16 | DQ6B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B54n | DIFFOUT_B54n | AG17 | DQ6B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B54p | DIFFOUT_B54p | AH17 | DQ6B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B55n | DIFFOUT_B55n | AC16 | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B55p | DIFFOUT_B55p | AD16 | DQ6B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B56n | DIFFOUT_B56n | AJ18 | DQSn6B/QK6B | DQSn2B/QK2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B56p | DIFFOUT_B56p | AK17 | DQS6B/CQ6B/CQn6B/QKn6B | DQS2B/CQ2B/CQn2B/QKn2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B57n | DIFFOUT_B57n | AF16 | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B57p | DIFFOUT_B57p | AG16 | DQ6B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B58n | DIFFOUT_B58n | AA15 | DQ6B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B58p | DIFFOUT_B58p | AB15 | DQ6B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B59n | DIFFOUT_B59n | AC15 | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B59p | DIFFOUT_B59p | AD15 | DQ6B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B60n | DIFFOUT_B60n | AJ16 | DQ6B | DQ2B | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B60p | DIFFOUT_B60p | AK16 | DQ6B | DQ2B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B61n | DIFFOUT_B61n | AA14 | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B61p | DIFFOUT_B61p | AB14 | DQ7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B62n | DIFFOUT_B62n | AG15 | DQ7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B62p | DIFFOUT_B62p | AH15 | DQ7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B63n | DIFFOUT_B63n | AE15 | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B63p | DIFFOUT_B63p | AF15 | DQ7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B64n | DIFFOUT_B64n | AJ15 | DQSn7B/QK7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B64p | DIFFOUT_B64p | AK14 | DQS7B/CQ7B/CQn7B/QKn7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B65n | DIFFOUT_B65n | AG14 | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B65p | DIFFOUT_B65p | AH14 | DQ7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B66n | DIFFOUT_B66n | AD13 | DQ7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B66p | DIFFOUT_B66p | AE13 | DQ7B | DQ3B | |
| 4C | VREFB4CN0 | IO | VREFB4CN0 | | | | AD14 | | | |
| 4C | VREFB4CN0 | IO | | | | | AE14 | DQ7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B67n | DIFFOUT_B67n | AH13 | DQ7B | DQ3B | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B67p | DIFFOUT_B67p | AJ13 | DQ7B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B68n | DIFFOUT_B68n | AC13 | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B68p | DIFFOUT_B68p | AD12 | DQ8B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B69n | DIFFOUT_B69n | AF12 | DQ8B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B69p | DIFFOUT_B69p | AF13 | DQ8B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B70n | DIFFOUT_B70n | AA13 | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B70p | DIFFOUT_B70p | AB13 | DQ8B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B71n | DIFFOUT_B71n | AG12 | DQSn8B/QK8B | DQSn3B/QK3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B71p | DIFFOUT_B71p | AH12 | DQS8B/CQ8B/CQn8B/QKn8B | DQS3B/CQ3B/CQn3B/QKn3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B72n | DIFFOUT_B72n | AJ12 | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B72p | DIFFOUT_B72p | AK12 | DQ8B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B73n | DIFFOUT_B73n | AB12 | DQ8B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B73p | DIFFOUT_B73p | AC12 | DQ8B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B74n | DIFFOUT_B74n | Y12 | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B74p | DIFFOUT_B74p | Y13 | DQ8B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B75n | DIFFOUT_B75n | AG11 | DQ8B | DQ3B | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B75p | DIFFOUT_B75p | AH11 | DQ8B | DQ3B | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B76n | DIFFOUT_B76n | AD11 | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B76p | DIFFOUT_B76p | AE11 | DQ9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B77n | DIFFOUT_B77n | AA12 | DQ9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B77p | DIFFOUT_B77p | AB11 | DQ9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B78n | DIFFOUT_B78n | AA11 | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B78p | DIFFOUT_B78p | AA10 | DQ9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B79n | DIFFOUT_B79n | AK11 | DQSn9B/QK9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B79p | DIFFOUT_B79p | AK10 | DQS9B/CQ9B/CQn9B/QKn9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B80n | DIFFOUT_B80n | AF10 | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B80p | DIFFOUT_B80p | AG10 | DQ9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B81n | DIFFOUT_B81n | AB10 | DQ9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B81p | DIFFOUT_B81p | AB9 | DQ9B | | |
| 4B | VREFB4BN0 | IO | VREFB4BN0 | | | | AD8 | | | |
| 4B | VREFB4BN0 | IO | | | | | AD10 | DQ9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B82n | DIFFOUT_B82n | AH9 | DQ9B | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B82p | DIFFOUT_B82p | AJ10 | DQ9B | | |
| 4A | VREFB4AN0 | IO | | DATA10 | DIFFIO_TX_B83n | DIFFOUT_B83n | AF7 | | | |
| 4A | VREFB4AN0 | IO | | DATA11 | DIFFIO_TX_B83p | DIFFOUT_B83p | AG6 | DQ10B | | |
| 4A | VREFB4AN0 | IO | | DATA5 | DIFFIO_RX_B84n | DIFFOUT_B84n | AJ6 | DQ10B | | |
| 4A | VREFB4AN0 | IO | | DATA6 | DIFFIO_RX_B84p | DIFFOUT_B84p | AK6 | DQ10B | | |
| 4A | VREFB4AN0 | IO | | DATA12 | DIFFIO_TX_B85n | DIFFOUT_B85n | AA8 | | | |
| 4A | VREFB4AN0 | IO | | DATA13 | DIFFIO_TX_B85p | DIFFOUT_B85p | AB7 | DQ10B | | |
| 4A | VREFB4AN0 | IO | | DATA7 | DIFFIO_RX_B86n | DIFFOUT_B86n | AK5 | DQSn10B/QK10B | | |
| 4A | VREFB4AN0 | IO | | DATA8 | DIFFIO_RX_B86p | DIFFOUT_B86p | AK4 | DQS10B/CQ10B/CQn10B/QKn10B | | |
| 4A | VREFB4AN0 | IO | | DATA14 | DIFFIO_TX_B87n | DIFFOUT_B87n | AD7 | | | |
| 4A | VREFB4AN0 | IO | | DATA15 | DIFFIO_TX_B87p | DIFFOUT_B87p | AE7 | DQ10B | | |
| 4A | VREFB4AN0 | IO | | DATA9 | DIFFIO_RX_B88n | DIFFOUT_B88n | AA6 | DQ10B | | |
| 4A | VREFB4AN0 | IO | | CLKUSR | DIFFIO_RX_B88p | DIFFOUT_B88p | AB6 | DQ10B | | |
| 4A | VREFB4AN0 | IO | VREFB4AN0 | | | | AC6 | | | |
| 4A | VREFB4AN0 | IO | RZQ_1 | | | | AF4 | DQ10B | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B89n | DIFFOUT_B89n | AE6 | DQ10B | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B89p | DIFFOUT_B89p | AF6 | DQ10B | | |
| | | RREF_BR | | | | | AF1 | | | |
| | | DNU | | | | | AF2 | | | |
| | | DNU | | | | | AG2 | | | |
| 5A | VREFB5AN0 | IO | | | | | AD4 | DQ1R | | GND |
| 5A | VREFB5AN0 | IO | | | | | AE5 | DQ1R | | |
| 5A | VREFB5AN0 | IO | | | | | Y9 | DQ1R | | GND |
| 5A | VREFB5AN0 | IO | | | | | W9 | | | GND |
| 5A | VREFB5AN0 | IO | | | | | AD3 | DQ1R | | GND |
| 5A | VREFB5AN0 | IO | | | | | AE3 | DQ1R | | GND |
| 5A | VREFB5AN0 | IO | | | | | AB4 | DQ1R | | GND |
| 5A | VREFB5AN0 | IO | | | | | AA5 | | | GND |
| 5A | VREFB5AN0 | IO | | | | | AC3 | DQS1R/CQ1R/CQn1R/QKn1R | | DNU |
| 5A | VREFB5AN0 | IO | | | | | AC4 | DQSn1R/QK1R | | DNU |
| 5A | VREFB5AN0 | IO | | | | | Y7 | DQ1R | | GND |
| 5A | VREFB5AN0 | IO | | | | | W8 | | | GND |
| 5A | VREFB5AN0 | IO | | | | | AA3 | DQ1R | | DNU |
| 5A | VREFB5AN0 | IO | | | | | AB3 | DQ1R | | GND |
| 5A | VREFB5AN0 | IO | | | | | AD1 | DQ1R | | GND |
| 5A | VREFB5AN0 | IO | | | | | AD2 | | | GND |
| 5A | VREFB5AN0 | IO | | | | | Y6 | DQ2R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | W6 | DQ2R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | W7 | DQ2R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | VREFB5AN0 | | | | V7 | | | GND |
| 5A | VREFB5AN0 | IO | | | | | AB1 | DQ2R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | AB2 | DQ2R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | Y1 | DQ2R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | AA2 | | | GND |
| 5A | VREFB5AN0 | IO | | | | | Y4 | DQS2R/CQ2R/CQn2R/QKn2R | DQS1R/CQ1R/CQn1R/QKn1R | GND |
| 5A | VREFB5AN0 | IO | | | | | W4 | DQSn2R/QK2R | DQSn1R/QK1R | DNU |
| 5A | VREFB5AN0 | IO | | | | | W5 | DQ2R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | V5 | | | GND |
| 5A | VREFB5AN0 | IO | | | | | Y3 | DQ2R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | W3 | DQ2R | DQ1R | DNU |
| 5A | VREFB5AN0 | IO | | | | | W1 | DQ2R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | W2 | | | GND |
| 5A | VREFB5AN0 | IO | | | | | V3 | DQ3R | DQ1R | GND |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| 5A | VREFB5AN0 | IO | | | | | V4 | DQ3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | V6 | DQ3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | U6 | | | GND |
| 5A | VREFB5AN0 | IO | | | | | V1 | DQ3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | V2 | DQ3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | U3 | DQ3R | DQ1R | DNU |
| 5A | VREFB5AN0 | IO | | | | | T3 | | | GND |
| 5A | VREFB5AN0 | IO | CLK15p | | | | T1 | DQS3R/CQ3R/CQn3R/QKn3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | CLK15n | | | | T2 | DQSn3R/QK3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | U9 | DQ3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | U10 | | | GND |
| 5A | VREFB5AN0 | IO | CLK14p | | | | T4 | DQ3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | CLK14n | | | | T5 | DQ3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | T6 | DQ3R | DQ1R | GND |
| 5A | VREFB5AN0 | IO | | | | | T7 | | | GND |
| 6A | VREFB6AN0 | IO | CLK13p | | | | P6 | DQ4R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | CLK13n | | | | R6 | DQ4R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | P7 | DQ4R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | R8 | | | GND |
| 6A | VREFB6AN0 | IO | CLK12p | | | | R4 | DQ4R | DQ2R | DNU |
| 6A | VREFB6AN0 | IO | CLK12n | | | | R5 | DQ4R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | R3 | DQ4R | DQ2R | DNU |
| 6A | VREFB6AN0 | IO | | | | | P4 | | | GND |
| 6A | VREFB6AN0 | IO | FPLL_RC_CLKOUT2,FPLL_RC_FBp,FPLL_RC_FB1 | | | | R1 | DQS4R/CQ4R/CQn4R/QKn4R | DQS2R/CQ2R/CQn2R/QKn2R | GND |
| 6A | VREFB6AN0 | IO | FPLL_RC_CLKOUT3,FPLL_RC_FBn | | | | R2 | DQSn4R/QK4R | DQSn2R/QK2R | GND |
| 6A | VREFB6AN0 | IO | FPLL_RC_CLKOUT0,FPLL_RC_CLKOUTp,FPLL_RC_FB0 | | | | R9 | DQ4R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | FPLL_RC_CLKOUT1,FPLL_RC_CLKOUTn | | | | R10 | | | GND |
| 6A | VREFB6AN0 | IO | | | | | P3 | DQ4R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | N4 | DQ4R | DQ2R | DNU |
| 6A | VREFB6AN0 | IO | | | | | P1 | DQ4R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | N2 | | | GND |
| 6A | VREFB6AN0 | IO | | | | | N3 | DQ5R | DQ2R | DNU |
| 6A | VREFB6AN0 | IO | | | | | M3 | DQ5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | N9 | DQ5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | VREFB6AN0 | | | | N10 | | | GND |
| 6A | VREFB6AN0 | IO | | | | | M1 | DQ5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | M2 | DQ5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | L3 | DQ5R | DQ2R | DNU |
| 6A | VREFB6AN0 | IO | | | | | L4 | | | DNU |
| 6A | VREFB6AN0 | IO | | | | | N5 | DQS5R/CQ5R/CQn5R/QKn5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | N6 | DQSn5R/QK5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | N7 | DQ5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | N8 | | | GND |
| 6A | VREFB6AN0 | IO | | | | | K1 | DQ5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | K2 | DQ5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | K3 | DQ5R | DQ2R | GND |
| 6A | VREFB6AN0 | IO | | | | | J3 | | | DNU |
| 6A | VREFB6AN0 | IO | | | | | H1 | DQ6R | | GND |
| 6A | VREFB6AN0 | IO | | | | | J2 | DQ6R | | GND |
| 6A | VREFB6AN0 | IO | | | | | M5 | DQ6R | | GND |
| 6A | VREFB6AN0 | IO | | | | | M6 | | | GND |
| 6A | VREFB6AN0 | IO | | | | | G1 | DQ6R | | GND |
| 6A | VREFB6AN0 | IO | | | | | G2 | DQ6R | | GND |
| 6A | VREFB6AN0 | IO | | | | | H3 | DQ6R | | GND |
| 6A | VREFB6AN0 | IO | | | | | J4 | | | DNU |
| 6A | VREFB6AN0 | IO | | | | | H4 | DQS6R/CQ6R/CQn6R/QKn6R | | GND |
| 6A | VREFB6AN0 | IO | | | | | G4 | DQSn6R/QK6R | | DNU |
| 6A | VREFB6AN0 | IO | | | | | L6 | DQ6R | | GND |
| 6A | VREFB6AN0 | IO | | | | | M7 | | | GND |
| 6A | VREFB6AN0 | IO | | | | | F3 | DQ6R | | GND |
| 6A | VREFB6AN0 | IO | | | | | G3 | DQ6R | | DNU |
| 6A | VREFB6AN0 | IO | | | | | E3 | DQ6R | | |
| 6A | VREFB6AN0 | IO | | | | | F4 | | | GND |
| | | DNU | | | | | H5 | | | |
| 7A | | GND | | | | | F5 | | | |
| 7A | VREFB7AN0 | IO | | | DIFFIO_RX_T1p | DIFFOUT_T1p | C5 | DQ1T | | |
| 7A | VREFB7AN0 | IO | | | DIFFIO_RX_T1n | DIFFOUT_T1n | D5 | DQ1T | | |
| 7A | VREFB7AN0 | IO | | | | | J6 | DQ1T | | |
| 7A | VREFB7AN0 | IO | VREFB7AN0 | | | | K6 | | | |
| 7A | VREFB7AN0 | IO | | DEV_OE | DIFFIO_RX_T2p | DIFFOUT_T2p | A5 | DQ1T | | |
| 7A | VREFB7AN0 | IO | | DEV_CLRn | DIFFIO_RX_T2n | DIFFOUT_T2n | A4 | DQ1T | | |
| 7A | VREFB7AN0 | IO | RZQ_5 | | | | E4 | DQ1T | | |
| 7A | VREFB7AN0 | IO | | nPERSTL0 | | | K7 | | | |
| 7A | VREFB7AN0 | IO | | CvP_CONFDONE | DIFFIO_RX_T4p | DIFFOUT_T4p | D6 | DQS1T/CQ1T/CQn1T/QKn1T | | |
| 7A | VREFB7AN0 | IO | | CRC_ERROR | DIFFIO_RX_T4n | DIFFOUT_T4n | E6 | DQSn1T/QK1T | | |
| 7A | VREFB7AN0 | IO | | PR_DONE | DIFFIO_TX_T5p | DIFFOUT_T5p | G6 | DQ1T | | |
| 7A | VREFB7AN0 | IO | | PR_REQUEST | DIFFIO_TX_T5n | DIFFOUT_T5n | H6 | | | |
| 7A | VREFB7AN0 | IO | | INIT_DONE | DIFFIO_RX_T6p | DIFFOUT_T6p | A6 | DQ1T | | |
| 7A | VREFB7AN0 | IO | | nCEO | DIFFIO_RX_T6n | DIFFOUT_T6n | B6 | DQ1T | | |
| 7A | VREFB7AN0 | IO | | PR_ERROR | DIFFIO_TX_T7p | DIFFOUT_T7p | G7 | DQ1T | | |
| 7A | VREFB7AN0 | IO | | PR_READY | DIFFIO_TX_T7n | DIFFOUT_T7n | H7 | | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_RX_T8p | DIFFOUT_T8p | D9 | DQ2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_RX_T8n | DIFFOUT_T8n | E9 | DQ2T | | |
| 7B | VREFB7BN0 | IO | | | | | B10 | DQ2T | | |
| 7B | VREFB7BN0 | IO | VREFB7BN0 | | | | K8 | | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| 7B | VREFB7BN0 | IO | | | DIFFIO_RX_T9p | DIFFOUT_T9p | A11 | DQ2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_RX_T9n | DIFFOUT_T9n | A10 | DQ2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_TX_T10p | DIFFOUT_T10p | J10 | DQ2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_TX_T10n | DIFFOUT_T10n | K10 | | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_RX_T11p | DIFFOUT_T11p | C10 | DQS2T/CQ2T/CQn2T/QKn2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_RX_T11n | DIFFOUT_T11n | D10 | DQSn2T/QK2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_TX_T12p | DIFFOUT_T12p | E10 | DQ2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_TX_T12n | DIFFOUT_T12n | F10 | | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_RX_T13p | DIFFOUT_T13p | C11 | DQ2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_RX_T13n | DIFFOUT_T13n | D11 | DQ2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_TX_T14p | DIFFOUT_T14p | G10 | DQ2T | | |
| 7B | VREFB7BN0 | IO | | | DIFFIO_TX_T14n | DIFFOUT_T14n | H10 | | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T15p | DIFFOUT_T15p | J11 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T15n | DIFFOUT_T15n | K11 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T16p | DIFFOUT_T16p | F11 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T16n | DIFFOUT_T16n | G11 | | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T17p | DIFFOUT_T17p | B13 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T17n | DIFFOUT_T17n | B12 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T18p | DIFFOUT_T18p | D12 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T18n | DIFFOUT_T18n | E12 | | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T19p | DIFFOUT_T19p | J12 | DQS3T/CQ3T/CQn3T/QKn3T | DQS1T/CQ1T/CQn1T/QKn1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T19n | DIFFOUT_T19n | K12 | DQSn3T/QK3T | DQSn1T/QK1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T20p | DIFFOUT_T20p | G12 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T20n | DIFFOUT_T20n | H12 | | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T21p | DIFFOUT_T21p | C13 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T21n | DIFFOUT_T21n | D13 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T22p | DIFFOUT_T22p | E13 | DQ3T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T22n | DIFFOUT_T22n | F13 | | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T23p | DIFFOUT_T23p | J14 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T23n | DIFFOUT_T23n | K14 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | | | J13 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | VREFB7CN0 | | | | K13 | | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T24p | DIFFOUT_T24p | A14 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T24n | DIFFOUT_T24n | A13 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T25p | DIFFOUT_T25p | F14 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T25n | DIFFOUT_T25n | G14 | | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T26p | DIFFOUT_T26p | C14 | DQS4T/CQ4T/CQn4T/QKn4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T26n | DIFFOUT_T26n | D14 | DQSn4T/QK4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T27p | DIFFOUT_T27p | G13 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T27n | DIFFOUT_T27n | H13 | | | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T28p | DIFFOUT_T28p | A15 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_RX_T28n | DIFFOUT_T28n | B15 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T29p | DIFFOUT_T29p | D15 | DQ4T | DQ1T | |
| 7C | VREFB7CN0 | IO | | | DIFFIO_TX_T29n | DIFFOUT_T29n | E15 | | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T30p | DIFFOUT_T30p | F15 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T30n | DIFFOUT_T30n | G15 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T31p | DIFFOUT_T31p | J16 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T31n | DIFFOUT_T31n | K16 | | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T32p | DIFFOUT_T32p | H15 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T32n | DIFFOUT_T32n | J15 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T33p | DIFFOUT_T33p | D16 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T33n | DIFFOUT_T33n | E16 | | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T34p | DIFFOUT_T34p | B16 | DQS5T/CQ5T/CQn5T/QKn5T | DQS2T/CQ2T/CQn2T/QKn2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T34n | DIFFOUT_T34n | C16 | DQSn5T/QK5T | DQSn2T/QK2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T35p | DIFFOUT_T35p | G16 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T35n | DIFFOUT_T35n | H16 | | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T36p | DIFFOUT_T36p | A17 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T36n | DIFFOUT_T36n | A16 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T37p | DIFFOUT_T37p | C17 | DQ5T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T37n | DIFFOUT_T37n | D17 | | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T38p | DIFFOUT_T38p | J17 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T38n | DIFFOUT_T38n | K17 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | | | J18 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | VREFB7DN0 | | | | K18 | | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T39p | DIFFOUT_T39p | D18 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T39n | DIFFOUT_T39n | E18 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T40p | DIFFOUT_T40p | F17 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T40n | DIFFOUT_T40n | G17 | | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T41p | DIFFOUT_T41p | B18 | DQS6T/CQ6T/CQn6T/QKn6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T41n | DIFFOUT_T41n | C19 | DQSn6T/QK6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T42p | DIFFOUT_T42p | G18 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T42n | DIFFOUT_T42n | H18 | | | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T43p | DIFFOUT_T43p | A19 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_RX_T43n | DIFFOUT_T43n | B19 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T44p | DIFFOUT_T44p | D19 | DQ6T | DQ2T | |
| 7D | VREFB7DN0 | IO | | | DIFFIO_TX_T44n | DIFFOUT_T44n | E19 | | | |
| | | VCCA_FPLL | | | | | M16 | | | |
| | | VCCD_FPLL | | | | | M15 | | | |
| | | DNU | | | | | K15 | | | |
| 8D | VREFB8DN0 | IO | CLK19p | | DIFFIO_RX_T45p | DIFFOUT_T45p | F19 | DQ7T | DQ3T | |
| 8D | VREFB8DN0 | IO | CLK19n | | DIFFIO_RX_T45n | DIFFOUT_T45n | G20 | DQ7T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T46p | DIFFOUT_T46p | J19 | DQ7T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T46n | DIFFOUT_T46n | K19 | | | |
| 8D | VREFB8DN0 | IO | CLK18p | | DIFFIO_RX_T47p | DIFFOUT_T47p | J20 | DQ7T | DQ3T | |
| 8D | VREFB8DN0 | IO | CLK18n | | DIFFIO_RX_T47n | DIFFOUT_T47n | K20 | DQ7T | DQ3T | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T48p | DIFFOUT_T48p | F20 | DQ7T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T48n | DIFFOUT_T48n | F21 | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT2,FPLL_TC_FBp,FPLL_TC_FB1 | | DIFFIO_RX_T49p | DIFFOUT_T49p | C20 | DQS7T/CQ7T/CQn7T/QKn7T | DQS3T/CQ3T/CQn3T/QKn3T | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT3,FPLL_TC_FBn | | DIFFIO_RX_T49n | DIFFOUT_T49n | D20 | DQSn7T/QK7T | DQSn3T/QK3T | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT0,FPLL_TC_CLKOUTp,FPLL_TC_FB0 | | DIFFIO_TX_T50p | DIFFOUT_T50p | G19 | DQ7T | DQ3T | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT1,FPLL_TC_CLKOUTn | | DIFFIO_TX_T50n | DIFFOUT_T50n | H19 | | | |
| 8D | VREFB8DN0 | IO | CLK17p | | DIFFIO_RX_T51p | DIFFOUT_T51p | A21 | DQ7T | DQ3T | |
| 8D | VREFB8DN0 | IO | CLK17n | | DIFFIO_RX_T51n | DIFFOUT_T51n | B21 | DQ7T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T52p | DIFFOUT_T52p | D21 | DQ7T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T52n | DIFFOUT_T52n | E21 | | | |
| 8D | VREFB8DN0 | IO | CLK16p | | DIFFIO_RX_T53p | DIFFOUT_T53p | D22 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | CLK16n | | DIFFIO_RX_T53n | DIFFOUT_T53n | E22 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | | | J21 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | VREFB8DN0 | | | | K21 | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T54p | DIFFOUT_T54p | J22 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T54n | DIFFOUT_T54n | K22 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T55p | DIFFOUT_T55p | G22 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T55n | DIFFOUT_T55n | H22 | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T56p | DIFFOUT_T56p | B22 | DQS8T/CQ8T/CQn8T/QKn8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T56n | DIFFOUT_T56n | C22 | DQSn8T/QK8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T57p | DIFFOUT_T57p | G21 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T57n | DIFFOUT_T57n | H21 | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T58p | DIFFOUT_T58p | F23 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T58n | DIFFOUT_T58n | G23 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T59p | DIFFOUT_T59p | C23 | DQ8T | DQ3T | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T59n | DIFFOUT_T59n | D23 | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T75p | DIFFOUT_T75p | A23 | DQ9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T75n | DIFFOUT_T75n | A24 | DQ9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T76p | DIFFOUT_T76p | L22 | DQ9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T76n | DIFFOUT_T76n | K23 | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T77p | DIFFOUT_T77p | D24 | DQ9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T77n | DIFFOUT_T77n | E24 | DQ9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T78p | DIFFOUT_T78p | B24 | DQ9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T78n | DIFFOUT_T78n | B25 | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T79p | DIFFOUT_T79p | A26 | DQS9T/CQ9T/CQn9T/QKn9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T79n | DIFFOUT_T79n | A27 | DQSn9T/QK9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T80p | DIFFOUT_T80p | K24 | DQ9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T80n | DIFFOUT_T80n | J23 | | | |
| 8A | VREFB8AN0 | IO | CLK23p | | DIFFIO_RX_T81p | DIFFOUT_T81p | C25 | DQ9T | | |
| 8A | VREFB8AN0 | IO | CLK23n | | DIFFIO_RX_T81n | DIFFOUT_T81n | D25 | DQ9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T82p | DIFFOUT_T82p | J25 | DQ9T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T82n | DIFFOUT_T82n | K25 | | | |
| 8A | VREFB8AN0 | IO | CLK22p | | DIFFIO_RX_T83p | DIFFOUT_T83p | D26 | DQ10T | | |
| 8A | VREFB8AN0 | IO | CLK22n | | DIFFIO_RX_T83n | DIFFOUT_T83n | E25 | DQ10T | | |
| 8A | VREFB8AN0 | IO | | | | | G24 | DQ10T | | |
| 8A | VREFB8AN0 | IO | VREFB8AN0 | | | | H25 | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT2,FPLL_TL_FBp,FPLL_TL_FB1 | | DIFFIO_RX_T84p | DIFFOUT_T84p | C27 | DQ10T | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT3,FPLL_TL_FBn | | DIFFIO_RX_T84n | DIFFOUT_T84n | C26 | DQ10T | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT0,FPLL_TL_CLKOUTp,FPLL_TL_FB0 | | DIFFIO_TX_T85p | DIFFOUT_T85p | A28 | DQ10T | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT1,FPLL_TL_CLKOUTn | | DIFFIO_TX_T85n | DIFFOUT_T85n | B27 | | | |
| 8A | VREFB8AN0 | IO | CLK21p | | DIFFIO_RX_T86p | DIFFOUT_T86p | A29 | DQS10T/CQ10T/CQn10T/QKn10T | | |
| 8A | VREFB8AN0 | IO | CLK21n | | DIFFIO_RX_T86n | DIFFOUT_T86n | B28 | DQSn10T/QK10T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T87p | DIFFOUT_T87p | H24 | DQ10T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T87n | DIFFOUT_T87n | J24 | | | |
| 8A | VREFB8AN0 | IO | CLK20p | | DIFFIO_RX_T88p | DIFFOUT_T88p | C28 | DQ10T | | |
| 8A | VREFB8AN0 | IO | CLK20n | | DIFFIO_RX_T88n | DIFFOUT_T88n | D27 | DQ10T | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T89p | DIFFOUT_T89p | F25 | DQ10T | | |
| 8A | VREFB8AN0 | IO | RZQ_6 | | DIFFIO_TX_T89n | DIFFOUT_T89n | G25 | | | |
| 8A | | MSEL0 | | MSEL0 | | | C30 | | | |
| 8A | | MSEL1 | | MSEL1 | | | D30 | | | |
| 8A | | MSEL2 | | MSEL2 | | | C29 | | | |
| 8A | | MSEL3 | | MSEL3 | | | D29 | | | |
| 8A | | MSEL4 | | MSEL4 | | | F26 | | | |
| 8A | | CONF_DONE | | CONF_DONE | | | B30 | | | |
| 8A | | nSTATUS | | nSTATUS | | | D28 | | | |
| 8A | | nCE | | nCE | | | E28 | | | |
| 8A | | nCONFIG | | nCONFIG | | | E27 | | | |
| 8A | | GND | | | | | H26 | | | |
| | | GND | | | | | AA26 | | | |
| | | GND | | | | | AA29 | | | |
| | | GND | | | | | AA30 | | | |
| | | GND | | | | | AB27 | | | |
| | | GND | | | | | AB28 | | | |
| | | GND | | | | | AC26 | | | |
| | | GND | | | | | AC29 | | | |
| | | GND | | | | | AC30 | | | |
| | | GND | | | | | AD27 | | | |
| | | GND | | | | | AD28 | | | |
| | | GND | | | | | AE28 | | | |
| | | GND | | | | | AE29 | | | |
| | | GND | | | | | AE30 | | | |
| | | GND | | | | | E30 | | | |
| | | GND | | | | | F27 | | | |
| | | GND | | | | | F28 | | | |
| | | GND | | | | | G26 | | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | G29 | | | |
| | | GND | | | | | G30 | | | |
| | | GND | | | | | H27 | | | |
| | | GND | | | | | H28 | | | |
| | | GND | | | | | J26 | | | |
| | | GND | | | | | J29 | | | |
| | | GND | | | | | J30 | | | |
| | | GND | | | | | K27 | | | |
| | | GND | | | | | K28 | | | |
| | | GND | | | | | L25 | | | |
| | | GND | | | | | L26 | | | |
| | | GND | | | | | L29 | | | |
| | | GND | | | | | L30 | | | |
| | | GND | | | | | M24 | | | |
| | | GND | | | | | M27 | | | |
| | | GND | | | | | M28 | | | |
| | | GND | | | | | N23 | | | |
| | | GND | | | | | N24 | | | |
| | | GND | | | | | N26 | | | |
| | | GND | | | | | N29 | | | |
| | | GND | | | | | N30 | | | |
| | | GND | | | | | P23 | | | |
| | | GND | | | | | P25 | | | |
| | | GND | | | | | P27 | | | |
| | | GND | | | | | P28 | | | |
| | | GND | | | | | R24 | | | |
| | | GND | | | | | R29 | | | |
| | | GND | | | | | R30 | | | |
| | | GND | | | | | T23 | | | |
| | | GND | | | | | T27 | | | |
| | | GND | | | | | T28 | | | |
| | | GND | | | | | U24 | | | |
| | | GND | | | | | U26 | | | |
| | | GND | | | | | U29 | | | |
| | | GND | | | | | U30 | | | |
| | | GND | | | | | V23 | | | |
| | | GND | | | | | V25 | | | |
| | | GND | | | | | V27 | | | |
| | | GND | | | | | V28 | | | |
| | | GND | | | | | W24 | | | |
| | | GND | | | | | W29 | | | |
| | | GND | | | | | W30 | | | |
| | | GND | | | | | Y22 | | | |
| | | GND | | | | | Y23 | | | |
| | | GND | | | | | Y24 | | | |
| | | GND | | | | | Y25 | | | |
| | | GND | | | | | Y26 | | | |
| | | GND | | | | | Y27 | | | |
| | | GND | | | | | Y28 | | | |
| | | VCCP | | | | | L11 | | | |
| | | VCCP | | | | | L15 | | | |
| | | VCCP | | | | | L19 | | | |
| | | VCCP | | | | | L20 | | | |
| | | VCCP | | | | | L9 | | | |
| | | VCCP | | | | | W11 | | | |
| | | VCCP | | | | | W13 | | | |
| | | VCCP | | | | | W17 | | | |
| | | VCCP | | | | | W19 | | | |
| | | VCCP | | | | | W21 | | | |
| | | VCCA_FPLL | | | | | T22 | | | |
| | | VCCA_FPLL | | | | | T9 | | | |
| | | VCCA_FPLL | | | | | P22 | | | |
| | | VCCA_FPLL | | | | | P9 | | | |
| | | VCCBAT | | | | | K26 | | | |
| | | VCC_AUX | | | | | M12 | | | |
| | | VCC_AUX | | | | | M18 | | | |
| | | VCC_AUX | | | | | W12 | | | |
| | | VCC_AUX | | | | | W18 | | | |
| | | VCCD_FPLL | | | | | V22 | | | |
| | | VCCD_FPLL | | | | | V9 | | | |
| | | VCCD_FPLL | | | | | N22 | | | |
| | | VCCD_FPLL | | | | | M8 | | | |
| | | VCCA_GXBL0 | | | | | V24 | | | |
| | | VCCA_GXBL1 | | | | | P24 | | | |
| | | VCCH_GXBL0 | | | | | T24 | | | |
| | | VCCH_GXBL1 | | | | | N25 | | | |
| | | VCCL_GXBL0 | | | | | T25 | | | |
| | | VCCL_GXBL0 | | | | | T26 | | | |
| | | VCCL_GXBL1 | | | | | M25 | | | |
| | | VCCR_GXBL | | | | | M26 | | | |
| | | VCCR_GXBL | | | | | R25 | | | |
| | | VCCR_GXBL | | | | | R26 | | | |
| | | VCCR_GXBL | | | | | W25 | | | |
| | | VCCR_GXBL | | | | | W26 | | | |
| | | VCCT_GXBL0 | | | | | U25 | | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | | VCCT_GXBL0 | | | | | V26 | | | |
| | | VCCT_GXBL1 | | | | | P26 | | | |
| | | VCC | | | | | M10 | | | |
| | | VCC | | | | | M14 | | | |
| | | VCC | | | | | M20 | | | |
| | | VCC | | | | | N11 | | | |
| | | VCC | | | | | N13 | | | |
| | | VCC | | | | | N15 | | | |
| | | VCC | | | | | N17 | | | |
| | | VCC | | | | | N19 | | | |
| | | VCC | | | | | N21 | | | |
| | | VCC | | | | | P10 | | | |
| | | VCC | | | | | P12 | | | |
| | | VCC | | | | | P14 | | | |
| | | VCC | | | | | P16 | | | |
| | | VCC | | | | | P18 | | | |
| | | VCC | | | | | P20 | | | |
| | | VCC | | | | | R11 | | | |
| | | VCC | | | | | R13 | | | |
| | | VCC | | | | | R15 | | | |
| | | VCC | | | | | R17 | | | |
| | | VCC | | | | | R19 | | | |
| | | VCC | | | | | R21 | | | |
| | | VCC | | | | | T10 | | | |
| | | VCC | | | | | T12 | | | |
| | | VCC | | | | | T14 | | | |
| | | VCC | | | | | T18 | | | |
| | | VCC | | | | | T20 | | | |
| | | VCC | | | | | U11 | | | |
| | | VCC | | | | | U13 | | | |
| | | VCC | | | | | U15 | | | |
| | | VCC | | | | | U17 | | | |
| | | VCC | | | | | U19 | | | |
| | | VCC | | | | | U21 | | | |
| | | VCC | | | | | V10 | | | |
| | | VCC | | | | | V12 | | | |
| | | VCC | | | | | V14 | | | |
| | | VCC | | | | | V16 | | | |
| | | VCC | | | | | V18 | | | |
| | | VCC | | | | | V20 | | | |
| | | VCC | | | | | T16 | | | |
| | | VCCIO3A | | | | | AD26 | | | |
| | | VCCIO3A | | | | | AE24 | | | |
| | | VCCIO3A | | | | | AH24 | | | |
| | | VCCIO3A | | | | | AH27 | | | |
| | | VCCIO3D | | | | | AE19 | | | |
| | | VCCIO3D | | | | | AE21 | | | |
| | | VCCIO3D | | | | | AH21 | | | |
| | | VCCIO3D | | | | | AK23 | | | |
| | | VCCIO4A | | | | | AB5 | | | |
| | | VCCIO4A | | | | | AD5 | | | |
| | | VCCIO4A | | | | | AH3 | | | |
| | | VCCIO4A | | | | | AH6 | | | |
| | | VCCIO4B | | | | | AE10 | | | |
| | | VCCIO4B | | | | | AG9 | | | |
| | | VCCIO4B | | | | | AH10 | | | |
| | | VCCIO4B | | | | | AK9 | | | |
| | | VCCIO4C | | | | | AE12 | | | |
| | | VCCIO4C | | | | | AG13 | | | |
| | | VCCIO4C | | | | | AK13 | | | |
| | | VCCIO4C | | | | | AK15 | | | |
| | | VCCIO4D | | | | | AE16 | | | |
| | | VCCIO4D | | | | | AG18 | | | |
| | | VCCIO4D | | | | | AH16 | | | |
| | | VCCIO4D | | | | | AK18 | | | |
| | | VCCIO5A | | | | | AA1 | | | DNU |
| | | VCCIO5A | | | | | AA4 | | | DNU |
| | | VCCIO5A | | | | | AC1 | | | DNU |
| | | VCCIO5A | | | | | AE4 | | | VCCIO5A (can combine with VCCIO4A) |
| | | VCCIO5A | | | | | U1 | | | DNU |
| | | VCCIO5A | | | | | U4 | | | DNU |
| | | VCCIO6A | | | | | F1 | | | VCCIO6A (can combine with VCCIO7A) |
| | | VCCIO6A | | | | | J1 | | | DNU |
| | | VCCIO6A | | | | | K4 | | | DNU |
| | | VCCIO6A | | | | | L1 | | | DNU |
| | | VCCIO6A | | | | | M4 | | | DNU |
| | | VCCIO6A | | | | | N1 | | | DNU |
| | | VCCIO7A | | | | | C3 | | | |
| | | VCCIO7A | | | | | C6 | | | |
| | | VCCIO7A | | | | | F2 | | | |
| | | VCCIO7A | | | | | F6 | | | |
| | | VCCIO7B | | | | | A9 | | | |
| | | VCCIO7B | | | | | C9 | | | |
| | | VCCIO7B | | | | | D7 | | | |
| | | VCCIO7B | | | | | F9 | | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | | VCCIO7C | | | | | A12 | | | |
| | | VCCIO7C | | | | | C12 | | | |
| | | VCCIO7C | | | | | C15 | | | |
| | | VCCIO7C | | | | | F12 | | | |
| | | VCCIO7D | | | | | A18 | | | |
| | | VCCIO7D | | | | | C18 | | | |
| | | VCCIO7D | | | | | F16 | | | |
| | | VCCIO7D | | | | | F18 | | | |
| | | VCCIO8A | | | | | A25 | | | |
| | | VCCIO8A | | | | | C24 | | | |
| | | VCCIO8A | | | | | F24 | | | |
| | | VCCIO8A | | | | | L23 | | | |
| | | VCCIO8D | | | | | A20 | | | |
| | | VCCIO8D | | | | | A22 | | | |
| | | VCCIO8D | | | | | C21 | | | |
| | | VCCIO8D | | | | | F22 | | | |
| | | VCCPD3 | | | | | AA23 | | | |
| | | VCCPD3 | | | | | Y21 | | | |
| | | VCCPD4A | | | | | AA7 | | | |
| | | VCCPD4BCD | | | | | Y10 | | | |
| | | VCCPD4BCD | | | | | Y15 | | | |
| | | VCCPD4BCD | | | | | Y18 | | | |
| | | VCCPD5 | | | | | U7 | | | DNU |
| | | VCCPD5 | | | | | V8 | | | DNU |
| | | VCCPD6 | | | | | R7 | | | DNU |
| | | VCCPD6 | | | | | T8 | | | DNU |
| | | VCCPD7A | | | | | L8 | | | |
| | | VCCPD7BCD | | | | | L13 | | | |
| | | VCCPD7BCD | | | | | L17 | | | |
| | | VCCPD7BCD | | | | | M9 | | | |
| | | VCCPD8 | | | | | M22 | | | |
| | | VCCPD8 | | | | | M23 | | | |
| | | VCCPGM | | | | | K5 | | | |
| | | VCCPGM | | | | | AA24 | | | |
| | | GND | | | | | AC11 | | | |
| | | GND | | | | | AC14 | | | |
| | | GND | | | | | AC17 | | | |
| | | GND | | | | | AC2 | | | |
| | | GND | | | | | AC20 | | | |
| | | GND | | | | | AC23 | | | |
| | | GND | | | | | AC5 | | | |
| | | GND | | | | | AC8 | | | |
| | | GND | | | | | AE1 | | | |
| | | GND | | | | | AE2 | | | |
| | | GND | | | | | AF11 | | | |
| | | GND | | | | | AF14 | | | |
| | | GND | | | | | AF17 | | | |
| | | GND | | | | | AF20 | | | |
| | | GND | | | | | AF23 | | | |
| | | GND | | | | | AF26 | | | |
| | | GND | | | | | AF3 | | | |
| | | GND | | | | | AF5 | | | |
| | | GND | | | | | AF8 | | | |
| | | GND | | | | | AG1 | | | |
| | | GND | | | | | AH29 | | | |
| | | GND | | | | | AJ11 | | | |
| | | GND | | | | | AJ14 | | | |
| | | GND | | | | | AJ17 | | | |
| | | GND | | | | | AJ2 | | | |
| | | GND | | | | | AJ20 | | | |
| | | GND | | | | | AJ23 | | | |
| | | GND | | | | | AJ26 | | | |
| | | GND | | | | | AJ5 | | | |
| | | GND | | | | | AJ8 | | | |
| | | GND | | | | | B11 | | | |
| | | GND | | | | | B14 | | | |
| | | GND | | | | | B17 | | | |
| | | GND | | | | | B2 | | | |
| | | GND | | | | | B20 | | | |
| | | GND | | | | | B23 | | | |
| | | GND | | | | | B26 | | | |
| | | GND | | | | | B29 | | | |
| | | GND | | | | | B5 | | | |
| | | GND | | | | | B8 | | | |
| | | GND | | | | | E11 | | | |
| | | GND | | | | | E14 | | | |
| | | GND | | | | | E17 | | | |
| | | GND | | | | | E2 | | | |
| | | GND | | | | | E20 | | | |
| | | GND | | | | | E23 | | | |
| | | GND | | | | | E26 | | | |
| | | GND | | | | | E5 | | | |
| | | GND | | | | | E8 | | | |
| | | GND | | | | | G5 | | | |
| | | GND | | | | | H11 | | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | H14 | | | |
| | | GND | | | | | H17 | | | |
| | | GND | | | | | H2 | | | |
| | | GND | | | | | H20 | | | |
| | | GND | | | | | H23 | | | |
| | | GND | | | | | H8 | | | |
| | | GND | | | | | J5 | | | |
| | | GND | | | | | L10 | | | |
| | | GND | | | | | L12 | | | |
| | | GND | | | | | L14 | | | |
| | | GND | | | | | L16 | | | |
| | | GND | | | | | L18 | | | |
| | | GND | | | | | L2 | | | |
| | | GND | | | | | L21 | | | |
| | | GND | | | | | L24 | | | |
| | | GND | | | | | L5 | | | |
| | | GND | | | | | L7 | | | |
| | | GND | | | | | M11 | | | |
| | | GND | | | | | M13 | | | |
| | | GND | | | | | M17 | | | |
| | | GND | | | | | M19 | | | |
| | | GND | | | | | M21 | | | |
| | | GND | | | | | N12 | | | |
| | | GND | | | | | N14 | | | |
| | | GND | | | | | N18 | | | |
| | | GND | | | | | N20 | | | |
| | | GND | | | | | P11 | | | |
| | | GND | | | | | P13 | | | |
| | | GND | | | | | P15 | | | |
| | | GND | | | | | P17 | | | |
| | | GND | | | | | P19 | | | |
| | | GND | | | | | P2 | | | |
| | | GND | | | | | P21 | | | |
| | | GND | | | | | P5 | | | |
| | | GND | | | | | R12 | | | |
| | | GND | | | | | R14 | | | |
| | | GND | | | | | R18 | | | |
| | | GND | | | | | R20 | | | |
| | | GND | | | | | T11 | | | |
| | | GND | | | | | T13 | | | |
| | | GND | | | | | T15 | | | |
| | | GND | | | | | T17 | | | |
| | | GND | | | | | T19 | | | |
| | | GND | | | | | T21 | | | |
| | | GND | | | | | U12 | | | |
| | | GND | | | | | U16 | | | |
| | | GND | | | | | U18 | | | |
| | | GND | | | | | U2 | | | |
| | | GND | | | | | U20 | | | |
| | | GND | | | | | U5 | | | |
| | | GND | | | | | U8 | | | |
| | | GND | | | | | V11 | | | |
| | | GND | | | | | V13 | | | |
| | | GND | | | | | V15 | | | |
| | | GND | | | | | V17 | | | |
| | | GND | | | | | V19 | | | |
| | | GND | | | | | V21 | | | |
| | | GND | | | | | W10 | | | |
| | | GND | | | | | W14 | | | |
| | | GND | | | | | W20 | | | |
| | | GND | | | | | Y11 | | | |
| | | GND | | | | | Y14 | | | |
| | | GND | | | | | Y17 | | | |
| | | GND | | | | | Y19 | | | |
| | | GND | | | | | Y2 | | | |
| | | GND | | | | | Y5 | | | |
| | | GND | | | | | Y8 | | | |
| | | GND | | | | | U14 | | | |
| | | GND | | | | | P8 | | | |
| | | GND | | | | | N16 | | | |
| | | GND | | | | | R16 | | | |
| | | NC | | | | | F8 | | | |
| | | NC | | | | | G8 | | | |
| | | NC | | | | | J8 | | | |
| | | NC | | | | | B9 | | | |
| | | NC | | | | | E7 | | | |
| | | NC | | | | | F7 | | | |
| | | NC | | | | | G9 | | | |
| | | NC | | | | | H9 | | | |
| | | NC | | | | | A7 | | | |
| | | NC | | | | | A8 | | | |
| | | NC | | | | | B7 | | | |
| | | NC | | | | | C7 | | | |
| | | NC | | | | | C8 | | | |
| | | NC | | | | | D8 | | | |

| Bank Number | VREF | PinName/Function *(2)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(3)* | DQS for X8/X9 *(4)* | DQS for X16/X18 | Board Connection Requirement for Pin Migration Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | | NC | | | | | J9 | | | |
| | | VCCPD6 | | | | | K9 | | | VCCPD6 (can combine with VccPD7A) |
| | | NC | | | | | AE9 | | | |
| | | NC | | | | | AF9 | | | |
| | | NC | | | | | AJ9 | | | |
| | | NC | | | | | AK8 | | | |
| | | NC | | | | | AC9 | | | |
| | | NC | | | | | AD9 | | | |
| | | VCCPD5 | | | | | AA9 | | | VCCPD5 (can combine with VccPD4A) |
| | | NC | | | | | AB8 | | | |
| | | NC | | | | | AG8 | | | |
| | | NC | | | | | AH8 | | | |
| | | NC | | | | | AJ7 | | | |
| | | NC | | | | | AK7 | | | |
| | | NC | | | | | AC10 | | | |
| | | NC | | | | | AE8 | | | |
| | | NC | | | | | AG7 | | | |
| | | NC | | | | | AH7 | | | |
| | | NC | | | | | AH1 | | | |
| | | NC | | | | | AH2 | | | |
| | | NC | | | | | AC7 | | | |
| | | NC | | | | | AK2 | | | |
| | | NC | | | | | AJ1 | | | |
| | | NC | | | | | AG3 | | | |
| | | NC | | | | | AG4 | | | |
| | | NC | | | | | AK3 | | | |
| | | NC | | | | | AJ3 | | | |
| | | NC | | | | | AD6 | | | |
| | | NC | | | | | AJ4 | | | |
| | | NC | | | | | AH4 | | | |
| | | NC | | | | | AH5 | | | |
| | | NC | | | | | C4 | | | |
| | | NC | | | | | AG5 | | | |
| | | NC | | | | | B4 | | | |
| | | NC | | | | | B3 | | | |
| | | NC | | | | | A3 | | | |
| | | NC | | | | | C1 | | | |
| | | NC | | | | | C2 | | | |
| | | NC | | | | | B1 | | | |
| | | NC | | | | | A2 | | | |
| | | NC | | | | | D3 | | | |
| | | NC | | | | | D4 | | | |
| | | NC | | | | | D1 | | | |
| | | NC | | | | | D2 | | | |
| | | NC | | | | | J7 | | | |
| | | NC | | | | | E1 | | | |

Notes:
(1) For more information about pin definitions and pin connection guidelines, refer to the
Arria V Device Family Pin Connection Guidelines.
(2) The GXB_REFCLK pin is not supported in the current Quartus II version, but will be supported in the future Quartus II release version.
(3) AF4, E4, and K7 pins do not have LVDS support for pin migration.
(4) The DQ pin for AF4 and E4 pins does not support pin migration.

| Version Number | Date | Changes Made |
|---|---|---|
| 1.0 | 10/24/2012 | Initial release. |
| 1.1 | 3/18/2013 | Updated notes for F896 package. |
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