

Table with columns: Bank Number, Index within I/O Bank, VREF, Pin Name/Function, Optional Function(s), Configuration Function, Non-dedicated Tx/Rx Channel, Dedicated Tx/Rx Channel, Soft CDR Support, U484, DQS for X4, DQS for X8/X9, DQS for X16/X18, DQS for X32/X36. Rows list various pins such as REFCLK_GXBLC1C_CH1p, REFCLK_GXBLC1C_CH1n, and DIFFIO2L_1n through LVDS2K_17p.

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	Non-dedicated Tx/Rx Channel	Dedicated Tx/Rx Channel	Soft CDR Support	U484	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
CSS			TCK		TCK				P5				
CSS			TDI		TDI				M4				
CSS			MSEL0		MSEL0				P3				
CSS			MSEL1		MSEL1				N3				
CSS			MSEL2		MSEL2				N5				
CSS			nD_PULLUP		nD_PULLUP				T3				
CSS			nSTATUS		nSTATUS				L1				
CSS			CONF_DONE		CONF_DONE				M1				
CSS			rCONFIG		rCONFIG				M3				
CSS			rCE		rCE				R5				
CSS			rCS00		rCS00				W5				
CSS			rCS01		rCS01				N1				
CSS			rCS02		rCS02				L2				
CSS			AS_DATA0.ASDO		AS_DATA0.ASDO				R2				
CSS			AS_DATA1		AS_DATA1				N2				
CSS			AS_DATA2		AS_DATA2				P2				
CSS			AS_DATA3		AS_DATA3				V5				
CSS			DCLK		DCLK				T2				
			ADC_GND						F4				
			GND						G10				
			GND						G9				
			GND						H0				
			GND						J8				
			GND						K10				
			GND						K11				
			GND						K9				
			GND						H10				
			GND						A14				
			GND						A18				
			GND						A21				
			GND						A4				
			GND						A9				
			GND						AA10				
			GND						AA15				
			GND						AA18				
			GND						AA19				
			GND						AA20				
			GND						AA5				
			GND						AB12				
			GND						AB2				
			GND						AB20				
			GND						AB21				
			GND						AB22				
			GND						AB7				
			GND						B12				
			GND						B17				
			GND						B18				
			GND						B19				
			GND						B2				
			GND						B20				
			GND						B21				
			GND						B22				
			GND						B7				
			GND						C14				
			GND						C20				
			GND						C4				
			GND						D1				
			GND						D18				
			GND						D20				
			GND						D21				
			GND						D22				
			GND						D6				
			GND						E13				
			GND						E20				
			GND						E3				
			GND						E8				
			GND						F20				
			GND						F21				
			GND						F22				
			GND						F5				
			GND						G12				
			GND						G17				
			GND						G2				
			GND						G20				
			GND						G7				
			GND						H18				
			GND						H19				
			GND						H20				
			GND						H21				
			GND						H22				
			GND						H4				
			GND						H9				
			GND						J11				
			GND						J15				
			GND						J18				
			GND						J6				
			GND						K13				
			GND						K18				
			GND						K21				
			GND						K22				
			GND						K8				
			GND						L10				
			GND						L15				
			GND						L18				
			GND						L20				
			GND						L5				
			GND						M12				
			GND						M18				
			GND						M2				
			GND						M21				
			GND						M22				
			GND						M7				
			GND						N14				
			GND						N18				
			GND						N6				
			GND						N9				
			GND						P1				
			GND						P11				
			GND						P16				

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	Non-dedicated Tx/Rx Channel	Dedicated Tx/Rx Channel	Soft CDR Support	U484	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			GND						P16				
			GND						P18				
			GND						P20				
			GND						P21				
			GND						P22				
			GND						P6				
			GND						R13				
			GND						R20				
			GND						R3				
			GND						R8				
			GND						T10				
			GND						T20				
			GND						T21				
			GND						T22				
			GND						T5				
			GND						U17				
			GND						U2				
			GND						U29				
			GND						U7				
			GND						V20				
			GND						V21				
			GND						V22				
			GND						V4				
			GND						W1				
			GND						W11				
			GND						W16				
			GND						W18				
			GND						W19				
			GND						W20				
			GND						Y13				
			GND						Y18				
			GND						Y21				
			GND						Y22				
			GND						Y3				
			GND						Z1				
			GND						Z2				
			GND						Z3				
			GND						K2				
			GND						K3				
			GND						H2				
			GNDSENSE						M6				
			VCC						J12				
			VCC						J13				
			VCC						K15				
			VCC						K16				
			VCC						K6				
			VCC						L11				
			VCC						L12				
			VCC						L13				
			VCC						L14				
			VCC						L16				
			VCC						L6				
			VCC						L7				
			VCC						L8				
			VCC						L9				
			VCC						M10				
			VCC						M14				
			VCC						M15				
			VCC						M16				
			VCC						M6				
			VCC						N10				
			VCC						N11				
			VCC						N12				
			VCC						N13				
			VCC						N16				
			VCC						N6				
			VCC						N7				
			VCC						P10				
			VCC						P13				
			VCC						P15				
			VCC						P7				
			VCC						P6				
			VCC						P9				
			VCC						R11				
			VCC						R12				
			VCC						R15				
			VCC						R16				
			VCC						R6				
			VCC						R7				
			VCCPT						J14				
			VCCPT						J8				
			VCCPT						R14				
			VCCPT						R9				
			DNU						AB17				
			DNU						AB18				
			DNU						R4				
			DNU						T4				
			DNU						P4				
			VCCPGM						T9				
			VCCPGM						U9				
			TEMPDIODEN						E4				
			TEMPDIODEP						E5				
			VCCBAT						T8				
			VCCA_PLL						M11				
			VCCA_PLL						M13				
			VCCIO2A						V9				
			VCCIO2A						W6				
			VCCIO2A						Y8				
			VCCIO2J						T15				
			VCCIO2J						U12				
			VCCIO2J						V14				
			VCCIO2K						D16				
			VCCIO2K						F15				
			VCCIO2K						H14				
			VCCIO2L						C9				
			VCCIO2L						D11				
			VCCIO2L						F10				
			VCCIO2L						T7				
2A		VREFB2AND	VREFB2AND						T13				
2J		VREFB2JND	VREFB2JND						J15				
2K		VREFB2KND	VREFB2KND						F12				
2L		VREFB2LND	VREFB2LND						F3				
		VREFN_ADC											

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			VREFP_ADC						G3				
			NC						K5				
			NC						J7				
			NC						K7				
			NC						G4				
			NC						J5				
			NC						F6				
			NC						J4				
			NC						K4				
			NC						J3				
			NC						H5				
			NC						G8				
			NC						H7				
			NC						H3				
			NC						G5				
			NC						H6				
			NC						H8				
			NC						G6				
			NC						AA3				
			NC						AA9				
			NC						U10				
			NC						U11				
			NC						J2				
			NC						K1				
			NC						G1				
			NC						H1				
			VCOH_GXBL						L19				
			VCCR_GXBL1C						J19				
			VCCR_GXBL1C						J20				
			VCCJ_GXBL1C						N19				
			VCCJ_GXBL1C						N20				
			RREF_BL						AB19				
			RREF_TL						A22				
			VCCERAM						N15				
			VCCERAM						N8				
			VCCLENS						M8				
			VCCP						K12				
			VCCP						K14				
			VCCP						P12				
			VCCP						P14				
			VSIGN_0						D5				
			VSIGN_1						F7				
			VSIGP_0						D4				
			VSIGP_1						E6				

Note:
(1) For more information about pin definition and pin connection guidelines, refer to the [Intel Cyclone 10 GX Device Family Pin Connection Guidelines](#).

Bank Number	Index within IO Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	Non-dedicated Tx/Rx Channel	Dedicated Tx/Rx Channel	Soft CDR Support	F672	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
1C			REFCLK_GXBLIC_CHTp						R22				
1C			REFCLK_GXBLIC_CHTn						R21				
1C			GXBLIC_TX_CH5n						R25				
1C			GXBLIC_TX_CH5p						R26				
1C			GXBLIC_RX_CH5n,GXBLIC_REFCLK5n						P23				
1C			GXBLIC_RX_CH5p,GXBLIC_REFCLK5p						P24				
1C			GXBLIC_TX_CH4n						U25				
1C			GXBLIC_TX_CH4p						U26				
1C			GXBLIC_RX_CH4n,GXBLIC_REFCLK4n						T23				
1C			GXBLIC_RX_CH4p,GXBLIC_REFCLK4p						T24				
1C			GXBLIC_TX_CH3n						W25				
1C			GXBLIC_TX_CH3p						W26				
1C			GXBLIC_RX_CH3n,GXBLIC_REFCLK3n						V23				
1C			GXBLIC_RX_CH3p,GXBLIC_REFCLK3p						V24				
1C			GXBLIC_TX_CH2n						AA25				
1C			GXBLIC_TX_CH2p						AA26				
1C			GXBLIC_RX_CH2n,GXBLIC_REFCLK2n						Y23				
1C			GXBLIC_RX_CH2p,GXBLIC_REFCLK2p						Y24				
1C			GXBLIC_TX_CH1n						AC25				
1C			GXBLIC_TX_CH1p						AC26				
1C			GXBLIC_RX_CH1n,GXBLIC_REFCLK1n						AB23				
1C			GXBLIC_RX_CH1p,GXBLIC_REFCLK1p						AB24				
1C			GXBLIC_TX_CH0n						AE25				
1C			GXBLIC_TX_CH0p						AE26				
1C			GXBLIC_RX_CH0n,GXBLIC_REFCLK0n						AD23				
1C			GXBLIC_RX_CH0p,GXBLIC_REFCLK0p						AD24				
1C			REFCLK_GXBLIC_CHBn						U22				
1C			REFCLK_GXBLIC_CHBn						U21				
2L	47	VREFB2LNO	IO			DIFFIO2L_1n		No	E5	DO0	DO0	DO0	DO0
2L	46	VREFB2LNO	IO			DIFFIO2L_1p		No	E4	DO0	DO0	DO0	DO0
2L	45	VREFB2LNO	IO			DIFFIO2L_2n		No	D5	DOSn0	DO0	DO0	DO0
2L	44	VREFB2LNO	IO			DIFFIO2L_2p		No	D4	DOS0	DO0	DO0	DO0
2L	43	VREFB2LNO	IO			DIFFIO2L_3n		No	E7	DO0	DO0	DO0	DO0
2L	42	VREFB2LNO	IO			DIFFIO2L_3p		No	E6	DO0	DO0	DO0	DO0
2L	41	VREFB2LNO	IO			DIFFIO2L_4n		No	F4	DOSn1	DOSn0/CQn0	DO0	DO0
2L	40	VREFB2LNO	IO			DIFFIO2L_4p		No	F3	DO1	DO0	DO0	DO0
2L	39	VREFB2LNO	IO			DIFFIO2L_5n		No	G5	DO1	DO0	DO0	DO0
2L	38	VREFB2LNO	IO			DIFFIO2L_5p		No	G4	DO1	DO0	DO0	DO0
2L	37	VREFB2LNO	IO			DIFFIO2L_6n		No	F8	DO1	DO0	DOSn0/CQn0	DO0
2L	36	VREFB2LNO	IO			DIFFIO2L_6p		No	F7	DO1	DO0	DOS0/CQ0	DO0
2L	35	VREFB2LNO	IO			DIFFIO2L_7n		No	E9	DO2	DO1	DO0	DO0
2L	34	VREFB2LNO	IO			DIFFIO2L_7p		No	D9	DO2	DO1	DO0	DO0
2L	33	VREFB2LNO	IO			DIFFIO2L_8n		No	E11	DOSn2	DO1	DO0	DO0
2L	32	VREFB2LNO	IO			DIFFIO2L_8p		No	E10	DOS2	DO1	DO0	DO0
2L	31	VREFB2LNO	IO			DIFFIO2L_9n		No	C8	DO2	DO1	DO0	DO0
2L	30	VREFB2LNO	IO			DIFFIO2L_9p		No	C7	DO2	DO1	DO0	DO0
2L	29	VREFB2LNO	IO	PLL_2L_CLKOUT1n		DIFFIO2L_10n		No	D8	DOSn3	DOSn1/CQn1	DO0	DO0
2L	28	VREFB2LNO	IO	PLL_2L_CLKOUT1p,PLL_2L_CLKOUT1,PLL_2L_FB1		DIFFIO2L_10p		No	D7	DOS3	DOS1/CQ1	DO0	DO0
2L	27	VREFB2LNO	IO			DIFFIO2L_11n		No	D10	DO3	DO1	DO0	DO0
2L	26	VREFB2LNO	IO	RZQ_2L		DIFFIO2L_11p		No	C10	DO3	DO1	DO0	DO0
2L	25	VREFB2LNO	IO	CLK_2L_1n		DIFFIO2L_12n		No	C6	DO3	DO1	DO0	DO0
2L	24	VREFB2LNO	IO	CLK_2L_1p		DIFFIO2L_12p		No	C5	DO3	DO1	DO0	DO0
2L	23	VREFB2LNO	IO	CLK_2L_0n		DIFFIO2L_13n		No	B6	DO4	DO2	DO1	DO0
2L	22	VREFB2LNO	IO	CLK_2L_0p		DIFFIO2L_13p		No	A6	DO4	DO2	DO1	DO0
2L	21	VREFB2LNO	IO			DIFFIO2L_14n		No	B5	DOSn4	DO2	DO1	DOSn0/CQn0
2L	20	VREFB2LNO	IO			DIFFIO2L_14p		No	A4	DOS4	DO2	DO1	DOS0/CQ0
2L	19	VREFB2LNO	IO	PLL_2L_CLKOUT0n		DIFFIO2L_15n		No	B8	DO4	DO2	DO1	DO0
2L	18	VREFB2LNO	IO	PLL_2L_CLKOUT0p,PLL_2L_CLKOUT0,PLL_2L_FB0		DIFFIO2L_15p		No	A7	DO4	DO2	DO1	DO0
2L	17	VREFB2LNO	IO			DIFFIO2L_16n		No	B10	DOSn5	DOSn2/CQn2	DO1	DO0
2L	16	VREFB2LNO	IO			DIFFIO2L_16p		No	B9	DOS5	DOS2/CQ2	DO1	DO0
2L	15	VREFB2LNO	IO			DIFFIO2L_17n		No	B4	DO5	DO2	DO1	DO0
2L	14	VREFB2LNO	IO			DIFFIO2L_17p		No	B3	DO5	DO2	DO1	DO0
2L	13	VREFB2LNO	IO			DIFFIO2L_18n		No	A9	DO5	DO2	DOSn1/CQn1	DO0
2L	12	VREFB2LNO	IO			DIFFIO2L_18p		No	A8	DO5	DO2	DOS1/CQ1	DO0
2L	11	VREFB2LNO	IO			DIFFIO2L_19n		No	D3	DO6	DO3	DO1	DO0
2L	10	VREFB2LNO	IO			DIFFIO2L_19p		No	D2	DO6	DO3	DO1	DO0
2L	9	VREFB2LNO	IO			DIFFIO2L_20n		No	C3	DOSn6	DO3	DO1	DO0
2L	8	VREFB2LNO	IO			DIFFIO2L_20p		No	C2	DOS6	DO3	DO1	DO0
2L	7	VREFB2LNO	IO			DIFFIO2L_21n		No	C1	DO6	DO3	DO1	DO0
2L	6	VREFB2LNO	IO			DIFFIO2L_21p		No	B1	DO6	DO3	DO1	DO0
2L	5	VREFB2LNO	IO			DIFFIO2L_22n		No	A3	DOSn7	DOSn3/CQn3	DO1	DO0
2L	4	VREFB2LNO	IO			DIFFIO2L_22p		No	A2	DOS7	DOS3/CQ3	DO1	DO0
2L	3	VREFB2LNO	IO			DIFFIO2L_23n		No	E2	DO7	DO3	DO1	DO0
2L	2	VREFB2LNO	IO			DIFFIO2L_23p		No	E1	DO7	DO3	DO1	DO0
2L	1	VREFB2LNO	IO			DIFFIO2L_24n		No	F2	DO7	DO3	DO1	DO0
2K	47	VREFB2KNO	IO			DIFFIO2L_24p		No	F1	DO7	DO3	DO1	DO0
2K	46	VREFB2KNO	IO				LVDS2K_1n	No	H18	DO8	DO4	DO2	DO1
2K	45	VREFB2KNO	IO				LVDS2K_1p	No	G18	DO8	DO4	DO2	DO1
2K	44	VREFB2KNO	IO				LVDS2K_2n	Yes	F16	DOSn8	DO4	DO2	DO1
2K	43	VREFB2KNO	IO				LVDS2K_2p	Yes	E16	DOS8	DO4	DO2	DO1
2K	42	VREFB2KNO	IO				LVDS2K_3n	No	F17	DO8	DO4	DO2	DO1
2K	41	VREFB2KNO	IO				LVDS2K_3p	No	E17	DO8	DO4	DO2	DO1
2K	40	VREFB2KNO	IO				LVDS2K_4n	Yes	G19	DOSn9	DOSn4/CQn4	DO2	DO1
2K	39	VREFB2KNO	IO				LVDS2K_4p	Yes	G20	DOS9	DOS4/CQ4	DO2	DO1
2K	38	VREFB2KNO	IO				LVDS2K_5n	No	F18	DO9	DO4	DO2	DO1
2K	37	VREFB2KNO	IO				LVDS2K_5p	No	F19	DO9	DO4	DO2	DO1
2K	36	VREFB2KNO	IO				LVDS2K_6n	Yes	E14	DO9	DO4	DOSn2/CQn2	DO1
2K	35	VREFB2KNO	IO				LVDS2K_6p	Yes	E15	DO9	DO4	DOS2/CQ2	DO1
2K	34	VREFB2KNO	IO				LVDS2K_7n	No	C20	DO10	DO5	DO2	DO1
2K	33	VREFB2KNO	IO				LVDS2K_7p	No	C21	DO10	DO5	DO2	DO1
2K	32	VREFB2KNO	IO				LVDS2K_8n	Yes	E19	DOSn10	DO5	DO2	DO1
2K	31	VREFB2KNO	IO				LVDS2K_8p	Yes	D19	DOS10	DO5	DO2	DO1
2K	30	VREFB2KNO	IO				LVDS2K_9n	No	D17	DO10	DO5	DO2	DO1
2K	29	VREFB2KNO	IO				LVDS2K_9p	No	D18	DO10	DO5	DO2	DO1
2K	28	VREFB2KNO	IO	PLL_2K_CLKOUT1n		LVDS2K_10n	Yes	Yes	E20	DOSn11	DOSn5/CQn5	DO2	DO1
2K	27	VREFB2KNO	IO	PLL_2K_CLKOUT1p,PLL_2K_CLKOUT1,PLL_2K_FB1		LVDS2K_10p	Yes	Yes	D20	DOS11	DOS5/CQ5	DO2	DO1
2K	26	VREFB2KNO	IO	RZQ_2K		LVDS2K_11n	No	Yes	F21	DO11	DO5	DO2	DO1
2K	25	VREFB2KNO	IO	CLK_2K_1n		LVDS2K_11p	No	Yes	E21	DO11	DO5	DO2	DO1
2K	24	VREFB2KNO	IO	CLK_2K_1p		LVDS2K_12n	Yes	Yes	C18	DO11	DO5	DO2	DO1
2K	24	VREFB2KNO	IO	CLK_2K_1p		LVDS2K_12p	Yes	Yes	B18	DO11	DO5	DO2	DO1

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2A	19	VREFB2A0	IO	PLL_2A_CLKOUT0n	DATA26		LVDS2A_15n	No	W15	DQ28	DQ14	DQ7	DQ3
2A	18	VREFB2A0	IO	PLL_2A_CLKOUT0p,PLL_2A_CLKOUT0,PLL_2A_FB0	DATA27		LVDS2A_15p	No	Y15	DQ28	DQ14	DQ7	DQ3
2A	17	VREFB2A0	IO		DATA28		LVDS2A_16n	Yes	AB14	DQS29	DQS14/CQn14	DQ7	DQ3
2A	16	VREFB2A0	IO		DATA29		LVDS2A_16p	Yes	AB13	DQS29	DQS14/CQ14	DQ7	DQ3
2A	15	VREFB2A0	IO		DATA30		LVDS2A_17n	No	AB11	DQ29	DQ14	DQ7	DQ3
2A	14	VREFB2A0	IO		DATA31		LVDS2A_17p	No	AC11	DQ29	DQ14	DQ7	DQ3
2A	13	VREFB2A0	IO		CLKUSR		LVDS2A_18n	Yes	AC13	DQ29	DQ14	DQS7/CQn7	DQ3
2A	12	VREFB2A0	IO		PR_REQUEST		LVDS2A_18p	Yes	AC12	DQ29	DQ14	DQS7/CQ7	DQ3
2A	11	VREFB2A0	IO		PR_READY		LVDS2A_19n	No	AA9	DQ30	DQ15	DQ7	DQ3
2A	10	VREFB2A0	IO		HPERSTLO		LVDS2A_19p	No	AB8	DQ30	DQ15	DQ7	DQ3
2A	9	VREFB2A0	IO		PR_DONE		LVDS2A_20n	Yes	W9	DQS30	DQ15	DQ7	DQ3
2A	8	VREFB2A0	IO				LVDS2A_20p	Yes	W8	DQS30	DQ15	DQ7	DQ3
2A	7	VREFB2A0	IO		PR_ERROR		LVDS2A_21n	No	AA13	DQ30	DQ15	DQ7	DQ3
2A	6	VREFB2A0	IO				LVDS2A_21p	No	AA12	DQ30	DQ15	DQ7	DQ3
2A	5	VREFB2A0	IO		CvP_CONFDONE		LVDS2A_22n	Yes	AA6	DQS31	DQS15/CQn15	DQ7	DQ3
2A	4	VREFB2A0	IO				LVDS2A_22p	Yes	AA7	DQS31	DQS15/CQ15	DQ7	DQ3
2A	3	VREFB2A0	IO		INIT_DONE		LVDS2A_23n	No	W10	DQ31	DQ15	DQ7	DQ3
2A	2	VREFB2A0	IO		DEV_OE		LVDS2A_23p	No	Y9	DQ31	DQ15	DQ7	DQ3
2A	1	VREFB2A0	IO		CRC_ERROR		LVDS2A_24n	Yes	AA11	DQ31	DQ15	DQ7	DQ3
2A	0	VREFB2A0	IO		DEV_CLRn		LVDS2A_24p	Yes	Y10	DQ31	DQ15	DQ7	DQ3
3A	47	VREFB3A0	IO				LVDS3A_1n	No	K4	DQ66	DQ28	DQ14	DQ7
3A	46	VREFB3A0	IO				LVDS3A_1p	No	J4	DQ66	DQ28	DQ14	DQ7
3A	45	VREFB3A0	IO				LVDS3A_2n	Yes	H6	DQS66	DQ28	DQ14	DQ7
3A	44	VREFB3A0	IO				LVDS3A_2p	Yes	H5	DQS66	DQ28	DQ14	DQ7
3A	43	VREFB3A0	IO				LVDS3A_3n	No	K5	DQ66	DQ28	DQ14	DQ7
3A	42	VREFB3A0	IO				LVDS3A_3p	No	J5	DQ66	DQ28	DQ14	DQ7
3A	41	VREFB3A0	IO				LVDS3A_4n	Yes	M4	DQS67	DQS28/CQn28	DQ14	DQ7
3A	40	VREFB3A0	IO				LVDS3A_4p	Yes	L4	DQS67	DQS28/CQ28	DQ14	DQ7
3A	39	VREFB3A0	IO				LVDS3A_5n	No	H3	DQ67	DQ28	DQ14	DQ7
3A	38	VREFB3A0	IO				LVDS3A_5p	No	G3	DQ67	DQ28	DQ14	DQ7
3A	37	VREFB3A0	IO				LVDS3A_6n	Yes	N5	DQ67	DQ28	DQS14/CQn14	DQ7
3A	36	VREFB3A0	IO				LVDS3A_6p	Yes	M5	DQ67	DQ28	DQS14/CQ14	DQ7
3A	35	VREFB3A0	IO				LVDS3A_7n	No	J3	DQ68	DQ29	DQ14	DQ7
3A	34	VREFB3A0	IO				LVDS3A_7p	No	H2	DQ68	DQ29	DQ14	DQ7
3A	29	VREFB3A0	IO	PLL_3A_CLKOUT1n			LVDS3A_10n	Yes	L2	DQS69	DQS29/CQn29	DQ14	DQ7
3A	28	VREFB3A0	IO	PLL_3A_CLKOUT1p,PLL_3A_CLKOUT1,PLL_3A_FB1			LVDS3A_10p	Yes	K1	DQS69	DQS29/CQ29	DQ14	DQ7
3A	27	VREFB3A0	IO				LVDS3A_11n	No	M1	DQ69	DQ29	DQ14	DQ7
3A	26	VREFB3A0	IO	RZO_3A			LVDS3A_11p	No	L1	DQ69	DQ29	DQ14	DQ7
3A	25	VREFB3A0	IO	CLK_3A_1n			LVDS3A_12n	Yes	M3	DQ69	DQ29	DQ14	DQ7
3A	24	VREFB3A0	IO	CLK_3A_1p			LVDS3A_12p	Yes	L3	DQ69	DQ29	DQ14	DQ7
3A	23	VREFB3A0	IO	CLK_3A_0n			LVDS3A_13n	No	P5	DQ60	DQ30	DQ15	DQ7
3A	22	VREFB3A0	IO	CLK_3A_0p			LVDS3A_13p	No	R5	DQ60	DQ30	DQ15	DQ7
3A	19	VREFB3A0	IO	PLL_3A_CLKOUT0n			LVDS3A_15n	No	P4	DQ60	DQ30	DQ15	DQ7
3A	18	VREFB3A0	IO	PLL_3A_CLKOUT0p,PLL_3A_CLKOUT0,PLL_3A_FB0			LVDS3A_15p	No	P3	DQ60	DQ30	DQ15	DQ7
CSS			GND						AD4				
CSS			TDO			TDO			AA1				
CSS			TMS			TMS			AC1				
CSS			TRST			TRST			AA6				
CSS			TDK			TDK			Y1				
CSS			TDI			TDI			AE1				
CSS			MSELO			MSELO			Y2				
CSS			MSEL1			MSEL1			AA3				
CSS			MSEL2			MSEL2			AA2				
CSS			nO_PULLUP			nO_PULLUP			W5				
CSS			nSTATUS			nSTATUS			AD3				
CSS			CONF_DONE			CONF_DONE			AB1				
CSS			GND						W4				
CSS			nCONFIG			nCONFIG			Y5				
CSS			nCE			nCE			AA4				
CSS			nCS0			nCS0			AE2				
CSS			nCS01			nCS01			AC3				
CSS			nCS02			nCS02			AB4				
CSS			AS_DATA0,ASDO			AS_DATA0,ASDO			Y4				
CSS			AS_DATA1			AS_DATA1			AD2				
CSS			AS_DATA2			AS_DATA2			AC2				
CSS			AS_DATA3			AS_DATA3			AB3				
CSS			DCLK			DCLK			AF2				
			ADCGND						J7				
			GND						H11				
			GND						J10				
			GND						K11				
			GND						K12				
			GND						L12				
			GND						M11				
			GND						J12				
			GND						A10				
			GND						A15				
			GND						A20				
			GND						A22				
			GND						A23				
			GND						A24				
			GND						A24				
			GND						A25				
			GND						A5				
			GND						AA10				
			GND						AA20				
			GND						AA22				
			GND						AA23				
			GND						AA24				
			GND						AA5				
			GND						AB2				
			GND						AB22				
			GND						AB25				
			GND						AB26				
			GND						AB7				
			GND						AC14				
			GND						AC19				
			GND						AC22				
			GND						AC23				
			GND						AC24				
			GND						AC4				

Bank Number	Index within IO Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	Non-dedicated Tx/Rx Channel	Dedicated Tx/Rx Channel	Soft CDR Support	F672	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			GND						AC9				
			GND						AD1				
			GND						AD11				
			GND						AD16				
			GND						AD21				
			GND						AD22				
			GND						AD25				
			GND						AD26				
			GND						AD6				
			GND						AE13				
			GND						AE18				
			GND						AE20				
			GND						AE21				
			GND						AE22				
			GND						AE23				
			GND						AE24				
			GND						AE3				
			GND						AE8				
			GND						AF10				
			GND						AF15				
			GND						AF20				
			GND						AF24				
			GND						AF25				
			GND						AF5				
			GND						B12				
			GND						B17				
			GND						B2				
			GND						B20				
			GND						B21				
			GND						B22				
			GND						B25				
			GND						B26				
			GND						B7				
			GND						C14				
			GND						C19				
			GND						C22				
			GND						C23				
			GND						C24				
			GND						C4				
			GND						D1				
			GND						D21				
			GND						D22				
			GND						D25				
			GND						D26				
			GND						D6				
			GND						E13				
			GND						E22				
			GND						E23				
			GND						E24				
			GND						E3				
			GND						F10				
			GND						F20				
			GND						F22				
			GND						F25				
			GND						F26				
			GND						F5				
			GND						G12				
			GND						G17				
			GND						G2				
			GND						G21				
			GND						G22				
			GND						G23				
			GND						G24				
			GND						G7				
			GND						H17				
			GND						H19				
			GND						H22				
			GND						H25				
			GND						H26				
			GND						H4				
			GND						H9				
			GND						J1				
			GND						J11				
			GND						J16				
			GND						J20				
			GND						J21				
			GND						J22				
			GND						J23				
			GND						J24				
			GND						J6				
			GND						K13				
			GND						K18				
			GND						K25				
			GND						K26				
			GND						K3				
			GND						K8				
			GND						L10				
			GND						L15				
			GND						L20				
			GND						L23				
			GND						L24				
			GND						L5				
			GND						M12				
			GND						M17				
			GND						M2				
			GND						M20				
			GND						M25				
			GND						M26				
			GND						M7				
			GND						N14				

Bank Number	Index within IO Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	Non-dedicated Tx/Rx Channel	Dedicated Tx/Rx Channel	Soft CDR Support	F672	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			GND						N19				
			GND						N20				
			GND						N23				
			GND						N24				
			GND						N4				
			GND						N9				
			GND						P1				
			GND						P11				
			GND						P16				
			GND						P25				
			GND						P26				
			GND						P6				
			GND						R13				
			GND						R18				
			GND						R20				
			GND						R23				
			GND						R24				
			GND						R8				
			GND						T10				
			GND						T15				
			GND						T20				
			GND						T25				
			GND						T26				
			GND						U12				
			GND						U17				
			GND						U20				
			GND						U23				
			GND						U24				
			GND						U7				
			GND						V14				
			GND						V19				
			GND						V20				
			GND						V21				
			GND						V22				
			GND						V25				
			GND						V26				
			GND						V4				
			GND						V9				
			GND						W1				
			GND						W11				
			GND						W21				
			GND						W22				
			GND						W23				
			GND						W24				
			GND						W6				
			GND						Y22				
			GND						Y25				
			GND						Y26				
			GND						Y2				
			GND						Y8				
			GND						L22				
			GND						L21				
			GND						B23				
			GND						B24				
			GND						D23				
			GND						D24				
			GND						F23				
			GND						F24				
			GND						H23				
			GND						H24				
			GND						K23				
			GND						K24				
			GND						M23				
			GND						M24				
			GND						N22				
			GND						N21				
			GNDSENSE						R10				
			VCC						K10				
			VCC						K15				
			VCC						K16				
			VCC						K17				
			VCC						K9				
			VCC						L13				
			VCC						L14				
			VCC						L17				
			VCC						L18				
			VCC						L8				
			VCC						L9				
			VCC						M10				
			VCC						M13				
			VCC						M14				
			VCC						M16				
			VCC						M8				
			VCC						N10				
			VCC						N12				
			VCC						N15				
			VCC						N16				
			VCC						N17				
			VCC						N18				
			VCC						N8				
			VCC						P12				
			VCC						P13				
			VCC						P14				
			VCC						P17				
			VCC						P18				
			VCC						P8				
			VCC						P9				
			VCC						R14				
			VCC						R15				
			VCC						R17				

Bank Number	Index within IO Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	Non-dedicated Tx/Rx Channel	Dedicated Tx/Rx Channel	Soft CDR Support	F672	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			VCC						T12				
			VCC						T13				
			VCC						T14				
			VCC						T17				
			VCC						T18				
			VCC						T8				
			VCC						T9				
			VCC						U10				
			VCC						U11				
			VCC						U13				
			VCC						U14				
			VCC						U15				
			VCC						U16				
			VCC						U18				
			VCC						U8				
			VCC						U9				
			VCCPT						L11				
			VCCPT						L16				
			VCCPT						T11				
			VCCPT						T16				
			DNU						AF21				
			DNU						AF22				
			DNU						W7				
			DNU						Y7				
			DNU						Y6				
			VCCPGM						V11				
			VCCPGM						V12				
			TEMPDIODEn						J8				
			TEMPDIODEp						J9				
			VCCBAT						V10				
			VCCA_PLL						N11				
			VCCA_PLL						N13				
			VCCIO2A						AA15				
			VCCIO2A						AB12				
			VCCIO2A						Y13				
			VCCIO2J						AB17				
			VCCIO2J						W16				
			VCCIO2J						Y18				
			VCCIO2K						D16				
			VCCIO2K						E18				
			VCCIO2K						F15				
			VCCIO2L						C9				
			VCCIO2L						D11				
			VCCIO2L						E8				
			VCCIO3A						R3				
			VCCIO3A						T5				
			VCCIO3A						U2				
2A		VREFB2AN0	VREFB2AN0						V15				
2J		VREFB2JN0	VREFB2JN0						V17				
2K		VREFB2KN0	VREFB2KN0						H17				
2L		VREFB2LN0	VREFB2LN0						E12				
3A		VREFB3AN0	VREFB3AN0						R6				
		VREFN_ADC	VREFN_ADC						G6				
		VREFP_ADC	VREFP_ADC						F8				
		NC	NC						G13				
		NC	NC						G11				
		NC	NC						H10				
		NC	NC						F12				
		NC	NC						G16				
		NC	NC						F14				
		NC	NC						G15				
		NC	NC						G14				
		NC	NC						G10				
		NC	NC						H13				
		NC	NC						J15				
		NC	NC						J13				
		NC	NC						F13				
		NC	NC						F11				
		NC	NC						J14				
		NC	NC						H15				
		NC	NC						H16				
		NC	NC						H12				
		NC	NC						H20				
		NC	NC						H21				
		NC	NC						H7				
		NC	NC						J17				
		NC	NC						J18				
		NC	NC						J19				
		NC	NC						K14				
		NC	NC						K19				
		NC	NC						K6				
		NC	NC						K7				
		NC	NC						L19				
		NC	NC						L6				
		NC	NC						L7				
		NC	NC						M18				
		NC	NC						M19				
		NC	NC						M6				
		NC	NC						N6				
		NC	NC						N7				
		NC	NC						P19				
		NC	NC						P7				
		NC	NC						R19				
		NC	NC						R7				
		NC	NC						T19				
		NC	NC						T6				
		NC	NC						T7				
		NC	NC						U19				
		NC	NC						U8				
		NC	NC						V13				

Bank Number	Index within IO Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	Non-dedicated Tx/Rx Channel	Dedicated Tx/Rx Channel	Soft CDR Support	F672	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			NC						V16				
			NC						V18				
			NC						V5				
			NC						V6				
			NC						V7				
			NC						V8				
			NC						W12				
			NC						W13				
			NC						W14				
			NC						W20				
			NC						Y11				
			NC						Y12				
			NC						C25				
			NC						C26				
			NC						E25				
			NC						E26				
			NC						G25				
			NC						G26				
			NC						J25				
			NC						J26				
			NC						L25				
			NC						L26				
			NC						N25				
			NC						N26				
			NC						K2				
			NC						J2				
			NC						H1				
			NC						G1				
			NC						T3				
			NC						U3				
			NC						N3				
			NC						N2				
			NC						U5				
			NC						U4				
			NC						R4				
			NC						T4				
			NC						T2				
			NC						T1				
			NC						U1				
			NC						V1				
			NC						P2				
			NC						N1				
			NC						R2				
			NC						R1				
			NC						V3				
			NC						V2				
			NC						W3				
			NC						W2				
			VCCH_GXBL						K20				
			VCCH_GXBL						P20				
			VCCR_GXBL1C						T21				
			VCCR_GXBL1C						T22				
			VCCR_GXBL1D						M21				
			VCCR_GXBL1D						M22				
			VCCT_GXBL1C						P21				
			VCCT_GXBL1C						P22				
			VCCT_GXBL1D						K21				
			VCCT_GXBL1D						K22				
			RREF_BL						AF23				
			RREF_TL						A21				
			VCCERAM						P10				
			VCCERAM						P15				
			VCCLSENSE						R11				
			VCCP						M15				
			VCCP						M9				
			VCCP						R12				
			VCCP						R16				
			VCCP						R9				
			VSKGN_0						H8				
			VSKGN_1						G9				
			VSKGP_0						G8				
			VSKGP_1						F9				

Note:

 (1) For more information about pin definition and pin connection guidelines, refer to the [Intel Cyclone 10 GX Device Family Pin Connection Guidelines](#).

Date	Version	Changes
February 2017	2017.02.13	Initial release.
May 2017	2017.05.26	Updated the transceiver channels information.
December 2018	2018.12.27	- Changed VCCIO3B and VREF3BN0 to GND pins in Pin List U484. - Changed 24 NC pins to I/O pins to support DDR3 x72 in Pin List F672.
April 2019	2019.04.22	Added the PR Request, PR Ready, PR Done, and PR Error pins.