

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
2A	18	VREFB2A0	IO	PLL_2A_CLKOUT0p,PLL_2A_CLKOUT0,PLL_2A_FB0	DATA27		LVDS2A_15p	No	W4	DQ28	DQ14	DQ7	DQ3
2A	17	VREFB2A0	IO		DATA28		LVDS2A_16n	Yes	Y5	DQSn29	DQSn14/CQn14	DQ7	DQ3
2A	16	VREFB2A0	IO		DATA29		LVDS2A_16p	Yes	Y4	DQ329	DQSn14/CQn14	DQ7	DQ3
2A	15	VREFB2A0	IO		DATA30		LVDS2A_17n	No	AB4	DQ29	DQ14	DQ7	DQ3
2A	14	VREFB2A0	IO		DATA31		LVDS2A_17p	No	AB5	DQ29	DQ14	DQ7	DQ3
2A	13	VREFB2A0	IO		CLKUSR		LVDS2A_18n	Yes	AA6	DQ29	DQ14	DQSn7/CQn7	DQ3
2A	12	VREFB2A0	IO		PR_REQUEST		LVDS2A_18p	Yes	AB6	DQ29	DQ14	DQSn7/CQn7	DQ3
2A	11	VREFB2A0	IO		PR_READY		LVDS2A_19n	No	AB9	DQ30	DQ15	DQ7	DQ3
2A	10	VREFB2A0	IO		nPERSTL0		LVDS2A_19p	No	AB8	DQ30	DQ15	DQ7	DQ3
2A	9	VREFB2A0	IO		PR_DONE		LVDS2A_20n	Yes	Y9	DQSn30	DQ15	DQ7	DQ3
2A	7	VREFB2A0	IO		PR_ERROR		LVDS2A_21n	No	V11	DQ30	DQ15	DQ7	DQ3
2A	5	VREFB2A0	IO		CvP_CONFDONE		LVDS2A_22n	Yes	T12	DQSn31	DQSn15/CQn15	DQ7	DQ3
2A	3	VREFB2A0	IO		INIT_DONE		LVDS2A_23n	No	R10	DQ31	DQ15	DQ7	DQ3
2A	2	VREFB2A0	IO		DEV_OE		LVDS2A_23p	No	T11	DQ31	DQ15	DQ7	DQ3
2A	1	VREFB2A0	IO		CRC_ERROR		LVDS2A_24n	Yes	V10	DQ31	DQ15	DQ7	DQ3
2A	0	VREFB2A0	IO		DEV CLRn		LVDS2A_24p	Yes	W9	DQ31	DQ15	DQ7	DQ3
CSS			GND		TDQ				U4				
CSS			TDQ		TDQ				M5				
CSS			TMS		TMS				L3				
CSS			TRST		TRST				L4				
CSS			TCK		TCK				P6				
CSS			TDI		TDI				M4				
CSS			MSEL0		MSEL0				P3				
CSS			MSEL1		MSEL1				N3				
CSS			MSEL2		MSEL2				N5				
CSS			nO_PULLUP		nO_PULLUP				T3				
CSS			nSTATUS		nSTATUS				L1				
CSS			CONF_DONE		CONF_DONE				M1				
CSS			GND						M3				
CSS			nCONFIG		nCONFIG				U5				
CSS			nCE		nCE				R6				
CSS			nCS00		nCS00				W6				
CSS			nCS01		nCS01				N1				
CSS			nCS02		nCS02				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				
			ADCGND						F4				
			GND						G10				
			GND						G9				
			GND						J10				
			GND						J9				
			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						C29				
			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				

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			GND						H22				
			GND						H4				
			GND						H9				
			GND						J11				
			GND						J16				
			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						N4				
			GND						N9				
			GND						P1				
			GND						P11				
			GND						P16				
			GND						P18				
			GND						P19				
			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						U20				
			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						H2				
			GNDSENSE						M9				
			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						N15				
			VCC						N6				
			VCC						N7				
			VCC						P10				
			VCC						P13				
			VCC						P15				
			VCC						P7				
			VCC						P8				

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			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				
2A		VREFB2AN0	VREFB2AN0						T7				
2J		VREFB2JN0	VREFB2JN0						T13				
2K		VREFB2KN0	VREFB2KN0						J15				
2L		VREFB2LN0	VREFB2LN0						F12				
		VREFN_ADC							F3				
		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				
		VCCH_GXBL							L19				
		VCCR_GXBL1C							J19				
		VCCR_GXBL1C							J20				
		VCCJ_GXBL1C							N19				
		VCCJ_GXBL1C							N20				
		RREF_BL							AB19				
		RREF_TL							A22				
		VCCERAM							N15				
		VCCERAM							N8				
		VCCSENSE							M8				
		VCCP							K12				
		VCCP							K14				
		VCCP							P12				
		VCCP							P14				
		VSIGN_0							D5				
		VSIGN_1							F7				
		VSIGN_0							D4				
		VSIGN_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.

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1D			REFCLK_GXBL1D_CHTp							L22				
1D			REFCLK_GXBL1D_CHTn							L21				
1D			GXBL1D_TX_CH3n							G25				
1D			GXBL1D_TX_CH3p							G26				
1D			GXBL1D_RX_CH3n_GXBL1D_REFCLK3n							F23				
1D			GXBL1D_RX_CH3p_GXBL1D_REFCLK3p							F24				
1D			GXBL1D_TX_CH2n							J25				
1D			GXBL1D_TX_CH2p							J26				
1D			GXBL1D_RX_CH2n_GXBL1D_REFCLK2n							H23				
1D			GXBL1D_RX_CH2p_GXBL1D_REFCLK2p							H24				
1D			GXBL1D_TX_CH1n							L25				
1D			GXBL1D_TX_CH1p							L26				
1D			GXBL1D_RX_CH1n_GXBL1D_REFCLK1n							K23				
1D			GXBL1D_RX_CH1p_GXBL1D_REFCLK1p							K24				
1D			GXBL1D_TX_CH0n							N25				
1D			GXBL1D_TX_CH0p							N26				
1D			GXBL1D_RX_CH0n_GXBL1D_REFCLK0n							M23				
1D			GXBL1D_RX_CH0p_GXBL1D_REFCLK0p							M24				
1D			REFCLK_GXBL1D_CHBp							N22				
1D			REFCLK_GXBL1D_CHBn							N21				
1C			REFCLK_GXBL1C_CHTp							R22				
1C			REFCLK_GXBL1C_CHTn							R21				
1C			GXBL1C_TX_CH5n							R26				
1C			GXBL1C_TX_CH5p							R25				
1C			GXBL1C_RX_CH5n_GXBL1C_REFCLK5n							P23				
1C			GXBL1C_RX_CH5p_GXBL1C_REFCLK5p							P24				
1C			GXBL1C_TX_CH4n							U25				
1C			GXBL1C_TX_CH4p							U26				
1C			GXBL1C_RX_CH4n_GXBL1C_REFCLK4n							T23				
1C			GXBL1C_RX_CH4p_GXBL1C_REFCLK4p							T24				
1C			GXBL1C_TX_CH3n							W25				
1C			GXBL1C_TX_CH3p							W26				
1C			GXBL1C_RX_CH3n_GXBL1C_REFCLK3n							V23				
1C			GXBL1C_RX_CH3p_GXBL1C_REFCLK3p							V24				
1C			GXBL1C_TX_CH2n							AA25				
1C			GXBL1C_TX_CH2p							AA26				
1C			GXBL1C_RX_CH2n_GXBL1C_REFCLK2n							Y23				
1C			GXBL1C_RX_CH2p_GXBL1C_REFCLK2p							Y24				
1C			GXBL1C_TX_CH1n							AC25				
1C			GXBL1C_TX_CH1p							AC26				
1C			GXBL1C_RX_CH1n_GXBL1C_REFCLK1n							AB23				
1C			GXBL1C_RX_CH1p_GXBL1C_REFCLK1p							AB24				
1C			GXBL1C_TX_CH0n							AE25				
1C			GXBL1C_TX_CH0p							AE26				
1C			GXBL1C_RX_CH0n_GXBL1C_REFCLK0n							AD23				
1C			GXBL1C_RX_CH0p_GXBL1C_REFCLK0p							AD24				
1C			REFCLK_GXBL1C_CHBp							U22				
1C			REFCLK_GXBL1C_CHBn							U21				
2L	47	VREFB2LN0	IO			DIFFK02L_1n		No	E5	DQ0	DQ0	DQ0	DQ0	
2L	46	VREFB2LN0	IO			DIFFK02L_1p		No	E4	DQ0	DQ0	DQ0	DQ0	
2L	45	VREFB2LN0	IO			DIFFK02L_2n		No	D5	DQS0	DQ0	DQ0	DQ0	
2L	44	VREFB2LN0	IO			DIFFK02L_2p		No	D4	DQS0	DQ0	DQ0	DQ0	
2L	43	VREFB2LN0	IO			DIFFK02L_3n		No	E7	DQ0	DQ0	DQ0	DQ0	
2L	42	VREFB2LN0	IO			DIFFK02L_3p		No	E6	DQ0	DQ0	DQ0	DQ0	
2L	41	VREFB2LN0	IO			DIFFK02L_4n		No	F4	DQS1	DQS0/CQ0	DQ0	DQ0	
2L	40	VREFB2LN0	IO			DIFFK02L_4p		No	F3	DQS1	DQS0/CQ0	DQ0	DQ0	
2L	39	VREFB2LN0	IO			DIFFK02L_5n		No	G5	DQ1	DQ0	DQ0	DQ0	
2L	38	VREFB2LN0	IO			DIFFK02L_5p		No	G4	DQ1	DQ0	DQ0	DQ0	
2L	37	VREFB2LN0	IO			DIFFK02L_6n		No	F8	DQ1	DQ0	DQS0/CQ0	DQ0	
2L	36	VREFB2LN0	IO			DIFFK02L_6p		No	F7	DQ1	DQ0	DQS0/CQ0	DQ0	
2L	35	VREFB2LN0	IO			DIFFK02L_7n		No	E9	DQ2	DQ1	DQ0	DQ0	
2L	34	VREFB2LN0	IO			DIFFK02L_7p		No	D9	DQ2	DQ1	DQ0	DQ0	
2L	33	VREFB2LN0	IO			DIFFK02L_8n		No	E11	DQS2	DQ1	DQ0	DQ0	
2L	32	VREFB2LN0	IO			DIFFK02L_8p		No	E10	DQS2	DQ1	DQ0	DQ0	
2L	31	VREFB2LN0	IO			DIFFK02L_9n		No	C8	DQ2	DQ1	DQ0	DQ0	
2L	30	VREFB2LN0	IO			DIFFK02L_9p		No	C7	DQ2	DQ1	DQ0	DQ0	
2L	29	VREFB2LN0	IO	PLL_2L_CLKOUT1n		DIFFK02L_10n		No	D8	DQS3	DQS1/CQ1	DQ0	DQ0	
2L	28	VREFB2LN0	IO	PLL_2L_CLKOUT1p, PLL_2L_CLKOUT1, PLL_2L_FB1		DIFFK02L_10p		No	D7	DQS3	DQS1/CQ1	DQ0	DQ0	
2L	27	VREFB2LN0	IO			DIFFK02L_11n		No	D10	DQ3	DQ1	DQ0	DQ0	
2L	26	VREFB2LN0	IO	RZQ_2L		DIFFK02L_11p		No	C10	DQ3	DQ1	DQ0	DQ0	
2L	25	VREFB2LN0	IO	CLK_2L_1n		DIFFK02L_12n		No	C6	DQ3	DQ1	DQ0	DQ0	
2L	24	VREFB2LN0	IO	CLK_2L_1p		DIFFK02L_12p		No	C5	DQ3	DQ1	DQ0	DQ0	
2L	23	VREFB2LN0	IO	CLK_2L_0n		DIFFK02L_13n		No	B6	DQ4	DQ2	DQ1	DQ0	
2L	22	VREFB2LN0	IO	CLK_2L_0p		DIFFK02L_13p		No	A6	DQ4	DQ2	DQ1	DQ0	
2L	21	VREFB2LN0	IO			DIFFK02L_14n		No	B5	DQS4	DQ2	DQ1	DQS0/CQ0	
2L	20	VREFB2LN0	IO			DIFFK02L_14p		No	A4	DQS4	DQ2	DQ1	DQS0/CQ0	
2L	19	VREFB2LN0	IO	PLL_2L_CLKOUT0n		DIFFK02L_15n		No	B8	DQ4	DQ2	DQ1	DQ0	
2L	18	VREFB2LN0	IO	PLL_2L_CLKOUT0p, PLL_2L_CLKOUT0, PLL_2L_FB0		DIFFK02L_15p		No	A7	DQ4	DQ2	DQ1	DQ0	
2L	17	VREFB2LN0	IO			DIFFK02L_16n		No	B10	DQS5	DQS2/CQ2	DQ1	DQ0	
2L	16	VREFB2LN0	IO			DIFFK02L_16p		No	B9	DQS5	DQS2/CQ2	DQ1	DQ0	
2L	15	VREFB2LN0	IO			DIFFK02L_17n		No	B4	DQ5	DQ2	DQ1	DQ0	
2L	14	VREFB2LN0	IO			DIFFK02L_17p		No	B3	DQ5	DQ2	DQ1	DQ0	
2L	13	VREFB2LN0	IO			DIFFK02L_18n		No	A9	DQ5	DQ2	DQS1/CQ1	DQ0	
2L	12	VREFB2LN0	IO			DIFFK02L_18p		No	A8	DQ5	DQ2	DQS1/CQ1	DQ0	
2L	11	VREFB2LN0	IO			DIFFK02L_19n		No	D3	DQ6	DQ3	DQ1	DQ0	
2L	10	VREFB2LN0	IO			DIFFK02L_19p		No	D2	DQ6	DQ3	DQ1	DQ0	
2L	9	VREFB2LN0	IO			DIFFK02L_20n		No	C3	DQS6	DQ3	DQ1	DQ0	
2L	8	VREFB2LN0	IO			DIFFK02L_20p		No	C2	DQS6	DQ3	DQ1	DQ0	
2L	7	VREFB2LN0	IO			DIFFK02L_21n		No	C1	DQ6	DQ3	DQ1	DQ0	
2L	6	VREFB2LN0	IO			DIFFK02L_21p		No	B1	DQ6	DQ3	DQ1	DQ0	
2L	5	VREFB2LN0	IO			DIFFK02L_22n		No	A3	DQS7	DQS3/CQ3	DQ1	DQ0	
2L	4	VREFB2LN0	IO			DIFFK02L_22p		No	A2	DQS7	DQS3/CQ3	DQ1	DQ0	
2L	3	VREFB2LN0	IO			DIFFK02L_23n		No	E2	DQ7	DQ3	DQ1	DQ0	
2L	2	VREFB2LN0	IO			DIFFK02L_23p		No	E1	DQ7	DQ3	DQ1	DQ0	
2L	1	VREFB2LN0	IO			DIFFK02L_24n		No	F2	DQ7	DQ3	DQ1	DQ0	
2L	0	VREFB2LN0	IO			DIFFK02L_24p		No	F1	DQ7	DQ3	DQ1	DQ0	
2K	47	VREFB2KN0	IO				LVDS2K_1n			H18	DQ8	DQ4	DQ2	DQ1
2K	46	VREFB2KN0	IO				LVDS2K_1p			G18	DQ8	DQ4	DQ2	DQ1
2K	45	VREFB2KN0	IO				LVDS2K_2n	Yes		F16	DQS8	DQ4	DQ2	DQ1
2K	44	VREFB2KN0	IO				LVDS2K_2p	Yes		E16	DQS8	DQ4	DQ2	DQ1

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	F672	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
CSS			HCS01		HCS01				AC3				
CSS			HCS02		HCS02				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						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				
			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				

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	F672	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			GND						G22				
			GND						G23				
			GND						G24				
			GND						G7				
			GND						H14				
			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				
			GND						N19				
			GND						N20				
			GND						N23				
			GND						N24				
			GND						N4				
			GND						N8				
			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						Y3				
			GND						Y8				
			GND						B23				
			GND						B24				
			GND						D23				
			GND						D24				
			GNDSENSE						R10				
			VCC						K10				
			VCC						K15				
			VCC						K16				
			VCC						K17				
			VCC						K9				

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	F672	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			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				
			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				
2A		VREFB2AN0	VREFB2AN0						U2				
2J		VREFB2JN0	VREFB2JN0						V15				
2K		VREFB2KN0	VREFB2KN0						V17				
2L		VREFB2LN0	VREFB2LN0						H17				
3A		VREFB3AN0	VREFB3AN0						E12				
		VREFP_ADC	VREFP_ADC						R6				
		NC							G6				
		NC							F6				
		NC							G13				
		NC							G11				
		NC							H10				
		NC							F12				
		NC							G16				
		NC							F14				
		NC							G15				
		NC							G14				
		NC							G10				
		NC							H13				
		NC							J15				
		NC							J13				
		NC							F13				
		NC							F11				
		NC							J14				
		NC							H15				
		NC							H16				
		NC							H12				

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	F672	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			NC						H20				
			NC						H21				
			NC						H7				
			NC						J17				
			NC						J18				
			NC						J19				
			NC						K14				
			NC						K19				
			NC						K6				
			NC						K7				
			NC						L19				
			NC						L6				
			NC						L7				
			NC						M18				
			NC						M19				
			NC						M6				
			NC						N6				
			NC						N7				
			NC						P19				
			NC						P7				
			NC						R19				
			NC						R7				
			NC						T19				
			NC						T6				
			NC						T7				
			NC						U19				
			NC						U6				
			NC						V13				
			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						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				
			VCCLENSENSE						R11				
			VCCP						M15				
			VCCP						M9				
			VCCP						R12				
			VCCP						R16				
			VCCP						R9				
			VSIGN_0						H8				
			VSIGN_1						G9				
			VSIGP_0						G8				
			VSIGP_1						F9				

Notes:

 (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 I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	Non-dedicated Tx/Rx Channel	Dedicated Tx/Rx Channel	Soft CDR Support	F780	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
CSS			TDI		TDI				AC10				
CSS			MSEL0		MSEL0				AE7				
CSS			MSEL1		MSEL1				AD7				
CSS			MSEL2		MSEL2				AE8				
CSS			#IO_PULLUP		#IO_PULLUP				AD8				
CSS			#STATUS		#STATUS				AF7				
CSS			CONF_DONE		CONF_DONE				AG8				
CSS			GND						AD10				
CSS			#CONFIG		#CONFIG				AC8				
CSS			#CE		#CE				AB9				
CSS			#CS00		#CS00				AH8				
CSS			#CS01		#CS01				AH7				
CSS			#CS02		#CS02				AF9				
CSS			AS_DATA0ASDO		AS_DATA0ASDO				AE9				
CSS			AS_DATA1		AS_DATA1				AG9				
CSS			AS_DATA2		AS_DATA2				AG5				
CSS			AS_DATA3		AS_DATA3				AH5				
CSS			DCLK		DCLK				AD9				
CSS			#DQSND						EG0				
			GND						J13				
			GND						H13				
			GND						K14				
			GND						L13				
			GND						L14				
			GND						M13				
			GND						J14				
			GND						A10				
			GND						A15				
			GND						A20				
			GND						A25				
			GND						A5				
			GND						AA10				
			GND						AA24				
			GND						AA25				
			GND						AA26				
			GND						AB17				
			GND						AB2				
			GND						AB22				
			GND						AB24				
			GND						AB27				
			GND						AB28				
			GND						AB7				
			GND						AC24				
			GND						AC25				
			GND						AC26				
			GND						AC4				
			GND						AC9				
			GND						AD1				
			GND						AD11				
			GND						AD16				
			GND						AD21				
			GND						AD24				
			GND						AD27				
			GND						AD28				
			GND						AD8				
			GND						AE13				
			GND						AE16				
			GND						AE24				
			GND						AE25				
			GND						AE26				
			GND						AE3				
			GND						AE8				
			GND						AF10				
			GND						AF15				
			GND						AF20				
			GND						AF24				
			GND						AF27				
			GND						AF28				
			GND						AF5				
			GND						AG12				
			GND						AG17				
			GND						AG2				
			GND						AG22				
			GND						AG24				
			GND						AG25				
			GND						AG26				
			GND						AG7				
			GND						AH14				
			GND						AH19				
			GND						AH26				
			GND						AH27				
			GND						AH4				
			GND						AH9				
			GND						B17				
			GND						B2				
			GND						B22				
			GND						B27				
			GND						B28				
			GND						B7				
			GND						C18				
			GND						C24				
			GND						C25				
			GND						C26				
			GND						C27				
			GND						C4				
			GND						C9				
			GND						D1				
			GND						D11				
			GND						D16				
			GND						D21				
			GND						D24				
			GND						D27				
			GND						D28				
			GND						D6				
			GND						E13				
			GND						E24				
			GND						E25				
			GND						E26				
			GND						E3				
			GND						E8				
			GND						F10				
			GND						F20				
			GND						F24				
			GND						F27				
			GND						F28				

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	F780	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			GND						F5				
			GND						G12				
			GND						G17				
			GND						G2				
			GND						G22				
			GND						G24				
			GND						G25				
			GND						G28				
			GND						H14				
			GND						H24				
			GND						H27				
			GND						H28				
			GND						H4				
			GND						J1				
			GND						J11				
			GND						J16				
			GND						J21				
			GND						J24				
			GND						J25				
			GND						J26				
			GND						J8				
			GND						K13				
			GND						K24				
			GND						K27				
			GND						K28				
			GND						K3				
			GND						L10				
			GND						L15				
			GND						L20				
			GND						L21				
			GND						L22				
			GND						L23				
			GND						L24				
			GND						L25				
			GND						L26				
			GND						M12				
			GND						M17				
			GND						M2				
			GND						M21				
			GND						M27				
			GND						M28				
			GND						N14				
			GND						N19				
			GND						N21				
			GND						N22				
			GND						N25				
			GND						N26				
			GND						N4				
			GND						N9				
			GND						P1				
			GND						P11				
			GND						P16				
			GND						P21				
			GND						P22				
			GND						P27				
			GND						P28				
			GND						R13				
			GND						R18				
			GND						R21				
			GND						R22				
			GND						R25				
			GND						R26				
			GND						R3				
			GND						R9				
			GND						T10				
			GND						T15				
			GND						T20				
			GND						T21				
			GND						T27				
			GND						T28				
			GND						U12				
			GND						U17				
			GND						U2				
			GND						U21				
			GND						U22				
			GND						U25				
			GND						U26				
			GND						V14				
			GND						V19				
			GND						V21				
			GND						V22				
			GND						V27				
			GND						V28				
			GND						V5				
			GND						V9				
			GND						W1				
			GND						W11				
			GND						W16				
			GND						W22				
			GND						W25				
			GND						W26				
			GND						Y13				
			GND						Y22				
			GND						Y23				
			GND						Y24				
			GND						Y27				
			GND						Y28				
			GND						Y3				
			GNDSENSE						T12				
			VCC						L11				
			VCC						L12				
			VCC						L16				
			VCC						L17				
			VCC						L18				
			VCC						L19				
			VCC						M10				
			VCC						M11				
			VCC						M15				
			VCC						M16				
			VCC						M19				
			VCC						M20				
			VCC						N10				
			VCC						N12				
			VCC						N13				
			VCC						N15				
			VCC						N16				

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	F780	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			VCC						N18				
			VCC						N20				
			VCC						P10				
			VCC						P12				
			VCC						P14				
			VCC						P17				
			VCC						P18				
			VCC						P19				
			VCC						P20				
			VCC						R10				
			VCC						R11				
			VCC						R14				
			VCC						R15				
			VCC						R16				
			VCC						R19				
			VCC						R20				
			VCC						T11				
			VCC						T14				
			VCC						T16				
			VCC						T17				
			VCC						T18				
			VCC						T19				
			VCC						U10				
			VCC						U14				
			VCC						U15				
			VCC						U18				
			VCC						U19				
			VCC						U20				
			VCC						U30				
			VCC						V11				
			VCC						V13				
			VCC						V15				
			VCC						V16				
			VCC						V17				
			VCC						V20				
			VCC						W12				
			VCC						W18				
			VCC						W19				
			VCCPT						M14				
			VCCPT						M18				
			VCCPT						V12				
			VCCPT						V18				
			DN1						AN23				
			DN1						AN24				
			DN1						Y11				
			DN1						Y12				
			DN1						Y10				
			VCCPDM						W14				
			VCCPDM						Y14				
			TEMPDIODEn						H10				
			TEMPDIODEp						H11				
			VCC-BAT						W13				
			VCCA_PLL						P13				
			VCCA_PLL						P15				
			VCCIO2A						AA15				
			VCCIO2A						AB12				
			VCCIO2A						AC14				
			VCCIO2J						AK20				
			VCCIO2J						AC19				
			VCCIO2J						Y18				
			VCCIO2K						B12				
			VCCIO2K						C14				
			VCCIO2K						F15				
			VCCIO2L						E18				
			VCCIO2L						H19				
			VCCIO2L						K18				
			VCCIO3A						AA5				
			VCCIO3A						W8				
			VCCIO3A						Y8				
			VCCIO3B						T5				
			VCCIO3B						U7				
			VCCIO3B						V4				
2A		VREFB2AND	VREFB2AND						W15				
2J		VREFB2JND	VREFB2JND						W17				
2K		VREFB2KND	VREFB2KND						E9				
2L		VREFB2LND	VREFB2LND						K16				
3A		VREFB3AND	VREFB3AND						W9				
3B		VREFB3BND	VREFB3BND						U9				
		VREFN_ADC	VREFN_ADC						J20				
		VREFP_ADC	VREFP_ADC						K10				
		NC	NC						G14				
		NC	NC						K11				
		NC	NC						K12				
		NC	NC						F12				
		NC	NC						G16				
		NC	NC						D12				
		NC	NC						J12				
		NC	NC						H12				
		NC	NC						F14				
		NC	NC						G13				
		NC	NC						J15				
		NC	NC						H15				
		NC	NC						F16				
		NC	NC						E12				
		NC	NC						G15				
		NC	NC						K15				
		NC	NC						F13				
		NC	NC						J3				
		NC	NC						K9				
		NC	NC						G9				
		NC	NC						F9				
		NC	NC						L8				
		NC	NC						L9				
		NC	NC						L8				
		NC	NC						H8				
		NC	NC						F7				
		NC	NC						F6				
		NC	NC						F8				
		NC	NC						G8				
		NC	NC						D7				
		NC	NC						G7				
		NC	NC						A7				
		NC	NC						A6				
		NC	NC						E7				
		NC	NC						E6				

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	F780	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			NC						C6				
			NC						C5				
			NC						B6				
			NC						B5				
			NC						E5				
			NC						F1				
			NC						D5				
			NC						F1				
			NC						M9				
			NC						C1				
			NC						R9				
			NC						B1				
			NC						K9				
			NC						H3				
			NC						H5				
			NC						J5				
			NC						G7				
			NC						G4				
			NC						P5				
			NC						F3				
			NC						M7				
			NC						F2				
			NC						L5				
			NC						E2				
			NC						D2				
			NC						C2				
			NC						D3				
			NC						D4				
			NC						A2				
			NC						A3				
			NC						F4				
			NC						E4				
			NC						A4				
			NC						B4				
			NC						B3				
			NC						C3				
			NC						G5				
			NC						G6				
			NC						N5				
			NC						P5				
			NC						M5				
			NC						M6				
			NC						K5				
			NC						J5				
			NC						R6				
			NC						R7				
			NC						N6				
			NC						P7				
			NC						P9				
			NC						P8				
			NC						L7				
			NC						M8				
			NC						K7				
			NC						J7				
			NC						G4				
			NC						H5				
			NC						L6				
			NC						K6				
			NC						N7				
			NC						N8				
			NC						H6				
			NC						H7				
			NC						AF4				
			NC						AG4				
			NC						AD5				
			NC						AE5				
			NC						ME2				
			VCCB_GXBL						T22				
			VCCB_GXBL						V23				
			VCCB_GXBL1C						V24				
			VCCB_GXBL1D						P23				
			VCCB_GXBL1D						P24				
			VCCB_GXBL1C						T23				
			VCCB_GXBL1C						T24				
			VCCB_GXBL1D						M23				
			VCCB_GXBL1D						M24				
			RREF_B1						AH25				
			RREF_T1						C28				
			VCCERAM						R19				
			VCCERAM						R17				
			VCCCLSENSE						T13				
			VCCP						N11				
			VCCP						N17				
			VCCP						U11				
			VCCP						U13				
			VCCP						U16				
			VSIGN_0						E11				
			VSIGN_1						G11				
			VSIGP_0						E10				
			VSIGP_1						F11				

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.
April 2019	2019.04.22	Added the PR Request, PR Ready, PR Done, and PR Error pins.