

TYPE	BANK	NF43 Package
Transceiver I/O	1C	28
Transceiver I/O	1D	28
Transceiver I/O	1E	28
Transceiver I/O	1F	28
Transceiver I/O	1K	28
Transceiver I/O	1L	28
Transceiver I/O	1M	28
Transceiver I/O	1N	28
LVDS I/O	2C	48
LVDS I/O	2F	48
LVDS I/O	2K	48
HPS shared LVDS I/O	2L	48
HPS shared LVDS I/O	2M	48
HPS shared LVDS I/O	2N	48
LVDS I/O	3A	48
LVDS I/O	3B	48
LVDS I/O	3C	48
LVDS I/O	3D	48
LVDS I/O	3I	48
LVDS I/O	3J	48
LVDS I/O	3K	48
LVDS I/O	3L	48
3V I/O	6A	8
3V I/O	6C	8
HPS shared LVDS I/O	HPS	48
SDM shared LVDS I/O	SDM	29

- i. Total LVDS channels per bank supporting SERDES Non-DPA and DPA mode is equivalent to (LVDS I/O per bank)/2, inclusive of clock pair. Please refer to Dedicated Tx/Rx Channel column in the pin-out table for the channel availability.
- ii. Total LVDS channels supporting SERDES Soft-CDR mode is 12 pairs per bank. Please refer to Soft CDR column in the pin out table for the channel availability.

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
1N			REFCLK_GXB11N_CHTp											H34
1N			REFCLK_GXB11N_CHTn											H33
1N			GXBL1N_TX_CH5n											B33
1N			GXBL1N_TX_CH5p											B34
1N			GXBL1N_RX_CH5n,GXBL1N_REFCLK5n											F29
1N			GXBL1N_RX_CH5p,GXBL1N_REFCLK5p											F30
1N			GXBL1N_TX_CH4n						Yes					A35
1N			GXBL1N_TX_CH4p						Yes					A36
1N			GXBL1N_RX_CH4n,GXBL1N_REFCLK4n						Yes					D29
1N			GXBL1N_RX_CH4p,GXBL1N_REFCLK4p						Yes					D30
1N			GXBL1N_TX_CH3n						Yes					B37
1N			GXBL1N_TX_CH3p						Yes					B38
1N			GXBL1N_RX_CH3n,GXBL1N_REFCLK3n						Yes					A27
1N			GXBL1N_RX_CH3p,GXBL1N_REFCLK3p						Yes					A28
1N			GXBL1N_TX_CH2n											D37
1N			GXBL1N_TX_CH2p											D38
1N			GXBL1N_RX_CH2n,GXBL1N_REFCLK2n											E31
1N			GXBL1N_RX_CH2p,GXBL1N_REFCLK2p											E32
1N			GXBL1N_TX_CH1n						Yes					C39
1N			GXBL1N_TX_CH1p						Yes					C40
1N			GXBL1N_RX_CH1n,GXBL1N_REFCLK1n				Yes		Yes					B29
1N			GXBL1N_RX_CH1p,GXBL1N_REFCLK1p						Yes					B30
1N			GXBL1N_TX_CH0n						Yes					F37
1N			GXBL1N_TX_CH0p						Yes					F38
1N			GXBL1N_RX_CH0n,GXBL1N_REFCLK0n						Yes					C31
1N			GXBL1N_RX_CH0p,GXBL1N_REFCLK0p						Yes					C32
1N			REFCLK_GXB11N_CH8p											K34
1N			REFCLK_GXB11N_CH8n											K33
1M			REFCLK_GXB11M_CHTp											M34
1M			REFCLK_GXB11M_CHTn											M33
1M			GXBL1M_TX_CH5p											E39
1M			GXBL1M_TX_CH5p											E40
1M			GXBL1M_RX_CH5n,GXBL1M_REFCLK5n											D33
1M			GXBL1M_RX_CH5p,GXBL1M_REFCLK5p											D34
1M			GXBL1M_TX_CH4n						Yes					D41
1M			GXBL1M_TX_CH4p						Yes					D42
1M			GXBL1M_RX_CH4n,GXBL1M_REFCLK4n						Yes					A31
1M			GXBL1M_RX_CH4p,GXBL1M_REFCLK4p						Yes					A32
1M			GXBL1M_TX_CH3n						Yes					F41
1M			GXBL1M_TX_CH3p						Yes					F42
1M			GXBL1M_RX_CH3n,GXBL1M_REFCLK3n						Yes					E35
1M			GXBL1M_RX_CH3p,GXBL1M_REFCLK3p						Yes					E36
1M			GXBL1M_TX_CH2n											G39
1M			GXBL1M_TX_CH2p											G40
1M			GXBL1M_RX_CH2n,GXBL1M_REFCLK2n											C35
1M			GXBL1M_RX_CH2p,GXBL1M_REFCLK2p											C36
1M			GXBL1M_TX_CH1n						Yes					H41
1M			GXBL1M_TX_CH1p						Yes					H42
1M			GXBL1M_RX_CH1n,GXBL1M_REFCLK1n						Yes					G35
1M			GXBL1M_RX_CH1p,GXBL1M_REFCLK1p						Yes					G36
1M			GXBL1M_TX_CH0n						Yes					J39
1M			GXBL1M_TX_CH0p						Yes					J40
1M			GXBL1M_RX_CH0n,GXBL1M_REFCLK0n						Yes					J35
1M			GXBL1M_RX_CH0p,GXBL1M_REFCLK0p						Yes					J36
1M			REFCLK_GXB11M_CH8p											P34
1M			REFCLK_GXB11M_CH8n											P33
1L			REFCLK_GXB11L_CHTp											T34
1L			REFCLK_GXB11L_CHTn											T33
1L			GXBL1L_TX_CH5n											K41
1L			GXBL1L_TX_CH5p											K42
1L			GXBL1L_RX_CH5n,GXBL1L_REFCLK5n											H37
1L			GXBL1L_RX_CH5p,GXBL1L_REFCLK5p											H38
1L			GXBL1L_TX_CH4n						Yes					L39
1L			GXBL1L_TX_CH4p						Yes					L40
1L			GXBL1L_RX_CH4n,GXBL1L_REFCLK4n						Yes					L35
1L			GXBL1L_RX_CH4p,GXBL1L_REFCLK4p						Yes					L36
1L			GXBL1L_TX_CH3n						Yes					M41
1L			GXBL1L_TX_CH3p						Yes					M42
1L			GXBL1L_RX_CH3n,GXBL1L_REFCLK3n						Yes					K37
1L			GXBL1L_RX_CH3p,GXBL1L_REFCLK3p						Yes					K38
1L			GXBL1L_TX_CH2n											N39
1L			GXBL1L_TX_CH2p											N40
1L			GXBL1L_RX_CH2n,GXBL1L_REFCLK2n											M37
1L			GXBL1L_RX_CH2p,GXBL1L_REFCLK2p											M38
1L			GXBL1L_TX_CH1n						Yes					P41
1L			GXBL1L_TX_CH1p						Yes					P42
1L			GXBL1L_RX_CH1n,GXBL1L_REFCLK1n						Yes					N35
1L			GXBL1L_RX_CH1p,GXBL1L_REFCLK1p						Yes					N36
1L			GXBL1L_TX_CH0n						Yes					R39
1L			GXBL1L_TX_CH0p						Yes					R40
1L			GXBL1L_RX_CH0n,GXBL1L_REFCLK0n						Yes					P37
1L			GXBL1L_RX_CH0p,GXBL1L_REFCLK0p						Yes					P38
1L			REFCLK_GXB11L_CH8p											V34
1L			REFCLK_GXB11L_CH8n											V33
1K			REFCLK_GXB11K_CHTp											Y34
1K			REFCLK_GXB11K_CHTn											Y33
1K			GXBL1K_TX_CH5p											T41
1K			GXBL1K_TX_CH5p											T42
1K			GXBL1K_RX_CH5n,GXBL1K_REFCLK5n											R35
1K			GXBL1K_RX_CH5p,GXBL1K_REFCLK5p											R36
1K			GXBL1K_TX_CH4n						Yes					U39
1K			GXBL1K_TX_CH4p						Yes					U40
1K			GXBL1K_RX_CH4n,GXBL1K_REFCLK4n						Yes					T37
1K			GXBL1K_RX_CH4p,GXBL1K_REFCLK4p						Yes					T38
1K			GXBL1K_TX_CH3n						Yes					V41
1K			GXBL1K_TX_CH3p						Yes					V42
1K			GXBL1K_RX_CH3n,GXBL1K_REFCLK3n						Yes					V37

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
1K			GXBL1K_RX_CH3p,GXBL1K_REFCLK3p						Yes	V38				
1K			GXBL1K_TX_CH2n							W39				
1K			GXBL1K_TX_CH2p							W40				
1K			GXBL1K_RX_CH2n,GXBL1K_REFCLK2n							U35				
1K			GXBL1K_RX_CH2p,GXBL1K_REFCLK2p							U36				
1K			GXBL1K_TX_CH1n						Yes	Y41				
1K			GXBL1K_TX_CH1p						Yes	Y42				
1K			GXBL1K_RX_CH1n,GXBL1K_REFCLK1n						Yes	Y37				
1K			GXBL1K_RX_CH1p,GXBL1K_REFCLK1p						Yes	Y38				
1K			GXBL1K_TX_CH0n						Yes	AA39				
1K			GXBL1K_TX_CH0p						Yes	AA40				
1K			GXBL1K_RX_CH0n,GXBL1K_REFCLK0n						Yes	W35				
1K			GXBL1K_RX_CH0p,GXBL1K_REFCLK0p						Yes	W36				
1K			REFCLK_GXBL1K_CHBp							AB34				
1K			REFCLK_GXBL1K_CHBn							AB33				
1F			REFCLK_GXBL1F_CHTp							AD34				
1F			REFCLK_GXBL1F_CHTn							AD33				
1F			GXBL1F_TX_CH5n							AB41				
1F			GXBL1F_TX_CH5p							AB42				
1F			GXBL1F_RX_CH5n,GXBL1F_REFCLK5n							AA35				
1F			GXBL1F_RX_CH5p,GXBL1F_REFCLK5p							AA36				
1F			GXBL1F_TX_CH4n						Yes	AC39				
1F			GXBL1F_TX_CH4p						Yes	AC40				
1F			GXBL1F_RX_CH4n,GXBL1F_REFCLK4n						Yes	AC35				
1F			GXBL1F_RX_CH4p,GXBL1F_REFCLK4p						Yes	AC36				
1F			GXBL1F_TX_CH3n						Yes	AD41				
1F			GXBL1F_TX_CH3p						Yes	AD42				
1F			GXBL1F_RX_CH3n,GXBL1F_REFCLK3n						Yes	AB37				
1F			GXBL1F_RX_CH3p,GXBL1F_REFCLK3p						Yes	AB38				
1F			GXBL1F_TX_CH2n							AE39				
1F			GXBL1F_TX_CH2p							AE40				
1F			GXBL1F_RX_CH2n,GXBL1F_REFCLK2n							AE35				
1F			GXBL1F_RX_CH2p,GXBL1F_REFCLK2p							AE36				
1F			GXBL1F_TX_CH1n						Yes	AF41				
1F			GXBL1F_TX_CH1p						Yes	AF42				
1F			GXBL1F_RX_CH1n,GXBL1F_REFCLK1n						Yes	AD37				
1F			GXBL1F_RX_CH1p,GXBL1F_REFCLK1p						Yes	AD38				
1F			GXBL1F_TX_CH0n						Yes	AG39				
1F			GXBL1F_TX_CH0p						Yes	AG40				
1F			GXBL1F_RX_CH0n,GXBL1F_REFCLK0n						Yes	AG35				
1F			GXBL1F_RX_CH0p,GXBL1F_REFCLK0p						Yes	AG36				
1F			REFCLK_GXBL1F_CHBp							AF34				
1F			REFCLK_GXBL1F_CHBn							AF33				
1E			REFCLK_GXBL1E_CHTp							AH34				
1E			REFCLK_GXBL1E_CHTn							AH33				
1E			GXBL1E_TX_CH5n							AH41				
1E			GXBL1E_TX_CH5p							AH42				
1E			GXBL1E_RX_CH5n,GXBL1E_REFCLK5n							AF37				
1E			GXBL1E_RX_CH5p,GXBL1E_REFCLK5p							AF38				
1E			GXBL1E_TX_CH4n						Yes	AJ39				
1E			GXBL1E_TX_CH4p						Yes	AJ40				
1E			GXBL1E_RX_CH4n,GXBL1E_REFCLK4n						Yes	AH37				
1E			GXBL1E_RX_CH4p,GXBL1E_REFCLK4p						Yes	AH38				
1E			GXBL1E_TX_CH3n						Yes	AK41				
1E			GXBL1E_TX_CH3p						Yes	AK42				
1E			GXBL1E_RX_CH3n,GXBL1E_REFCLK3n						Yes	AJ35				
1E			GXBL1E_RX_CH3p,GXBL1E_REFCLK3p						Yes	AJ36				
1E			GXBL1E_TX_CH2n							AL39				
1E			GXBL1E_TX_CH2p							AL40				
1E			GXBL1E_RX_CH2n,GXBL1E_REFCLK2n							AK37				
1E			GXBL1E_RX_CH2p,GXBL1E_REFCLK2p							AK38				
1E			GXBL1E_TX_CH1n						Yes	AM41				
1E			GXBL1E_TX_CH1p						Yes	AM42				
1E			GXBL1E_RX_CH1n,GXBL1E_REFCLK1n						Yes	AM37				
1E			GXBL1E_RX_CH1p,GXBL1E_REFCLK1p						Yes	AM38				
1E			GXBL1E_TX_CH0n						Yes	AN39				
1E			GXBL1E_TX_CH0p						Yes	AN40				
1E			GXBL1E_RX_CH0n,GXBL1E_REFCLK0n						Yes	AL35				
1E			GXBL1E_RX_CH0p,GXBL1E_REFCLK0p						Yes	AL36				
1E			REFCLK_GXBL1E_CHBp							AK34				
1E			REFCLK_GXBL1E_CHBn							AK33				
1D			REFCLK_GXBL1D_CHTp							AM34				
1D			REFCLK_GXBL1D_CHTn							AM33				
1D			GXBL1D_TX_CH5n							AP41				
1D			GXBL1D_TX_CH5p							AP42				
1D			GXBL1D_RX_CH5n,GXBL1D_REFCLK5n							AP37				
1D			GXBL1D_RX_CH5p,GXBL1D_REFCLK5p							AP38				
1D			GXBL1D_TX_CH4n						Yes	AR39				
1D			GXBL1D_TX_CH4p						Yes	AR40				
1D			GXBL1D_RX_CH4n,GXBL1D_REFCLK4n						Yes	AT37				
1D			GXBL1D_RX_CH4p,GXBL1D_REFCLK4p						Yes	AT38				
1D			GXBL1D_TX_CH3n						Yes	AT41				
1D			GXBL1D_TX_CH3p						Yes	AT42				
1D			GXBL1D_RX_CH3n,GXBL1D_REFCLK3n						Yes	AN35				
1D			GXBL1D_RX_CH3p,GXBL1D_REFCLK3p						Yes	AN36				
1D			GXBL1D_TX_CH2n							AU39				
1D			GXBL1D_TX_CH2p							AU40				
1D			GXBL1D_RX_CH2n,GXBL1D_REFCLK2n							AR35				
1D			GXBL1D_RX_CH2p,GXBL1D_REFCLK2p							AR36				
1D			GXBL1D_TX_CH1n						Yes	AV41				
1D			GXBL1D_TX_CH1p						Yes	AV42				
1D			GXBL1D_RX_CH1n,GXBL1D_REFCLK1n						Yes	AW35				
1D			GXBL1D_RX_CH1p,GXBL1D_REFCLK1p						Yes	AW36				
1D			GXBL1D_TX_CH0n						Yes	AW39				
1D			GXBL1D_TX_CH0p						Yes	AW40				
1D			GXBL1D_RX_CH0n,GXBL1D_REFCLK0n						Yes	AU35				
1D			GXBL1D_RX_CH0p,GXBL1D_REFCLK0p						Yes	AU36				



















Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
SDM			VSIGN_0							AY13				
SDM			VSIGP_1							BA12				
SDM			VSIGN_1							BA11				
6A			I03V0_10		hPERSTL0					AC26				
6A			I03V1_10							AC27				
6A			I03V2_10							AD28				
6A			I03V3_10							AB28				
6A			I03V4_10							AC28				
6A			I03V5_10							AB30				
6A			I03V6_10							AB29				
6A			I03V7_10							AB31				
6C			I03V0_12		hPERSTL2					AA28				
6C			I03V1_12							Y29				
6C			I03V2_12							AA29				
6C			I03V3_12							Y28				
6C			I03V4_12							W28				
6C			I03V5_12							W29				
6C			I03V6_12							V30				
6C			I03V7_12							V31				
			GND							BB13				
			GND							BB12				
			GND							Y5				
			GND							Y40				
			GND							Y39				
			GND							Y36				
			GND							Y35				
			GND							Y32				
			GND							Y30				
			GND							Y20				
			GND							W7				
			GND							W42				
			GND							W41				
			GND							W38				
			GND							W37				
			GND							W31				
			GND							W30				
			GND							W27				
			GND							W22				
			GND							W2				
			GND							W17				
			GND							W15				
			GND							V9				
			GND							V40				
			GND							V4				
			GND							V39				
			GND							V36				
			GND							V35				
			GND							V32				
			GND							V29				
			GND							V24				
			GND							V19				
			GND							V13				
			GND							U6				
			GND							U42				
			GND							U41				
			GND							U38				
			GND							U37				
			GND							U31				
			GND							U26				
			GND							U21				
			GND							U17				
			GND							U13				
			GND							U11				
			GND							U1				
			GND							T8				
			GND							T40				
			GND							T39				
			GND							T36				
			GND							T35				
			GND							T32				
			GND							T3				
			GND							T18				
			GND							T13				
			GND							R5				
			GND							R42				
			GND							R41				
			GND							R38				
			GND							R37				
			GND							R31				
			GND							R28				
			GND							R25				
			GND							R23				
			GND							R15				
			GND							P40				
			GND							P39				
			GND							P36				
			GND							P35				
			GND							P32				
			GND							P27				
			GND							P22				
			GND							P2				
			GND							N9				
			GND							N42				
			GND							N41				
			GND							N4				
			GND							N38				
			GND							N37				

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			GND							N31				
			GND							N24				
			GND							N19				
			GND							N14				
			GND							M6				
			GND							M40				
			GND							M39				
			GND							M36				
			GND							M35				
			GND							M32				
			GND							M26				
			GND							M21				
			GND							M1				
			GND							L42				
			GND							L41				
			GND							L38				
			GND							L37				
			GND							L31				
			GND							L3				
			GND							L23				
			GND							L19				
			GND							L13				
			GND							K5				
			GND							K40				
			GND							K39				
			GND							K36				
			GND							K35				
			GND							K32				
			GND							K25				
			GND							K15				
			GND							J7				
			GND							J42				
			GND							J41				
			GND							J38				
			GND							J37				
			GND							J31				
			GND							J27				
			GND							J2				
			GND							J17				
			GND							H40				
			GND							H4				
			GND							H39				
			GND							H36				
			GND							H35				
			GND							H32				
			GND							H19				
			GND							H14				
			GND							G6				
			GND							G42				
			GND							G41				
			GND							G38				
			GND							G37				
			GND							G31				
			GND							G30				
			GND							G29				
			GND							G28				
			GND							G21				
			GND							G16				
			GND							G1				
			GND							F8				
			GND							F40				
			GND							F39				
			GND							F36				
			GND							F35				
			GND							F34				
			GND							F33				
			GND							F32				
			GND							F31				
			GND							F3				
			GND							F28				
			GND							F23				
			GND							F18				
			GND							F13				
			GND							E5				
			GND							E42				
			GND							E41				
			GND							E38				
			GND							E37				
			GND							E34				
			GND							E33				
			GND							E30				
			GND							E29				
			GND							E28				
			GND							E25				
			GND							E20				
			GND							E15				
			GND							E10				
			GND							D7				
			GND							D40				
			GND							D39				
			GND							D36				
			GND							D35				
			GND							D32				
			GND							D31				
			GND							D28				
			GND							D22				
			GND							D2				

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			GND							D17				
			GND							D12				
			GND							C3				
			GND							C2				
			GND							C4				
			GND							C4				
			GND							C38				
			GND							C37				
			GND							C34				
			GND							C33				
			GND							C30				
			GND							C29				
			GND							C28				
			GND							C24				
			GND							C19				
			GND							C14				
			GND							C1				
			GND							BB6				
			GND							BB41				
			GND							BB40				
			GND							BB39				
			GND							BB36				
			GND							BB35				
			GND							BB32				
			GND							BB31				
			GND							BB28				
			GND							BB26				
			GND							BB21				
			GND							BB16				
			GND							BB11				
			GND							BA8				
			GND							BA42				
			GND							BA41				
			GND							BA38				
			GND							BA37				
			GND							BA34				
			GND							BA33				
			GND							BA30				
			GND							BA3				
			GND							BA29				
			GND							BA28				
			GND							BA23				
			GND							BA18				
			GND							BA13				
			GND							BA1				
			GND							B6				
			GND							B42				
			GND							B41				
			GND							B40				
			GND							B39				
			GND							B36				
			GND							B35				
			GND							B32				
			GND							B31				
			GND							B28				
			GND							B27				
			GND							B26				
			GND							B21				
			GND							B16				
			GND							B11				
			GND							B1				
			GND							AV5				
			GND							AV44				
			GND							AV40				
			GND							AV39				
			GND							AV36				
			GND							AV35				
			GND							AV32				
			GND							AV31				
			GND							AV28				
			GND							AV20				
			GND							AV15				
			GND							AV10				
			GND							AV1				
			GND							AW7				
			GND							AW42				
			GND							AW41				
			GND							AW38				
			GND							AW37				
			GND							AW34				
			GND							AW33				
			GND							AW30				
			GND							AW29				
			GND							AW28				
			GND							AW22				
			GND							AW2				
			GND							AW17				
			GND							AW12				
			GND							AV40				
			GND							AV4				
			GND							AV39				
			GND							AV36				
			GND							AV35				
			GND							AV32				
			GND							AV31				
			GND							AV28				

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			GND							AV24				
			GND							AV19				
			GND							AV14				
			GND							AU16				
			GND							AU42				
			GND							AU41				
			GND							AU38				
			GND							AU37				
			GND							AU31				
			GND							AU30				
			GND							AU29				
			GND							AU28				
			GND							AU26				
			GND							AU23				
			GND							AU16				
			GND							AU1				
			GND							AT8				
			GND							AT40				
			GND							AT39				
			GND							AT36				
			GND							AT35				
			GND							AT32				
			GND							AT3				
			GND							AT18				
			GND							AR5				
			GND							AR42				
			GND							AR41				
			GND							AR38				
			GND							AR37				
			GND							AR31				
			GND							AR25				
			GND							AR20				
			GND							AR15				
			GND							AR10				
			GND							AP40				
			GND							AP39				
			GND							AP36				
			GND							AP35				
			GND							AP32				
			GND							AP27				
			GND							AP2				
			GND							AP17				
			GND							AP12				
			GND							AN42				
			GND							AN41				
			GND							AN4				
			GND							AN38				
			GND							AN37				
			GND							AN31				
			GND							AN29				
			GND							AN19				
			GND							AN14				
			GND							AM16				
			GND							AM40				
			GND							AM39				
			GND							AM36				
			GND							AM35				
			GND							AM32				
			GND							AM25				
			GND							AM21				
			GND							AM16				
			GND							AM1				
			GND							AL42				
			GND							AL41				
			GND							AL38				
			GND							AL37				
			GND							AL31				
			GND							AL3				
			GND							AL28				
			GND							AL18				
			GND							AL13				
			GND							AK5				
			GND							AK40				
			GND							AK39				
			GND							AK36				
			GND							AK35				
			GND							AK32				
			GND							AK31				
			GND							AK25				
			GND							AK15				
			GND							AJ42				
			GND							AJ41				
			GND							AJ38				
			GND							AJ37				
			GND							AJ31				
			GND							AJ28				
			GND							AJ27				
			GND							AJ21				
			GND							AJ2				
			GND							AJ17				
			GND							AJ15				
			GND							AJ12				
			GND							AH9				
			GND							AH40				
			GND							AH4				
			GND							AH39				
			GND							AH36				

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			GND							AH35				
			GND							AH32				
			GND							AH23				
			GND							AH19				
			GND							AG6				
			GND							AG42				
			GND							AG41				
			GND							AG38				
			GND							AG37				
			GND							AG31				
			GND							AG26				
			GND							AG11				
			GND							AG1				
			GND							AF40				
			GND							AF39				
			GND							AF36				
			GND							AF35				
			GND							AF32				
			GND							AF30				
			GND							AF3				
			GND							AF28				
			GND							AF23				
			GND							AF18				
			GND							AF13				
			GND							AE5				
			GND							AE42				
			GND							AE41				
			GND							AE38				
			GND							AE37				
			GND							AE31				
			GND							AE25				
			GND							AE20				
			GND							AE15				
			GND							AD7				
			GND							AD40				
			GND							AD39				
			GND							AD36				
			GND							AD35				
			GND							AD32				
			GND							AD27				
			GND							AD22				
			GND							AD2				
			GND							AD17				
			GND							AD13				
			GND							AC9				
			GND							AC42				
			GND							AC41				
			GND							AC4				
			GND							AC38				
			GND							AC37				
			GND							AC32				
			GND							AC25				
			GND							AC19				
			GND							AC15				
			GND							AB6				
			GND							AB40				
			GND							AB39				
			GND							AB36				
			GND							AB35				
			GND							AB32				
			GND							AB21				
			GND							AB17				
			GND							AB11				
			GND							AB1				
			GND							AA8				
			GND							AA42				
			GND							AA41				
			GND							AA38				
			GND							AA37				
			GND							AA31				
			GND							AA30				
			GND							AA3				
			GND							AA27				
			GND							AA23				
			GND							AA18				
			GND							AA14				
			GND							AB				
			GND							AA1				
			GND							A39				
			GND							A38				
			GND							A37				
			GND							A34				
			GND							A33				
			GND							A30				
			GND							A3				
			GND							A29				
			GND							A26				
			GND							A23				
			GND							A2				
			GND							A18				
			GND							A13				
			GNDSENSE							AB20				
			VCC							Y24				
			VCC							Y23				
			VCC							Y19				
			VCC							Y18				
			VCC							Y17				



Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			VCC							W24				
			VCC							W23				
			VCC							W21				
			VCC							W20				
			VCC							W19				
			VCC							W18				
			VCC							W14				
			VCC							V28				
			VCC							V27				
			VCC							V23				
			VCC							V22				
			VCC							V21				
			VCC							V20				
			VCC							V18				
			VCC							V17				
			VCC							V16				
			VCC							V15				
			VCC							V14				
			VCC							U29				
			VCC							U28				
			VCC							U27				
			VCC							U24				
			VCC							U23				
			VCC							U22				
			VCC							U20				
			VCC							U19				
			VCC							U16				
			VCC							T28				
			VCC							T27				
			VCC							T26				
			VCC							T25				
			VCC							T24				
			VCC							T21				
			VCC							T20				
			VCC							T19				
			VCC							T17				
			VCC							T16				
			VCC							AH28				
			VCC							AH27				
			VCC							AG29				
			VCC							AG28				
			VCC							AG27				
			VCC							AG24				
			VCC							AG23				
			VCC							AG22				
			VCC							AG20				
			VCC							AG19				
			VCC							AG18				
			VCC							AG17				
			VCC							AG16				
			VCC							AF29				
			VCC							AF27				
			VCC							AF24				
			VCC							AF22				
			VCC							AF21				
			VCC							AF20				
			VCC							AF19				
			VCC							AF17				
			VCC							AF16				
			VCC							AF15				
			VCC							AF14				
			VCC							AE29				
			VCC							AE28				
			VCC							AE27				
			VCC							AE26				
			VCC							AE24				
			VCC							AE23				
			VCC							AE22				
			VCC							AE21				
			VCC							AE19				
			VCC							AE18				
			VCC							AE17				
			VCC							AE16				
			VCC							AE14				
			VCC							AD26				
			VCC							AD25				
			VCC							AD24				
			VCC							AD23				
			VCC							AD21				
			VCC							AD20				
			VCC							AD19				
			VCC							AD18				
			VCC							AD16				
			VCC							AD15				
			VCC							AD14				
			VCC							AE24				
			VCC							AE23				
			VCC							AE22				
			VCC							AE21				
			VCC							AC20				
			VCC							AC18				
			VCC							AC17				
			VCC							AC14				
			VCC							AB24				
			VCC							AB18				
			VCC							AA25				
			VCC							AA24				

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			VCC							AA20				
			VCC							AA19				
			VCC							AA17				
			VCC							AA16				
			VCC							AA15				
			VCCPT							Y27				
			VCCPT							Y26				
			VCCPT							Y25				
			VCCPT							Y22				
			VCCPT							Y21				
			VCCPT							Y16				
			VCCPT							Y15				
			VCCPT							Y14				
			VCCPT							W16				
			VCCPT							AC16				
			VCCPT							AB27				
			VCCPT							AB26				
			VCCPT							AB25				
			VCCPT							AB23				
			VCCPT							AB22				
			VCCPT							AB16				
			VCCPT							AB15				
			VCCPT							AB14				
			VCCPT							AA26				
			DNU							AP31				
			DNU							AM13				
			DNU							C12				
			DNU							C13				
			DNU							BA15				
			DNU							BB14				
			DNU							BA14				
			DNU							BA16				
			DNU							AY42				
			DNU							A40				
			DNU							AC30				
			DNU							AC31				
			TEMPDIODE0n							AW14				
			TEMPDIODE0p							AW15				
			TEMPDIODE1n							AD30				
			TEMPDIODE1p							AE30				
			VCCBAT							AK16				
			VCCA_PLL							AA22				
			VCCA_PLL							AA21				
			VCCIO2C							AY25				
			VCCIO2C							AW27				
			VCCIO2C							AT28				
			VCCIO2F							AT23				
			VCCIO2F							AP22				
			VCCIO2F							AN24				
			VCCIO2K							AL23				
			VCCIO2K							AK20				
			VCCIO2K							AL22				
			VCCIO2L							P17				
			VCCIO2L							M16				
			VCCIO2L							L18				
			VCCIO2M							N29				
			VCCIO2M							L28				
			VCCIO2M							H29				
			VCCIO2N							J23				
			VCCIO2N							H24				
			VCCIO2N							G26				
			VCCIO3A							AV9				
			VCCIO3A							AU11				
			VCCIO3A							AT13				
			VCCIO3B							AP7				
			VCCIO3B							AN9				
			VCCIO3B							AM11				
			VCCIO3C							AL8				
			VCCIO3C							AK10				
			VCCIO3C							A17				
			VCCIO3D							AF8				
			VCCIO3D							AE10				
			VCCIO3D							AD12				
			VCCIO3J							Y10				
			VCCIO3J							W12				
			VCCIO3J							AA13				
			VCCIO3J							R10				
			VCCIO3J							P7				
			VCCIO3J							P12				
			VCCIO3K							M11				
			VCCIO3K							L8				
			VCCIO3K							K10				
			VCCIO3L							J12				
			VCCIO3L							H9				
			VCCIO3L							G11				
			VCCIO3V							AD29				
			VCCIO3V							AC29				
			VCCIO_HPS							L20				
			VCCIO_HPS							K19				
			VCCIO_SDM							AL15				
2C			VREFB2CNO	VREFB2CNO						AR26				
2F			VREFB2FNO	VREFB2FNO						AN26				
2K			VREFB2KNO	VREFB2KNO						AK26				
2L			VREFB2LNO	VREFB2LNO						R18				
2M			VREFB2MNO	VREFB2MNO						L26				
2N			VREFB2NNO	VREFB2NNO						J26				
3A			VREFB3ANO	VREFB3ANO						AP14				

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
3B		VREFB3BNO	VREFB3BNO							AM14				
3C		VREFB3CNO	VREFB3CNO							AJ14				
3D		VREFB3DNO	VREFB3DNO							AE13				
3I		VREFB3INO	VREFB3INO							W13				
3J		VREFB3JNO	VREFB3JNO							P14				
3K		VREFB3KNO	VREFB3KNO							L14				
3L		VREFB3LNO	VREFB3LNO							J14				
			NC							R22				
			NC							R21				
			NC							R20				
			NC							P21				
			NC							AJ20				
			NC							AH22				
			NC							AH21				
			NC							AG21				
			NC							BB2				
			VCCX_GXBLCF							AR32				
			VCCX_GXBLCF							AL32				
			VCCX_GXBLCF							AG32				
			VCCX_GXBLCF							AF32				
			VCCX_GXBLLKN							W32				
			VCCX_GXBLLKN							R32				
			VCCX_GXBLLKN							L32				
			VCCX_GXBLLKN							G32				
			VCCR_GXBLC							AU34				
			VCCR_GXBLC							AU33				
			VCCR_GXBLC							AU32				
			VCCR_GXBLLD							AN34				
			VCCR_GXBLLD							AN33				
			VCCR_GXBLLD							AN32				
			VCCR_GXBLLF							AG34				
			VCCR_GXBLLF							AJ33				
			VCCR_GXBLLF							AJ32				
			VCCR_GXBLLF							AE34				
			VCCR_GXBLLF							AE33				
			VCCR_GXBLLF							AE32				
			VCCR_GXBLLK							AA34				
			VCCR_GXBLLK							AA33				
			VCCR_GXBLLK							AA32				
			VCCR_GXBLLL							U34				
			VCCR_GXBLLL							U33				
			VCCR_GXBLLL							U32				
			VCCR_GXBLLM							N34				
			VCCR_GXBLLM							N33				
			VCCR_GXBLLM							N32				
			VCCR_GXBLLN							J34				
			VCCR_GXBLLN							J33				
			VCCR_GXBLLN							J32				
			VCCT_GXBLC							AR34				
			VCCT_GXBLC							AR33				
			VCCT_GXBLLD							AL34				
			VCCT_GXBLLD							AL33				
			VCCT_GXBLLF							AG34				
			VCCT_GXBLLF							AG33				
			VCCT_GXBLLF							AC34				
			VCCT_GXBLLF							AC33				
			VCCT_GXBLLK							W34				
			VCCT_GXBLLK							W33				
			VCCT_GXBLLL							R34				
			VCCT_GXBLLL							R33				
			VCCT_GXBLLM							L34				
			VCCT_GXBLLM							L33				
			VCCT_GXBLLN							G34				
			VCCFUSEWR							G33				
			RREF_B1							AD31				
			RREF_T1							Y31				
			VCCADC							AM15				
			VCCERAM							U30				
			VCCERAM							U18				
			VCCERAM							T31				
			VCCERAM							T30				
			VCCERAM							T29				
			VCCERAM							T22				
			VCCERAM							R30				
			VCCERAM							R29				
			VCCERAM							A130				
			VCCERAM							AJ29				
			VCCERAM							AH31				
			VCCERAM							AH30				
			VCCERAM							AH29				
			VCCERAM							AH20				
			VCCERAM							AH17				
			VCCERAM							AG30				
			VCCFUSEWR SDM							AL16				
			VCCSENSE							AB19				
			VCC_L_HPS							K20				
			VCC_L_HPS							J20				
			VCC_L_HPS							J19				
			VCC_L_HPS							H20				
			VCCP							W26				
			VCCP							W25				
			VCCP							V26				
			VCCP							V25				
			VCCP							U25				
			VCCP							U15				
			VCCP							U14				
			VCCP							T15				

Bank Number	Index within I/O Bank	VREF	Pin Name/Function	Optional Function(s)	Configuration Function	HPS Function	Dedicated Tx/Rx Channel	Soft CDR Support	GT support	NF43	DQS for X4	DQS for X8/X9	DQS for X16/X18	DQS for X32/X36
			VCCP							T14				
			VCCP							AH26				
			VCCP							AH25				
			VCCP							AH15				
			VCCP							AH14				
			VCCP							AG25				
			VCCP							AG15				
			VCCP							AG14				
			VCCP							AF26				
			VCCP							AF25				
			VCCPLL0IG_HPS							N21				
			VCCPLL0IG_SDM							AH16				
			VCCPLL_HPS							P20				
			VCCPLL_SDM							AJ16				

November 2017	2017.11.21	Initial release.
May 2018	2018.05.08	- Added the IO Resource Count tab. - Updated the existing VCCH_GXB pin names to VCCH_GXB<L1 or R4><CF or GJ or KN>.
December 2018	2018.12.02	Defeating the voltage sensor external VREF pins.
December 2019	2019.12.26	Removed NAND_* and PWRMGT_PWM0 pins from banks 3A and 3D.
October 2020	2020.10.27	Removed SD/MMC configuration mode support from Intel Stratix 10 devices.

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