





	VEF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1152 (4)	DGS for X809	DGS for X10/ X18	DGS for X32/ X36	HMC pin assignment for DORS (5)	HMC pin assignment for LPDDR2 (6)	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
3B	VREFB3M0	IO			DFFIO_RX_B27h	DFFOUT_B27h	AC24	DGSnB/QK3B	DO2B	DO1B	DO5H1_3B	DO5H1_3B				
3B	VREFB3M0	IO			DFFIO_RX_B27p	DFFOUT_B27p	AD24	DGSnB/CQ3B/CQn3B/QKn3B	DO2B	DO1B	DO5H1_3B	DO5H1_3B				
3B	VREFB3M0	IO			DFFIO_RX_B28n	DFFOUT_B28n	AM25	DO3B	DO2B	DO1B	DO1_3B_5	DO1_3B_5				
3B	VREFB3M0	IO			DFFIO_TX_B28n	DFFOUT_B28n	AJ25	DO3B	DO2B	DO1B	DO1_3B_4	DO1_3B_4				
3B	VREFB3M0	IO			DFFIO_RX_B29n	DFFOUT_B29n	AM24	DO3B	DO2B	DO1B	DO1_3B_3	DO1_3B_3				
3B	VREFB3M0	IO	VREFB3M0		DFFIO_RX_B29p	DFFOUT_B29p	AM24	DO3B	DO2B	DO1B	DO1_3B_3	DO1_3B_3				
3B	VREFB3M0	IO					AM25									
3B	VREFB3M0	IO			DFFIO_RX_B30n	DFFOUT_B30n	AC23	DO3B	DO2B	DO1B	DO1_3B_2	DO1_3B_2				
3B	VREFB3M0	IO			DFFIO_RX_B30p	DFFOUT_B30p	AL25	DO3B	DO2B	DO1B	DO1_3B_1	DO1_3B_1				
3B	VREFB3M0	IO			DFFIO_TX_B30n	DFFOUT_B30n	AJ24	DO3B	DO2B	DO1B	DO1_3B_0	DO1_3B_0				
3B	VREFB3M0	IO			DFFIO_TX_B31p	DFFOUT_B31p	AJ24	DO3B	DO2B	DO1B	DO2_3B_8	DO2_3B_8				
3B	VREFB3M0	IO			DFFIO_RX_B32n	DFFOUT_B32n	AE23	DO4B	DO2B	DO1B	DO2_3B_7	DO2_3B_7				
3B	VREFB3M0	IO			DFFIO_RX_B32p	DFFOUT_B32p	AF23	DO4B	DO2B	DO1B	DO2_3B_6	DO2_3B_6				
3B	VREFB3M0	IO			DFFIO_TX_B33n	DFFOUT_B33n	AG23	DO4B	DO2B	DO1B	DO2_3B_5	DO2_3B_5				
3B	VREFB3M0	IO			DFFIO_TX_B33p	DFFOUT_B33p	AD23	DO4B	DO2B	DO1B	DM2_3B	DM2_3B				
3B	VREFB3M0	IO			DFFIO_RX_B34n	DFFOUT_B34n	AP25	DGSnB/QK4B	DO5nB/QK2B	DO1B	DO5nB_3B	DO5nB_3B				
3B	VREFB3M0	IO			DFFIO_RX_B34p	DFFOUT_B34p	AP25	DGSnB/CQ4B/CQn4B/QKn4B	DO5nB/CQ2B/CQn2B/QKn2B	DO1B	DO5nB_3B	DO5nB_3B				
3B	VREFB3M0	IO			DFFIO_TX_B35n	DFFOUT_B35n	AM25	DO4B	DO2B	DO1B	DO2_3B_5	DO2_3B_5				
3B	VREFB3M0	IO			DFFIO_RX_B36n	DFFOUT_B36n	AM23	DO4B	DO2B	DO1B	DO2_3B_4	DO2_3B_4				
3B	VREFB3M0	IO			DFFIO_RX_B36p	DFFOUT_B36p	AM24	DO4B	DO2B	DO1B	DO2_3B_3	DO2_3B_3				
3B	VREFB3M0	IO			DFFIO_TX_B37p	DFFOUT_B37p	AB23	DO4B	DO2B	DO1B	DO2_3B_2	DO2_3B_2				
3B	VREFB3M0	IO			DFFIO_RX_B38n	DFFOUT_B38n	AM23	DO4B	DO2B	DO1B	DO2_3B_1	DO2_3B_1				
3B	VREFB3M0	IO			DFFIO_RX_B38p	DFFOUT_B38p	AP25	DO4B	DO2B	DO1B	DO2_3B_0	DO2_3B_0				
3C	VREFB3C0	IO			DFFIO_TX_B39n	DFFOUT_B39n	AE22	DO5B	DO3B	DO2B	DO3_3C_9	DO3_3C_8				
3C	VREFB3C0	IO			DFFIO_RX_B40n	DFFOUT_B40n	AG23	DO5B	DO3B	DO2B	DO3_3C_7	DO3_3C_7				
3C	VREFB3C0	IO			DFFIO_RX_B40p	DFFOUT_B40p	AM23	DO5B	DO3B	DO2B	DO3_3C_6	DO3_3C_6				
3C	VREFB3C0	IO			DFFIO_TX_B41n	DFFOUT_B41n	AE22	DO5B	DO3B	DO2B	DM3_3C	DM3_3C				
3C	VREFB3C0	IO			DFFIO_RX_B42n	DFFOUT_B42n	AJ23	DGSnB/QK5B	DO5nB/QK3B	DO3B	DGSnB_3C	DGSnB_3C				
3C	VREFB3C0	IO			DFFIO_TX_B42n	DFFOUT_B42n	AJ23	DGSnB/CQ5B/CQn5B/QKn5B	DO5nB/CQ3B/CQn3B/QKn3B	DO3B	DGSnB_3C	DGSnB_3C				
3C	VREFB3C0	IO			DFFIO_RX_B43n	DFFOUT_B43n	AM22	DO5B	DO3B	DO2B	DO3_3C_5	DO3_3C_5				
3C	VREFB3C0	IO			DFFIO_RX_B44n	DFFOUT_B44n	AG21	DO5B	DO3B	DO2B	DO3_3C_4	DO3_3C_4				
3C	VREFB3C0	IO			DFFIO_RX_B44p	DFFOUT_B44p	AM21	DO5B	DO3B	DO2B	DO3_3C_3	DO3_3C_3				
3C	VREFB3C0	IO			DFFIO_TX_B45n	DFFOUT_B45n	AE22	DO5B	DO3B	DO2B	DO3_3C_2	DO3_3C_2				
3C	VREFB3C0	IO			DFFIO_RX_B46n	DFFOUT_B46n	AK23	DO5B	DO3B	DO2B	DO3_3C_1	DO3_3C_1				
3C	VREFB3C0	IO			DFFIO_RX_B46p	DFFOUT_B46p	AL23	DO5B	DO3B	DO2B	DO3_3C_0	DO3_3C_0				
3C	VREFB3C0	IO			DFFIO_TX_B47n	DFFOUT_B47n	AL22	DO5B	DO3B	DO2B						
3C	VREFB3C0	IO			DFFIO_TX_B47p	DFFOUT_B47p	AM22	DO5B	DO3B	DO2B	DO4_3C_8	DO4_3C_8				
3C	VREFB3C0	IO			DFFIO_RX_B48n	DFFOUT_B48n	AM21	DO5B	DO3B	DO2B	DO4_3C_7	DO4_3C_7				
3C	VREFB3C0	IO			DFFIO_RX_B48p	DFFOUT_B48p	AP23	DO5B	DO3B	DO2B	DO4_3C_6	DO4_3C_6				
3C	VREFB3C0	IO			DFFIO_TX_B49n	DFFOUT_B49n	AB21	DO5B	DO3B	DO2B	DM4_3C	DM4_3C				
3C	VREFB3C0	IO			DFFIO_RX_B50n	DFFOUT_B50n	AE21	DGSnB/QK6B	DO5nB/QK3B	DO1B	DO5nB_3C	DO5nB_3C				
3C	VREFB3C0	IO			DFFIO_RX_B50p	DFFOUT_B50p	AE21	DGSnB/CQ6B/CQn6B/QKn6B	DO5nB/CQ3B/CQn3B/QKn3B	DO1B	DO5nB_3C	DO5nB_3C				
3C	VREFB3C0	IO			DFFIO_TX_B51p	DFFOUT_B51p	AL20	DO5B	DO3B	DO2B	DO4_3C_5	DO4_3C_5				
3C	VREFB3C0	IO			DFFIO_RX_B52n	DFFOUT_B52n	AF20	DO5B	DO3B	DO2B	DO4_3C_4	DO4_3C_4				
3C	VREFB3C0	IO			DFFIO_RX_B52p	DFFOUT_B52p	AF20	DO5B	DO3B	DO2B	DO4_3C_3	DO4_3C_3				
3C	VREFB3C0	IO	VREFB3C0				AB22									
3C	VREFB3C0	IO					AB20	DO5B	DO3B	DO2B	DO4_3C_2	DO4_3C_2				
3C	VREFB3C0	IO			DFFIO_RX_B53n	DFFOUT_B53n	AK21	DO5B	DO3B	DO2B	DO4_3C_1	DO4_3C_1				
3C	VREFB3C0	IO			DFFIO_RX_B53p	DFFOUT_B53p	AL21	DO5B	DO3B	DO2B	DO4_3C_0	DO4_3C_0				
3C	VREFB3C0	IO			DFFIO_TX_B54n	DFFOUT_B54n	AM20	DO7B	DO5B	DO4B	DO5_3C_8	DO5_3C_8				
3C	VREFB3C0	IO			DFFIO_RX_B55n	DFFOUT_B55n	AM20	DO7B	DO5B	DO4B	DO5_3C_7	DO5_3C_7				
3C	VREFB3C0	IO			DFFIO_RX_B56n	DFFOUT_B56n	AK20	DO7B	DO5B	DO4B	DO5_3C_6	DO5_3C_6				
3C	VREFB3C0	IO			DFFIO_TX_B56n	DFFOUT_B56n	AC21	DO7B	DO5B	DO4B	DM5_3C	DM5_3C				
3C	VREFB3C0	IO			DFFIO_RX_B57n	DFFOUT_B57n	AP21	DGSnB/QK7B	DO5nB_3C	DO5nB_3C	DO5nB_3C	DO5nB_3C				
3C	VREFB3C0	IO			DFFIO_TX_B57n	DFFOUT_B57n	AP20	DGSnB/CQ7B/CQn7B/QKn7B	DO5nB/CQ3B/CQn3B/QKn3B	DO5nB_3C	DO5nB_3C	DO5nB_3C				
3C	VREFB3C0	IO			DFFIO_TX_B58n	DFFOUT_B58n	AM20	DO7B	DO5B	DO4B	DO5_3C_5	DO5_3C_5				
3C	VREFB3C0	IO			DFFIO_RX_B59n	DFFOUT_B59n	AM20	DO7B	DO5B	DO4B	DO5_3C_4	DO5_3C_4				
3C	VREFB3C0	IO			DFFIO_RX_B59p	DFFOUT_B59p	AM19	DO7B	DO5B	DO4B	DO5_3C_3	DO5_3C_3				
3C	VREFB3C0	IO			DFFIO_TX_B60n	DFFOUT_B60n	AC19	DO7B	DO5B	DO4B	DO5_3C_2	DO5_3C_2				
3C	VREFB3C0	IO			DFFIO_RX_B61n	DFFOUT_B61n	AC20	DO7B	DO5B	DO4B	DO5_3C_1	DO5_3C_1				
3C	VREFB3C0	IO			DFFIO_RX_B61p	DFFOUT_B61p	AD18	DO7B	DO5B	DO4B	DO5_3C_0	DO5_3C_0				
3D	VREFB3D0	IO	VREFB3D0				AD18									
3D	VREFB3D0	IO	CLK4n		DFFIO_RX_B76n	DFFOUT_B76n	AM19		DO4B	DO4B						
3D	VREFB3D0	IO	CLK4p		DFFIO_RX_B76n	DFFOUT_B76n	AL19		DO4B	DO4B						
3D	VREFB3D0	IO	CLK5n		DFFIO_RX_B78n	DFFOUT_B78n	AL19		DO4B	DO4B						
3D	VREFB3D0	IO	CLK5p		DFFIO_RX_B78n	DFFOUT_B78n	AL19		DO4B	DO4B						
3D	VREFB3D0	IO	PLL1_BC_CLKOUT1/PLL1_BC_CLKOUTn		DFFIO_TX_B79n	DFFOUT_B79n	AF19		DO4B	DO4B						
3D	VREFB3D0	IO	PLL1_BC_CLKOUT2/PLL1_BC_CLKOUTp/PLL1_BC_FB0		DFFIO_TX_B79n	DFFOUT_B79n	AF19		DO4B	DO4B						
3D	VREFB3D0	IO	PLL1_BC_CLKOUT3/PLL1_BC_FBn		DFFIO_RX_B80n	DFFOUT_B80n	AM18		DO4B	DO4B						
3D	VREFB3D0	IO	PLL1_BC_CLKOUT2/PLL1_BC_FBp/PLL1_BC_FB1		DFFIO_RX_B80n	DFFOUT_B80n	AM18		DO4B	DO4B						
3D	VREFB3D0	IO	CLK6n		DFFIO_RX_B82n	DFFOUT_B82n	AJ18		DO4B	DO4B						
3D	VREFB3D0	IO	CLK6p		DFFIO_RX_B82n	DFFOUT_B82n	AK18		DO4B	DO4B						
3D	VREFB3D0	IO	CLK7n		DFFIO_RX_B84n	DFFOUT_B84n	AF18		DO4B	DO4B						
3D	VREFB3D0	IO	CLK7p		DFFIO_RX_B84n	DFFOUT_B84n	AG18		DO4B	DO4B						
3D	VREFB3D0	IO	VCCD_FPLL				AA17									
3D	VREFB3D0	IO	VCCA_FPLL				AA18									
3D	VREFB3D0	IO	DN1		DFFIO_TX_B89n	DFFOUT_B89n	AD17		DO4B	DO4B	CS#_4D_1	CS#_4D_1				
4D	VREFB4D0	IO			DFFIO_TX_B89p	DFFOUT_B89p	AE17	DO8B	DO4B	DO4B	CS#_4D_0	CS#_4D_0				
4D	VREFB4D0	IO			DFFIO_RX_B94n	DFFOUT_B94n	AC16	DO8B	DO4B	DO4B	A_4D_15					
4D	VREFB4D0	IO			DFFIO_RX_B94p	DFFOUT_B94p	AF16	DO8B	DO4B	DO4B	A_4D_10					
4D	VREFB4D0	IO			DFFIO_TX_B95n	DFFOUT_B95n	AM18		DO4B	DO4B	ODT_4D_1	ODT_4D_1				
4D	VREFB4D0	IO			DFFIO_TX_B96n	DFFOUT_B96n	AC18	DO8B	DO4B	DO4B	ODT_4D_0	ODT_4D_0				
4D	VREFB4D0	IO			DFFIO_RX_B96n	DFFOUT_B96n	AF17	DGSnB/QK8B	DO4B	DO4B	WE#_4D	WE#_4D				
4D	VREFB4D0	IO			DFFIO_RX_B96p	DFFOUT_B96p	AG17	DGSnB/CQ8B/CQn8B/QKn8B	DO4B	DO4B	CSA#_4D	CSA#_4D				
4D	VREFB4D0	IO			DFFIO_TX_B97n	DFFOUT_B97n	AM17		DO4B	DO4B	BA_4D_0	BA_4D_0				
4D	VREFB4D0	IO			DFFIO_TX_B97p	DFFOUT_B97p	AM16	DO8B	DO4B	DO4B	BA_4D_2	BA_4D_2				
4D	VREFB4D0	IO			DFFIO_RX_B98n	DFFOUT_B98n	AJ16	DO8B	DO4B	DO4B	BA_4D_1	BA_4D_1				
4D	VREFB4D0	IO			DFFIO_RX_B98p	DFFOUT_B98p	AJ17	DO8B	DO4B	DO4B	BA_4D_0	BA_4D_0				
4D	VREFB4D0	IO	VREFB4D0				AB17									
4D	VREFB4D0	IO					AC17	DO8B	DO4B	DO4B	A_4D_14					
4D	VREFB4D0	IO			DFFIO_RX_B99n	DFFOUT_B99n	AK17	DO8B	DO4B	DO4B	A_4D_13					
4D	VREFB4D0	IO			DFFIO_RX_B99p	DFFOUT_B99p	AL16	DO8B	DO4B	DO4B	A_4D_12					
4D	VREFB4D0	IO			DFFIO_TX_B100n	DFFOUT_B100n	AL17		DO4B	DO4B	A_4D_11					
4D	VREFB4D0	IO			DFFIO_TX_B100p	DFFOUT_B100p	AM17	DO8B	DO4B	DO4B	A_4D_10					





VEF	PinName/Function (2, 3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1152 (4)	DGS for X809	DGS for X10/ X18	DGS for X32/ X36	HMC pin assignment for DDR3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
GXB_R0	GXB_RX_R5a, GMB_REFCLK_R5a					Y1*									
GXB_TX_R0	GXB_TX_R5a					W3*									
GXB_R0	GXB_TX_R5a					W4*									
GXB_R0	REFCLK1R0					W8									
GXB_R0	REFCLK1R0					W7									
0B	VREFBAND_HPS	HPS_DDR				T7				HPS_DM_4	HPS_DM_4				
0B	VREFBAND_HPS	HPS_DDR				T8				HPS_DO_29	HPS_DO_29				
0B	VREFBAND_HPS	HPS_DDR				U2				HPS_DO_37	HPS_DO_37				
0B	VREFBAND_HPS	HPS_DDR				V1				HPS_DO_38	HPS_DO_38				
0B	VREFBAND_HPS	HPS_DDR				U3				HPS_DO_36	HPS_DO_36				
0B	VREFBAND_HPS	HPS_DDR				T3				HPS_DQS_4	HPS_DQS_4				
0B	VREFBAND_HPS	HPS_GPT13				TT									
0B	VREFBAND_HPS	HPS_DDR				T4				HPS_DQS#_4	HPS_DQS#_4				
0B	VREFBAND_HPS	HPS_DDR				U1				HPS_DO_35	HPS_DO_35				
0B	VREFBAND_HPS	HPS_DDR				R1				HPS_DO_33	HPS_DO_33				
0B	VREFBAND_HPS	HPS_DDR				T5				HPS_DO_34	HPS_DO_34				
0B	VREFBAND_HPS	HPS_DDR				R2				HPS_DO_32	HPS_DO_32				
0B	VREFBAND_HPS	HPS_GPT12				T6									
0B	VREFBAND_HPS	HPS_GPT11				P1									
0B	VREFBAND_HPS	HPS_DDR				P2				HPS_DM_3	HPS_DM_3				
0B	VREFBAND_HPS	HPS_GPT10				N1									
0B	VREFBAND_HPS	HPS_DDR				R3				HPS_DO_31	HPS_DO_31				
0B	VREFBAND_HPS	HPS_DDR				N4				HPS_DO_29	HPS_DO_29				
0B	VREFBAND_HPS	HPS_DDR				P7				HPS_DO_30	HPS_DO_30				
0B	VREFBAND_HPS	HPS_DDR				P4				HPS_DO_28	HPS_DO_28				
0B	VREFBAND_HPS	VREFBAND_HPS				R7									
0B	VREFBAND_HPS	HPS_DDR				L1				HPS_DQS_3	HPS_DQS_3				
0B	VREFBAND_HPS	HPS_GPT9				M3									
0B	VREFBAND_HPS	HPS_DDR				M2				HPS_DQS#_3	HPS_DQS#_3				
0B	VREFBAND_HPS	HPS_DDR				N3				HPS_DO_27	HPS_DO_27				
0B	VREFBAND_HPS	HPS_DDR				K1				HPS_DO_25	HPS_DO_25				
0B	VREFBAND_HPS	HPS_DDR				R4				HPS_DO_26	HPS_DO_26				
0B	VREFBAND_HPS	HPS_DDR				L2				HPS_DO_24	HPS_DO_24				
0B	VREFBAND_HPS	HPS_GPT8				P5									
0B	VREFBAND_HPS	HPS_GPT7				H2									
0B	VREFBAND_HPS	HPS_DDR				H1				HPS_DM_2	HPS_DM_2				
0B	VREFBAND_HPS	HPS_GPT6				J2									
0B	VREFBAND_HPS	HPS_DDR				I1				HPS_DO_23	HPS_DO_23				
0B	VREFBAND_HPS	HPS_DDR				J3				HPS_DO_21	HPS_DO_21				
0B	VREFBAND_HPS	HPS_DDR				N5				HPS_DO_22	HPS_DO_22				
0B	VREFBAND_HPS	HPS_DDR				K3				HPS_DO_20	HPS_DO_20				
0B	VREFBAND_HPS	HPS_GPT5				P6									
0B	VREFBAND_HPS	HPS_DDR				K4				HPS_DQS_2	HPS_DQS_2				
0B	VREFBAND_HPS	HPS_DDR				L3				HPS_RESET#	HPS_RESET#				
0B	VREFBAND_HPS	HPS_DDR				L5				HPS_DQS#_2	HPS_DQS#_2				
0B	VREFBAND_HPS	HPS_DDR				M4				HPS_DO_19	HPS_DO_19				
0B	VREFBAND_HPS	HPS_DDR				U6				HPS_DO_17	HPS_DO_17				
0B	VREFBAND_HPS	HPS_DDR				N6				HPS_DO_18	HPS_DO_18				
0B	VREFBAND_HPS	HPS_DDR				M6				HPS_DO_16	HPS_DO_16				
0B	VREFBAND_HPS	HPS_GPT4				N7									
0A	VREFBAND_HPS	HPS_GPT3				G3									
0A	VREFBAND_HPS	HPS_DDR				F1				HPS_DM_1	HPS_DM_1				
0A	VREFBAND_HPS	HPS_GPT2				H3									
0A	VREFBAND_HPS	HPS_DDR				G1				HPS_DO_15	HPS_DO_15				
0A	VREFBAND_HPS	HPS_DDR				H4				HPS_DO_13	HPS_DO_13				
0A	VREFBAND_HPS	HPS_DDR				K5				HPS_DO_14	HPS_DO_14				
0A	VREFBAND_HPS	HPS_DDR				J4				HPS_DO_12	HPS_DO_12				
0A	VREFBAND_HPS	HPS_DDR				K6				HPS_CKE_0	HPS_CKE_0				
0A	VREFBAND_HPS	HPS_DDR				D1				HPS_DQS_1	HPS_DQS_1				
0A	VREFBAND_HPS	HPS_DDR				E1				HPS_CKE_1	HPS_CKE_1				
0A	VREFBAND_HPS	HPS_DDR				C1				HPS_DQS#_1	HPS_DQS#_1				
0A	VREFBAND_HPS	HPS_DDR				E2				HPS_DO_11	HPS_DO_11				
0A	VREFBAND_HPS	HPS_DDR				F3				HPS_DO_9	HPS_DO_9				
0A	VREFBAND_HPS	HPS_DDR				J6				HPS_DO_10	HPS_DO_10				
0A	VREFBAND_HPS	HPS_GPT1				F4				HPS_DO_8	HPS_DO_8				
0A	VREFBAND_HPS	HPS_GPT0				I7									
0A	VREFBAND_HPS	HPS_DDR				C2									
0A	VREFBAND_HPS	HPS_DDR				G4				HPS_DM_0	HPS_DM_0				
0A	VREFBAND_HPS	HPS_DDR				G5				HPS_DO_7	HPS_DO_7				
0A	VREFBAND_HPS	HPS_DDR				G6				HPS_DO_5	HPS_DO_5				
0A	VREFBAND_HPS	HPS_DDR				K7				HPS_DO_6	HPS_DO_6				
0A	VREFBAND_HPS	HPS_DDR				B1				HPS_DO_4	HPS_DO_4				
0A	VREFBAND_HPS	HPS_DDR				L7				HPS_ODT_1	HPS_ODT_1				
0A	VREFBAND_HPS	HPS_DDR				C3				HPS_DQS_0	HPS_DQS_0				
0A	VREFBAND_HPS	HPS_DDR				E3				HPS_ODT_0	HPS_ODT_0				
0A	VREFBAND_HPS	HPS_DDR				D4				HPS_DQS#_0	HPS_DQS#_0				
0A	VREFBAND_HPS	HPS_DDR				E4				HPS_DO_3	HPS_DO_3				
0A	VREFBAND_HPS	HPS_DDR				A4				HPS_DO_1	HPS_DO_1				
0A	VREFBAND_HPS	HPS_DDR				M8				HPS_DO_2	HPS_DO_2				
0A	VREFBAND_HPS	HPS_DDR				A3				HPS_DO_0	HPS_DO_0				
0A	VREFBAND_HPS	VREFBAND_HPS				N9									
0A	VREFBAND_HPS	HPS_DDR				B4				HPS_A_0	HPS_CA_0				
0A	VREFBAND_HPS	HPS_DDR				G4				HPS_A_1	HPS_CA_1				
0A	VREFBAND_HPS	HPS_DDR				D6				HPS_A_4	HPS_CA_4				
0A	VREFBAND_HPS	HPS_DDR				J8				HPS_A_2	HPS_CA_2				
0A	VREFBAND_HPS	HPS_DDR				E5				HPS_A_5	HPS_CA_5				
0A	VREFBAND_HPS	HPS_DDR				K8				HPS_A_3	HPS_CA_3				
0A	VREFBAND_HPS	HPS_DDR				A6				HPS_CK_1	HPS_CK_1				
0A	VREFBAND_HPS	HPS_DDR				B5				HPS_A_6	HPS_CA_6				
0A	VREFBAND_HPS	HPS_DDR				B7				HPS_CK#	HPS_CK#				
0A	VREFBAND_HPS	HPS_DDR				B6				HPS_A_7	HPS_CA_7				
0A	VREFBAND_HPS	HPS_DDR				C7				HPS_BA_1					
0A	VREFBAND_HPS	HPS_DDR				G7				HPS_BA_0					
0A	VREFBAND_HPS	HPS_DDR				D8				HPS_BA_3					
0A	VREFBAND_HPS	HPS_DDR				G6				HPS_CAS#					
0A	VREFBAND_HPS	HPS_DDR				H6				HPS_RAS#					
0A	VREFBAND_HPS	HPS_DDR				F6				HPS_A_8	HPS_CA_8				
0A	VREFBAND_HPS	HPS_DDR				G8				HPS_A_10					
0A	VREFBAND_HPS	HPS_DDR				F7				HPS_A_9	HPS_CA_9				
0A	VREFBAND_HPS	HPS_DDR				G9				HPS_A_11					
0A	VREFBAND_HPS	HPS_DDR				C8				HPS_CSE_0	HPS_CSE_0				
0A	VREFBAND_HPS	HPS_DDR				E7				HPS_A_12	HPS_CSE_1				
0A	VREFBAND_HPS	HPS_DDR				D7				HPS_CSE_1					
0A	VREFBAND_HPS	HPS_DDR				F8				HPS_A_13					
0A	VREFBAND_HPS	HPS_DDR				A8				HPS_A_14					
0A	VREFBAND_HPS	HPS_DDR				J9				HPS_WE#					
0A	VREFBAND_HPS	HPS_DDR				A7				HPS_A_15					
0A	VREFBAND_HPS	HPS_R2D_0				K9									
0A	VREFBAND_HPS	DN1				U4									
0A	VREFBAND_HPS	GND				G10									



REF	PinName/Function (Z1, Z)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1152 (4)	DGS for X80X	DGS for X10/ X18	DGS for X32/ X36	HMC pin assignment for DDR3 (9)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
7A	HPS_PORSEL					C10									
7A	HPS_CLK1					L9									
7A	HPS_CLK2					D10									
7A	VREFB/A7B7C7/D7EN0 HPS	TRACE_CLK				A10						TRACE_CLK			HPS_GP048
7A	VREFB/A7B7C7/D7EN0 HPS	TRACE_D0				K10						TRACE_D0	SPIS0_CLK	UART0_RX	HPS_GP049
7A	VREFB/A7B7C7/D7EN0 HPS	TRACE_D1				A11						TRACE_D1	SPIS0_MOSI	UART0_TX	HPS_GP050
7A	VREFB/A7B7C7/D7EN0 HPS	TRACE_D2				J10						TRACE_D2	SPIS0_MISO	ICCI_SDA	HPS_GP051
7A	VREFB/A7B7C7/D7EN0 HPS	TRACE_D3				A13						TRACE_D3	SPIS0_SS0	ICCI_SCL	HPS_GP052
7A	VREFB/A7B7C7/D7EN0 HPS	TRACE_D4				B12						TRACE_D4	SPIS1_CLK		HPS_GP053
7A	VREFB/A7B7C7/D7EN0 HPS	TRACE_D5				A12						TRACE_D5	SPIS1_MOSI		HPS_GP054
7A	VREFB/A7B7C7/D7EN0 HPS	TRACE_D6				C13						TRACE_D6	SPIS1_SS0	ICCI_SDA	HPS_GP055
7A	VREFB/A7B7C7/D7EN0 HPS	TRACE_D7				C11						TRACE_D7	SPIS1_MISO	ICCI_SCL	HPS_GP056
7A	VREFB/A7B7C7/D7EN0 HPS	SPIM0_CLK				L10						SPIM0_CLK	ICCI_SDA	UART0_TX	HPS_GP057
7A	VREFB/A7B7C7/D7EN0 HPS	SPIM0_MOSI				G12						SPIM0_MOSI	ICCI_SCL	UART0_RTS	HPS_GP058
7A	VREFB/A7B7C7/D7EN0 HPS	SPIM0_MISO				L11						SPIM0_MISO	ICCI_SCL	UART1_CTS	HPS_GP059
7A	VREFB/A7B7C7/D7EN0 HPS	SPIM0_SS0/BOOTSEL0				E10						SPIM0_SS0		UART1_RTS	HPS_GP060
7A	VREFB/A7B7C7/D7EN0 HPS	UART0_RX				E11						UART0_RX		SPIM0_SS1	HPS_GP061
7A	VREFB/A7B7C7/D7EN0 HPS	UART0_TX_CLKSEL1				F10						UART0_TX		SPIM1_SS1	HPS_GP062
7A	VREFB/A7B7C7/D7EN0 HPS	ICCI_SDA				F11						ICCI_SDA	UART1_RX	SPIM1_CLK	HPS_GP063
7A	VREFB/A7B7C7/D7EN0 HPS	ICCI_SCL				H11						ICCI_SCL	UART1_TX	SPIM1_MOSI	HPS_GP064
7A	VREFB/A7B7C7/D7EN0 HPS	UART0_RX*				M10						UART0_RX		SPIM1_MISO	HPS_GP065
7A	VREFB/A7B7C7/D7EN0 HPS	UART0_TX_CLKSEL0				J11						UART0_TX		SPIM1_SS0	HPS_GP066
7A	VREFB/A7B7C7/D7EN0 HPS	SPIS1_CLK				M11						SPIS1_CLK	SPIM1_CLK	SPIM1_SS0	HPS_GP067
7A	VREFB/A7B7C7/D7EN0 HPS	SPIS1_MOSI				D12						SPIS1_MOSI	SPIM1_MOSI		HPS_GP068
7A	VREFB/A7B7C7/D7EN0 HPS	SPIS1_MISO				E12						SPIS1_MISO	SPIM1_MISO		HPS_GP069
7A	VREFB/A7B7C7/D7EN0 HPS	SPIS1_SS0				D13						SPIS1_SS0	SPIM1_SS0		HPS_GP070
7A	VREFB/A7B7C7/D7EN0 HPS	UART1_RX				F12						UART1_RX	SPIM1_SS1		HPS_GP072
7A	VREFB/A7B7C7/D7EN0 HPS	UART1_TX				J12						UART1_TX	SPIM0_CLK		HPS_GP073
7A	VREFB/A7B7C7/D7EN0 HPS	ICCI_SDA				L12						ICCI_SDA	SPIM0_MOSI		HPS_GP074
7A	VREFB/A7B7C7/D7EN0 HPS	ICCI_SCL				K12						ICCI_SCL	SPIM0_MISO		HPS_GP075
7A	VREFB/A7B7C7/D7EN0 HPS	SPIM0_SS0				M12						SPIM0_SS0			HPS_GP076
7A	VREFB/A7B7C7/D7EN0 HPS	SPIS0_CLK				F13						SPIS0_CLK	SPIM0_SS1		HPS_GP078
7A	VREFB/A7B7C7/D7EN0 HPS	SPIS0_MOSI				G12						SPIS0_MOSI			HPS_GP078
7A	VREFB/A7B7C7/D7EN0 HPS	SPIS0_MISO				G13						SPIS0_MISO			HPS_GP078
7A	VREFB/A7B7C7/D7EN0 HPS	SPIS0_SS0				H12						SPIS0_SS0			HPS_GP078
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_ALE				A14						NAND_ALE	RGMI1_TX_CLK	DSP_SS3	HPS_GP014
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_CE				M13						NAND_CE	RGMI1_TXD0	USB1_D0	HPS_GP015
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_CLE				B14						NAND_CLE	USB1_D1		HPS_GP016
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_RE				N13						NAND_RE	RGMI1_TXD2	USB1_D2	HPS_GP017
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_RB				B15						NAND_RB	RGMI1_TXD3	USB1_D3	HPS_GP018
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_DQ0				C14						NAND_DQ0			HPS_GP018
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_DQ1				C15						NAND_DQ1	RGMI1_MDIO	ICCI_SDA	HPS_GP020
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_DQ2				D14						NAND_DQ2	RGMI1_MDC	ICCI_SCL	HPS_GP021
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_DQ3				D14						NAND_DQ3	RGMI1_TX_CTL	USB1_D0	HPS_GP022
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_DQ4				N12						NAND_DQ4	RGMI1_TX_CTL	USB1_D5	HPS_GP023
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_DQ5				H14						NAND_DQ5	RGMI1_RX_CLK	USB1_D6	HPS_GP024
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_DQ6				P12						NAND_DQ6	RGMI1_RXD3	USB1_D7	HPS_GP025
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_DQ7				K13						NAND_DQ7	RGMI1_RXD0		HPS_GP026
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_WP				J14						NAND_WP	RGMI1_RXD3	DSP_SS2	HPS_GP027
7B	VREFB/A7B7C7/D7EN0 HPS	NAND_WE/BOOTSEL2				L14						NAND_WE	DSP_SS1		HPS_GP028
7B	VREFB/A7B7C7/D7EN0 HPS	OSPI_D0				K14						OSPI_D0	USB1_CLK		HPS_GP029
7B	VREFB/A7B7C7/D7EN0 HPS	OSPI_I01				M14						OSPI_I01	USB1_STP		HPS_GP030
7B	VREFB/A7B7C7/D7EN0 HPS	OSPI_I02				P14						OSPI_I02	USB1_DR		HPS_GP031
7B	VREFB/A7B7C7/D7EN0 HPS	OSPI_D3				N14						OSPI_D3	USB1_NXT		HPS_GP032
7B	VREFB/A7B7C7/D7EN0 HPS	OSPI_SS0/BOOTSEL1				R15						OSPI_SS0			HPS_GP033
7B	VREFB/A7B7C7/D7EN0 HPS	OSPI_CLK				F14						OSPI_CLK			HPS_GP034
7C	VREFB/A7B7C7/D7EN0 HPS	SDSPI_SS1				D15						SDSPI_SS1			HPS_GP035
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_CMD				E15						SDMMC_CMD	USB0_D0		HPS_GP036
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_PWREN				J15						SDMMC_PWREN	USB1_D1		HPS_GP037
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_D3				F15						SDMMC_D3			HPS_GP038
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_D1				K15						SDMMC_D1	USB0_D3		HPS_GP039
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_D4				E16						SDMMC_D4	USB0_D4		HPS_GP040
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_D5				G15						SDMMC_D5	USB0_D5		HPS_GP041
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_D6				F16						SDMMC_D6	USB0_D6		HPS_GP042
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_D7				G16						SDMMC_D7	USB0_D7		HPS_GP043
7C	VREFB/A7B7C7/D7EN0 HPS	HPS_QP044				H16						USB0_CLK			HPS_GP044
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_CCLK_OUT				M15						SDMMC_CCLK_OUT	USB0_STP		HPS_GP045
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_D2				J16						SDMMC_D2	USB1_DIR		HPS_GP046
7C	VREFB/A7B7C7/D7EN0 HPS	SDMMC_D3				L16						SDMMC_D3	USB0_NXT		HPS_GP047
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_TX_CLK				A16						RGMI0_TX_CLK			HPS_GP000
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_TXD0				A17						RGMI0_TXD0	USB1_D0		HPS_GP001
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_TXD1				A15						RGMI0_TXD1	USB1_D1		HPS_GP002
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_TXD2				B17						RGMI0_TXD2	USB1_D2		HPS_GP003
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_TXD3				C16						RGMI0_TXD3	USB1_D3		HPS_GP004
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_RXD0				L16						RGMI0_RXD0	USB1_D4		HPS_GP005
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_MDO				C17						RGMI0_MDO	USB1_D5	ICCI_SDA	HPS_GP006
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_MDC				M16						RGMI0_MDC	USB1_D6	ICCI_SCL	HPS_GP007
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_RX_CTL				D17						RGMI0_RX_CTL	USB1_D7		HPS_GP008
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_TX_CTL				E18						RGMI0_TX_CTL			HPS_GP009
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_RX_CLK				D16						RGMI0_RX_CLK	USB1_CLK		HPS_GP010
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_RXD1				F18						RGMI0_RXD1	USB1_STP		HPS_GP011
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_RXD2				F17						RGMI0_RXD2	USB1_DR		HPS_GP012
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI0_RXD3				P16						RGMI0_RXD3	USB1_NXT		HPS_GP013
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI1_TX_CLK				G17						RGMI1_TX_CLK			HPS_GP048
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI1_TXD0				N16						RGMI1_TXD0			HPS_GP049
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI1_TXD1				J17						RGMI1_TXD1			HPS_GP050
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI1_TX_CTL				G18						RGMI1_TX_CTL			HPS_GP051
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI1_RXD0				K17						RGMI1_RXD0			HPS_GP052
7D	VREFB/A7B7C7/D7EN0 HPS	RGMI1_RXD1				H17						RGMI1_RXD1			HPS_GP053
7E	VREFB/A7B7C7/D7EN0 HPS	RGMI1_MDO				L17						RGMI1_MDO	SPIM0_CLK	SPIS0_CLK	HPS_GP054
7E	VREFB/A7B7C7/D7EN0 HPS	RGMI1_MDC				N18						RGMI1_MDC	SPIM0_MOSI	SPIS0_MOSI	HPS_GP055
7E	VREFB/A7B7C7/D7EN0 HPS	RGMI1_TXD2				HPS						RGMI1_TXD2	SPIM0_MISO	SPIS0_MISO	HPS_GP056
7E	VREFB/A7B7C7/D7EN0 HPS	RGMI1_TXD3				N18						RGMI1_TXD3	SPIM0_SS0	SPIS0_SS0	HPS_GP057
7E	VREFB/A7B7C7/D7EN0 HPS	RGMI1_RX_CLK				M18						RGMI1_RX_CLK	SPIM1_CLK		HPS_GP058
7E	VREFB/A7B7C7/D7EN0 HPS	RGMI1_RX_CTL				J18						RGMI1_RX_CTL	SPIS1_MOSI		HPS_GP059
7E	VREFB/A7B7C7/D7EN0 HPS	RGMI1_RXD2				N17						RGMI1_RXD2	SPIS1_MISO	SPIM1_MISO	HPS_GP060
7E	VREFB/A7B7C7/D7EN0 HPS	RGMI1_RXD3				A18						RGMI1_RXD3	SPIS1_SS0	SPIM1_SS0	HPS_GP061
	VCCD_FPLL					T17									
	VCCD_FPLL					T16									
	VCCD_FPLL					P19									
8D	VREFB8D0	IO				CLK19a									
8D	VREFB8D0	IO				CLK19b									
8D	VREFB8D0	IO				CLK19c									
8D	VREFB8D0	IO				CLK19d									
8D	VREFB8D0	IO				CLK19e									
8D	VREFB8D0	IO				CLK19f									
8D	VREFB8D0	IO				CLK19g									
8D	VREFB8D0	IO				CLK19h									
8D	VREFB8D0	IO				CLK19i									
8D	VREFB8D0	IO				CLK19j									
8D	VREFB8D0	IO				CLK19k									



REF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx	Emulated LVDS Output Channel	F1152 (4)	DGS for X809	DGS for X10/ X18	DGS for X32/ X36	HMC pin assignment for DORS (5)	HMC pin assignment for LPDOR2 (6)	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
BC	VREFB3CND	IO		DFFIO RX 1758a	DIFFOUT 1758a	B21	DGS1TCQ1TCoH1TQKk1T			DGS84_8C	DGS8_8C				
BC	VREFB3CND	IO		DFFIO RX 1758b	DIFFOUT 1758b	C21	DGS1TCQ1TCoH1TQKk1T			DGS84_8C	DGS84_8C				
BC	VREFB3CND	IO		DFFIO RX 1759	DIFFOUT 1759	N20	DO1T			DMS_8C	DMS_8C				
BC	VREFB3CND	IO		DFFIO RX 1760a	DIFFOUT 1760a	H21	DO1T			DQ4_8C_6	DQ4_8C_6				
BC	VREFB3CND	IO		DFFIO RX 1760b	DIFFOUT 1760b	J20	DO1T			DQ5_8C_7	DQ5_8C_7				
BC	VREFB3CND	IO		DFFIO TX 1816	DIFFOUT 1816	E21	DO1T			DQ5_8C_8	DQ5_8C_8				
BC	VREFB3CND	IO		DFFIO RX 1820a	DIFFOUT 1820a	J21	DO1T	DO1T	DO1T	DQ4_8C_0	DQ4_8C_0				
BC	VREFB3CND	IO		DFFIO RX 1820b	DIFFOUT 1820b	K21	DO2T	DO1T	DO1T	DQ4_8C_1	DQ4_8C_1				
BC	VREFB3CND	IO	VREFB3CND			N21	DO2T	DO1T	DO1T	DQ4_8C_2	DQ4_8C_2				
BC	VREFB3CND	IO				P21									
BC	VREFB3CND	IO		DFFIO RX 1836	DIFFOUT 1836	M21	DO2T	DO1T	DO1T	DQ4_8C_3	DQ4_8C_3				
BC	VREFB3CND	IO		DFFIO RX 1837a	DIFFOUT 1837a	M20	DO2T	DO1T	DO1T	DQ4_8C_4	DQ4_8C_4				
BC	VREFB3CND	IO		DFFIO RX 1837b	DIFFOUT 1837b	F21	DO1T	DO1T	DO1T	DQ4_8C_5	DQ4_8C_5				
BC	VREFB3CND	IO		DFFIO RX 1856	DIFFOUT 1856	D22	DGS2TCQ2TCoH2TQKk2T	DGS1TCQ1TCoH1TQKk1T	DO1T	DQ54_8C	DQ54_8C				
BC	VREFB3CND	IO		DFFIO RX 1856a	DIFFOUT 1856a	E22	DGS2TCQ2TCoH2TQKk2T	DGS1TCQ1TCoH1TQKk1T	DO1T	DQ544_8C	DQ544_8C				
BC	VREFB3CND	IO		DFFIO RX 1876	DIFFOUT 1876	A34	DO2T	DO1T	DO1T	DQ4_8C_6	DQ4_8C_6				
BC	VREFB3CND	IO		DFFIO RX 1877a	DIFFOUT 1877a	A33	DO2T	DO1T	DO1T	DQ4_8C_7	DQ4_8C_7				
BC	VREFB3CND	IO		DFFIO TX 1889	DIFFOUT 1889	E33	DO2T	DO1T	DO1T	DQ4_8C_8	DQ4_8C_8				
BC	VREFB3CND	IO		DFFIO TX 1890	DIFFOUT 1890	F33									
BC	VREFB3CND	IO		DFFIO RX 1899	DIFFOUT 1899	G33	DO3T	DO1T	DO1T	DQ3_8C_0	DQ3_8C_0				
BC	VREFB3CND	IO		DFFIO RX 1899a	DIFFOUT 1899a	H33	DO3T	DO1T	DO1T	DQ3_8C_1	DQ3_8C_1				
BC	VREFB3CND	IO		DFFIO TX 1919	DIFFOUT 1919	D22	DO3T	DO1T	DO1T	DQ3_8C_2	DQ3_8C_2				
BC	VREFB3CND	IO		DFFIO RX 1719	DIFFOUT 1719	G22	DO3T	DO1T	DO1T	DQ3_8C_3	DQ3_8C_3				
BC	VREFB3CND	IO		DFFIO RX 1719a	DIFFOUT 1719a	H22	DO3T	DO1T	DO1T	DQ3_8C_4	DQ3_8C_4				
BC	VREFB3CND	IO		DFFIO TX 1729	DIFFOUT 1729	F23	DO3T	DO1T	DO1T	DQ3_8C_5	DQ3_8C_5				
BC	VREFB3CND	IO		DFFIO RX 1739	DIFFOUT 1739	K22	DGS3TCQ3TCoH3TQKk3T	DO1T	DO1T	DQ53_8C	DQ53_8C				
BC	VREFB3CND	IO		DFFIO RX 1739a	DIFFOUT 1739a	L22	DGS3TCQ3TCoH3TQKk3T	DO1T	DO1T	DQ534_8C	DQ534_8C				
BC	VREFB3CND	IO		DFFIO TX 1749	DIFFOUT 1749	N23	DO3T	DO1T	DO1T	DQ3_8C	DQ3_8C				
BC	VREFB3CND	IO		DFFIO RX 1759	DIFFOUT 1759	L23	DO3T	DO1T	DO1T	DQ3_8C_6	DQ3_8C_6				
BC	VREFB3CND	IO		DFFIO RX 1759a	DIFFOUT 1759a	M23	DO3T	DO1T	DO1T	DQ3_8C_7	DQ3_8C_7				
BC	VREFB3CND	IO		DFFIO TX 1769	DIFFOUT 1769	F23	DO3T	DO1T	DO1T	DQ3_8C_8	DQ3_8C_8				
BB	VREFB3BND	IO		DFFIO RX 1776	DIFFOUT 1776	B23	DO4T	DO2T	DO2T	DO2_8B_0	DO2_8B_0				
BB	VREFB3BND	IO		DFFIO RX 1777a	DIFFOUT 1777a	C24	DO4T	DO2T	DO2T	DO2_8B_1	DO2_8B_1				
BB	VREFB3BND	IO		DFFIO TX 1796	DIFFOUT 1796	N24	DO4T	DO2T	DO2T	DO2_8B_2	DO2_8B_2				
BB	VREFB3BND	IO		DFFIO RX 1796	DIFFOUT 1796	C23	DO4T	DO2T	DO2T	DO2_8B_3	DO2_8B_3				
BB	VREFB3BND	IO		DFFIO RX 1796a	DIFFOUT 1796a	D24	DO4T	DO2T	DO2T	DO2_8B_4	DO2_8B_4				
BB	VREFB3BND	IO		DFFIO RX 1816a	DIFFOUT 1816a	C25	DGS4TCQ4TCoH4TQKk4T	DGS2TCQ2TCoH2TQKk2T	DO1T	DQ52_8B	DQ52_8B				
BB	VREFB3BND	IO		DFFIO RX 1816b	DIFFOUT 1816b	D24	DGS4TCQ4TCoH4TQKk4T	DGS2TCQ2TCoH2TQKk2T	DO1T	DQ524_8B	DQ524_8B				
BB	VREFB3BND	IO		DFFIO RX 1826	DIFFOUT 1826	F24	DO4T	DO2T	DO2T	DMS_8B	DMS_8B				
BB	VREFB3BND	IO		DFFIO RX 1836	DIFFOUT 1836	E34	DO4T	DO2T	DO2T	DO2_8B_6	DO2_8B_6				
BB	VREFB3BND	IO		DFFIO RX 1836a	DIFFOUT 1836a	D25	DO4T	DO2T	DO2T	DO2_8B_7	DO2_8B_7				
BB	VREFB3BND	IO		DFFIO TX 1846	DIFFOUT 1846	H24	DO4T	DO2T	DO2T	DO2_8B_8	DO2_8B_8				
BB	VREFB3BND	IO		DFFIO RX 1856	DIFFOUT 1856	A25	DO5T	DO2T	DO2T	DQ1_8B_0	DQ1_8B_0				
BB	VREFB3BND	IO		DFFIO RX 1856a	DIFFOUT 1856a	A26	DO5T	DO2T	DO2T	DQ1_8B_1	DQ1_8B_1				
BB	VREFB3BND	IO				M25	DO5T	DO2T	DO2T	DQ1_8B_2	DQ1_8B_2				
BB	VREFB3BND	IO	VREFB3BND			N25									
BB	VREFB3BND	IO		DFFIO RX 1866	DIFFOUT 1866	B26	DO6T	DO2T	DO2T	DQ1_8B_3	DQ1_8B_3				
BB	VREFB3BND	IO		DFFIO RX 1866a	DIFFOUT 1866a	C26	DO6T	DO2T	DO2T	DQ1_8B_4	DQ1_8B_4				
BB	VREFB3BND	IO		DFFIO TX 1876	DIFFOUT 1876	A27	DO7T	DO2T	DO2T	DQ1_8B_5	DQ1_8B_5				
BB	VREFB3BND	IO		DFFIO TX 1877a	DIFFOUT 1877a	A28									
BB	VREFB3BND	IO		DFFIO RX 1889	DIFFOUT 1889	D26	DGS5TCQ5TCoH5TQKk5T	DO2T	DO1T	DQ51_8B	DQ51_8B				
BB	VREFB3BND	IO		DFFIO RX 1889a	DIFFOUT 1889a	E26	DGS5TCQ5TCoH5TQKk5T	DO2T	DO1T	DQ514_8B	DQ514_8B				
BB	VREFB3BND	IO		DFFIO TX 1899	DIFFOUT 1899	K24	DO6T	DO2T	DO2T	DM1_8B	DM1_8B				
BB	VREFB3BND	IO		DFFIO TX 1899a	DIFFOUT 1899a	L24									
BB	VREFB3BND	IO		DFFIO RX 1909	DIFFOUT 1909	F26	DO7T	DO2T	DO2T	DQ1_8B_6	DQ1_8B_6				
BB	VREFB3BND	IO		DFFIO RX 1909a	DIFFOUT 1909a	F25	DO6T	DO2T	DO2T	DQ1_8B_7	DQ1_8B_7				
BB	VREFB3BND	IO		DFFIO TX 1919	DIFFOUT 1919	G26	DO7T	DO2T	DO2T	DQ1_8B_8	DQ1_8B_8				
BB	VREFB3BND	IO				G25									
BA	VREFB3BAND	IO		DFFIO RX 1926	DIFFOUT 1926	B27	DO6T	DO3T	DO3T	CK_8A	CK_8A				
BA	VREFB3BAND	IO		DFFIO TX 1936	DIFFOUT 1936	J26	DO6T	DO3T	DO3T	CK4_8A	CK4_8A				
BA	VREFB3BAND	IO		DFFIO TX 1936a	DIFFOUT 1936a	J25	DO6T	DO3T	DO3T	CKE_8A_0	CKE_8A_0				
BA	VREFB3BAND	IO		DFFIO TX 1939	DIFFOUT 1939	K25				CKE_8A_1	CKE_8A_1				
BA	VREFB3BAND	IO		DFFIO RX 1946	DIFFOUT 1946	B29	DO6T	DO3T	DO3T	A_8A_0	CA_8A_0				
BA	VREFB3BAND	IO		DFFIO RX 1946a	DIFFOUT 1946a	C29	DO6T	DO3T	DO3T	A_8A_1	CA_8A_1				
BA	VREFB3BAND	IO		DFFIO TX 1956	DIFFOUT 1956	A29	DO6T	DO3T	DO3T	A_8A_2	CA_8A_2				
BA	VREFB3BAND	IO		DFFIO TX 1956a	DIFFOUT 1956a	A30				A_8A_3	CA_8A_3				
BA	VREFB3BAND	IO		DFFIO RX 1969	DIFFOUT 1969	A31	DGS6TCQ6TCoH6TQKk6T	DGS3TCQ3TCoH3TQKk3T	DO3T	A_8A_4	CA_8A_4				
BA	VREFB3BAND	IO		DFFIO RX 1969a	DIFFOUT 1969a	B30	DGS6TCQ6TCoH6TQKk6T	DGS3TCQ3TCoH3TQKk3T	DO3T	A_8A_5	CA_8A_5				
BA	VREFB3BAND	IO		DFFIO TX 1979	DIFFOUT 1979	J26	DO6T	DO3T	DO3T	A_8A_6	CA_8A_6				
BA	VREFB3BAND	IO		DFFIO TX 1979a	DIFFOUT 1979a	K26				A_8A_7	CA_8A_7				
BA	VREFB3BAND	IO		DFFIO RX 1986	DIFFOUT 1986	A33	DO6T	DO3T	DO3T	A_8A_8	CA_8A_8				
BA	VREFB3BAND	IO		DFFIO RX 1986a	DIFFOUT 1986a	A32	DO6T	DO3T	DO3T	A_8A_9	CA_8A_9				
BA	VREFB3BAND	IO		DFFIO TX 1996	DIFFOUT 1996	C33	DO6T	DO3T	DO3T	A_8A_10					
BA	VREFB3BAND	IO		DFFIO TX 1996a	DIFFOUT 1996a	B32				A_8A_11					
BA	VREFB3BAND	IO		DFFIO RX 1109p	DIFFOUT 1109p	D27	DO7T	DO3T	DO3T	A_8A_12					
BA	VREFB3BAND	IO		DFFIO RX 1109n	DIFFOUT 1109n	D28	DO7T	DO3T	DO3T	A_8A_13					
BA	VREFB3BAND	IO		DFFIO TX 1109r	DIFFOUT 1109r	L28	DO7T	DO3T	DO3T	A_8A_14					
BA	VREFB3BAND	IO		DFFIO TX 1109t	DIFFOUT 1109t	M26				A_8A_15					
BA	VREFB3BAND	IO		DFFIO RX 1109q	DIFFOUT 1109q	E27	DO7T	DO3T	DO3T	BA_8A_0					
BA	VREFB3BAND	IO		DFFIO RX 1109m	DIFFOUT 1109m	F27	DO7T	DO3T	DO3T	BA_8A_1					
BA	VREFB3BAND	IO		DFFIO TX 1109p	DIFFOUT 1109p	F28	DO7T	DO3T	DO3T	BA_8A_2					
BA	VREFB3BAND	IO		DFFIO TX 1109n	DIFFOUT 1109n	G28				RA54_8A					
BA	VREFB3BAND	IO		DFFIO RX 1104n	DIFFOUT 1104n	C32	DGS7TCQ7TCoH7TQKk7T	DO3T	DO3T	CAS4_8A					
BA	VREFB3BAND	IO		DFFIO RX 1104n	DIFFOUT 1104n	C31	DGS7TCQ7TCoH7TQKk7T	DO3T	DO3T	WE4_8A					
BA	VREFB3BAND	IO		DFFIO TX 1105p	DIFFOUT 1105p	L27	DO7T	DO3T	DO3T	ODT_8A_0	ODT_8A_0				
BA	VREFB3BAND	IO		DFFIO TX 1105n	DIFFOUT 1105n	H28				ODT_8A_1	ODT_8A_1				
BA	VREFB3BAND	IO	CLK23p	DFFIO RX 1106p	DIFFOUT 1106p	D31	DO7T	DO3T	DO3T						
BA	VREFB3BAND	IO	CLK23n	DFFIO RX 1106n	DIFFOUT 1106n	E31	DO7T	DO3T	DO3T						
BA	VREFB3BAND	IO		DFFIO TX 1107p	DIFFOUT 1107p	E30	DO7T	DO3T	DO3T	CS4_8A_0	CS4_8A_0				
BA	VREFB3BAND	IO		DFFIO TX 1107n	DIFFOUT 1107n	F29				CS4_8A_1	CS4_8A_1				
BA	VREFB3BAND	IO	CLK22p	DFFIO RX 1108p	DIFFOUT 1108p	G29									
BA	VREFB3BAND	IO	CLK22n	DFFIO RX 1108n	DIFFOUT 1108n	H28									
BA	VREFB3BAND	IO	VREFB3BAND			N26									
BA	VREFB3BAND	IO	FPLL_TL_CLKOUT2_FPLL_TL_FBn_FPLL_TL_FB1	DFFIO RX 1109p	DIFFOUT 1109p	J29									
BA	VREFB3BAND	IO	FPLL_TL_CLKOUT4_FPLL_TL_FBn	DFFIO RX 1109n	DIFFOUT 1109n	J28									
BA	VREFB3BAND	IO	FPLL_TL_CLKOUT_FPLL_TL_CLKOUTp_FPLL_TL_FB0	DFFIO TX 1109p	DIFFOUT 1109p	K29									
BA	VREFB3BAND	IO	FPLL_TL_CLKOUT1_FPLL_TL_CLKOUTn	DFFIO TX 1110n	DIFFOUT 1110n	L29									
BA	VREFB3BAND	IO	CLK21p	DFFIO RX 1111p	DIFFOUT 1111p	J27									



VREF	PinName/Function (Z1, Z)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1152 (4)	DQS for X809	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DDR3 (9)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
	GND					AB27									
	GND					AB28									
	GND					AB30									
	GND					AB31									
	GND					AB32									
	GND					AC30									
	GND					AC33									
	GND					AC34									
	GND					AD31									
	GND					AD32									
	GND					AE30									
	GND					AE33									
	GND					AE34									
	GND					AF31									
	GND					AF32									
	GND					AG30									
	GND					AG33									
	GND					AG34									
	GND					AH31									
	GND					AH32									
	GND					AJ30									
	GND					AJ33									
	GND					AJ34									
	GND					AK31									
	GND					AK32									
	GND					AL33									
	GND					AL34									
	GND					E34									
	GND					F31									
	GND					F32									
	GND					G30									
	GND					G33									
	GND					G34									
	GND					H31									
	GND					H32									
	GND					J30									
	GND					J33									
	GND					J34									
	GND					K31									
	GND					K32									
	GND					L30									
	GND					L33									
	GND					L34									
	GND					M30									
	GND					M31									
	GND					M32									
	GND					N30									
	GND					N33									
	GND					N34									
	GND					P32									
	GND					P33									
	GND					P34									
	GND					R30									
	GND					R33									
	GND					R34									
	GND					T27									
	GND					T29									
	GND					T31									
	GND					T32									
	GND					U28									
	GND					U33									
	GND					U34									
	GND					V27									
	GND					V31									
	GND					V32									
	GND					W28									
	GND					W30									
	GND					W33									
	GND					W34									
	GND					Y27									
	GND					Y29									
	GND					Y31									
	GND					Y32									
	GND					AA1									
	GND					AA2									
	GND					AB3									
	GND					AB4									
	GND					AC1									
	GND					AC2									
	GND					AD3									
	GND					AD4									
	GND					AE1									
	GND					AE2									
	GND					AE5									
	GND					AF3									
	GND					AF4									
	GND					AG1									
	GND					AG2									
	GND					AG5									
	GND					AH3									
	GND					AH4									
	GND					AJ1									
	GND					AJ2									
	GND					AJ5									
	GND					AK3									
	GND					AK4									
	GND					AL1									
	GND					AL2									
	GND					AL3									
	GND					AN1									
	GND					V3									
	GND					V4									
	GND					V7									
	GND					W11									
	GND					W2									
	GND					W5									
	GND					Y3									
	GND					Y4									
	GND					Y8									
	VCCP					R18									
	VCCP					T21									
	VCCP					V36									
	VCCP					W10									
	VCCP					Y10									
	VCCP					Y12									
	VCCP					Y22									



VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1152 (4)	DQS for X809	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DDR3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
	VCCP					Y24									
	VCCP					Y25									
	VCCA_FPLL					V26									
	VCCA_FPLL					V9									
	VCCA_FPLL					T26									
	VCCPLL_HPS					M9									
	VCCBAT					M27									
	VCC_AUX					AA24									
	VCC_AUX					Y11									
	VCC_AUX					R24									
	VCC_AUX_SHARED					R12									
	VCCD_FPLL					Y26									
	VCCD_FPLL					Y9									
	VCCD_FPLL					P26									
	VCCA_GXBL0					V28									
	VCCA_GXBL0					Y7									
	VCCA_GXBL1					T28									
	VCC_H_GXBL0					V28									
	VCC_H_GXBL0					V8									
	VCC_H_GXBL1					P28									
	VCC_L_GXBL0					V29									
	VCC_L_GXBL0					V30									
	VCC_L_GXBR0					V5									
	VCC_L_GXBR0					Y5									
	VCC_L_GXBL1					P29									
	VCC_L_GXBL1					P30									
	VCCR_GXBL					AA30									
	VCCR_GXBL					AA29									
	VCCR_GXBL					R30									
	VCCR_GXBL					R29									
	VCCR_GXBR					AA5									
	VCCR_GXBR					AA6									
	VCCR_GXBR					AA5									
	VCC_T_GXBL0					T30									
	VCC_T_GXBL0					U29									
	VCC_T_GXBL0					U30									
	VCC_T_GXBR0					W6									
	VCC_T_GXBR0					AA6									
	VCC_T_GXBL1					W29									
	VCC_T_GXBL1					Y30									
	VCC					AA20									
	VCC					T19									
	VCC					T23									
	VCC					T28									
	VCC					V24									
	VCC					U18									
	VCC					U20									
	VCC					U22									
	VCC					U24									
	VCC					V15									
	VCC					V17									
	VCC					V19									
	VCC					V20									
	VCC					V21									
	VCC					V22									
	VCC					V23									
	VCC					W16									
	VCC					W14									
	VCC					W20									
	VCC					W22									
	VCC					W24									
	VCC					Y13									
	VCC					Y14									
	VCC					Y15									
	VCC					Y16									
	VCC					Y17									
	VCC					Y19									
	VCC					V21									
	VCC					V23									
	VCC					W18									
	VCC_HPS					T11									
	VCC_HPS					U10									
	VCC_HPS					U12									
	VCC_HPS					U14									
	VCC_HPS					V11									
	VCC_HPS					V12									
	VCC_HPS					V13									
	VCC_HPS					W12									
	VCCIO0A					AF27									
	VCCIO0A					AF30									
	VCCIO0A					AF30									
	VCCIO0A					AJ28									
	VCCIO0A					AK30									
	VCCIO0A					AK29									
	VCCIO0B					AF25									
	VCCIO0B					AK24									
	VCCIO0B					AK24									
	VCCIO0C					AK21									
	VCCIO0C					AF21									
	VCCIO0C					AJ21									
	VCCIO0C					AK21									
	VCCIO0D					AE18									
	VCCIO0D					AF18									
	VCCIO0B					AL18									
	VCCIO0A					AD5									
	VCCIO0A					AE8									
	VCCIO0A					AF5									
	VCCIO0A					AF6									
	VCCIO0A					AK5									
	VCCIO0B					AD11									
	VCCIO0B					AF10									
	VCCIO0B					AJ10									
	VCCIO0B					AM9									
	VCCIO0C					AE13									
	VCCIO0C					AF12									
	VCCIO0C					AF15									
	VCCIO0D					AJ15									
	VCCIO0D					AM15									
	VCCIO0D					AM17									
	VCCIO0A_HPS					B3									
	VCCIO0A_HPS					C6									
	VCCIO0A_HPS					D3									
	VCCIO0A_HPS					D8									
	VCCIO0A_HPS					E6									
	VCCIO0A_HPS					F3									
	VCCIO0A_HPS					H5									
	VCCIO0A_HPS					H7									
	VCCIO0A_HPS					M9									
	VCCIO0B_HPS					L4									





VREF	PinName/Function (Z1, Z)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1152 (4)	DQS for X809	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DDR3 (9)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
	VCCIO6B_HPS					M1									
	VCCIO6B_HPS					N6									
	VCCIO6B_HPS					P3									
	VCCIO6B_HPS					R6									
	VCCIO6B_HPS					U5									
	VCCIO6B_HPS					V2									
	VCCIO7A_HPS					B9									
	VCCIO7A_HPS					D11									
	VCCIO7A_HPS					E13									
	VCCIO7A_HPS					K11									
	VCCIO7B_HPS					B13									
	VCCIO7B_HPS					L13									
	VCCIO7C_HPS					H15									
	VCCIO7D_HPS					E17									
	VCCIO7D_HPS					H18									
	VCCIO7E_HPS					L18									
	VCCIO8A					C27									
	VCCIO8A					C30									
	VCCIO8A					E29									
	VCCIO8A					E32									
	VCCIO8A					G27									
	VCCIO8A					K27									
	VCCIO8B					B24									
	VCCIO8B					F24									
	VCCIO8B					J24									
	VCCIO8C					B22									
	VCCIO8C					D21									
	VCCIO8C					G21									
	VCCIO8C					L21									
	VCCIO8D					B18									
	VCCIO8D					B20									
	VCCIO8D					H20									
	VCCPD3					AA21									
	VCCPD3					AA23									
	VCCPD3					AB26									
	VCCPD3					AC28									
	VCCPD4					AB8									
	VCCPD4BCD					AA11									
	VCCPD4BCD					AA14									
	VCCPD4BCD					AA15									
	VCCPD4BCD					AB8									
	VCCPD4A6B_HPS					P9									
	VCCPD4A6B_HPS					R9									
	VCCPD4A6B_HPS					U9									
	VCCPD4A6B_HPS					U8									
	VCCPD7A_HPS					R11									
	VCCPD7B_HPS					R13									
	VCCPD7C_HPS					T15									
	VCCPD7D_HPS					R16									
	VCCPD7E_HPS					P17									
	VCCPD8					P23									
	VCCPD8					P25									
	VCCPD8					R20									
	VCCPD8					R22									
	VCCPGM					H13									
	VCCPGM					AC29									
	VCCPBTCLK_HPS					H9									
	VCC_HPS					R10									
	VCC_HPS					R14									
	VCC_HPS					T13									
	VCC_HPS					T9									
VREFB/A7B/C7D/E0_HPS	VREFB/A7B/C7D/E0_HPS					P15									
	GND					A19									
	GND					A22									
	GND					A5									
	GND					AA10									
	GND					AA13									
	GND					AA16									
	GND					AA19									
	GND					AA22									
	GND					AA25									
	GND					AA8									
	GND					AB7									
	GND					AC6									
	GND					AD10									
	GND					AD13									
	GND					AD16									
	GND					AD19									
	GND					AD22									
	GND					AD25									
	GND					AD29									
	GND					AD7									
	GND					AG10									
	GND					AG13									
	GND					AG16									
	GND					AG19									
	GND					AG22									
	GND					AG25									
	GND					AG28									
	GND					AG7									
	GND					AK10									
	GND					AK13									
	GND					AK16									
	GND					AK19									
	GND					AK22									
	GND					AK25									
	GND					AK28									
	GND					AK7									
	GND					AN10									
	GND					AN13									
	GND					AN16									
	GND					AN19									
	GND					AN22									
	GND					AN25									
	GND					AN28									
	GND					AN31									
	GND					AN4									
	GND					AN7									
	GND					B11									
	GND					B16									
	GND					B2									
	GND					B25									
	GND					B28									
	GND					B31									
	GND					B33									
	GND					B4									
	GND					C19									
	GND					C22									
	GND					C6									
	GND					D2									

VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1152 (4)	DQS for X809	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DDR3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
	GND					D30									
	GND					E14									
	GND					E26									
	GND					E38									
	GND					E8									
	GND					F19									
	GND					F22									
	GND					F6									
	GND					G11									
	GND					G2									
	GND					H25									
	GND					H28									
	GND					H8									
	GND					J13									
	GND					J19									
	GND					J29									
	GND					J5									
	GND					K16									
	GND					K2									
	GND					L25									
	GND					L28									
	GND					L4									
	GND					M19									
	GND					M22									
	GND					M5									
	GND					N11									
	GND					N15									
	GND					N2									
	GND					N24									
	GND					P13									
	GND					P18									
	GND					P8									
	GND					V18									
	GND					V14									
	GND					V16									
	GND					V8									
	GND					W11									
	GND					W13									
	GND					W15									
	GND					W17									
	GND					W19									
	GND					W21									
	GND					W23									
	GND					W25									
	GND					W9									
	GND					Y18									
	GND					Y20									
	GND					R17									
	GND					R19									
	GND					R21									
	GND					R23									
	GND					R25									
	GND					R5									
	GND					R9									
	GND					T10									
	GND					T12									
	GND					T14									
	GND					T18									
	GND					T2									
	GND					T20									
	GND					T22									
	GND					T24									
	GND					U11									
	GND					U13									
	GND					U17									
	GND					U19									
	GND					U21									
	GND					U23									
	GND					U25									
	GND					U6									
	GND					U9									
	GND					V19									

Notes:  
 (1) For more information about pin definitions and pin connection guidelines, refer to the [Arria V Device Family Pin Connection Guidelines](#).  
 (2) GND, REFCLK pins is not supported in current Quartus II version, but will be supported in future Quartus II release version.  
 (3) Pins with \* contains similar name with other pins in the same column. For the selection of the HPS pins, refer to the "HPS Pin Mux Select" columns.  
 (4) Pins with \* are the 10 Gbps transceiver channels. For more information about the 10 Gbps transceiver channels clocking recommendation, refer to the [Transceiver Clocking in Arria V Devices](#) chapter.  
 (5) RESET pin is only applicable for DDR3 device.





Bank Number	REF	PinName/Function (2, 3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X8X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DQR3 (9)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
3A	VREFB3AND	I/O			DIFFD_RX_B11n	DIFFOUT_B11n	AW33	DQS2B/QK2B	DO1B		WFE_3A					
3A	VREFB3AND	I/O			DIFFD_RX_B11p	DIFFOUT_B11p	AW32	DQS2B/CQ2B/CQ2B/QK2B	DO1B		CASE_3A					
3A	VREFB3AND	I/O			DIFFD_TX_B12n	DIFFOUT_B12n	AN31				RASF_3A					
3A	VREFB3AND	I/O			DIFFD_TX_B12p	DIFFOUT_B12p	AP31	DO2B	DO1B		BA_3A_2					
3A	VREFB3AND	I/O			DIFFD_RX_B13n	DIFFOUT_B13n	AR31	DO2B	DO1B		BA_3A_1					
3A	VREFB3AND	I/O			DIFFD_RX_B13p	DIFFOUT_B13p	AT31	DO2B	DO1B		BA_3A_0					
3A	VREFB3AND	I/O			DIFFD_TX_B14n	DIFFOUT_B14n	AD29				A_3A_15					
3A	VREFB3AND	I/O			DIFFD_TX_B14p	DIFFOUT_B14p	AE29	DO2B	DO1B		A_3A_14					
3A	VREFB3AND	I/O			DIFFD_RX_B15n	DIFFOUT_B15n	AG30	DO2B	DO1B		A_3A_13					
3A	VREFB3AND	I/O			DIFFD_RX_B15p	DIFFOUT_B15p	AH30	DO2B	DO1B		A_3A_12					
3A	VREFB3AND	I/O			DIFFD_TX_B16n	DIFFOUT_B16n	AU31				A_3A_11					
3A	VREFB3AND	I/O			DIFFD_TX_B16p	DIFFOUT_B16p	AV31	DO3B	DO1B		A_3A_10					
3A	VREFB3AND	I/O			DIFFD_RX_B17n	DIFFOUT_B17n	AW30	DO3B	DO1B		A_3A_9	CA_3A_9				
3A	VREFB3AND	I/O			DIFFD_RX_B17p	DIFFOUT_B17p	AW31	DO3B	DO1B		A_3A_8	CA_3A_8				
3A	VREFB3AND	I/O			DIFFD_TX_B18n	DIFFOUT_B18n	AK30				A_3A_7	CA_3A_7				
3A	VREFB3AND	I/O			DIFFD_TX_B18p	DIFFOUT_B18p	AL30	DO3B	DO1B		A_3A_6	CA_3A_6				
3A	VREFB3AND	I/O			DIFFD_RX_B19n	DIFFOUT_B19n	AR30	DQS2B/CQ2B	DO2B		A_3A_5	CA_3A_5				
3A	VREFB3AND	I/O			DIFFD_RX_B19p	DIFFOUT_B19p	AT30	DQS2B/CQ2B/CQ2B/QK2B	DO2B	DO1B	DO2B	CA_3A_4	CA_3A_4			
3A	VREFB3AND	I/O			DIFFD_TX_B20n	DIFFOUT_B20n	AU30				A_3A_3	CA_3A_3				
3A	VREFB3AND	I/O			DIFFD_TX_B20p	DIFFOUT_B20p	AV30	DO3B	DO1B		A_3A_2	CA_3A_2				
3A	VREFB3AND	I/O			DIFFD_RX_B21n	DIFFOUT_B21n	AT29	DO3B	DO1B		A_3A_1	CA_3A_1				
3A	VREFB3AND	I/O			DIFFD_RX_B21p	DIFFOUT_B21p	AU29	DO3B	DO1B		A_3A_0	CA_3A_0				
3A	VREFB3AND	I/O			DIFFD_TX_B22n	DIFFOUT_B22n	AN29				CKE_3A_1	CKE_3A_1				
3A	VREFB3AND	I/O			DIFFD_TX_B22p	DIFFOUT_B22p	AP30	DO3B	DO1B		CKE_3A_0	CKE_3A_0				
3A	VREFB3AND	I/O			DIFFD_RX_B23n	DIFFOUT_B23n	AN29	DO3B	DO1B		CKE_3A	CKE_3A				
3A	VREFB3AND	I/O			DIFFD_RX_B23p	DIFFOUT_B23p	AP29	DO3B	DO1B		CKE_3A	CKE_3A				
3B	VREFB3ND	I/O			DIFFD_TX_B24n	DIFFOUT_B24n	AB29				RESETB_3A					
3B	VREFB3ND	I/O			DIFFD_TX_B24p	DIFFOUT_B24p	AD29	DO3B	DO1B							
3B	VREFB3ND	I/O			DIFFD_RX_B25n	DIFFOUT_B25n	AC29	DO4B	DO2B	DO2B	DO1_3B_6	DO1_3B_6				
3B	VREFB3ND	I/O			DIFFD_RX_B25p	DIFFOUT_B25p	AF29	DO4B	DO2B	DO2B	DO1_3B_7	DO1_3B_7				
3B	VREFB3ND	I/O			DIFFD_RX_B25p	DIFFOUT_B25p	AG29	DO4B	DO2B	DO2B	DO1_3B_6	DO1_3B_6				
3B	VREFB3ND	I/O			DIFFD_TX_B26n	DIFFOUT_B26n	AK29									
3B	VREFB3ND	I/O			DIFFD_TX_B26p	DIFFOUT_B26p	AL29	DO4B	DO2B	DO2B	DM1_3B	DM1_3B				
3B	VREFB3ND	I/O			DIFFD_RX_B27n	DIFFOUT_B27n	AH28	DQS4B/QK4B	DO2B	DO2B	DQS41_3B	DQS41_3B				
3B	VREFB3ND	I/O			DIFFD_RX_B27p	DIFFOUT_B27p	AJ28	DQS4B/CQ4B/CQ4B/QK4B	DO2B	DO2B	DQS1_3B	DQS1_3B				
3B	VREFB3ND	I/O			DIFFD_TX_B28n	DIFFOUT_B28n	AD28									
3B	VREFB3ND	I/O			DIFFD_TX_B28p	DIFFOUT_B28p	AE28	DO4B	DO2B	DO2B	DO1_3B_5	DO1_3B_5				
3B	VREFB3ND	I/O			DIFFD_RX_B29n	DIFFOUT_B29n	AB27	DO4B	DO2B	DO2B	DO1_3B_4	DO1_3B_4				
3B	VREFB3ND	I/O		VREFB3ND	DIFFD_RX_B29p	DIFFOUT_B29p	AD28	DO4B	DO2B	DO2B	DO1_3B_3	DO1_3B_3				
3B	VREFB3ND	I/O					AL28									
3B	VREFB3ND	I/O					AM28	DO4B	DO2B	DO2B	DO1_3B_2	DO1_3B_2				
3B	VREFB3ND	I/O			DIFFD_RX_B30n	DIFFOUT_B30n	AC27	DO4B	DO2B	DO2B	DO1_3B_1	DO1_3B_1				
3B	VREFB3ND	I/O			DIFFD_RX_B30p	DIFFOUT_B30p	AD27	DO4B	DO2B	DO2B	DO1_3B_0	DO1_3B_0				
3B	VREFB3ND	I/O			DIFFD_TX_B31n	DIFFOUT_B31n	AP28									
3B	VREFB3ND	I/O			DIFFD_TX_B31p	DIFFOUT_B31p	AR28	DO5B	DO2B	DO2B	DO2_3B_8	DO2_3B_8				
3B	VREFB3ND	I/O			DIFFD_RX_B32n	DIFFOUT_B32n	AU28	DO5B	DO2B	DO2B	DO2_3B_7	DO2_3B_7				
3B	VREFB3ND	I/O			DIFFD_RX_B32p	DIFFOUT_B32p	AV28	DO5B	DO2B	DO2B	DO2_3B_6	DO2_3B_6				
3B	VREFB3ND	I/O			DIFFD_TX_B33n	DIFFOUT_B33n	AJ27									
3B	VREFB3ND	I/O			DIFFD_TX_B33p	DIFFOUT_B33p	AK27	DO5B	DO2B	DO2B						
3B	VREFB3ND	I/O			DIFFD_RX_B34n	DIFFOUT_B34n	AW29	DQS4B/QK4B	DO2B	DO2B	DM2_3B	DM2_3B				
3B	VREFB3ND	I/O			DIFFD_RX_B34p	DIFFOUT_B34p	AW28	DQS4B/CQ4B/CQ4B/QK4B	DO2B	DO2B	DQS2_3B	DQS2_3B				
3B	VREFB3ND	I/O			DIFFD_TX_B35n	DIFFOUT_B35n	AP27									
3B	VREFB3ND	I/O			DIFFD_TX_B35p	DIFFOUT_B35p	AR27	DO5B	DO2B	DO2B	DO2_3B_5	DO2_3B_5				
3B	VREFB3ND	I/O			DIFFD_RX_B36n	DIFFOUT_B36n	AT27	DO5B	DO2B	DO2B	DO2_3B_4	DO2_3B_4				
3B	VREFB3ND	I/O			DIFFD_RX_B36p	DIFFOUT_B36p	AU27	DO5B	DO2B	DO2B	DO2_3B_3	DO2_3B_3				
3B	VREFB3ND	I/O			DIFFD_TX_B37n	DIFFOUT_B37n	AM27									
3B	VREFB3ND	I/O			DIFFD_TX_B37p	DIFFOUT_B37p	AN27	DO5B	DO2B	DO2B	DO2_3B_2	DO2_3B_2				
3B	VREFB3ND	I/O			DIFFD_RX_B38n	DIFFOUT_B38n	AV27	DO5B	DO2B	DO2B	DO2_3B_1	DO2_3B_1				
3B	VREFB3ND	I/O			DIFFD_RX_B38p	DIFFOUT_B38p	AW27	DO5B	DO2B	DO2B	DO2_3B_0	DO2_3B_0				
3C	VREFB3CN0	I/O			DIFFD_TX_B39n	DIFFOUT_B39n	AG27									
3C	VREFB3CN0	I/O			DIFFD_TX_B39p	DIFFOUT_B39p	AH27	DO6B	DO3B	DO3B	DO3_3C_8	DO3_3C_8				
3C	VREFB3CN0	I/O			DIFFD_RX_B40n	DIFFOUT_B40n	AB25	DO6B	DO3B	DO3B	DO3_3C_7	DO3_3C_7				
3C	VREFB3CN0	I/O			DIFFD_RX_B40p	DIFFOUT_B40p	AC25	DO6B	DO3B	DO3B	DO3_3C_6	DO3_3C_6				
3C	VREFB3CN0	I/O			DIFFD_TX_B41n	DIFFOUT_B41n	AE27									
3C	VREFB3CN0	I/O			DIFFD_TX_B41p	DIFFOUT_B41p	AF27	DO6B	DO3B	DO3B	DM3_3C	DM3_3C				
3C	VREFB3CN0	I/O			DIFFD_RX_B42n	DIFFOUT_B42n	AE25	DQS4B/QK4B	DO3B	DO3B	DQS41_3C	DQS41_3C				
3C	VREFB3CN0	I/O			DIFFD_RX_B42p	DIFFOUT_B42p	AF25	DQS4B/CQ4B/CQ4B/QK4B	DO3B	DO3B	DQS3_3C	DQS3_3C				
3C	VREFB3CN0	I/O			DIFFD_TX_B43n	DIFFOUT_B43n	AC24									
3C	VREFB3CN0	I/O			DIFFD_TX_B43p	DIFFOUT_B43p	AD25	DO6B	DO3B	DO3B	DO3_3C_5	DO3_3C_5				
3C	VREFB3CN0	I/O			DIFFD_RX_B44n	DIFFOUT_B44n	AG26	DO6B	DO3B	DO3B	DO3_3C_4	DO3_3C_4				
3C	VREFB3CN0	I/O			DIFFD_RX_B44p	DIFFOUT_B44p	AH26	DO6B	DO3B	DO3B	DO3_3C_3	DO3_3C_3				
3C	VREFB3CN0	I/O			DIFFD_TX_B45n	DIFFOUT_B45n	AD26									
3C	VREFB3CN0	I/O			DIFFD_TX_B45p	DIFFOUT_B45p	AE26	DO6B	DO3B	DO3B	DO3_3C_2	DO3_3C_2				
3C	VREFB3CN0	I/O			DIFFD_RX_B46n	DIFFOUT_B46n	AG25	DO6B	DO3B	DO3B	DO3_3C_1	DO3_3C_1				
3C	VREFB3CN0	I/O			DIFFD_RX_B46p	DIFFOUT_B46p	AH25	DO6B	DO3B	DO3B	DO3_3C_0	DO3_3C_0				
3C	VREFB3CN0	I/O			DIFFD_TX_B47n	DIFFOUT_B47n	AN26									
3C	VREFB3CN0	I/O			DIFFD_TX_B47p	DIFFOUT_B47p	AP26	DO7B	DO3B	DO3B	DO4_3C_8	DO4_3C_8				
3C	VREFB3CN0	I/O			DIFFD_RX_B48n	DIFFOUT_B48n	AM25	DO7B	DO3B	DO3B	DO4_3C_7	DO4_3C_7				
3C	VREFB3CN0	I/O			DIFFD_RX_B48p	DIFFOUT_B48p	AN25	DO7B	DO3B	DO3B	DO4_3C_6	DO4_3C_6				
3C	VREFB3CN0	I/O			DIFFD_TX_B49n	DIFFOUT_B49n	AJ25									
3C	VREFB3CN0	I/O			DIFFD_TX_B49p	DIFFOUT_B49p	AK25	DO7B	DO3B	DO3B	DM4_3C	DM4_3C				
3C	VREFB3CN0	I/O			DIFFD_RX_B50n	DIFFOUT_B50n	AT26	DQS7B/QK7B	DO3B	DO3B	DQS41_3C	DQS41_3C				
3C	VREFB3CN0	I/O			DIFFD_RX_B50p	DIFFOUT_B50p	AU26	DQS7B/CQ7B/CQ7B/QK7B	DO3B	DO3B	DQS4_3C	DQS4_3C				
3C	VREFB3CN0	I/O			DIFFD_TX_B51n	DIFFOUT_B51n	AR25									
3C	VREFB3CN0	I/O			DIFFD_TX_B51p	DIFFOUT_B51p	AT25	DO7B	DO3B	DO3B	DO4_3C_5	DO4_3C_5				
3C	VREFB3CN0	I/O			DIFFD_RX_B52n	DIFFOUT_B52n	AW25	DO7B	DO3B	DO3B	DO4_3C_4	DO4_3C_4				
3C	VREFB3CN0	I/O			DIFFD_RX_B52p	DIFFOUT_B52p	AW26	DO7B	DO3B	DO3B	DO4_3C_3	DO4_3C_3				
3C	VREFB3CN0	I/O					AK26									
3C	VREFB3CN0	I/O					AL26	DO7B	DO3B	DO3B	DO4_3C_2	DO4_3C_2				
3C	VREFB3CN0	I/O			DIFFD_RX_B53n	DIFFOUT_B53n	AV25	DO7B	DO3B	DO3B	DO4_3C_1	DO4_3C_1				
3C	VREFB3CN0	I/O			DIFFD_RX_B53p	DIFFOUT_B53p	AV24	DO7B	DO3B	DO3B	DO4_3C_0	DO4_3C_0				
3C	VREFB3CN0	I/O			DIFFD_TX_B54n	DIFFOUT_B54n	AD23									
3C	VREFB3CN0	I/O			DIFFD_TX_B54p	DIFFOUT_B54p	AD24	DO8B	DO4B	DO4B	DO5_3C_8	DO5_3C_8				
3C	VREFB3CN0	I/O			DIFFD_RX_B55n	DIFFOUT_B55n	AT24	DO8B	DO4B	DO4B	DO5_3C_7	DO5_3C_7				
3C	VREFB3CN0	I/O			DIFFD_RX_B55p	DIFFOUT_B55p	AU24	DO8B	DO4B	DO4B	DO5_3C_6	DO5_3C_6				
3C	VREFB3CN0	I/O			DIFFD_TX_B56n	DIFFOUT_B56n	AK24									
3C	VREFB3CN0	I/O			DIFFD_TX_B56p	DIFFOUT_B56p	AL24	DO8B	DO4B	DO4B	DM5_3C	DM5_3C				
3C	VREFB3CN0	I/O			DIFFD_RX_B57n	DIFFOUT_B57n	AE24	DQS8B/QK8B	DO4B	DO4B	DQS41_3C	DQS41_3C				
3C	VREFB3CN0	I/O			DIFFD_RX_B57p	DIFFOUT_B57p	AF24	DQS8B/CQ8B/CQ8B/QK8								



Bank Number	VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X8X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DQS3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
3D	VREFB3D0	ID			DIFFD_RX_B68h	DIFFOUT_B68h	AE22	DQ9B	DQ4B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B69p	DIFFOUT_B69p	AF22	DQ9B	DQ4B	DQ2B						
3D	VREFB3D0	ID			DIFFD_TX_B70h	DIFFOUT_B70h	AG22									
3D	VREFB3D0	ID			DIFFD_TX_B70p	DIFFOUT_B70p	AF22	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B71h	DIFFOUT_B71h	AW19	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B71p	DIFFOUT_B71p	AW20	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_TX_B72h	DIFFOUT_B72h	AK22									
3D	VREFB3D0	ID			DIFFD_TX_B72p	DIFFOUT_B72p	AL22	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B73h	DIFFOUT_B73h	AR21	DQS11B/CQK18B	DQ6B	DQ6B						
3D	VREFB3D0	ID			DIFFD_RX_B73p	DIFFOUT_B73p	AT21	DQS11B/CQ14B/CQ11B/CQ10B	DQ6B	DQ6B						
3D	VREFB3D0	ID			DIFFD_TX_B74h	DIFFOUT_B74h	AG22									
3D	VREFB3D0	ID			DIFFD_TX_B74p	DIFFOUT_B74p	AH22	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B75h	DIFFOUT_B75h	AT20	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID		VREFB3D0	DIFFD_RX_B75p	DIFFOUT_B75p	AU20	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID					AJ21	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B76h	DIFFOUT_B76h	AU19	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B76p	DIFFOUT_B76p	AV19	DQ10B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_TX_B77h	DIFFOUT_B77h	AM21									
3D	VREFB3D0	ID			DIFFD_TX_B77p	DIFFOUT_B77p	AN21	DQ11B	DQ6B	DQ2B						
3D	VREFB3D0	ID		CLK6n	DIFFD_RX_B78h	DIFFOUT_B78h	AE21	DQ11B	DQ6B	DQ2B						
3D	VREFB3D0	ID		CLK6p	DIFFD_RX_B78p	DIFFOUT_B78p	AF21	DQ11B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_TX_B79h	DIFFOUT_B79h	AG21									
3D	VREFB3D0	ID			DIFFD_TX_B79p	DIFFOUT_B79p	AK22	DQ11B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B80h	DIFFOUT_B80h	AG21	DQS11B/CQK11B	DQ6B	DQ6B						
3D	VREFB3D0	ID			DIFFD_RX_B80p	DIFFOUT_B80p	AK21	DQS11B/CQ11B/CQ11B/CQ11B	DQ6B	DQ6B						
3D	VREFB3D0	ID			DIFFD_TX_B81h	DIFFOUT_B81h	AN20									
3D	VREFB3D0	ID			DIFFD_TX_B81p	DIFFOUT_B81p	AP20	DQ11B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B82h	DIFFOUT_B82h	AK21	DQ11B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B82p	DIFFOUT_B82p	AD20	DQ11B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_TX_B83h	DIFFOUT_B83h	AG20									
3D	VREFB3D0	ID			DIFFD_TX_B83p	DIFFOUT_B83p	AH20	DQ11B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B84h	DIFFOUT_B84h	AK20	DQ11B	DQ6B	DQ2B						
3D	VREFB3D0	ID			DIFFD_RX_B84p	DIFFOUT_B84p	AL20	DQ11B	DQ6B	DQ2B						
		VCCO_FPLL					AB20									
		VCOA_FPLL					AB21									
		DNV					AE20									
4D	VREFB4D0	ID			DIFFD_TX_B85h	DIFFOUT_B85h	AV18									
4D	VREFB4D0	ID			DIFFD_TX_B85p	DIFFOUT_B85p	AW18	DQ12B								
4D	VREFB4D0	ID			DIFFD_RX_B86h	DIFFOUT_B86h	AG19	DQ12B								
4D	VREFB4D0	ID			DIFFD_RX_B86p	DIFFOUT_B86p	AH19	DQ12B								
4D	VREFB4D0	ID			DIFFD_TX_B87h	DIFFOUT_B87h	AN19									
4D	VREFB4D0	ID			DIFFD_TX_B87p	DIFFOUT_B87p	AP19	DQ12B								
4D	VREFB4D0	ID			DIFFD_RX_B88h	DIFFOUT_B88h	AK19	DQS12B/CQK12B								
4D	VREFB4D0	ID			DIFFD_RX_B88p	DIFFOUT_B88p	AL19	DQS12B/CQ12B/CQ11B/CQ11B								
4D	VREFB4D0	ID			DIFFD_TX_B89h	DIFFOUT_B89h	AH18									
4D	VREFB4D0	ID			DIFFD_TX_B89p	DIFFOUT_B89p	AJ18	DQ12B								
4D	VREFB4D0	ID			DIFFD_RX_B90h	DIFFOUT_B90h	AU18	DQ12B								
4D	VREFB4D0	ID			DIFFD_RX_B90p	DIFFOUT_B90p	AT19	DQ12B								
4D	VREFB4D0	ID			DIFFD_TX_B91h	DIFFOUT_B91h	AE19									
4D	VREFB4D0	ID			DIFFD_TX_B91p	DIFFOUT_B91p	AF19	DQ12B								
4D	VREFB4D0	ID			DIFFD_RX_B92h	DIFFOUT_B92h	AW17	DQ12B								
4D	VREFB4D0	ID			DIFFD_RX_B92p	DIFFOUT_B92p	AW16	DQ12B								
4D	VREFB4D0	ID			DIFFD_TX_B93h	DIFFOUT_B93h	AK17						CS# 4D_1	CS# 4D_1		
4D	VREFB4D0	ID			DIFFD_TX_B93p	DIFFOUT_B93p	AL17	DQ13B	DQ6B	DQ2B			CS# 4D_0	CS# 4D_0		
4D	VREFB4D0	ID			DIFFD_RX_B94h	DIFFOUT_B94h	AT17	DQ13B								
4D	VREFB4D0	ID			DIFFD_RX_B94p	DIFFOUT_B94p	AU17	DQ13B								
4D	VREFB4D0	ID			DIFFD_TX_B95h	DIFFOUT_B95h	AC18									
4D	VREFB4D0	ID			DIFFD_TX_B95p	DIFFOUT_B95p	AD19	DQ13B	DQ6B	DQ2B			QBT 4D_1	QBT 4D_1		
4D	VREFB4D0	ID			DIFFD_RX_B96h	DIFFOUT_B96h	AK18	DQS11B/CQK13B	DQ6B	DQ6B			QBT 4D_0	QBT 4D_0		
4D	VREFB4D0	ID			DIFFD_RX_B96p	DIFFOUT_B96p	AR18	DQS11B/CQ13B/CQ11B/CQ11B	DQ6B	DQ6B			BA 4D_2	BA 4D_2		
4D	VREFB4D0	ID			DIFFD_TX_B97h	DIFFOUT_B97h	AD17						CAS# 4D	CAS# 4D		
4D	VREFB4D0	ID			DIFFD_TX_B97p	DIFFOUT_B97p	AC18	DQ13B	DQ6B	DQ2B						
4D	VREFB4D0	ID			DIFFD_RX_B98h	DIFFOUT_B98h	AD18	DQ13B	DQ6B	DQ2B			BA 4D_1	BA 4D_1		
4D	VREFB4D0	ID			DIFFD_RX_B98p	DIFFOUT_B98p	AE18	DQ13B	DQ6B	DQ2B			BA 4D_0	BA 4D_0		
4D	VREFB4D0	ID		VREFB4D0			AF18									
4D	VREFB4D0	ID					AG18	DQ13B	DQ6B	DQ2B						
4D	VREFB4D0	ID			DIFFD_RX_B99h	DIFFOUT_B99h	AL18	DQ13B	DQ6B	DQ2B			A 4D_14			
4D	VREFB4D0	ID			DIFFD_RX_B99p	DIFFOUT_B99p	AM18	DQ13B	DQ6B	DQ2B			A 4D_13			
4D	VREFB4D0	ID			DIFFD_TX_B100h	DIFFOUT_B100h	AG17						A 4D_12			
4D	VREFB4D0	ID			DIFFD_TX_B100p	DIFFOUT_B100p	AG17						A 4D_11			
4D	VREFB4D0	ID			DIFFD_TX_B103h	DIFFOUT_B103h	AH17	DQ14B	DQ6B	DQ2B			A 4D_10			
4D	VREFB4D0	ID			DIFFD_RX_B101h	DIFFOUT_B101h	AN17	DQ14B	DQ6B	DQ2B			CA 4D_9			
4D	VREFB4D0	ID			DIFFD_RX_B101p	DIFFOUT_B101p	AP17	DQ14B	DQ6B	DQ2B			CA 4D_8			
4D	VREFB4D0	ID			DIFFD_TX_B102h	DIFFOUT_B102h	AR16						A 4D_7	CA 4D_7		
4D	VREFB4D0	ID			DIFFD_TX_B102p	DIFFOUT_B102p	AT16	DQ14B	DQ6B	DQ2B			A 4D_6	CA 4D_6		
4D	VREFB4D0	ID			DIFFD_RX_B103h	DIFFOUT_B103h	AH16	DQS14B/CQK14B	DQ6B	DQ6B			CA 4D_5	CA 4D_5		
4D	VREFB4D0	ID			DIFFD_RX_B103p	DIFFOUT_B103p	AV16	DQS14B/CQ14B/CQ11B/CQ11B	DQ6B	DQ6B			A 4D_4	CA 4D_4		
4D	VREFB4D0	ID			DIFFD_TX_B104h	DIFFOUT_B104h	AJ16						A 4D_3	CA 4D_3		
4D	VREFB4D0	ID			DIFFD_TX_B104p	DIFFOUT_B104p	AK16	DQ14B	DQ6B	DQ2B			A 4D_2	CA 4D_2		
4D	VREFB4D0	ID			DIFFD_RX_B105h	DIFFOUT_B105h	AN16	DQ14B	DQ6B	DQ2B			A 4D_1	CA 4D_1		
4D	VREFB4D0	ID			DIFFD_RX_B105p	DIFFOUT_B105p	AP16	DQ14B	DQ6B	DQ2B			A 4D_0	CA 4D_0		
4D	VREFB4D0	ID			DIFFD_TX_B106h	DIFFOUT_B106h	AL16						CKE 4D_1	CKE 4D_1		
4D	VREFB4D0	ID			DIFFD_TX_B106p	DIFFOUT_B106p	AM16	DQ14B	DQ6B	DQ2B			CKE 4D_0	CKE 4D_0		
4D	VREFB4D0	ID			DIFFD_RX_B107h	DIFFOUT_B107h	AE17	DQ14B	DQ6B	DQ2B			CK# 4D	CK# 4D		
4D	VREFB4D0	ID			DIFFD_RX_B107p	DIFFOUT_B107p	AF16	DQ14B	DQ6B	DQ2B			CK# 4D	CK# 4D		
4C	VREFB4C0	ID			DIFFD_TX_B108h	DIFFOUT_B108h	AN15						RESET# 4D			
4C	VREFB4C0	ID			DIFFD_TX_B108p	DIFFOUT_B108p	AP15	DQ15B	DQ7B	DQ3B			DQ1 4C_8	DQ1 4C_8		
4C	VREFB4C0	ID			DIFFD_RX_B109h	DIFFOUT_B109h	AW14	DQ15B	DQ7B	DQ3B			DQ1 4C_7	DQ1 4C_7		
4C	VREFB4C0	ID			DIFFD_RX_B109p	DIFFOUT_B109p	AW15	DQ15B	DQ7B	DQ3B			DQ1 4C_6	DQ1 4C_6		
4C	VREFB4C0	ID			DIFFD_TX_B110h	DIFFOUT_B110h	AC16									
4C	VREFB4C0	ID			DIFFD_TX_B110p	DIFFOUT_B110p	AD16	DQ15B	DQ7B	DQ3B			DM1 4C	DM1 4C		
4C	VREFB4C0	ID			DIFFD_RX_B111h	DIFFOUT_B111h	AG16	DQS15B/CQK15B	DQ7B	DQ3B			DQS#1 4C	DQS#1 4C		
4C	VREFB4C0	ID			DIFFD_RX_B111p	DIFFOUT_B111p	AH16	DQS15B/CQ15B/CQ11B/CQ11B	DQ7B	DQ3B			DQS#1 4C	DQS#1 4C		
4C	VREFB4C0	ID			DIFFD_TX_B112h	DIFFOUT_B112h	AK16									
4C	VREFB4C0	ID			DIFFD_TX_B112p	DIFFOUT_B112p	AL15	DQ15B	DQ7B	DQ3B			DQ1 4C_5	DQ1 4C_5		
4C	VREFB4C0	ID			DIFFD_RX_B113h	DIFFOUT_B113h	AV13	DQ15B	DQ7B	DQ3B			DQ1 4C_4	DQ1 4C_4		
4C	VREFB4C0	ID		VREFB4C0	DIFFD_RX_B113p	DIFFOUT_B113p	AW13	DQ15B	DQ7B	DQ3B			DQ1 4C_3	DQ1 4C_3		
4C	VREFB4C0	ID					AG15									
4C	VREFB4C0	ID					AH15	DQ15B	DQ7B	DQ3B			DQ1 4C_2	DQ1 4C_2		
4C	VREFB4C0	ID			DIFFD_RX_B114h	DIFFOUT_B114h	AT15	DQ15B	DQ7B	DQ3B			DQ1 4C_1	DQ1 4C_1		
4C	VREFB4C0	ID			DIFFD_RX_B114p	DIFFOUT_B114p	AU15	DQ15B	DQ7B	DQ3B			DQ1 4C_0	DQ1 4C_0		
4C	VREFB4C0	ID			DIFFD_TX_B115h	DIFFOUT_B115h	AC15									
4C	VREFB4C0	ID			DIFFD_TX_B115p	DIFFOUT_B115p	AD14	DQ16B	DQ7B	DQ3B			DQ2 4C_8	DQ2 4C_8		
4C	VREFB4C0	ID			DIFFD_RX_B116h	DIFFOUT										



Bank Number	VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X0X0	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DQS0/9	HMC pin assignment for LPDQS2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
4B	VREFB4N0	IO			DIFF0_RX_B124a	DIFFOUT_B124a	AE13	DQ17B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_TX_B125a	DIFFOUT_B125a	AT12									
4B	VREFB4N0	IO			DIFF0_TX_B125b	DIFFOUT_B125b	AU2	DQ17B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B126a	DIFFOUT_B126a	AV12	DQS17B/QK17B	DQ8B	DQ3B	DQS3_4B	DMS_4B	DQS3_4B	DMS_4B		
4B	VREFB4N0	IO			DIFF0_RX_B126b	DIFFOUT_B126b	AW12	DQS17B/QK17B/CQ17B/QK17B	DQ8B	DQ3B	DQS3_4B	DMS_4B	DQS3_4B	DMS_4B		
4B	VREFB4N0	IO			DIFF0_TX_B127a	DIFFOUT_B127a	AL13									
4B	VREFB4N0	IO			DIFF0_TX_B127b	DIFFOUT_B127b	AM13	DQ17B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B128a	DIFFOUT_B128a	AW10	DQ17B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B128b	DIFFOUT_B128b	AW11	DQ17B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_TX_B129a	DIFFOUT_B129a	AN12									
4B	VREFB4N0	IO			DIFF0_TX_B129b	DIFFOUT_B129b	AP12	DQ17B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B130a	DIFFOUT_B130a	AH13	DQ17B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B130b	DIFFOUT_B130b	AJ13	DQ17B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_TX_B131a	DIFFOUT_B131a	AH12									
4B	VREFB4N0	IO			DIFF0_TX_B131b	DIFFOUT_B131b	AJ12	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B132a	DIFFOUT_B132a	AF13	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B132b	DIFFOUT_B132b	AG13	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_TX_B133a	DIFFOUT_B133a	AJ10									
4B	VREFB4N0	IO			DIFF0_TX_B133b	DIFFOUT_B133b	AV10	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B134a	DIFFOUT_B134a	AT11	DQS18B/QK18B	DQ8B	DQ3B	DQS4_4B	DMS_4B	DQS4_4B	DMS_4B		
4B	VREFB4N0	IO			DIFF0_RX_B134b	DIFFOUT_B134b	AJ11	DQS18B/CQ18B/CQ18B/QK18B	DQ8B	DQ3B	DQS4_4B	DMS_4B	DQS4_4B	DMS_4B		
4B	VREFB4N0	IO			DIFF0_TX_B135a	DIFFOUT_B135a	AK12									
4B	VREFB4N0	IO			DIFF0_TX_B135b	DIFFOUT_B135b	AL12	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B136a	DIFFOUT_B136a	AC13	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO			DIFF0_RX_B136b	DIFFOUT_B136b	AD13	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO	VREFB4N0				AN11									
4B	VREFB4N0	IO					AP11	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AV9	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AW9	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AC12									
4B	VREFB4N0	IO					AD11	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AF12	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AG12	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AT9									
4B	VREFB4N0	IO					AU9	DQ18B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AG11	DQS19B/QK19B	DQ8B	DQ3B	DMS_4B	DMS_4B	DQS4_4B	DMS_4B		
4B	VREFB4N0	IO					AH11	DQS19B/CQ19B/CQ19B/QK19B	DQ8B	DQ3B	DMS_4B	DMS_4B	DQS4_4B	DMS_4B		
4B	VREFB4N0	IO					AE12									
4B	VREFB4N0	IO					AE12	DQ19B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AP10	DQ19B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AK10	DQ19B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AK11									
4B	VREFB4N0	IO					AL11	DQ19B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AL10	DQ19B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AM10	DQ19B	DQ8B	DQ3B						
4B	VREFB4N0	IO					AL9									
4A	VREFB4N0	IO					AL9									
4A	VREFB4N0	IO					AM9	DQ20B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AW7	DQ20B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AW8	DQ20B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AV7									
4A	VREFB4N0	IO					AV6	DQ20B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AW6	DQS20B/QK20B	DQ8B	DQ3B	DMS_4B	DMS_4B	DQS4_4B	DMS_4B		
4A	VREFB4N0	IO					AW5	DQS20B/CQ20B/CQ20B/QK20B	DQ8B	DQ3B	DMS_4B	DMS_4B	DQS4_4B	DMS_4B		
4A	VREFB4N0	IO					AK9									
4A	VREFB4N0	IO					AK10	DQ20B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AJ7	DQ20B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AU6	DQ20B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AN9									
4A	VREFB4N0	IO					AP9	DQ20B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AT8									
4A	VREFB4N0	IO					AR9	DQ20B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AH10									
4A	VREFB4N0	IO					AJ10	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AF10	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AE11	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AK9									
4A	VREFB4N0	IO					AL6	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AH6	DQS21B/QK21B	DQ10B	DQ4B	DMS_4B	DMS_4B	DQS4_4B	DMS_4B		
4A	VREFB4N0	IO					AJ6	DQS21B/CQ21B/CQ21B/QK21B	DQ10B	DQ4B	DMS_4B	DMS_4B	DQS4_4B	DMS_4B		
4A	VREFB4N0	IO					AH9									
4A	VREFB4N0	IO					AJ9	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AN6	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AN6	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AH7									
4A	VREFB4N0	IO	VREFB4N0				AH6	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AJ7	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AJ7	DQ21B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AK7									
4A	VREFB4N0	IO					AK7	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AL7	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AM7	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AN6	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AP6	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AT6									
4A	VREFB4N0	IO					AU6	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AR7	DQS22B/QK22B	DQ10B	DQ4B	DMS_4B	DMS_4B	DQS4_4B	DMS_4B		
4A	VREFB4N0	IO					AT7	DQS22B/CQ22B/CQ22B/QK22B	DQ10B	DQ4B	DMS_4B	DMS_4B	DQS4_4B	DMS_4B		
4A	VREFB4N0	IO					AK8									
4A	VREFB4N0	IO					AL8	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AL8	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AW4	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AN7									
4A	VREFB4N0	IO					AP7	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AP6	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AR6	DQ22B	DQ8B	DQ3B						
4A	VREFB4N0	IO					AW3									
4A	VREFB4N0	IO					AV3									
4A	VREFB4N0	IO					AW3									
4A	VREFB4N0	IO					AF4									
4A	VREFB4N0	IO					AJ2									
4A	VREFB4N0	IO					AJ1									
4A	VREFB4N0	IO					AT4									
4A	VREFB4N0	IO					AR2									
4A	VREFB4N0	IO					AP3									
4A	VREFB4N0	IO					AP4									
4A	VREFB4N0	IO					AN1									
4A	VREFB4N0	IO					AM3									
4A	VREFB4N0	IO					AM4									
4A	VREFB4N0	IO					AL2*									
4A	VREFB4N0	IO					AL1*									
4A	VREFB4N0	IO					AK4*									
4A	VREFB4N0	IO					AJ2									
4A	VREFB4N0	IO					AJ1									
4A	VREFB4N0	IO					AH3									
4A	VREFB4N0	IO					AH4									
4A	VREFB4N0	IO					AG2*									
4A	VREFB4N0	IO					AG1*									



Bank Number	VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X0/X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DDR3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
GXB_R0		GXB_TX_R5p					AF3*									
GXB_R0		GXB_TX_R5n					AF4*									
GXB_R0		REFCLK1R9p					AD8									
GXB_R0		REFCLK1R9n					AD8									
GXB_R1		REFCLK2R9p					AB9									
GXB_R1		REFCLK2R9n					AB8									
GXB_R1		GXB_RX_R6p;GXB_REFCLK_R6p					AE2*									
GXB_R1		GXB_RX_R6n;GXB_REFCLK_R6n					AE1*									
GXB_R1		GXB_TX_R6p					AD3*									
GXB_R1		GXB_TX_R6n					AD2*									
GXB_R1		GXB_RX_R7n;GXB_REFCLK_R7n					AC2									
GXB_R1		GXB_RX_R7p;GXB_REFCLK_R7p					AC1									
GXB_R1		GXB_TX_R7p					AB3									
GXB_R1		GXB_TX_R7n					AB4									
GXB_R1		GXB_RX_R8n;GXB_REFCLK_R8n					AA2*									
GXB_R1		GXB_RX_R8p;GXB_REFCLK_R8p					AA1*									
GXB_R1		GXB_TX_R8p					V3*									
GXB_R1		GXB_TX_R8n					V4*									
GXB_R1		GXB_RX_R9n;GXB_REFCLK_R9n					W2*									
GXB_R1		GXB_RX_R9p;GXB_REFCLK_R9p					W1*									
GXB_R1		GXB_TX_R9p					V3*									
GXB_R1		GXB_TX_R9n					V4*									
GXB_R1		GXB_RX_R10n;GXB_REFCLK_R10n					U2									
GXB_R1		GXB_RX_R10p;GXB_REFCLK_R10p					U1									
GXB_R1		GXB_TX_R10p					T3									
GXB_R1		GXB_TX_R10n					T4									
GXB_R1		GXB_RX_R11n;GXB_REFCLK_R11n					R2*									
GXB_R1		GXB_RX_R11p;GXB_REFCLK_R11p					R1*									
GXB_R1		GXB_TX_R11p					P3*									
GXB_R1		GXB_TX_R11n					P4*									
GXB_R1		REFCLK1R9p					V9									
GXB_R1		REFCLK1R9n					V8									
GB	VREFBAND_HPS	HPS_DDR					T7					HPS_DM_4	HPS_DM_4			
GB	VREFBAND_HPS	HPS_DDR					R6					HPS_DQ_39	HPS_DQ_39			
GB	VREFBAND_HPS	HPS_DDR					M1					HPS_DQ_37	HPS_DQ_37			
GB	VREFBAND_HPS	HPS_DDR					N1					HPS_DQ_38	HPS_DQ_38			
GB	VREFBAND_HPS	HPS_DDR					M2					HPS_DQ_36	HPS_DQ_36			
GB	VREFBAND_HPS	HPS_DDR					L1					HPS_DQS_4	HPS_DQS_4			
GB	VREFBAND_HPS	HPS_GPI13					K1									
GB	VREFBAND_HPS	HPS_DDR					H1					HPS_DQS_4	HPS_DQS_4			
GB	VREFBAND_HPS	HPS_DDR					L4					HPS_DQ_35	HPS_DQ_35			
GB	VREFBAND_HPS	HPS_DDR					F1					HPS_DQ_33	HPS_DQ_33			
GB	VREFBAND_HPS	HPS_DDR					P6					HPS_DQ_34	HPS_DQ_34			
GB	VREFBAND_HPS	HPS_DDR					G1					HPS_DQ_32	HPS_DQ_32			
GB	VREFBAND_HPS	HPS_GPI12					R7									
GB	VREFBAND_HPS	HPS_GPI11					J2									
GB	VREFBAND_HPS	HPS_DDR					D1					HPS_DM_3	HPS_DM_3			
GB	VREFBAND_HPS	HPS_GPI10					K2									
GB	VREFBAND_HPS	HPS_DDR					E1					HPS_DQ_31	HPS_DQ_31			
GB	VREFBAND_HPS	HPS_DDR					F2					HPS_DQ_29	HPS_DQ_29			
GB	VREFBAND_HPS	HPS_DDR					M3					HPS_DQ_30	HPS_DQ_30			
GB	VREFBAND_HPS	HPS_DDR					G2					HPS_DQ_28	HPS_DQ_28			
GB	VREFBAND_HPS	VREFBAND_HPS					M4									
GB	VREFBAND_HPS	HPS_DDR					C2					HPS_DQS_3	HPS_DQS_3			
GB	VREFBAND_HPS	HPS_GPI9					B1									
GB	VREFBAND_HPS	HPS_DDR					D2					HPS_DQS_3	HPS_DQS_3			
GB	VREFBAND_HPS	HPS_DDR					C1					HPS_DQ_27	HPS_DQ_27			
GB	VREFBAND_HPS	HPS_DDR					A3					HPS_DQ_25	HPS_DQ_25			
GB	VREFBAND_HPS	HPS_DDR					P7					HPS_DQ_26	HPS_DQ_26			
GB	VREFBAND_HPS	HPS_DDR					A2					HPS_DQ_24	HPS_DQ_24			
GB	VREFBAND_HPS	HPS_GPI8					N6									
GB	VREFBAND_HPS	HPS_GPI7					K3									
GB	VREFBAND_HPS	HPS_DDR					D3					HPS_DM_2	HPS_DM_2			
GB	VREFBAND_HPS	HPS_GPI6					K4									
GB	VREFBAND_HPS	HPS_DDR					C3					HPS_DQ_23	HPS_DQ_23			
GB	VREFBAND_HPS	HPS_DDR					J4					HPS_DQ_21	HPS_DQ_21			
GB	VREFBAND_HPS	HPS_DDR					M5					HPS_DQ_22	HPS_DQ_22			
GB	VREFBAND_HPS	HPS_DDR					L5					HPS_DQ_20	HPS_DQ_20			
GB	VREFBAND_HPS	HPS_DDR					L4									
GB	VREFBAND_HPS	HPS_DDR					E3					HPS_DQS_2	HPS_DQS_2			
GB	VREFBAND_HPS	HPS_DDR					H4					HPS_RESETn	HPS_RESETn			
GB	VREFBAND_HPS	HPS_DDR					H4					HPS_DQS_2	HPS_DQS_2			
GB	VREFBAND_HPS	HPS_DDR					F5					HPS_DQ_19	HPS_DQ_19			
GB	VREFBAND_HPS	HPS_DDR					K5					HPS_DQ_17	HPS_DQ_17			
GB	VREFBAND_HPS	HPS_DDR					N7					HPS_DQ_18	HPS_DQ_18			
GB	VREFBAND_HPS	HPS_DDR					J6					HPS_DQ_16	HPS_DQ_16			
GB	VREFBAND_HPS	HPS_GPI4					M6									
GA	VREFBAND_HPS	HPS_GPI3					C4									
GA	VREFBAND_HPS	HPS_DDR					E4					HPS_DM_1	HPS_DM_1			
GA	VREFBAND_HPS	HPS_GPI2					B4									
GA	VREFBAND_HPS	HPS_DDR					F4					HPS_DQ_15	HPS_DQ_15			
GA	VREFBAND_HPS	HPS_DDR					A5					HPS_DQ_13	HPS_DQ_13			
GA	VREFBAND_HPS	HPS_DDR					R9					HPS_DQ_14	HPS_DQ_14			
GA	VREFBAND_HPS	HPS_DDR					A6					HPS_DQ_12	HPS_DQ_12			
GA	VREFBAND_HPS	HPS_DDR					R8					HPS_CKE_0	HPS_CKE_0			
GA	VREFBAND_HPS	HPS_DDR					D5					HPS_DQS_1	HPS_DQS_1			
GA	VREFBAND_HPS	HPS_DDR					F5					HPS_CKE_1	HPS_CKE_1			
GA	VREFBAND_HPS	HPS_DDR					E6					HPS_DQS_1	HPS_DQS_1			
GA	VREFBAND_HPS	HPS_DDR					G5					HPS_DQ_11	HPS_DQ_11			
GA	VREFBAND_HPS	HPS_DDR					G6					HPS_DQ_9	HPS_DQ_9			
GA	VREFBAND_HPS	HPS_DDR					N8					HPS_DQ_10	HPS_DQ_10			
GA	VREFBAND_HPS	HPS_DDR					H8					HPS_DQ_8	HPS_DQ_8			
GA	VREFBAND_HPS	HPS_GPI1					M7									
GA	VREFBAND_HPS	HPS_GPI0					B6									
GA	VREFBAND_HPS	HPS_DDR					C6					HPS_DM_0	HPS_DM_0			
GA	VREFBAND_HPS	HPS_DDR					D6					HPS_DQ_7	HPS_DQ_7			
GA	VREFBAND_HPS	HPS_DDR					A7					HPS_DQ_6	HPS_DQ_6			
GA	VREFBAND_HPS	HPS_DDR					L6					HPS_DQ_6	HPS_DQ_6			
GA	VREFBAND_HPS	HPS_DDR					A6					HPS_DQ_4	HPS_DQ_4			
GA	VREFBAND_HPS	HPS_DDR					K9					HPS_ODT_1	HPS_ODT_1			
GA	VREFBAND_HPS	HPS_DDR					F7					HPS_DQS_0	HPS_DQS_0			
GA	VREFBAND_HPS	HPS_DDR					H7					HPS_ODT_0	HPS_ODT_0			
GA	VREFBAND_HPS	HPS_DDR					E7					HPS_DQS_0	HPS_DQS_0			
GA	VREFBAND_HPS	HPS_DDR					G7					HPS_DQ_3	HPS_DQ_3			
GA	VREFBAND_HPS	HPS_DDR					C7					HPS_DQ_1	HPS_DQ_1			
GA	VREFBAND_HPS	HPS_DDR					R10					HPS_DQ_2	HPS_DQ_2			
GA	VREFBAND_HPS	HPS_DDR					D7					HPS_DQ_0	HPS_DQ_0			
GA	VREFBAND_HPS	VREFBAND_HPS					P10									
GA	VREFBAND_HPS	HPS_DDR					N9					HPS_A_0	HPS_CA_0			
GA	VREFBAND_HPS	HPS_DDR					M9					HPS_A_1	HPS_CA_1			
GA	VREFBAND_HPS	HPS_DDR					A8					HPS_A_4	HPS_CA_4			
GA	VREFBAND_HPS	HPS_DDR					N10					HPS_A_2	HPS_CA_2			
GA	VREFBAND_HPS	HPS_DDR					B7					HPS_A_5	HPS_CA_5			
GA	VREFBAND_HPS	HPS_DDR					M10					HPS_A_3	HPS_CA_3			
GA	VREFBAND_HPS	HPS_DDR					A11					HPS_CK	HPS_CK			
GA	VREFBAND_HPS	HPS_DDR					B9					HPS_A_6	HPS_CA_6			
GA	VREFBAND_HPS	HPS_DDR					B10					HPS_CK	HPS_CK			
GA	VREFBAND_HPS	HPS_DDR					A9					HPS_A_7	HPS_CA_7			
GA	VREFBAND_HPS	HPS_DDR					C9					HPS_BA_1	HPS_CA_7			
GA	VREFBAND_HPS	HPS_DDR					L7					HPS_BA_0	HPS_CA_7			



Pin Information for the Arria® V 5ASTFD3 Device  
Version 1.3  
Note (1)

Bank Number	VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X0/X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DB08 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
GA	VREFB6A0	HPS_DDR					D8				HPS BA_2					
GA	VREFB6A0	HPS_DDR					D9				HPS_GAS#					
GA	VREFB6A0	HPS_DDR					D6				HPS_A_8			HPS_CA_8		
GA	VREFB6A0	HPS_DDR					K7				HPS_A_10					
GA	VREFB6A0	HPS_DDR					C10				HPS_A_9			HPS_CA_9		
GA	VREFB6A0	HPS_DDR					J7				HPS_A_11					
GA	VREFB6A0	HPS_DDR					H9				HPS_CS#_0					
GA	VREFB6A0	HPS_DDR					F9				HPS_A_12					
GA	VREFB6A0	HPS_DDR					J9				HPS_CS#_1			HPS_CS#_1		
GA	VREFB6A0	HPS_DDR					E9				HPS_A_13					
GA	VREFB6A0	HPS_DDR					D11				HPS_A_14					
GA	VREFB6A0	HPS_DDR					J8				HPS_WT#					
GA	VREFB6A0	HPS_DDR					D10				HPS_A_15					
GA	VREFB6A0	HPS_R2D_0					K9									
		GND1					B12									
		GND					C11									
		GND					A12									
JA		HPS_HRST					R11									
JA		HPS_HPOR					K10									
JA		HPS_TD0					T11									
		VICRSTCLK_HPS					J10									
JA		HPS_TCK					F10									
JA		HPS_TCK					G10									
JA		HPS_HRST					F11									
JA		HPS_TD1					H10									
JA		GND					M11									
JA		HPS_PORSEL					C12									
JA		HPS_CLK1					N11									
JA		HPS_CLK2					D12									
JA	VREFB7A78	TRACE_CLK					J11				TRACE_CLK					HPS_GPD08
JA	VREFB7A78	TRACE_D0					K12				TRACE_D0	SPSD0_CLK	UART0_RX			HPS_GPD09
JA	VREFB7A78	TRACE_D1					K11				TRACE_D1	SPSD0_MOSI	UART0_TX			HPS_GPD09
JA	VREFB7A78	TRACE_D2					J12				TRACE_D2	SPSD0_MISO	D01_SDA			HPS_GPD01
JA	VREFB7A78	TRACE_D3					J12				TRACE_D3	D01_SCL				HPS_GPD02
JA	VREFB7A78	TRACE_D4					E12				TRACE_D4	SPS1_CLK				HPS_GPD03
JA	VREFB7A78	TRACE_D5					G11				TRACE_D5	SPS1_MOSI				HPS_GPD04
JA	VREFB7A78	TRACE_D6					F12				TRACE_D6	SPS1_SSD				HPS_GPD05
JA	VREFB7A78	TRACE_D7					A13				TRACE_D7	SPS1_MISO	R00_SCL			HPS_GPD06
JA	VREFB7A78	SPM0_CLK					P12				SPM0_CLK	D01_SDA	UART0_CTS			HPS_GPD07
JA	VREFB7A78	SPM0_MOSI					A14				SPM0_MOSI	D01_SCL	UART0_RTS			HPS_GPD08
JA	VREFB7A78	SPM0_MISO					N12				SPM0_MISO		UART1_CTS			HPS_GPD09
JA	VREFB7A78	SPM0_SSD/BOOTSEL0					B15				SPM0_SSD	SPM0_RTS				HPS_GPD09
JA	VREFB7A78	UART0_RX					B15				UART0_RX	SPM0_SSD				HPS_GPD01
JA	VREFB7A78	UART0_TX					A15				UART0_TX	SPM1_SS1				HPS_GPD02
JA	VREFB7A78	D00_SDA					C13				D00_SDA	UART1_RX	SPM1_CLK			HPS_GPD03
JA	VREFB7A78	D00_SCL					L13				D00_SCL	UART1_TX	SPM1_MOSI			HPS_GPD04
JA	VREFB7A78	UART0_RX*					M12				UART0_RX	SPM1_MISO				HPS_GPD05
JA	VREFB7A78	UART0_TX*					M13				UART0_TX	SPM1_SS0				HPS_GPD06
JA	VREFB7A78	SPS1_CLK					L12				SPS1_CLK	SPM1_CLK				HPS_GPD07
JA	VREFB7A78	SPS1_MOSI					F13				SPS1_MOSI	SPM1_MOSI				HPS_GPD08
JA	VREFB7A78	SPS1_MISO					F13				SPS1_MISO	SPM1_MISO				HPS_GPD09
JA	VREFB7A78	SPS1_SSD					D13				SPS1_SSD	SPM1_SS0				HPS_GPD10
JA	VREFB7A78	UART1_RX					G10				UART1_RX	SPM1_SS1				HPS_GPD02
JA	VREFB7A78	UART1_TX					N13				UART1_TX	SPM0_CLK				HPS_GPD03
JA	VREFB7A78	D01_SDA					R13				D01_SDA	SPM0_MOSI				HPS_GPD04
JA	VREFB7A78	D01_SCL					M14				D01_SCL	SPM0_MISO				HPS_GPD05
JA	VREFB7A78	SPM0_SSD					P13				SPM0_SSD					HPS_GPD06
JA	VREFB7A78	SPS1_CLK					C14				SPS1_CLK	SPM0_SS1				HPS_GPD07
JA	VREFB7A78	SPS1_MOSI					D14				SPS1_MOSI					HPS_GPD08
JA	VREFB7A78	SPS1_MISO					J13				SPS1_MISO					HPS_GPD09
JA	VREFB7A78	SPS1_SSD					A15				SPS1_SSD					HPS_GPD10
JB	VREFB7A78	NAND_ALE					P15				NAND_ALE	RGMIH_TX_CLK	QSPI_SS3			HPS_GPD14
JB	VREFB7A78	NAND_CE					P16				NAND_CE	RGMIH_TXD0	USB1_D0			HPS_GPD15
JB	VREFB7A78	NAND_CLE					A17				NAND_CLE	RGMIH_TXD1	USB1_D1			HPS_GPD16
JB	VREFB7A78	NAND_RE					C16				NAND_RE	RGMIH_TXD2	USB1_D2			HPS_GPD17
JB	VREFB7A78	NAND_RB					C16				NAND_RB	RGMIH_TXD3	USB1_D3			HPS_GPD18
JB	VREFB7A78	NAND_D00					S14				NAND_D00	RGMIH_RXD0				HPS_GPD19
JB	VREFB7A78	NAND_D01					B17				NAND_D01	RGMIH_MDO	D03_SDA			HPS_GPD20
JB	VREFB7A78	NAND_D02					H14				NAND_D02	RGMIH_MDC	D03_SCL			HPS_GPD21
JB	VREFB7A78	NAND_D03					L15				NAND_D03	RGMIH_RX_CTL	USB1_D4			HPS_GPD22
JB	VREFB7A78	NAND_D04					P14				NAND_D04	RGMIH_TX_CTL	USB1_D5			HPS_GPD23
JB	VREFB7A78	NAND_D05					K15				NAND_D05	RGMIH_RX_CLK	USB1_D6			HPS_GPD24
JB	VREFB7A78	NAND_D06					R14				NAND_D06	RGMIH_RXD1	USB1_D7			HPS_GPD25
JB	VREFB7A78	NAND_D07					K14				NAND_D07	RGMIH_RXD2				HPS_GPD26
JB	VREFB7A78	NAND_WP					C15				NAND_WP	RGMIH_RXD3	QSPI_SS2			HPS_GPD27
JB	VREFB7A78	NAND_WE/BOOTSEL2					L14				NAND_WE	QSPI_SS1				HPS_GPD28
JB	VREFB7A78	QSPI_I00					D15				QSPI_I00	USB1_CLK				HPS_GPD29
JB	VREFB7A78	QSPI_I01					S15				QSPI_I01	USB1_STP				HPS_GPD30
JB	VREFB7A78	QSPI_I02					M15				QSPI_I02	USB1_DR				HPS_GPD31
JB	VREFB7A78	QSPI_I03					H15				QSPI_I03	USB1_NXT				HPS_GPD32
JB	VREFB7A78	QSPI_SS0/BOOTSEL1					N15				QSPI_SS0					HPS_GPD33
JB	VREFB7A78	QSPI_CLK					F15				QSPI_CLK					HPS_GPD34
JB	VREFB7A78	QSPI_SS1					E16				QSPI_SS1					HPS_GPD35
JB	VREFB7A78	QSPI_SS2					D16				QSPI_SS2					HPS_GPD36
JB	VREFB7A78	QSPI_SS3					P16				QSPI_SS3					HPS_GPD37
JB	VREFB7A78	SDMMC_CMD					D16				SDMMC_CMD	USB0_D0				HPS_GPD38
JB	VREFB7A78	SDMMC_PWREN					P16				SDMMC_PWREN	USB0_D1				HPS_GPD37
JB	VREFB7A78	SDMMC_D0					C17				SDMMC_D0	USB0_D2				HPS_GPD38
JB	VREFB7A78	SDMMC_D1					N16				SDMMC_D1	USB0_D3				HPS_GPD39
JB	VREFB7A78	SDMMC_D2					F16				SDMMC_D2	USB0_D4				HPS_GPD40
JB	VREFB7A78	SDMMC_D3					G16				SDMMC_D3	USB0_D5				HPS_GPD41
JB	VREFB7A78	SDMMC_D4					E16				SDMMC_D4	USB0_D6				HPS_GPD42
JB	VREFB7A78	SDMMC_D5					H16				SDMMC_D5	USB0_D7				HPS_GPD43
JB	VREFB7A78	SDMMC_D6					E16				SDMMC_D6					HPS_GPD44
JB	VREFB7A78	SDMMC_D7					H16				SDMMC_D7					HPS_GPD45
JB	VREFB7A78	HPS_GPD44					K16				USB0_CLK					HPS_GPD44
JB	VREFB7A78	SDMMC_CLK_OUT					L16				SDMMC_CLK_OUT	USB0_STP				HPS_GPD46
JB	VREFB7A78	SDMMC_D2					J16				SDMMC_D2	USB0_DR				HPS_GPD46
JB	VREFB7A78	SDMMC_D3					M16				SDMMC_D3	USB0_NXT				HPS_GPD47
JD	VREFB7A78	RGMIH_TX_CLK					B17				RGMIH_TX_CLK					HPS_GPD01
JD	VREFB7A78	RGMIH_TXD0					P17				RGMIH_TXD0	USB1_D0				HPS_GPD1
JD	VREFB7A78	RGMIH_TXD1					P17				RGMIH_TXD1	USB1_D1				HPS_GPD2
JD	VREFB7A78	RGMIH_TXD2					F18				RGMIH_TXD2	USB1_D2				HPS_GPD3
JD	VREFB7A78	RGMIH_TXD3					E18				RGMIH_TXD3					HPS_GPD4
JD	VREFB7A78	RGMIH_RXD0					D18				RGMIH_RXD0	USB1_D4				HPS_GPD5
JD	VREFB7A78	RGMIH_MDO					J18				RGMIH_MDO	USB1_D5	D03_SDA			HPS_GPD6
JD	VREFB7A78	RGMIH_MDC					K17				RGMIH_MDC		D03_SCL			HPS_GPD7
JD	VREFB7A78	RGMIH_RX_CTL					A19				RGMIH_RX_CTL	USB1_D7				HPS_GPD8
JD	VREFB7A78	RGMIH_TX_CTL					C18				RGMIH_TX_CTL					HPS_GPD9
JD	VREFB7A78	RGMIH_RX_CLK					D18				RGMIH_RX_CLK	USB1_CLK				HPS_GPD10
JD	VREFB7A78	RGMIH_RXD1					A19				RGMIH_RXD1	USB1_STP				HPS_GPD11
JD	VREFB7A78	RGMIH_RXD2					C19				RGMIH_RXD2	USB1_DR				HPS_GPD12
JD	VREFB7A78	RGMIH_RXD3					D19				RGMIH_RXD3	USB1_NXT				HPS_GPD13
JD	VREFB7A78	RGMIH_TX_CLK					D19				RGMIH_TX_CLK					HPS_GPD14
JD	VREFB7A78	RGMIH_TXD1					F18				RGMIH_TXD1					HPS_GPD15
JD	VREFB7A78	RGMIH_TX_CTL					N18				RGMIH_TX_CTL					HPS_GPD16
JD	VREFB7A78	RGMIH_RXD0					E19				RGMIH_RXD0					HPS_GPD17
JD	VREFB7A78	RGMIH_RXD1					M17				RGMIH_RXD1					HPS_GPD18
JD</																





Pin Information for the Arria® V 5ASTFD3 Device  
 Version 1.3  
 Note (1)

Bank Number	REF	PinName/Function (2, 3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X8X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DDR3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0	
7E	VREFB/A7B/C7D7E0_HPS	RGMI1_RX_CLK					G21						RGMI1_RX_CLK	SPSI_CLK	SPM1_CLK	HPS_GP058
7E	VREFB/A7B/C7D7E0_HPS	RGMI1_RX_CTL					H19						RGMI1_RX_CTL	SPSI_MOSI	SPM1_MOSI	HPS_GP059
7E	VREFB/A7B/C7D7E0_HPS	RGMI1_RXD2					G20						RGMI1_RXD2	SPSI_MISO	SPM1_MISO	HPS_GP060
7E	VREFB/A7B/C7D7E0_HPS	RGMI1_RXD3					G19						RGMI1_RXD3	SPSI_SS0	SPM1_SS0	HPS_GP061
7G	VREFB/GN0	IO			DIFFIO_RX_T16p	DIFFOUT_T16p	R19									
7G	VREFB/GN0	IO			DIFFIO_RX_T16n	DIFFOUT_T16n	R19									
7G	VREFB/GN0	IO	VREFB/GN0				M19									
7G	VREFB/GN0	IO			DIFFIO_RX_T17p	DIFFOUT_T17p	L19									
7G	VREFB/GN0	IO			DIFFIO_RX_T17n	DIFFOUT_T17n	L19									
7G	VREFB/GN0	IO			DIFFIO_TX_T18p	DIFFOUT_T18p	P20									
7G	VREFB/GN0	IO			DIFFIO_TX_T18n	DIFFOUT_T18n	P20									
7G	VREFB/GN0	IO			DIFFIO_TX_T20p	DIFFOUT_T20p	M19									
7G	VREFB/GN0	IO			DIFFIO_RX_T21p	DIFFOUT_T21p	L20									
7G	VREFB/GN0	IO			DIFFIO_RX_T21n	DIFFOUT_T21n	M20									
		VCCA_FPLL					V20									
		VCCD_FPLL					V19									
		DN0					P20									
8D	VREFB/BN0	IO	CLK19p		DIFFIO_RX_T31p	DIFFOUT_T31p	C20	DQ1T			DQ1T					
8D	VREFB/BN0	IO	CLK19n		DIFFIO_RX_T31n	DIFFOUT_T31n	C20	DQ1T			DQ1T					
8D	VREFB/BN0	IO			DIFFIO_TX_T32p	DIFFOUT_T32p	N21	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T32n	DIFFOUT_T32n	N21	DQ2T			DQ2T					
8D	VREFB/BN0	IO	CLK18p		DIFFIO_RX_T33p	DIFFOUT_T33p	H21	DQ1T			DQ1T					
8D	VREFB/BN0	IO	CLK18n		DIFFIO_RX_T33n	DIFFOUT_T33n	E21	DQ1T			DQ1T					
8D	VREFB/BN0	IO			DIFFIO_TX_T34p	DIFFOUT_T34p	D21	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T34n	DIFFOUT_T34n	Z21	DQ2T			DQ2T					
8D	VREFB/BN0	IO	FPLL_TC_CLKOUT2_FPLL_TC_FBp_FPLL_TC_FB1		DIFFIO_RX_T35p	DIFFOUT_T35p	A20	DQS1TCQ1TCQn1TQkx1T			DQS1TCQ1TCQn1TQkx1T					
8D	VREFB/BN0	IO	FPLL_TC_CLKOUT3_FPLL_TC_FBn		DIFFIO_RX_T35n	DIFFOUT_T35n	B21	DQSn1TCQk1T			DQSn1TCQk1T					
8D	VREFB/BN0	IO	FPLL_TC_CLKOUT0_FPLL_TC_CLKOUTp_FPLL_TC_FB0		DIFFIO_TX_T36p	DIFFOUT_T36p	K21	DQ2T			DQ2T					
8D	VREFB/BN0	IO	FPLL_TC_CLKOUT1_FPLL_TC_CLKOUTn		DIFFIO_TX_T36n	DIFFOUT_T36n	L21	DQ2T			DQ2T					
8D	VREFB/BN0	IO	CLK17p		DIFFIO_RX_T37p	DIFFOUT_T37p	A22	DQ1T			DQ1T					
8D	VREFB/BN0	IO	CLK17n		DIFFIO_RX_T37n	DIFFOUT_T37n	A21	DQ1T			DQ1T					
8D	VREFB/BN0	IO			DIFFIO_TX_T38p	DIFFOUT_T38p	R21	DQ1T			DQ1T					
8D	VREFB/BN0	IO			DIFFIO_TX_T38n	DIFFOUT_T38n	T21	DQ1T			DQ1T					
8D	VREFB/BN0	IO	CLK16p		DIFFIO_RX_T39p	DIFFOUT_T39p	B22	DQ2T			DQ2T					
8D	VREFB/BN0	IO	CLK16n		DIFFIO_RX_T39n	DIFFOUT_T39n	C22	DQ2T			DQ2T					
8D	VREFB/BN0	IO					H22	DQ2T			DQ2T					
8D	VREFB/BN0	IO	VREFB/BN0				H22	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_RX_T40p	DIFFOUT_T40p	E22	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_RX_T40n	DIFFOUT_T40n	F22	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T41p	DIFFOUT_T41p	A23	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T41n	DIFFOUT_T41n	A24	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_RX_T42p	DIFFOUT_T42p	C23	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_RX_T42n	DIFFOUT_T42n	D23	DQS2TCQ2TCQn2TQkx2T			DQS2TCQ2TCQn2TQkx2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T43p	DIFFOUT_T43p	L22	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T43n	DIFFOUT_T43n	M22	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_RX_T44p	DIFFOUT_T44p	N22	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_RX_T44n	DIFFOUT_T44n	P22	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T45p	DIFFOUT_T45p	B22	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T45n	DIFFOUT_T45n	T22	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_RX_T46p	DIFFOUT_T46p	F23	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_RX_T46n	DIFFOUT_T46n	G23	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T47p	DIFFOUT_T47p	P23	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_TX_T47n	DIFFOUT_T47n	T23	DQ2T			DQ2T					
8D	VREFB/BN0	IO			DIFFIO_RX_T48p	DIFFOUT_T48p	B24	DQ3T			DQ3T					
8D	VREFB/BN0	IO			DIFFIO_RX_T48n	DIFFOUT_T48n	F24	DQ3T			DQ3T					
8D	VREFB/BN0	IO			DIFFIO_TX_T49p	DIFFOUT_T49p	M23	DQ3T			DQ3T					
8D	VREFB/BN0	IO			DIFFIO_TX_T49n	DIFFOUT_T49n	N23	DQ3T			DQ3T					
8D	VREFB/BN0	IO			DIFFIO_RX_T50p	DIFFOUT_T50p	D24	DQS3TCQ3TCQn3TQkx3T			DQS3TCQ3TCQn3TQkx3T					
8D	VREFB/BN0	IO			DIFFIO_RX_T50n	DIFFOUT_T50n	E24	DQS3TCQk3T			DQS3TCQk3T					
8D	VREFB/BN0	IO			DIFFIO_TX_T51p	DIFFOUT_T51p	Z23	DQ3T			DQ3T					
8D	VREFB/BN0	IO			DIFFIO_TX_T51n	DIFFOUT_T51n	H23	DQ3T			DQ3T					
8D	VREFB/BN0	IO			DIFFIO_RX_T52p	DIFFOUT_T52p	F24	DQ3T			DQ3T					
8D	VREFB/BN0	IO			DIFFIO_RX_T52n	DIFFOUT_T52n	G24	DQ3T			DQ3T					
8D	VREFB/BN0	IO			DIFFIO_TX_T53p	DIFFOUT_T53p	H24	DQ3T			DQ3T					
8D	VREFB/BN0	IO			DIFFIO_TX_T53n	DIFFOUT_T53n	J24	DQ3T			DQ3T					
8C	VREFB/CN0	IO			DIFFIO_RX_T54p	DIFFOUT_T54p	T26	DQ2T			DQ2T		DQ5_IC_0	DQ6_IC_0		
8C	VREFB/CN0	IO			DIFFIO_RX_T54n	DIFFOUT_T54n	T27	DQ2T			DQ2T		DQ5_IC_1	DQ6_IC_1		
8C	VREFB/CN0	IO			DIFFIO_TX_T55p	DIFFOUT_T55p	G25	DQ4T			DQ4T		DQ5_IC_2	DQ6_IC_2		
8C	VREFB/CN0	IO			DIFFIO_TX_T55n	DIFFOUT_T55n	H25	DQ2T			DQ2T		DQ5_IC_3	DQ6_IC_3		
8C	VREFB/CN0	IO			DIFFIO_RX_T56p	DIFFOUT_T56p	N24	DQ4T			DQ4T		DQ5_IC_4	DQ6_IC_4		
8C	VREFB/CN0	IO			DIFFIO_RX_T56n	DIFFOUT_T56n	P24	DQ4T			DQ4T		DQ5_IC_5	DQ6_IC_5		
8C	VREFB/CN0	IO			DIFFIO_TX_T57p	DIFFOUT_T57p	R24	DQ4T			DQ4T		DQ5_IC_6	DQ6_IC_6		
8C	VREFB/CN0	IO			DIFFIO_TX_T57n	DIFFOUT_T57n	T24	DQ4T			DQ4T		DQ5_IC_7	DQ6_IC_7		
8C	VREFB/CN0	IO			DIFFIO_RX_T58p	DIFFOUT_T58p	A25	DQS4TCQ4TCQn4TQkx4T			DQS4TCQ4TCQn4TQkx4T		DQ58_IC	DQ59_IC		
8C	VREFB/CN0	IO			DIFFIO_RX_T58n	DIFFOUT_T58n	B25	DQS4TCQk4T			DQS4TCQk4T		DQ58_IC	DQ59_IC		
8C	VREFB/CN0	IO			DIFFIO_TX_T59p	DIFFOUT_T59p	K24	DQ4T			DQ4T		DQ58_IC	DQ59_IC		
8C	VREFB/CN0	IO			DIFFIO_TX_T59n	DIFFOUT_T59n	L24	DQ4T			DQ4T		DQ58_IC	DQ59_IC		
8C	VREFB/CN0	IO			DIFFIO_RX_T60p	DIFFOUT_T60p	D25	DQ4T			DQ4T		DQ58_IC	DQ59_IC		
8C	VREFB/CN0	IO			DIFFIO_RX_T60n	DIFFOUT_T60n	E25	DQ4T			DQ4T		DQ58_IC	DQ59_IC		
8C	VREFB/CN0	IO			DIFFIO_TX_T61p	DIFFOUT_T61p	P25	DQ4T			DQ4T		DQ58_IC	DQ59_IC		
8C	VREFB/CN0	IO			DIFFIO_TX_T61n	DIFFOUT_T61n	R25	DQ4T			DQ4T		DQ58_IC	DQ59_IC		
8C	VREFB/CN0	IO			DIFFIO_RX_T62p	DIFFOUT_T62p	C26	DQ5T			DQ5T		DQ4_IC_0	DQ4_IC_0		
8C	VREFB/CN0	IO			DIFFIO_RX_T62n	DIFFOUT_T62n	D26	DQ5T			DQ5T		DQ4_IC_1	DQ4_IC_1		
8C	VREFB/CN0	IO			DIFFIO_TX_T63p	DIFFOUT_T63p	K25	DQ5T			DQ5T		DQ4_IC_2	DQ4_IC_2		
8C	VREFB/CN0	IO			DIFFIO_TX_T63n	DIFFOUT_T63n	L25	DQ5T			DQ5T		DQ4_IC_3	DQ4_IC_3		
8C	VREFB/CN0	IO			DIFFIO_RX_T63p	DIFFOUT_T63p	R26	DQ5T			DQ5T		DQ4_IC_4	DQ4_IC_4		
8C	VREFB/CN0	IO			DIFFIO_RX_T63n	DIFFOUT_T63n	T27	DQ5T			DQ5T		DQ4_IC_5	DQ4_IC_5		
8C	VREFB/CN0	IO			DIFFIO_TX_T64p	DIFFOUT_T64p	A26	DQ6T			DQ6T		DQ4_IC_6	DQ4_IC_6		
8C	VREFB/CN0	IO			DIFFIO_TX_T64n	DIFFOUT_T64n	B27	DQ6T			DQ6T		DQ4_IC_7	DQ4_IC_7		
8C	VREFB/CN0	IO			DIFFIO_RX_T65p	DIFFOUT_T65p	M26	DQS5TCQ5TCQn5TQkx5T			DQS5TCQ5TCQn5TQkx5T		DQ54_IC	DQ54_IC		
8C	VREFB/CN0	IO			DIFFIO_RX_T65n	DIFF										



Bank Number	VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X8X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DDR3 (5)	HMC pin assignment for LPDDR2 (6)	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
IB	VREFBAND	IO			DIFF0_RX_T79h	DIFFOUT_T79h	D08	DQ0T	DQ4T	DQ2T	DQ2_8B_4	DQ2_8B_4				
IB	VREFBAND	IO			DIFF0_TX_T80p	DIFFOUT_T80p	F28	DQ0T	DQ4T	DQ2T	DQ2_8B_5	DQ2_8B_5				
IB	VREFBAND	IO			DIFF0_TX_T80h	DIFFOUT_T80h	G28									
IB	VREFBAND	IO			DIFF0_RX_T81p	DIFFOUT_T81p	R29	DQS1T/QCQ1T/CQn1T/QKn1T	DQS4T/CQ4T/CQn4T/QKn4T	DQ2T	DQ2_8B	DQ2_8B				
IB	VREFBAND	IO			DIFF0_RX_T81h	DIFFOUT_T81h	T29	DQS4T/QKn4T	DQS4T/QKn4T	DQ2T	DQ2_8B	DQ2_8B				
IB	VREFBAND	IO			DIFF0_TX_T82p	DIFFOUT_T82p	J29	DQ0T								
IB	VREFBAND	IO			DIFF0_TX_T82h	DIFFOUT_T82h	K29									
IB	VREFBAND	IO			DIFF0_RX_T83p	DIFFOUT_T83p	M29	DQ0T	DQ4T	DQ2T	DQ2_8B_6	DQ2_8B_6				
IB	VREFBAND	IO			DIFF0_RX_T83h	DIFFOUT_T83h	N29	DQ0T	DQ4T	DQ2T	DQ2_8B_7	DQ2_8B_7				
IB	VREFBAND	IO			DIFF0_TX_T84p	DIFFOUT_T84p	F29	DQ0T	DQ4T	DQ2T	DQ2_8B_8	DQ2_8B_8				
IB	VREFBAND	IO			DIFF0_TX_T84h	DIFFOUT_T84h	G29									
IB	VREFBAND	IO			DIFF0_RX_T85p	DIFFOUT_T85p	B29	DQ0T	DQ4T	DQ2T	DQ1_8B_0	DQ1_8B_0				
IB	VREFBAND	IO			DIFF0_RX_T85h	DIFFOUT_T85h	C29	DQ0T	DQ4T	DQ2T	DQ1_8B_1	DQ1_8B_1				
IB	VREFBAND	IO					R30	DQ0T	DQ4T	DQ2T	DQ1_8B_2	DQ1_8B_2				
IB	VREFBAND	IO	VREFBAND				R31									
IB	VREFBAND	IO			DIFF0_RX_T86p	DIFFOUT_T86p	A29	DQ0T	DQ4T	DQ2T	DQ1_8B_3	DQ1_8B_3				
IB	VREFBAND	IO			DIFF0_RX_T86h	DIFFOUT_T86h	A58	DQ0T	DQ4T	DQ2T	DQ1_8B_4	DQ1_8B_4				
IB	VREFBAND	IO			DIFF0_TX_T87p	DIFFOUT_T87p	L30	DQ0T	DQ4T	DQ2T	DQ1_8B_5	DQ1_8B_5				
IB	VREFBAND	IO			DIFF0_TX_T87h	DIFFOUT_T87h	M30									
IB	VREFBAND	IO			DIFF0_RX_T88p	DIFFOUT_T88p	N30	DQS4T/CQ4T/CQn4T/QKn4T	DQ4T	DQ2T	DQS1_8B	DQS1_8B				
IB	VREFBAND	IO			DIFF0_RX_T88h	DIFFOUT_T88h	P30	DQS4T/CQ4T/CQn4T/QKn4T	DQ4T	DQ2T	DQS1_8B	DQS1_8B				
IB	VREFBAND	IO			DIFF0_TX_T89p	DIFFOUT_T89p	J30	DQ0T	DQ4T	DQ2T	DM1_8B	DM1_8B				
IB	VREFBAND	IO			DIFF0_RX_T89h	DIFFOUT_T89h	K30									
IB	VREFBAND	IO			DIFF0_RX_T90p	DIFFOUT_T90p	D30	DQ0T	DQ4T	DQ2T	DQ1_8B_6	DQ1_8B_6				
IB	VREFBAND	IO			DIFF0_RX_T90h	DIFFOUT_T90h	D29	DQ0T	DQ4T	DQ2T	DQ1_8B_7	DQ1_8B_7				
IB	VREFBAND	IO			DIFF0_TX_T91p	DIFFOUT_T91p	F30	DQ0T	DQ4T	DQ2T	DQ1_8B_8	DQ1_8B_8				
IB	VREFBAND	IO			DIFF0_TX_T91h	DIFFOUT_T91h	G30									
IA	VREFBAND	IO			DIFF0_RX_T92p	DIFFOUT_T92p	B30	DQ0T	DQ0T	DQ0T	CK_8A	CK_8A				
IA	VREFBAND	IO			DIFF0_RX_T92h	DIFFOUT_T92h	C30	DQ0T	DQ0T	DQ0T	CKE_8A	CKE_8A				
IA	VREFBAND	IO			DIFF0_TX_T93p	DIFFOUT_T93p	E31	DQ0T	DQ0T	DQ0T	CKE_8A_0	CKE_8A_0				
IA	VREFBAND	IO			DIFF0_TX_T93h	DIFFOUT_T93h	F31				CKE_8A_1	CKE_8A_1				
IA	VREFBAND	IO			DIFF0_RX_T94p	DIFFOUT_T94p	B31	DQ0T	DQ0T	DQ0T	A_8A_0	CA_8A_0				
IA	VREFBAND	IO			DIFF0_RX_T94h	DIFFOUT_T94h	A50	DQ0T	DQ0T	DQ0T	A_8A_1	CA_8A_1				
IA	VREFBAND	IO			DIFF0_TX_T95p	DIFFOUT_T95p	A31	DQ0T	DQ0T	DQ0T	A_8A_2	CA_8A_2				
IA	VREFBAND	IO			DIFF0_TX_T95h	DIFFOUT_T95h	A32				A_8A_3	CA_8A_3				
IA	VREFBAND	IO			DIFF0_RX_T96p	DIFFOUT_T96p	A33	DQS4T/CQ4T/CQn4T/QKn4T	DQS4T/CQ4T/CQn4T/QKn4T	DQ0T	A_8A_4	CA_8A_4				
IA	VREFBAND	IO			DIFF0_RX_T96h	DIFFOUT_T96h	B33	DQS4T/CQ4T/CQn4T/QKn4T	DQS4T/CQ4T/CQn4T/QKn4T	DQ0T	A_8A_5	CA_8A_5				
IA	VREFBAND	IO			DIFF0_TX_T97p	DIFFOUT_T97p	H31	DQ0T	DQ0T	DQ0T	A_8A_6	CA_8A_6				
IA	VREFBAND	IO			DIFF0_TX_T97h	DIFFOUT_T97h	J31				A_8A_7	CA_8A_7				
IA	VREFBAND	IO			DIFF0_RX_T98p	DIFFOUT_T98p	C31	DQ0T	DQ0T	DQ0T	A_8A_8	CA_8A_8				
IA	VREFBAND	IO			DIFF0_RX_T98h	DIFFOUT_T98h	D31				A_8A_9	CA_8A_9				
IA	VREFBAND	IO			DIFF0_TX_T99p	DIFFOUT_T99p	C32	DQ0T	DQ0T	DQ0T	A_8A_10					
IA	VREFBAND	IO			DIFF0_TX_T99h	DIFFOUT_T99h	D32				A_8A_11					
IA	VREFBAND	IO			DIFF0_RX_T100p	DIFFOUT_T100p	N31	DQ10T	DQ0T	DQ0T	A_8A_12					
IA	VREFBAND	IO			DIFF0_RX_T100h	DIFFOUT_T100h	P31	DQ10T	DQ0T	DQ0T	A_8A_13					
IA	VREFBAND	IO			DIFF0_TX_T101p	DIFFOUT_T101p	J32	DQ10T	DQ0T	DQ0T	A_8A_14					
IA	VREFBAND	IO			DIFF0_TX_T101h	DIFFOUT_T101h	K32				A_8A_15					
IA	VREFBAND	IO			DIFF0_RX_T102p	DIFFOUT_T102p	M32	DQ10T	DQ0T	DQ0T	BA_8A_0					
IA	VREFBAND	IO			DIFF0_RX_T102h	DIFFOUT_T102h	N32	DQ10T	DQ0T	DQ0T	BA_8A_1					
IA	VREFBAND	IO			DIFF0_TX_T103p	DIFFOUT_T103p	J34	DQ10T	DQ0T	DQ0T	BA_8A_2					
IA	VREFBAND	IO			DIFF0_TX_T103h	DIFFOUT_T103h	K34				BA8_8A					
IA	VREFBAND	IO			DIFF0_RX_T104p	DIFFOUT_T104p	L33	DQS10T/CQ10T/CQn10T/QKn10T	DQ0T	DQ0T	CAS#_8A					
IA	VREFBAND	IO			DIFF0_RX_T104h	DIFFOUT_T104h	M33	DQS10T/CQ10T/CQn10T/QKn10T	DQ0T	DQ0T	WE#_8A					
IA	VREFBAND	IO			DIFF0_TX_T105p	DIFFOUT_T105p	L31	DQ10T	DQ0T	DQ0T	ODT_8A_0	ODT_8A_0				
IA	VREFBAND	IO			DIFF0_TX_T105h	DIFFOUT_T105h	M31				ODT_8A_1	ODT_8A_1				
IA	VREFBAND	IO	CLK23p		DIFF0_RX_T106p	DIFFOUT_T106p	N34	DQ10T	DQ0T	DQ0T	CS#_8A_0	CS#_8A_0				
IA	VREFBAND	IO	CLK23h		DIFF0_RX_T106h	DIFFOUT_T106h	N33	DQ10T	DQ0T	DQ0T	CS#_8A_1	CS#_8A_1				
IA	VREFBAND	IO			DIFF0_TX_T107p	DIFFOUT_T107p	L34	DQ10T	DQ0T	DQ0T						
IA	VREFBAND	IO	CLK22p		DIFF0_TX_T107h	DIFFOUT_T107h	M34									
IA	VREFBAND	IO	CLK22h		DIFF0_RX_T108p	DIFFOUT_T108p	F34	DQ11T								
IA	VREFBAND	IO			DIFF0_RX_T108h	DIFFOUT_T108h	F34	DQ11T								
IA	VREFBAND	IO					J33	DQ11T								
IA	VREFBAND	IO					H33									
IA	VREFBAND	IO	FPLL_TL_CLKOUT2_FPLL_TL_FB#_FPLL_TL_FB1		DIFF0_RX_T109p	DIFFOUT_T109p	B34	DQ11T								
IA	VREFBAND	IO	FPLL_TL_CLKOUT3_FPLL_TL_FB#		DIFF0_RX_T109h	DIFFOUT_T109h	A35	DQ11T								
IA	VREFBAND	IO	FPLL_TL_CLKOUT0_FPLL_TL_CLKOUT5_FPLL_TL_FB0		DIFF0_TX_T109p	DIFFOUT_T109p	C33	DQ11T								
IA	VREFBAND	IO	FPLL_TL_CLKOUT1_FPLL_TL_CLKOUT6		DIFF0_TX_T110h	DIFFOUT_T110h	D33									
IA	VREFBAND	IO	CLK21p		DIFF0_RX_T111p	DIFFOUT_T111p	G34	DQS11T/CQ11T/CQn11T/QKn11T								
IA	VREFBAND	IO	CLK21h		DIFF0_RX_T111h	DIFFOUT_T111h	H34	DQS11T/CQ11T/CQn11T/QKn11T								
IA	VREFBAND	IO			DIFF0_TX_T112p	DIFFOUT_T112p	F32	DQ11T								
IA	VREFBAND	IO			DIFF0_TX_T112h	DIFFOUT_T112h	G32									
IA	VREFBAND	IO	CLK20p		DIFF0_RX_T113p	DIFFOUT_T113p	C34	DQ11T								
IA	VREFBAND	IO	CLK20h		DIFF0_RX_T113h	DIFFOUT_T113h	D34									
IA	VREFBAND	IO			DIFF0_TX_T114p	DIFFOUT_T114p	E33	DQ11T								
IA	VREFBAND	IO	RZQ_6		DIFF0_TX_T114h	DIFFOUT_T114h	F33									
IA	MSEL0	IO		MSEL0			H35									
IA	MSEL1	IO		MSEL1			A34									
IA	MSEL2	IO		MSEL2			D35									
IA	MSEL3	IO		MSEL3			A37									
IA	MSEL4	IO		MSEL4			P34									
IA	CONF_DONE	IO		CONF_DONE			K35									
IA	HSTATUS	IO		HSTATUS			F35									
IA	nCE	IO		nCE			M35									
IA	nCONFIG	IO		nCONFIG			A36									
IA	VCC_HPS	IO					P35									
IA		IO					V16									
IA		IO					W16									
IA		IO					AA33									
IA		IO					AA35									
IA		IO					AA38									
IA		IO					AA39									
IA		IO					AB31									
IA		IO					AB32									
IA		IO					AB34									
IA		IO					AB36									
IA		IO					AB37									
IA		IO					AC30									
IA		IO					AC38									
IA		IO					AC39									
IA		IO					AD32									
IA		IO					AD36									
IA		IO					AD37									
IA		IO					AE33									
IA		IO					AE35									
IA		IO					AE38									
IA		IO					AE39									
IA		IO					AF31									
IA		IO					AF32									
IA		IO					AF34									
IA		IO					AF36									
IA		IO					AF37									
IA		IO					AG38									
IA		IO					AG39									



Bank Number	VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X0/X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DBR3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
		GND					AJ38									
		GND					AJ39									
		GND					AK36									
		GND					AK37									
		GND					AL35									
		GND					AL38									
		GND					AL39									
		GND					AM36									
		GND					AM37									
		GND					AN35									
		GND					AN38									
		GND					AN39									
		GND					AP36									
		GND					AP37									
		GND					AR35									
		GND					AR38									
		GND					AR39									
		GND					AT36									
		GND					AT37									
		GND					AU35									
		GND					AU38									
		GND					AU39									
		GND					AV36									
		GND					AV39									
		GND					AV37									
		GND					AV38									
		GND					AV39									
		GND					AW35									
		GND					AW38									
		GND					B36									
		GND					B37									
		GND					C36									
		GND					C38									
		GND					C39									
		GND					D36									
		GND					D37									
		GND					E35									
		GND					E38									
		GND					E39									
		GND					F36									
		GND					F37									
		GND					G35									
		GND					G38									
		GND					G39									
		GND					H36									
		GND					H37									
		GND					J35									
		GND					J36									
		GND					J38									
		GND					J39									
		GND					K36									
		GND					K37									
		GND					L35									
		GND					L38									
		GND					L39									
		GND					M36									
		GND					M37									
		GND					N35									
		GND					N38									
		GND					N39									
		GND					P36									
		GND					P37									
		GND					R34									
		GND					R38									
		GND					R39									
		GND					T32									
		GND					T36									
		GND					T37									
		GND					U33									
		GND					U38									
		GND					U39									
		GND					V32									
		GND					V34									
		GND					V36									
		GND					V37									
		GND					W33									
		GND					W38									
		GND					W39									
		GND					Y31									
		GND					Y32									
		GND					Y36									
		GND					Y37									
		GND					AA3									
		GND					AA4									
		GND					AA5									
		GND					AA8									
		GND					AB1									
		GND					AB2									
		GND					AB7									
		GND					AC3									
		GND					AC4									
		GND					AC5									
		GND					AD1									
		GND					AD3									
		GND					AD5									
		GND					AD7									
		GND					AE1									
		GND					AE4									
		GND					AE6									
		GND					AE8									
		GND					AF1									
		GND					AF2									
		GND					AF3									
		GND					AG3									
		GND					AG4									
		GND					AG5									
		GND					AG6									
		GND					AG7									
		GND					AG8									
		GND					AH1									
		GND					AH2									
		GND					AH5									
		GND					AJ3									
		GND					AJ4									
		GND					AK1									
		GND					AK2									
		GND					AK5									
		GND					AL3									
		GND					AL4									
		GND					AM1									



Bank Number	VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X0/X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DDR3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
		GND					AM2									
		GND					AM5									
		GND					AN3									
		GND					AN6									
		GND					AP1									
		GND					AP2									
		GND					AP5									
		GND					AR3									
		GND					AR4									
		GND					AT1									
		GND					AT2									
		GND					AT5									
		GND					AU3									
		GND					AU4									
		GND					AV1									
		GND					AV2									
		GND					N3									
		GND					N4									
		GND					P1									
		GND					P2									
		GND					P5									
		GND					R3									
		GND					R4									
		GND					R5									
		GND					T1									
		GND					T2									
		GND					T5									
		GND					U3									
		GND					U4									
		GND					U5									
		GND					U8									
		GND					V1									
		GND					V2									
		GND					V7									
		GND					W3									
		GND					W4									
		GND					W8									
		GND					Y1									
		GND					Y2									
		GND					Y5									
		GND					Y7									
		VCCP					AA21									
		VCCP					AA25									
		VCCP					AB15									
		VCCP					U10									
		VCCP					U16									
		VCCP					U25									
		VCCP					V27									
		VCCP					W10									
		VCCP					Z27									
		VCCA FP1L					AC30									
		VCCA FP1L					AC9									
		VCCA FP1L					X30									
		VCCA FP1L					AB9									
		VCCA FP1L					V31									
		VCCPLL_HPS					U8									
		VCCBAT					R31									
		VCC_AUX					AB14									
		VCC_AUX					AB26									
		VCC_AUX					U9									
		VCC_AUX_SHARED					U15									
		VCCD FP1L					AD31									
		VCCD FP1L					AE3									
		VCCD FP1L					W30									
		VCCD FP1L					W3									
		VCCD FP1L					T11									
		VCCA GXB10					AF33									
		VCCA GXB10					AE7									
		VCCA GXB1					AB33									
		VCCA GXB1					AA7									
		VCCA GXB2					V33									
		VCCD GXB10					AD33									
		VCCD GXB10					AC7									
		VCCD GXB1					V33									
		VCCD GXB1					W7									
		VCCD GXB1					T35									
		VCCD GXB1					AD34									
		VCCD GXB1					AD35									
		VCCD GXB1					AC5									
		VCCD GXB1					AC6									
		VCCD GXB1					V34									
		VCCD GXB1					V35									
		VCCD GXB1					W5									
		VCCD GXB1					W6									
		VCCD GXB1					T4									
		VCCD GXB1					T35									
		VCCD GXB1					U34									
		VCCD GXB1					W34									
		VCCD GXB1					AA34									
		VCCD GXB1					AB35									
		VCCD GXB1					AC35									
		VCCD GXB1					AE34									
		VCCD GXB1					AF35									
		VCCD GXB1					U5									
		VCCD GXB1					W6									
		VCCD GXB1					Y6									
		VCCD GXB1					Y6									
		VCCD GXB1					AB5									
		VCCD GXB1					AB6									
		VCCD GXB1					AG35									
		VCCD GXB1					AG34									
		VCCD GXB1					AD6									
		VCCD GXB1					AE5									
		VCCD GXB1					W35									
		VCCD GXB1					V35									
		VCCD GXB1					AF5									
		VCCD GXB1					AF6									
		VCCD GXB1					R35									
		VCCD GXB1					AC34									
		VCC					AA10									
		VCC					AA12									
		VCC					AA14									
		VCC					AA16									
		VCC					AA18									
		VCC					AA20									
		VCC					AA21									
		VCC					AA24									
		VCC					AA26									
		VCC					AB11									
		VCC					AB17									



Bank Number	VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X0/X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DBR3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
		VCCPD3					AA27									
		VCCPD3					AA28									
		VCCPD3					AA29									
		VCCPD3					AB22									
		VCCPD3					AB23									
		VCCPD3					AB24									
		VCCPD3					AB30									
		VCCPD4A					AC10									
		VCCPD4A					AE10									
		VCCPD4BCD					AB12									
		VCCPD4BCD					AB13									
		VCCPD4BCD					AB16									
		VCCPD4BCD					AB18									
		VCCPD4BCD					AB19									
		VCCPD6A/B_HPS					L9									
		VCCPD6A/B_HPS					T10									
		VCCPD6A/B_HPS					T6									
		VCCPD6A/B_HPS					T8									
		VCCPD7A_HPS					R12									
		VCCPD7B_HPS					T14									
		VCCPD7C_HPS					R16									
		VCCPD7D_HPS					T17									
		VCCPD7E_HPS					R18									
		VCCPD7F/G					U21									
		VCCPD8					ES2									
		VCCPD8					T36									
		VCCPD8					U22									
		VCCPD8					U24									
		VCCPD8					U26									
		VCCPD8					U29									
		VCCPD8M					J19									
		VCCPD8M					AC29									
		VCCRSCLK_HPS					L10									
		VCC_HPS					T13									
		VCC_HPS					U14									
		VCC_HPS					U8									
		VCC_HPS					V10									
	VREFB7A7B7C7D7END_HPS	VREFB7A7B7C7D7END_HPS					P16									
		GND					AA11									
		GND					AA13									
		GND					AA16									
		GND					AA17									
		GND					AA19									
		GND					AA23									
		GND					AA30									
		GND					AB10									
		GND					AC11									
		GND					AC14									
		GND					AC17									
		GND					AC20									
		GND					AC23									
		GND					AC26									
		GND					AC28									
		GND					AD10									
		GND					AD30									
		GND					AE30									
		GND					AF11									
		GND					AF14									
		GND					AF17									
		GND					AF20									
		GND					AF23									
		GND					AF26									
		GND					AF29									
		GND					AF30									
		GND					AG31									
		GND					AG36									
		GND					AJ11									
		GND					AJ14									
		GND					AJ17									
		GND					AJ20									
		GND					AJ23									
		GND					AJ26									
		GND					AJ29									
		GND					AJ32									
		GND					AJ38									
		GND					AM11									
		GND					AM14									
		GND					AM17									
		GND					AM20									
		GND					AM23									
		GND					AM26									
		GND					AM29									
		GND					AM32									
		GND					AM8									
		GND					AR11									
		GND					AR14									
		GND					AR17									
		GND					AR20									
		GND					AR23									
		GND					AR26									
		GND					AR29									
		GND					AR32									
		GND					AR8									
		GND					AV11									
		GND					AV14									
		GND					AV17									
		GND					AV20									
		GND					AV23									
		GND					AV26									
		GND					AV29									
		GND					AV32									
		GND					AV5									
		GND					AV8									
		GND					B11									
		GND					B16									
		GND					B2									
		GND					B20									
		GND					B23									
		GND					B26									
		GND					B29									
		GND					B32									
		GND					B8									
		GND					E11									
		GND					E17									
		GND					E2									
		GND					E20									
		GND					E23									
		GND					E26									
		GND					E29									
		GND					E29									



Bank Number	VREF	PinName/Function (2), (3)	Optional Function(s)	Configuration Function	Dedicated Tx/Rx Channel	Emulated LVDS Output Channel	F1517 (4)	DQS for X0/X9	DQS for X16/ X18	DQS for X32/ X36	HMC pin assignment for DDR3 (5)	HMC pin assignment for LPDDR2	HPS Pin Mux Select 3	HPS Pin Mux Select 2	HPS Pin Mux Select 1	HPS Pin Mux Select 0
		GND					E32									
		GND					E5									
		GND					E8									
		GND					F14									
		GND					H11									
		GND					H17									
		GND					H2									
		GND					H50									
		GND					H23									
		GND					H26									
		GND					H29									
		GND					H32									
		GND					H6									
		GND					H8									
		GND					J14									
		GND					K29									
		GND					L11									
		GND					L17									
		GND					L2									
		GND					L23									
		GND					L26									
		GND					L28									
		GND					L29									
		GND					L5									
		GND					L8									
		GND					N14									
		GND					N17									
		GND					N20									
		GND					P11									
		GND					P23									
		GND					P26									
		GND					P29									
		GND					P32									
		GND					R8									
		GND					W21									
		GND					T12									
		GND					T15									
		GND					T16									
		GND					T18									
		GND					T20									
		GND					T6									
		GND					U11									
		GND					U13									
		GND					U17									
		GND					U23									
		GND					U25									
		GND					U27									
		GND					U29									
		GND					U7									
		GND					U14									
		GND					V8									
		GND					V18									
		GND					V21									
		GND					V24									
		GND					V26									
		GND					V28									
		GND					V29									
		GND					V8									
		GND					W27									
		GND					W11									
		GND					W13									
		GND					W15									
		GND					W17									
		GND					W19									
		GND					W23									
		GND					W26									
		GND					W29									
		GND					V10									
		GND					V12									
		GND					V14									
		GND					V16									
		GND					V18									
		GND					V20									
		GND					V22									
		GND					V24									
		GND					V26									
		GND					V28									

Notes:  
 (1) For more information about pin definitions and pin connection guidelines, refer to the [Arria V Device Family Pin Connection Guidelines](#).  
 (2) GNB\_REFCLK pin is not supported in current Quartus II version, but will be supported in future Quartus II release version.  
 (3) Pins with \* contains similar name with other pins in the same column. For the selection of the HPS pins, refer to the "HPS Pin Mux Select x" columns.  
 (4) Pins with # are the 10 Gbps transceiver channels. For more information about the 10 Gbps transceiver channels clocking recommendation, refer to the [Transceiver Clocking in Arria V Devices chapter](#).  
 (5) RESET pin is only applicable for DDR3 device.



**Pin Information for the Arria® V 5ASTFD3 Device  
Version 1.3**

<b>Version Number</b>	<b>Date</b>	<b>Changes Made</b>
1.0	4/19/2013	Initial release.
1.1	9/30/2014	Remove corresponding bank number from VCCRSTCLK_HPS pin.
1.2	7/31/2015	Renamed the following columns: - Renamed "DDR3/DDR2 hard memory PHY" to "HMC pin assignment for DDR3". - Renamed "LPDDR2 hard memory PHY" to "HMC pin assignment for LPDDR2".
1.3	12/23/2016	-Renamed SDMMC_FB_CLK_IN to HPS_GPIO44.