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## 1. Summary

## 2. IO Assignments by Package Pin

Pin Number	Signal Name	Bank Type	Pin Name	Use	IO Standard	IO Bank	Drive (mA)	Slew	On-chip Termination	Off-Chip Termination	Voltage	Constraint	Pull Type	Vref	Signal Integrity
A1			GND					0.0							

A2				MGTPTXN1_216		Gigabit				
A3				GND		GND				
A4		0.0		MGTPRXN0_216		Gigabit				
A5				GND		GND				
A6		0.0		MGTPRXN1_216		Gigabit				
A7				GND		GND				
A8		0.0		MGTREFCLK0N_216		Gigabit				
A9				GND		GND				
A10		0.0		MGTREFCLK1N_216		Gigabit				
A11			Dedicated	DXP_0		Temp Sensor			0	
A12			Dedicated	VP_0		XADC			0	
A13			Dedicated	VREFN_0		XADC			0	
A14			High Range	IO_L6P_T0_16		User IO			16	
A15			High Range	IO_L6N_T0_VREF_16		User IO				16
A16			High Range	IO_L12P_T1_MRCC_16		User IO				
A17			High Range	IO_L12N_T1_MRCC_16		User IO				
A18			High Range	IO_L19N_T3_VREF_16		User IO				16
A19				GND		GND				
B1		0.0		MGTAVTT		Gigabit Power				
B2				MGTPTXP1_216		Gigabit				
B3				GND		GND				
B4		0.0		MGTPRXP0_216		Gigabit				

B5				GND		GND				
		0.0								
B6				MGTPRXP1_216		Gigabit				
B7				GND		GND				
		0.0								
B8				MGTREFCLK0P_216		Gigabit				
B9				GND		GND				
		0.0								
B10				MGTREFCLK1P_216		Gigabit				
B11			Dedicated	DXN_0		Temp Sensor			0	
B12			Dedicated	VREFP_0		XADC			0	
B13			Dedicated	VN_0		XADC			0	
B14				GND		GND				
		0.0								
B15			High Range	IO_L11N_T1_SRCC_16		User IO				
16										
B16			High Range	IO_L13N_T2_MRCC_16		User IO				
16										
B17			High Range	IO_L14N_T2_SRCC_16		User IO				
16										
B18			High Range	IO_L19P_T3_16		User IO			16	
B19			High Range	VCCO_16		VCCO			16	
				any**						
C1				MGTAVCC		Gigabit Power				
C2				GND		GND				
		0.0								
C3				GND		GND				
		0.0								
C4				GND		GND				
		0.0								
C5				MGTAVTT		Gigabit Power				
C6				GND		GND				
		0.0								

C7			MGTRREF_216	Gigabit			
C8		Dedicated	TCK_0	Config		0	
C9		Dedicated	VCCBATT_0	Config		0	
C10			GND	GND			
		0.0					
C11		Dedicated	CCLK_0	Config		0	
C12		Dedicated	GNDADC_0	XADC		0	
C13		Dedicated	VCCADC_0	XADC		0	
C14		High Range	VCCO_16	VCCO		16	
			any**				
C15		High Range	IO_L11P_T1_SRCC_16	User IO			
16							
C16		High Range	IO_L13P_T2_MRCC_16	User IO			
16							
C17		High Range	IO_L14P_T2_SRCC_16	User IO			
16							
C18		High Range	VCCO_16	VCCO		16	
			any**				
C19			GND	GND			
		0.0					
D1			MGTPTXN0_216	Gigabit			
D2			MGTPTXP0_216	Gigabit			
D3			GND	GND			
		0.0					
D17		High Range	IO_0_14	User IO		14	
D18		High Range	IO_L1P_T0_D00_MOSI_14	User IO			
14							
D19		High Range	IO_L1N_T0_D01_DIN_14	User IO			
14							
E1			MGTAVCC	Gigabit Power			
E2			MGTAVTT	Gigabit Power			
E3			GND	GND			

	0.0				
E17		GND		GND	
	0.0				

E18		High Range	IO_L3P_T0_DQS_PUDC_B_14	User IO	
14					
E19	lighta[1]	High Range	IO_L3N_T0_DQS_EMCCCLK_14	OUTPUT	
LVC MOS33	14	12	SLOW	FP_VTT_50	FIXED
	NONE				
F1		GND		GND	
	0.0				
F2		GND		GND	
	0.0				
F3		MGTAVCC		Gigabit Power	
F17		High Range	VCCO_14	VCCO	14
			3.30		
F18		High Range	IO_L2N_T0_D03_14	User IO	14
F19		GND		GND	
	0.0				
G1		GND		GND	
	0.0				
G2		High Range	IO_L1N_T0_AD4N_35	User IO	35
G3		High Range	IO_L1P_T0_AD4P_35	User IO	35
G7		MGTAVTT		Gigabit Power	
G8		GND		GND	
	0.0				
G9		MGTAVCC		Gigabit Power	
G10		VCCINT		VCCINT	
G11		GND		GND	
	0.0				
G12		Dedicated	VCCO_0	VCCO	0
			any**		
G13		High Range	VCCO_16	VCCO	16

[illegible]

J9			GND	GND				
		0.0						
J10			VCCINT	VCCINT				
J11			GND	GND				
		0.0						
J12			GND	GND				
		0.0						
J13			VCCAUX	VCCAUX				
			1.80					
J17			High Range	IO_L7P_T1_D09_14	User IO			14
J18			High Range	IO_L7N_T1_D10_14	User IO			14
J19			High Range	IO_L6N_T0_D08_VREF_14	User IO			
14								
K1			High Range	VCCO_35	VCCO			35
				any**				
K2			High Range	IO_L5P_T0_AD13P_35	User IO			35
K3			High Range	IO_L7N_T1_AD6N_35	User IO			35
K7			High Range	VCCO_35	VCCO			35
				any**				
K8			GND	GND				
		0.0						
K12			High Range	VCCO_14	VCCO			14
				3.30				
K13			High Range	VCCO_14	VCCO			14
				3.30				
K17			High Range	IO_L12N_T1_MRCC_14	User IO			
14								
K18			High Range	IO_L8N_T1_D12_14	User IO			14
K19			High Range	IO_L6P_T0_FCS_B_14	User IO			14
L1			High Range	IO_L6N_T0_VREF_35	User IO			35
L2			High Range	IO_L5N_T0_AD13N_35	User IO			35
L3			High Range	IO_L8P_T1_AD14P_35	User IO			35
L7			High Range	VCCO_35	VCCO			35

[illegible]



M19		High Range	IO_L11N_T1_SRCC_14	User IO		
14						
N1		High Range	IO_L10N_T1_AD15N_35	User IO		
35						
N2		High Range	IO_L10P_T1_AD15P_35	User IO		35
N3		High Range	IO_L12P_T1_MRCC_35	User IO		
35						
N7		High Range	VCCO_34	VCCO		34
			3.30			
N8		High Range	VCCO_34	VCCO		34
			3.30			
N9			GND	GND		
		0.0				
N10			VCCINT	VCCINT		
N11			VCCBRAM	VCCBRAM		
N12			GND	GND		
		0.0				
N13			GND	GND		
		0.0				
N17		High Range	IO_L13P_T2_MRCC_14	User IO		
14						
N18		High Range	IO_L9P_T1_DQS_14	User IO		14
N19		High Range	IO_L9N_T1_DQS_D13_14	User IO		
14						
P1		High Range	IO_L19N_T3_VREF_35	User IO		35
P2			GND	GND		
		0.0				
P3		High Range	IO_L12N_T1_MRCC_35	User IO		
35						
P17		High Range	IO_L13N_T2_MRCC_14	User IO		
14						
P18		High Range	IO_L14P_T2_SRCC_14	User IO		
14						
P19		High Range	IO_L10P_T1_D14_14	User IO		14
R1		High Range	VCCO_34	VCCO		34
			3.30			
R2		High Range	IO_L1P_T0_34	User IO		34

R3		High Range	IO_L2P_T0_34	User IO	34
R17		High Range	VCCO_14	VCCO	14
			3.30		
R18		High Range	IO_L14N_T2_SRCC_14	User IO	
R19		High Range	IO_L10N_T1_D15_14	User IO	14
T1		High Range	IO_L3P_T0_DQS_34	User IO	34
T2		High Range	IO_L1N_T0_34	User IO	34
T3		High Range	IO_L2N_T0_34	User IO	34
T17		High Range	IO_L17P_T2_A14_D30_14	User IO	
T18		High Range	IO_L17N_T2_A13_D29_14	User IO	
T19		GND	GND		
		0.0			
U1		High Range	IO_L3N_T0_DQS_34	User IO	34
U2		High Range	IO_L9N_T1_DQS_34	User IO	34
U3		High Range	IO_L9P_T1_DQS_34	User IO	34
U4		High Range	IO_L11P_T1_SRCC_34	User IO	34
U5		High Range	IO_L16P_T2_34	User IO	34
U6		GND	GND		
		0.0			
U7		High Range	IO_L19P_T3_34	User IO	34
U8		High Range	IO_L14P_T2_SRCC_34	User IO	34
U9		GND	GND		
		0.0			
U10		Dedicated	M2_0	Config	0
U11		Dedicated	INIT_B_0	Config	0

U12		Dedicated	DONE_0	Config		0	
U13		High Range	VCCO_14	VCCO		14	
			3.30				
U14	lightb[1]	High Range	IO_25_14	OUTPUT	LVC MOS33		
14	12	SLOW		FP_VTT_50	FIXED		NONE
U15	lightb[2]	High Range	IO_L23P_T3_A03_D19_14	OUTPUT			
LVC MOS33	14	12	SLOW		FP_VTT_50	FIXED	
	NONE						
U16	lighta[2]	High Range	IO_L23N_T3_A02_D18_14	OUTPUT			
LVC MOS33	14	12	SLOW		FP_VTT_50	FIXED	
	NONE						
U17		High Range	IO_L18P_T2_A12_D28_14	User IO			
14							
U18		High Range	IO_L18N_T2_A11_D27_14	User IO			
14							
U19	lighta[0]	High Range	IO_L15P_T2_DQS_RDWR_B_14	OUTPUT			
LVC MOS33	14	12	SLOW		FP_VTT_50	FIXED	
	NONE						
V1		High Range	VCCO_34	VCCO		34	
			3.30				
V2		High Range	IO_L5P_T0_34	User IO		34	
V3		High Range	IO_L6P_T0_34	User IO		34	
V4		High Range	IO_L11N_T1_SRCC_34	User IO		34	
V5		High Range	IO_L16N_T2_34	User IO		34	
V6		High Range	VCCO_34	VCCO		34	
			3.30				
V7		High Range	IO_L19N_T3_VREF_34	User IO		34	
V8		High Range	IO_L14N_T2_SRCC_34	User IO		34	
V9		Dedicated	VCCO_0	VCCO		0	
			any**				
V10		Dedicated	PROGRAM_B_0	Config		0	
V11		Dedicated	CFGBVS_0	Config		0	
V12		Dedicated	M0_0	Config		0	

V13		High Range	IO_L24P_T3_A01_D17_14	User IO		
14						
V14	lightb[0]	High Range	IO_L24N_T3_A00_D16_14	OUTPUT		
LVC MOS33	14	12	SLOW	FP_VTT_50	FIXED	
NONE						
V15		High Range	IO_L21P_T3_DQS_14	User IO		14
V16		High Range	IO_L19P_T3_A10_D26_14	User IO		
14						
V17	RST	High Range	IO_L19N_T3_A09_D25_VREF_14	INPUT		
LVC MOS33	14			NONE	FIXED	
NONE						
V18		GND	GND			
	0.0					
V19	lightw[1]	High Range	IO_L15N_T2_DQS_DOUT_CSO_B_14	OUTPUT		
LVC MOS33	14	12	SLOW	FP_VTT_50	FIXED	
NONE						
W1		GND	GND			
	0.0					
W2		High Range	IO_L5N_T0_34	User IO		34
W3		High Range	IO_L6N_T0_VREF_34	User IO		34
W4		High Range	IO_L12N_T1_MRCC_34	User IO		
34						
W5	clk100Mhz	High Range	IO_L12P_T1_MRCC_34	INPUT		
LVC MOS33	34			NONE	FIXED	
NONE						
W6		High Range	IO_L13N_T2_MRCC_34	User IO		
34						
W7		High Range	IO_L13P_T2_MRCC_34	User IO		
34						
W8		Dedicated	TDO_0	Config		0
W9		Dedicated	TMS_0	Config		0
W10		Dedicated	TDI_0	Config		0
W11		Dedicated	M1_0	Config		0
W12		GND	GND			
	0.0					

W13			High Range	IO_L22P_T3_A05_D21_14	User IO					
14										
W14			High Range	IO_L22N_T3_A04_D20_14	User IO					
14										
W15			High Range	IO_L21N_T3_DQS_A06_D22_14	User IO					
14										
W16			High Range	IO_L20P_T3_A08_D24_14	User IO					
14										
W17			High Range	IO_L20N_T3_A07_D23_14	User IO					
14										
W18	lightw[0]		High Range	IO_L16P_T2_CSI_B_14	OUTPUT					
LVC MOS33		14		12	SLOW		FP_VTT_50		FIXED	
	NONE									
W19			High Range	IO_L16N_T2_A15_D31_14	User IO					
14										
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----										
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----										
-+										

\* Default value

\*\* Special VCCO requirements may apply. Please consult the device family datasheet for specific guideline on VCCO requirements.