

Pin List: XEM8370

2025-07-03

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC1	1	C33	MGTYRXP3_130	MGTYRXP3_130	34.87	179.97	123.12	130	QSFP_1_RX4_P	J8-25
MC1	2	B31	MGTYTXP3_130	MGTYTXP3_130	30.16	153.86	107.10	130	QSFP_1_TX4_P	J8-6
MC1	3	C34	MGTYRXN3_130	MGTYRXN3_130	34.84	179.82	123.32	130	QSFP_1_RX4_N	J8-24
MC1	4	B32	MGTYTXN3_130	MGTYTXN3_130	30.16	153.88	107.08	130	QSFP_1_TX4_N	J8-5
MC1	5		GND	DGND					DGND	
MC1	6		GND	DGND					DGND	
MC1	7	E33	MGTYRXP2_130	MGTYRXP2_130	38.19	198.33	122.36	130	QSFP_1_RX3_P	J8-14
MC1	8	D31	MGTYTXP2_130	MGTYTXP2_130	29.60	150.77	105.15	130	QSFP_1_TX3_P	J8-33
MC1	9	E34	MGTYRXN2_130	MGTYRXN2_130	38.21	198.49	122.18	130	QSFP_1_RX3_N	J8-15
MC1	10	D32	MGTYTXN2_130	MGTYTXN2_130	29.63	150.91	104.99	130	QSFP_1_TX3_N	J8-34
MC1	11		GND	DGND					DGND	
MC1	12		GND	DGND					DGND	
MC1	13	F31	MGTYRXP1_130	MGTYRXP1_130	36.74	190.32	95.46	130	QSFP_1_RX2_P	J8-22
MC1	14	G29	MGTYTXP1_130	MGTYTXP1_130	31.91	163.55	79.19	130	QSFP_1_TX2_P	J8-3
MC1	15	F32	MGTYRXN1_130	MGTYRXN1_130	36.75	190.38	95.40	130	QSFP_1_RX2_N	J8-21
MC1	16	G30	MGTYTXN1_130	MGTYTXN1_130	31.94	163.69	79.02	130	QSFP_1_TX2_N	J8-2
MC1	17		GND	DGND					DGND	
MC1	18		GND	DGND					DGND	
MC1	19	G33	MGTYRXP0_130	MGTYRXP0_130	37.27	193.26	108.42	130	QSFP_1_RX1_P	J8-17
MC1	20	H31	MGTYTXP0_130	MGTYTXP0_130	29.58	150.64	85.47	130	QSFP_1_TX1_P	J8-36
MC1	21	G34	MGTYRXN0_130	MGTYRXN0_130	37.24	193.11	108.59	130	QSFP_1_RX1_N	J8-18
MC1	22	H32	MGTYTXN0_130	MGTYTXN0_130	29.59	150.67	85.43	130	QSFP_1_TX1_N	J8-37
MC1	23		GND	DGND					DGND	
MC1	24		GND	DGND					DGND	
MC1	25	L29	MGTREFCLK0P_130	MGTREFCLK0P_130	39.38	203.95	70.47	130	MGTREFCLK0P_130	
MC1	26	R29	MGTREFCLK0P_129	MGTREFCLK0P_129	36.77	189.47	71.64	129	MGTREFCLK0P_129	U4-4
MC1	27	L30	MGTREFCLK0N_130	MGTREFCLK0N_130	39.43	204.23	70.45	130	MGTREFCLK0N_130	

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MC1	28	R30	MGTREFCLK0N_129	MGTREFCLK0N_129	36.78	189.53	71.57	129	MGTREFCLK0N_129	U4-5
MC1	29		GND	DGND					DGND	
MC1	30		GND	DGND					DGND	
MC1	31	J33	MGTYRXP3_129	MGTYRXP3_129	35.69	184.52	109.38	129	QSFP_2_RX4_P	J9-25
MC1	32	K31	MGTYTXP3_129	MGTYTXP3_129	28.96	147.18	79.83	129	QSFP_2_TX4_P	J9-6
MC1	33	J34	MGTYRXN3_129	MGTYRXN3_129	35.67	184.37	109.57	129	QSFP_2_RX4_N	J9-24
MC1	34	K32	MGTYTXN3_129	MGTYTXN3_129	28.98	147.32	79.66	129	QSFP_2_TX4_N	J9-5
MC1	35		GND	DGND					DGND	
MC1	36		GND	DGND					DGND	
MC1	37	L33	MGTYRXP2_129	MGTYRXP2_129	32.43	166.45	99.12	129	QSFP_2_RX3_P	J9-14
MC1	38	M31	MGTYTXP2_129	MGTYTXP2_129	29.19	148.47	77.40	129	QSFP_2_TX3_P	J9-33
MC1	39	L34	MGTYRXN2_129	MGTYRXN2_129	32.41	166.35	99.25	129	QSFP_2_RX3_N	J9-15
MC1	40	M32	MGTYTXN2_129	MGTYTXN2_129	29.20	148.55	77.30	129	QSFP_2_TX3_N	J9-34
MC1	41		GND	DGND					DGND	
MC1	42		GND	DGND					DGND	
MC1	43	N33	MGTYRXP1_129	MGTYRXP1_129	35.92	185.79	97.60	129	QSFP_2_RX2_P	J9-22
MC1	44	P31	MGTYTXP1_129	MGTYTXP1_129	29.47	150.01	78.52	129	QSFP_2_TX2_P	J9-3
MC1	45	N34	MGTYRXN1_129	MGTYRXN1_129	35.90	185.66	97.76	129	QSFP_2_RX2_N	J9-21
MC1	46	P32	MGTYTXN1_129	MGTYTXN1_129	29.49	150.16	78.35	129	QSFP_2_TX2_N	J9-2
MC1	47		GND	DGND					DGND	
MC1	48		GND	DGND					DGND	
MC1	49	R33	MGTYRXP0_129	MGTYRXP0_129	32.71	167.99	95.37	129	QSFP_2_RX1_P	J9-17
MC1	50	T31	MGTYTXP0_129	MGTYTXP0_129	29.72	151.43	77.00	129	QSFP_2_TX1_P	J9-36
MC1	51	R34	MGTYRXN0_129	MGTYRXN0_129	32.69	167.90	95.48	129	QSFP_2_RX1_N	J9-18
MC1	52	T32	MGTYTXN0_129	MGTYTXN0_129	29.73	151.46	76.96	129	QSFP_2_TX1_N	J9-37
MC1	53		GND	DGND					DGND	
MC1	54		GND	DGND					DGND	
MC1	55									
MC1	56									
MC1	57	Y22	IO_T1U_N12_68	B68_T1U_N12	52.67	292.15	87.21	68	B68_T1U_N12	MC4-7
MC1	58	U29	IO_T3U_N12_68	B68_T3U_N12	39.61	216.24	130.52	68	QSFP_4_LP_MODE_VIO	

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MC1	59	AA28	IO_T0U_N12_VRP_68	B68_T0U_N12_VRP	46.52	255.33	122.02	68	B68_T0U_N12_VRP	MC4-5
MC1	60	Y21	IO_T2U_N12_68	B68_T2U_N12	49.20	271.99	90.83	68	B68_T2U_N12	MC4-3
MC1	61	T22	IO_L17P_T2U_N8_AD10P_68	B68_L17P	45.92	299.83	101.24	68	B68_L17P	MC4-9
MC1	62	AB21	IO_L10P_T1U_N6_QBC_AD4P_68	B68_L10P	43.46	282.71	97.95	68	B68_L10P	MC4-21
MC1	63	T23	IO_L17N_T2U_N9_AD10N_68	B68_L17N	46.69	305.14	96.14	68	B68_L17N	MC4-11
MC1	64	AC21	IO_L10N_T1U_N7_QBC_AD4N_68	B68_L10N	43.37	282.10	98.53	68	B68_L10N	MC4-23
MC1	65	AA20	IO_L9P_T1L_N4_AD12P_68	B68_L9P	48.50	317.76	90.00	68	B68_L9P	MC4-13
MC1	66	V21	IO_L18P_T2U_N10_AD2P_68	B68_L18P	42.80	278.13	78.87	68	B68_L18P	MC4-25
MC1	67	AB20	IO_L9N_T1L_N5_AD12N_68	B68_L9N	48.24	315.96	91.74	68	B68_L9N	MC4-15
MC1	68	W21	IO_L18N_T2U_N11_AD2N_68	B68_L18N	42.80	278.12	78.87	68	B68_L18N	MC4-27
MC1	69	U26	IO_L22P_T3U_N6_DBC_AD0P_68	B68_L22P	40.76	264.01	126.88	68	B68_L22P	MC4-17
MC1	70	AA22	IO_L7P_T1L_N0_QBC_AD13P_68	B68_L7P	39.87	257.82	93.23	68	B68_L7P	MC4-29
MC1	71	U27	IO_L22N_T3U_N7_DBC_AD0N_68	B68_L22N	40.67	263.34	127.53	68	B68_L22N	MC4-19
MC1	72	AB22	IO_L7N_T1L_N1_QBC_AD13N_68	B68_L7N	39.81	257.39	93.65	68	B68_L7N	MC4-31
MC1	73	V22	IO_L16P_T2U_N6_QBC_AD3P_68	B68_L16P	42.95	279.23	98.70	68	B68_L16P	MC5-1
MC1	74	U21	IO_L15P_T2L_N4_AD11P_68	B68_L15P	39.70	256.54	81.62	68	B68_L15P	MC4-33
MC1	75	V23	IO_L16N_T2U_N7_QBC_AD3N_68	B68_L16N	42.98	279.38	98.55	68	B68_L16N	MC5-3
MC1	76	U22	IO_L15N_T2L_N5_AD11N_68	B68_L15N	39.84	257.55	80.65	68	B68_L15N	MC4-35
MC1	77	V27	IO_L19P_T3L_N0_DBC_AD9P_68	B68_L19P	38.68	249.57	131.04	68	B68_L19P	MC5-5
MC1	78	AC22	IO_L8P_T1L_N2_AD5P_68	B68_L8P	39.47	255.02	108.29	68	B68_L8P	MC4-37
MC1	79	V28	IO_L19N_T3L_N1_DBC_AD9N_68	B68_L19N	38.67	249.47	131.14	68	B68_L19N	MC5-7
MC1	80	AC23	IO_L8N_T1L_N3_AD5N_68	B68_L8N	39.74	256.92	106.39	68	B68_L8N	MC4-39
MC1	81	U24	IO_L20P_T3L_N2_AD1P_68	B68_L20P	38.40	247.58	112.68	68	B68_L20P	MC5-9
MC1	82	W23	IO_L13P_T2L_N0_GC_QBC_68	B68_L13P	38.22	246.27	91.99	68	B68_L13P	MC4-2
MC1	83	U25	IO_L20N_T3L_N3_AD1N_68	B68_L20N	39.65	256.30	104.17	68	B68_L20N	MC5-11
MC1	84	W24	IO_L13N_T2L_N1_GC_QBC_68	B68_L13N	38.27	246.63	91.12	68	B68_L13N	MC4-4

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MC1	85	V29	IO_L23P_T3U_N8_68	B68_L23P	36.22	232.43	129.94	68	B68_L23P	MC5-13
MC1	86	AB24	IO_L3P_T0L_N4_AD15P_68	B68_L3P	36.74	236.10	110.81	68	B68_L3P	MC4-6
MC1	87	W29	IO_L23N_T3U_N9_68	B68_L23N	36.22	232.43	130.84	68	B68_L23N	MC5-15
MC1	88	AC24	IO_L3N_T0L_N5_AD15N_68	B68_L3N	35.72	228.99	118.11	68	B68_L3N	MC4-8
MC1	89	W25	IO_L14P_T2L_N2_GC_68	B68_L14P	39.16	252.85	106.75	68	B68_L14P	MC5-17
MC1	90	AA24	IO_L12P_T1U_N10_GC_68	B68_L12P	36.18	232.14	114.63	68	B68_L12P	MC4-10
MC1	91	Y25	IO_L14N_T2L_N3_GC_68	B68_L14N	39.31	253.90	105.75	68	B68_L14N	MC5-19
MC1	92	AA25	IO_L12N_T1U_N11_GC_68	B68_L12N	36.38	233.52	113.30	68	B68_L12N	MC4-12
MC1	93	W28	IO_L21P_T3L_N4_AD8P_68	B68_L21P	37.37	240.43	126.30	68	QSFP_1_INT_B_VIO	
MC1	94	Y23	IO_L11P_T1U_N8_GC_68	B68_L11P	33.58	214.03	108.34	68	B68_L11P	MC4-14
MC1	95	Y28	IO_L21N_T3L_N5_AD8N_68	B68_L21N	36.84	236.79	129.80	68	QSFP_1_MODPRS_B_VIO	
MC1	96	AA23	IO_L11N_T1U_N9_GC_68	B68_L11N	33.46	213.20	109.14	68	B68_L11N	MC4-16
MC1	97	V26	IO_L24P_T3U_N10_68	B68_L24P	35.79	229.47	108.63	68	QSFP_1_RESET_B_VIO	
MC1	98	AB25	IO_L6P_T0U_N10_AD6P_68	B68_L6P	35.30	225.98	125.41	68	B68_L6P	MC4-18
MC1	99	W26	IO_L24N_T3U_N11_68	B68_L24N	36.09	231.56	107.55	68	QSFP_1_MODSEL_B_VIO	
MC1	100	AB26	IO_L6N_T0U_N11_AD6N_68	B68_L6N	35.85	229.84	121.69	68	B68_L6N	MC4-20
MC1	101	AA27	IO_L5P_T0U_N8_AD14P_68	B68_L5P	38.33	247.13	126.21	68	QSFP_1_SDA_VIO	
MC1	102	AD25	IO_L2P_T0L_N2_68	B68_L2P	35.04	224.25	132.51	68	B68_L2P	MC4-22
MC1	103	AB27	IO_L5N_T0U_N9_AD14N_68	B68_L5N	37.78	243.33	129.87	68	QSFP_1_SCL_VIO	
MC1	104	AD26	IO_L2N_T0L_N3_68	B68_L2N	34.99	223.93	132.81	68	B68_L2N	MC4-24
MC1	105	AC26	IO_L4P_T0U_N6_DBC_AD7P_68	B68_L4P	39.00	251.73	124.40	68	QSFP_1_LP_MODE_VIO	
MC1	106	Y26	IO_L1P_T0L_N0_DBC_68	B68_L1P	33.31	212.22	131.39	68	B68_L1P	MC4-26
MC1	107	AC27	IO_L4N_T0U_N7_DBC_AD7N_68	B68_L4N	38.93	251.26	124.86	68	QSFP_2_INT_B_VIO	
MC1	108	Y27	IO_L1N_T0L_N1_DBC_68	B68_L1N	33.51	213.65	130.02	68	B68_L1N	MC4-28

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MC1	109	AA34	IO_L17P_T2U_N8_AD10P_69	B69_L17P	30.68	194.03	190.54	69	QSFP_2_MODPRS_B_VIO	MC4-30
MC1	110	AB30	IO_L14P_T2L_N2_GC_69	B69_L14P	24.59	151.62	177.96	69	B69_L14P	
MC1	111	AB34	IO_L17N_T2U_N9_AD10N_69	B69_L17N	30.29	191.26	193.20	69	QSFP_2_RESET_B_VIO	
MC1	112	AB31	IO_L14N_T2L_N3_GC_69	B69_L14N	24.78	152.96	176.68	69	B69_L14N	MC4-32
MC1	113	W33	IO_L19P_T3L_N0_DBC_AD9P_69	B69_L19P	28.91	181.68	180.24	69	QSFP_2_MODSEL_B_VIO	MC4-34
MC1	114	AA29	IO_L16P_T2U_N6_QBC_AD3P_69	B69_L16P	30.08	189.80	176.40	69	B69_L16P	
MC1	115	Y33	IO_L19N_T3L_N1_DBC_AD9N_69	B69_L19N	28.91	181.68	179.95	69	QSFP_2_LP_MODE_VIO	
MC1	116	AB29	IO_L16N_T2U_N7_QBC_AD3N_69	B69_L16N	29.93	188.73	177.42	69	B69_L16N	MC4-36
MC1	117	AC34	IO_L15P_T2L_N4_AD11P_69	B69_L15P	30.04	189.52	193.15	69	QSFP_2_SDA_VIO	MC4-38
MC1	118	U34	IO_L23P_T3U_N8_69	B69_L23P	22.09	134.35	175.23	69	B69_L23P	
MC1	119	AD34	IO_L15N_T2L_N5_AD11N_69	B69_L15N	29.49	185.75	196.77	69	QSFP_2_SCL_VIO	
MC1	120	V34	IO_L23N_T3U_N9_69	B69_L23N	22.09	134.35	174.14	69	B69_L23N	MC4-40
MC1	121	AE33	IO_L10P_T1U_N6_QBC_AD4P_69	B69_L10P	31.31	198.40	192.68	69	QSFP_3_INT_B_VIO	MC5-2
MC1	122	V33	IO_L21P_T3L_N4_AD8P_69	B69_L21P	24.81	153.20	175.58	69	B69_L21P	
MC1	123	AF34	IO_L10N_T1U_N7_QBC_AD4N_69	B69_L10N	31.04	196.51	193.96	69	QSFP_3_MODPRS_B_VIO	
MC1	124	W34	IO_L21N_T3L_N5_AD8N_69	B69_L21N	25.02	154.70	173.14	69	B69_L21N	MC5-4
MC1	125	Y31	IO_L22P_T3U_N6_DBC_AD0P_69	B69_L22P	32.67	207.81	171.49	69	QSFP_3_RESET_B_VIO	MC5-6
MC1	126	AD30	IO_L11P_T1U_N8_GC_69	B69_L11P	29.52	185.85	185.61	69	B69_L11P	
MC1	127	Y32	IO_L22N_T3U_N7_DBC_AD0N_69	B69_L22N	32.88	209.26	170.10	69	QSFP_3_MODSEL_B_VIO	
MC1	128	AD31	IO_L11N_T1U_N9_GC_69	B69_L11N	29.46	185.45	185.98	69	B69_L11N	MC5-8

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MC1	129	AG31	IO_L7P_T1L_N0_QBC_AD13P_69	B69_L7P	35.03	224.21	202.90	69	QSFP_3_SDA_VIO	MC5-10
MC1	130	V31	IO_L24P_T3U_N10_69	B69_L24P	28.90	181.64	186.66	69	B69_L24P	
MC1	131	AG32	IO_L7N_T1L_N1_QBC_AD13N_69	B69_L7N	35.17	225.16	201.99	69	QSFP_3_SCL_VIO	MC5-12
MC1	132	W31	IO_L24N_T3U_N11_69	B69_L24N	29.21	183.76	184.62	69	B69_L24N	
MC1	133	AA32	IO_L13P_T2L_N0_GC_QBC_69	B69_L13P	31.55	200.01	185.97	69	QSFP_3_LP_MODE_VIO	MC5-14
MC1	134	AD29	IO_L5P_T0U_N8_AD14P_69	B69_L5P	31.01	196.22	182.34	69	B69_L5P	
MC1	135	AB32	IO_L13N_T2L_N1_GC_QBC_69	B69_L13N	31.55	200.01	187.25	69	QSFP_4_INT_B_VIO	MC5-16
MC1	136	AE30	IO_L5N_T0U_N9_AD14N_69	B69_L5N	30.51	192.77	185.65	69	B69_L5N	
MC1	137	AF30	IO_L6P_T0U_N10_AD6P_69	B69_L6P	36.94	237.49	177.44	69	QSFP_4_MODPRS_B_VIO	MC5-18
MC1	138	W30	IO_L20P_T3L_N2_AD1P_69	B69_L20P	29.45	185.44	168.76	69	B69_L20P	
MC1	139	AG30	IO_L6N_T0U_N11_AD6N_69	B69_L6N	36.64	235.40	178.93	69	QSFP_4_RESET_B_VIO	MC5-20
MC1	140	Y30	IO_L20N_T3L_N3_AD1N_69	B69_L20N	29.57	186.28	167.40	69	B69_L20N	
MC1	141	AC31	IO_L12P_T1U_N10_GC_69	B69_L12P	33.39	212.78	178.60	69	QSFP_4_MODSEL_B_VIO	MC5-22
MC1	142	AC28	IO_L3P_T0L_N4_AD15P_69	B69_L3P	34.32	219.22	186.10	69	B69_L3P	
MC1	143	AC32	IO_L12N_T1U_N11_GC_69	B69_L12N	33.55	213.94	177.48	69	QSFP_4_SDA_VIO	J3-31
MC1	144	AD28	IO_L3N_T0L_N5_AD15N_69	B69_L3N	34.87	223.04	182.43	69	PORTA_S26	
MC1	145	AF29	IO_L4P_T0U_N6_DBC_AD7P_69	B69_L4P	39.30	253.83	171.93	69	QSFP_4_SCL_VIO	J3-34
MC1	146	AC33	IO_L18P_T2U_N10_AD2P_69	B69_L18P	25.22	156.08	189.83	69	PORTA_C2P_CLK_P	
MC1	147	AG29	IO_L4N_T0U_N7_DBC_AD7N_69	B69_L4N	39.12	252.57	173.14	69	PORTA_S27	J3-32
MC1	148	AD33	IO_L18N_T2U_N11_AD2N_69	B69_L18N	25.22	156.08	190.51	69	PORTA_C2P_CLK_N	J3-36

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC1	149	AF33	IO_L8P_T1L_N2_AD5P_69	B69_L8P	30.13	190.19	194.23	69	PORTA_S9_D5_P	J3-14
MC1	150	AE28	IO_L2P_T0L_N2_69	B69_L2P	34.12	217.83	159.52	69	PORTA_S13_D7_P	J3-18
MC1	151	AG34	IO_L8N_T1L_N3_AD5N_69	B69_L8N	29.79	187.82	196.45	69	PORTA_S11_D5_N	J3-16
MC1	152	AF28	IO_L2N_T0L_N3_69	B69_L2N	34.02	217.16	160.17	69	PORTA_S15_D7_N	J3-20
MC1	153	AE32	IO_L9P_T1L_N4_AD12P_69	B69_L9P	36.82	236.60	197.78	69	PORTA_S25	J3-30
MC1	154	AE27	IO_L1P_T0L_N0_DBC_69	B69_L1P	31.22	197.74	183.09	69	PORTA_S24	J3-29
MC1	155	AF32	IO_L9N_T1L_N5_AD12N_69	B69_L9N	36.09	231.59	201.25	69	PORTA_S23	J3-28
MC1	156	AF27	IO_L1N_T0L_N1_DBC_69	B69_L1N	31.22	197.74	183.69	69	PORTA_S22	J3-27
MC1	157	V32	IO_T3U_N12_69	B69_T3U_N12	38.49	209.74	187.68	69	PORTA_S21	J3-26
MC1	158	AA33	IO_T2U_N12_69	B69_T2U_N12	32.55	175.24	178.02	69	PORTA_S20	J3-25
MC1	159	AC29	IO_T0U_N12_VRP_69	B69_T0U_N12_VRP	38.83	211.96	161.75	69		Not Connected
MC1	160	AE31	IO_T1U_N12_69	B69_T1U_N12	32.08	172.50	176.61	69	PORTA_S18	J3-23
MC1	161	AE25	IO_L7P_T1L_N0_QBC_AD13P_67	B67_L7P	45.76	298.71	134.07	67	PORTA_S19	J3-24
MC1	162	AE22	IO_L5P_T0U_N8_AD14P_67	B67_L5P	38.83	250.49	115.53	67	PORTA_S4_D2_P	J3-9
MC1	163	AE26	IO_L7N_T1L_N1_QBC_AD13N_67	B67_L7N	45.88	299.54	133.27	67	PORTA_S17	J3-22
MC1	164	AE23	IO_L5N_T0U_N9_AD14N_67	B67_L5N	38.44	247.82	118.09	67	PORTA_S6_D2_N	J3-11
MC1	165	AF23	IO_L8P_T1L_N2_AD5P_67	B67_L8P	43.00	279.54	134.64	67	PORTA_S0_D0_P	J3-5
MC1	166	AG24	IO_L9P_T1L_N4_AD12P_67	B67_L9P	40.15	259.64	137.31	67	PORTA_S12_D6_P	J3-17
MC1	167	AF24	IO_L8N_T1L_N3_AD5N_67	B67_L8N	43.02	279.67	134.51	67	PORTA_S2_D0_N	J3-7
MC1	168	AG25	IO_L9N_T1L_N5_AD12N_67	B67_L9N	39.74	256.81	140.04	67	PORTA_S14_D6_N	J3-19

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC1	169	AH24	IO_L10P_T1U_N6_QBC_AD4P_67	B67_L10P	44.13	287.39	145.03	67	PORTA_S5_D3_P	J3-10
MC1	170	AD21	IO_L1P_T0L_N0_DBC_67	B67_L1P	40.46	261.89	99.38	67	PORTA_S8_D4_P	J3-13
MC1	171	AJ25	IO_L10N_T1U_N7_QBC_AD4N_67	B67_L10N	44.24	288.16	144.30	67	PORTA_S7_D3_N	J3-12
MC1	172	AE21	IO_L1N_T0L_N1_DBC_67	B67_L1N	40.46	261.89	100.65	67	PORTA_S10_D4_N	J3-15
MC1	173	AJ23	IO_L11P_T1U_N8_GC_67	B67_L11P	42.67	277.28	160.58	67	PORTA_P2C_CLK_P	J3-33
MC1	174	AF22	IO_L6P_T0U_N10_AD6P_67	B67_L6P	44.40	289.19	106.65	67	PORTA_S16	J3-21
MC1	175	AJ24	IO_L11N_T1U_N9_GC_67	B67_L11N	42.66	277.15	160.71	67	PORTA_P2C_CLK_N	J3-35
MC1	176	AG22	IO_L6N_T0U_N11_AD6N_67	B67_L6N	43.79	284.92	110.75	67	PORTB_S18	J4-23
MC1	177	AL24	IO_L18P_T2U_N10_AD2P_67	B67_L18P	43.61	283.75	171.62	67	PORTA_S1_D1_P	J3-6
MC1	178	AD20	IO_L3P_T0L_N4_AD15P_67	B67_L3P	42.82	278.30	91.71	67	PORTB_S16	J4-21
MC1	179	AL25	IO_L18N_T2U_N11_AD2N_67	B67_L18N	43.38	282.16	173.03	67	PORTA_S3_D1_N	J3-8
MC1	180	AE20	IO_L3N_T0L_N5_AD15N_67	B67_L3N	42.52	276.21	92.34	67	PORTB_S20	J4-25
MC2	1	V12	VP	VDCIN					VDCIN	J1-1,J2-1,J2-2,J2-3
MC2	2			VDCIN					VDCIN	J1-1,J2-1,J2-2,J2-3
MC2	3			VDCIN					VDCIN	J1-1,J2-1,J2-2,J2-3
MC2	4			VDCIN					VDCIN	J1-1,J2-1,J2-2,J2-3
MC2	5			VDCIN					VDCIN	J1-1,J2-1,J2-2,J2-3
MC2	6			VDCIN					VDCIN	J1-1,J2-1,J2-2,J2-3
MC2	7			VDCIN					VDCIN	J1-1,J2-1,J2-2,J2-3
MC2	8			VDCIN					VDCIN	J1-1,J2-1,J2-2,J2-3
MC2	9			VDCIN					VDCIN	J1-1,J2-1,J2-2,J2-3
MC2	10	W11	VN	XADC_VP_C					XADC_VP_C	
MC2	11									
MC2	12			XADC_VN_C					XADC_VN_C	
MC2	13	AD7	VBATT	VBATT					VBATT	

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC2	14			FX3_SCL_1V8					FX3_SCL_1V8	
MC2	15			XEM8370_PGOOD					XEM8370_PGOOD	
MC2	16			FX3_SDA_1V8					FX3_SDA_1V8	
MC2	17			XEM8370_EN					PWR_EN	
MC2	18	V9	TDI_0	FPGA_JTAG_TDI					FPGA_JTAG_TDI	J5-10
MC2	19									
MC2	20	U9	TDO_0	FPGA_JTAG_TDO					FPGA_JTAG_TDO	J5-8
MC2	21		VCCAUX,VCCO_0,VCCAUX_IO,VCCO_65	1.8V					1.8V	J5-2,U1-1,U1-6,U4-1,U4-6,U6-1,U6-6,U7-1,U7-6
MC2	22	AC9	TCK_0	FPGA_JTAG_TCK					FPGA_JTAG_TCK	J5-6
MC2	23									
MC2	24	W9	TMS_0	FPGA_JTAG_TMS					FPGA_JTAG_TMS	J5-4
MC2	25									
MC2	26	U12	VCCADC	VCCADC					VCCADC	
MC2	27	W12	VREFP	VREFP					VREFP	
MC2	28	U11,V11	GNDADC,VREFN	GNDADC					GNDADC	
MC2	29	A4	MGTHRXP3_228	MGTHRXP3_228	23.62	117.59	161.01	228	QSFP_3_RX4_P	J30-25
MC2	30	B6	MGHTXP3_228	MGHTXP3_228	31.95	163.76	134.53	228	QSFP_3_TX4_P	J30-6
MC2	31	A3	MGTHRXN3_228	MGTHRXN3_228	23.63	117.67	160.92	228	QSFP_3_RX4_N	J30-24
MC2	32	B5	MGHTXN3_228	MGHTXN3_228	31.98	163.92	134.33	228	QSFP_3_TX4_N	J30-5
MC2	33	B2	MGTHRXP2_228	MGTHRXP2_228	21.41	105.36	175.54	228	QSFP_3_RX3_P	J30-14
MC2	34	C4	MGHTXP2_228	MGHTXP2_228	33.00	169.59	146.38	228	QSFP_3_TX3_P	J30-33
MC2	35	B1	MGTHRXN2_228	MGTHRXN2_228	21.42	105.44	175.45	228	QSFP_3_RX3_N	J30-15
MC2	36	C3	MGHTXN2_228	MGHTXN2_228	33.03	169.75	146.18	228	QSFP_3_TX3_N	J30-34
MC2	37	D2	MGTHRXP1_228	MGTHRXP1_228	21.62	106.51	174.98	228	QSFP_3_RX2_P	J30-22
MC2	38	D6	MGHTXP1_228	MGHTXP1_228	31.53	161.46	127.23	228	QSFP_3_TX2_P	J30-3
MC2	39	D1	MGTHRXN1_228	MGTHRXN1_228	21.60	106.43	175.07	228	QSFP_3_RX2_N	J30-21
MC2	40	D5	MGHTXN1_228	MGHTXN1_228	31.56	161.62	127.04	228	QSFP_3_TX2_N	J30-2
MC2	41	E4	MGTHRXP0_228	MGTHRXP0_228	24.23	120.99	161.14	228	QSFP_3_RX1_P	J30-17
MC2	42	F6	MGHTXP0_228	MGHTXP0_228	35.94	185.88	118.33	228	QSFP_3_TX1_P	J30-36

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC2	43	E3	MGTHRXN0_228	MGTHRXN0_228	24.24	121.07	161.04	228	QSFP_3_RX1_N	J30-18
MC2	44	F5	MGHTXN0_228	MGHTXN0_228	35.97	186.05	118.13	228	QSFP_3_TX1_N	J30-37
MC2	45	P6	MGTREFCLK0P_227	MGTREFCLK0P_227	28.59	144.16	85.48	227	MGTREFCLK0P_227	
MC2	46	K6	MGTREFCLK0P_228	MGTREFCLK0P_228	34.14	174.92	95.83	228	MGTREFCLK0P_228	U7-4
MC2	47	P5	MGTREFCLK0N_227	MGTREFCLK0N_227	28.66	144.54	85.28	227	MGTREFCLK0N_227	
MC2	48	K5	MGTREFCLK0N_228	MGTREFCLK0N_228	34.19	175.17	95.69	228	MGTREFCLK0N_228	U7-5
MC2	49	F2	MGTHRXP3_227	MGTHRXP3_227	23.17	115.10	164.25	227	QSFP_4_RX4_P	J31-25
MC2	50	G4	MGHTXP3_227	MGHTXP3_227	35.32	182.43	121.72	227	QSFP_4_TX4_P	J31-6
MC2	51	F1	MGTHRXN3_227	MGTHRXN3_227	23.18	115.18	164.15	227	QSFP_4_RX4_N	J31-24
MC2	52	G3	MGHTXN3_227	MGHTXN3_227	35.35	182.60	121.53	227	QSFP_4_TX4_N	J31-5
MC2	53	H2	MGTHRXP2_227	MGTHRXP2_227	22.75	112.78	155.43	227	QSFP_4_RX3_P	J31-14
MC2	54	J4	MGHTXP2_227	MGHTXP2_227	31.56	161.61	112.73	227	QSFP_4_TX3_P	J31-33
MC2	55	H1	MGTHRXN2_227	MGTHRXN2_227	22.76	112.85	155.34	227	QSFP_4_RX3_N	J31-15
MC2	56	J3	MGHTXN2_227	MGHTXN2_227	31.46	161.07	112.53	227	QSFP_4_TX3_N	J31-34
MC2	57	K2	MGTHRXP1_227	MGTHRXP1_227	22.83	113.22	155.90	227	QSFP_4_RX2_P	J31-22
MC2	58	L4	MGHTXP1_227	MGHTXP1_227	34.06	175.47	103.94	227	QSFP_4_TX2_P	J31-3
MC2	59	K1	MGTHRXN1_227	MGTHRXN1_227	22.84	113.30	155.80	227	QSFP_4_RX2_N	J31-21
MC2	60	L3	MGHTXN1_227	MGHTXN1_227	34.09	175.64	103.74	227	QSFP_4_TX2_N	J31-2
MC2	61	M2	MGTHRXP0_227	MGTHRXP0_227	22.35	110.55	138.35	227	QSFP_4_RX1_P	J31-17
MC2	62	N4	MGHTXP0_227	MGHTXP0_227	29.95	152.67	97.48	227	QSFP_4_TX1_P	J31-36
MC2	63	M1	MGTHRXN0_227	MGTHRXN0_227	22.35	110.60	138.29	227	QSFP_4_RX1_N	J31-18
MC2	64	N3	MGHTXN0_227	MGHTXN0_227	29.98	152.83	97.28	227	QSFP_4_TX1_N	J31-37
MC2	65	AB6	MGTREFCLK0P_225	MGTREFCLK0P_225	33.71	172.51	70.06	225	MGTREFCLK0P_225	U6-4
MC2	66	V6	MGTREFCLK0P_226	MGTREFCLK0P_226	38.47	198.91	83.20	226	MGTREFCLK0P_226	U1-4
MC2	67	AB5	MGTREFCLK0N_225	MGTREFCLK0N_225	33.49	171.30	70.22	225	MGTREFCLK0N_225	U6-5
MC2	68	V5	MGTREFCLK0N_226	MGTREFCLK0N_226	38.23	197.57	83.12	226	MGTREFCLK0N_226	U1-5
MC2	69	P2	MGTHRXP3_226	MGTHRXP3_226	22.76	112.83	130.04	226		Not Connected

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC2	70	R4	MGTHTXP3_226	MGTHTXP3_226	30.36	154.98	85.89	226		Not Connected
MC2	71	P1	MGTHRXN3_226	MGTHRXN3_226	22.76	112.87	129.99	226		Not Connected
MC2	72	R3	MGTHTXN3_226	MGTHTXN3_226	30.39	155.14	85.69	226		Not Connected
MC2	73	T2	MGTHRXP2_226	MGTHRXP2_226	22.56	111.77	128.37	226		Not Connected
MC2	74	U4	MGTHTXP2_226	MGTHTXP2_226	33.41	171.89	82.48	226		Not Connected
MC2	75	T1	MGTHRXN2_226	MGTHRXN2_226	22.58	111.84	128.27	226		Not Connected
MC2	76	U3	MGTHTXN2_226	MGTHTXN2_226	33.44	172.04	82.30	226		Not Connected
MC2	77	V2	MGTHRXP1_226	MGTHRXP1_226	22.36	110.62	106.38	226		Not Connected
MC2	78	W4	MGTHTXP1_226	MGTHTXP1_226	29.95	152.67	76.49	226		Not Connected
MC2	79	V1	MGTHRXN1_226	MGTHRXN1_226	22.37	110.70	106.28	226		Not Connected
MC2	80	W3	MGTHTXN1_226	MGTHTXN1_226	29.97	152.82	76.30	226		Not Connected
MC2	81	Y2	MGTHRXP0_226	MGTHRXP0_226	24.22	120.94	96.36	226		Not Connected
MC2	82	AA4	MGTHTXP0_226	MGTHTXP0_226	35.07	181.07	72.43	226		Not Connected
MC2	83	Y1	MGTHRXN0_226	MGTHRXN0_226	24.23	121.00	96.29	226		Not Connected
MC2	84	AA3	MGTHTXN0_226	MGTHTXN0_226	35.10	181.23	72.24	226		Not Connected
MC2	85	AB2	MGTHRXP3_225	MGTHRXP3_225	23.98	119.59	94.23	225		Not Connected
MC2	86	AC4	MGTHTXP3_225	MGTHTXP3_225	31.60	161.86	75.29	225		Not Connected
MC2	87	AB1	MGTHRXN3_225	MGTHRXN3_225	23.99	119.67	94.14	225		Not Connected
MC2	88	AC3	MGTHTXN3_225	MGTHTXN3_225	31.63	162.03	75.09	225		Not Connected
MC2	89	AD2	MGTHRXP2_225	MGTHRXP2_225	23.81	118.66	95.37	225		Not Connected
MC2	90	AE4	MGTHTXP2_225	MGTHTXP2_225	34.66	178.79	84.87	225		Not Connected
MC2	91	AD1	MGTHRXN2_225	MGTHRXN2_225	23.82	118.74	95.27	225		Not Connected
MC2	92	AE3	MGTHTXN2_225	MGTHTXN2_225	34.68	178.93	84.70	225		Not Connected
MC2	93	AF2	MGTHRXP1_225	MGTHRXP1_225	23.58	117.42	96.17	225		Not Connected
MC2	94	AG4	MGTHTXP1_225	MGTHTXP1_225	31.19	159.56	82.72	225		Not Connected
MC2	95	AF1	MGTHRXN1_225	MGTHRXN1_225	23.60	117.50	96.08	225		Not Connected
MC2	96	AG3	MGTHTXN1_225	MGTHTXN1_225	31.22	159.72	82.53	225		Not Connected
MC2	97	AH2	MGTHRXP0_225	MGTHRXP0_225	23.40	116.37	102.67	225		Not Connected
MC2	98	AH6	MGTHTXP0_225	MGTHTXP0_225	36.66	189.86	84.71	225		Not Connected
MC2	99	AH1	MGTHRXN0_225	MGTHRXN0_225	23.41	116.45	102.57	225		Not Connected
MC2	100	AH5	MGTHTXN0_225	MGTHTXN0_225	36.68	190.01	84.52	225		Not Connected

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC2	101	AJ4	MGTHRXP3_224	MGTHRXP3_224	25.68	129.01	87.79	224	PORTE_RX3_P	J14-25
MC2	102	AK6	MGHTXP3_224	MGHTXP3_224	33.19	170.64	93.17	224	PORTE_TX3_P	J14-26
MC2	103	AJ3	MGTHRXN3_224	MGTHRXN3_224	25.69	129.09	87.70	224	PORTE_RX3_N	J14-27
MC2	104	AK5	MGHTXN3_224	MGHTXN3_224	33.22	170.80	92.97	224	PORTE_TX3_N	J14-28
MC2	105	AK2	MGTHRXP2_224	MGTHRXP2_224	23.80	118.61	108.28	224	PORTE_RX2_P	J14-29
MC2	106	AL4	MGHTXP2_224	MGHTXP2_224	34.65	178.76	107.79	224	PORTE_TX2_P	J14-30
MC2	107	AK1	MGTHRXN2_224	MGTHRXN2_224	23.81	118.69	108.19	224	PORTE_RX2_N	J14-31
MC2	108	AL3	MGHTXN2_224	MGHTXN2_224	34.68	178.92	107.60	224	PORTE_TX2_N	J14-32
MC2	109	AM2	MGTHRXP1_224	MGTHRXP1_224	23.59	117.47	108.73	224	PORTE_RX1_P	J14-9
MC2	110	AM6	MGHTXP1_224	MGHTXP1_224	33.60	172.94	100.56	224	PORTE_TX1_P	J14-10
MC2	111	AM1	MGTHRXN1_224	MGTHRXN1_224	23.61	117.55	108.64	224	PORTE_RX1_N	J14-11
MC2	112	AM5	MGHTXN1_224	MGHTXN1_224	33.63	173.09	100.37	224	PORTE_TX1_N	J14-12
MC2	113	AP2	MGTHRXP0_224	MGTHRXP0_224	23.38	116.29	112.71	224	PORTE_RX0_P	J14-5
MC2	114	AN4	MGHTXP0_224	MGHTXP0_224	35.07	181.06	113.92	224	PORTE_TX0_P	J14-6
MC2	115	AP1	MGTHRXN0_224	MGTHRXN0_224	23.38	116.31	112.68	224	PORTE_RX0_N	J14-7
MC2	116	AN3	MGHTXN0_224	MGHTXN0_224	35.10	181.22	113.74	224	PORTE_TX0_N	J14-8
MC2	117									
MC2	118	AF6	MGTREFCLK0P_224	MGTREFCLK0P_224	44.25	230.92	70.80	224	PORTE_REFCLK_P	J14-13
MC2	119									
MC2	120	AF5	MGTREFCLK0N_224	MGTREFCLK0N_224	44.33	231.37	71.07	224	PORTE_REFCLK_N	J14-15

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC3	1	AM24	IO_L21P_T3L_N4_AD8P_67	B67_L21P	38.80	250.40	193.98	67	PORTB_S13_D7_P	J4-18
MC3	2	AH22	IO_L12P_T1U_N10_GC_67	B67_L12P	37.50	241.33	158.50	67	PORTB_P2C_CLK_P	J4-33
MC3	3	AN24	IO_L21N_T3L_N5_AD8N_67	B67_L21N	38.30	246.88	196.56	67	PORTB_S15_D7_N	J4-20
MC3	4	AH23	IO_L12N_T1U_N11_GC_67	B67_L12N	37.30	239.98	159.80	67	PORTB_P2C_CLK_N	J4-35
MC3	5	AL22	IO_L17P_T2U_N8_AD10P_67	B67_L17P	38.49	248.22	184.82	67	PORTB_C2P_CLK_P	J4-34
MC3	6	AJ21	IO_L13P_T2L_N0_GC_QBC_67	B67_L13P	40.24	260.30	185.64	67	PORTB_S12_D6_P	J4-17
MC3	7	AL23	IO_L17N_T2U_N9_AD10N_67	B67_L17N	38.47	248.08	184.95	67	PORTB_C2P_CLK_N	J4-36
MC3	8	AK21	IO_L13N_T2L_N1_GC_QBC_67	B67_L13N	40.21	260.09	185.85	67	PORTB_S14_D6_N	J4-19
MC3	9	AP24	IO_L23P_T3U_N8_67	B67_L23P	36.33	233.23	202.61	67	PORTB_S27	J4-32
MC3	10	AG21	IO_L4P_T0U_N6_DBC_AD7P_67	B67_L4P	37.02	238.01	115.29	67	PORTB_S26	J4-31
MC3	11	AP25	IO_L23N_T3U_N9_67	B67_L23N	36.08	231.50	204.27	67	PORTB_S25	J4-30
MC3	12	AH21	IO_L4N_T0U_N7_DBC_AD7N_67	B67_L4N	36.92	237.30	115.98	67	PORTB_S24	J4-29
MC3	13	AN23	IO_L24P_T3U_N10_67	B67_L24P	34.30	219.14	194.28	67	PORTB_S23	J4-28
MC3	14	AK22	IO_L14P_T2L_N2_GC_67	B67_L14P	36.52	234.45	173.69	67	PORTB_S8_D4_P	J4-13
MC3	15	AP23	IO_L24N_T3U_N11_67	B67_L24N	34.24	218.69	194.71	67	PORTB_S21	J4-26
MC3	16	AK23	IO_L14N_T2L_N3_GC_67	B67_L14N	36.44	233.96	174.07	67	PORTB_S10_D4_N	J4-15
MC3	17	AM22	IO_L20P_T3L_N2_AD1P_67	B67_L20P	38.39	247.52	186.87	67	PORTB_S19	J4-24
MC3	18	AF20	IO_L2P_T0L_N2_67	B67_L2P	37.04	238.17	98.28	67	PORTB_S9_D5_P	J4-14
MC3	19	AN22	IO_L20N_T3L_N3_AD1N_67	B67_L20N	38.00	244.85	187.89	67	PORTB_S17	J4-22
MC3	20	AG20	IO_L2N_T0L_N3_67	B67_L2N	36.64	235.35	100.98	67	PORTB_S11_D5_N	J4-16
MC3	21	AM21	IO_L19P_T3L_N0_DBC_AD9P_67	B67_L19P	34.04	217.30	205.47	67	PORTB_S1_D1_P	J4-6
MC3	22	AL20	IO_L15P_T2L_N4_AD11P_67	B67_L15P	35.61	228.16	197.41	67	PORTB_S4_D2_P	J4-9
MC3	23	AN21	IO_L19N_T3L_N1_DBC_AD9N_67	B67_L19N	33.86	216.11	206.62	67	PORTB_S3_D1_N	J4-8
MC3	24	AM20	IO_L15N_T2L_N5_AD11N_67	B67_L15N	35.24	225.59	198.61	67	PORTB_S6_D2_N	J4-11
MC3	25	AP20	IO_L22P_T3U_N6_DBC_AD0P_67	B67_L22P	37.59	241.99	206.18	67	PORTB_S5_D3_P	J4-10
MC3	26	AJ20	IO_L16P_T2U_N6_QBC_AD3P_67	B67_L16P	33.21	211.58	181.94	67	PORTB_S0_D0_P	J4-5
MC3	27	AP21	IO_L22N_T3U_N7_DBC_AD0N_67	B67_L22N	37.66	242.47	205.55	67	PORTB_S7_D3_N	J4-12
MC3	28	AK20	IO_L16N_T2U_N7_QBC_AD3N_67	B67_L16N	33.23	211.73	181.80	67	PORTB_S2_D0_N	J4-7
MC3	29	AF25	IO_T1U_N12_67	B67_T1U_N12	38.26	208.39	134.70	67	PORTB_S22	J4-27

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC3	30	AD24	IO_T0U_N12_VRP_67	B67_T0U_N12_VRP	37.02	200.31	105.62	67		Not Connected
MC3	31		VCCO_68,VCCO_69,VCCO_67	VCCO_67_68_69					VCCO_67_68_69	J3-39,J4-39,MC4-1,MC5-40
MC3	32	AJ19	IO_T1U_N12_64	B64_T1U_N12	36.10	195.88	81.72	64		Not Connected
MC3	33	AP19	IO_T0U_N12_VRP_64	B64_T0U_N12_VRP	41.20	196.77	94.93	64	B64_T0U_N12_VRP	MC5-21
MC3	34	AE18	IO_L21P_T3L_N4_AD8P_64	B64_L21P	38.01	244.81	100.82	64	PORTC_S22	J6-27
MC3	35		VCCO_64,VCCO_66	VCCO_64_66					VCCO_64_66	J6-39,J7-39,J14-39,MC5-39
MC3	36	AF18	IO_L21N_T3L_N5_AD8N_64	B64_L21N	37.64	242.24	104.49	64	PORTC_S18	J6-23
MC3	37	AG19	IO_L17P_T2U_N8_AD10P_64	B64_L17P	39.08	252.31	100.76	64	PORTC_S26	J6-31
MC3	38	AG17	IO_L15P_T2L_N4_AD11P_64	B64_L15P	39.30	253.77	81.58	64	PORTC_S16	J6-21
MC3	39	AH19	IO_L17N_T2U_N9_AD10N_64	B64_L17N	38.54	248.61	104.44	64	PORTC_S24	J6-29
MC3	40	AG16	IO_L15N_T2L_N5_AD11N_64	B64_L15N	39.28	253.62	81.72	64	PORTC_S25	J6-30
MC3	41	AL19	IO_L8P_T1L_N2_AD5P_64	B64_L8P	36.51	234.48	86.21	64	PORTC_S19	J6-24
MC3	42	AD19	IO_L19P_T3L_N0_DBC_AD9P_64	B64_L19P	36.79	236.39	89.45	64	PORTC_S21	J6-26
MC3	43	AM19	IO_L8N_T1L_N3_AD5N_64	B64_L8N	35.80	229.56	90.94	64	PORTC_S20	J6-25
MC3	44	AD18	IO_L19N_T3L_N1_DBC_AD9N_64	B64_L19N	36.86	236.94	88.93	64	PORTC_S17	J6-22
MC3	45	AJ18	IO_L11P_T1U_N8_GC_64	B64_L11P	35.91	230.31	91.73	64	PORTC_P2C_CLK_P	J6-33
MC3	46	AH18	IO_L13P_T2L_N0_GC_QBC_64	B64_L13P	35.29	225.91	107.05	64	PORTC_S8_D4_P	J6-13
MC3	47	AK18	IO_L11N_T1U_N9_GC_64	B64_L11N	35.68	228.74	93.07	64	PORTC_P2C_CLK_N	J6-35
MC3	48	AH17	IO_L13N_T2L_N1_GC_QBC_64	B64_L13N	35.29	225.91	107.18	64	PORTC_S10_D4_N	J6-15
MC3	49	AN19	IO_L2P_T0L_N2_64	B64_L2P	34.35	219.51	87.82	64	PORTC_S27	J6-32
MC3	50	AE17	IO_L23P_T3U_N8_64	B64_L23P	35.50	227.48	103.40	64	PORTC_S12_D6_P	J6-17
MC3	51	AP18	IO_L2N_T0L_N3_64	B64_L2N	33.62	214.42	91.71	64	PORTC_S23	J6-28
MC3	52	AF17	IO_L23N_T3U_N9_64	B64_L23N	34.83	222.82	107.25	64	PORTC_S14_D6_N	J6-19
MC3	53	AL18	IO_L10P_T1U_N6_QBC_AD4P_64	B64_L10P	33.18	211.33	90.79	64	PORTC_S13_D7_P	J6-18
MC3	54	AH16	IO_L14P_T2L_N2_GC_64	B64_L14P	37.25	239.53	109.26	64	PORTC_S4_D2_P	J6-9
MC3	55	AL17	IO_L10N_T1U_N7_QBC_AD4N_64	B64_L10N	33.01	210.20	91.87	64	PORTC_S15_D7_N	J6-20
MC3	56	AJ16	IO_L14N_T2L_N3_GC_64	B64_L14N	37.41	240.67	108.16	64	PORTC_S6_D2_N	J6-11
MC3	57	AN18	IO_L4P_T0U_N6_DBC_AD7P_64	B64_L4P	34.86	223.05	86.27	64	PORTC_C2P_CLK_P	J6-34
MC3	58	AD16	IO_L24P_T3U_N10_64	B64_L24P	37.05	238.24	81.88	64	PORTC_S0_D0_P	J6-5

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC3	59	AN17	IO_L4N_T0U_N7_DBC_AD7N_64	B64_L4N	34.86	223.05	85.64	64	PORTC_C2P_CLK_N	J6-36
MC3	60	AD15	IO_L24N_T3U_N11_64	B64_L24N	36.93	237.40	82.92	64	PORTC_S2_D0_N	J6-7
MC3	61	AM17	IO_L3P_T0L_N4_AD15P_64	B64_L3P	32.49	206.54	92.90	64	PORTC_S1_D1_P	J6-6
MC3	62	AE16	IO_L22P_T3U_N6_DBC_AD0P_64	B64_L22P	32.19	204.47	83.93	64	PORTC_S9_D5_P	J6-14
MC3	63	AN16	IO_L3N_T0L_N5_AD15N_64	B64_L3N	32.00	203.16	96.15	64	PORTC_S3_D1_N	J6-8
MC3	64	AE15	IO_L22N_T3U_N7_DBC_AD0N_64	B64_L22N	32.19	204.47	83.90	64	PORTC_S11_D5_N	J6-16
MC3	65	AK17	IO_L12P_T1U_N10_GC_64	B64_L12P	31.23	197.83	87.61	64	PORTC_S5_D3_P	J6-10
MC3	66	AK15	IO_L9P_T1L_N4_AD12P_64	B64_L9P	28.54	179.06	104.56	64	B64_L9P	MC5-24
MC3	67	AK16	IO_L12N_T1U_N11_GC_64	B64_L12N	31.23	197.83	86.71	64	PORTC_S7_D3_N	J6-12
MC3	68	AL15	IO_L9N_T1L_N5_AD12N_64	B64_L9N	27.78	173.83	109.60	64	B64_L9N	MC5-26
MC3	69	AP16	IO_L6P_T0U_N10_AD6P_64	B64_L6P	30.64	193.74	102.65	64	B64_L6P	MC5-23
MC3	70	AG15	IO_L18P_T2U_N10_AD2P_64	B64_L18P	29.37	184.88	83.64	64	B64_L18P	MC5-28
MC3	71	AP15	IO_L6N_T0U_N11_AD6N_64	B64_L6N	30.25	191.01	105.28	64	B64_L6N	MC5-25
MC3	72	AG14	IO_L18N_T2U_N11_AD2N_64	B64_L18N	29.37	184.88	82.81	64	B64_L18N	MC5-30
MC3	73	AM16	IO_L5P_T0U_N8_AD14P_64	B64_L5P	29.09	182.93	85.05	64	B64_L5P	MC5-27
MC3	74	AJ15	IO_L16P_T2U_N6_QBC_AD3P_64	B64_L16P	29.03	182.49	95.80	64	B64_L16P	MC5-32
MC3	75	AM15	IO_L5N_T0U_N9_AD14N_64	B64_L5N	28.89	181.57	86.35	64	B64_L5N	MC5-29
MC3	76	AJ14	IO_L16N_T2U_N7_QBC_AD3N_64	B64_L16N	29.03	182.49	97.40	64	B64_L16N	MC5-34
MC3	77	AN14	IO_L1P_T0L_N0_DBC_64	B64_L1P	30.93	195.72	107.94	64	B64_L1P	MC5-31
MC3	78	AF15	IO_L20P_T3L_N2_AD1P_64	B64_L20P	30.03	189.50	83.98	64	B64_L20P	MC5-36
MC3	79	AP14	IO_L1N_T0L_N1_DBC_64	B64_L1N	30.74	194.43	109.19	64	B64_L1N	MC5-33
MC3	80	AF14	IO_L20N_T3L_N3_AD1N_64	B64_L20N	30.15	190.32	83.20	64	B64_L20N	MC5-38
MC3	81	AL14	IO_L7P_T1L_N0_QBC_AD13P_64	B64_L7P	29.57	186.28	96.43	64	B64_L7P	MC5-35
MC3	82	AE13	IO_L7P_HDGC_AD5P_88	B88_L7P	32.71	208.02	124.40	88	B88_L7P	MC6-2
MC3	83	AM14	IO_L7N_T1L_N1_QBC_AD13N_64	B64_L7N	29.32	184.55	97.75	64	B64_L7N	MC5-37
MC3	84	AF13	IO_L7N_HDGC_AD5N_88	B88_L7N	32.46	206.29	124.83	88	B88_L7N	MC6-4
MC3	85	AN13	IO_L2P_AD10P_88	B88_L2P	30.62	193.61	157.50	88	B88_L2P	MC6-1
MC3	86	AG12	IO_L11P_AD1P_88	B88_L11P	27.45	171.55	137.12	88	B88_L11P	MC6-6
MC3	87	AP13	IO_L2N_AD10N_88	B88_L2N	30.71	194.22	156.91	88	B88_L2N	MC6-3

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC3	88	AH12	IO_L11N_AD1N_88	B88_L11N	26.78	166.89	140.87	88	B88_L11N	MC6-8
MC3	89	AK13	IO_L6P_HDGC_AD6P_88	B88_L6P	30.14	190.21	148.82	88	B88_L6P	MC6-5
MC3	90	AE12	IO_L9P_AD3P_88	B88_L9P	32.37	205.67	115.09	88	B88_L9P	MC6-10
MC3	91	AL13	IO_L6N_HDGC_AD6N_88	B88_L6N	29.89	188.47	149.92	88	B88_L6N	MC6-7
MC3	92	AF12	IO_L9N_AD3N_88	B88_L9N	32.11	203.88	116.82	88	B88_L9N	MC6-12
MC3	93	AM12	IO_L4P_AD8P_88	B88_L4P	32.16	204.27	147.63	88	B88_L4P	MC6-9
MC3	94	AD11	IO_L10P_AD2P_88	B88_L10P	30.15	190.31	113.77	88	B88_L10P	MC6-14
MC3	95	AN12	IO_L4N_AD8N_88	B88_L4N	30.21	190.69	161.87	88	B88_L4N	MC6-11
MC3	96	AE11	IO_L10N_AD2N_88	B88_L10N	30.17	190.46	113.17	88	B88_L10N	MC6-16
MC3	97	AK12	IO_L5P_HDGC_AD7P_88	B88_L5P	29.77	187.66	151.82	88	B88_L5P	MC6-13
MC3	98	AG11	IO_L12P_AD0P_88	B88_L12P	30.44	192.25	126.85	88	B88_L12P	MC6-18
MC3	99	AL12	IO_L5N_HDGC_AD7N_88	B88_L5N	29.84	188.15	150.63	88	B88_L5N	MC6-15
MC3	100	AH11	IO_L12N_AD0N_88	B88_L12N	29.77	187.59	130.28	88	B88_L12N	MC6-20
MC3	101	AM11	IO_L3P_AD9P_88	B88_L3P	31.73	201.28	172.01	88	B88_L3P	MC6-17
MC3	102	AP11	IO_L1P_AD11P_88	B88_L1P	20.49	123.21	160.22	88	B88_L1P	MC6-22
MC3	103	AN11	IO_L3N_AD9N_88	B88_L3N	31.90	202.44	170.90	88	B88_L3N	MC6-19
MC3	104	AP10	IO_L1N_AD11N_88	B88_L1N	19.71	117.83	165.39	88	B88_L1N	MC6-24
MC3	105	AH13	IO_L8P_HDGC_AD4P_88	B88_L8P	33.38	212.76	133.90	88	B88_L8P	MC6-21
MC3	106	AF9	IO_L2P_AD14P_89	B89_L2P	31.59	200.27	156.12	89	B89_L2P	MC6-26
MC3	107	AJ13	IO_L8N_HDGC_AD4N_88	B88_L8N	33.17	211.31	135.29	88	B88_L8N	MC6-23
MC3	108	AG9	IO_L2N_AD14N_89	B89_L2N	30.92	195.61	160.47	89	B89_L2N	MC6-28
MC3	109	AJ9	IO_L11P_AD9P_89	B89_L11P	35.43	226.94	193.59	89	B89_L11P	MC6-25
MC3	110	AF10	IO_L1P_AD15P_89	B89_L1P	27.96	175.08	139.34	89	B89_L1P	MC6-30
MC3	111	AJ8	IO_L11N_AD9N_89	B89_L11N	34.79	222.50	199.36	89	B89_L11N	MC6-27

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC3	112	AG10	IO_L1N_AD15N_89	B89_L1N	27.24	170.09	144.13	89	B89_L1N	MC6-32
MC3	113	AL10	IO_L7P_HDGC_89	B89_L7P	29.76	187.63	174.31	89	B89_L7P	MC6-29
MC3	114	AE8	IO_L3P_AD13P_89	B89_L3P	32.52	206.71	149.40	89	B89_L3P	MC6-34
MC3	115	AM10	IO_L7N_HDGC_89	B89_L7N	29.59	186.44	174.06	89	B89_L7N	MC6-31
MC3	116	AF8	IO_L3N_AD13N_89	B89_L3N	31.58	200.18	155.68	89	B89_L3N	MC6-36
MC3	117	AN9	IO_L8P_HDGC_89	B89_L8P	28.66	179.99	186.88	89	B89_L8P	MC6-33
MC3	118	AD10	IO_L4P_AD12P_89	B89_L4P	30.72	194.29	133.89	89	B89_L4P	MC6-38
MC3	119	AP9	IO_L8N_HDGC_89	B89_L8N	28.54	179.11	187.73	89	B89_L8N	MC6-35
MC3	120	AE10	IO_L4N_AD12N_89	B89_L4N	29.78	187.74	139.40	89	B89_L4N	MC6-40
MC3	121	AN8	IO_L10P_AD10P_89	B89_L10P	29.51	185.83	198.87	89	B89_L10P	MC6-37
MC3	122	AK8	IO_L12P_AD8P_89	B89_L12P	24.25	149.36	182.01	89	B89_L12P	MC6-42
MC3	123	AP8	IO_L10N_AD10N_89	B89_L10N	29.28	184.24	199.21	89	B89_L10N	MC6-39
MC3	124	AL8	IO_L12N_AD8N_89	B89_L12N	23.14	141.62	189.18	89	B89_L12N	MC6-44
MC3	125	AH9	IO_L6P_HDGC_89	B89_L6P	32.32	205.36	160.28	89	B89_L6P	MC6-41
MC3	126	AD9	IO_L5P_HDGC_89	B89_L5P	33.58	214.06	159.86	89	B89_L5P	MC6-46
MC3	127	AH8	IO_L6N_HDGC_89	B89_L6N	32.26	204.99	160.54	89	B89_L6N	MC6-43
MC3	128	AD8	IO_L5N_HDGC_89	B89_L5N	33.30	212.14	160.72	89	B89_L5N	MC6-48
MC3	129	AK10	IO_L9P_AD11P_89	B89_L9P	35.09	224.64	183.89	89	B89_L9P	MC6-45
MC3	130		VCCO_88,VCCO_89	VCCO_88_89					VCCO_88_89	MC6-49
MC3	131	AL9	IO_L9N_AD11N_89	B89_L9N	34.77	222.38	184.53	89	B89_L9N	MC6-47

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC3	132	A8	IO_T0U_N12_VRP_66	B66_T0U_N12_VRP	60.29	335.71	212.28	66		Not Connected
MC3	133	L8	IO_L7P_T1L_N0_QBC_AD13P_66	B66_L7P	56.65	374.35	185.79	66		Not Connected
MC3	134	E11	IO_L19P_T3L_N0_DBC_AD9P_66	B66_L19P	57.24	378.34	185.67	66	PORTD_C2P_CLK_P	J7-34
MC3	135	K8	IO_L7N_T1L_N1_QBC_AD13N_66	B66_L7N	56.81	375.48	184.71	66		Not Connected
MC3	136	D11	IO_L19N_T3L_N1_DBC_AD9N_66	B66_L19N	57.06	377.04	186.92	66	PORTD_C2P_CLK_N	J7-36
MC3	137	J13	IO_L18P_T2U_N10_AD2P_66	B66_L18P	70.37	469.61	155.22	66	PORTD_S26	J7-31
MC3	138	F13	IO_L22P_T3U_N6_DBC_AD0P_66	B66_L22P	57.18	378.00	179.38	66	PORTD_S22	J7-27
MC3	139	H13	IO_L18N_T2U_N11_AD2N_66	B66_L18N	70.10	467.75	155.68	66	PORTD_S24	J7-29
MC3	140	E13	IO_L22N_T3U_N7_DBC_AD0N_66	B66_L22N	57.01	376.80	180.61	66	PORTD_S16	J7-21
MC3	141	J8	IO_L9P_T1L_N4_AD12P_66	B66_L9P	61.91	410.85	192.49	66	PORTD_S20	J7-25
MC3	142	E10	IO_L6P_T0U_N10_AD6P_66	B66_L6P	59.44	393.61	189.14	66	PORTD_S13_D7_P	J7-18
MC3	143	H8	IO_L9N_T1L_N5_AD12N_66	B66_L9N	61.64	408.98	194.61	66	PORTD_S18	J7-23
MC3	144	D10	IO_L6N_T0U_N11_AD6N_66	B66_L6N	59.36	393.05	189.67	66	PORTD_S15_D7_N	J7-20
MC3	145	H12	IO_L14P_T2L_N2_GC_66	B66_L14P	70.07	467.51	181.72	66	PORTD_S27	J7-32
MC3	146	D13	IO_L24P_T3U_N10_66	B66_L24P	59.75	395.82	178.54	66	PORTD_S12_D6_P	J7-17
MC3	147	G12	IO_L14N_T2L_N3_GC_66	B66_L14N	69.90	466.32	182.94	66	PORTD_S25	J7-30
MC3	148	C13	IO_L24N_T3U_N11_66	B66_L24N	59.57	394.63	181.32	66	PORTD_S14_D6_N	J7-19
MC3	149	G9	IO_L11P_T1U_N8_GC_66	B66_L11P	63.54	422.16	197.59	66	PORTD_P2C_CLK_P	J7-33
MC3	150	J9	IO_L8P_T1L_N2_AD5P_66	B66_L8P	58.16	384.72	178.67	66	PORTD_S9_D5_P	J7-14
MC3	151	F9	IO_L11N_T1U_N9_GC_66	B66_L11N	63.59	422.51	198.02	66	PORTD_P2C_CLK_N	J7-35

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC3	152	H9	IO_L8N_T1L_N3_AD5N_66	B66_L8N	57.66	381.20	182.04	66	PORTD_S11_D5_N	J7-16
MC3	153	L13	IO_L16P_T2U_N6_QBC_AD3P_66	B66_L16P	65.64	436.78	155.24	66	PORTD_S23	J7-28
MC3	154	H11	IO_L13P_T2L_N0_GC_QBC_66	B66_L13P	55.43	365.87	173.16	66	PORTE_P2C_CLK_P	J14-33
MC3	155	K13	IO_L16N_T2U_N7_QBC_AD3N_66	B66_L16N	65.60	436.50	155.50	66	PORTD_S21	J7-26
MC3	156	G11	IO_L13N_T2L_N1_GC_QBC_66	B66_L13N	55.30	364.97	174.02	66	PORTE_P2C_CLK_N	J14-35
MC3	157	F8	IO_L1P_T0L_N0_DBC_66	B66_L1P	63.59	422.53	206.98	66	PORTD_S19	J7-24
MC3	158	D9	IO_L5P_T0U_N8_AD14P_66	B66_L5P	63.80	423.89	196.06	66	PORTE_S0	J14-14
MC3	159	E8	IO_L1N_T0L_N1_DBC_66	B66_L1N	63.64	422.88	207.56	66	PORTD_S17	J7-22
MC3	160	C9	IO_L5N_T0U_N9_AD14N_66	B66_L5N	63.09	418.95	200.80	66	PORTE_S6	J14-21
MC3	161	L12	IO_L17P_T2U_N8_AD10P_66	B66_L17P	65.25	434.04	155.13	66	PORTD_S8_D4_P	J7-13
MC3	162	G10	IO_L12P_T1U_N10_GC_66	B66_L12P	56.35	372.25	199.95	66	PORTE_S9	J14-24
MC3	163	K12	IO_L17N_T2U_N9_AD10N_66	B66_L17N	65.48	435.64	155.28	66	PORTD_S10_D4_N	J7-15
MC3	164	F10	IO_L12N_T1U_N11_GC_66	B66_L12N	56.19	371.15	201.01	66	PORTE_S2	J14-17
MC3	165	D8	IO_L3P_T0L_N4_AD15P_66	B66_L3P	70.43	470.06	208.89	66	PORTD_S4_D2_P	J7-9
MC3	166	C11	IO_L21P_T3L_N4_AD8P_66	B66_L21P	65.85	438.09	184.06	66	PORTE_S1	J14-16
MC3	167	C8	IO_L3N_T0L_N5_AD15N_66	B66_L3N	69.72	465.12	213.64	66	PORTD_S6_D2_N	J7-11
MC3	168	B11	IO_L21N_T3L_N5_AD8N_66	B66_L21N	65.49	435.56	186.49	66	PORTE_S7	J14-22
MC3	169	K11	IO_L15P_T2L_N4_AD11P_66	B66_L15P	66.88	445.36	168.53	66	PORTD_S0_D0_P	J7-5
MC3	170	C12	IO_L20P_T3L_N2_AD1P_66	B66_L20P	64.22	426.90	181.54	66	PORTE_S3	J14-18
MC3	171	J11	IO_L15N_T2L_N5_AD11N_66	B66_L15N	66.74	444.38	169.47	66	PORTD_S2_D0_N	J7-7

Connector	Pin	FPGA Pin	Pin Attributes	Description	PCB Length (mm)	PCB Delay (ps)	Package Delay (pS)	I/O Bank	BRK8370 Net	BRK8370 Pins
MC3	172	B12	IO_L20N_T3L_N3_AD1N_66	B66_L20N	63.40	421.18	187.04	66	PORTE_S5	J14-20
MC3	173	B9	IO_L2P_T0L_N2_66	B66_L2P	73.75	493.05	213.57	66	PORTD_S1_D1_P	J7-6
MC3	174	B10	IO_L4P_T0U_N6_DBC_AD7P_66	B66_L4P	66.03	439.30	210.31	66	PORTE_S8	J14-23
MC3	175	A9	IO_L2N_T0L_N3_66	B66_L2N	73.29	489.87	216.61	66	PORTD_S3_D1_N	J7-8
MC3	176	A10	IO_L4N_T0U_N7_DBC_AD7N_66	B66_L4N	65.97	438.95	211.68	66	PORTE_S4	J14-19
MC3	177	K10	IO_L10P_T1U_N6_QBC_AD4P_66	B66_L10P	66.12	440.10	177.33	66	PORTD_S5_D3_P	J7-10
MC3	178	A13	IO_L23P_T3U_N8_66	B66_L23P	68.04	453.44	183.51	66	PORTE_C2P_CLK_P	J14-34
MC3	179	J10	IO_L10N_T1U_N7_QBC_AD4N_66	B66_L10N	65.98	439.13	178.26	66	PORTD_S7_D3_N	J7-12
MC3	180	A12	IO_L23N_T3U_N9_66	B66_L23N	67.57	450.19	186.63	66	PORTE_C2P_CLK_N	J14-36