

# Pin List: XEM7010

2026-05-15

Connector	Pin	FPGA Pin	Description	Pin Attributes	Length (mm)	I/O Bank	BRK7010
MC1	1		+VDC				J1-1
MC1	2		DGND				J1-2
MC1	3		+VDC				J1-3
MC1	4		+1.0VDD	VCCINT,VCCBRAM			J1-4
MC1	5		+VDC				J1-5
MC1	6		+1.0VDD	VCCINT,VCCBRAM			J1-6
MC1	7		+1.8VDD	VCCAUX			J1-7
MC1	8	B20	SYS_CLK_MC1	IO_L16P_T2_16	48.125	16	J1-8
MC1	9		+3.3VDD	VCCO_16,VCCO_13,VCCO_0,VCCO_14			J1-9
MC1	10	M9	XADC_VN	VN_0		0	J1-10
MC1	11		+3.3VDD	VCCO_16,VCCO_13,VCCO_0,VCCO_14			J1-11
MC1	12	L10	XADC_VP	VP_0		0	J1-12
MC1	13		+3.3VDD	VCCO_16,VCCO_13,VCCO_0,VCCO_14			J1-13
MC1	14		DGND				J1-14
MC1	15	P5	B35_L21P	IO_L21P_T3_DQS_35	24.307	35	J1-15
MC1	16	R1	B35_L20P	IO_L20P_T3_35	14.142	35	J1-16
MC1	17	P4	B35_L21N	IO_L21N_T3_DQS_35	23.098	35	J1-17
MC1	18	P1	B35_L20N	IO_L20N_T3_35	14.559	35	J1-18
MC1	19	P6	B35_L24P	IO_L24P_T3_35	24.406	35	J1-19
MC1	20	P2	B35_L22P	IO_L22P_T3_35	14.239	35	J1-20
MC1	21	N5	B35_L24N	IO_L24N_T3_35	23.362	35	J1-21
MC1	22	N2	B35_L22N	IO_L22N_T3_35	15.045	35	J1-22
MC1	23	N4	B35_L19P	IO_L19P_T3_35	22.611	35	J1-23
MC1	24	M3	B35_L16P	IO_L16P_T2_35	15.842	35	J1-24
MC1	25	N3	B35_L19N	IO_L19N_T3_VREF_35	21.036	35	J1-25
MC1	26	M2	B35_L16N	IO_L16N_T2_35	14.378	35	J1-26
MC1	27	M1	B35_L15P	IO_L15P_T2_DQS_35	16.752	35	J1-27
MC1	28	M6	B35_L23P	IO_L23P_T3_35	18.269	35	J1-28
MC1	29	L1	B35_L15N	IO_L15N_T2_DQS_35	17.916	35	J1-29
MC1	30	M5	B35_L23N	IO_L23N_T3_35	17.034	35	J1-30
MC1	31	L3	B35_L14P	IO_L14P_T2_SRCC_35	20.446	35	J1-31

Connector	Pin	FPGA Pin	Description	Pin Attributes	Length (mm)	I/O Bank	BRK7010
MC1	32	L5	B35_L18P	IO_L18P_T2_35	16.943	35	J1-32
MC1	33	K3	B35_L14N	IO_L14N_T2_SRCC_35	20.180	35	J1-33
MC1	34	L4	B35_L18N	IO_L18N_T2_35	15.742	35	J1-34
MC1	35		DGND				J1-35
MC1	36		VCCO_MC1	VCCO_35			J1-36
MC1	37	K1	B35_L7P	IO_L7P_T1_AD6P_35	16.338	35	J1-37
MC1	38	K2	B35_L9P	IO_L9P_T1_DQS_AD7P_35	13.039	35	J1-38
MC1	39	J1	B35_L7N	IO_L7N_T1_AD6N_35	16.780	35	J1-39
MC1	40	J2	B35_L9N	IO_L9N_T1_DQS_AD7N_35	13.509	35	J1-40
MC1	41	H2	B35_L8P	IO_L8P_T1_AD14P_35	18.024	35	J2-1
MC1	42	K6	B35_L17P	IO_L17P_T2_35	15.409	35	J2-2
MC1	43	G2	B35_L8N	IO_L8N_T1_AD14N_35	18.525	35	J2-3
MC1	44	J6	B35_L17N	IO_L17N_T2_35	15.355	35	J2-4
MC1	45	H3	B35_L11P	IO_L11P_T1_SRCC_35	18.459	35	J2-5
MC1	46	J5	B35_L10P	IO_L10P_T1_AD15P_35	15.938	35	J2-6
MC1	47	G3	B35_L11N	IO_L11N_T1_SRCC_35	18.414	35	J2-7
MC1	48	H5	B35_L10N	IO_L10N_T1_AD15N_35	14.906	35	J2-8
MC1	49	E2	B35_L4P	IO_L4P_T0_35	17.421	35	J2-9
MC1	50	G1	B35_L5P	IO_L5P_T0_AD13P_35	10.487	35	J2-10
MC1	51	D2	B35_L4N	IO_L4N_T0_35	17.989	35	J2-11
MC1	52	F1	B35_L5N	IO_L5N_T0_AD13N_35	10.709	35	J2-12
MC1	53	E1	B35_L3P	IO_L3P_T0_DQS_AD5P_35	15.758	35	J2-13
MC1	54	F3	B35_L6P	IO_L6P_T0_35	11.904	35	J2-14
MC1	55		DGND				J2-15
MC1	56		VCCO_MC1	VCCO_35			J2-16
MC1	57	D1	B35_L3N	IO_L3N_T0_DQS_AD5N_35	15.605	35	J2-17
MC1	58	E3	B35_L6N	IO_L6N_T0_VREF_35	11.439	35	J2-18
MC1	59	B1	B35_L1P	IO_L1P_T0_AD4P_35	16.244	35	J2-19
MC1	60	C2	B35_L2P	IO_L2P_T0_AD12P_35	11.909	35	J2-20
MC1	61	A1	B35_L1N	IO_L1N_T0_AD4N_35	16.248	35	J2-21
MC1	62	B2	B35_L2N	IO_L2N_T0_AD12N_35	11.892	35	J2-22
MC1	63	E13	B16_L4P	IO_L4P_T0_16	29.298	16	J2-23
MC1	64	F13	B16_L1P	IO_L1P_T0_16	22.898	16	J2-24
MC1	65	E14	B16_L4N	IO_L4N_T0_16	30.472	16	J2-25

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MC1	66	F14	B16_L1N	IO_L1N_T0_16	23.925	16	J2-26
MC1	67	C14	B16_L3P	IO_L3P_T0_DQS_16	29.485	16	J2-27
MC1	68	D14	B16_L6P	IO_L6P_T0_16	23.235	16	J2-28
MC1	69	C15	B16_L3N	IO_L3N_T0_DQS_16	30.543	16	J2-29
MC1	70	D15	B16_L6N	IO_L6N_T0_VREF_16	24.212	16	J2-30
MC1	71	B15	B16_L7P	IO_L7P_T1_16	30.140	16	J2-31
MC1	72	F16	B16_L2P	IO_L2P_T0_16	26.177	16	J2-32
MC1	73	B16	B16_L7N	IO_L7N_T1_16	31.240	16	J2-33
MC1	74	E17	B16_L2N	IO_L2N_T0_16	27.462	16	J2-34
MC1	75	E16	B16_L5P	IO_L5P_T0_16	32.146	16	J2-35
MC1	76	D16	B16_L5N	IO_L5N_T0_16	26.331	16	J2-36
MC1	77	H4	B35_L12P_MRCC	IO_L12P_T1_MRCC_35	25.470	35	J2-37
MC1	78		DGND				J2-38
MC1	79	G4	B35_L12N_MRCC	IO_L12N_T1_MRCC_35	25.477	35	J2-39
MC1	80		DGND				J2-40
MC2	1		DGND				J3-1
MC2	2		+3.3VDD	VCCO_16,VCCO_13,VCCO_0,VCCO_14			J3-2
MC2	3	E12	VCCBATT	VCCBATT_0			J3-3
MC2	4		+3.3VDD	VCCO_16,VCCO_13,VCCO_0,VCCO_14			J3-4
MC2	5	V12	FPGA_TCK	TCK_0		0	J6-6
MC2	6		+3.3VDD	VCCO_16,VCCO_13,VCCO_0,VCCO_14			J3-6
MC2	7	T13	FPGA_TMS	TMS_0		0	J6-4
MC2	8	U13	FPGA_TDO	TDO_0		0	J6-8
MC2	9	R13	FPGA_TDI	TDI_0		0	J6-10
MC2	10	J16	B15_IO0	IO_0_15	35.914	15	J3-10
MC2	11	A20	SYS_CLK_MC2	IO_L16N_T2_16	36.123	16	J3-11
MC2	12	M17	B15_IO25	IO_25_15	26.694	15	J3-12
MC2	13		DGND				J3-13
MC2	14		DGND				J3-14
MC2	15	N18	B15_L17P	IO_L17P_T2_A26_15	19.524	15	J3-15
MC2	16	N20	B15_L18P	IO_L18P_T2_A24_15	23.282	15	J3-16
MC2	17	N19	B15_L17N	IO_L17N_T2_A25_15	18.290	15	J3-17
MC2	18	M20	B15_L18N	IO_L18N_T2_A23_15	23.125	15	J3-18
MC2	19	M15	B15_L24P	IO_L24P_T3_RS1_15	22.843	15	J3-19

Connector	Pin	FPGA Pin	Description	Pin Attributes	Length (mm)	I/O Bank	BRK7010
MC2	20	M13	B15_L20P	IO_L20P_T3_A20_15	29.797	15	J3-20
MC2	21	M16	B15_L24N	IO_L24N_T3_RS0_15	22.139	15	J3-21
MC2	22	L13	B15_L20N	IO_L20N_T3_A19_15	31.393	15	J3-22
MC2	23	N22	B15_L15P	IO_L15P_T2_DQS_15	13.365	15	J3-23
MC2	24	M18	B15_L16P	IO_L16P_T2_A28_15	23.506	15	J3-24
MC2	25	M22	B15_L15N	IO_L15N_T2_DQS_ADV_B_15	13.559	15	J3-25
MC2	26	L18	B15_L16N	IO_L16N_T2_A27_15	24.311	15	J3-26
MC2	27	M21	B15_L10P	IO_L10P_T1_AD11P_15	14.131	15	J3-27
MC2	28	L14	B15_L22P	IO_L22P_T3_A17_15	26.961	15	J3-28
MC2	29	L21	B15_L10N	IO_L10N_T1_AD11N_15	14.741	15	J3-29
MC2	30	L15	B15_L22N	IO_L22N_T3_A16_15	25.847	15	J3-30
MC2	31	L19	B15_L14P	IO_L14P_T2_SRCC_15	17.849	15	J3-31
MC2	32	K21	B15_L9P	IO_L9P_T1_DQS_AD3P_15	19.341	15	J3-32
MC2	33	L20	B15_L14N	IO_L14N_T2_SRCC_15	16.280	15	J3-33
MC2	34	K22	B15_L9N	IO_L9N_T1_DQS_AD3N_15	18.139	15	J3-34
MC2	35		VCCO_MC2	VCCO_15			J3-35
MC2	36		DGND				J3-36
MC2	37	L16	B15_L23P	IO_L23P_T3_FOE_B_15	18.099	15	J3-37
MC2	38	K18	B15_L13P	IO_L13P_T2_MRCC_15	21.659	15	J3-38
MC2	39	K16	B15_L23N	IO_L23N_T3_FWE_B_15	17.957	15	J3-39
MC2	40	K19	B15_L13N	IO_L13N_T2_MRCC_15	20.482	15	J3-40
MC2	41	K13	B15_L19P	IO_L19P_T3_A22_15	19.850	15	J4-1
MC2	42	J20	B15_L11P	IO_L11P_T1_SRCC_15	18.845	15	J4-2
MC2	43	K14	B15_L19N	IO_L19N_T3_A21_VREF_15	18.658	15	J4-3
MC2	44	J21	B15_L11N	IO_L11N_T1_SRCC_15	17.653	15	J4-4
MC2	45	K17	B15_L21P	IO_L21P_T3_DQS_15	15.189	15	J4-5
MC2	46	J15	B15_L5P	IO_L5P_T0_AD9P_15	23.279	15	J4-6
MC2	47	J17	B15_L21N	IO_L21N_T3_DQS_A18_15	15.019	15	J4-7
MC2	48	H15	B15_L5N	IO_L5N_T0_AD9N_15	23.163	15	J4-8
MC2	49	H17	B15_L6P	IO_L6P_T0_15	14.638	15	J4-9
MC2	50	J14	B15_L3P	IO_L3P_T0_DQS_AD1P_15	23.267	15	J4-10
MC2	51	H18	B15_L6N	IO_L6N_T0_VREF_15	14.271	15	J4-11
MC2	52	H14	B15_L3N	IO_L3N_T0_DQS_AD1N_15	23.206	15	J4-12
MC2	53	J22	B15_L7P	IO_L7P_T1_AD2P_15	8.561	15	J4-13

Connector	Pin	FPGA Pin	Description	Pin Attributes	Length (mm)	I/O Bank	BRK7010
MC2	54	H20	B15_L8P	IO_L8P_T1_AD10P_15	18.002	15	J4-14
MC2	55		VCCO_MC2	VCCO_15			J4-15
MC2	56		DGND				J4-16
MC2	57	H22	B15_L7N	IO_L7N_T1_AD2N_15	9.085	15	J4-17
MC2	58	G20	B15_L8N	IO_L8N_T1_AD10N_15	18.367	15	J4-18
MC2	59	H13	B15_L1P	IO_L1P_T0_AD0P_15	19.082	15	J4-19
MC2	60	G17	B15_L4P	IO_L4P_T0_15	20.477	15	J4-20
MC2	61	G13	B15_L1N	IO_L1N_T0_AD0N_15	18.085	15	J4-21
MC2	62	G18	B15_L4N	IO_L4N_T0_15	19.113	15	J4-22
MC2	63	G21	B16_L24P	IO_L24P_T3_16	10.585	16	J4-23
MC2	64	G15	B15_L2P	IO_L2P_T0_AD8P_15	23.400	15	J4-24
MC2	65	G22	B16_L24N	IO_L24N_T3_16	9.436	16	J4-25
MC2	66	G16	B15_L2N	IO_L2N_T0_AD8N_15	21.166	15	J4-26
MC2	67	E22	B16_L22P	IO_L22P_T3_16	9.107	16	J4-27
MC2	68	E21	B16_L23P	IO_L23P_T3_16	15.837	16	J4-28
MC2	69	D22	B16_L22N	IO_L22N_T3_16	8.856	16	J4-29
MC2	70	D21	B16_L23N	IO_L23N_T3_16	15.901	16	J4-30
MC2	71	D20	B16_L19P	IO_L19P_T3_16	11.292	16	J4-31
MC2	72	C22	B16_L20P	IO_L20P_T3_16	15.072	16	J4-32
MC2	73	C20	B16_L19N	IO_L19N_T3_VREF_16	11.427	16	J4-33
MC2	74	B22	B16_L20N	IO_L20N_T3_16	14.729	16	J4-34
MC2	75	B21	B16_L21P	IO_L21P_T3_DQS_16	10.022	16	J4-35
MC2	76	A21	B16_L21N	IO_L21N_T3_DQS_16	15.970	16	J4-36
MC2	77	J19	B15_L12P_MRCC	IO_L12P_T1_MRCC_15	19.628	15	J4-37
MC2	78		DGND				J4-38
MC2	79	H19	B15_L12N_MRCC	IO_L12N_T1_MRCC_15	19.662	15	J4-39
MC2	80		DGND				J4-40