

MainBrain32 Pin Allocation Table

MCU Pin	Name	Function	Direction	Mapped To	Notes
1	RG15	DQ0	Input/Output	Power Supply Temp. Serial Data	
2	VDD				
3	PMD5/RE5	D5	Input/Output	System Data Bus D5	
4	PMD6/RE6	D6	Input/Output	System Data Bus D6	
5	PMD7/RE7	D7	Input/Output	System Data Bus D7	
6	RC1	LED 4	Output	LED Port.4	
7	RC2	LED 5	Output	LED Port.5	
8	RC3	LED 6	Output	LED Port.6	
9	RC4	LED 7	Output	LED Port.7	
10	PMA5/RG6	A5	Output	System Address Bus A5	
11	PMA4/RG7	A4	Output	System Address Bus A4	
12	PMA3/RG8	A3	Output	System Address Bus A3	
13	/MCLR	/Reset	Input	System Reset	
14	PMA2/RG9	A2	Output	System Address Bus A2	
15	Vss				
16	VDD				
17	TMS/RA0	TMS	Output	JTAG – Test Mode Select	
18	INT1	/INT1	Input	Dual Port RAM /INTR Pin 52	
19	INT2/RE9			Unused	
20	AN5/VBUSON/RB5			Unused	
21	AN4/RB4			Unused	
22	AN3/RB3	YU(Y+)	Input/Output	Display Touch Pad Pin 42	
23	AN2/RB2	XR(X+)	Input/Output	Display Touch Pad Pin 39	
24	AN1/RB1/PGEC1	PGC	Input/Output	ICSP PGC Pin 5	
25	AN0/RB0/PGED1	PGD	Input/Output	ICSP PGC Pin 4	
26	AN6/RB6	LED 1	Output	LED Port.1	
27	AN7/RB7	LED 0	Output	LED Port.0	
28	PMA7/RA9	A7	Output	System Address Bus A7	
29	PMA6/RA10	A6	Output	System Address Bus A6	
30	AVDD			Analog Supply +	
31	AVss			Analog Supply -	
32	AN8/RB8	A16	Output	System Address Bus A16	
33	AN9/RB9	ISENSE	Analog Input	ADC input for Current Sense of Input Voltage V+	V+ = 5 to 12 VDC input
34	PMA13/RB10	A13	Output	System Address Bus A13	
35	PMA12/RB11	A12	Output	System Address Bus A12	

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36	Vss				
37	VDD				
38	TCK/RA1	TCK	Output	JTAG – Test Clock	
39	RF13	/CS0	Output	Display /CS	
40	RF12	/CS2	Output	Flash Memory /CE	
41	PMA11/RB12	A11	Output	System Address Bus A11	
42	PMA10/RB13	A10	Output	System Address Bus A10	
43	PMA1/RB14	A1	Output	System Address Bus A1	
44	PMA0/RB15	A0	Output	System Address Bus A2	
45	AVss				
46	AVDD				
47	U1CTS	/CTS	Output	UART CTS	
48	U1RTS	/RTS	Input	UART RTS	
49	PMA9/RF4	A9	Output	System Address Bus A9	
50	PMA8/RF5	A8	Output	System Address Bus A8	
51	USBID/RF3	D/C	Output	Display Data or /Command Pin 37	
52	U1RX	RX	Input	UART RX	
53	U1TX	TX	Output	UART TX	
54	VBUS			Unused	
55	VUSB3V3			USB Supply Voltage	Tied to VDD
56	RG3			Unused	
57	RG2			Unused	
58	RA2			Unused	
59	RA3			Unused	
60	TDI/RA4	TDI	Output	JTAG – Test Data In	
61	TDO/RA5	TDO/GP5	Input/Output	JTAG – Test Data Out, General Purpose I/O #5	
62	VDD				
63	OSC1	CLK	Input	MCU Clock 24MHz	
64	OSC2	SCK	Output	System Clock	Frequency depends on PBCLK
65	Vss				
66	INT3/RA14	GP4	Input/Output	General Purpose I/O #4	
67	INT4/RA15	GP3	Input/Output	General Purpose I/O #3	
68	RTCC/IC1/RD8	GP2	Input/Output	General Purpose I/O #2	
69	RD9			Unused	
70	PMA15/RD10	A15	Output	System Address Bus A15	
71	PMA14/RD11	A14	Output	System Address Bus A14	
72	OC1	VDRV	Output	Display Back Light Anode Drive LEDA (LED+) Pin 43	PWM output
73	SOSCI	SOSC	Input	RTC Clock	
74	SOSCO			Unused	
75	Vss				

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76	RD1	LED 2	Output	LED Port.2
77	RD2	LED 3	Output	LED Port.3
78	RD3	/CS1	Output	Dual Port RAM /CSR Pin 55
79	PMD12	D12	Input/Output	System Data Bus D12
80	PMD13	D13	Input/Output	System Data Bus D13
81	PMWR/RD4	/WR	Output	System Control Bus /WR
82	PMRD/RD5	/RD	Output	System Control Bus /RD
83	PMD14	D14	Input/Output	System Data Bus D14
84	PMD15	D15	Input/Output	System Data Bus D15
85	VCAP/VDDCORE			Core VDD Coupled to Ground via VCAP
86	VDD			
87	PMD11	D11	Input/Output	System Data Bus D11
88	PMD10	D10	Input/Output	System Data Bus D10
89	PMD9	D9	Input/Output	System Data Bus D9
90	PMD8	D8	Input/Output	System Data Bus D8
91	RA6	GP1	Input/Output	General Purpose I/O #1
92	RA7	GP0	Input/Output	General Purpose I/O #0
93	PMD0	D0	Input/Output	System Data Bus D0
94	PMD1	D1	Input/Output	System Data Bus D1
95	RG14	XL (X-)	Input/Output	Display Touch Pad Pin 41
96	RG12	YD (Y-)	Input/Output	Display Touch Pad Pin 40
97	RG13	/BUSY	Input	Dual Port RAM /BUSYR Pin 53
98	PMD2	D2	Input/Output	System Data Bus D2
99	PMD3	D3	Input/Output	System Data Bus D3
100	PMD4	D4	Input/Output	System Data Bus D4