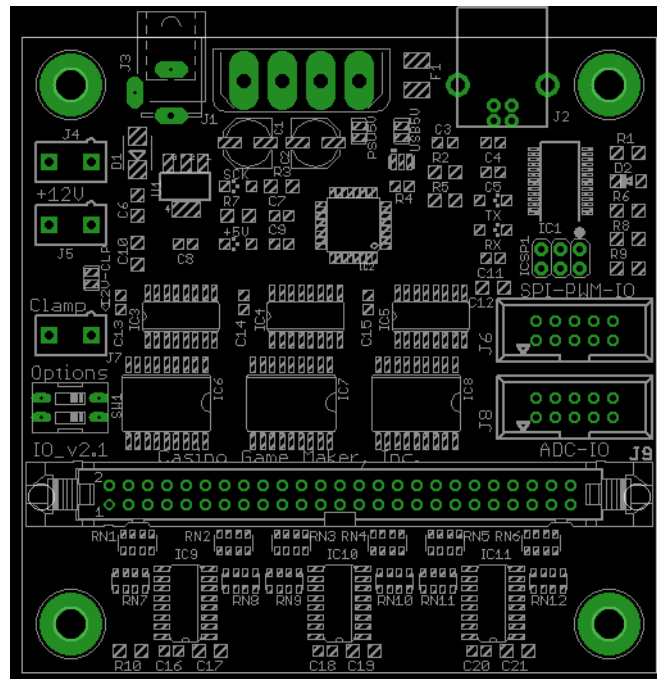


External IO Board

The IO board is connected to the motherboard using a standard USB connection. It can be placed outside the logic box in a location as to minimize the harnessing for the buttons on the door, etc. The IO board needs +12V DC and GND in order to run.



Electrical Ratings – Main Power	
Maximum Input Voltage	20 V
Minimum Input Voltage	7 V
Recommended Input Voltage	12 V
Maximum Input Current (at recommended 12V)	1 A
Typical Input Current	100 mA
Maximum Rated Input Power	12 W
Typical Input Power	1.2 W

Electrical Ratings – IO Connections	
Maximum Voltage used for Input Circuits	24 V
Typical Voltage used for Input Circuits	5 V to 12 V
Maximum Voltage used for Output Circuits	50V
Maximum Current per Output Pin	0.500 mA
Maximum Total Current for Outputs	12 A

Note: Maximum Output Current requires board to be grounded through mounting holes and/or multiple grounding connections through power connectors (J1, J3, J4, J5)

Maximum Output Current Ratings: Connection Configurations (If not grounded through mounting holes.)	
J1 - 2 ground wires	12 A
J1 - 1 ground wire	6.5 A
J3	5 A
J4 or J5	9 A
J4 and J5	12 A
J2 (USB Power Only)*	0.500 mA

*USB Power used for development purposes only. USB5V solder jumper is used to enable USB power to board. Do not connect another +VDC source to the board while using USB power. Maximum IO Current can be increased by connecting additional ground(s).

J2 (USB Type B)	
Pin	Description
1	+5V DC
2	Data -
3	Data +
4	GND

J3 (Standard PC Power)	
Pin	Description
1	+12V DC
2	GND
3	GND
4	+5V DC

J4 and J5 (Power Connectors)	
Pin	Description
1	+12V DC
2	GND

J7 (Clamp)	
Pin	Description
1	Outputs Clamp Voltage
2	GND

J6	
Pin	Description
1	SCK
2	MOSI
3	SS_EXT
4	MISO
5	ENABLE
6	IO6
7	IO5
8	IO3
9	VCC +5V DC
10	GND

J8	
Pin	Description
1	PC0(ADC0)
2	PC1(ADC1)
3	PC2(ADC2)
4	PC3(ADC3)
5	PC4(ADC4)
6	PC5(ADC5)
7	VCC +5V DC
8	GND
9	VCC +5V DC
10	GND

J9_Inputs (TE 1-102387-0)		
Pin	Description	Bit
1		IN-19
3		IN-18
5	Spin Button Switch	IN-17
7	Bet Maximum Button Switch	IN-16
9	Bet 5 Button Switch	IN-23
11	Bet 4 Button Switch	IN-22
13	Bet 3 Button Switch	IN-21
15	Bet 2 Button Switch	IN-20
17	Line 3 Button Switch	IN-11
19	Line 4 Button Switch	IN-10
21	Line 5 Button Switch	IN-9
23	Bet 1 Button Switch	IN-8
25	Line 2 Button Switch	IN-15
27	Line 1 Button Switch	IN-14
29		IN-13
31	Call Attendant Button Switch	IN-12
33	Drop Door Switch	IN-3
35	Reset Switch	IN-2
37	W2G Reset	IN-1
39	Cash Out Button Switch	IN-0
41	Cash Box Door Switch	IN-7
43	Logic Door Switch	IN-6
45	Belly Door Switch	IN-5
47	Slot Door Switch	IN-4
49	VCC +5 V DC	N/A

J9_Outputs (TE 1-102387-0)		
Pin	Description	Port
2	Hard Meter #5(Jackpot)	OUT-16
4	Hard Meter #4(Games)	OUT-17
6	Hard Meter #3 (Drop)	OUT-18
8	Hard Meter #2 (Out)	OUT-19
10	Hard Meter #1 (In)	OUT-20
12		OUT-21
14		OUT-22
16	Spin Button Lamp	OUT-23
18	Bet Maximum Button Lamp	OUT-8
20	Bet 5 Button Lamp	OUT-9
22	Bet 4 Button Lamp	OUT-10
24	Bet 3 Button Lamp	OUT- 11
26	Bet 2 Button Lamp	OUT-12
28	Bet 1 Button Lamp	OUT-13
30	Line 5 Button Lamp	OUT-14
32	Line 4 Button Lamp	OUT-15
34	Line 3 Button Lamp	OUT-0
36	Line 2 Button Lamp	OUT-1
38	Line 1 Button Lamp	OUT-2
40		OUT-3
42	Call Attendant Button Lamp	OUT-4
44	Cash Out Button Lamp	OUT-5
46	Tower 2 Lamp Bottom	OUT-6
48	Tower 1 Lamp (Top)	OUT-7
50	GND	N/A