



BNC Model 588-OEM-250ps

588-OEM-250ps Board Level Connection Information

588-OEM-250ps Board Level Overview

The 588-OEM-250ps is a board level option based on the 588 series pulse generator. The specifications, communications, and overall functionality of the OEM model are the same as described for the Model 588. The unit is available with either 4 or 8 independent outputs that can be used for synchronizing multiple events. The 588-OEM-250ps all communications will take place through USB, Ethernet, or RS-232 as there is no display or keypad for interactions. The guide for standard SCIP communications with the unit can be found above in the 588 standard manual. As with the 588, the OEM version is capable of generating multiple pulses for all applications; but additional setup is required before even basic pulsing may begin.

Digital Control Board Connection Information

**Note: The Power Input and Power Switch Connector are required connections for the 8530 module to function.*

Power Input Connector (J2 - DC In)

- The recommended connector is Molex 4 pin female C-grid (Molex #50-57-9404) or equivalent.
- The recommended contacts are Molex female terminals with **gold contacts** (Molex #16-02-0087) or equivalent.

Pin Number:	Connection:	Specification:
1 (denoted by arrow on connector)	+5 Volts DC	5V±2%, 1.2 Amp nominal capability
2	Ground	
3	Ground	
4	+24 Volts DC	24V±6%, 0.8A nominal capability

**Note: For an additional cost a recommended power supply and cable can be supplied*

Power Switch Connector (J4 – Pwr Enab)

- The recommended connector is Molex 2 pin female C-grid (Molex #50-57-9402) or equivalent.
- The recommended contacts are Molex female terminals with **gold contacts** (Molex #16-02-0087) or equivalent.

**Note: This is the power enable switch; Short the contacts to turn the unit on and open them to power down. (This connector will come shorted)*

External Clock Input (J6)

- The recommended connector is a male BNC

Internal Clock Output (J15 and J16)

- The recommended connector for J16 is a male BNC
- The recommended connector for J15 is a Molex 2 pin female C-grid (Molex #50-57-9402) or equivalent.
- The recommended contacts for J15 are Molex female terminals with **gold contacts** (Molex #16-02-0087) or equivalent.

Pin Number:	Connection:
1 (denoted by arrow on connector)	Clock Out
2	Ground

Output Board Connection (Mini PCB Card Edge)

- This card edge must be connected to either J1 or J2 on the Output Board

Fan Output Connector (J1 – Fan)

- The recommended connector is Molex 4 pin female C-grid (Molex #50-57-9404) or equivalent.
- The recommended contacts are Molex female terminals with **gold contacts** (Molex #16-02-0087) or equivalent.

Pin Number:	Connection:	Specification:
1 (denoted by arrow on connector)	+5 Volts DC	5 V±2%
2	+24 Volts DC	24 V±6%
3	N/C	
4	Ground	

USB Communications Connector (J3 – USB)

- The recommended connector is a male USB Type B

Pin Number:	Connection:
1	Vbus + (+5 Volts DC)
2	Data -
3	Data +
4	Ground

RS-232 Communications Connector (J5 – RS-232)

- The recommended connector is a male standard density D-Sub 9 pin connector

Pin Number:	Connection:
1	N/C
2	Tx - Transmit
3	Rx - Receive
4	DTR - Connected to pin 6
5	Ground
6	DSR - Connected to pin 4
7	RTS - Connected to pin 8
8	CTS - Connected to pin 7
9	N/C

Ethernet Communications Connector (J7 – Ethernet Module)

- The recommended connector is a male RJ-45 Jack
- The pin out should be 568B or AT&T 258A

Pin Number:	Connection:	Wire Color:
1	Tx + (Transmit Data +)	Orange/White
2	Tx - (Transmit Data -)	Orange
3	Rx + (Receive Data +)	Green/White
4	N/C	Blue
5	N/C	Blue/White
6	Rx - (Receive Data -)	Green
7	N/C	Brown/White
8	N/C	Brown

Digital Output Board Connection Information

Digital Control Board Input (J1 or J2)

- The Output Board must be connected to the Digital Control Board via one of the two surface mounted Mini Card Edge Connectors

**Note: All other connections, besides to the Digital Control Board, will be made to the Output Board with male BNC connectors.*

Connector Name:	Connector Designator:	Connector Function:
Gate	J6	External Gate Input
Trigger	J7	External Trigger Input
A	J4A	Channel A Output
B	J5A	Channel B Output
C	J4B	Channel C Output
D	J5B	Channel D Output
E (will only be present on 8 channel models)	J2A	Channel E Output
F (will only be present on 8 channel models)	J3A	Channel F Output
G (will only be present on 8 channel models)	J2B	Channel G Output
H (will only be present on 8 channel models)	J3B	Channel H Output

Mounting Information

- There are 5 X 6-23 screw holes that should be used to mount the Control Board.
- There are 7 X 6-32 screw holes that should be use to mount the Output Board.

**Note: Each of these mounting holes are connected to Ground*

**Note: 4 of the 7 holes on the output board are use to mount the optional 4 channel expansion board and will come with custom made M-F standoffs if the 8 channel is ordered.*

4 Channel Model when Digital Board is connected to J1 on the Output Board

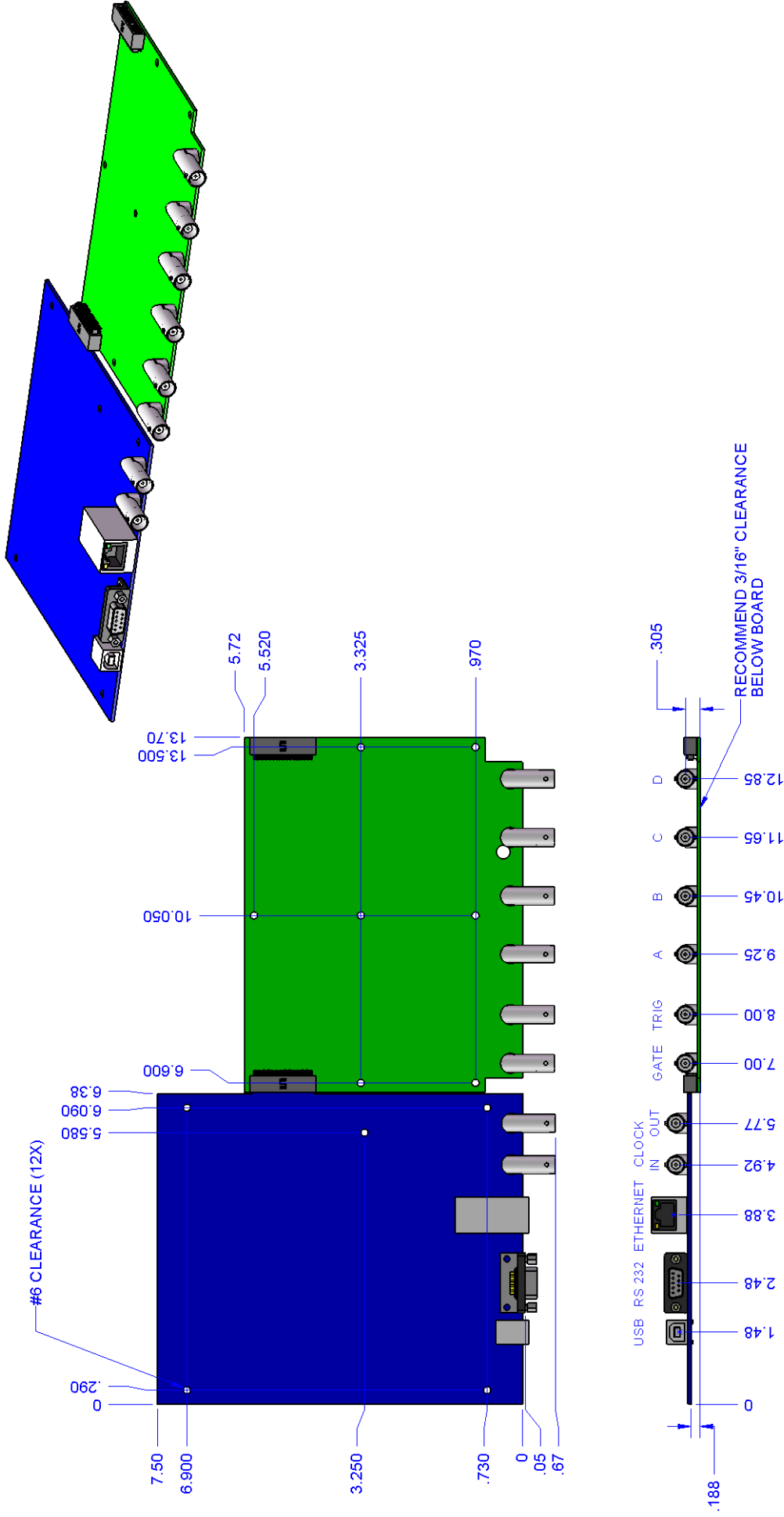


Figure 11: Connection Information for the 588-OEM-250ps-4C

4 Channel Model when Digital Board is connected to J2 on the Output Board

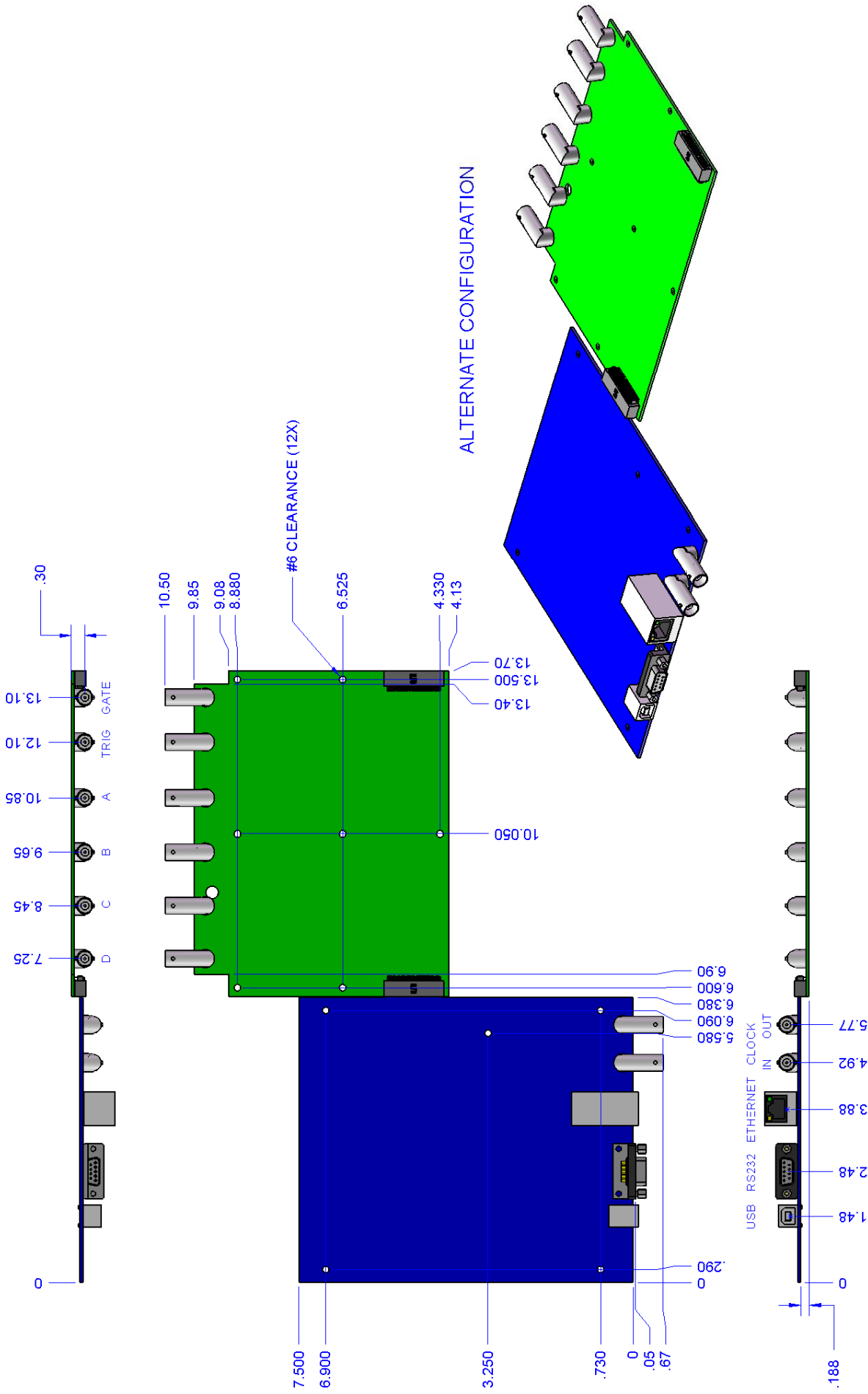


Figure 12: Connection Information for the 588-OEM-250ps-4C

8 Channel Model when Digital Board is connected to J1 on the Output Board

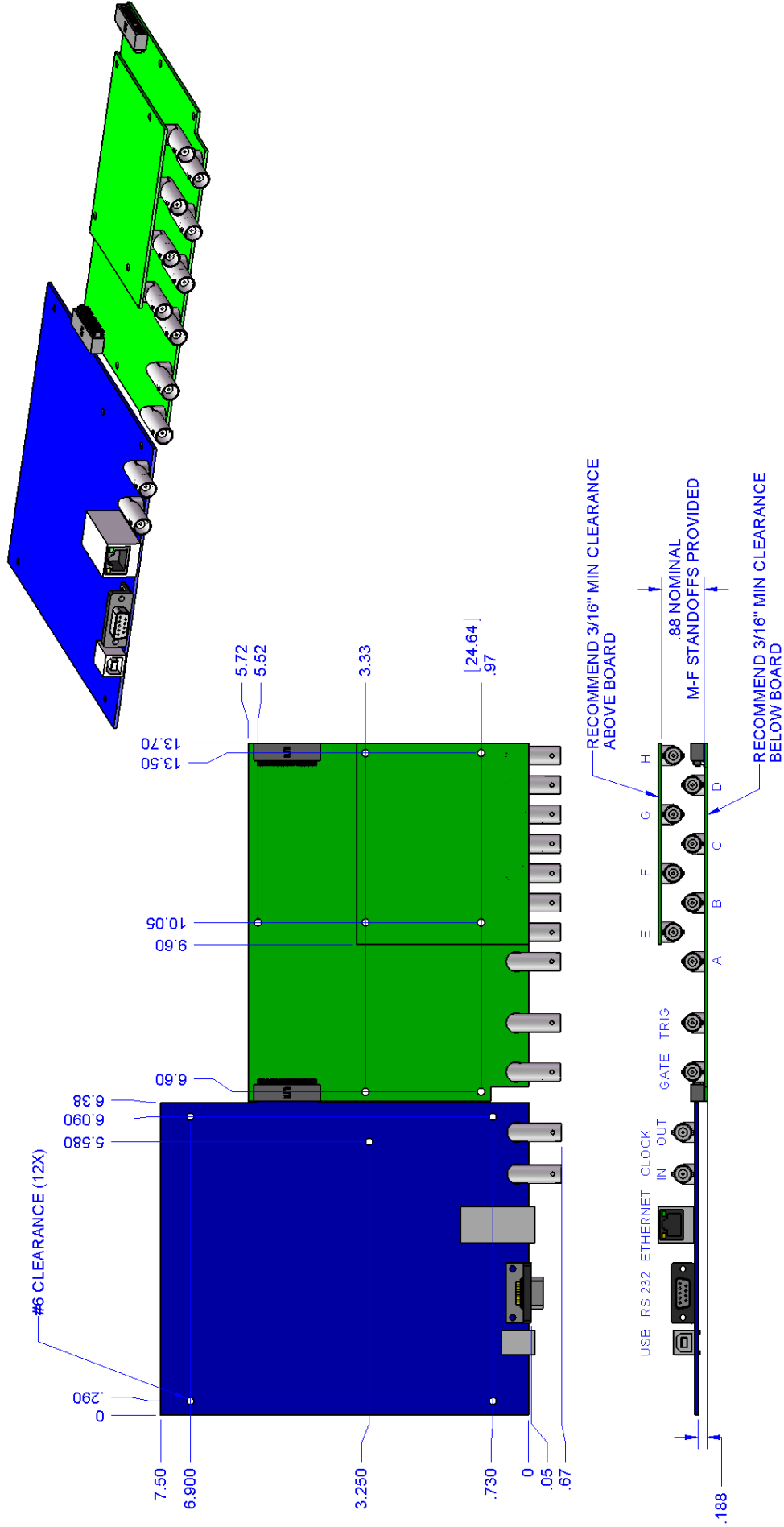


Figure 13: Connection Information for the 588-OEM-250ps-8C

8 Channel Model when Digital Board is connected to J1 on the Output Board

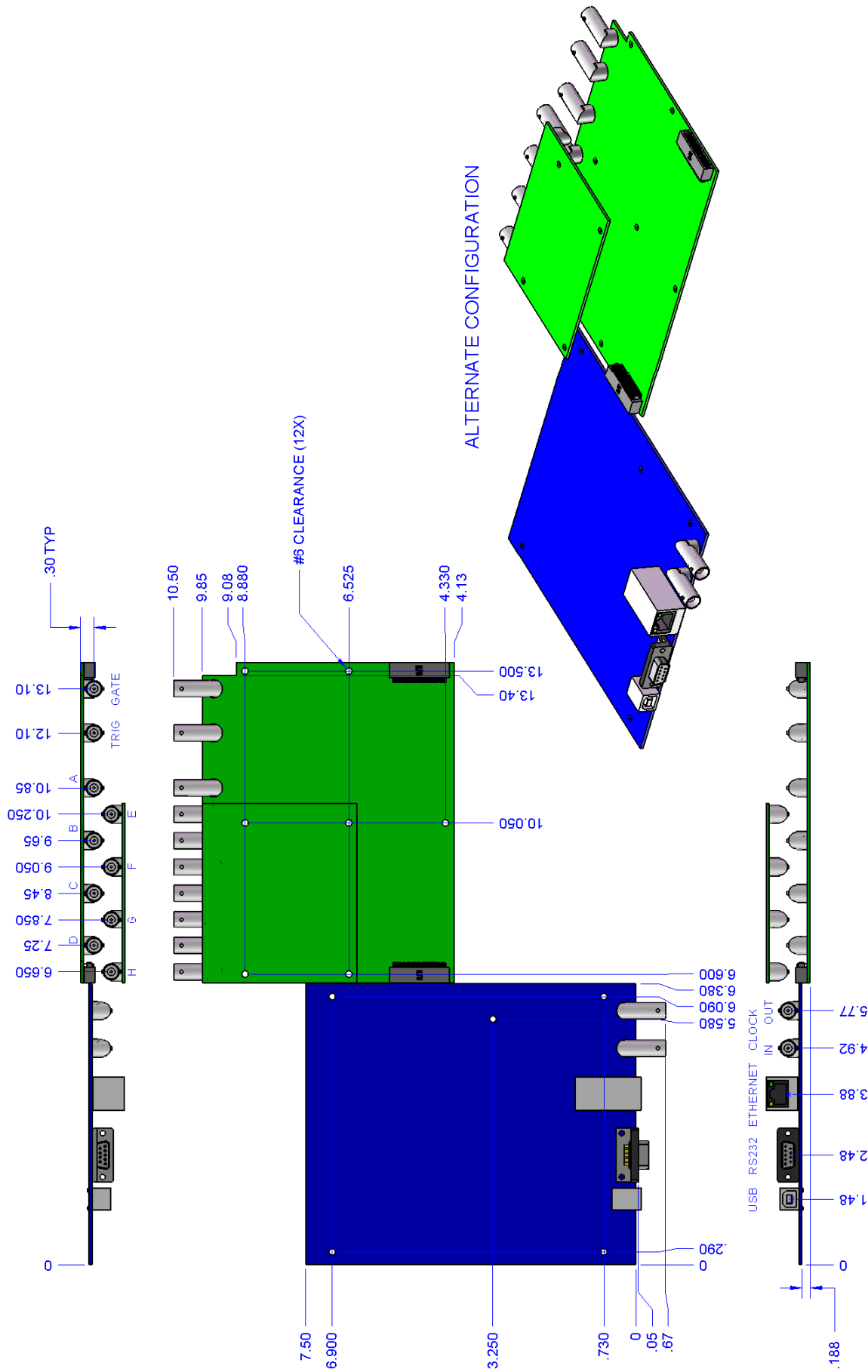


Figure 14: Connection Information for the 588-OEM-250ps-8C

8530 Board Level Connector Locations

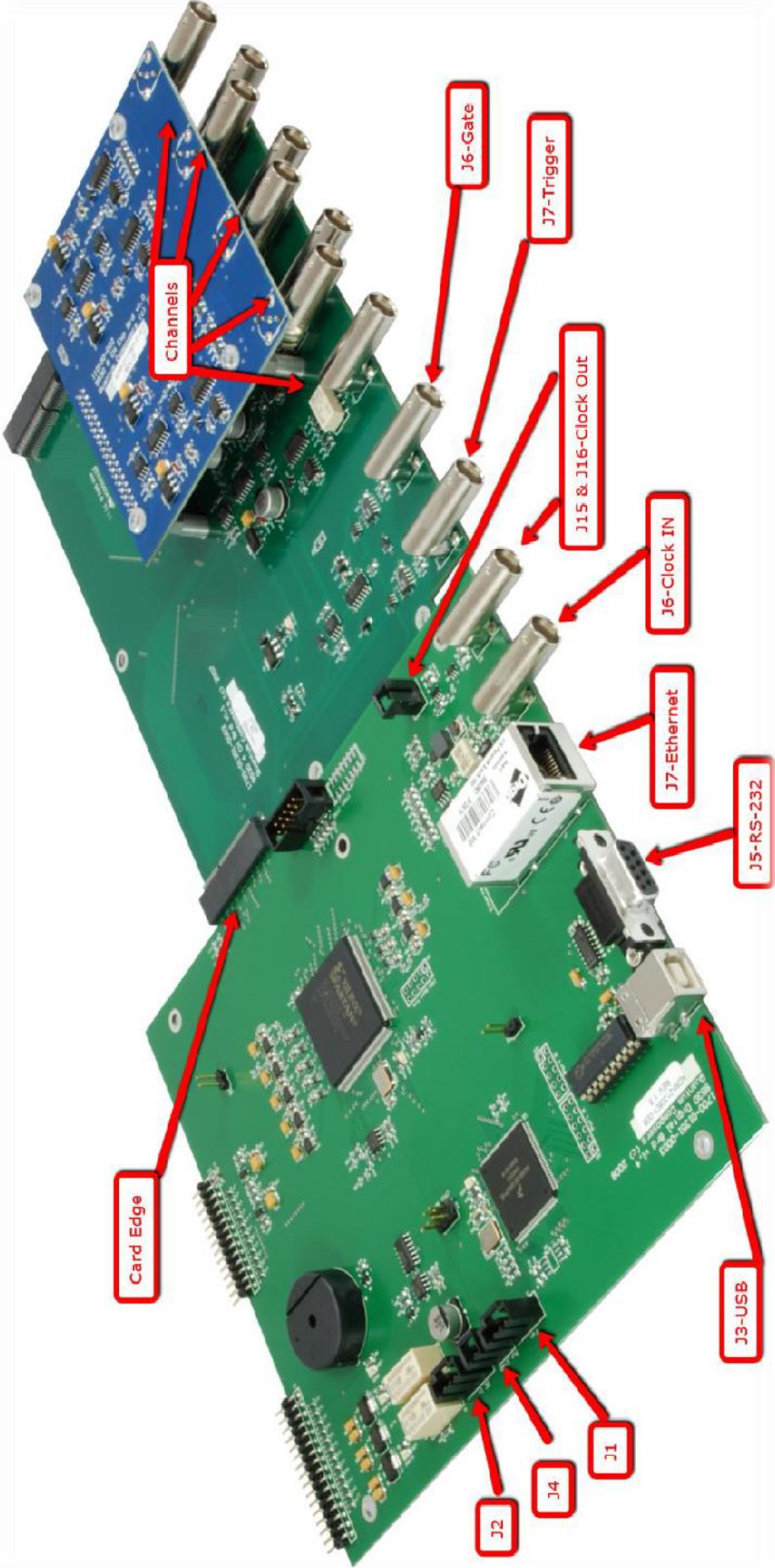


Figure 15: Connector

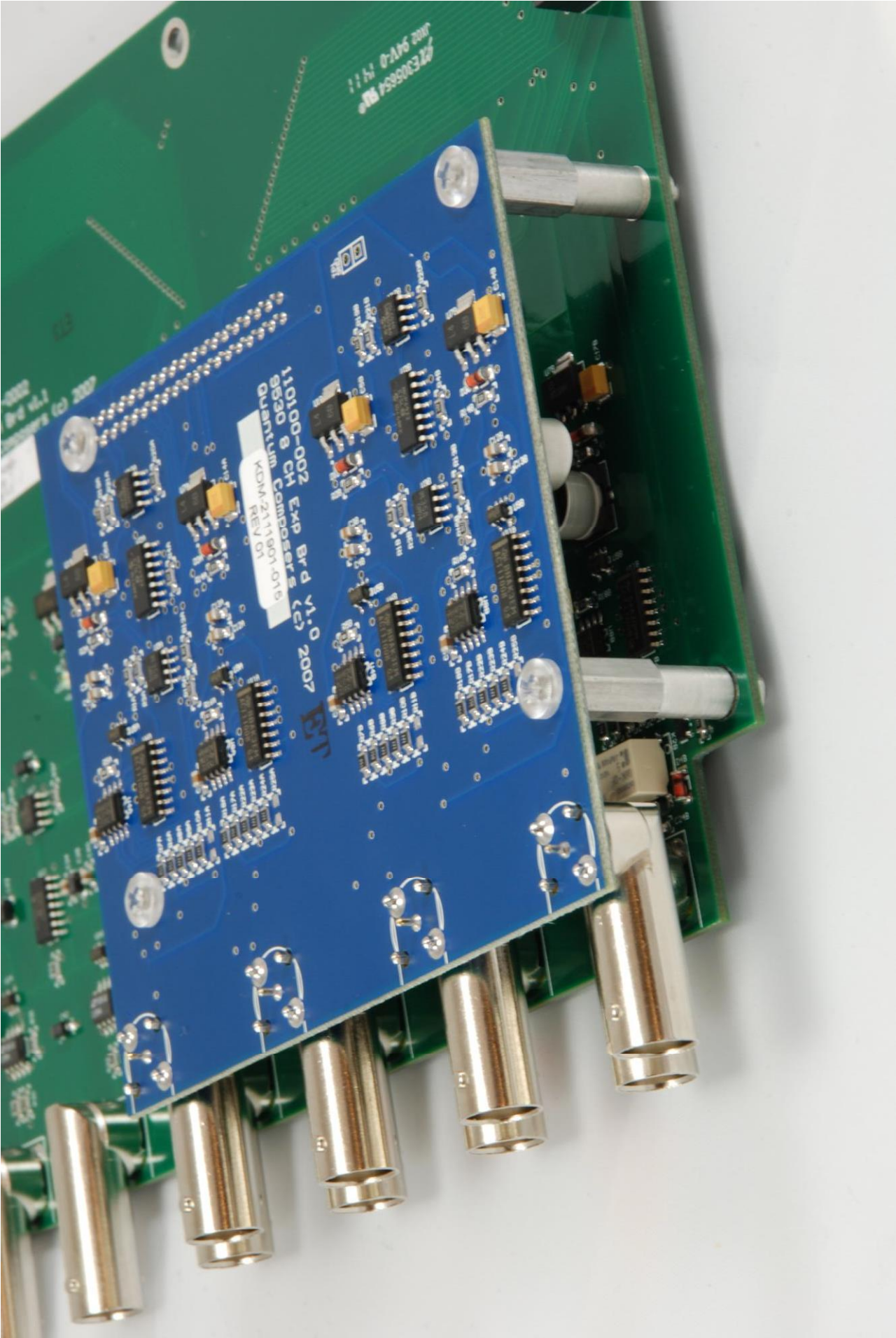


Figure 16: Mounting Information for the 588-OEM-250ps 4 Channel Expansion Board