

Model 588-OEM-1ns

588-OEM-1NS Board Level Overview

The 588-OEM-1NS is a board level, digital pulse generator based on the 565 series in terms of specifications, communications, and overall functionality. The unit is available with 2, 4, or 8 independent outputs for synchronizing multiple events. All communications take place through RS232, USB, or GPIB as there is no keypad/display interface included. Like the 565, the 8510 is capable of generating multiple pulses and triggers for all applications; although, additional setup is required before basic operation may begin.

Mounting & Communications

- “ Care should be taken in mounting the OEM board. As no mounting holes are included, it is recommended that card guide mounts (or equivalent) be used. Mechanical clearances can be seen below in Figure 1. Care should be taken to ensure that no foreign conductive material makes contact with *either* side of the OEM board to eliminate destructive electrical shorting.
- “ **All** communications take place through a RS232, USB, or GPIB interface with the use of Standard Commands for Programmable Instruments (SCPI) command structure. Reference the SCPI command section for more information regarding the implementation of SCPI syntax allowing for complete OEM board control.

NOTE: All Display commands should not be used when operating the OEM as no display interface is included.

Required Connections

- “ The 588-OEM-1ns must be supplied with +5VDC and +24VDC via connector J20.*
- “ The power switch connector at J5 must have the pins shorted together for power to be supplied to the board.
NOTE: This connector comes jumpered.
- “ The 588-OEM-1ns channel outputs are individually labeled and can be seen below in Figure 2.
- “ All other specified connectors shown in Figure 2 can be used for the implementation of additional features, but are not required during basic setup and pulsing.

*A recommended +5VDC/+24VDC power supply may be included for an additional cost.

Board Level Connection Information

Please refer to the standard user's manual for operation of the unit and how the connections work.

Power Connection (J20)

" Molex 4 pin female C-grid (Molex #50-57-9404). Contacts, Molex #16-02-0103.

Number	Name	Type	Specification
1 (denoted by arrow)	+5VDC Supply	Power Input	+5VDC +/-100mV @ 1.2A max*
2	Ground	Power Return	0V power supply return
3	Ground	Power Return	0V power supply return
4	+24VDC Supply	Power Input	+24VDC +/- 200mV @ 1.5A max*

*Worst case current when driving all outputs into 50 ohm loads.

Power Switch (J5)

" Molex 2 pin female C-grid (Molex #50-57-9402) Contacts, Molex #16-02-0103.

NOTE: this connector comes jumpered. Pins 1 and 2 can be opened and closed (shorted) to control power supply to unit. Closed = power on, Open = power off.

RS232 Connection (J16)

" Standard density D-Sub male connector.

Number	Name
1	No Connection
2	Tx ó Transmit (To PC)
3	Rx ó Receive (From PC)
4	DTR ó Connected to pin 6
5	Ground
6	DSR ó Connected to pin 4
7	RTS ó Connected to pin 8
8	CTS ó Connected to pin 7
9	No Connection

USB Connection (J21)

“ USB Type B

Number	Name
1	USB Vbus +
2	USB Data-
3	USB Data+
4	USB Ground

GPIB Connection (J22)

“ Standard IEEE 488 24 pin connector

Number	Name
1	Data I/O 1
2	Data I/O 2
3	Data I/O 3
4	Data I/O 4
5	EOI
6	DAV
7	NRFD
8	NDAC
9	IFC
10	SRQ
11	ATN
12	Shield
13	Data I/O 5
14	Data I/O 6
15	Data I/O 7
16	Data I/O 8
17	REN
18	Ground
19	Ground
20	Ground
21	Ground
22	Ground
23	Ground
24	Ground

External Trigger/Gate (J3)

“ Molex 2 pin female C-grid (Molex #50-57-9402). Contacts, Molex #16-02-0103.

Number	Name
1	Trigger/Gate input signal (0-30VDC)
2	Ground

Ch A (J8), Ch B (J9), Ch C (J6), Ch D (J7), Ch E (J10), Ch F (J11), Ch G (J12), Ch H (J13)

“ Molex 2 pin female C-grid (Molex #50-57-9402). Contacts, Molex #16-02-0103.

Number	Name
1	Positive channel output signal (TTL 5V or 2-20V Adj)
2	Ground

Clock Out (J2)

“ Molex 2 pin female C-grid (Molex #50-57-9402). Contacts, Molex #16-02-0103.

Number	Name
1	Clock output reference (TTL 5V)
2	Ground

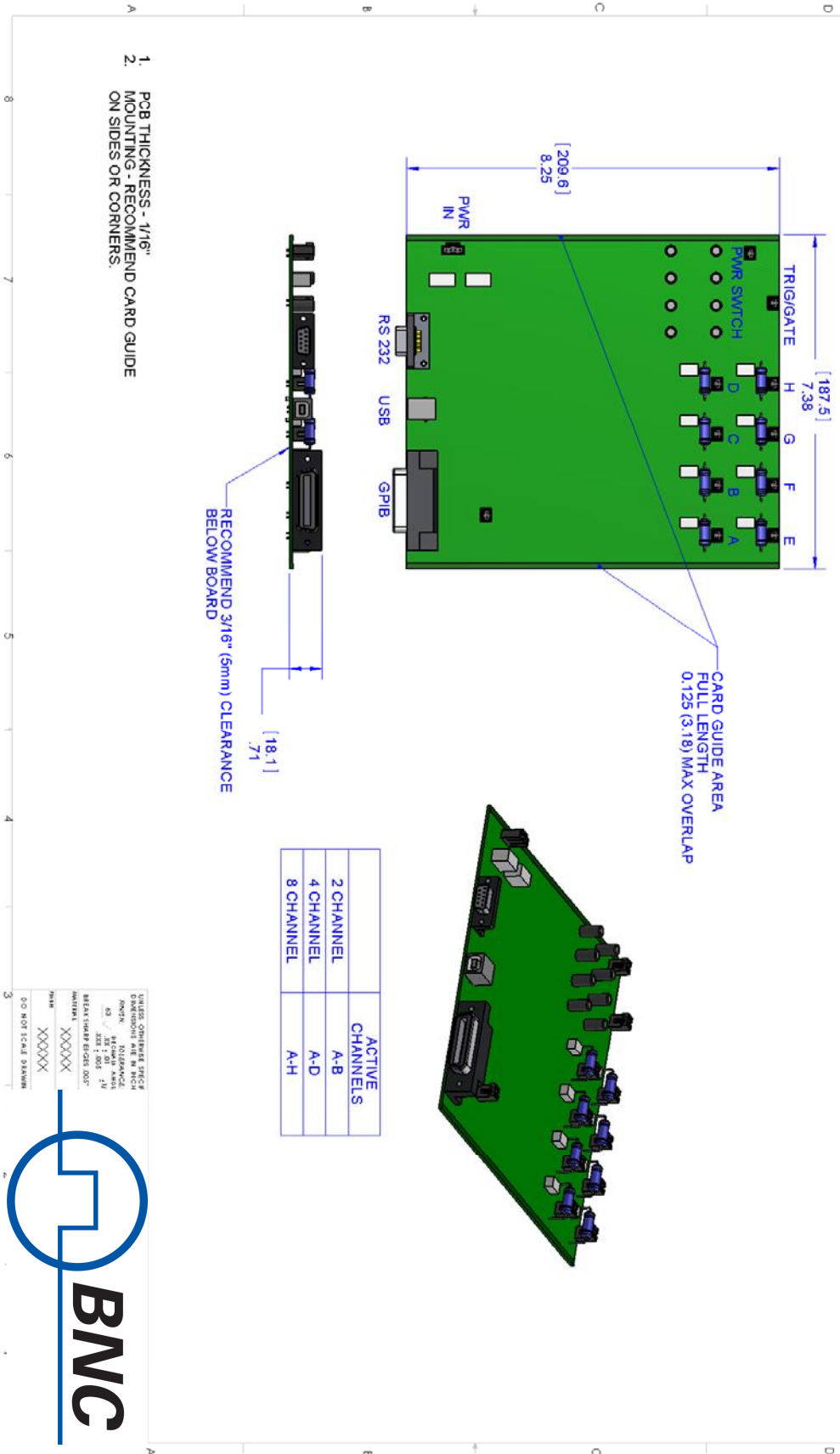
Clock In (J1)

“ Molex 2 pin female C-grid (Molex #50-57-9402). Contacts, Molex #16-02-0103.

Number	Name
1	External clock input (TTL 5V)
2	Ground

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REVISIONS			
REV.	DATE	DESCRIPTION	APPROVED



ACTIVE CHANNELS	
2 CHANNEL	A-B
4 CHANNEL	A-D
8 CHANNEL	A-H

1. PCB THICKNESS - 1/16"
2. MOUNTING - RECOMMEND CARD GUIDE ON SIDES OR CORNERS.

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DO NOT SCALE DRAWING

Figure 1 – 8510 Mechanical Interface

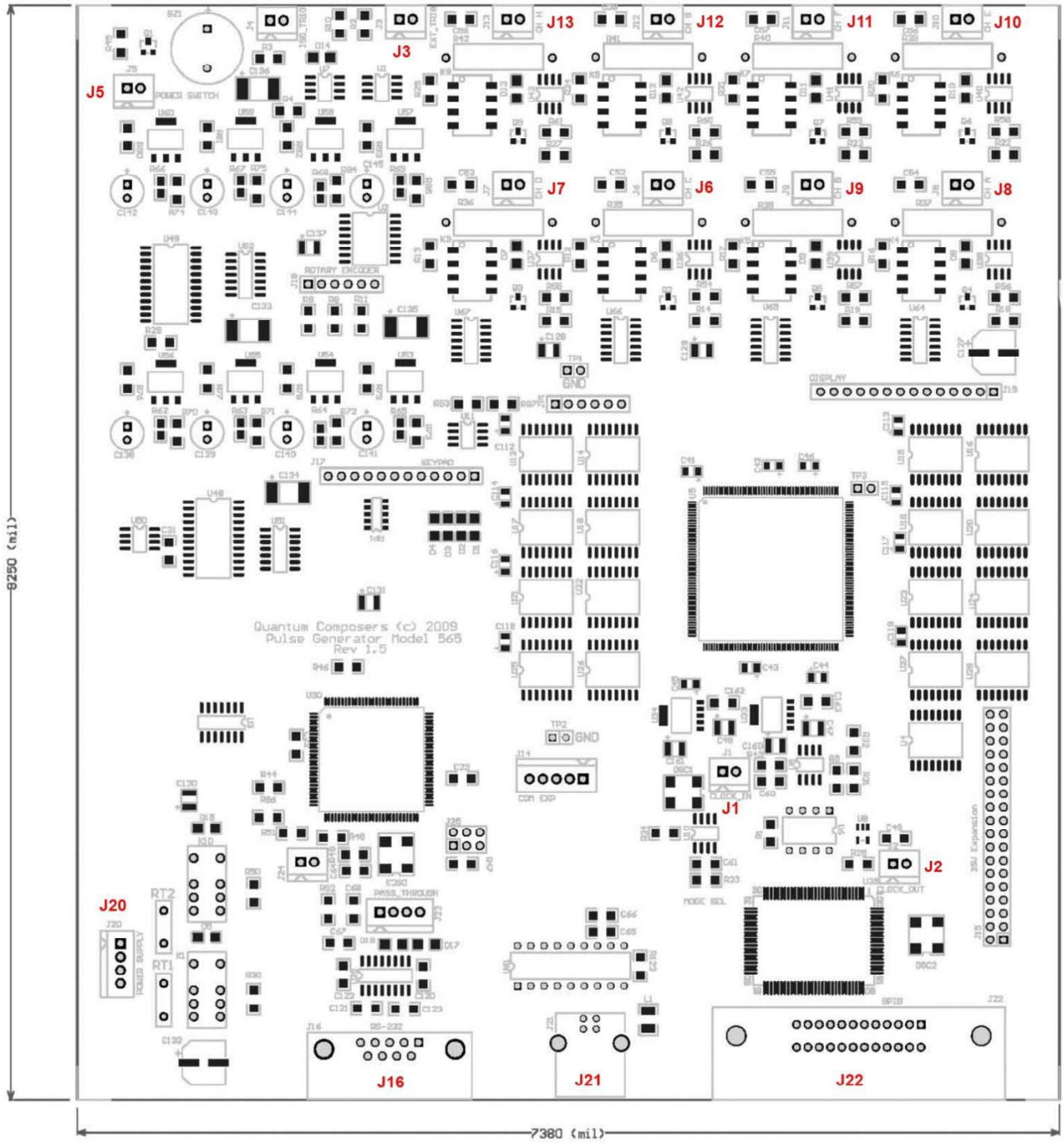


Figure 2 – Component/Connector layout