Laser Diodes

QS (QuickSwitch) Evaluation Board QS-EVAL Driver 2

Description

This is the evaluation board for the QS905D1S3JXXU pulsed lasers. The board has an internal short pulse generator, allowing direct drive from a square wave generator. The board has a socket for easy QS905D1S3JXXU installation.

Features

- TO-56, 5 pins socket
- Variable output power depending of HV input selection.
- Firing rate up to 80 kHz (w/o heatsink)
- Selectable trigger signal width: 10/20/30/40/50 ns

Applications

- Range finding
- Laser radar / LIDAR
- Ceilometer
- Medical
- Optical trigger

Specifications for QS-EVAL Driver2

V+, input voltage	8.0	V
$V_{TrigLOW}$	< 0.8	V
$V_{TrigHIGH}$	2.0 < V < 3.3	V
R_{Trig} internal termination	50	Ohms
T_D turn on delay (trig to laser pulse)	15	ns

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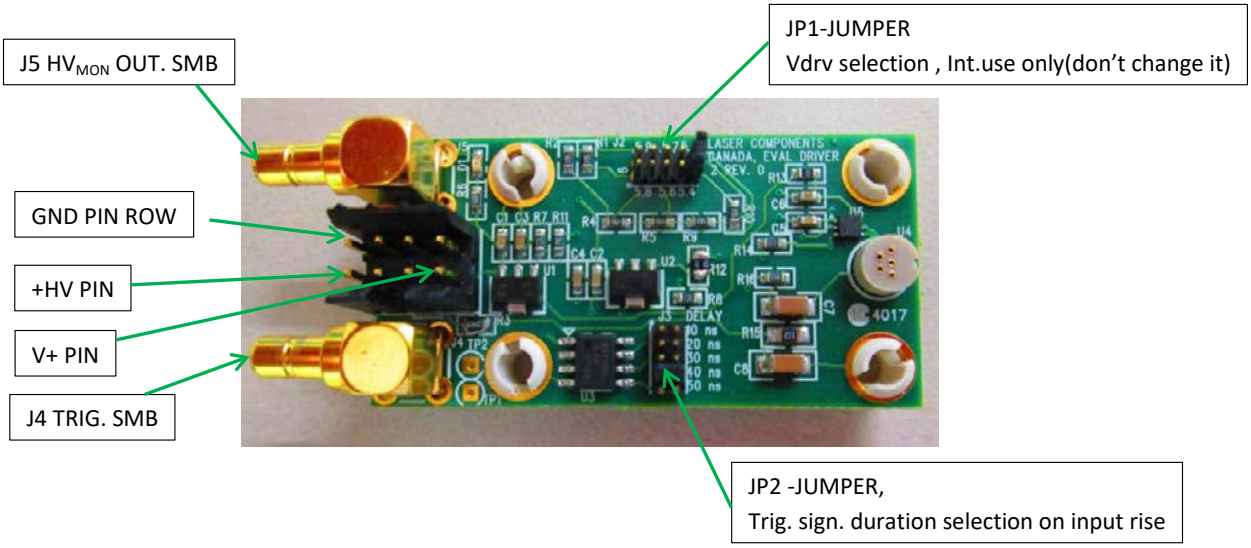
TO56 Socket Pinout

Pin 1	Gate
Pin 2	Gnd
Pin 3	HV (high voltage; 15 – 80 VDC)
Pin 4	Gnd
Pin 5	Case (connected to Gnd)

Electrical Interface



25 mm x 51 mm QuickSwitch Evaluation Board

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PIN Configuration

Pin	Function	Comment
J4 (SMB)	TRIG	TRIG IN – internally terminated into 50 Ω
J5 (SMB)	MON	TRIG OUT/MON – to be terminated into 50 Ω negative pulse when laser fires: 3 ns fall time followed by 700 ns rise time
J1 1 3, 5 7 2, 4, 6, 8	 HV NC V+ GND	 15 V – 80 V DC, HV input TP1 and TP2 (spares) supply input, 8 V DC min, 12 V DC max ground pins
JP1	V Drive	V drive selection: internal use only (don't change the pin selection), 5.4 V factory set
JP2	TRIG	generate : 10 ns (pin 1 – 2 short) 20 ns (pin 3 – 4 short) 30 ns (pin 5 – 6 short) 40 ns (pin 7 – 8 short) 50 ns (pin 9 – 10 short) pulse on input raise

Note: J5, HV Mon is only available for Rep. rate < 20 KHz and should be loaded by 50 ohms.
It should be kept open if not used.

Product Changes

LASER COMPONENTS reserves the right to make change to the product information contained herein without notice. No liability is assumed as a result of their use or application.

Ordering Information

Products can be ordered directly from LASER COMPONENTS or its representatives. For a complete listing of representatives, visit our website at www.lasercomponents.com

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