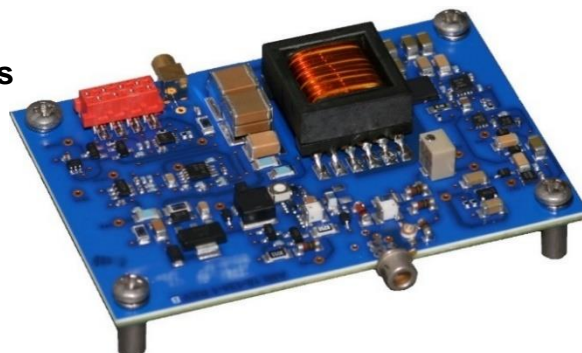




PICOSECOND PULSED LASER DIODE DRIVER

- **ADJUSTABLE PULSE WIDTHS <150 ps TO >750 ps**
- **OUTPUT CURRENT UP TO 3.0 A**
- **COMPLIANCE VOLTAGE UP TO 10.0 V**
- **REPETITION RATE UP TO 1 MHz**
- **5.0 VDC INPUT POWER**
- **COMPACT SIZE**



DESCRIPTION:

AMI's Model 767 picosecond pulse laser diode driver is ideal for applications which require pulse widths less than 1 ns. AMI's proprietary technology allows industry leading adjustable pulse width performance from <150 ps to over 750 ps. Output pulse amplitude and width are user-adjustable via on-board potentiometers. Repetition frequency will follow an external trigger signal from single shot up to 1 MHz. The driver circuitry operates from a single 5 V power source. All other needed voltages are generated on the board by high efficiency switching power supplies. Solder pads near the board's edge accept the most common laser diode packages (3.8 mm, 5.6 mm, 9 mm, 9.5 mm, and TO-18) with various pin configurations and accommodate either parallel or perpendicular mounting to the PCB. Applications include materials processing, time-resolved spectroscopy, LiDAR and others. Interface and MMCX coax mating cables are included with the unit.

SPECIFICATION:



| PARAMETER | Min. | Typical | Max. | Units |
|-------------------------|----------------------|---------|------|-------|
| INPUT | | | | |
| Power | 4.75 | 5.0 | 5.25 | VDC |
| Current | - | - | 1.0 | A |
| Trigger (50Ω Impedance) | 3.7 | - | 5.0 | V |
| OUTPUT | | | | |
| Current* | - | - | 3.0 | A |
| Compliance Voltage | 1.2 | - | 10.0 | V |
| Pulse Width* | 100 | - | 750 | ps |
| Repetition Rate | Single Shot | - | 1.0 | MHz |
| Risetime (Optical)* | - | - | 100 | ps |
| TEMPERATURE | | | | |
| Operating | 0 | - | +50 | °C |
| Storage | -20 | - | +70 | °C |
| Humidity | < 95% Non-Condensing | | | |

* Output performance dependent upon laser diode characteristics. Performance cannot be guaranteed for all laser types. See optical output waveforms for example. Contact AMI to discuss your specific requirements.

Specifications are subject to change without notice.

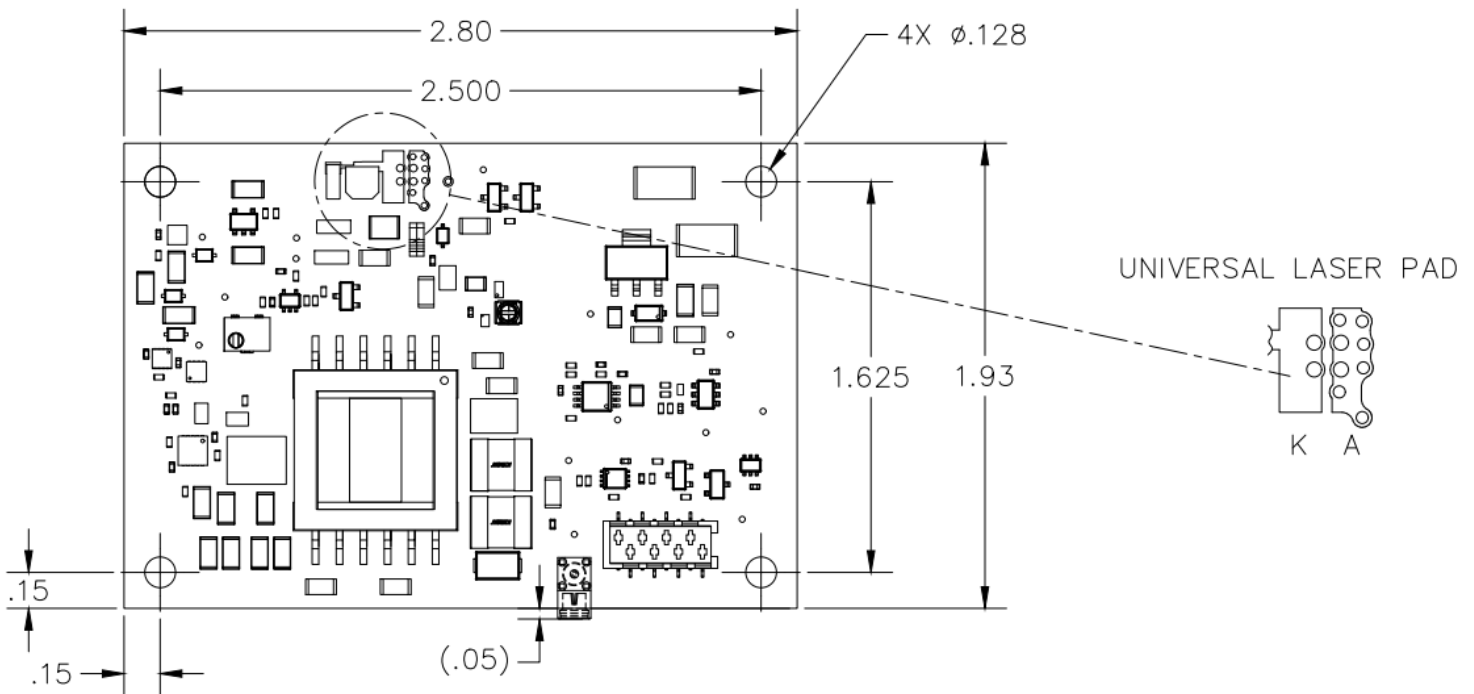
APPLICATIONS:

Seed Laser Diode Driver for Fiber Lasers, Time-Resolved Spectroscopy, LiDAR

| | |
|---------------------|--|
| CONNECTIONS: | |
| Power/Interface: | 8 Pin TE Connectivity MicroMatch Connectors (188275-8) |
| Trigger: | MMCX Micro Coax Connector |
| | |
| SIZE: | 2.80" x 1.93" x 0.50" |
| WEIGHT: | 1.1 oz. (31 grams) |

| I/O CONNECTOR Pinout | |
|-------------------------|------------|
| JP1 | |
| Pin | Function |
| 1 | Enable |
| 2 | GND |
| 3 | GND |
| 4 | +5 V Power |
| 5 | +5 V Power |
| 6 | GND |
| 7 | Spare |
| 8 | +5 V Power |

MECHANICAL OUTLINE:



DWG: 16-070 REV 1



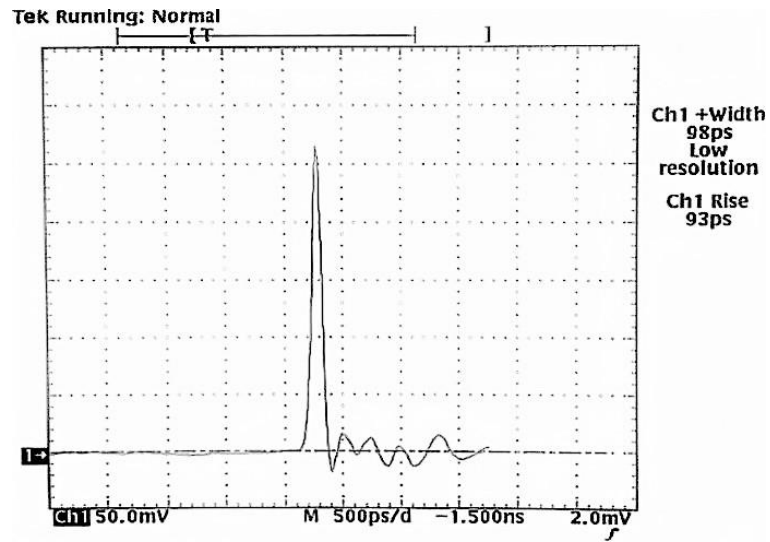
| |
|---|
| UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. |
| TOLERANCES |
| DECIMAL |
| .XX=±.02 |
| .XXX=±.005 |

DWG: 16-070

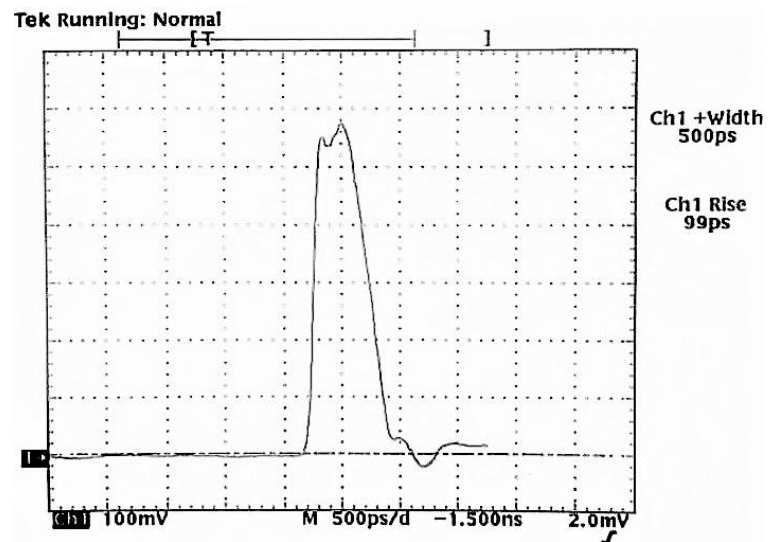
OPTICAL OUTPUT WAVEFORMS:

Test Laser: CEL NX7539BB-AA 1550 nm

98 ps
Pulse Width



500 ps
Pulse Width



1 ns
Pulse Width

