

Low Power Pulsed Laser

V1.0

Description

The Low Power Pulsed Laser series is a 1550 nm Eye-Safe LiDAR source with a MOPA architecture, offering high peak power, nanosecond pulse widths, and a wide repetition rate. Its compact, thermally-optimized design, ensures reliability across a - 40 °C to + 105 °C range with low power consumption, making it ideal for LiDAR, ADAS, mapping, and 3D scanning applications.

Key Features

- Eye-Safe at 1550 nm
- High Beam Quality ($M^2 < 1.2$)
- Low Power Consumption
- Integrated Temperature Control System
- High Reliability and Stability

Applications

- ADAS
- Mapping
- Range-Detecting
- 3D Scanning
- Fiber Sensor

Specifications

Optical Parameter	Unit	Value
Center Wavelength ¹	nm	1550
Max. Line Width (3 dB)	nm	0.2
Pulse Width (FWHM)	ns	2 - 5
Repetition Rate	MHz	0.2 - 2
Average Power (Main Output)	W	0.95 - 1.05
Peak Power	W	500 - 700
Min. OSNR	dB	35
Polarization	-	Random
Fiber Type (Main Output)	-	SMF
Fiber Length (Main Output) ²	m	0.7 - 1.3
Fiber Length (Reference) ²	m	0.7 - 1.3
Fiber Connector Type	-	FC/APC
Max. E-O Delay	ms	1.5

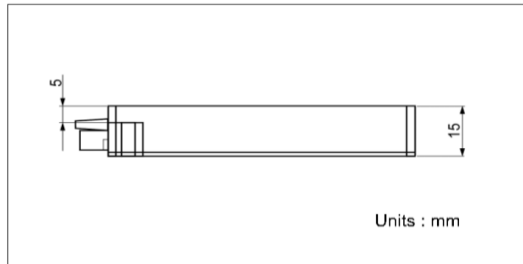
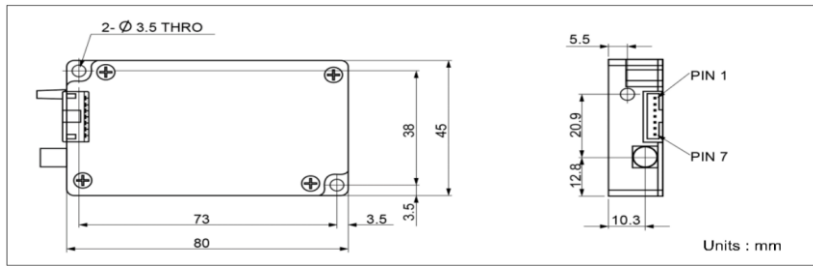
¹For working temperature - 40 to + 105 °C

²With 900 μm loose tube

Environment Requirement

Operating Case Temperature	°C	- 40 to + 105
Storage Case Temperature	°C	- 40 to + 125
Humidity	%	5 - 95
RoHS	-	Satisfy with RoHS 6

Package Dimensions



Electric Definition

PIN	Function	Details
1	VCC	+ 12 V
2	GND	-
3	GND	-
4	Tx	3.3 V-TTL, Pull-Up with 4.75 k Resistor
5	Rx	3.3 V-TTL, Pull-Up with 4.75 k Resistor
6	EN	3.3 V-TTL, Pull-Up with 4.75 k Resistor
7	NC	-

- Connector Type: 7-pin connector