



Infrared Tunable DPSS Laser TWW Series

Data Sheet



Overview

The TWW series is a family of infrared continuous-wave wavelength tunable lasers with a tuning range from 1527nm to 4410nm and linewidths of <2 nm. The TWW series is widely used in remote sensing, communication, spectrum analysis, and many other applications.

Features

- Tunable from 1527nm to 4410nm
- CW operating mode
- Optical output power up to 2000mW
- Spectral linewidth <2nm

Applications

- Remote sensing
- Communication
- Spectrum analysis
- Spectroscopy
- Medical

1527-3040 nm Specifications

Parameter	TWW152735	TWW157383	TWW164060	TWW260000	TWW274000	TWW296040
Wavelength	1527-1535 nm	1573-1583 nm	1640-1660 nm	2600-2700 nm	2740-2800 nm	2960-3040 nm
Wavelength deviation	±10 nm	±10 nm	±10 nm	±20 nm	±20 nm	±20 nm
Operating mode	CW					
Output power	>500mW, >1000mW, >1500mW, >2000mW	>500mW, >1000mW, >1500mW, >2000mW	>500mW, >1000mW, >1500mW, >2000mW	>500mW, >1000mW	>500mW, >1000mW	>500mW, >1000mW
Power stability (rms, over 4 hours)	<5%, <3%	<5%, <3%	<5%, <3%	<5%, <3%	<5%, <3%	<5%, <3%
Beam diameter at aperture (1/e ²)	<10 mm	<10 mm	<10 mm	<11 mm	<11 mm	<11 mm
Beam divergence, full angle	<10 mrad	<10 mrad	<10 mrad	<11 mrad	<11 mrad	<11 mrad
Warm-up time	<10 min	<10 min	<10 min	<10 min	<10 min	<10 min
Operating temperature	15-30°C					
Expected lifetime	10,000 hours					
Warranty period	10 months					

Remarks:

- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.
- Specifications are subject to change without notice.

3100-3920 nm Specifications

Parameter	TWW310050	TWW328020	TWW335090	TWW346040	TWW367030	TWW388020
Wavelength	3100-3150 nm	3280-3320 nm	3350-3390 nm	3460-3540 nm	3670-3730 nm	3880-3920 nm
Wavelength deviation	±20 nm	±20 nm	±20 nm	±20 nm	±20 nm	±20 nm
Operating mode	CW					
Output power	>500mW, >1000mW	>500mW, >1000mW	>500mW, >1000mW	>500mW, >900mW	>500mW, >900mW	>500mW, >800mW
Power stability (rms, over 4 hours)	<5%, <3%	<5%, <3%	<5%, <3%	<5%, <3%	<5%, <3%	<5%, <3%
Beam diameter at aperture (1/e ²)	<11 mm	<11 mm	<11 mm	<11 mm	<11 mm	<11 mm
Beam divergence, full angle	<11 mrad	<11 mrad	<11 mrad	<11 mrad	<11 mrad	<11 mrad
Warm-up time	<10 min	<10 min	<10 min	<10 min	<10 min	<10 min
Operating temperature	15-30°C					
Expected lifetime	10,000 hours					
Warranty period	10 months					

Remarks:

- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.
- Specifications are subject to change without notice.

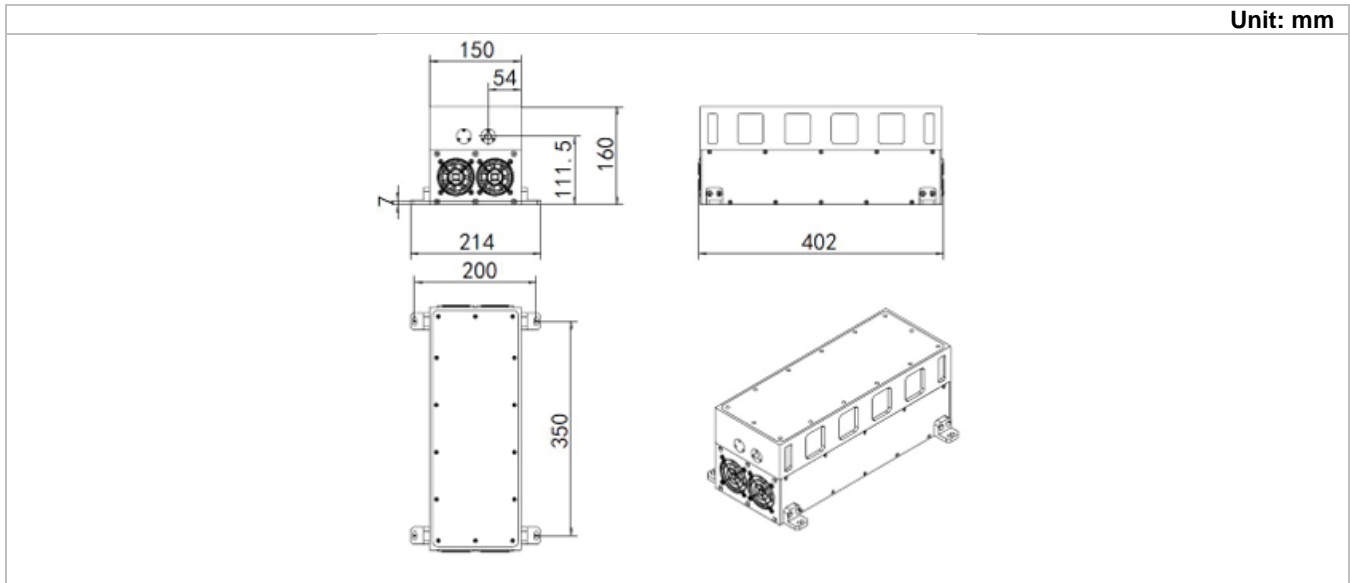
3980-4110 nm Specifications

Parameter	TWW398020	TWW410040	TWW418000	TWW423070	TWW429010	TWW439010
Wavelength	3980-4020 nm	4100-4140 nm	4180-4200 nm	4230-4270 nm	4290-4310 nm	4390-4410nm
Wavelength deviation	±20 nm	±20 nm	±20 nm	±20 nm	±20 nm	±20 nm
Operating mode	CW	CW	CW	CW	CW	CW
Output power	>500mW	>300 mW	>200mW	>100mW	>100mW	>100mW
Power stability (rms, over 4 hours)	<5%, <3%	<5%, <3%	<5%, <3%	<5%, <3%	<5%, <3%	<5%, <3%
Beam diameter at aperture (1/e ²)	<11 mm	<11 mm	<11 mm	<11 mm	<11 mm	<11 mm
Beam divergence, full angle	<11 mrad	<11 mrad	<11 mrad	<11 mrad	<11 mrad	<11 mrad
Warm-up time	<10 min	<10 min	<10 min	<10 min	<10 min	<10 min
Operating temperature	15-30°C					
Expected lifetime	10,000 hours					
Warranty period	10 months					

Remarks:

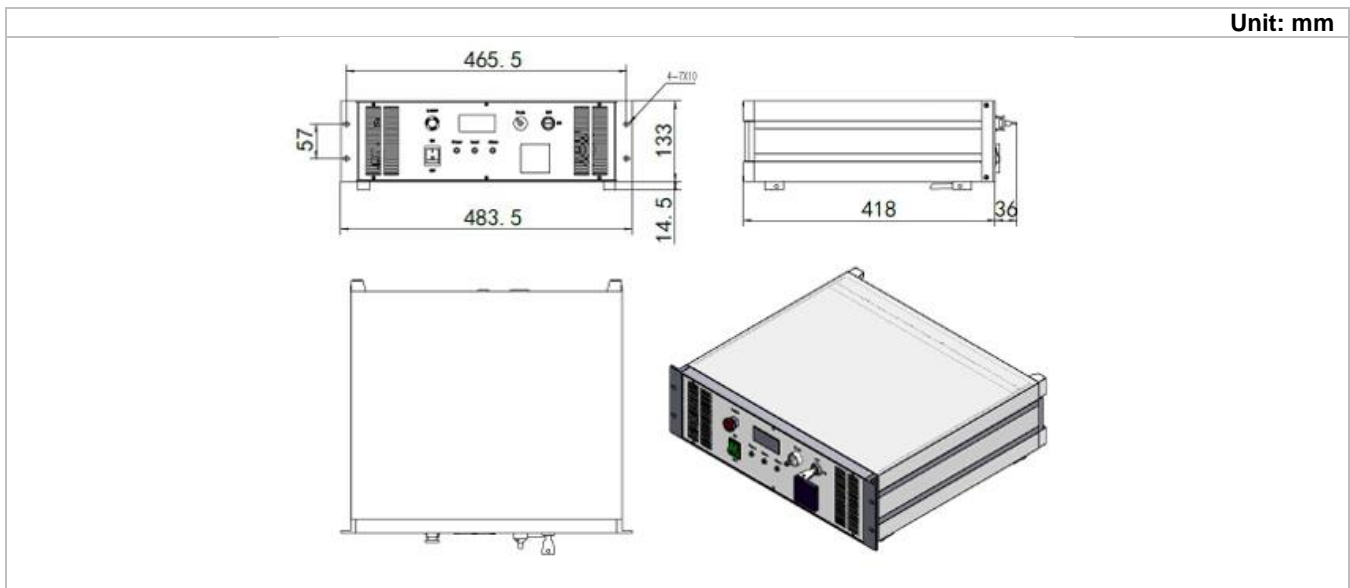
- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.
- Specifications are subject to change without notice.

TWW Series Laser Head Dimensions



Parameter	TWW Series
Dimensions	402(L)×214(W)×160(H) mm ³
Weight	10 kg
Beam height from base plate	111.5 mm

TWW Series Power Supply Dimensions



Parameter	U Version AOM Power Supply
Dimensions	483.5(L)×454(W)×147.5(H) mm ³
Weight	8.3 kg
Input voltage	90-264VAC

Ordering Information

For more information, please contact Lasermate directly at sales@lasermate.com.

Part Number Configuration TWW[1][2][3][4]				
TWW = Laser Model Series	[1] = Wavelength	[2] = Output Power	[TW] = Power Supply	[4] = Power Stability
	152735= 1527-1535 nm 157383= 1573-1583 nm 164060= 1640-1660 nm 260000= 2600-2700 nm 274000= 2740-2800 nm 296040= 2960-3040 nm 310050= 3100-3150 nm 328020= 3280-3320 nm 335090= 3350-3390 nm 346040= 3460-3540 nm 367030= 3670-3730 nm 388020= 3880-3920 nm 398020= 3980-4020 nm 410040= 4100-4140 nm 418000= 4180-4200 nm 423070= 4230-4270 nm 429010= 4290-4310 nm 439010= 4390-4410 nm	100= >100mW 200= >200mW 300= >300mW 500= >500mW 800= >800mW 900= >900mW 1W= >1000mW	AU= U Version AOM Power Supply	A=<5% E=<3%

Note: The above specifications are subject to change without notice.