TWW Series
Infrared Wavelength Tunable DPSS Laser

Data Sheet

Overview

The TWW series is a family of infrared continuous-wave wavelength tunable lasers with a tuning range from 1480nm 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 1480nm to 4410nm (model dependent)
- CW operating mode
- Optical output power up to 2000mW
- Spectral linewidth <2nm

Applications

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

1480-1660 nm Specifications

Parameter	TWW1495	TWW1525	TWW1575	TWW1633
Wavelength	1480-1510 nm	1510-1540 nm	1550-1600 nm	1605-1660 nm
Wavelength deviation	±10 nm			
Operating mode	CW			
Average power(1)	1-2000 mW			
Power stability (rms, over 4 hours±3°C)	<5%, <3%			
Beam diameter at aperture (1/e^2)	<10 mm			
Beam divergence, full angle	<10 mrad			
Warm-up time	<10 min			
Cooled method	Air cooled			
Operating temperature	15-35°C			
Expected lifetime	>10,000 hours			

2600-3320 nm Specifications

Parameter	TWW2650	TWW2770	TWW3000	TWW3125	TWW3300
Wavelength	2600-2700 nm	2740-2800 nm	2960-3040 nm	3100-3150 nm	3280-3320 nm
Operating mode	CW				
Average power(1)	250-1000 mW				
Power stability (rms, over 4 hours±3°C)	<5%, <3%				
Beam diameter at aperture (1/e^2)	<11 mm				
Beam divergence, full angle	<11 mrad				
Warm-up time	<10 min				
Cooled method	Air cooled				
Operating temperature	15-35°C				
Expected lifetime	>10,000 hours				

3350-4020 nm Specifications

Parameter	TWW3370	TWW3500	TWW3700	TWW3900	TWW4000
Wavelength	3350-3390 nm	3460-3540 nm	3670-3730 nm	3880-3920 nm	3980-4020 nm
Operating mode	CW				
Average power(1)	250-1000 mW	250-900 mW	250-900 mW	50-800 mW	50-500 mW
Power stability (rms, over 4 hours±3°C)	<5%, <3%				
Beam diameter at aperture (1/e^2)	<11 mm				
Beam divergence, full angle	<11 mrad				
Warm-up time	<10 min				
Cooled method	Air cooled				
Operating temperature	15-35°C				
Expected lifetime	>10,000 hours				

4100-4410 nm Specifications

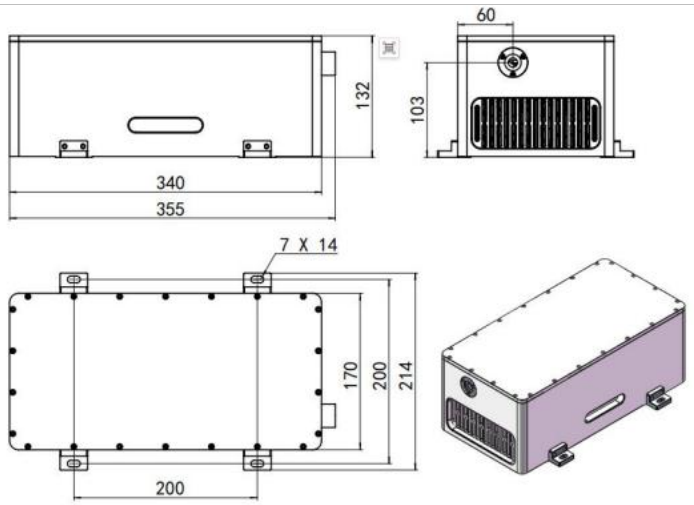
Parameter	TWW4120	TWW4190	TWW4250	TWW4300	TWW4400
Wavelength	4100-4140 nm	4180-4200 nm	4230-4270 nm	4290-4310 nm	4390-4410 nm
Operating mode	CW				
Average power(1)	50-300 mW	50-200 mW	20-100 mW	20-100 mW	20-100 mW
Power stability (rms, over 4 hours±3°C)	<5%, <3%				
Beam diameter at aperture (1/e^2)	<11 mm				
Beam divergence, full angle	<11 mrad				
Warm-up time	<10 min				
Cooled method	Air cooled				
Operating temperature	15-35°C				
Expected lifetime	>10,000 hours				

Remarks:

1. Any output power level can be selected within this range.
2. Specifications of the CW laser are 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.
3. Specifications are subject to change without notice.

TWW Series Laser Head Dimensions

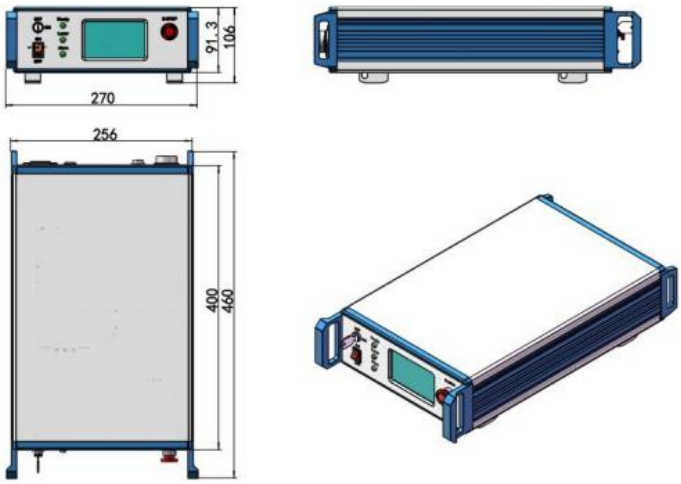
Unit: mm



Parameter	TWW Series
Dimensions	355(L)×214(W)×132(H) mm^3
Weight	12 kg
Beam height from base plate	103 mm
Beam exit (from side)	60 mm

TWW Series Power Supply Dimensions

Unit: mm



Parameter	TR1 Power Supply
Dimensions	460(L)×270(W)×106(H) mm^3
Weight	7 kg
Input voltage	100-240 VAC

Ordering Information

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

Part Number Configuration **TWW[1][2][3]**			
TWW = Laser Model Series	**[1] = Wavelength Tuning Range**	**[2] = Output Power**	**[3] = Power Stability**
	1495=1480-1510 nm 1525=1510-1540 nm 1575=1550-1600 nm 1633=1605-1660 nm 2650=2600-2700 nm 2770=2740-2800 nm 3000=2960-3040 nm 3125=3100-3150 nm 3300=3280-3320 nm 3370=3350-3390 nm 3500=3460-3540 nm 3700=3670-3730 nm 3900=3880-3920 nm 4000=3980-4020 nm		A=<5% E=<3%

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