# Product Specification

# AMPLIFIER MODEL

# YAR-30K-1064-LP-SF

## Table of Contents:

## 1.0 Optical Characteristics

| Characteristic | Test condition | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Modes of Operation | | | | CW | | |
| Polarization | | | | Linear | | |
| Polarization Extinction Ratio | | ER | 23 | | | dB |
| Operational Spectral Range | | $\Delta\lambda$ | 1060 | | 1070 | nm |
| Input Power | | $P_{in}$ | 0.5 | 1 | 1.5 | W |
| Output Power | $P_{in}$ = 1 mW, over $\Delta\lambda$ | $P_{nom}$ | 30 | | | W |
| Adjustable Power Range | | | 10 | | 100 | % |
| Long-Term Output Power Instability | $P_{nom}$, over 8hrs,<br>T=20°C (const)<br>T=20+/-2°C | | | 0.5<br>1.5 | 1.5<br>3.0 | %, peak-to -peak |
| Input Isolation | | | 27 | 30 | | dB |
| Peak Signal over ASE Background | RBW=0.01nm, $P_{nom}$, over $\Delta\lambda$ | | 50 | | | dB |
| Permissible Back Reflection Power | $P_{nom}$ | | | | 250 | mW |

## 2.0 Optical Input/Output

| Characteristic | Test condition | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Input Fiber Type | | | | 980 nm PM Panda | | |
| Input Cable OD | | | | 3.0 | | mm |
| Input Cable Length | | | | 1.5 | | m |
| Input Connector | | | | FC/APC | | |
| Output Cable Length | | | | 1.0 | | m |
| Output Metal Jacket OD | | | | 7 | | mm |
| Output Termination | | | | Collimator with Attached Isolator | | |
| Beam quality, $M^2$ | | | | 1.05 | 1.1 | |
| Beam ∅ | At $1/e^2$ level | | | 3 | | mm |

## 3.0 General Characteristics

| Characteristic | Test Condition | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Operating Temperature Range (as determined by internal temperature monitor) | | | +10 | | +30 | °C |
| Storage Temperature | | | -10 | | +65 | °C |
| Warm-up Time to Full Stabilization | | | | 15 | | min |
| Humidity | | | 20 | | 90 | % |
| Cooling Method | | | Forced air | | | |
| Dimensions, W x H x D | | | 483 x 133 x 424 | | | mm |

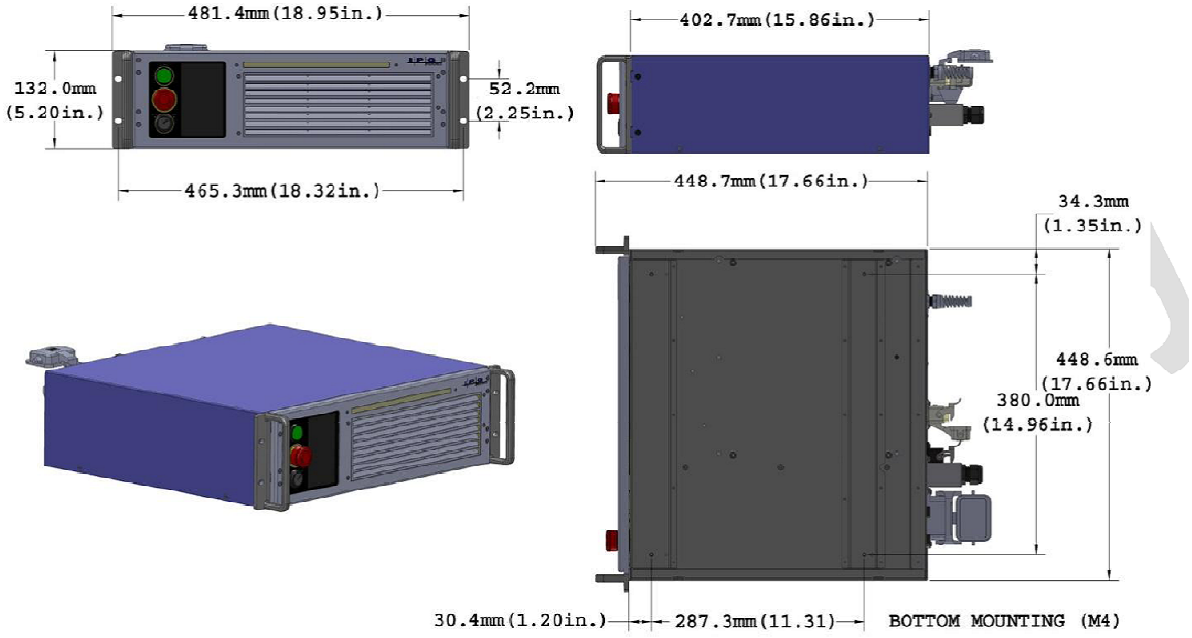
## 4.0 Electrical Characteristics

| Characteristic | Test Condition | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Operating Voltage, single-phase | 100-120/200-240 VAC, 50/60 Hz | | | | | |
| Maximum Power Consumption | T = 20°C | | | 215 | 250 | W |

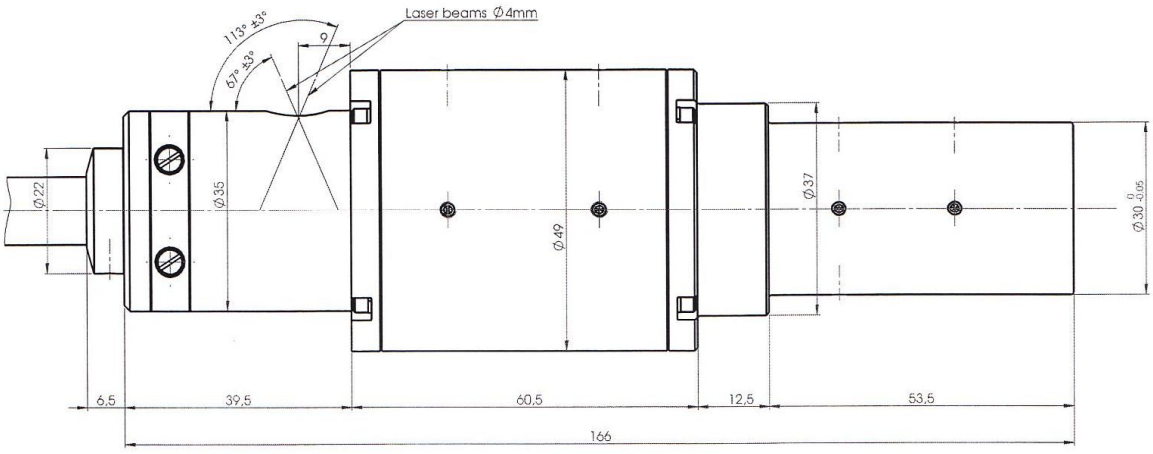
## 5.0 Control/Monitor Interface

| Characteristic | Description |
|---|---|
| Output Power Stabilization Mode | Pump Diode Current Control (ACC) |
| Operating Voltage, single-phase | 100-120/200-240 VAC, 50/60 Hz |
| Control | Touch Screen Display, Ethernet, RS-232 |

## 6.0 Drawings




The output isolator has a window as seen in the illustration below. This window is used to discard additional polarization of light in the forward direction (at 113°) and to reject back reflected light (at 67°). Out power emitted from this window may be up to several Watts during operation. As received, the window is covered with tape. This tape must be removed prior to operation. Beam dumps must be used on this window to collect stray radiation.



## 7.0 Certification

Test Data Shipped with Laser

- Serial Number
- Output Power vs. Setpoint
- Output Emission Spectrum
- Polarization Extinction Ratio
- Long Term Output Power Stability (over 8 hours)