



# *aeroLASE-PA100*

## High power PM fiber amplifier module

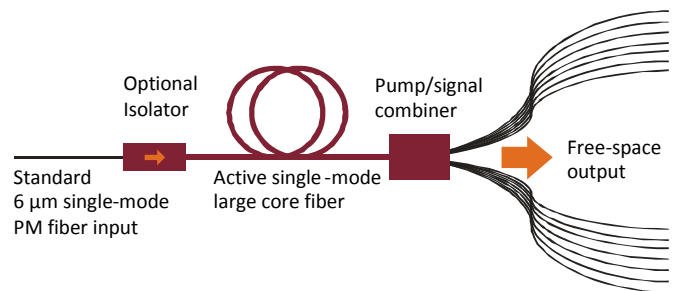
- Diffraction limited - truly single mode output
- Handles ultra high peak power and pulse energies
- Short fiber length/large core reduce nonlinearities
- High pump power handling (counter propagating)
- High signal to pump isolation
- Polarizing
- Easy system integration with standard interfaces
- Short time to market for your own products

The *aeroLASE-PA100* is a high-power polarizing fiber amplifier module which enables you, in a straight forward way, to boost pulses to ultra high power levels at 1  $\mu\text{m}$ . The module combines the extreme pulse amplification properties of our DC-200/40-PZ-Yb fiber with a unique high power pump/signal combiner.

The module allows for easy launch of more than 100W of pump power into the active fiber and is compatible with cost effective single emitter diodes.

The *aeroLASE-PA100* features counter propagating pumping and isolation of more than 40 dB between signal and pump diodes necessary for reliable system integration.

The *aeroLASE-PA100* is the ideal device for generating ultra high peak powers and pulse energies with superior beam quality, polarization and spectral properties.

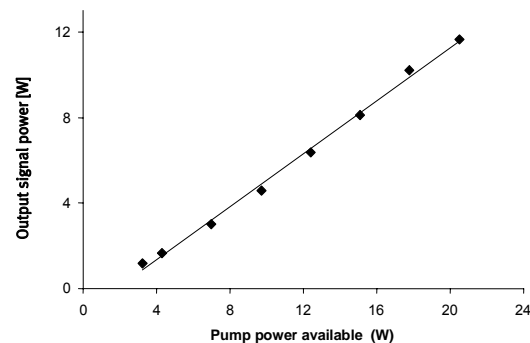


Amplifier	
Active fiber	DC-200/40-PZ-Yb
Fiber length (976nm pump vers.)	2.5 m
Fiber length (915nm pump vers.)	5.0 m
M <sup>2</sup> @ 1060 nm	< 1.3
Mode field diameter	29 ± 2 $\mu\text{m}$
NA @ 1060 nm	~ 0.03
Pump absorption @ 920 nm	~ 3 dB/m
Pump absorption @ 976 nm	~ 10 dB/m
Polarization Extinction Ratio	> 15 dB

Pump interface	
Geometry	106/122 $\mu\text{m}$
Number of pump ports	14
Max NA	0.15
Total pump power capability	100 W
Signal to pump isolation	> 40 dB

Signal interface	
Input	6 $\mu\text{m}$ single-mode PM fiber
Output	Free space, >2 degree angle

### Typical performance



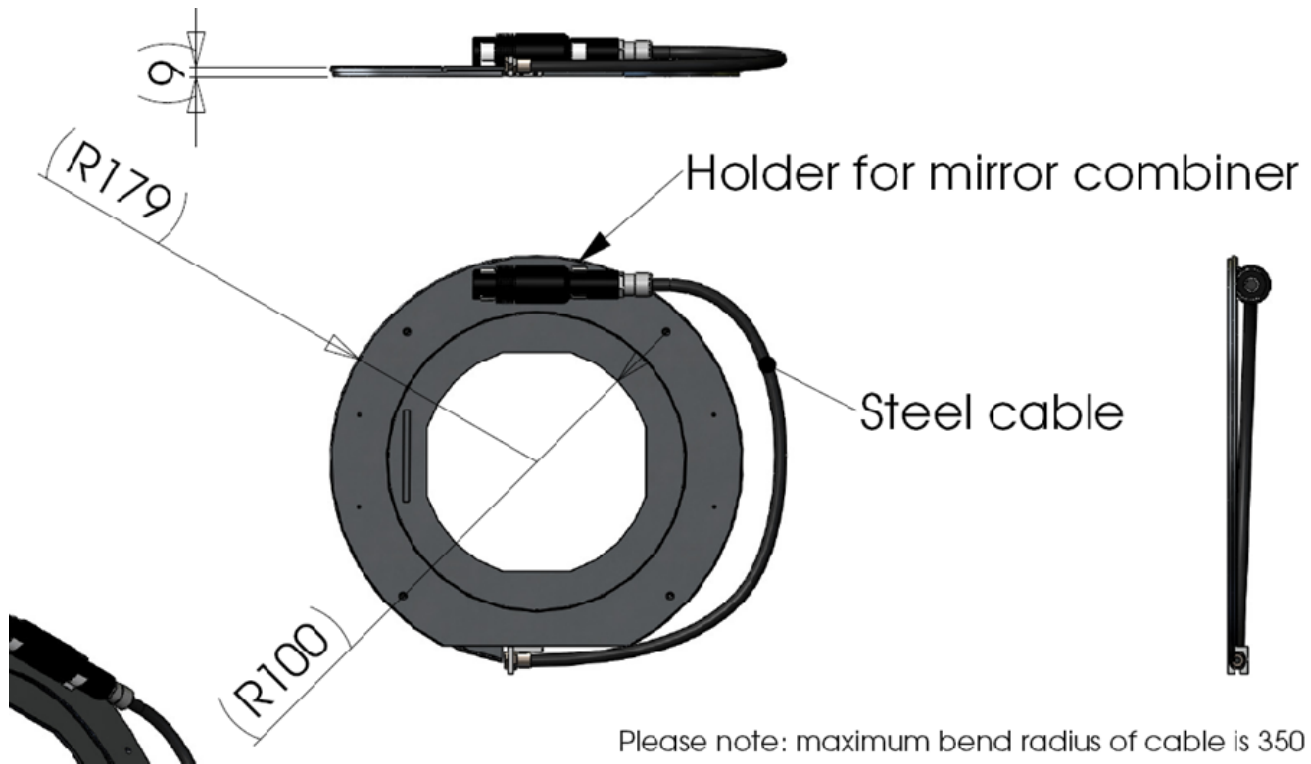
Typical slope efficiency is > 60% (plot shows 976 nm pumped system with 10ns, 100 kHz pulses).

*The laser light emitted from this laser system is invisible and will be harmful to the human eye. Proper laser safety eyewear must be worn during operation.*

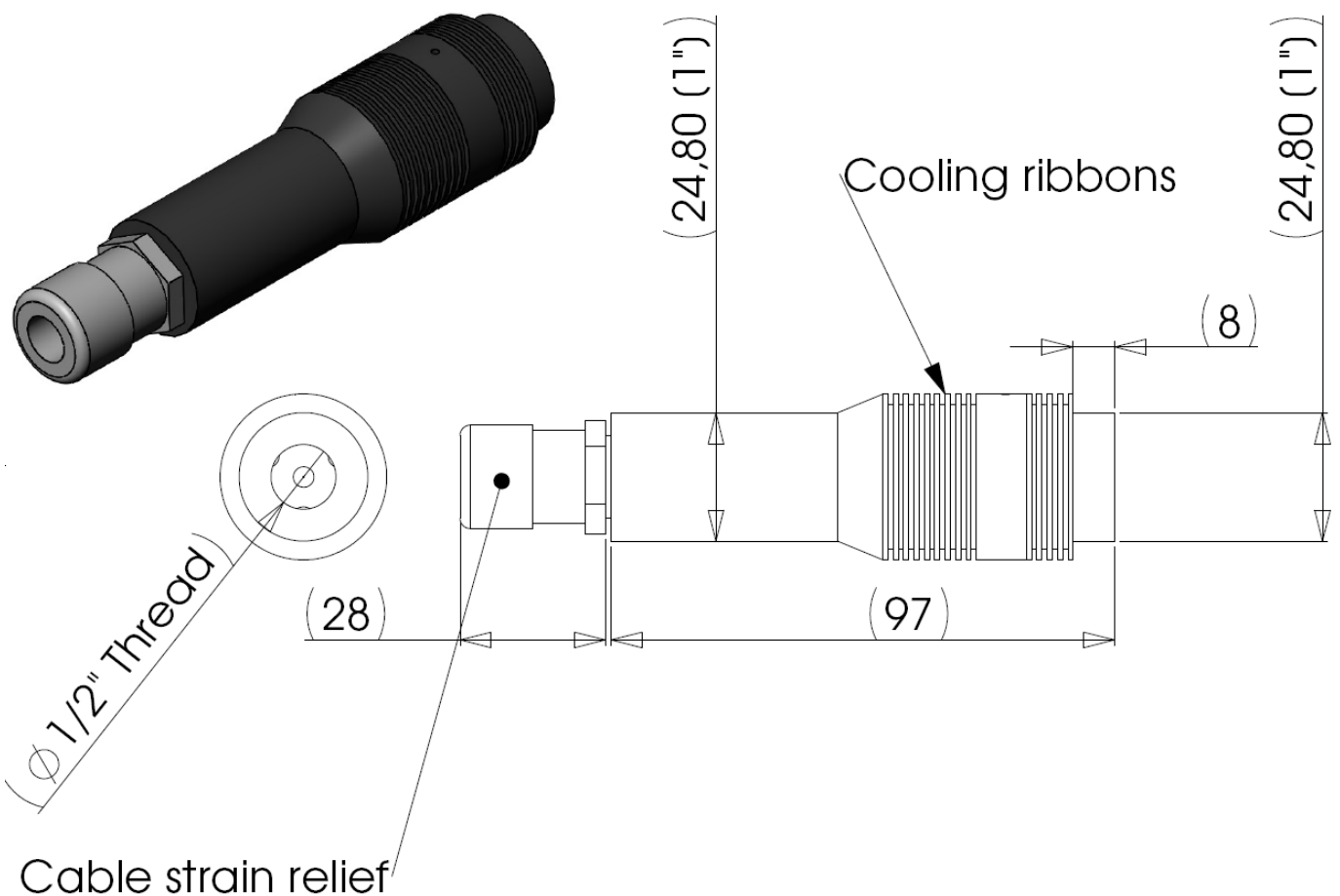


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Please note: maximum bend radius of cable is 350 mm



Covered by U.S. Patents 5907652, 6334019, 6603912, 6888992, 7116875, 7289709, Patent Pending WO27006317