TGModule D - PM

APPLICATIONS

SCIENCE

INDUSTRY

AEROSPACE

KEY FEATURES

- High-power gain module based on patented tapered double clad fiber (T-DCF)
- Single mode output, $M^2 < 1.3$
- Large mode area, low level of nonlinear effects
- Rigid, water cooled metal housing
- Integrated pump diodes
- Thermistors for temperature monitoring

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OVERVIEW, SPECIFICATIONS

DESCRIPTION

The TGModule D-PM is an all-in-one ready-to-use water cooled amplifying module. The module includes Ampliconyx patent protected, polarization maintaining ytterbium doped tapered double clad fiber (T-DCF) (US 8,433,168 B2, Japan 5390524, People's Republic of China ZL 200880119087.7, EPO 08805462.2 pending), and it is ideally suited for demanding short pulse applications.

This gain module has the highest level of integration with built-in pump diodes and ready-to-splice seed input. The TGModule D-PM can be designed and assembled to match customer needs and could incorporate pump diodes according to customer request. The module has a standard single-mode fiber (PM 10/125) input and free-space output with excellent single-mode beam quality ($M^2 < 1.3$) and power up to 100 W. Built-in thermistors can be used to monitor the operating temperatures of the critical parts: the pump diodes, the gain fiber and the pump coupling unit located inside the amplifier.

The module is fully tested and shipped with complete test report and user manual.

SPECIFICATIONS

PARAMETER	MIN	TYP	MAX	UNITS
OUTPUT				
Output power [1]		100		W
Mode field diameter		40		µm
Polarization extinction ratio (PER) [2]	13	15		dB
M^2	1.0	1.2	1.3	
INPUT				
Wavelength	1030	1040	1065	nm
Input signal power	5	30		mW
FIBERS				
Input signal fiber	PM 10/125, others upon request			
MECHANICAL				
Dimensions	342 mm x 330 mm x 58 mm			
Water flow	5		10	l/min

[1] The output power is specified for 30 mW, 25 MHz, 40 ps seed signal input. Depending on the actual user seed input, the expected output power might be different.

[2] Measured at 1040 nm for 19 dB PER input. Output PER will depend on the PER of the seed source.

GET IN TOUCH WITH US!

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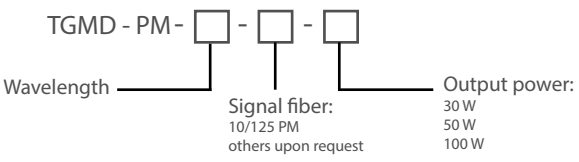
www.ampliconyx.com

ORDERING INFORMATION



Example: TGMD - PM - 1040 - 10/125 - 100 W

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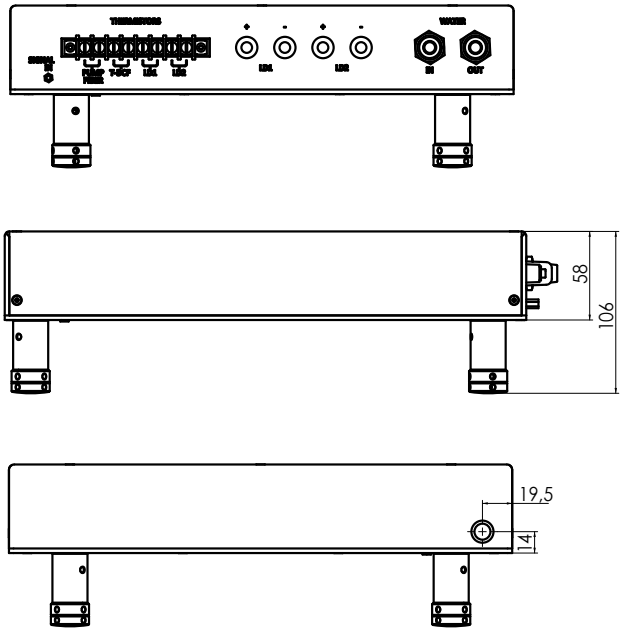
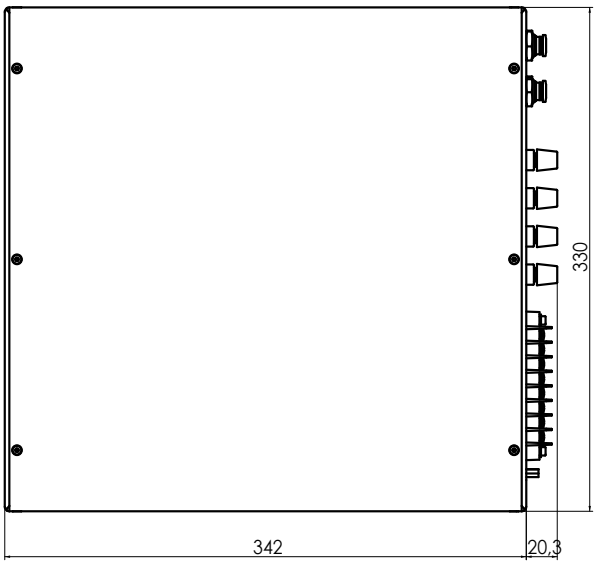
PERFORMANCE, DIMENSIONS

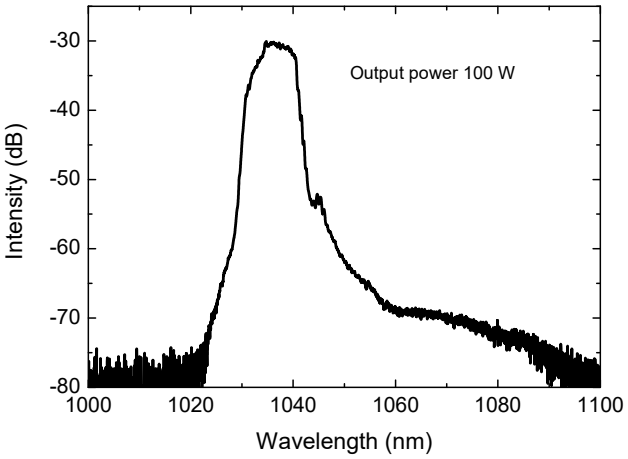
DIMENSIONS

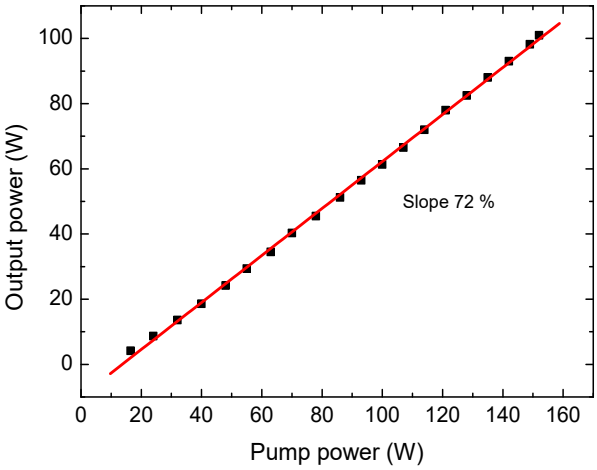


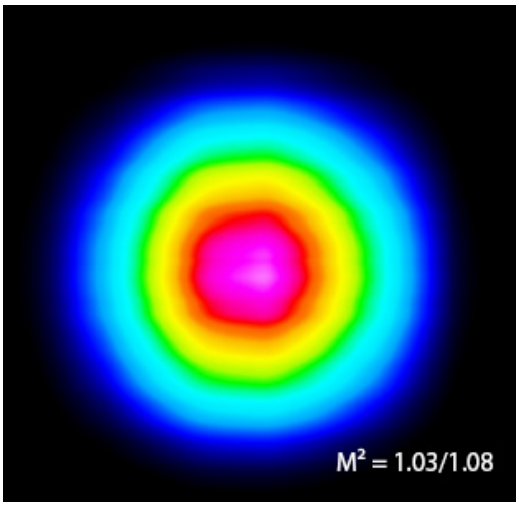


EXAMPLE AMPLIFICATION

30 mW, 25 MHz, 40 ps input signal







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