

# TGModule C - 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 metal housing
- Ready to splice to pump and seed source
- Easy thermal management
- Thermistors for temperature monitoring

## SPECIFICATIONS

PARAMETER	MIN	TYP	MAX	UNITS
<b>OUTPUT</b>				
Output power <sup>1)</sup>		100		W
Mode field diameter		40		µm
Polarization extinction ratio (PER) <sup>2)</sup>	13	15		dB
M <sup>2</sup>	1.0	1.2	1.3	
<b>INPUT</b>				
Wavelength	1030	1040	1065	nm
Input signal power	5	30	-	mW
Pump power <sup>3)</sup>			150	W
Pump wavelength		976		nm
<b>FIBERS</b>				
Input signal fiber	PM 10/125, others upon request			
Pump fiber	200/220 NA 0.22 150 W or 105/125 NA 0.22 100 W, others upon request			
<b>MECHANICAL</b>				
Dimensions	342 mm x 330 mm x 38 mm			
Water flow <sup>4)</sup>	5		10	l/min

<sup>1)</sup> Output power depends on the applied pump power and seed input. The pump assembly is capable of handling up to 150 W of pump power and 100 W of output power.

<sup>2)</sup> Measured at 1040 nm for 19 dB PER input. Output PER will depend on the PER of the seed source.

<sup>3)</sup> Maximum pump power depends on pump fiber selection.

<sup>4)</sup> Recommended water flow for both the unit and for the external heat sink.

If not ordered with built-in heat sink, this gain module must be connected to an additional heat sink to guarantee the performance at high power.

**AMPLICONYX**

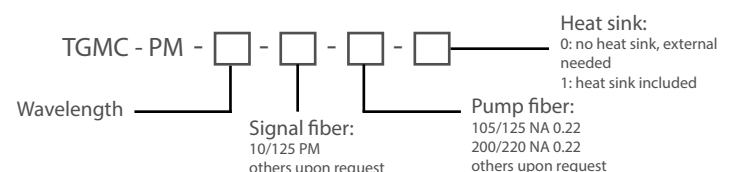
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## DESCRIPTION

TGModule C-PM is an amplifying module containing all the needed optical components packaged inside an aluminum housing. 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). The unit is ready-to-splice to pump diodes and seed source. The pump coupling unit inside the housing is directly water cooled, and the baseplate of the unit can be easily mounted onto an external heat sink for high power applications.

This module is ideal for customers who want to have fully assembled, ready-to-splice gain unit, but prefer to use their own pump diodes or integrate the module inside a larger system. The module is fully tested and shipped with a complete test report.

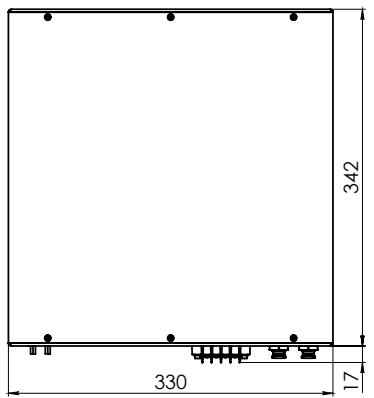
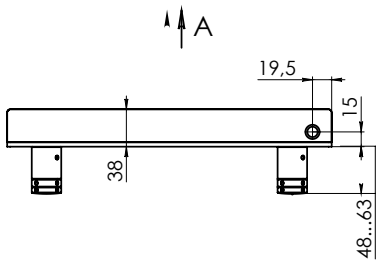
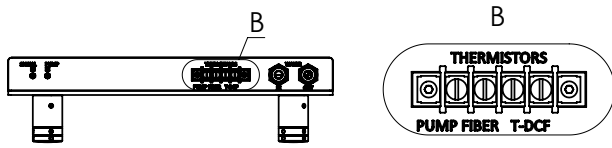
## ORDERING INFORMATION



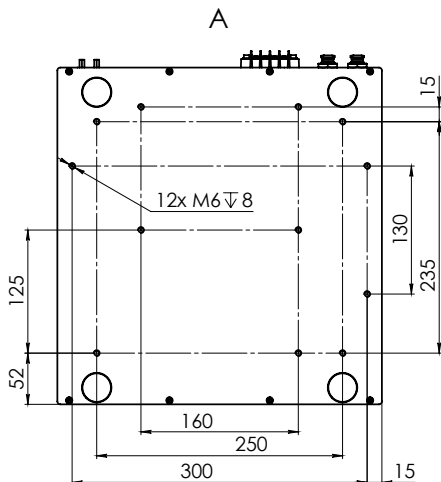
Example: TGMC - PM - 1040 - 10/125 - 200/220 - 0

# PERFORMANCE, DIMENSIONS

## DIMENSIONS

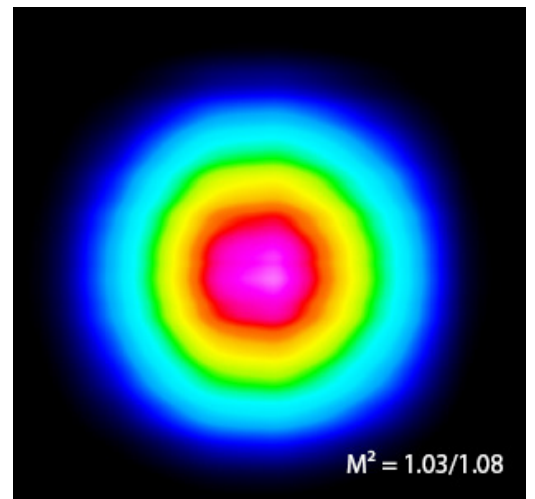
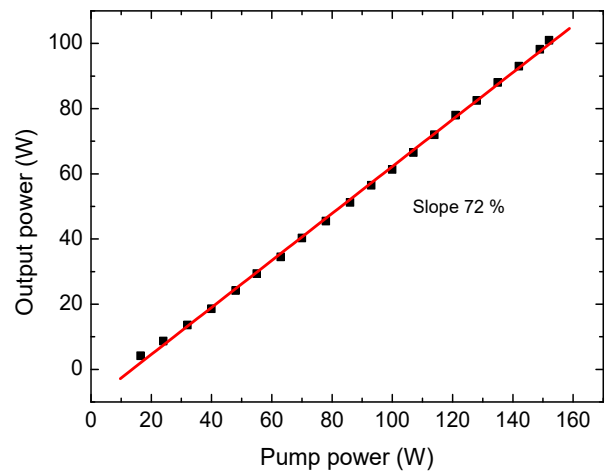
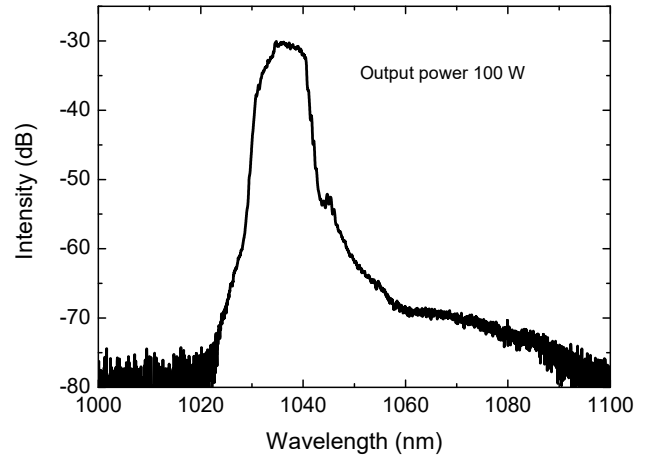


EXTERNAL COOLER MOUNTING PLACE



## EXAMPLE AMPLIFICATION

30 mW, 25 MHz, 40 ps input signal



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[www.ampliconyx.com](http://www.ampliconyx.com)

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