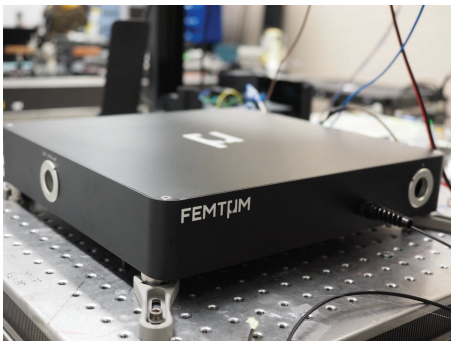
Femtum Amp 2800

Femtum introduces the first commercial erbium-doped fluoride fiber amplifier in the mid-infrared. This compact fiber system can efficiently amplify light at wavelengths around 2800 nm.



Technical Specifications

Optical [1]	Standard [2]
Signal wavelength	2780 (± 50) nm
Output power	10 mW to > 1 W
Signal gain	10 to > 20 dB
Output beam diameter	< 3 mm
M^2 (Average of X & Y)	< 1.3

System specifications	
Dimensions[1]	16 × 14 × 3.5 in.
Cooling	Passive cooling
Voltage	100 to 240 V
Beam delivery	Free space [3]
Controller	Computer-controlled or integrated touch screen

KEY FEATURES

Compact and turn-key system

Efficient all-fiber diode pumping at 980 nm

Signal gain > 10 dB

Single-mode output

APPLICATIONS

Femtosecond to CW amplification

Amplifier for ICL, OPO, DFG sources

Mid-infrared spectroscopy and imaging

Nonlinear frequency conversion

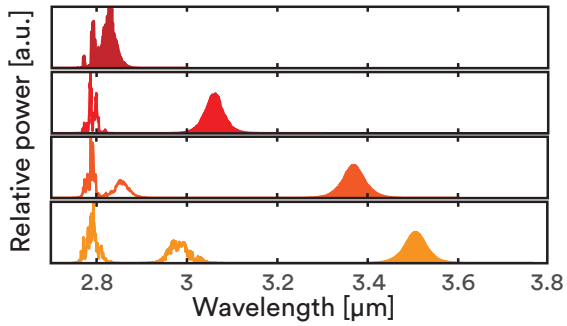
High-field physics

Supercontinuum generation

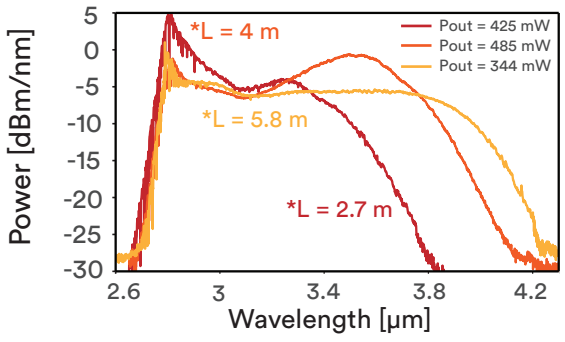
Example of application : Mid-IR ultrafast amplifier and spectral converter

When seeded with an ultrafast laser, this amplifier can generate a watt-level tunable ultrafast output or a high energy supercontinuum spanning from 2.6 to 4.2 µm.

Typical spectra of a tunable ultrafast amplifier



Supercontinuum spectra (log scale)



[1] Specifications subject to change
[2] Custom specifications upon request
[3] Fiber output with single-mode delivery cable upon request

* L = Amplifier length