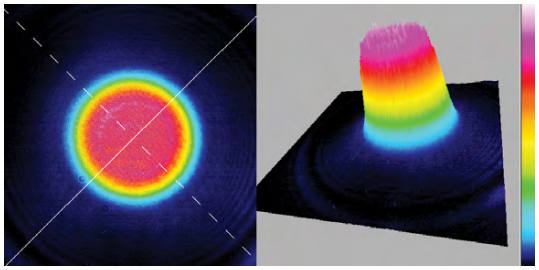
Flat top converter FTC



Main features

- Quick change between Gaussian and Flat-top beam
- The beam profile remains Flat-Top shape along optical axis
- Integrated controller
- Designed according your laser specs.
- Clear aperture up to 15 mm
- Quick switching time - 0.2 sec
- High damage threshold up to 10J/cm^2 (10 ns @ 1064 nm)
- Conversion efficiency up to 70% (while on Flat-Top mode)

Application examples

- Precise laser micromachining
- Life sciences
- Research

Flat top converter unit is “all in one” motorized solution for a Gaussian beam transformation to a Flat-Top (Top Hat) beam. The beam profile remains Flat-Top shape along optical axis. The device consists of quartz wave-plate, space-variant wave-plate and a high contrast polarizer. The FTC is produced in the UV, visible and NIR spectral ranges, from 250 nm to 2000 nm. All optical components of the FTC are made for high LIDT and provide stable and reliable performance even using them with high power lasers in industrial applications. A secondary laser beam from Flat top converter unit can be rejected to an external beam dump. The beam dump is used for avoiding any thermal effects or stress in the housing of the FTC device.

Standard specifications

FLAT TOP CONVERTER FTC SPECIFICATIONS	
Input and output clear aperture	ø15 mm (depends on waveplate)
Conversion efficiency and transmission	Up to 70 % (Flat-Top beam mode) No less than 97 % (Gaussian beam mode)
LIDT coating	>10 [J/cm^2] (10 ns @ 1064 nm)
Controller	USB and RS232
Control interface	External
Dimensions (H x W x L)	105 x 53 x 62,5 mm FTC 105 x 70 x 62,5 mm FTC with beam dump (BD-6)

*Custom design available

Standard products

MODEL	APERTURE	WAVELENGTH	ADJUSTMENT	TYPE	CONTROL INTERFACE	TYPICAL APPLICATION	SKU
FTC	ø 6 mm	1030 nm	Motorised	DOE	USB or RS232	Flat top converter	19750
	ø 6 mm	515 nm	Motorised	DOE	USB or RS232	Flat top converter	19751
	ø 3 mm	1030 nm	Motorised	DOE	USB or RS232	Flat top converter	19752
	ø 3 mm	515 nm	Motorised	DOE	USB or RS232	Flat top converter	19753
	ø 6 mm	1064 nm	Motorised	DOE	USB or RS232	Flat top converter	19754
	ø 3 mm	1064 nm	Motorised	DOE	USB or RS232	Flat top converter	19755
	ø 6 mm	532 nm	Motorised	DOE	USB or RS232	Flat top converter	19756
	ø 3 mm	532 nm	Motorised	DOE	USB or RS232	Flat top converter	19757