

# QuickShape IR

POWERFUL MID-IR PULSE SHAPER

**QuickShape IR** is a powerful mid-IR pulse shaper that has been designed and engineered for flexibility and ease of use.

## APPLICATIONS

- Time-domain 2D IR
- Frequency-domain 2D IR
- Transient 2D IR
- Time-domain SFG
- Heterodyned 2D SFG
- Coherent control
- Mid-IR transient absorption spectra without an expensive detector
- Rapid-scan optical delay line
- High-repetition-rate chopper

## CAPABILITIES & FEATURES

- Shot-to-shot scanning
- Easy-to-use software with advanced features
- Phase cycling & rotating frame
- Create exponential, reverse-exponential pulses, Gaussian and double pulses
- GVD and TOD correction
- Generate your own custom pulse shapes
- Example LabView™ code & control VIs

“the ultimate multi-tool  
for ultrafast mid-IR”

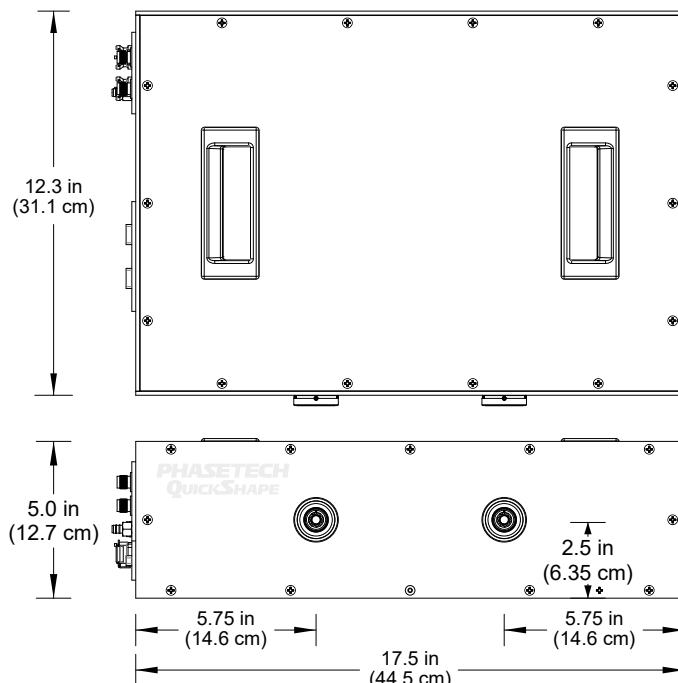
## SPECIFICATIONS

Standard AR Coating	2.6 - 10 $\mu\text{m}$ (1000 - 3850 1/cm)
(other wavelength ranges are available upon request)	
Spectral Window <sup>1</sup>	> 1.5 $\mu\text{m}$ at 5.5 $\mu\text{m}$
Spectral Resolution <sup>1</sup>	< 5 1/cm at 5.5 $\mu\text{m}$
Effective Pixels <sup>2</sup>	> 180
Source Laser Repetition Rate	$\leq$ 100 kHz
Maximum Double Pulse Delay <sup>3</sup>	> 5 ps <sup>1</sup> at 5.5 $\mu\text{m}$
Input Beam Size (1/e <sup>2</sup> )	7 mm, collimated
Input Polarization	Linear, Horizontal
Throughput Efficiency	> 25% @ 5.0 $\mu\text{m}$
Approximate Size	12.3 x 17.5 x 5 in (31.1 x 44.5 x 12.7 cm)

<sup>1</sup> Specification is based on our standard gratings and an input diameter of 7 mm. Other gratings are available upon request or can be provided by the user.

<sup>2</sup> See our website for more about how the effective pixel size is measured.

<sup>3</sup> Calculated based on effective pixel size with standard gratings.

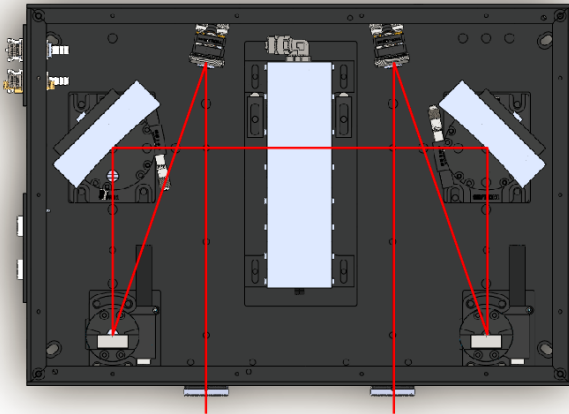


# PHASETECH QuickShape IR

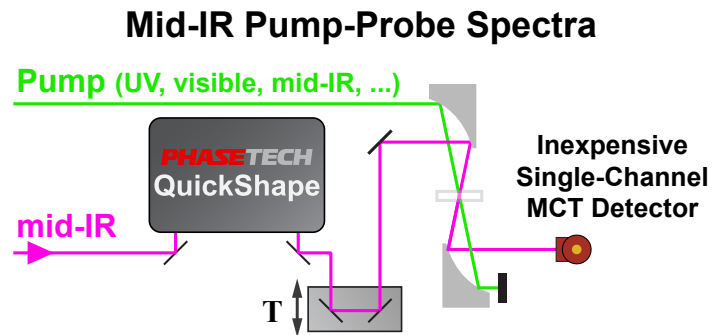
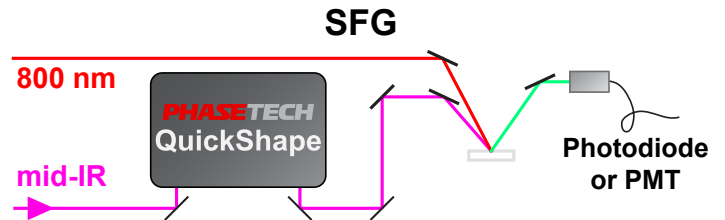
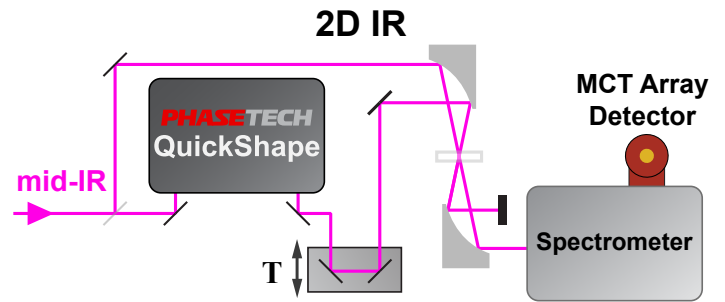
## ADDITIONAL INFORMATION

### INCLUDES

- Advanced Arbitrary Waveform Generator - load & cycle through over 175,000 pre-defined pulse-shape
- Detailed User Manual
- Example LabView™ Source Code
- LabView™ Control VIs
- QuickControl Software Package
- Purging Enclosure
- Control Computer

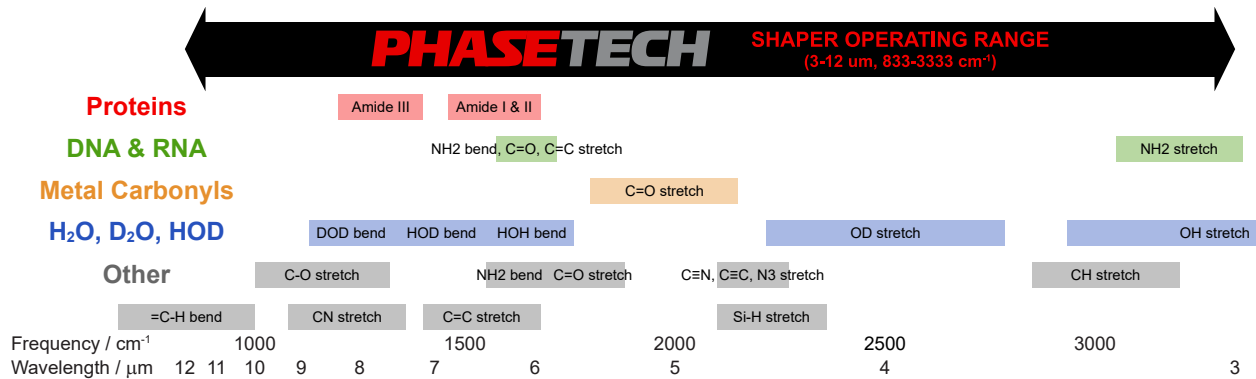


### EXAMPLE LAYOUTS



New 4<sup>th</sup> generation design! Simple layout - easy to align!

Motorized rotation stages for wavelength tuning!



The QuickShape operates at wavelengths covering the most-studied vibrations of proteins, DNA & RNA, metal carbonyls and water. Extended wavelength ranges are also available by request.

We follow a policy of continuous product development. Specifications are subject to change without notice. LabView™ is a trademark of National Instruments. Neither PhaseTech Spectroscopy, Inc., nor any software programs or other goods or services offered by PhaseTech Spectroscopy, Inc., are affiliated with, endorsed by, or sponsored by National Instruments.