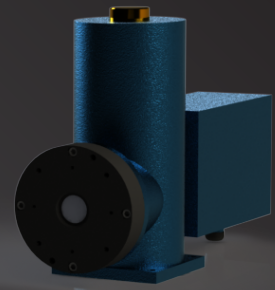


# 2DMCT

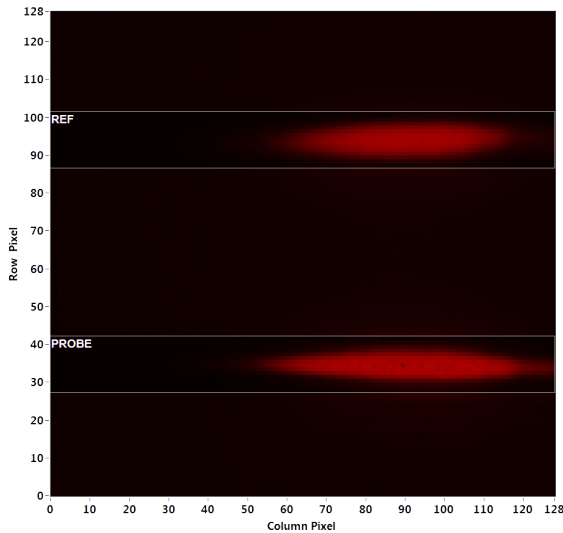
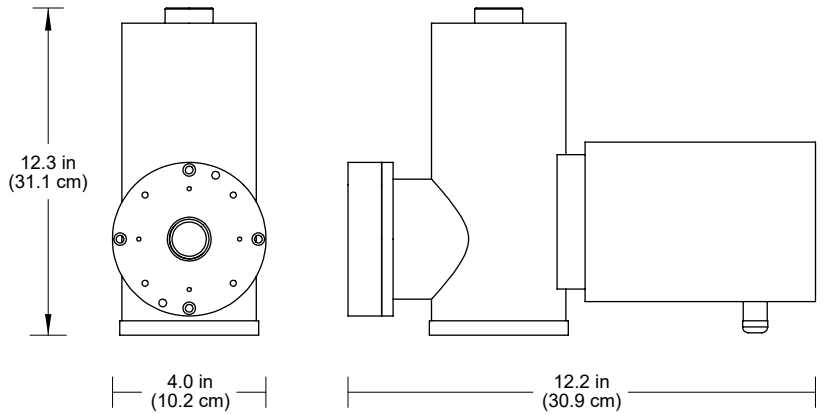
NEXT-GENERATION MID-IR DETECTOR



**2DMCT** is a next-generation mercury cadmium telluride (MCT) detector for the mid-IR. Featuring 128 rows of 128 pixels, high sensitivity and very low noise electronics.

## CAPABILITIES & FEATURES

- 16,384 High quality MCT pixels
- Programmable gain level
- Very low dark noise
- Dewar temperature readout
- Electronics for QuickShape rapid-scanning
- Control software & LabVIEW™ drivers



## SPECIFICATIONS

Pixels	128x128 or 64x64
Spectral Range	2 - 10.5 $\mu\text{m}$
Pixel Size	40 x 40 $\mu\text{m}$
Max. Full Frame Rate	> 1.5 kHz
Max. Windowed Frame Rate	> 7 kHz (contact PhaseTech about 10 kHz frame rates)
Specific Detectivity ( $D^*$ )	$4 \times 10^{11} \text{ cm Hz}^{1/2} \text{ W}^{-1}$
Vertical Resolution	14-bit
Dynamic Range	~13,000:1
Typical Dark Noise ( $1\sigma$ )	< 10 counts over 1000 shots
Approximate Size	8.5 x 4 x 12.2 in (21.6 x 10.2 x 30.9 cm)

## APPLICATIONS

- Transient IR Spectroscopy
- 2D IR Spectroscopy
- Mid-IR Imaging
- 2D IR Imaging

## INCLUDES

- Detector with built-in digital electronics
- Frame grabber
- User Manual
- LabView™ Control VIs
- QuickControl Software Package

## DARK NOISE

