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

**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

**ADD-ONS**
- Monochromator with matched gratings and mounting hardware
- External channel detection

**SPECIFICATIONS**
- Pixels: 128x128 or 64x64
- Spectral Range: 2 - 12.3 \(\mu\)m
- Pixel Size: 40 x 40 \(\mu\)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 x 10\(^{11}\) cm Hz\(^{1/2}\) 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)

* Vertical averaging over multiple pixels reduces noise even further!

**DARK NOISE**
- Counts
- SHOTS

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