



## APPLICATIONS

- Standoff Detection
- Automatic Target Recognition
- Material Identification
- Chemical Defense
- Environmental Monitoring
- Geologic Mapping
- Biological Research
- Medical Imaging
- Cancer Screening
- Clinical Instrumentation
- Machine Vision

# LWIR-62

## STARING HYPERSPECTRAL IMAGER

## SPECIFICATIONS

*PRELIMINARY*

- Data Cube: 19 x 15 spatial, 62 spectral**
- Data Rate: 15 cubes/sec**
- Spectral Band: 7.8-9.5  $\mu\text{m}$  (7.8-10.8  $\mu\text{m}$  special)**
- Spectral Resolution: 50 nm/bin (average)**
- MRTD: 30 mK**
- Focal Plane Array: MCT, N<sub>2</sub> cooled**
- Power In: 50 Watts**
- Field of View: 7.3° x 5.5°, variable optics**
- Dimensions: 16" W x 13" H x 36" L**
- Weight: 55 lbs**

## HYPERSPECTRAL IMAGING

*Combining Imaging with Spectral Analysis*

A conventional color image has three colors per pixel, but a hyperspectral image can have **hundreds**. Because every material has a characteristic spectral signature, this information can be used to identify an object by analyzing its *spectra*.

Typical hyperspectral imagers scan a scene over time to build a data cube. This build time makes these technologies unsuitable for high speed applications.

BD&E's hyperspectral imaging systems use our patented *HyperPixel Array™* (HPA™) technology to combine spectral data with spatial information to create three-dimensional *hyperspectral data cubes at video rates*. Two dimensions describe the position of a point in space and the third dimension is the spectral signature at that point.

Using no moving parts, this proprietary *HyperPixel Array™* technology creates a data cube in one **instantaneous** frame, eliminating motion artifacts.

- **Ideal for moving platforms and transient events**
- **No moving parts**
- **Unique Patented Technology**

Export of this product is regulated by the U.S. Department of State in accordance with the guidance of "International Traffic in Arms Regulation (ITAR)" per Title 22, Code of Federal Regulations, Parts 120-130.

