



BODKIN
DESIGN & ENGINEERING



SWIR-60 HYPERSPSCTRAL IMAGER

PRELIMINARY SPECIFICATIONS

Data-Cube Dim	41 x 33 x 60
Data Rate	31.6 cubes/sec
Spectral Band	1 - 1.7 um
Spectral Resolution	60 Bins (~ 30nm)
F-number	2.96
Field of view	18.3° X 14.7°
Fore-optic Mount	M42 x 1
Interface	CameraLink
Dimensions	10" H X 17" L X 3.43" W
Power	3.6 W (camera)
Weight	15 Lbs

APPLICATIONS

- Standoff Detection
- Material Identification
- Biological Research
- Environmental Monitoring
- Geologic Mapping
- Medical Imaging
- Automatic Target Recognition
- Chemical Defense

*Snap-Shot Mode Imaging Spectrometer
Produces Data Cubes at Video Rates*

HYPERSPSCTRAL 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.

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