



VNIR-90 MINIATURE 3-D SPECTROMETER

*Can be engineered to various wavebands
VNIR, SWIR, MWIR, LWIR*

APPLICATIONS

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

SPECIFICATIONS

PRELIMINARY

Data cube: 55 x 44 x 90

55 x 44 spatial

90 spectral

Data Rate: 15 cubes/sec

Spectral Band:

490-925 nm

Spectral resolution (average)

3.9 nm/pixel

Power In:

Driven by USB port

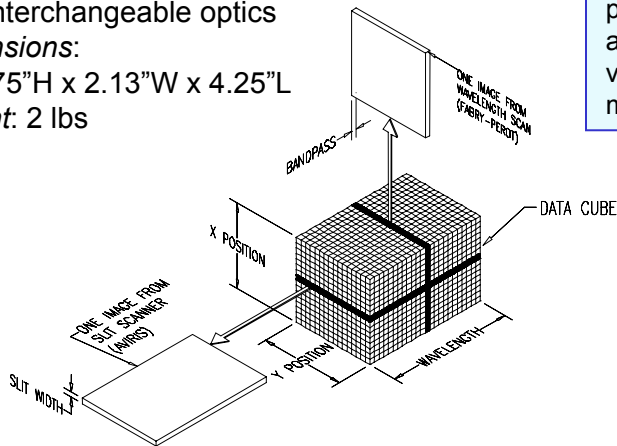
Field of View: Variable

- interchangeable optics

Dimensions:

3.75"H x 2.13"W x 4.25"L

Weight: 2 lbs



HYPERSPECTRAL IMAGING

*Combining Imaging with
Spectral Analysis*

A conventional color image has three colors per pixel, the hyperspectral image can have **hundreds of colors**. This enables the identification of objects by their spectral features.

Typical hyperspectral imagers scan the scene over time to build up a three-dimensional data cube. Two dimensions of the data cube are spatial and the third dimension is wavelength.

The One-Shot Miniature 3D-Spectrometer uses a proprietary *HyperPixel Array*™ to capture spectral and spatial information in one **instantaneous** video frame. This eliminates motion artifacts and maximizes signal-to-noise.

- **Ideal for moving platforms and transient events**
- **Ruggedized**
- **No moving parts**
- **MWIR and LWIR Systems under development**
- **Unique Patent Pending Technology**

For Application Partnerships or Custom Designed Solutions Contact

BODKIN DESIGN & ENGINEERING, LLC