

# » MiniRad

## Fast Multi-Spectral Radiometer

Distribution in the UK & Ireland



**Lambda Photometrics Limited**  
Lambda House Batford Mill  
Harpenden Herts AL5 5BZ  
United Kingdom

E: [info@lambdaphoto.co.uk](mailto:info@lambdaphoto.co.uk)

W: [www.lambdaphoto.co.uk](http://www.lambdaphoto.co.uk)

T: +44 (0)1582 764334

F: +44 (0)1582 712084



The MiniRad is a fast radiometer performing simultaneous multi-spectral radiometric measurements with high sensitivity and speed. Measure signatures of fast transients. Up to 4 user-defined spectral bands and parallel video for documentation.

### » FEATURES

- ▶ Multi-Spectral fast radiometer with rise time below 10 $\mu$ sec
- ▶ Supports up to 4 different spectral channels
- ▶ Channels are customer configurable and cover the range 0.2 $\div$ 14  $\mu$ m Field of view (FOV) options for 40 or 80 mrad  $\mu$ m
- ▶ Field of view (FOV) options for 40 or 80 mrad with the ability to add telescopes for wide or narrow FOV
- ▶ User replaceable spectral and ND filters easily replaced during operation
- ▶ Built in data acquisition with USB2.0 data connection to a host computer
- ▶ Fully computer controlled

# » MiniRad

Fast Multi-Spectral Radiometer

## » SPECIFICATIONS

Specifications apply to all MiniRad radiometers. You may choose up to 4 channels per MiniRad to fit your needs.

| Parameter                           | Value   | Comments  |
|-------------------------------------|---|---|
| Number of Channels                  | Up to 4   | Only 2 LN2 Cooled   |
| Spectral Band                       | Channels available from the UV to the LWIR        | Enquire for available channel options                                   |
| Filters                             | 1 spectral filter                                 | 2 filter in the optical path per channel                                |
| Attenuators set                     | 1 ND filter<br>ND1, ND2, ND3                      | for each channel  |
| Filter Slides                       | Accommodate 1" diam. filter, 1.6 mm thick         | included for each channel, filters are user mountable                   |
| Optics clear aperture               | 23mm or 48mm                                      | Enquire for available channel options                                   |
| Field of View (FOV)                 | 2.3° (40 mrad) or 4.6° (80 mrad)                  | Enquire for available channel options<br>Optional attachable telescopes |
| Field of View non-uniformity        | < 10% of maximum                                  |   |
| Field of view Size accuracy         | < ±10% FWHM                                       |   |
| Channel Bore sight Accuracy         | ±0.2° (±3 mrad)                                   |   |
| Video aiming sight                  | Color CCD camera with cross hair and FOV boundary | Allows aiming the radiometer and recording for documentation            |
| Video aiming sight FOV              | > 5° or > 10°                                     | Bore sight accuracy is better than 3mrad                                |
| Rise time                           | < 10µsec  |   |
| Radiometer bandwidth                | > 60kHz   | -3db  |
| Gain Selection                      | 1, 10, 100  | SW selectable   |
| Dynamic range                       | > 70db  | > 12 significant bits (for a single gain/attenuator setting)            |
| Data Acquisition                    | 16 bit 240 Ks/sec/channel                         | Optional  |
| Data interface                      | USB 2.0   |   |
| Control Interface                   | 2 x RS232   | Convertible to USB  |
| Analogue Outputs                    | Signal ± 10VDC                                    | Differential output   |
| Optical head to controller distance | 5 meter cable to the PC                           |   |
| Power supply                        | 100 - 240 VAC 50-60 Hz (3A)                       | External power supply with 5m cable                                     |
| Weight:                             |   |   |
| Radiometer head                     | < 15 Kg   | Depending on channel configuration                                      |
| Power supply                        | 3.5 Kg  | Depending on channel configuration                                      |
| Dimensions:                         |   |   |
| Radiometer head                     | 294(W) x 330(H) x 615(L)                          | With shade cover  |
| Power supply                        | 294(W) x 330(H) x 615(L)                          | With shade cover  |
| Condensation prevention             | Dry N2 purge valve available                      |   |
| Environmental Conditions:           |   |   |
| Operation                           | 0°C - 40°C  | on condensing   |
| Storage                             | -15°C ÷ 70°C                                      | In carry case   |
| Carry case dimensions               | L 857 x W 730 x H 429 mm                          | Rugged carry case with compartments for cables and accessories          |

Custom configurations are available – Please enquire.

Distribution in the UK & Ireland