

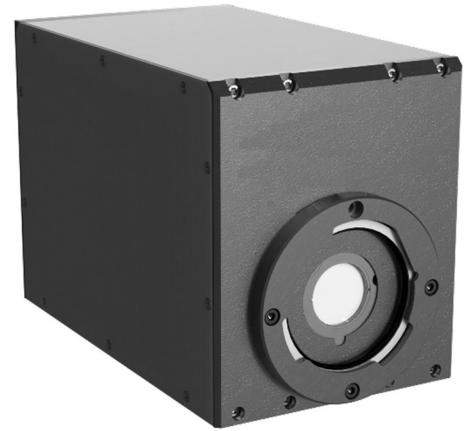
## G900 STIRLING COOLED SERIES

The G900 series of cameras provide the same imaging resolution and performance as the IRC900 Series scientific cameras, but at a lower price point.

The G900 Series is based on a closed cycle Stirling cooled sensor engine. Users can quickly and easily vary integration time, frame rate and window size. With SD and HD sensor formats, and customized Dewar configurations, the G900 Series offers customers easy integration and customization for personalized applications, at a competitive price point.

Providing multiple outputs, users can view imagery directly from the G900 Series cameras using HD-SDI, and acquire and display digital data via GigE.

Software options include WinIRC and a software developer's kit to allow the user to acquire, display and analyze data from the G900 series cameras.



### CAMERA CAPABILITIES

- Choice of SD InSb or HD nBn Sensor Technology
- <1  $\mu\text{m}$  to >5  $\mu\text{m}$  spectral response
- 14-bit digital output
- SuperFraming for extended dynamic range
- High frame rates & windowing



# G900 STIRLING COOLED SERIES

| IRC900 Model:                   | G906                                                                                                                                                    | G912           |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Detector Type                   | Indium Antimonide (InSb)                                                                                                                                | nBn            |
| Spectral Response               | 0.9µm to 5.4µm                                                                                                                                          | 1.0µm to 5.1µm |
| Resolution (pixels)             | 640 x 512                                                                                                                                               | 1280 x 1024    |
| Pixel Pitch                     | 20µm                                                                                                                                                    | 12µm           |
| Imaging Electronics             |                                                                                                                                                         |                |
| Frame rate @ max window size    | 119 Hz                                                                                                                                                  | 47 Hz          |
| Integration time                | <550 ns to full frame                                                                                                                                   |                |
| Dynamic range                   | 14-bits with 13-bit option to increase frame rate at small window sizes                                                                                 |                |
| Windowing                       | User defined in 4x1 increments; min width=320, min height=32                                                                                            |                |
| Integration type                | Snapshot, automatic selection of integrate while read or integrate then read                                                                            |                |
| Ultra low latency sync          | Sync I/O (<200 ns latency), Integration Out Signals                                                                                                     |                |
| Image data                      | Gig-E, Passive Monitor via HD-SDI                                                                                                                       |                |
| Communications                  | Serial over Gig-E                                                                                                                                       |                |
| Non-Uniformity Correction (NUC) | NUC at max frame rate; NUC via software or hardware                                                                                                     |                |
| Superframing & States           | Cycle between up to 4 integration times per SuperFrame<br>Number of User-defined states limited only by memory; Selective integration times via command |                |
| Software control                | Cross Platform GenICam Compliant, WinIRC software, serial command list, and optional Windows SDK                                                        |                |
| Performance                     |                                                                                                                                                         |                |
| NEdT                            | < 18mK                                                                                                                                                  | < 38mK         |
| Well capacity (electrons)       | 7M                                                                                                                                                      | 2M             |
| Operability                     | 99.8%                                                                                                                                                   | 99.6%          |
| Cryocooler                      | Rotary                                                                                                                                                  | Rotary         |
| Optics                          |                                                                                                                                                         | Performance    |
| Camera f/#                      | f/2, f/2.3 & f/4.0 standard; custom cold shields available on request                                                                                   |                |
| Cold filter                     | No Cold Filter standard, optional 3.0µm – 5.0µm, CO2, eSWIR or custom filters on request                                                                |                |
| Lens mount                      | Bayonet for 7, 13, 25, 50 & 100 mm lenses; bolt hole pattern for non-standard lenses                                                                    |                |
| General                         |                                                                                                                                                         |                |
| Power @ 24 VDC                  | 26 watts                                                                                                                                                | 26 watts       |
| System weight                   | 5.2 pounds                                                                                                                                              |                |
| Size                            | 4.0"W x 4.8"H x 7.6"L                                                                                                                                   |                |
| Operating temperature range     | -20C to +50C (-4°F to +122°F)                                                                                                                           |                |
| Storage temperature range       | -40C to +70C (-40°F to +158°F)                                                                                                                          |                |
| Mounting holes                  | 2x 1/4-20, 8x #8-32                                                                                                                                     |                |