



D-BLUE1

Scientific SWIR Camera

The D-BLUE1 scientific SWIR camera is designed with an InGaAs detector with a built-in 3-stage thermoelectric cooler (TEC), capable of cooling to -50°C . It supports Ethernet or CameraLink interfaces and provides SDK for secondary development. It can be widely applied in semiconductor failure analysis, in vivo biological imaging, astronomical observation, etc.



Cooling -50°C

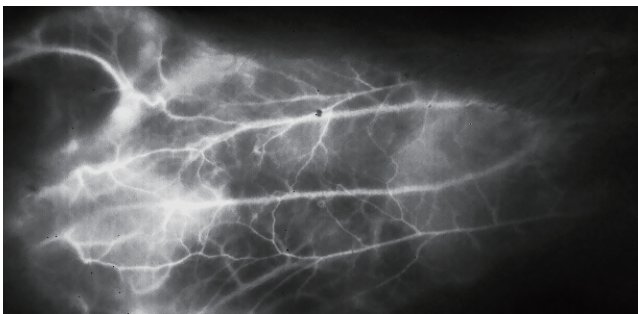


Low Noise

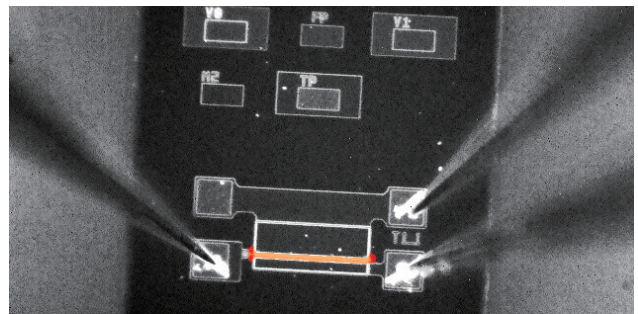


SDK Provided

Product Imaging



In VIVO Imaging

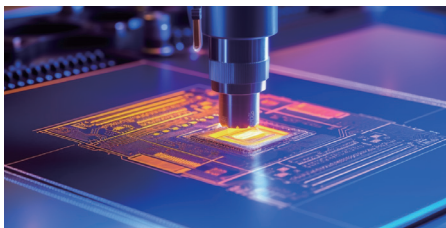


EMMI

Specifications

Product Model	D-BLUE1
Detector Type	InGaAs short-wave infrared focal plane detector
Spectral Response Range	0.9-1.7μm
Pixel Pitch	15μm
Resolution	640×512
Frame Rate	50Hz
Effective Pixel Rate	≥99.8%
Integration Type	Snapshot global shutter
Exposure Time Range	15us~60s
Cooled Mode	TEC 3
Output Data Depth	14bit
Readout Noise (Typical value)	≤15e(HG)
Optional Gain	3-level
Dynamic Range	70dB (MG)
Average Pixel Dark Current	≤700e/s/pixel@-50°C (air-cooled)
On-board Image Processing	Non-uniformity correction, bad point correction, filtering
Power Supply Range	12V DC
Typical Power Consumption @25°C	≤36W
Digital Video	Cameralink or Ethernet
Analog Video	/
Communication Interface	Cameralink or Ethernet
Optical Interface	C-Mount
Weight	≤2kg
Dimensions	148mm×98mm×116.5mm
Operating Case Temperature	0°C~+30°C
Storage Case Temperature	-40°C~+60°C
Vibration	50~2000Hz, 0.01g ² /Hz, 3 axes
Shock	25g, 6ms, half-sine waveform, 3axes/6 directions

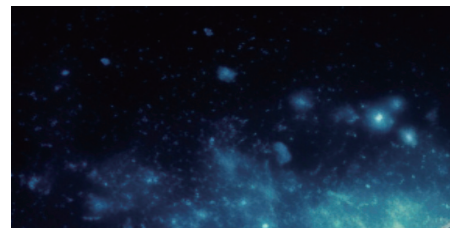
Applications



Semiconductor Inspection



Biomedical Research



Astronomical Observation

Company Profile

Raytron Microelectronics Co., Ltd.

+86 400-998-9038 +86 198 0619 1838

marketing@raytrontek.com www.raytron-microelectronics.com

Version: PL202610V1



Official Website



LinkedIn Official Account