SCC500™ Series
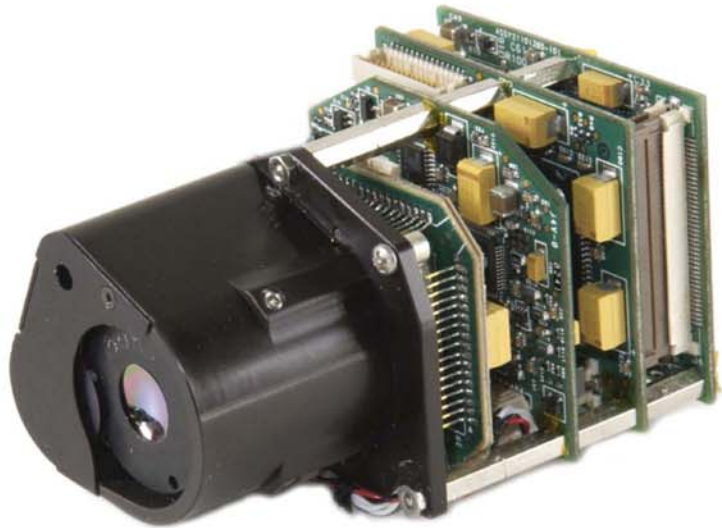## MICRO**IR**™ Camera Cores

High Performance Infrared Imaging in a Compact, Lightweight and Configurable Package
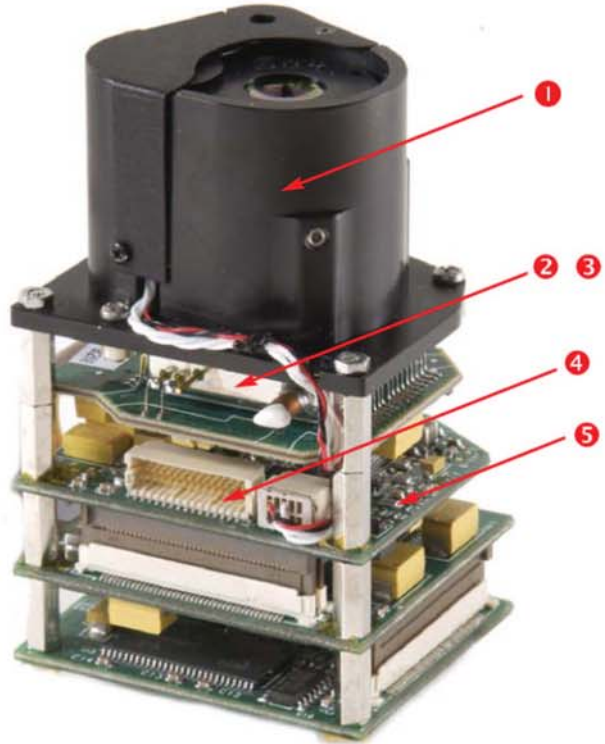
MICRO**IR**™

❶ Optics - The SCC500™ Series optic incorporates a common integrated lens/shutter assembly, providing complete camera core uniformity correction assuring optimal image quality during thermal transitions. An identical mechanical interface between the SCC500L and SCC500H permits interchangeability for a single camera design.

❷ Focal Plane Array (FPA) - The SCC500™ Series incorporates MICRO**IR**™ Technology based on our field proven vanadium oxide microbolometer FPAs. The SCC500L provides 160 x 120 resolution, the SCC500H 320 x 240 resolution, both at a 60 Hz frame rate.

❸ TE Cooler - The SCC500™ Series camera cores utilize a high efficiency thermoelectric cooler, assuring optimum imaging performance over an unprecedented -40 to +85 deg. C ambient operating temperature range.

❹ Single Electrical Interface - A single, low profile connector provides all electrical interfaces including power input, video outputs, advanced serial links and discrete I/O signals.

❺ Camera Core Architecture - A MIPS processor and Wind River Vx-Works Real Time Operating System (RTOS) combine to deliver a powerful standard feature set, yet provide an open architecture designed to accommodate application specific software (and hardware) options. No other camera core offers the degree of configuration flexibility and upgradeability as the SCC500™ Series.

Meeting Your Application Requirements

- Fire Fighting
- Surveillance
- Unattended Sensors
- Unmanned Vehicles

- Machine Vision
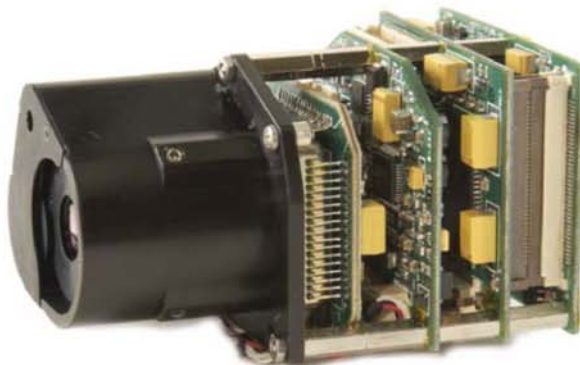- Robotics
- Process Monitoring

SCC500™ Series

SCC500™ Series Infrared Camera Cores

The SCC500™ Series has established a new standard for high performance, low cost IR camera cores aimed at the commercial and military OEM markets. Based on our MICRO**IR**™ Technology, the SCC500 Series camera cores generate superior image quality over an extended operating temperature range with the wide dynamic range (14 bit) and real-time 60Hz frame rate you have come to expect from BAE SYSTEMS. All this performance is yours in an innovative, small, lightweight and robust package.

actual size shown

Common Architecture - One Size Fits All

Unique to the SCC500L and SCC500H are the common electronics and mechanical interfaces shared by both camera cores, providing the perfect solution for OEMs developing a family of systems differentiated by resolution. No other series of camera cores offer this level of commonality for ease of integration across applications.
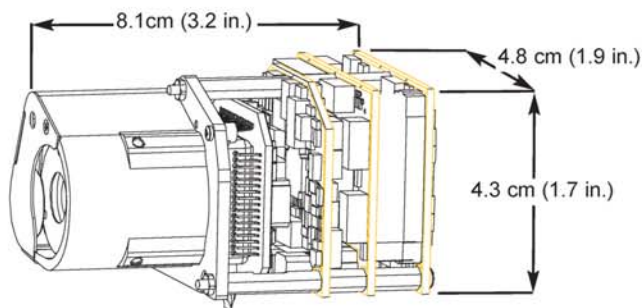
Flexible Form Factor

The SCC500™ Series camera cores incorporate a flex cable between the front end card/lens assembly and the back end electronics. This feature provides the OEM with the flexibility to adjust the camera core layout to meet critical packaging constraints.

SCC500 Series™ MICRO **IR**™ Camera Core Technical Specifications

DETECTOR	SCC500L	SCC500H
Detector Type	Uncooled Vox Microbolometer	
Spectral Response	8 - 14 µm	
Array Size	160 x 120	320 x 240
Detector Pitch	46 µm	28 µm
NETD	<0.05 °C	
VIDEO		
Frame Rate	60 Hz	
Analog Video	RS-170	
Digital Video	8 or 16 Bit Serial, LVDS	
Gain/ Level Adjustment	Automatic and Manual (Selectable)	
Image Polarity	White Hot/Black Hot	
COMMUNICATION INTERFACE AND CONTROL		
Serial Interface	RS-485	
Discrete Interfaces (Configurable Functions)	4 Digital in, 2 Digital Out, 2 Analog Inputs	
ELECTRICAL		
Input Voltage	5.5 – 12.8 VDC	
Power (nominal)	2.5 watts	
OPTICS		
HFOV (nominal)	44 Degrees	54 Degrees
F/No.	1.0	
Effective Focal Length (EFL)	9.8 mm	
ENVIRONMENTAL		
Operating Temperature Range	-40 to 85° C (-40 to 185° F)	
MECHANICAL		
Weight	162 grams (0.36 lbs)	
Core Dimensions - L x W x H (nominal)	8.1 x 4.8 x 4.3 cm (3.2 x 1.9 x 1.7 in.)	
OPTIONS		
Custom software, optics and electrical interfaces available.		

Specifications subject to change without notice

BAE SYSTEMS