



camera control and image capture in real time. Fast data transfer and RJ45 GB Ethernet connection supply 14-bit images at frame rates as high as 60 Hz. Image and data acquisition can record thermal snapshots and movies with OSXL-ASC tools + recording and analysis software.

GigE Vision[®] is a new camera interface standard developed using the Gigabit Ethernet communication protocol. GigE Vision is the first standard video interface to allow for fast image transfer using low cost standard cables even over long distances. With GigE Vision, hardware and software from different vendors can interoperate seamlessly over GigE connections.

The goal of GenICam[™] is to provide a generic programming interface for all types of cameras. Regardless of interface technology (GigE Vision, Camera Link[®], 1394 DCAM, etc.) or features implemented, the Application Programming Interface (API) will always be the same. The GenICam protocol also makes it possible to use third party software with the camera. GenICam makes the OSXL-A35SC plug-and-play when used with software packages such as IMAQ Vision and Halcon.

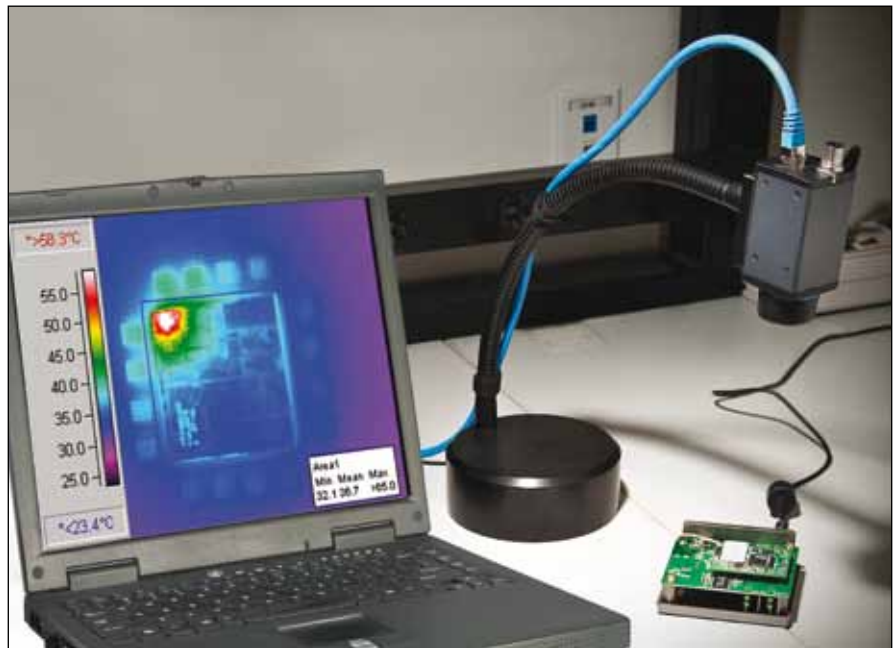
Specifications

IR Resolution:

- OSXL-A35SC: 320 x 256 pixels
- OSXL-A15SC: 160 x 128 pixels
- OSXL-A5SC: 80 x 64 pixels

FOV (Field of View)/Focal Length:

- OSXL-A5SC/OSXL-A15SC: 48° (H) x 39° (V) with 9 mm lens
- OSXL-A35SC: 44° (H) x 36° (V) with 5 mm lens



Benchtop computer board thermal analysis using GenICam software.

Spatial Resolution (IFOV):

- OSXL-A5SC: 2.78 mrad for 9 mm lens
- OSXL-A15SC: 5.56 mrad for 9 mm lens
- OSXL-A35SC: 10.0 mrad for 5 mm lens

Detector Pitch:

- OSXL-A5SC: 25 μ m
- OSXL-A15SC/OSXL-A35SC: 50 μ m

Thermal Sensitivity/NETD:

<0.05°C @ 30°C (86°F)/50 mK

Minimum Focus Distance: Fixed

F-Number: 1.25

Image Frequency: 60 Hz

Focus: Fixed

Focal Plane Array (FPA)/

Spectral Range: Uncooled VOX micro bolometer/7.5 to 13 μ m

Detector Time Constant:

Typical 12 ms

Object Temperature Range:

-40 to 160°C (-40 to 320°F)/
-40 to 550°C (-40 to 1022°F)

Accuracy: \pm 5°C or \pm 5% of reading

Ethernet: Control and image

Type: Gigabit Ethernet

Standard: IEEE 802.3

Connector Type: RJ45

Communication: GigE Vision version 1.2; Client API GenICam compliant

Image Streaming: 14-bit signal linear/DDE, GigE Vision and GenICam compatible

Power: Power over Ethernet, PoE IEEE 802.3af class 0 power

Protocols: TCP, UDP, ICMP, IGMP, DHCP, GenIEvision

Digital Input/Output:

Input: General purpose; 1x opto-isolated, "0" < 2, "1" = 2 to 40 Vdc

Output: General purpose output to external device (programmatically set); 1x opto-isolated, 2 to 40 Vdc, maximum 185 mA

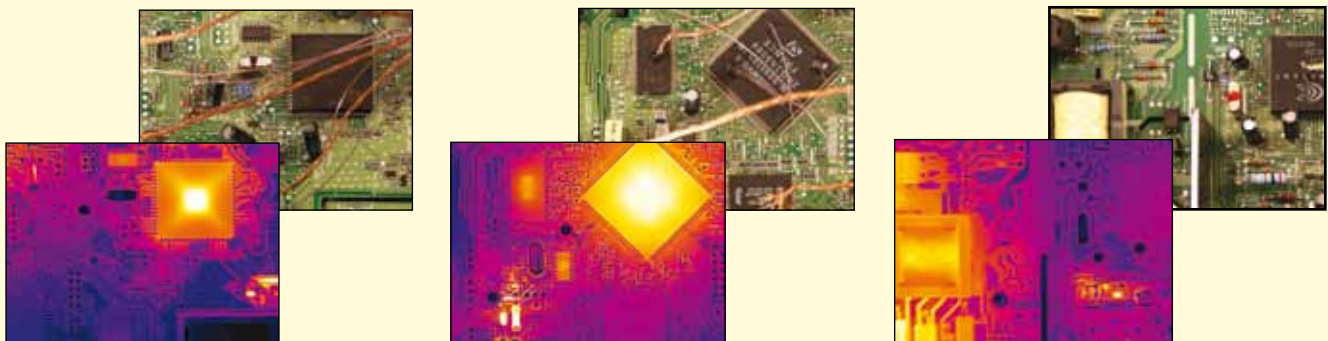
Digital I/O:

Isolation Voltage: 500 VRMS

Supply Voltage: 2 to 40 Vdc, maximum 200 mA

Connector Type: 12-pole M12 connector (shared with digital synchronization and external power)

Computer chip IR analysis.





Digital Synchronization:

In: Frame sync into control camera; 1x, non-isolated; LVC buffer @ 3.3V, "0" <0.8 V, "1" >2.0 V

Out: Frame sync out to control another Ax5 camera; 1x, non-isolated; LVC buffer @ 3.3V, "0" = 24 MA maximum, "1" = -24 mA maximum

Connector Type: 12-pole M12 connector (shared with digital I/O and external power)

External Power: 12/24 Vdc, <2.5 W absolute maximum

Connector Type: 12-pole M12 connector (shared with digital I/O and digital synchronization)

Voltage: Allowed range 10 to 30 Vdc

Operating Temperature Range: -15 to 50°C (5 to 122°F)

Storage Temperature Range: -40 to 70°C (-40 to 158°F)

Operating and Storage Humidity: IEC 60068-2-30/24 h 95% relative humidity, 25 to 40°C (77 to 104°F)
EMC: EN 61000-6-2 (immunity), EN 61000-6-3 (emission), FCC 47 CFR Part 15 Class B (emission)

Encapsulation: IP 40 (IEC 60529)

Bump: 25 g (IEC 60068-2-29)

Vibration: 2 g (IEC 60068-2-6)

Weight: 0.2 kg (0.44 lb)

Dimensions: 106 L x 40 W x 43 mm H (4.2 x 1.6 x 1.7")

Tripod Mounting: Optional with accessory T198349, base support

Base Mounting: 4 x M3 thread mounting holes (bottom)

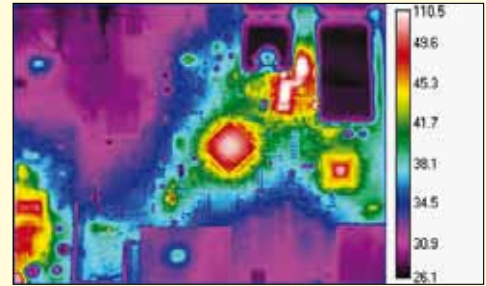
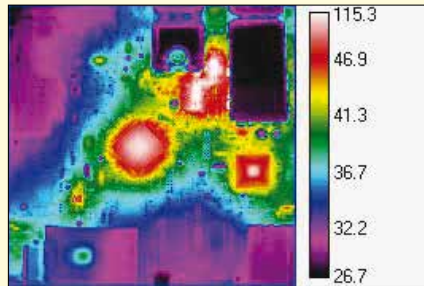
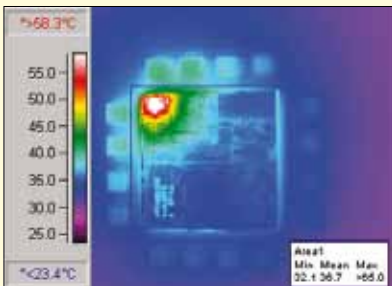
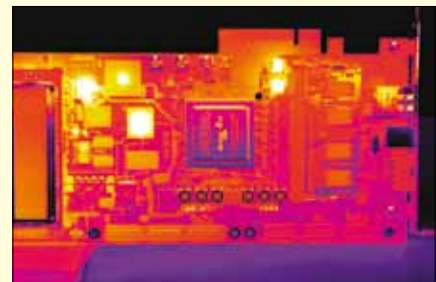
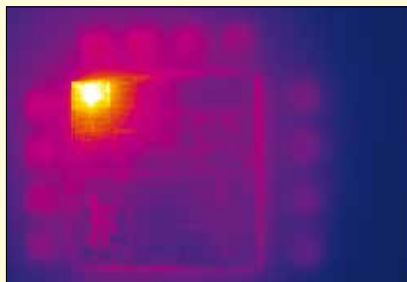
Housing Material: Magnesium and aluminum

Comes complete with hard transport case, infrared camera with lens, focus adjustment tool, base support, gooseneck table stand, PoE injector (power over ethernet), two 2 m (6.6') ethernet CAT-6 cables, FLIR tools, analysis and recording software, user's manual, service and training brochure.



Note: Not for Export—USA only

Computer Chip IR Analysis



To Order Visit omega.com/osxl-sc_series for Pricing and Details

Model No.	Description
OSXL-A5SC	Thermal imaging camera with 80 x 64 pixels infrared resolution
OSXL-A15SC	Thermal imaging camera with 160 x 128 pixels infrared resolution
OSXL-A35SC	Thermal imaging camera with 320 x 256 pixels infrared resolution

Kit comes complete with hard transport case, infrared camera with lens, focus adjustment tool, base support, gooseneck table stand, PoE injector (power over ethernet), two 2 m (6.6') ethernet CAT-6 cables, FLIR tools, analysis and recording software, operator's manual, service and training brochure.

Ordering Example: OSXL-A15SC, thermal imaging camera with 160 x 128 pixels IR resolution.