GENERAL INFORMATION

AST has the knowledge and expertise based on years of experience, to partner you in the development of custom products for a wide range of applications.

Resolution, sensitivity, speed and colour of response can all be fine tuned to your specific requirements. Customised products are often a more cost effective solution to meeting your specific requirements, without the need for compromise.

SEE PRODUCT MATRIX **www.appscintech.com**

ORDERING INFORMATION

Item description	*Order Code*
CamIR[1550] camera with C mount	CamIR[1550] /Cam
CamIR[1550] camera with handheld display	CamIR[1550] /SYS
CamIR[1550] camera display only	CamIR[1550] /DIS
CamIR[1550] complete weatherproofed version	CamIR[1550] /WPV

Please state camera format i.e. PAL or NTSC on your order.

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APPLIED SCINTILLATION TECHNOLOGIES

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TECHNICAL DATA CAMERA

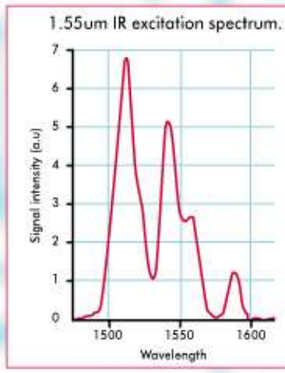
Model	CAMIR1550 and CAMIR1550/WPV
Active Area	1/2" CCD sensor
Spectral sensitivity*	See graph
Peak sensitivity*	1512nm & 1540nm
Min exposure @ 1550nm*	<1 μJ/cm^2
Number of pixels	CCIR - 752(H) x 582(V) EIA - 768(H) x 494(V)
Effective pixel size*	2x2 binning or ~ 20 μm (typical)
Scene illumination† spectral sensitivity*	1000 – 1185 nm
Scene illumination†	>100 LUX filament lamp (Typical example)
Lens mount	C-mount
Output	1 Vp-p 75Ω (specify CCIR or EIA)
Gain	AGC Lo 5-32 dB (factory set) / Hi 5-50dB
Effective dynamic range*	20 dB
Linearity*	Signal ∝ input power ^ 1.41
Power supply	DC +12V ± 10% @ 160 mA
Operating temperature	-10 to +40°C
Weight*	CAMIR - 90g CAMIR/W ~200g
Moisture protection	CAMIR-SMV: None – Indoor use only CAMIR-WPV: High – Suitable for outdoor use
Max illumination	100 mW/cm^2 Damage to CCD may occur if exceeded

*Subject to change without notice †Feature available from 01/03/2001

TECHNICAL DATA MONITOR

Dimensions	187mm (L) x 106mm (W) x 72mm (H)
Weight	560g nominal
Material & Colour	Polyamide in dark grey (RAL 7021)
LCD	
Size	2 ½"
Number of Pixels	112,000
Light output	250 cd - colour
Resolution	480(H) x 234 (V) (colour)
POWER CELL	
Input Voltage	9 to 18V (12V nominal) (Max limit)
Input Current	900 to 450 mA (650mA @ 12V)
Charge time	50% in 2 hours 100% in 24 hours
Type	Ni:MH (contains no Cadmium)
OPERATION	
Time	Up to 3 hours on full charge
Temperature	0 to 40°C (avoid rapid changes)
Water proofing	Splashes and light rain
CONNECTIONS	
Camera	8 pin Mini-DIN Lead length 0.75m
Charging supply	2.1mm DC socket (Centre pin + V, Outer as GND)

1.55um IR excitation spectrum.



CamIR 1550

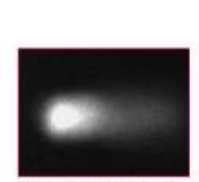
Conventional silicon devices are predominantly sensitive around 900nm. However, CCDs in particular can be further processed to become more sensitive to other wavelengths, such as the ultra-violet or the near infra-red. These processes are traditionally expensive.

Laser set low with 1000nm backlight illumination

A SENSITIVE IR CAMERA IN THE 1550NM REGION OFFERING A ROBUST, COMPACT, REAL-TIME IMAGING SYSTEM

Applied Scintillation Technologies has many years experience in developing and manufacturing custom coatings for such applications, and by carefully selecting individual components,

Laser set low with no backlight illumination



Output from fibre, incident directly onto CCD (no lens).

AST HAS DEVELOPED AN AFFORDABLE IR IMAGING DEVICE.

APPLIED SCINTILLATION TECHNOLOGIES

see it our way!

Certificate No. 8034

CamIR 1550

The CamIR[1550] offers a robust, compact and real-time imaging system without image lag or decay, and when fitted with the optional, hand-held display, provides a portable, go anywhere, self-contained system, with over three hours operation time on a single battery charge.

AST offers the CamIR[1550] in either PAL/CCIR or NTSC/EIA formats. The completely portable system comprises camera, lead and handheld display with built-in charger circuit allowing recharging with any 9-18V DC supply.

Sensitivity is as low as 0.2uJ/cm^2 with peaked spectra response at 1512nm and 1540nm. Due to the nature of the coating, the sensitivity is non-linear with respect to the incident illumination, which emphasises brighter regions of the image.

Tuned partial sensitivity in the ultra-red allows scene illumination with a desklamp or torch whilst maintaining sensitivity in the 1550nm NIR.

CamIR[1550] camera with handheld display

The CamIR[1550] camera unit can be used with or without a lens, depending on the application. The handheld unit incorporates a 2.5" LCD-TFT display with 112K pixels giving high quality greyscale images from the camera.

The whole handheld display weighs less than 550gs and therefore offers the advantage of being able to see an image in remote locations, which makes it ideal for beam finding, on and off-site.

The camera is sensitive to most 1550nm communications band emitters.

CamIR[1550] complete weatherproof version

www.appscintech.com

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