

Intensified Colour Framing Camera



**1376 x 1024 pixel,
12-bit sensor
resolution**

**50lp/mm system
resolution**

**4 discrete intensified
optical channels**

**Adjustable
interframe time
down to 1nS**

The Specialised Imaging SIR-C camera offers 1 full colour and 1 monochrome, or 4 monochrome. images by removing user changeable filters.

Comprehensive triggering adjustment and a wide range of output signals are controlled using the custom software package which also includes measurement and image enhancement functions.

FEATURES

- User removable standard sized filters for each channel
- Fully adjustable exposure down to 3ns
- Gain adjustment up to 10,000X
- Adjustable output triggers
- Nikon lens mount fitting
- Gigabit ethernet communications

MODEL

Number of Channels	4
Number of Images	1 colour + 1 mono, or 4 mono
System resolution	50lp/mm (10um equivalent)
Gain	10,000
Phosphor screen	P43

OPTICAL

Optics	Single input beam splitting optics channels can be easily fitted with standard 31mm dia 1.1mm thick filters
Lenses	Nikon F-Mount
Internal electro-mechanical iris	f2.8 - f22
Shutter	Electro-mechanical
Distortion	Nominally zero
Channel Registration	Within one pixel after software correction
Intensity Variation	Better than 5% across the image

INTENSIFIER / SENSOR

Image Sensor	1376 x 1024 pixels
Pixel Size	6.45 µm (H) x 6.45 µm (V)
Digitisation	12 bits
Intensifier	Gen II 18mm High resolution MCP Input window Fused Silica Output window Fibre Optic Photocathode S25 P43 Phosphor

MECHANICAL

Dimensions in cm (LxWxH)	52.1 x 38.9 x 23.0 (without lens, not including periscope +4cm)
Mount	3/8-16 UNC Female
Weight	20Kg approx. (without lens)

TIMING PARAMETERS

System Clock	1GHz quartz crystal controlled
Exposure Mode	Single exposure
Exposure Time	3ns - 10ms in 1ns steps independently variable
Interframe Time (between channels)	0ns - 20ms in 1ns steps independently variable
Delay to 1st exposure	55ns to 10ms in 1ns steps, independently variable
Flash Outputs	5ns - 1ms in 1ns steps independently variable

INPUT / OUTPUT SIGNALS

Trigger 1	Electrical signal (BNC connector) Threshold variable from ± 25V Positive or Negative polarity, Make/Break 50Ω or 1KΩ termination
Trigger 2	Electrical signal (BNC connector) Threshold variable from ± 25V Positive or Negative polarity, Make/Break 50Ω or 1KΩ termination
Timing Monitor Pulses	Pulse width (min. 3ns) and position user programmable TTL into 50Ω
Flash Trigger Outputs	Pulse width (min. 5ns) and position user programmable TTL into 50Ω
Camera control	Data and command transfer via 100Mbps ethernet cable length 10m (standard), other lengths up to 100m available 100FX fibre optic ethernet link (up to 2Km) - optional
Software	Custom software compatible with Microsoft Windows Operating Systems for camera control, image data archiving in various file formats.
Electrical input	Mains 100-240V AC 50-60Hz

ENVIRONMENTAL

Storage temperature	-10°C to +50°C
Operating temperature	-5°C to +40°C
Humidity	10 - 90% RH non condensing
Vibration shock	10 - 40 Hz Max. 10g in any direction
EMC	Meets all UKCA/EU harmonised standards

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