

# Unleash the Potential of your Inspection System



## KEY BENEFITS

- » 4,096 pixels, 5µm x 5µm pixel size
- » Available in monochrome or color
- » Better inspection quality with single shot acquisition in both monochrome and color which provides:
  - › Improved robustness to non-axial motion
  - › Easy calibration and alignment of the camera
  - › Easy multi-light timing calibration
- » Equipment is cost effective, even in color
- » Flexible optics choices and costs: C-mount, F-mount, M42 mount compatible
- » The smallest form factor (60mm x 60mm x 28mm) to fit into any mechanical set-up
- » CameraLink and NBASE-T interface

## APPLICATIONS

- » Online quality control and inspection:
  - › Plastics
  - › Films
  - › Glass
  - › Paper
  - › Non-woven
  - › Wood
- » Barcode reading
- » Microscopy
- » Industrial inspection
- » Rail inspection

There are three UNiiQA+ product ranges; essential models designed for cost effective applications, high speed models for high performance applications, and high resolution models for tiny detail detection or for covering large areas. High speed and essential level models are available in any resolution from 0.5k to 4k, in both color and monochrome. The high resolution model is available in monochrome with a 16k resolution.

## SENSOR CHARACTERISTICS

	Mono	Color
Resolution – pixels	4,096	
Pixel size – square $\mu\text{m}$	5	
Max line rate – kHz	140	50
Number of active lines	1	2
Camera interface	CameraLink/NBASE-T	

## FUNCTIONALITIES

Maximum analog gain – dB	12	
Offset correction – LSB8bit	-4,096 to +4,096	
Trigger mode	Timed (Free run) and triggered (Ext Trig, Ext ITC)	
White balance	-	yes
Flat field correction	yes	
Scan direction	yes	

## TYPICAL PERFORMANCES

Bit depth – bits	8/10/12	24
Spectral range – nm	300 – 1,100	
Dynamic range – dB	70 (CameraLink)	56 (CameraLink) and 65 (NBASE-T)
PRNU – %	<3	
Non linearity – %	<1	

## MECHANICAL AND ELECTRICAL INTERFACE

	Mono	Color
Size – W x H x L – mm	6 x 60 x 34 (CameraLink) and 60 x 60 x 55 (NBASE-T)	
Lens mount	C, F, T2, M42 x 1	
Sensor alignment – $\mu\text{m}$	$\pm 100$	
Sensor flatness – $\mu\text{m}$	$\pm 50$	
Power supply – V	12-24 (CameraLink) and Single 10 DC to 15 DC (NBASE-T)	
Power consumption – W	<4 (CameraLink) and <11 (NBASE-T)	

## CONNECTORS

Control and data	2 x SDR (CameraLink) and GPIO 12 (NBASE-T)
Power	Hirose 6 pins

## GENERAL FEATURES

Operating temperature – $^{\circ}\text{C}$	0 to 60
Storage temperature – $^{\circ}\text{C}$	-40 to 70
Regulatory	CE, FCC and RoHS compliant

PART NUMBER	NO. OF LINES	PIXEL SIZE ( $\mu\text{m}$ x $\mu\text{m}$ )	MONO/COLOR	INTER-FACE	MAX LINE RATE
EV71YC1MCL4005-BA0	4,096	5 x 5	Mono	CameraLink	20
EV71YC1MCL4005-BA1	4,096	5 x 5	Mono	CameraLink	100
EV71YC1MNT4005-BA0	4,096	5 x 5	Mono	NBASE-T	140
EV71YC1CCL4005-BA0	4,096	5 x 5	Color	CameraLink	20
EV71YC1CCL4005-BA1	4,096	5 x 5	Color	CameraLink	40
EV71YC1CNT4005-BA0	4,096	5 x 5	Color	NBASE-T	50

