

LightWise LW-WVGA-G-1394

Wide-VGA 752 x 480 Global Shutter
FireWire Camera



Features

- Low Noise Progressive Scan Wide-VGA
 - 752 x 480
 - Color or Monochrome Cameras Available
- Extended Dynamic Range to 110 db
- IEEE-1394 IIDC DCAM Specification Version 1.3 Compliant Interface
- High Frame Rate:
 - 72 fps (640 x 480)
 - 60 fps (752 x 480)
- Ultra High Quality Smooth Digital Zoom and Pan for any Region of Interest. Fully controllable by host computer
- Two 1394 ports allows Cascading of cameras in remote installations
- Arbitrary Region of Interest
- Multiple Trigger Modes including true Global Full-Frame Shutter
- Programmable I/Os for lighting and synchronization control
- On-board 32 or 16 Mbyte Multi-Image Buffer
- 1 Million gate Onboard FPGA and Programmable “Smart” architecture enables custom configurations
- Compatible with a wide range of 3rd Party Software Application
- Soft-load Firmware-Upgradeable from Host Computer
- CS & C-Mount Included
- API Specification and SDK Available
- Single 1394 Cable for Image, Power and Control. Accessory 1394 Connector.

The new LightWise area scan smart cameras combine advanced digital processing technology and the FireWire™ standard to give a low-cost, high performance solution to machine vision applications. These compact cameras shorten the typical integration time associated with vision systems and offer flexibility for OEM solutions. Fully compliant with the IEEE-1394 IIDC DCAM Specification Version 1.3, these cameras can be used with any compatible programs or other 3rd Party Software. Frame Rates up to 72 fps at VGA and 60 fps full resolution and higher fps for smaller regions of interest resolution. The LW-WVGA-G provides a true full frame global shutter capability for high speed motion critical applications. The cameras now include the ISG High Quality Digital Pan and Zoom Processor, which allows computer controlled, pixel accurate ROI panning and multi-tap filter based digital zoom for the ultimate flexibility in your application. All camera controls are done via the 1394 interface, which includes a fully programmable image processing pipeline and dynamic range/gamma control LUT for any desired response curve. An on-board image buffer for up to 27 monochrome images is also featured in these cameras, as well as a wide range of triggering and strobe control capabilities. These cameras come packaged with driver software and a user's manual.

Sensor Specifications

Parameter	Specification	Remarks
Optical Format	1/3-inch	CS or C Mount
Active Imager Size	4.55 mm x 2.88 mm 5.35 mm Diagonal	
Pixel Size	6.0 x 6.0 Micron Square	
Active Pixels	752 x 480	Wide-VGA
Color Filter Array	Monochrome or Color RGB	Bayer Pattern
Shutter Type	Global – TrueSNAP™	Electronic Full Frame
Max Data Rate	26.6 MegaPixels per sec.	
Max Clock	26.6 MHz	
Full Resolutions	752 x 480	
Frame Rate	72 fps @640 x 480 & 60 fps @ 752 x 480	752 x 480
ADC Resolutions	10-bit Column-Parallel	
Responsivity	4.8 v/lux-sec at 550 nm	
Dynamic Range	>60 dv linear >80 db to 110 db	Extended DR in HiDy Mode
Supply Voltage	12V for camera via FireWire™ 1394 Cable	3.3V for sensor
Power Consumption	250 ma/12V = 3W Camera	<200mW Sensor
Operating Temp	-10 C to +65 C for camera	-40c to +85c Sensor