Dage**xcel** [16]

High Resolution Firewire Camera

Features and Benefits

The Excel 16 from Dage is a high resolution firewire camera perfect in any setting from an OEM assembly system to a scientific laboratory. The dynamic combination of the Excel 16, *plus* the powerful new Exponent software, ensures quality images viewable in multiple configurations, featuring exceptional detail. Experience Dage visual technologies, engineered to set a higher standard.

FEATURE	BENEFIT
Sensor	Utilizes Kodak 1.92 million pixel sensor. Exceptionally detailed images.
High Performance	Full 1600 x 1200 resolution @ 15 fps. 12 bits for high dynamic range.
Large Pixels (7.4um x 7.4um)	High sensitivity, high dynamic range, large well capacity.
IIDC Compliant	Adheres to standards set forth by IEEE 1394 Trade Association. Provides defined guidelines to ensure easy integration and consistency for software interface.
IEEE 394 Firewire	Single-cable operation (no external power supply or control unit). Cable and PCI card included. Simple installation and use. Compatible with laptop computer.
ROI (Region of Interest)	Can provide full screen display of selected area of interest for detailed observation. Increases frame rate for dynamic images.
Binning	Color and monochrome binning. Increases sensitivity. Increases frame rate for dynamic images.
Firmware Update via Software	Provides seamless firmware upgrade through software. Eliminates camera down time.
Multiple Display Algorithms	User selectable for speed or quality enhancement.
User-Defined Memory Presets	Allows up to 15 different camera settings. Ensures retention and repeatability.
External Sync & Trigger	Allows synchronizing capture to external events
Versatile Exposure Control	Automatically adjusts gain and/or shutter to achieve correctly exposed image. Allows for exceptional image results, even under difficult lighting conditions.
Exponent Software	Full featured camera control software. Simple, easy-to-use instructions included.

sample image from Dagexcel 16

Well suited for the following applications:

- Brightfield, Phase Contrast, and Darkfield Microscopy
- Flourescence Microscopy
- Pathology, Histology, & Cytology
- Semiconductor Inspection
- Manufacturing Quality Control
- Failure Analysis
- Forensic Analysis
- Teaching and Documentation

Dage**xcel**¹⁶
High Resolution Firewire Camera

SPECIFICATIONS

CCD Pixels	1600 (H) x 1200 (V)
Pixel Size	7.4um x 7.4um
Signal-to-Noise	58db
Sensor	Kodak, KAI-2020 (Color or monochrome), 14.803mm diagonal
Digital Output	12 bits
Frame Rate	15 fps @ 1600 x 1200
Digital Interface	IEEE 1394 FireWire, 6 pin; IIDC standard Version 1.31
Camera Firmware	Updated via software
ROI Scan	Continuously variable up to full resolution
Binning	Mono: 2x2, 4x4; Color: 3x3, 5x5
White Balance	Auto, Manual, Auto Tracking
Gain	Mono: 0 to +25db, Color: 0 to +21.5db
Viewing Modes:	1:1, Fit to Window, Full Screen
Memory Presets	15 User Defined Presets plus factory default
Display Interpolation	5 user selected algorithms
Exposure/Integration	Up to 60 seconds. Auto Exposure, Auto Gain, Auto Shutter
External Trigger	Mode0: Asynchronous Reset (IIDC v1.31) Mode1: Bulb Shutter Mode (IIDC v1.31)
External Strobe	Set by Camera Integration Reset. Programmable Delay, Duration, Polarity
External GPIO	One Input, One Output. Software accessible. Control Power: +3.3VDC limited to 100mA
Additional Features	Timestamp, Histogram, Friendly Name
Lens Mount	C mount with adjustable back focus. F mount adapter optional.
Tripod Mount	1/4" - 20

The Excel 16 from Dage is a high resolution firewire camera perfect in any setting from an OEM assembly system to a scientific laboratory. The dynamic combination of the Excel 16, *plus* the powerful new Exponent software, ensures quality images viewable in multiple configurations, featuring exceptional detail. Experience Dage visual technologies, engineered to set a higher standard.

Dimensions:	4" diameter, 2.5" deep
Weight	1.5 lbs.
Power	12V provided by IEEE 1394 port, <4.5W
Software	Exponent capture software, Twain, 3rd party specific, SDK (UniBrain Fire-I API)
Operating System	Windows®XP, SP2
Options	Remote power supply, laptop kits
File Formats	Mono 8 Bit: TIF, JPG, GIF, PNG, BMP Mono 16 Bit: TIF, PNG Color 24 Bit: TIF, JPG, GIF, PNG, BMP Color 48 Bit: PNG
Standards	FCC, part 15 class B CE

dage **technologies**