

Two-Megapixel Quad-Tap Cameras



JAI has added two more 2-megapixel industrial grade cameras to its line of advanced quad-tap models which offer high resolution and CCD-quality images at faster frame rates than typical CCD cameras. The new AM-200CL (monochrome) and AB-200CL (color) cameras provide a resolution of 1600 x 1200 pixels with a standard frame rate of 68 fps. The cameras use the quad-tap architecture of the KAI-02050 CCD for rapid image acquisition then combine the four taps into two for high-speed monochrome or raw Bayer readout. To simplify integration, the two taps are multiplexed via an 80 MHz data clock to deliver 8-bit, 10-bit, or 12-bit output over a single-cable Camera Link base configuration.

Alternatively, the AB-200CL color model can also perform in-camera color interpolation, producing 24-bit RGB output at 34 fps. Again, this output is delivered via a simple, one-cable Camera Link base configuration.

Like the previously introduced JAI quad-tap cameras, these new models provide high performance with outstanding image fidelity, thanks to an advanced automatic channel balancing algorithm that continuously adjusts gain and offset of the individual channels to produce a full resolution image with virtually undetectable boundaries between the tap areas.

The cameras feature user configurable AOI scanning (partial scanning), multiple binning modes (AM-200CL only), and a variety of acquisition modes, including continuous, single-frame, and multi-frame capture, plus a separate PIV mode. Advanced image pre-processing features range from auto-gain, auto-shutter, and auto-white balancing, to pixel blemish compensation, flat-field compensation, and a 256-point look-up table for gamma customization.

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Published on Medical Design Technology (<http://www.mdtmag.com>)

Like JAI's other high resolution cameras, which now number over 24 models between 2- and 16-megapixels, the new 2-megapixel models incorporate a list of industrial grade features to maximize performance in machine vision environments. These include precise sensor alignment, advanced thermal management, a built-in temperature sensor, and rugged construction with extensive shock and vibration testing performed.

The AM-200CL and AB-200CL cameras support C-mount lenses. Dimensions are 55 mm wide and 55 mm high by 69 mm in length.

Source URL (retrieved on 01/30/2015 - 8:22pm):

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