Model 131-HD

- Very high spatial resolution, 6400 pixels
- Fast temporal resolution, down to 650 ps
- Software control of exposure and timing parameters
- Laser and pulsed flash illumination synchronization
- Long record length, up to 46,000 pixels
- Re-triggerable within seconds
- 14 bit image depth
- Programmable time delay functions
- Captures external electronic fiducial inputs on common time base
- Electronic shuttering prevents image overwrite

The Cordin Model 131-HD camera is the ideal analytical tool for continuously measuring one dimension over time for a given event. The rotating mirror architecture provides long record length and recording rate flexibility. Combining rotating mirror and CCD technology provides users with access to digital streak image information in seconds. This allows the researcher to record data ready for subject adjustment, analysis, or presentation. A unique opto-mechanical design provides a continuous digital streak record, without gaps, blemishes, and with negligible distortion.

The Model 131-HD streak image is 6400 pixels in the spatial axis, and 17,000 pixels along the temporal axis. Optional extended record configurations offer up to 46,000 pixels on the temporal axis.

The Model 131-HD is offered with two alternative rotating mirror turbines: the standard 1209 turbine operates to 5,000 rps and the optional 1231 turbine operates to 7,500 rps. The turbines can reach 50% of full speed using compressed air or nitrogen. Helium is required to reach full speed.

The writing rate is determined by the speed of the rotating mirror, which is software controlled. At top speed, using the 1209 turbine the recording rate is 4,460 pixels per microsecond. The 1231 turbine at top speed yields a recording rate of 6,700 pixels per microsecond.

Two fiducial inputs are provided for precise image synchronization. Two programmable delayed outputs are also provided. An intuitive PC-based user interface allows for easy setup, acquisition, alignment, analysis and saving of data.

OPTIONS
- Extended record length to 46,000 pixels
- High speed turbine (Model 1231)
- Optical fiducial mark generator

Custom objective optics
Custom slit configurations
Laser field of view alignment tool
**SPECIFICATIONS**

- **Record Width**: 6400 pixels
- **Record Length**: 17,000 pixels standard
- **Extended Track Length**: 21,000, 34,000 or 46,000 pixels optional
- **Minimum Temporal Feature**: 4.5 pixels at 25 micron slit width
- **ADC Dynamic Range**: 14 bit
- **Radius of Image Arc**: 400 mm
- **Subtended Angle of Arc**: 13 degrees standard, 37 degrees maximum
- **Objective Lens**: Nikon F-mount standard
- **Pixel Size**: 5.5 x 5.5 microns
- **Device Type**: 29 MPixel full resolution progressive scan
- **Device Type**: Black and white standard

**Data Interface**: Gigabit Ethernet

**Trigger Inputs**: +5V, +5V isolated, analog and optical with threshold

**Fiducial Inputs**: Two independent channels captured on common time base

**Delay Outputs**: Two programmable delay channels on common time base

**Turbine**

- **MODEL 1209**: 5000 rps
- **MODEL 1231**: 7500 rps

**Temporal Resolution**

- **MODEL 1209**: 1.0 ns
- **MODEL 1231**: 0.65 ns

**Record Length**

- **17,000 Pixel Configuration**: 3.8 μsec
- **46,000 Pixel Configuration**: 7.0 μsec

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