

# High-speed gated intensified CCD camera **Model 22 4G**

The Cordin model 222-4G gated, intensified multi-channel CCD camera offers the best image quality of any multi-channel intensified camera available. It is a powerful and easy to use tool for studying events in the nanosecond to millisecond time domain. The camera system is based around a beam splitter optical system that distributes the image from a single objective lens to eight separate imaging channels without vignetting, parallax or ghosting. Each channel has an MCP device fiber-optically coupled to a 4MPixel CCD, and can capture two images per channel, for a total of 16 images captured by the system. Time between exposures on adjacent channels can be as short as five nanoseconds. Time between exposures on a single channel can be as short as one microsecond.

Operation of the camera is controlled via USB 2.0 with user-friendly software that allows the user to set timing, sequence, gain and triggering. 12 bit images can be saved as TIFF or RAW files, and any 8 bit subsampled image can be saved as BMP or JPG files. Camera settings can also be saved and reloaded later to duplicate a set-up. The 222-4G is a thoroughly new design, building on Cordin's 15 years of experience in this technology.

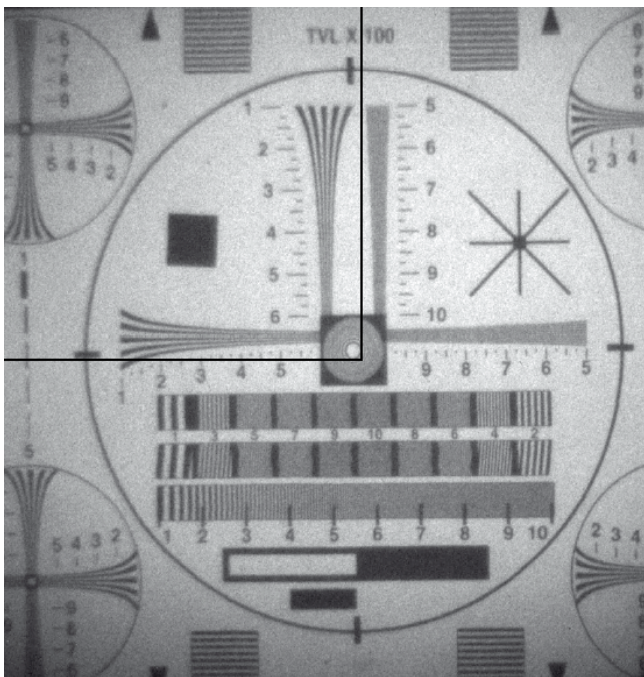


## Features

- Very high image quality
- High resolution CCD, 2K x 2K pixels, 12 bit dynamic range
- Extremely short exposure time, down to 5 ns
- Very high sensitivity, enabling very short exposures in moderate light or microscope configurations
- Very high framing rate, minimum interframe times equivalent to 200 million frames per second
- Independent control of gain, exposure time and time delay for each channel
- Display adjustment sliding scale to view 8 bit subsamples of full 12 bit images on the fly

## Options

- Microscope integration
- Tele-focus macro objective lens
- Alternate photocathode materials for choice of wavelength range sensitivity
- UV configuration
- Available with fewer channels at a lower cost, with option of adding channels later as an upgrade



Raw Image of Resolution Chart at 5ns exposure

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Specifications	
CCD	
Pixels	2000 x 2000
Device type	Full resolution progressive scan
Dynamic range	12 bit
Intensifier	
Device	18 mm Ø MCP
Photocathode	Super S25
Gain	10,000 watts/watt
Shutter ratio	107:1
Grey scale	42 dB to 48 dB
Resolution	40 lp/mm
Optics	
Number of images	16 images on 8 channels
Objective lens	Nikon F mount
Beam Splitter	Pellicle mirror system

Triggering and Interface	
Interframe times	5 ns to 10 ms in 5 ns steps with independent control of each frame
Exposure times	5 ns to 1 ms in 5 ns steps
System response	65 ns maximum
Jitter	±3 ns
Input triggers	Logic level, direct and isolated; analog and optical threshold
Outputs	Monitor, two programmable LVDS outputs on common time base with images
Interface	USB 2.0

