CORDIN
SCIENTIFIC IMAGING

|TEMPORAL PIXEL MULTIPLEXED (TPM) FRAMING CAMERA

Model TPM-100

- **High resolution:** up to 1K x 1K
- **Solid-state design:** no moving parts
- **Very high framing rate:** up to 10 million fps
- **Software control:** easy control of exposure and timing parameters through user-friendly software
- **Laser and pulsed flash illumination synchronization**
- **Economical:** priced below (US) $100K
- **Available late 2018**

The **Cordin Model TPM-100** high-speed CMOS camera offers a ground-breaking combination of 1-10 Mfps high-speed framing camera performance at a dramatic new pricepoint. The Cordin TPM-100 captures images at frame rates of up to 10 million frames per second and up to 1 mega-pixel resolution. The system uses a new TPM architecture jointly developed by Cordin and Oxford University with a unique CMOS sensor chip capable of capturing sub-array images in a burst mode.

With its flexible TPM architecture, the TPM-100 allows the user to trade off the number of frames in a burst versus resolution, given the available on-chip pixel memory.

The Model TPM-100 camera can be triggered by the event being photographed, and can accept triggers in advance or for some time after the event of interest. It can also provide the trigger to initiate the event.

The system comes complete with Cordin's control software application, and is controlled via Ethernet interface by the customer's choice of standard Windows-based PC or laptop. Data may be saved in a wide variety of 8 bit file formats. Full 10 bit images are saved in 16 bit TIFF file format.

OPTIONS
Illumination Sources (Models 605, 606, 607)

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Temporal Pixel Multiplexing (TPM)
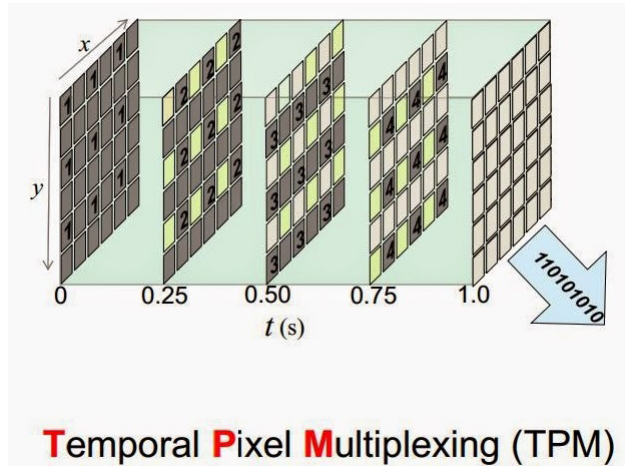
TPM operation at 500x500 resolution

SPECIFICATIONS

Number of Frames	Configurable	**Sensor Size**	14 mm x 14 mm (approx)
Maximum Framing Rate	10 million fps	**ADC Dynamic Range**	10 Bit
Front Optics	Single objective lens system (no parallax)	**Device Type**	Variable resolution progressive scan CMOS Sensor Monochrome
Objective Lens	C-mount or Nikon F-mount		
Resolution	1K x 1K pixels	**Interface**	Gigabit Ethernet for camera control and image transfer
Pixel size	10 µm pitch	**Dimensions**	200 mm x 150 mm x 350 mm

FRAME CAPACITY

Resolution	1K x1K	500x500	333x333	250x250
Frames per burst				
Max frames @ 1M fps	4	16	36	48
Max frames @ 10M fps	1	4	9	16

PRELIMINARY SPECIFICATION: SUBJECT TO CHANGE