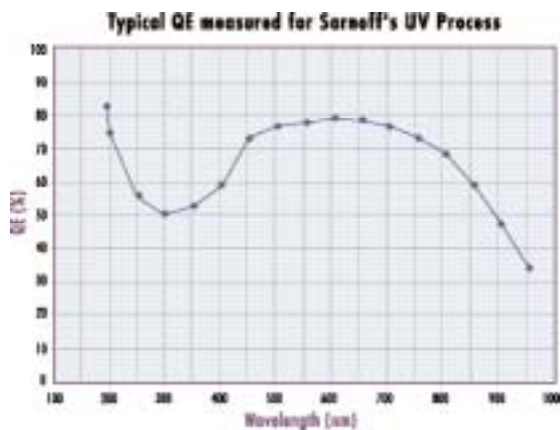


CAM1M100 – CAMERA SPECIFICATION



POWER REQUIRED	50W maximum.
ON-OFF SWITCH	On power supply.
SYSTEM AC VOLTAGE	90 - 260VAC, 47- 63Hz.
SYSTEM AC POWER SUPPLY SIZE	164mm x 85mm x 55mm, 550g.
DATA OUTPUT FORMAT	Two standard "base configuration" Camera link interfaces. Each link uses a National DS90CR285 channel link integrated circuit (see data sheet available at www.national.com). Data output format is 12 bits (described in user manual).
DATA OUTPUT CONNECTOR	Two, 3M company, type MDR connectors with 26 pins each.
CAMERA SIZE WITHOUT LENS	Height 172mm x Width 112mm x Length 180mm maximum.
CAMERA WEIGHT WITHOUT LENS	1500g maximum.
LENS MOUNT	C - mount.
CAMERA RS232 CONTROL CONNECTOR	DB9F, wired as RS232 DCE. (Protocol described in user manual)
CAMERA CONTROL INTERFACE	RS232, 115.2Kbaud, 8 data bit, 1 stop bit, no parity.
CAMERA SELF TEST FEATURES	On power up, camera power supply and internal self test will be checked and the results available over the RS232 link if not precluded by the failure. During operation vital parameters are monitored and if excess temperature is detected the imager is shut down.
CAMERA CCD TIMING MODES, SELECTABLE OVER THE RS232 PORT	1) 100 Frames per second continuous with exposure equal to approximately 1/frame rate. 2) Single frame externally triggered. Exposure is set over the RS 232 link.
EXTERNAL FRAME TRIGGER	SMC coax connector input. 50 Ohm DC terminated, LVTTTL logic signal levels.
FRAME SYNC OUTPUT	SMC, +/-24ma. Drive LVTTTL.
ACCESSORIES SUPPLIED	Power cable, two 3 meter long camera link cables, RS232 (DTE to DCE) cable and one trigger coax cable.
LENS MOUNT COVER	Shipping cover will be provided.
USER MANUAL	User manual will include the RS232 link commands.

SUPPORTED CAMERA LINK FRAME GRABBERS	Available upon request.
OPERATING TEMPERATURE	Ambient temperature such that the imager/lens mount interface is above 0 degrees C and does not exceed 35 degrees C.
STORAGE TEMPERATURE	-30 to +70 degrees C.
CCD ARCHITECTURE	Split full frame.
IMAGER TECHNOLOGY	Back-illuminated, 100% fill factor.
PIXEL SIZE	1024 x 1024 Array. Pixels are 16µm x 16µm. Image Area is 16.38mm x 16.38mm.
DARK CURRENT	< 1.0na/cm ² at 20 degrees C imager temperature. Imager temperature stabilized on TE cooler.
READOUT NOISE	Less than 100e rms typical at 100Hz frame rate.
A TO D FULL SCALE (EQUIVALENT ELECTRONS)	140,000e per pixel typical.
CHARGE TRANSFER TRAILER	The Horizontal deferred charge (trailer) will not exceed 5%. All Vertical columns will have deferred charge (trailer) not to exceed 3% with the following allowed exceptions. Trailer > 3% and < 6%; 20 allowed. Trailer > 6%; 10 allowed. (Measured at 80% saturation).
NONLINEARITY	The average nonlinearity per port will not exceed 2%.
PIXEL RESPONSIVITY NON-UNIFORMITY (at 390 nm Typical)	Pixel responsivity: Nonuniformity in bright frames will be within [-15%, +20%]. This applies to all pixels, excluding the first 3 and last 3 columns and first 3 and last 3 lines. The following exceptions are allowed: Up to 500 pixels could be defined as blemishes. A blemish is defined as a pixel which gives a signal within -50% of the average signal. Any pixel outside the [-50%,+20%] range will be considered a defect pixel. Up to 50 defect pixels are allowed that fall outside the blemish requirements. For each blemish pixel, the average of 8 Nearest Neighbors will not be less than 45% of the overall average.
SCAN MODES	Progressive scan however the bottom 8 ports are inverted to the top 8 ports.
QE	Typical QE is described in the Wide Band UV/VIS QE curve. AR coat optimized QE curves available.
BINNING	2x2 binning mode selectable over the RS232 link.
CAMERA MOUNT	Mounting block with 1/4 - 20 tapped hole.



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