

Indian Institute of Technology Delhi
Department of Chemical Engineering

Date: 29/10/2013

Ref. no: CHE/2013/HFPSC

The department of Chemical Engineering invites quotations for a high FPS scientific CMOS camera with the following specifications:

Imaging type:	Front illuminated scientific CMOS
Effective no. of pixels:	2000 x 2000 or more
Pixel size:	7um x 7um or smaller
Effective area:	12.5 x 12.5 mm or more
Quantum efficiency:	Peak higher than 70% in the visible region and quantum efficiency no lower than 40 % in the 450 to 800 nm range.
Maximum frame rate :	100 fps @ full resolution with camera link 30 fps @ full resolution with USB 3.0
Read noise (without pixel corrections) with global shutter/Global Exposure Synchronization	For standard scan (at 100 fps full resolution) – less than 2 electrons rms, less than 1.5 electrons median For slow scan (at 30 fps full resolution) – less than or equal to 1.6 electrons rms, less than 1 electrons median
Dark current:	0.5 electrons/pixel/s (-10 °C) or lower 0.15 electrons/pixel/s (-20 °C) or lower 0.05 electrons/pixel/s (-30 °C) or lower
Full well capacity:	30,000 electrons (typical)
Dynamic range:	33,000:1 (typical)
Region of interest (ROI):	User-defined setting options
Exposure time:	Internal trigger mode 1 ms to 10 s (at full resolution) or better.
Triggering mode:	Both internal and external
Cooling Method:	Peltier cooling -10 C with forced air, however provision should be there to add chiller for water cooling in future to reach -30 C or less.
Interface:	Camera link and USB 3.0
A/D converter:	16 bit output
Lens mount:	C–mount
Power supply:	AC 100 to 240 V, 50 Hz/60 Hz

** All the above specifications should be met simultaneously under no other constraints.

WARRANTY: 24 months warranty against all manufacturing defects from the date of installation.

Terms and conditions

- The technical and commercial bids must be submitted in separate sealed envelopes subscribed with "Technical Bid" or "Commercial Bid" as appropriate. Both the technical and the commercial bids should be enclosed in an envelope subscribed "Quotation for scientific CMOS camera " and should be submitted to the undersigned.

- The supplier must be an authorized dealer/distributor of the principal/manufacture and should furnish an authorization certificate from the principal/manufacture.
- CIF New Delhi prices should be quoted with all the terms and conditions i.e. applicable taxes, installation, warranty and delivery schedule.
- The supplier should provide a list of institutions in India with the details of the same camera systems supplied and with the contact details of the institution/department.
- Quotations must be valid for at least two months from the date of the NIQ.
- A special discount/rebate wherever admissible keeping in view that supplies are being made for educational purpose in respect of public institution of national importance may please be indicated.
- The institute reserves right to accept or reject any or all quotations without stating the reasons thereof.
- The quotations should reach Dr. Shalini Gupta, Block-II, Room-282, Chemical Engineering Department, Indian Institute of Technology-Delhi, Hauz Khas, New Delhi 110016 latest by November 15, 2013.

Shalini Gupta

Department of Chemical Engineering

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