

High Speed Camera

List of items

- Camera
- Software

S. No.	Specifications	Details
1.0	Camera specifications	
1.1.	Sensor Type	CMOS or sCMOS, monochrome
1.2	Full Resolution	1280 (H) x 1024 (V) pixels or higher
1.3	Pixel pitch	10 micron or smaller
1.4	Sensor size (diagonal)	Greater than 12 mm along diagonal
1.5	Frame rate	At least 1600 fps <i>at full resolution</i> At least 150K fps at reduced resolution
1.6	Dynamic Range (ADC)	12 bit monochrome or higher
1.7	Memory	8 GB or higher
1.8	Memory partitions	Upto 64 memory segments
1.9	Light Sensitivity	ISO 10,000 or higher (monochrome) <i>measured as per ISO 12232 Ssat Standard</i>
2.0	Global electronic shutter	Lower than 4 μ s
2.1	Quantum efficiency @630 nm	At least 60%
2.2	Phase lock	Capability to synchronize the camera together with a master camera or external sources
2.3	Trigger delay	Should be programmable at least 100 ns resolution
2.4	Provision for user entered event markers	Should be available
2.5	Lens mount	C mount
2.6	Camera control interface	High speed Gigabit Ethernet
2.7	Image formats	TIFF, JPEG, RAWW, MRAW, AVI, MOV
2.8	Operating system	Should be supported in standard OS (Windows/Linux)
2.9	Accessories	All necessary cables to connect to computer and transit case should be provided

3.0	Power requirement	Should be able to work with 220 V AC single phase power supply
3.1	Warranty	At least 1 year
2.0	Software	
2.1	Software	Should come with appropriate software for controlling camera parameters such as resolution, trigger delay, synchronization, exposure time, live viewing the region of interest, data transfer from camera to computer, basic image operations

Other Requirements

1. Quotations with the complete solution for the above requirement will only be accepted.
2. I.I.T. Madras has the right to accept the whole or any part of the tender or portion of the quantity offered or reject it in full without assigning any reason (Quote items separately)
3. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.
4. Test certificates for all the stages confirming the specifications from OEM are required with shipping/freight documents.
5. Suppliers to provide training for programming, operation and maintenance at IIT Madras at free of cost.
6. All necessary safety regulations such as CE compliance, low voltage directive, EMC regulations compliance details, Alarms and emergency switch off in case of any malfunctioning must be provided whenever necessary. The system must be equipped with all the necessary safety interlocks. Provisions for safety wear are essential.
7. The complete system and its associated hardware/should have a standard warranty of 3 years from the date of installation, commissioning and acceptance of the system at IIT madras. Suppler modification (s)/software upgrades shall be intimated and the same will be made available free of cost during the warranty period.
8. All technical literature/catalogues and drawings of various systems should accompany the quotation. All the documents should be in English.
9. Installation and commissioning should be provided by the supplier or its Indian agent. The Indian agent should have well proven service capability on similar systems with factory trained service engineers available in India. Details of their engineers expertise should be enclosed along with the offer and will be a key factor in the decision making.
10. The system should have compatibility with Indian environment conditions (for better power/energy stability)
- 11. The last date for receipt of the quotation is as per tender terms & conditions**

