



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
Powai, Mumbai 400076.

Ref. PR No.1000057172

RFx. No. 6100003103

Item Description: Radiology and DIC Equipment and its Components

Sr. No	Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
A. Handheld X Ray Camera			
1	Tube Voltage: 40~70 kV (Variable)		
2	Tube Current: 2~6 mA (Variable)		
3	Exposure Time Range: 0.06~2.0 sec		
4	Focal Spot Size: 0.4 mm		
5	Nominal Electric Power: 420 W (70 kV, 6 mA, 0.1 s)		
6	Size: 165.3 x 176.0 x 255.6 mm		
7	Weight: 2.4 kg		
8	Battery: DC 22.2 V / 1800 mAh		
9	Warranty: 2 years		
B. Digital X-Ray Detector			
1. Sensor (Panel) Unit			
1.1	TFT Type: Oxide		
1.2	Scintillator: CsI		
1.3	Pixel Pitch: 140 µm		
1.4	Number of Pixels: 3072 x 3072		
1.5	X-Ray Sensitive Pixels: 3072 x 3072		
1.6	X-Ray Sensitive Area: 430.08 x 430.08 mm		
1.7	Detector Dimensions: 460 x 460 x 15.6 mm		
1.8	TFT Dimensions: 442 x 442 mm		
1.9	Sensor Protection Plate: Carbon Fiber Plate		
1.10	A/D Conversion: 16-bit		
1.11	Data Output: 16-bit		
1.12	Spatial Resolution: 3.57 lp/mm		
1.13	Auto Exposure Detection: Yes		

Sr. No	Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1.14	Wired Communication: Yes		
1.15	Wireless Communication: IEEE 802.11 a/b/g/n/ac (2.4 GHz and 5 GHz)		
1.16	AP Mode: Yes (Integrated)		
1.17	Detachable Magnetic Cable: Yes		
1.18	Shock Monitoring: Yes		
1.19	Internal Image Storage: Up to 200 images		
1.20	Semi-dynamic Acquisition: 5 fps		
1.21	Cycle Time: 4.5 sec (Wired), 5 sec (Wireless)		
1.22	Raw Image Transfer Time: 1.5 sec (Wired), 2 sec (Wireless)		
1.23	X-Ray Period (ms)(= Window Time): 350-4000 ms		
1.24	Power Consumption: Typical 38 W		
1.25	Input Power: DC 24 V / 2.1 A		
1.26	IP Rating: IP68		
1.27	Drop Resistance: 1.5 m (IEC 60601-1)		
1.28	Maximum Load Capacity: 400 kg (Uniform), 200 kg (Point Load)		
1.29	Weight (Including Battery): 3.6 kg		
1.30	Application: General Radiography		
1.31	DQE @ 0.1 lp/mm: 0.78		
1.32	DQE @ 0.5 lp/mm: 0.70		
1.33	DQE @ 1 lp/mm: 0.57		
1.34	DQE @ 2 lp/mm: 0.38		
1.35	DQE @ 3 lp/mm: 0.26		
1.36	MTF @ 0.5 lp/mm: 0.84		
1.37	MTF @ 1 lp/mm: 0.60		
1.38	MTF @ 2 lp/mm: 0.30		
1.39	MTF @ 3 lp/mm: 0.14		
1.40	Unit Interface: Connect to control box		
1.41	Power Unit Interface: Connect to control box		
2. Control Box			
2.1	Power Input: AC 100-240 V, 47-63 Hz		
2.2	Power Output: DC 24 V / 2.1 A		
2.3	AC Power Cord: 1.5 m (Black)		
2.4	Dimensions (W x D x H): 125 x 255 x 109.8 mm		

Sr. No	Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
2.5	Weight: 1.3 kg		
3. Battery			
3.1	Hot Swap: Yes (1 minute)		
3.2	Battery Duration (Standby): Typical 7.7 hours		
3.3	Operation Time: Typical 300 shots / 7.5 hours (90-second cycle time)		
3.4	Nominal Capacity: 36 Wh (7.7 V, 4725 mAh)		
3.5	Nominal Voltage: 7.7 V		
3.6	Dimensions (W x D x H): 112.2 x 158 x 8.4 mm		
3.7	Weight: 240 g		
4. Battery Charger			
4.1	Slot Quantity: 2		
4.2	Bundled Battery Quantity: 2		
4.3	Charging Time: 3 hours		
4.4	Input Power: 100-240 VAC		
4.5	Input Voltage: 19 V		
4.6	Output: 19 V / 3.42 A		
4.7	Output Voltage: 8.7 V		
4.8	DC Cable Length: 1500 mm		
4.9	AC Power Cord: Yes		
4.10	Dimensions (W x D x H): 268.4 x 186.9 x 54.9 mm		
4.11	Weight: 0.5 kg		
5. Cables			
5.1	LAN Cable (Control Box-PC): 10 m		
5.2	Main Cable (Detector-Control Box): 7 m		
5.3	Sync Cable (Control Box-X-Ray Generator): 15 m		
6. AC Adapter for Battery Charger			
6.1	Dimensions (W x D x H): 134 x 59.8 x 31 mm		
6.2	Weight: 0.335 kg		
7. Power Type			
7.1	Power Type: Detachable		
8. Warranty			
8.1	Warranty: 36 months		
C. Tripod Stand			
1	Height Adjustment: Adjustable between 90 and 270 cm		

Sr. No	Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
2	Portability: Portable		
3	Compatibility: Hot shoe compatible		
4	Construction: High-quality steel		
5	Shock Absorption: Spring-loading for better shock absorption		
6	Locks: Non-slip locks		