



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

Ref. PR No. 1000058290

Rfx. No. 6100003158

Technical Specification for Radiology and DIC Equipments

Sr. No	Detailed Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1. Radiology and DIC Equipments			
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: 3 years		
B. Digital X-Ray Detector			
1.Sensor (Panel) Unit			
1.1	TFT Type: A-Si		
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	TFT Active Area: 430.08 x 430.08 mm		
1.7	Detector Dimensions: 460 x 460 x 15.6 mm		
1.8	TFT Dimensions: 445 x 445 mm		
1.9	Sensor Protection Plate: Carbon Fiber Plate		
1.10	A/D Conversion: 16-bit		
1.11	Data Output: 16-bit		
1.12	Sensitivity(Isb/uGy)/programmable: 3.57 lp/mm		
1.13	Auto Exposure Detection: Yes		

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	Image Storage on DXD: 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	Falling : 1.5 m (IEC 60601-1)		
1.28	Maximum Load Capacity: 400 kg (Uniform), 200 kg (Point Load)		
1.29	Weight (Including Battery): 3.7 kg		
1.30	Application: General Radiography		
1.31	DQE @ 0.1 lp/mm: 0.66		
1.32	DQE @ 0.5 lp/mm: 0.55		
1.33	DQE @ 1 lp/mm: 0.43		
1.34	DQE @ 2 lp/mm: 0.28		
1.35	DQE @ 3 lp/mm: 0.19		
1.36	MTF @ 0.5 lp/mm: 0.84		
1.37	MTF @ 1 lp/mm: 0.62		
1.38	MTF @ 2 lp/mm: 0.31		
1.39	MTF @ 3 lp/mm: 0.15		
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		
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: 3 years		

Note: Models meeting the above technical specifications or better specifications would be considered.

All relevant brochures and supporting documentation shall be submitted.