Technical Specifications of High frequency mobile C-Arm Image Intensifier

Sl. No	Parameter	Specification	
		System should be High Frequency 50Khz Microprocessor controlled C-arm machine providing excellent image quality at low radiation, ideally suited for entry level surgery in many application fields such as orthopedics', trauma surgery and general surgery.	
1	**X-RAY GENERATOR should have following:**		
	Type	High frequency 50 KHz	
	Power Output	6.0 K.W or more	
	KV RANGE	40 to 110KVP or more.	
	Fluoroscopy mA	Continuous Flouro scopy	
		Flouro mA	0.1 to 4 mA or more
		High Definition Fluoroscopy mA	0.2 to 8 mA or more
	Radiography mA	80 mA or more	
2	**CONTROL should have following**	A very compact, soft touch control panel(APR) with 20 X 3 (column x rows) LCD display on which KV, radiography mAs, fluoro time, FmA, I.I ZOOM, Error inter lock for KV, filament, thermal are displayed on wide angle LCD. Console panel should have following functions & indications. • Anatomical programming for radiography of 4 body parts (up to 8 programmes). • Selection of Continuous/multi pulse/single pulse fluoroscopy. • Machine ON/OFF switch. • I.I magnification(I.I field) selection switch • "Emergency flouro". • Flouro and Radio mode selection. • In built radio timer that enables to select mAS from 0.1 to 300 in 25steps for radiography • Fluoroscopy timer (Five minute cumulative timer with buzzer that activates after the completion of 300seconds of exposure and to reinitiate the exposure *reset* switch should be provided.) • ABS (Automatic brightness Stabilization) selection for hands free operation. • KV and mAs increase and decrease switches. • X-Ray on switch with indicators. • Switches for up/down movement of "C". • Emergency OFF Switch on the control panel	
3	**X-RAY TUBE HEAD should have following**	Anode type: Rotating Anode Small focal spot: 0.3mm (Max. Power:- 5KW) Large focal spot: 0.6mm (Max. Power:- 17KW) Anode heat storage capacity: 250 KHU or more The X-Ray Tube Head should be thermally protected	

4	**CCD CAMERA**	High resolution compact CCD camera ½" size. Total pixels: 752(H) X 582(V) should be there.
5	**MONITOR**	Two nos. 17" high resolution monitors along with a trolley.
6	**COLLIMATOR**	Fix Type Collimator should be Provided.
7	**X-RAY IMAGE INTENSFIER should have following parameters:**	
	Nominal entrance field size	23 cm (9")
	Output image diameter	25mm
	Field size(Three fields are available Normal,Zoom1 and Zoom2)	Normal= 9" Zoom-1 = 6" Zoom-2 =4.5"
	Resolution	52Lp/cm
8	**C-ARM MOBILE STAND should have the following:**	
	Focus to I.I distance	900mm or more
	Rotational movement	±180°*(with I.I safety lock)*
	Motorized Up/Down travel	430±10 mm should be Motor Driven
	Horizontal Travel	210±10 mm
	Arc Orbital Movement	90° + 30°
	"C" Depth	560mm or more
	Wig Wag(Panning) movement	±12.5 °
9	**DIGITAL IMAGE MEMORY SYSTEMS:**	
	Memory should be with the following features: 1. Feature of LIVE / PULSE / LIH 2. Averaging 1 to 16 frame 3. Contrast enhancement function 4. Temp. & Permanent storage up to 100 frame 5. Negative image feature 6. Zoom feature (x2 & x3) 7. Mirror feature 8. Image rotation feature (Each step of 1º or 20º, User selection option) 9. PEN drive provision 10. Keeps date & time 11. QUAD View 12. Image PANNING 13. PC connectivity through LAN port	
10	**VOLTAGE STABLIZER**	2KVA Servo Voltage Stabilizer compensates the voltage fluctuations on line.
11	**POWER SUPPLY**	230 AC (±10%), 50/60Hz, 15A, (model specific ±20%) or as per voltage/frequency available, Single phase, Independent earthing.
12	**Other Requirement**	The unit should be AERB Approved.