

Revised Technical Specifications for Supply, Installation, Testing & Commissioning of Integrated AV/IT Solutions for **BOG CONFERENCE ROOM** at MTI Ayub Teaching Hospital Abbottabad after Prebid meeting.

S.No	Item Name	Detailed Specifications (Revised & Standardized)	Qty
1.	Smart Signage 4K LED 98"	<p><u>98-inch Crystal UHD Signage – Stunning Performance for Large Format Digital Display</u></p> <p><u>Tender Technical Specifications</u></p> <ul style="list-style-type: none"> • Crystal UHD Professional Digital Signage Display • 1. Display Panel • Display Type: Professional Crystal UHD Commercial Signage Panel • Screen Size: Minimum 98" (as required) • Native Resolution: 3840 × 2160 (4K UHD) • Aspect Ratio: 16:9 • Panel Technology: VA /IPS Industrial Grade Panel • Brightness: Minimum 500 nits • Contrast Ratio: Minimum 4000:1 • Color Gamut: Minimum NTSC 72% • Haze Level: 25% anti-glare professional display coating • Pixel Pitch: Approx. 0.245 – 0.487 mm depending on screen size • Operation Mode: 24/7 Continuous Commercial Operation • Orientation Support: Landscape and Portrait mode <hr/> <ul style="list-style-type: none"> • 2. Image Processing Technology • Display must support Dynamic Crystal Color technology capable of producing over 1 billion color shades. • Integrated Quantum Processor Lite 4K for advanced video processing and AI upscaling. • Display must provide consistent lifelike color reproduction and enhanced clarity for digital signage applications. <hr/> <ul style="list-style-type: none"> • 3. Built-In Signage Platform 	1

- Integrated Smart Signage Platform (SSSP) version 10.0 or higher
- Built-in Magic INFO S10 content management compatibility
- Operating System: Tizen OS version 7.0
- Processor: Quad-Core CA73 Processor (1.6 GHz or higher)
- Internal Storage: Minimum 16 GB

- **4. Connectivity**

Video Inputs

- Minimum 1 × DisplayPort 1.2
- Minimum 3 × HDMI 2.0

USB

- Minimum 2 × USB 2.0 ports

Control Interfaces

- RS-232C (In/Out)
- RJ-45 Ethernet LAN

Wireless Connectivity

- Built-in Wi-Fi (2.4 / 5 GHz dual band)
- Bluetooth connectivity

Audio

- Built-in 10W × 2 Channel speakers
- Stereo mini jack audio output

- **5. Mechanical Design**

- Ultra Slim Industrial Design
- Maximum Panel Depth: 28.5 mm or slimmer
- Even bezel design on all four sides
- VESA Mount Support:
 - 200 × 200 mm
 - 400 × 300 mm
 - 400 × 400 mm
- VESA Mount Screw: M8 (12–14 mm)

The display must support centered VESA mounting holes for portrait installation.

- **6. Advanced Features**

The display must include the following integrated features:

- SmartView+ wireless screen sharing
- Smart Calibration through Samsung mobile application
- Automatic Source Switching & Recovery
- Director Mode
- Dicom Simulation Mode
- Video Conference compatibility

		<ul style="list-style-type: none"> • Upgradable Web Engine • Workspace (Microsoft 365 / VMware / Remote Desktop support) <hr/> <ul style="list-style-type: none"> • 7. Sensors and Hardware Features • Ambient Light Sensor • Temperature Sensor • Auto Level Function • Center IR Receiver • Second-Generation B2B Commercial Design <hr/> <ul style="list-style-type: none"> • 8. Environmental & Certification • Safety Certification: IEC 60950-1 / 62368-1 • EMC: Class B • Energy Efficiency: ENERGY STAR 8.0 • Environmental Compliance: EPEAT Certified • Environmental Protection: IP5x dust protection • Security: 802.1x WPA2 Enterprise Authentication <hr/> <ul style="list-style-type: none"> • 9. Power • Power Supply: AC 100 – 240V, 50/60Hz • Standby Power Consumption: Less than 0.5W <hr/> <ul style="list-style-type: none"> • 10. Operating Conditions • Operating Temperature: 0°C to 40°C • Humidity: 10% to 80% RH <hr/> <ul style="list-style-type: none"> • 11. Accessories <p>The following accessories must be included:</p> <ul style="list-style-type: none"> • Remote Controller with Batteries • Power Cord • Quick Installation Guide • Warranty Card • RS-232C Gender Adapter <p>Optional Accessories:</p> <ul style="list-style-type: none"> • Compatible Slim Fit Wall Mount • Compatible Samsung Professional Stand • 3 Years OEM Warranty 	
2.	AI-capable Workstation	AI-capable Workstation: Latest-gen Core Ultra 9 / Core i9 / Core i7-K class CPU (or equivalent), 32GB DDR5 RAM, 1TB NVMe Gen4 SSD, NVIDIA RTX 4070/4070Ti class GPU (≥12GB VRAM) with	1

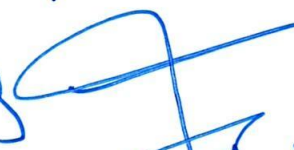
		H.264/H.265/AV1 hardware encoding, minimum 4K multi-display outputs, 1xLAN (≥1GbE; 2.5GbE preferred), Windows 11 Pro genuine license.	
3.	Rack/Online UPS 6kVA	Online double-conversion, pure sine wave, LCD, SNMP optional, rack kit, external battery pack 1 Hour backup	1
4.	HDMI Cable (4K)	HDMI 2.0/2.1, 4K@60Hz, 10m (or as required), good shielding, connectors + laying	1
5.	Conference System Control Unit	Digital discussion controller, mic modes, auto mic management, recording/output, camera tracking trigger, balanced I/O, expandable, support wireless microphone	1
6.	Chairman Unit (Motorized monitor lift + mic)	19" retractable monitor, integrated digital mic, priority control, voting/ID options, table cut-out & lift mechanism (Top Branded)	1
7.	Delegate Units	Digital tabletop mic units, gooseneck mic, speaker, request-to-speak, headphone, ID/voting option	8
8.	Ceiling Speakers (10W)	6" ceiling speakers, 10W, 100V line, metal grille, clear speech tuning	4
9.	Power Amplifier (100-120W)	100V PA amplifier (100–120W), mixer inputs, protection, paging priority	1
10.	Wireless Lavalier Mic	UHF, body pack + lav, stable frequency, ~30-50m range, rechargeable/AA	1
11.	Wireless Handheld Mic	UHF handheld, metal body, stable link, ~30-50m range	1
12.	4K Dual-Eye Intelligent Tracking Camera	4K Ultra HD Dual-Eye Camera: 4K main lens + secondary lens for accurate AI 1 300000 300,000 tracking AI Smart Tracking: Auto framing, speaker tracking, and presenter tracking (scenario-based) PTZ Performance: Motorized pan/tilt with high-zoom capability for detailed framing PTZ Performance: Motorized pan/tilt with high-zoom capability for detailed framing Wide Field of View: Captures more participants with broad room coverage USB Plug-and-Play: Simple connection for VC deployments	1
13.	Door Access / Smart Lock System	Face, Fingerprint and RFID T&A and Access Control Terminal Multi-biometric identification terminal, notably offers enhanced Visible Light facial recognition and SilkID fingerprint authentication technology. quick automatic face detection and facial recognition when a target enters its detection	1

		distance from 0.5m to 2.5m. With new deep learning algorithms applied, the anti-spoofing technology performance has been dramatically heightened and can prevent different types of photos and video attacks. precisely authenticates dry, wet, or rough fingerprints efficiently and accurately. Apart from Visible Light facial recognition and SilkID fingerprint authentication, also supports identification with RFID cards and passwords. Features: 7-inch touch screen; capacity 10,000 users, 10,000 faces, 10,000 fingerprints, 10,000 cards, 1,000,000 transactions; mask detection; communication TCP/IP, Wi-Fi, Wiegand input/output, RS485; access control interface – lock relay output, exit button, alarm output, door sensor.	
14.	Digital Pointer/ Presenter	Wireless presenter + laser/on-screen pointer, USB receiver, ~20-30m	1
15.	Smoke Detector	Conventional photoelectric detector + base (2-wire), standard sensitivity	2
16.	Fire Extinguisher (12kg)	ABC/DCP 12kg, bracket, standard rating	2
17.	LaserJet Printer Wi-Fi/Network	Mono laser A4, duplex, Wi-Fi + LAN, ~40+ ppm class	1
18.	Main electrical junction box / small DB	Safe power distribution	01
19.	Installation / Small Accessories (Conference Room - Complete Scope)	Complete installation, integration, cabling, mounting, testing, commissioning, documentation and user training of all AV/IT systems, including all small accessories, consumables, ducts, connectors, terminations, audio/video tuning and safety works, required for a fully functional conference room.	1

1. ~~One~~-year warranty is mandatory for the equipment.

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J.A.

Revised after Pre-Bid meeting

 J.A. 8/5/2022