

VIDEO CONFERENCING SYSTEM & ALLIED ACCESSORIES

TECHNICAL SPECIFICATIONS

Product:	PTZ Camera (Qty-02)
Camera	Professional 4K PTZ Camera 20x Zoom or higher with Hybrid Tracking and real time tracking capabilities.
Image Sensor:	1/2.8" or better High Sensitivity CMOS Image Sensor, Minimum 8 Megapixels (effective), or equivalent.
Video Resolution	4K (3840 × 2160) at 30 fps minimum
Minimal Illumination	0.5 Lux or better @ F1.8 (Colour)
Video coding standard	H.265 / H.264 and MJPG
Field of view	Horizontal FOV: Minimum 59° (Wide) to 2.5° (Tele) or better. Vertical FOV: Minimum 34° to 1.4° or better
Zoom	Minimum 20x Optical Zoom with autofocus. Digital zoom supported, Aperture F1.8 or better
Mechanical Movement	Pan Speed: 0.15° to 100°/sec minimum. Tilt Speed: 0.15° to 70°/sec minimum. Pan/Tilt accuracy ±0.1°.
Presets	Minimum 255 programmable preset positions.
AI & Tracking Features	The system shall provide automatic presenter/speaker tracking or equivalent camera positioning functionality and shall support automatic camera preset recall / switching based on active microphone/discussion system input.
Conference System Integration	Camera shall support integration with Digital Conference/Discussion Systems through standard control protocols such TCP/IP or equivalent for automatic camera switching / tracking based on microphone activation. Compatible with Bosch conference system or equivalent conference system.
Control	IP Control, IR Remote or equivalent control and SDK/API (if available).
Connectivity & Interface Ports	Simultaneous HDMI, USB & IP streaming output, USB 2.0/3.0 supporting UVC with minimum 4K30 output, RJ45 Gigabit Ethernet (10/100/1000 Mbps) HDMI supporting up to 4K@30fps minimum RTSP, RTMP, ONVIF Profile S/T or equivalent IEEE 802.3af/at PoE and external DC power adapter
Accessories	Wall Mount Bracket, OEM Power Adapter, Remote Control, USB Cable and all accessories required for complete installation
Cables	Active USB 3.0 Extension Cable with Signal Repeater, 10 meters CAT6 UTP Pure Copper Cable, 23 AWG, 305 meters (or equivalent).
Compliance	The bidder/OEM shall have demonstrated experience in supply, installation and commissioning of professional video conferencing/PTZ camera solutions of similar nature and complexity. Documentary evidence of successfully completed installations/contracts shall be provided.



Product	Interactive Touch LED Display (QTY-01)
Screen Size	98 inches (diagonal)
Brightness	400 nits or better
Resolution	4K Ultra HD (3840 × 2160), Integrated AI camera with 4K resolution (optional)
Display Type	QLED / IPS / DLED or equivalent professional display technology
Operating System	Android 13 or latest, or equivalent embedded operating system
System Memory	Minimum 8GB + 64 GB
Contrast Ratio	4000:1 or better
Processor (CPU)	Quad-core or higher processor suitable for 4K interactive collaboration
Audio	Minimum 30W total audio output with 8 Microphone Array
Smart Feature	White Board: The touch interactive display must have Inbuilt onboard writing software and wireless screen sharing and Annotation. This software shall have the capability to write on the display.
Connectivity	Minimum Connectivity: • HDMI Input ×2 • HDMI Output ×1 (preferred) • USB Type-C ×1 • USB Type-A ×3 • Touch USB ×1 • RJ45 ×1 • RS232 ×1 • Audio In/Out ×1, • Wireless LAN, Bluetooth Other Optional Ports: DP – 1 / PC / VGA – 1 / LINE OUT - 1
Included	Remote controller, Batteries (for Remote), Wall Mount Support, Power Cable and Multi-touch support with stylus and palm rejection. Complete installation as per the requirement with wall mount and rolling mobile / floor stand trolley (Both option required)
Product	Laptops (QTY-02) (Business / Professional Grade or equivalent, meeting or exceeding following criteria)
Operating system	Windows 11 Professional 64 bit
Processor	Intel Core i5 13th Generation or higher, or equivalent processor with comparable performance.

Storage	Minimum 512GB PCIe NVMe M.2 SSD
RAM	Minimum 16GB DDR4/DDR5 RAM or higher, expandable preferred
Audio	Integrated stereo speakers and dual-array microphone
Graphics	Integrated graphics solution equivalent to Intel UHD Graphics or Intel Iris Xe or better
Camera	Built-in HD webcam (720p minimum) or higher with integrated microphone. IR camera/facial authentication capability preferred.
Ports/Slots	Minimum: • 2 × USB Type-C ports or equivalent • 2 × USB Type-A ports or equivalent • RJ-45 Ethernet port • HDMI or equivalent video output • Headphone/Microphone combo jack
Wireless Connectivity	Wi-Fi and Bluetooth latest available standards supported by OEM
Battery	Battery capacity of minimum 42 Wh and manufacturer rated battery runtime of 10 hours or more under the OEM's published standard test methodology.
Security Features Includes	• TPM 2.0 embedded security chip • Fingerprint reader and/or facial authentication support • Camera privacy shutter or equivalent
Carrying Case	Laptop carrying case / bag to be provided with each unit
Display Size	Minimum 15.6-inch Full HD (1920×1080) display or higher with anti-glare capability preferred.
Product	Multimedia Laser Projector (QTY-01)
Application	Professional Conference Room / Presentation Use
Display Technology	Professional LCD, DLP or equivalent projection technology
Native Resolutions	Minimum WUXGA (1920 × 1200)
Brightness	Minimum 6200 ANSI Lumens

Light Source	Laser Light Source
Light Source Life	Minimum 20,000 hours in Eco/Normal operating mode
Contrast Ratio	High Contrast Ratio suitable for professional presentation applications
Display Colour	Minimum 1.07 Billion Colours or better
Optical Zoom	Minimum 1.5x Optical Zoom
Lens Shift	Horizontal and/or Vertical Lens Shift capability
Keystone Correction	Automatic/Manual Keystone Correction
Projection Size	Support minimum 30" to 300" diagonal image size
Audio Features	Built-in speaker minimum 10W or equivalent audio output capability; microphone input and audio output support
Connectivity	Minimum 2 × HDMI, USB-A, Audio In/Out, RS-232, RJ45 LAN
Network Features	Network monitoring and control support through LAN
Accessories	Complete OEM accessories including power cord, remote control, compatible wall/ceiling mounting bracket and all required installation accessories
Product	Wireless Presentation Pod (QTY-02)
Function	Wireless presentation and BYOM (Bring Your Own Meeting) device for conference room content sharing and collaboration.
Video Encoding	Support up to 4K UHD @30fps wireless content transmission.
Connectivity	Support wireless connectivity through Wi-Fi 5/6 or higher with dual-band 2.4GHz/5GHz operation.
Wireless Security	Support secure wireless communication using WPA/WPA2/WPA3 or equivalent encryption standards.
Bluetooth	Integrated Bluetooth capability for device connectivity and control.
Interfaces	Minimum USB Type-C interface with support for USB Type-A connectivity through adapter or equivalent solution.



Device Compatibility	Compatible with laptops, tablets and mobile devices using major operating systems including Windows, macOS, Android and iOS.
Wireless Network Mode	Shall support direct wireless connection and/or integration with existing room network infrastructure.
Content Sharing	Support wireless sharing of presentations, videos and multimedia content with low latency.
Multi-User Support	Support simultaneous connection and presentation from multiple users.
Collaboration Features	Support annotation, screen control, interactive display integration and reverse touch/mouse control where applicable.
BYOM Support	Support Bring Your Own Meeting functionality with major video conferencing platforms.
Status Indicators	Built-in LED or equivalent indicators for operational status and troubleshooting.
Controls	Physical button(s) and/or software-based controls for initiating and managing presentations.
Accessories	USB-C to USB-A adapter and all standard OEM accessories required for operation.
OTHERS REQUIREMENTS	
Warranty of the solution	Minimum two (02) Years comprehensive Onsite OEM Warranty including Parts and Labour.
Installation & Commissioning :	Complete supply, installation, testing, integration, configuration, commissioning and user training at HQ PAA without any additional cost to PAA.
The bidder shall provide documentary evidence of being an OEM, authorized distributor, authorized partner/reseller, or otherwise duly authorized channel partner for the offered product(s). OEM/Principal Authorization Letter, where applicable, shall be acceptable as evidence of authorization.	
The bidder shall include all PoE/PoE+ switches, extenders, injectors, converters, adapters and other networking/interface equipment required for complete and functional integration of the offered solution. No additional payment shall be admissible for such items."	
Note: Any additional accessories required for successful commissioning and interoperability with the existing Bosch CCS1000D system, relocation, precise alignment, and re-installation of the existing remote-controlled motorized multimedia rollover screen shall be the responsibility of the bidder and shall be provided without additional cost to PAA. Reference to compatibility with Bosch CCS1000D is necessitated by integration with the existing conference / discussion system installed at DGPA Conference Room and is not intended to restrict competition to any particular camera OEM.	



Bidders: _____
(Signed and Stamped)