

INVITATION FOR QUOTATION

No. FIN/24-25/II/PR/007

Date: 04.10.2024

To,

**Sub: Invitation for Quotations for one (1) Studio for recording and live broadcasting
video lectures**

Dear Sir,

1. You are invited to submit your most competitive quotation for the following items. The detailed technical specifications given at Annexure which is attached herewith.

Sr. No	Brief Description	Quantity	Delivery Period (In days)	Place of Delivery	Installation Requirement (if any)
1	As per attached Annexure	1No	30	RCCIIT	Required

2. RCCIIT, Kolkata has received Grants-in-Aid for the project entitled "AI Capacity Building Program for Schools: Empowering Students with Future Skills", from the Ministry of Electronics and Information Technology (HED Division), Government of India. Under this project eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation:
 - 3.1 The contract shall be for the full quantity as described above.
 - 3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
 - 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
 - 3.4 Applicable taxes shall be quoted separately.
 - 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
 - 3.6 The Prices should be quoted in Indian Rupees only.

4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than **60** days from the date of opening of quotations.
6. Evaluation of Quotations,
The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which
 - 6.1 are properly signed ; and
 - 6.2 Confirm to the terms and conditions, and specifications.
7. Award of contract:
The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
 - 7.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
 - 7.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
8. Payment shall be made in Indian Rupees as follows:
Delivery and Installation - 100% of total cost
9. All supplied items are under warranty as mentioned in the Annexure from the date of successful acceptance of items.
10. The Quotations would be evaluated for all items together.
11. You are requested to provide your offer latest by 1.00 P.M. on 22.10.2024.
12. Detailed specifications of the items are attached herewith as Annexure.
13. Standard installation required.

14. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
15. Sealed quotation to be submitted/ delivered at the address, RCC Institute of Information Technology, Canal South Road, Beliaghata, Kolkata - 700015
17. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation

Encl: Annexure

Price Bid Proforma

PRICE BID (PROFORMA)

(In letterhead of the supplier with seal and signature)

Date: _____

To: _____

Sl. No.	Description of goods/items (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex-Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	GST Rate in % age	GST Amount (Rs.) (B)	Total Amount with GST (Rs.) (A+B)
1.	As per annexure							
2.	Standard Installation Cost							
Gross Total Cost								

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. — — — — — (Amount in figures) (Rupees — — — — — amount in words) within the period specified in the Invitation for Quotations.

We confirm that the warranty/ guarantee as mentioned in Annexure shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier with rubber stamp

Name: _____

Address: _____

Contact No: _____

Annexure

Technical Specification of Recording Studio

SL No	Product	Qty.
1	75" IFP (Android 14 or higher ,4GB,32 GB)	1
2	OPS (i5,11th Gen,256SSD,8GB Ram)	1
3	CPU (i5,11thgen,2TB SSD,4Gb Graphics,32GB Ram ,Windows 11 Activated))	1
4	Video Switcher	1
5	PTZ FHD Camera	1
6	Graphics Tablet 16"	1
7	Mic (RX /TX @2)	1
8	Smart TV 55" 4k	1
9	IPS Monitor 21.5	2
10	Wireless Presenter BYOD	1
11	Active Speaker	1
	Cable and Accessories	
12	HDMI 1 Mtr @ 5pcs	1
	HDMI 3 Mtr @ 5pcs	
	HDMI 10 mtr @ 2 pcs	
	HDMI 5 mtr @ 5pcs	
	HDMI Splitter @ 1PCS	
	5 mtr RC to Stereo @1 PCS	
	Stereo to RC 10 mtr @1PCS	
	USB Extender @1 PCS	
	Wireless K/M @2 PCS	
	USB HUB @1 Pcs	
	Other Accessories (PPT Presenter,connector)	
2X2 panel light with Soft Box) (3+6) (Any Reputed Brand)		
13	Electric Wairing and Switch point with Labour	15
14	Installation and Training	1

OEM and Bidder Criteria	
1	Bidder to submit the tender specific OEM Certificate for IFP, OPS, Camera, TV,BYOD and Speaker products including Management software mentioning the bid number
2	OEM should have their Functional service center at least for last 5 years.
3	OEM must have BIS, ROHS, FCC, CE certificate for panel OPS. ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 20000 Bidder must submit such certificate at the time of bid submission. The OEM software should provide Security Clearance Certificate of the proposed software. The OEM of software should be a firm / organization/ company/ corporation registered/incorporated in India since last 10 years.
4	OEM should have its own or authorized service centre within West Bengal
5	Components Like Panel, Ops, Camera, BYOD and Speaker should be from a single OEM, for better Integration.

Annexure

1.1 75" Interactive Panel specification

SL No	Technical Spec	
1	Inbuilt AI Tracking Camera & Beamforming Microphone	
2	Zero bonding technology, low parallax writing and wider viewing angles.	
3	4mm anti-glare tempered glass lap.	
4	4K Ultra HD display, support full channel 4K UI display	
5	Eye protection, lock screen, touch lock and other tools.	
6	Support for multi-user functionality	
7	High precision IR touch makes the user write more smoothly.	
8	Support dual pens with different color displays, which makes teamwork easier	
9	One network support, Android and OPS are Gigabit networks.	
10	Support for network sharing.	
11	Size	75"
12	Display Backlight Type	DLED
13	Display Area	1860X1160X220mm
14	Display Resolution	32767x32767
15	Screen Ratio	0.672916667
16	Physical Resolution	(4K) 3840x2160
17	Wall Amount Thickness	M8x25mm
18	Contrast Ratio	5000:01:00
19	Colors	1.07B (10bit)
20	Brightness	450cd/ m ²
21	Operational Environment Life Time	Storage Temperature: -10°C~60°C; Storage humidity: 10%RH~90%RH;
22		>60,000hours
23	Viewing Angle	178°(H/V)
24	Camera	Yes, Inbuilt 8.4MP with voice tracking & auto framing features
25	Response Time	5ms or better
26	Display Orientation	Landscape
27	Refresh Rate	60 Hz
28	Speakers	Should be SEAMLESSLY build-in the display
29	Max.Power Output	2x20 Watts or above
30	Speaker Position	Seamlessly mounted in lower side of the display. Front facing, Forward through
31	Scanning Speed	120 frames/s
32	Output S.P.L.	84 ± 3dB
33	Touch Technology Deployment	Touch feature should be seamlessly build-in the display and NO overlay is allowed
34	Touch Sensor	Advanced IR
35	Writing Protection	Physically Toughened Mohs Class 7 Explosion-Proof Glass
36	Touch Surface Material	Zero Bonding 4.0mm, Anti-Glare full toughened glass
37	Protection	3M antiglare
38	Haze	2%~5%

Annexure

SL No	Technical Spec	
39	Touch Screen Writing Tools	Nano Pen (>3mm width) included or Finger
40	Positioning Accuracy	±1mm or better
41	Transmission Range	5M
42	Transparency	>88% or better
43	HID Support	Must have a provision to connect with any external sources
44	Touch Points in Windows	Must have a touch capability of MINIMUM 40 points
45	Touch Points in Embedded OS	Must have a touch capability of MINIMUM 20 points
46	Writing Tool	Shall use with Nano Pen (>3mm width) included or Finger
47	Video/ Audio Format	PAL/NTSC/SECAM
48	Compatible Video Format	Rm,rmvb,mpeg1/2/4,avi,mp4
49	Contrast Ratio	5000 : 1
50	Pixel Pitch	0.42975×0.42975mm
51	Power Consumption	290W
52	Voltage	100-240V~50/60Hz
53	Chipset	V100
54	CPU	8 core A55 Quad-core 1.2GhZ
55	GPU	Mali-G52 MP2 (2EE)
56	RAM	8GB
57	Flash	128GB
58	Android Version	Android 13.0 OR Higher
59	Mic min	Inbuilt 8 Array microphone with Beamforming technology
60	Response Time	The first point≤6ms,continuity≤2ms
61	Play Store	Should have play store installed in Android OS
62	GUI - Graphic User Interface	The display must have GUI for ease access of resources, functions and shortcuts. This GUI shall be any proprietary OS but must be computable with Android coding.
63	Customized GUI	User can easily customized their own background and logo's
64	Software Features	Software must support all basic features like Pen selection, width selection, screen recording,screen capturing,Color change, Background change, erase, Multiple page navigation, saving of file in PDF and JPEG. Whiteboard software should give option to navigate page with 2 fingers without using menu. Special eraser to erase while writing without selecting menu.
65	Output Interface	Audio output x 1
66		AV x 1
67		HDMI x 1
68	Input Interface	AV IN x 1
69		MIC IN x 1
70		VGA IN x 1
71		VGA AUDIO IN x 1
72		RJ45 x 1
73		TF x 1
74		TOUCH PORT x 1

Annexure

SL No	Technical Spec	
75		HDMI x 3,DP-1
76		USB x 5 (USB3.0 x 3, USB2.0 x 1,Type Cx1)
77	Communication Port	RS232 x 1
78	Standby Power Consumption	<0.5W
79	Mounting Kit	
i.	Category:	TV /Panel Cart
ii.	Rank:	Economy
iii.	Material:	Steel
iv.	Surface Finish:	Powder Coating
v.	Color:	Fine Texture Black
vi.	Fit Screen Size:	55"-100"
vii.	VESA Compatible:	400x400,300x200,400x200,600x400,300x300,400x300,200x200,800x400,800x600,900x600,1000x600
viii.	TV Weight Capacity:	150kg (330lbs)
ix.	Screen Quantity:	1
x.	TV Height Adjustable:	Yes
xi.	Shelf Weight Capacity:	20kg (44lbs)
xii.	Shelf Height Adjustable:	No
xiii.	Cable Management:	No
xiv.	Base Type:	Caster

1.2 OPS Technical Specification

SL No	Technical Spec	
80	OPS Slot	Min one OPS slot which is 80 pin
81	CPU	Intel® Core™ i5 11th generation or higher
82	RAM	32GB
83	Storage	512GB SSD
84	I/O Ports	3.5 mm MIC x 1
85	HDMI (1.4 4K@24HZ)	x 1
86	3.5 mm line out	x 1
87	USB 2.0	x 2
88	USB 3.0	x 4
89	RJ45	x 1
90	DPI	x 1
91	Built-in Wi-Fi	2.4G/5G
92	Type c	x 1
93	OPS Software Features.	Unlimited pages.
		Drag & drop feature From inbuilt Browser. Smooth writing experience.
		Any types of file annotation (pdf, ppt , iwb etc.). Geometric tools (instant compass, Ruler, protector).
		Instant calculator.
		World map.

Annexure

SL No	Technical Spec	
		Varieties of pens. (Smart pen, highlight pen, laser pen, Smart Pen For Geometrical Tools etc.)
		Live Broadcasting.
		We can link any file with diagram. (Audio, video, web link etc.)
		Multi-screen. (Max 4).
		Customize theme.
		Chemistry Elements.
		Roaming. (Zoom in, zoom out).
		Any kind of image we can insert.
		Should creat on Board Graph page and Customizable.
		Should have inbuilt Name Broadcasting tools.
		Embedded animation software
		Software Inbuilt Recourse Library.
93	AI/ML/Deep Learning	AI Deep Learning Engine to enhance energy savings by upto 30% over OS Savings using hyper personalized policies
94	Single Agent Support	A Single agent which supports Power Management along with asset, patching and productivity monitoring on specified platforms
95	Software Metering	Third party certified software energy meter on endpoints which measures energy consumption with up to +/- 10% accuracy
96	Secure communications	Should support TLS 1.2+ communication between agent and console
97	Security	Should support standard encryption for all agent and console communication
98	Agent behind Firewall, NAT	In the scenario where the agents are deployed behind a firewall with NAT, the agent and console should be able to communicate only with http(s)
99	Configurable Ports	The https ports used for agent-console communication should be configurable
100	Support for Proxy Servers	If there is a proxy server for communication between agent and console, the agent should be able to communicate via the proxy server to the console
101	Bandwidth Optimized	The agent-server communication should be optimized for bandwidth usage and should be able to work in a sub 64kbps, VSAT links for remote locations
102	Data protection	The agent should be able to function even if the communication with the console is not available or the console is down for up to 30 days. There should be no loss of data
103	Proven technology	Proven in a scenario where the technology is deployed in a single client in more than 10,000 locations and communicating to a single console
104	Policy and Configuration Synchronization	For devices which are not always connected to the enterprise lan, the agent should be able to synchronize its configuration & power policies as soon as it connects to the console. The agent should also post the savings and other

Annexure

SL No	Technical Spec
	data to the console without causing major overhead on the network bandwidth.

1.3 CPU

SL No	Technical Spec
1	Cabinet Type Slim/Tower
2	Cabinet Size Atx or Matx
3	Processor Brand Pentium/Intel/AMD/Others
4	Processor Type Core i5 with latest Gen
5	Claoock Speed Usually around 2.4 GHz to 2.8 GHz
6	Core/Threads Typically 4 cores, 8 threads
7	Cache 12 MB Intel Smart Cache
8	Storage 512 GB SSD(NVMe),3500 MB/s Speed anf 2 TB HDD
9	Graphics 4 GB Dedicated Graphics Card, HDMI,DP and DVI, Supports DirectX 12, OpenGL, and other graphical APIs (varies by model)
10	Memory 32 GB ,DDR4/DDR5,Speed should be 3200 Mhz, Cas Latency 15-18 (typical)
11	Mother Board LGA 1200,Memory Slots 2 minimum,
12	Power Supply 500W to 600W above,
13	Connectivity Type Wi-Fi (Optional)
14	Number of USB 2.0 Ports 4 or higher
15	Number of USB 3.0 Ports 2 or Higher
16	Number of HDMI Ports 1
17	Operating System Windows 10 Home Optional
18	Included Components Keyboard, Mouse
19	Real-time Audio/Video Mixing Mix audio and video sources in real-time.
20	Multiple Source Types Supports video capture, image, text, window capture, and more.
21	Scene Transitions Smooth transitions between different scenes.
22	Audio Mixer Advanced audio control with filters and gain adjustments.
23	Studio Mode Preview scenes before transitioning to live.
24	High Performance Low-latency and high-quality streaming and recording.
25	Customizable Hotkeys Set up hotkeys for various functions and controls.
26	Streaming and Recording Simultaneous streaming and local recording options.
27	Browser Integration Use browser sources to display web content.
28	Scene Collections Save and switch between different sets of scenes.
29	Plugin Support Extend functionality with third-party plugins.
30	Cross-Platform Available on Windows, macOS, and Linux.

Annexure

31	Audio Filters	Apply filters like noise suppression, gain, and more.
32	Custom Transitions	Create custom transitions for scene switching.
33	Instant Replay	Capture and replay moments during streams.

1.4 Broadcasting Software

SL No	Technical Spec	
1	Real-time Audio/Video Mixing	Mix audio and video sources in real-time.
2	Multiple Source Types	Supports video capture, image, text, window capture, and more.
3	Scene Transitions	Smooth transitions between different scenes.
4	Audio Mixer	Advanced audio control with filters and gain adjustments.
5	Studio Mode	Preview scenes before transitioning to live.
6	High Performance	Low-latency and high-quality streaming and recording.
7	Customizable Hotkeys	Set up hotkeys for various functions and controls.
8	Streaming and Recording	Simultaneous streaming and local recording options.
9	Browser Integration	Use browser sources to display web content.
10	Scene Collections	Save and switch between different sets of scenes.
11	Plugin Support	Extend functionality with third-party plugins.
12	Cross-Platform	Available on Windows, macOS, and Linux.
13	Audio Filters	Apply filters like noise suppression, gain, and more.
14	Custom Transitions	Create custom transitions for scene switching.
15	Instant Replay	Capture and replay moments during streams.

1.5 Video Mixer

SL No	Technical Spec	
1	Video Inputs	4 HDMI inputs (supports up to 1080p60)
2	Video Output	HDMI output (up to 1080p60)
3	USB-C Output	Can be used for recording to a computer or as a webcam source
4	Streaming	Built-in hardware encoder for direct streaming to platforms like YouTube, Facebook, Twitch, etc.
5	Recording	Direct recording to USB drives in H.264 format (up to 1080p60)
6	Audio Inputs	2x 3.5mm TRS analog audio inputs
7	Audio Mixing	Built-in audio mixer with EQ, compressor, and limiter
8	Control Panel	Physical buttons for switching, transitions, and audio mixing

Annexure

9	Software Control	Software Control for advanced control from Windows and macOS
10	Control Interfaces	Compatible with external control panels
11	Transitions	Cut, dissolve, and wipe transitions with adjustable parameters
12	Effects	Built-in DVE (Digital Video Effects) for picture-in-picture and graphic overlays
13	Network	Ethernet port for network control and monitoring
14	Monitoring	Built-in multi view monitoring for up to 4 sources
15	Upstream Keyer	For adding graphics or overlays
16	Downstream Keyer	For adding lower-thirds or other graphics

1.6 FHD PTZ

Sl. No	Technical Spec	
1	Full Function USB Inter face : Full function USB interface, compatibility USB3.0 and USB2.0, support audio, support compressed video output, support UVC V1.1~V1.5 protocol.	
2	1080P Full HD : Apply Panasonic's 1/2.8 inch, 2.07 million effective pixels high quality HD CMOS sensor, can reach maximum 1920 x 1080 high resolution and achieve quality image.	
3	Ultra-high Frame Rate : The output frame rate up to 60fps in 1080P.	
4	72.5° Wide-angle Lens + 16x Digital Zoom : Use 72.5° wide-angle high quality lens, support 12x optical zoom, and 16x digital zoom.	
5	Low-light : High SNR of CMOS sensor combined with 2D and 3D noise reduction algorithm, effectively reduce the noise, even under low illumination conditions, picture can still keep clean and clear. The image signal-to-noise ratio is up to 55dB or more.	
6	PoE support : The wired network supports PoE power supply, control. Video and audio only need one network cable.	
7	Remote Control : Multiple controlling method,RS232,RS485,network and USB interface support for remote controlling.	
8	H.264 Slice/ H.264 SVC Support : Support Slice and SVC encoding mode, adapts to video conference of advance USB application.	
9	Dual stream(optioal) : Support two stream output (YUY2, MJPEG, H.264 each of both), reduce the host codec pressure	
10	Multiple inter faces : Support HDMI,USB3.0 and LAN interface can output HD video at the same time.	
11	Three power supply methods : Supports USB 5V power supply, 12V power adapter power supply and PoE power supply.	
12	Video System	1080P60,1080P50,1080P30,1080P25,720P60,720P50
13	Sensor	1/2.8", CMOS, Effective Pixel: 2.07M
14	Scanning Mode	Progressive
15	Lens	12x, f3.5mm ~ 42.3mm, F1.8 ~ F2.8
16	Digital Zoom	16x
17	Minimal Illumination	0.5 Lux @ (F1.8, AGC ON)
18	Shutter	1/30s ~ 1/10000s
19	White Balance	Auto, 3000K/Indoor, 4000K, 5000K/Outdoor, 6500K_1, 6500K_2, 6500K_3, One Push, Manual

Annexure

Sl. No	Technical Spec	
20	Backlight Compensation	Support
21	Digital Noise Reduction	2D&3D Digital Noise Reduction
22	Video S/N	≥55dB
23	Horizontal Angle of View	72.5° ~ 6.9°
24	Vertical Angle of View	44.8° ~ 3.9°
25	Horizontal Rotation Range	±170°
26	Vertical Rotation Range	-30° ~ +90°
27	Pan Speed Range	2.7° ~ 35.7°/s
28	Tilt Speed Range	2.7° ~ 31.5°/s
29	H & V Flip	Support
30	Image Freeze	Support
31	Number of Preset	255
32	Preset Accuracy	0.1°
33	USB Featured Operate System	Windows 7, Windows 8, Windows 10, Mac OS X, Linux, Android
34	Color System / Compression	YUV / H.264 / MJPEG
35	Video Format	YUY2 (ISOC): max to 1080P@60fps H.264 AVC: max to 1080P@60fps H.264 SVC(optional): max to 1080P@60fps MJPEG: max to 1080P@60fps
36	Audio on USB	Support
37	USB Video Communication Protocol	UVC 1.1~1.5
38	UVC PTZ	Support
39	Video Compression	H.264/MJPEG
40	Video Stream	Main Stream, Sub Stream
41	Main Stream Resolution	1920x1080,1280x720,1024x576,960x540,640x480,640x360
42	Sub Stream Resolution	1280x720,1024x576,720x480,720x408,640x360,320x240, 320x180
43	Video Bit Rate	32Kbps ~ 102400Kbps
44	Bit Rate Type	Variable Rate, Fixed Rate
45	Frame Rate	50Hz: 1fps ~ 50fps, 60Hz: 1fps ~ 60fps
46	Audio Compression	AAC
47	Audio Bit Rate Support protocols	96Kbps, 128Kbps, 256Kbps TCP/IP, HTTP, RTSP, RTMP, On vif, DHCP, Multicast, etc.
48	USB interface	1xUSB 3.0, Type-C jack
49	HD output	1xHDMI1.4b

Annexure

Sl. No	Technical Spec	
50	Network Interface	1xRJ45 : 10M/100M Ethernet
51	Audio Interface	1xLine In, 3.5mm Audio Interface
52	Communication Interface	1xRS232 In: 8pin Min DIN, Max Distance: 30m, Protocol:VISCA/PelcoD/Pelco-P 1xRS485: 2pin Phoenix Port, Max Distance: 1200m, Protocol: VISCA/Pelco-D/Pelco-P
53	Power Jack	JEITA type (DC IN 12V) /USB B type (DC IN 5V) /PoE
54	Input Voltage	DC 12V/DC 5V/PoE(802.3af)
55	Current Consumption	12V 1.0A(MAX)/5V 1.5A(MAX)
56	MTBF	>30000 hours

1.7 Pen Tablet Display

SL No	Technical Spec	
1	Resolution	3840 x 2160 (16:9) UHD
2	LCD Type	IPS
3	AG Glass	Anti-glare etched glass
4	Full Lamination	Yes
5	Contrast Ratio	1200:01:00
6	Brightness	220 cd/m ² (Max.)
7	Response Time	10 ms
8	Viewing Angle	89°/89° (H)/89°/89° (V) (Typical, CR > 10)
9	Gamut Volume	140% sRGB
10	Display Color	1.07 billion colors (10-bit)
11	Digital Pen	PW517
12	Pen Technology	Battery-Free Electromagnetic Resonance
13	Pen Resolution	5080 LPI
14	Pressure Sensitivity	8192 levels
15	Tilt Support	±60°
16	Sensing Height	10 mm
17	Report Rate	> 300 PPS
18	Accuracy	±0.3 mm (center), ±3 mm (corner)
19	Press Keys	None specified
20	Input Voltage	AC 100-240V, 50/60Hz
21	Output Voltage	19V 3A
22	Power Consumption	≤35W
23	Standby Consumption	≤0.4W
24	Working Temperature and Humidity	0-40°C, 20-80% RH
25	Storage Temperature and Humidity	-20°C to 60°C, 10-90% RH

1.8 Mic (RX-TX)

Annexure

SL. No	Technical Spec	
1	Product Name	DJI Mic Wireless Microphone System
2	Type	Wireless Lavalier Microphone
3	Compatibility	Smartphones, Cameras, Laptops
4	Channels	Dual-channel recording
5	Transmission Range	Up to 250 meters
6	Battery Life	Up to 15 hours
7	Charging Time	Approximately 1.5 hours
8	Input Connector	3.5mm TRS for camera; USB-C for charging
9	Audio Frequency Response	20 Hz - 20 kHz
10	Audio Bit Depth	16-bit

1.9 Commercial TV

SL. No	Technical Spec	
1	Memory Storage Capacity	16 GB
2	Ram Memory Installed Size	2 GB
3	Operating System	Web OS
4	Hardware Interface	USB , HDMI, Bluetooth 5.0
5	Graphics Coprocessor	G52 MC 1
6	Tuner Tochnology	PAL
7	Response Time	6 Milliseconds
8	Resolution	4K
9	Remote Control Type	IR
10	Display Technology	LED
11	Screen Display Size	55 Inches
12	Display Type	HDR 10 + HDR10 HLG
13	Viewing Angle	178 Degree
14	Images Aspect Ratio	0.672916667
15	Images Brightness	500 Nits
16	Image Contrast Ratio	50.00069444
17	Supported Image Type	GIF, JPEG
18	Intelligent voice recognition	yes
19	Resolution	3840 X 2160 Pixels
20	Supported Audio Format	MP3_audio ,Wma
21	Speaker Surround Sound Channel Configuration	Dolby Audio
22	Audio wattage	15 + 15 Watts
23	Speaker System	2.0 ch
24	Wattage	165Watts
25	Power Consumption Stand by Mode	>0.5W
26	Power Source	AC
27	Batteries Included	No
28	Batteries Required	Yes

Annexure

29	Refresh Rate	60HZ
30	Total Usb Ports	2
31	Connector Type	USB*2,HDMI * 3, Ethernet*1, WIFI (802.11AC), Bluetooth 5.0
32	Refresh Rate	220 hz
33	Real Angle Of View	178 Degrees

1.10 IPS Monitor

SL. No	Technical Spec	
1	Monitor Type	IPS (In-Plane Switching)
2	Screen Size	22 inches
4	Resolution	1920 x 1080 Full HD
5	Aspect Ratio	16:09
6	Brightness	250 cd/m ²
7	Contrast Ratio	1000:01:00
8	Color Gamut	Adobe RGB 99%
9	Response Time	5 ms
10	Refresh Rate	60 Hz
11	Viewing Angle	178° horizontal / 178° vertical
12	Connectivity	HDMI, DisplayPort
13	Ports	2 x HDMI, 1 x DisplayPort
14	Built-in Speakers	No
15	Adjustability	Tilt, Height Adjustable, Swivel
16	Panel Technology	IPS
17	Power Consumption	25W (typical), 30W (max)

1.11 Speaker

SL. No	Technical Spec	
1	1XMain speaker	
2	1XDeputy speaker	
3	2XMounted plates	
4	1X5 meters speaker cable	
5	1XPower line for speaker	
6	High quality speaker for Classroom/Conference room.	

Annexure

7	Line Input and Line output for integration with Computer.
8	RCA audio Input function meets the demands of multimedia teaching. Fuse Socket makes the equipment is safe enough for any application. Speaker with wireless MIC and Ampifier
9	Choice of mounting on the wall or put on table.
10	Active + Passive speaker of 50 watt in total.
11	Fuse Socket makes the equipment is safe enough for any application.
12	Power Supply: AC100V-AC240V
13	Output Impedance: 4Ω
14	Latency Time: 1.1-2ms
15	SNR: 89dB
16	Digital audio with 64K sampling ratio and 16bit resolution
17	GFSK digital modulation.
18	Distortion: 1.5%@1KHz
19	Output Power: 40W(2x20W)

1.11 Wireless Presenter

SL. No	Technical Spec
1	Dual outputs support content sharing from same source or different sources
2	Support up to 4 sources shared in a single screen
3	Support wireless sharing from Airplay, Miracast, Chromecast, App, dongles
4	Support both 1080P and 4K dongles
5	Support 4K HDMI input as content sharing
6	Support USB cam/mic/speaker transmission over WiFi
7	Support camera switching
8	Support USB devices switching between local room PC and wireless laptop
9	Support display content sharing to participant over video conference
10	Support 2 LAN ports for network isolating between staff and guest
11	Touch back function supported with both wired and wireless connection (App and dongles)
12	Provide analog audio breakout
13	Provide both RS232 and Telnet control
14	TA FW upgrade

1.12 Cables & Accessories

SL No	Technical Spec	
10mtr USB 3G Cable for Camera		
1	Ambient temperature	-25°C ~ + 70°C
2	Insulation resistance	≥100 MΩ
3	Contacts resistance	≤5mΩ
4	Insert/ Housing	PBT
5	Orientation	Straight
6	Wire Termination	Soldering

Annexure

7	Cable jacket material	PVC
8	Connection type	Double ended cable
9	Reference Standard	USB3.0
10	Overmold/ Shell	PVC/TPU
11	Rated current	1.8 A
HDMI Cable		
1	Conductor	Bare copper
2	Jacket	PVC
3	Connector	HDMI Plug 19P, Durable 24K gold plated
4	Housing	PVC moulded with metal shell
5	Shielding	Aluminum foil and Braiding
6	Color	Black
7	Ferrite core	Yes
8	Application	widely used in HDTV, EVD, HDVD, AMP, Home Theater, DVD player, projector, PS3, Xbox360, set-top boxes, Video wall etc.
PPT Presenter		
1	Wireless Laser Presenter PowerPoint PPT Presenter Slide Changer Controller with USB Receiver Battery Indicator	
Speaker Cable		
1	Conductor Size	2x20 AWG
2	Material	Tinned Copper
3	Core	2 core, Red / Black PVC insulated, twisted & diameter 1.85 - 2mm
4	Drain Wire	20 AWG, Tinned Copper
5	Screening	AL-foil / Mylar overlap 25% Min.
6	Jacket	Black colour PVC insulated with diameter 5.5 - 5.8mm
7	Temperature Rating	75°C
8	Insulation Resistance	DC-500V 10mΩ/km Min at 20°C
9	Conductor Resistance	20AWG - 13.7Ω/km Max at 20°C
10	Impedance	40 - 100Ω
11	Length	100 Mtrs
Power Cable		
1	Type	Power Cord
2	Cable Type	Standard 100 Mbps Speed
3	Connector 1	3 Pin Male
4	Connector 2	Female
5	Connector Material	Copper
6	Cable	Round
7	Cable Frequency	50 MHz
8	Compatible Devices	Computer, Printer, Panel, TV
9	Color	Black/White
10	Conductor	Copper
11	Core	Copper
12	Jacket	PVC Jacket
13	Insulation	Copper Insulation

Annexure

14	Corrosion Resistant	Yes
15	Maximum Current Rating	13 A
HDMI Switcher		
1	Input Interface	HDMI x 3
2		Support 4K/2K@30Hz and 4K/2K (YCbCr420) @60Hz resolution
3		Built-in input Equalizer, can automatically adjust the input signal
4	Output Interface	HDMI x 1
5		Built-in output drive regulator, can automatically adjust the output signal amplitude
6	Interface Standard	Support HDMI 1.4b and DVI1.0 standard
7	Transfer Speed	Up to 3Gbps
HDMI Splitter		
1	HDMI Source input port	1
2	Display Device output port	4
3	Source port connector	19pin HDMI
4	Display device port connector	19pin HDMI
5	HDCP compliant	Yes
6	Signal link range	1920x1080p@60Hz
7	Bandwidth	up to 225MHz
8	Signal Speed	Up to 6.75Gbps
9	Deep colour	30/36 Bit
10	HDMI version	HDMI 1.4v
11	The cable standard	26awg
12	Vertical frequency range	60Hz
13	Power consumption (max)	24 Watts
14	Working voltage	DC5V
15	Operation temperature	-15°C to 40°C
16	The Length of input cable	≤10M
17	The Length of Output cable	≤20M
Cat6 Cable		
1	Material	CAT.6 CCA Patch Cord
2	Cable Color	Red, Yellow, Blue, Gray, Black
3	Characteristic Impedence	100±150 @ 1 ~ 250MHz
4	Conductor Construction	Copper Coated Aluminum
5	Conductor Resistance	93.80/km/20°C max
6	Conductor Size	24AWG x 4pairs
7	Connector Type	50 micron gold-plated connector
8	Dielectric Strength	AC 1.75kV/0.15sec
9	Flame Retardant Test	CM
10	Operating Temperature	20°C ~ 85°C
11	Storage Temperature	40°C ~ 60°C
12	Insulation Material	HDPE
13	Jacket Diameter	5.9±0.15mm
14	Jacket Material	PVC
15	Mutual Capacitance	56pF/m max

Annexure

16	Propagation Delay	536nS/100m max @ 550MHz
17	Rating	75°C, 300V
18	Spark Test	2.5kV
19	Standards Compliance	ISO/IEC 11801; TIA/EIA-568-B.2
20	Structural Return Loss	8.6dB min at 550MHz
Green Screen		
1	Size	2.7 m x 3 m (9 ft x 10 ft)
2	Material	100% polyester, wrinkle-resistant
3	Large Size	Suitable for full-body shots and larger setups
4	Portable	Comes with a backdrop stand and carrying bag
5	Versatility	Can be used for photography and video production
Light		
Video Light (Soft box)		
1	Type	Professional LED Video Light
2	Power Output	37W
3	Color Temperature	[Enter Color Temperature, e.g., 5600K]
4	Brightness	[Enter Brightness, e.g., Adjustable]
5	Compatibility	Tripods, Monopods, Cameras, Table Stand, Camcorder
6	Use Case	YouTube Video, Product Photography, Makeup Shoot
7	Material	Aluminium/ Plastic
Panel Light		
8	Type	LED Panel Light
9	Power Output	36W
10	Size	2x2 Feet (60x60 cm)
11	Colour Temperature	[Enter Color Temperature, e.g., 4000K, 6500K]