CORRIGENDUM - V

TENDER NO. WTL/PNRD/VC/23-24/078 dated: 16.03.2024

S1. No	Section	Clause No. / Name	Page No.	Existing Description	To be Read As
1.	SECTION – D	ELIGIBILITY CRITERIA	27	Aggregate turnover of the Video conferencing system OEM should be minimum of Rs. 250.00 (Two Hundred Fifty) Crore during last three financial years (considering FY – 2020-21, 2021-22, 2022-2023). Supporting documents must be submitted.	Aggregate turnover of the Video conferencing system OEM should be minimum of Rs. 150.00 (One Hundred Fifty) Crore during last three financial years (considering FY – 2020-21, 2021-22, 2022-2023). Supporting documents must be submitted.
2.	SECTION – D	ELIGIBILITY CRITERIA	27	Aggregate turnover of the Interactive Board OEM should be minimum of Rs. 250.00 (Two Hundred Fifty) Crore during last three financial years (considering FY – 2020-21, 2021-22, 2022-2023). Supporting documents must be submitted.	Aggregate turnover of the Interactive Board OEM should be minimum of Rs. 150.00 (One Hundred Fifty) Crore during last three financial years (considering FY – 2020-21, 2021-22, 2022-2023). Supporting documents must be submitted.
3.	SECTION – D	ELIGIBILITY CRITERIA			Newly Added Annual turnover of the 55" Display OEM should be minimum of Rs. 1500.00 (One Thousand Five Hundred) Crore per year during last three financial years (considering FY – 2020-21, 2021-22, 2022-2023). Supporting documents must be submitted.
4.	Section - O	Eligibility criteria for OEMs for Integrated VC System For Zone - 1	Corrigendum - IV	Eligibility criteria for OEMs for Integrated VC System	Modified. Revised Section – O enclosed
5.	Section – O	Eligibility criteria for OEMs for Integrated VC System For Zone – 2	Corrigendum – IV	Eligibility criteria for OEMs for Integrated VC System	Modified. Revised Section – O enclosed
6.	Section – O	Eligibility criteria for OEMs for Integrated VC System For Zone – 3	Corrigendum - IV	Eligibility criteria for OEMs for Integrated VC System	Modified. Revised Section – O enclosed

Section - O

$\frac{\textbf{TECHNICAL SPECIFICATION COMPLIANCE STATEMENT}}{\textbf{FOR Zone} - 1}$

1. Eligibility criteria for OEMs for Integrated VC System

Sl. No.	General Conditions	Compliance with Document / Undertaking
1	Complete camera, speakerphone, remote control and microphone should single OEM solution.	
2	System should, support USB Connectivity for Video conference	
3	The camera and speakerphone should have CB/UL,CE,FCC and RoHS certifications.	
4	The Systems Should have ISO 9001:2015	
5	The OEM Must have valid ISO 9001:2015,ISO 45001:2018, ISO 27001:2022 and ISO 14001:2015 Certified Company	
6	Make In India OEM	
7	OEM for the system should be listed in India for more than 15 years as on bid calling date.	
8	Service centre in each of the metro cities : Kolkata, Delhi ,Mumbai , Bangalore , Chennai.	
9	The OEM must not be blacklisted or banned by any State/Central Government, Semi-Government or PSU and any other GOVT. organization in INDIA	

SlNo	Feature	Specification	Compliance (Y/N)	Remarks
		Complete camera, speakerphone, remote control and microphone should single OEM solution.		
		System should, support USB Connectivity for Video conference		
		System must have all required certification CE, FCC, ROHS & CB certification.		
		System should be Indian Standard: 9000 certified		
1		OEMforthesystemshouldbeISO9001:2008certified.		
	General Requirement (OEM	All required components of the system should have Make In India OEM		

		D	
		Preset : 255 or above	
		All necessary cables for all the components, power adaptors, regional plugs, quick start guide along with the mounting bracket should be supplied by the OEM.	
		Buttons:- Mute Mic, Mute Speaker, Vol Up/Down buttons. USB port for software Video- calling.	
	Integrated Speaker	Audio Technology : Must support Echo cancellation, Noise reduction,	
3	phone	Must have full duplex performance for real time communication.	
		Frequency response : 100hz - 22 kHz	
		Noise reduction 18dB	
		92DB	
		Built in Accoustic Echo Cancellation	
		Four inbuilt omni-directional microphones supporting 20-foot or more diameter range	
		Frequency response : 100hz - 22 kHz	
		Noise reduction 18dB	
4	Integrated Micro phones	System should be supplied with atleast 2 expansion microphones to increase coverage for large conference rooms.	
		Integrated microphone and supported expansion microphone should have mute/unmute button so that user sitting at any corner of conference room have provision to mute/unmute.with LED indication on each ofmicrophone.	
		Noise reduction 18dB	
		Type : Omni-directional	
5	Expansion Micro phones	Should support noise canceling individually.	
		Frequency response : 100hz - 22 kHz	
		LED color indicator : Green -active call ; Red -microphone Mute.	
6	Cable Management and ambience	System should support cable manager for connection of all components in system so that the USB cable (for camera & speakerphone) with 3mts of minimum length is connected to end device(laptop/Mac/Codec/desktop or thin client)	

		All necessary cables for all the components, power adaptors, regional plugs, quick startguide along with the mounting bracket should be supplied by the OEM.	
		Type: Infrared with removable / replaceable batteries.	
7	Remote Control	System should be supplied with all-in-one remote control to manage Camera (Pan,Tilt,Zoom, Preset) Speakerphone Volume control through Bottom (mute /unmute)	
8	Operating Temperature	Camera should operate from -10 to 40degree	

2. Minimum Technical Specification of 4K LED Interactive Touch Panel

Qty.				
Make				
Model				
S1. No.	Component	Minimum Specification	Specification (Quoted / Applicable – by the bidder)	Complied (Yes / No)
1.	Display Panel Diagonal size	65 Inches or higher		
2.	Resolution	3840 x 2160 (4K or Higher)		
3.	Display Colour	1.07 Billion or Higher		
4.	Brightness	≥400 cd/m² or better		
5.	Viewing Angle	±178 °or better viewing angle		
6.	Contrast ratio	1200:1		
7.	Dynamic Contrast Ratio	30000:1		
8.	Response Time	Not more than 8 ms		
9.	Lifetime	50,000 hours or more		
10.	Speakers	2 x 18 Watts or Higher		
11.	Deployment of Touch Technology	Advanced Infrared		
12.	Thickness of the touch glass	4mm Toughened Glass with 9H Toughness or better		
13.	Surface technology	Anti-Glare		
14.	Touch accuracy	1mm or better		
15.	Touch Points in Windows	Must have a touch capability of minimum 20 points		
16.	Front Interface	HDMI in*1, USB touch*1,USB3.0*2		

17.	Inputs	HDMI in*2,VGA*1, VGA audio in*1,USB2.0*1,Public USB3.0*1, USB touch*1, LAN in*1	
18.	Outputs	SPDIF out*1,Audio Out	
19.	Other	RS232*1	
20.	СРИ	Quad-core * A55 1.5GHz or better	
21.	GPU	G52 2EE MC1@550MHz or better	
22.	Android version	Android 11.0 or Higher (With Play store)	
23.	Built-in Software:	Whiteboard, File manager, Screen mirroring, Chrome, googleplaystore, Youtube, WPS, Welcome Page, Settings, Calculater, User Manual, Float tool, Side tool bar, Note, Vote, Screen recording.,Wireless Content sharing, text recognition.	
24.	Inbuilt WIFi	Dual WIFI (5G & 2.4G), Dual Hotspot (5G & 2.4G) or better	
25.	Bluetooth	BT5.0 or better	
26.	RAM	4 GB or Higher	
27.	ROM	32 GB or Higher	
28.	Certification	BIS (Indian), CE, FCC & ROHS certification. ISO 9001:2015,ISO 45001:2018, ISO 27001:2013 and ISO 14001:2015 Certified Company. (Related certificate copy required)	
29.	Warranty	3 Years or Higher.	

OEM Eligibility Criteria for 55" Display:

General Conditions	Compliance with Document from OEM
OEM should have presence in India for more than 10 years	
The manufacturer should have minimum annual turnover of Rupees 1500 Crores (each year) during last three financial years.	
OEM should have its legal Office in West Bengal	
OEM should have complete direct service set-up in West Bengal with a service team of minimum 2 trained Service Manager/Engineers on OEM's payroll. They should have either Bachelor / Diploma degree	

OEM Should have ISO 9001:2015 & BS OHSAS 18001:2007 or ISO45001:2018 certifications.	
The OEM must not be blacklisted or banned by any State/Central Government, Semi-Government or PSU and any other GOVT. organization in INDIA	

3. Minimum Technical Specification of Specification for 55" Display

Qty.				
Make				
Model				
S1. No.	Feature	Minimum Specification	Specification (Quoted / Applicable – by the bidder)	Complied (Yes / No)
1.	Display Size(Diagonal)	55"		
2.	Resolution	3840x2160		
3.	Backlight Unit Type	Direct / Edge		
4.	Brightness	300 nits or above		
5.	Dynamic Contrast Ratio(Dynamic MCI(Hz))	10,00,000:1		
6.	Static(Panel) Contrast Ratio	1,200:1		
7.	Refresh Rate	60Hz		
8.	HDR(10PRO/HLG)			
9.	Speaker (Sound Output)	10W + 10 W		
10.	Input Interface	HDMI IN(3(2.0)), Headphone Out (Phone Jack type),RS232(D-SUB9 pin/Phone Jack)(Phone Jack 4 Pin)		
11.	Jack Interface	USB 2.0,Digital Audio Out (Optical), External Speaker Out(3.5mm Phone Jack), RJ45(Usage Purpose) (LAN)		
12.	Power Supply (VoltageHz)	AC 120V-50/60 Hz		
13.	Typical Power Consumption	145 W		
14.	Safety Certification	CB,CU,TR		
15.	EMC	CE		
16.	Smart Features	Web Browser, Pre-Loaded App, Soft AP, Wi-Fi (802.11ac), Bluetooth, HDMI- ARC		
17.	Screen Share	Miracast, Smart Share		

4. Minimum Technical Specification of UPS

Qty.				
Make				
Model				
S1. No.	Feature	Minimum Specification	Specification (Quoted / Applicable – by the bidder)	Complied (Yes / No)
1.	Capacity	Capacity: 1KV		
2.	Input Voltage range	140Vac - 300Vac		
3.	Input Frequency	40-70Hz		

4.	Output on battery Voltage	220/230/240Vac±10%	
5.	Automatic Voltage Regulation (AVR)	Double Boost/Single Buck	
6.	On Battery Frequency	50/60Hz ± 1%	
7.	Outlets - Total	4	
8.	Battery Type	Sealed lead acid battery	
9.	Battery Quantity	2	
10.	Backup Time	15 mins	
11.	Audible Alarm	Alarm when on battery backup mode, Low battery, overload.	
12.	Operating Temperature	+ 32°F to 104° F / 0° C to 40° C	
13.	Operating Humidity	0% - 90% non-condensing	
14.	Operating Elevation	0-3000 meters	
15.	Storage Temperature	- 4°F to 122° F / -20° C to 50° C	
16.	Storage Relative Humidity	0% - 90%	
17.	Online Thermal Dissipation	45BTU/hr	
18.	Manufacturer Credentials	Manufacturer should be ISO 9001, ISO14001 & 18001, BIS Certified	
19.	Warranty	Three (3) years on-site comprehensive warranty including battery from OEM. OEM certificate should be submitted	

Section - O

$\frac{\textbf{TECHNICAL SPECIFICATION COMPLIANCE STATEMENT}}{FOR \ \textbf{Zone} - 2}$

1. Eligibility criteria for OEMs for Integrated VC System

S1. No.	General Conditions	Compliance with Document / Undertaking
1	Complete camera, speakerphone, remote control and microphone should single OEM	

	solution.	
2	System should, support USB Connectivity for Video conference	
3	The camera and speakerphone should have CB/UL,CE,FCC and RoHS certifications.	
4	The Systems Should have ISO 9001:2015	
5	The OEM Must have valid ISO 9001:2015,ISO 45001:2018, ISO 27001:2022 and ISO 14001:2015 Certified Company	
6	Make In India OEM	
7	OEM for the system should be listed in India for more than 15 years as on bid calling date.	
8	Service centre in each of the metro cities : Kolkata, Delhi ,Mumbai , Bangalore , Chennai.	
9	The OEM must not be blacklisted or banned by any State/Central Government, Semi-Government or PSU and any other GOVT. organization in INDIA	

SlNo	Feature	Specification	Compliance (Y/N)	Remarks
		Complete camera, speakerphone, remote control and		
		microphone should single OEM solution.		
		System should, support USB Connectivity for Video conference		
		System must have all required certification CE, FCC, ROHS & CB certification.		
		System should be Indian Standard: 9000 certified		
		OEMforthesystemshouldbeISO9001:2008certified.		
		All required components of the system should have Make In India OEM		
		OEM for the system should be listed in India 15+ Years. (Valid		
,	General	Certificate of incorporation required).		
1	Requirement (OEM	Service centre in each of the metro cities : Kolkata, Delhi		
	Eligibility Criteria)	Mumbai , Bangalore .		
		OEM should not be a foreign brand. OEM should be Make In		
		India, to promote the local brands under the Govt. Of India		
		'Make in India' initiative.		
		OEM should be Make In India OEM & Turnover 100 cr last 3 Years		
		USB PLUG & Play Device		
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I	I	Createry should support should support an Doord H 264 or		1
		System should support should support on Board H.264 or	ļ	
		better on board Encoding to save PC processing power and		
		should support USB 2.0 Plug and play		
		Output: H.264 ,USB		
		Optical Resolution: 2 MP (1080p 30fps or above).		
		Sensor size: 1/2.7 ', CMOS		
		High SNR of CMOS sensor combined with 2D and 3D noise		
		reduction algorithm, effectively reduce the noise, even under	ļ	
		low illumination conditions		
	Camera			
_		Port:USB2.0 for end device connectivity.		
2		FOV: Diagonal 68°,Horizontal 55°and vertical 42°or above.		
		Aperature : F2.0 ~ 3.0		
		Should support autofocus.		
		It should also be possible for user to control camera via simple		
		software application in PC & Mac.		
		Lens Should be sony lens		
		Support RS232 for Camera Control		
		The camera must support at least 10x optical zoom,16x Digital zoom		
		Camera Control: Standard VISCA / Mini din 6pin or equivalent.		
		The camera should have a PAN rotation angle of -170 degree to +170 Tilt rotation angle of -30 degrees to +90degree or better		
		Minimum illumination : 0.5 lux		
		Preset : 255 or above		
		All necessary cables for all the components , power		
		adaptors, regional plugs, quick start guide along with the mounting bracket should be supplied by the OEM.		
	Integrated Speaker	Buttons:- Mute Mic, Mute Speaker, Vol Up/Down buttons. USB port for software Video- calling.		
3	phone			
	prosec	Audio Technology : Must support Echo cancellation, Noise reduction,		
			L	

		Must have full duplex performance for real time communication.	
		Frequency response : 100hz - 22 kHz	
		Noise reduction 18dB	
		92DB	
		Built in Accoustic Echo Cancellation	
		Four inbuilt omni-directional microphones supporting 20-foot or more diameter range	
		Frequency response : 100hz - 22 kHz	
		Noise reduction 18dB	
4	Integrated Micro phones	System should be supplied with atleast 2 expansion microphones to increase coverage for large conference rooms.	
		Integrated microphone and supported expansion microphone should have mute/unmute button so that user sitting at any corner of conference room have provision to mute/unmute.with LED indication on each ofmicrophone.	
		Noise reduction 18dB	
		Type : Omni-directional	
5	Expansion Micro phones	Should support noise canceling individually.	
		Frequency response : 100hz - 22 kHz	
		LED color indicator : Green -active call ; Red -microphone Mute.	
6	Cable Management and ambience	System should support cable manager for connection of all components in system so that the USB cable (for camera & speakerphone) with 3mts of minimum length is connected to end device(laptop/Mac/Codec/desktop or thin client)	
		All necessary cables for all the components, power adaptors, regional plugs, quick startguide along with the mounting bracket should be supplied by the OEM.	
		Type: Infrared with removable / replaceable batteries.	
7	Remote Control	System should be supplied with all-in-one remote control to manage Camera (Pan,Tilt,Zoom, Preset) Speakerphone Volume control through Bottom (mute /unmute)	
0	Operating	Camera should onevate from 10 to 40dogrees	
8	Temperature	Camera should operate from -10 to 40degree	
	1		

2. Minimum Technical Specification of 4K LED Interactive Touch Panel

Qty.				
Make				
Model				
S1. No.	Component	Minimum Specification	Specification (Quoted / Applicable – by the bidder)	Complied (Yes / No)
1.	Display Panel Diagonal size	65 Inches or higher		
2.	Resolution	3840 x 2160 (4K or Higher)		
3.	Display Colour	1.07 Billion or Higher		
4.	Brightness	≥400 cd/m² or better		
5.	Viewing Angle	±178 °or better viewing angle		
6.	Contrast ratio	1200:1		
7.	Dynamic Contrast Ratio	30000:1		
8.	Response Time	Not more than 8 ms		
9.	Lifetime	50,000 hours or more		
10.	Speakers	2 x 18 Watts or Higher		
11.	Deployment of Touch Technology	Advanced Infrared		
12.	Thickness of the touch glass	4mm Toughened Glass with 9H Toughness or better		
13.	Surface technology	Anti-Glare		
14.	Touch accuracy	1mm or better		
15.	Touch Points in Windows	Must have a touch capability of minimum 20 points		
16.	Front Interface	HDMI in*1, USB touch*1,USB3.0*2		
17.	Inputs	HDMI in*2,VGA*1, VGA audio in*1,USB2.0*1,Public USB3.0*1, USB touch*1, LAN in*1		
18.	Outputs	SPDIF out*1,Audio Out		
19.	Other	RS232*1		
20.	СРИ	Quad-core * A55 1.5GHz or better		
21.	GPU	G52 2EE MC1@550MHz or better		
22.	Android version	Android 11.0 or Higher (With Play store)		

23.	Built-in Software:	Whiteboard, File manager, Screen mirroring, Chrome, googleplaystore, Youtube, WPS, Welcome Page, Settings, Calculater, User Manual, Float tool, Side tool bar, Note, Vote, Screen recording.,Wireless Content sharing, text recognition.	
24.	Inbuilt WIFi	Dual WIFI (5G & 2.4G), Dual Hotspot (5G & 2.4G) or better	
25.	Bluetooth	BT5.0 or better	
26.	RAM	4 GB or Higher	
27.	ROM	32 GB or Higher	
28.	Certification	BIS (Indian), CE, FCC & ROHS certification. ISO 9001:2015,ISO 45001:2018, ISO 27001:2013 and ISO 14001:2015 Certified Company. (Related certificate copy required)	
29.	Warranty	3 Years or Higher.	

OEM Eligibility Criteria for 55" Display:

General Conditions	Compliance with Document from OEM
OEM should have presence in India for more than 10 years	
The manufacturer should have minimum annual turnover of Rupees 1500 Crores (each year) during last three financial years.	
OEM should have its legal Office in West Bengal	
OEM should have complete direct service set-up in West Bengal with a service team of minimum 2 trained Service Manager/Engineers on OEM's payroll. They should have either Bachelor / Diploma degree	
OEM Should have ISO 9001:2015 & BS OHSAS 18001:2007 or ISO45001:2018 certifications.	
The OEM must not be blacklisted or banned by any State/Central Government, Semi-Government or PSU and any other GOVT. organization in INDIA	

3. Minimum Technical Specification of Specification for 55" Display

Qty.				
Make				
Model				
S1. No.	Feature	Minimum Specification	Specification (Quoted / Applicable – by the bidder)	Complied (Yes / No)

1.	Display Size(Diagonal)	55"	
2.	Resolution	3840x2160	
3.	Backlight Unit Type	Direct / Edge	
4.	Brightness	300 nits or above	
5.	Dynamic Contrast	10,00,000:1	
	Ratio(Dynamic		
	MCI(Hz))		
6.	Static(Panel)	1,200:1	
	Contrast Ratio		
7.	Refresh Rate	60Hz	
8.	HDR(10PRO/HLG)		
9.	Speaker (Sound	10W + 10 W	
	Output)		
10.	Input Interface	HDMI IN(3(2.0)), Headphone	
		Out (Phone Jack type),RS232(D-SUB9	
		pin/Phone Jack)(Phone Jack 4 Pin)	
11.	Jack Interface	USB 2.0,Digital Audio Out (Optical),	
		External Speaker Out(3.5mm Phone	
		Jack), RJ45(Usage Purpose) (LAN)	
12.	Power Supply	AC 120V-50/60 Hz	
	(VoltageHz)	_ ,	
13.	Typical Power	145 W	
	Consumption		
14.	Safety Certification	CB,CU,TR	
15.	EMC	CE	
16.	Smart Features	Web Browser, Pre-Loaded App, Soft	
		AP, Wi-Fi (802.11ac), Bluetooth,	
		HDMI- ARC	
17.	Screen Share	Miracast, Smart Share	

4. Minimum Technical Specification of UPS

Qty.				
Make				
Model				
Sl. No.	Feature	Minimum Specification	Specification (Quoted / Applicable – by the bidder)	Complied (Yes / No)
1.	Capacity	Capacity: 1KV		
2.	Input Voltage range	140Vac - 300Vac		
3.	Input Frequency	40-70Hz		
4.	Output on battery Voltage	220/230/240Vac±10%		
5.	Automatic Voltage Regulation (AVR)	Double Boost/Single Buck		
6.	On Battery Frequency	50/60Hz ± 1%		
7.	Outlets - Total	4		
8.	Battery Type	Sealed lead acid battery		
9.	Battery Quantity	2		
10.	Backup Time	15 mins		

11.	Audible Alarm	Alarm when on battery backup mode, Low battery, overload.	
12.	Operating Temperature	+ 32°F to 104° F / 0° C to 40° C	
13.	Operating Humidity	0% - 90% non-condensing	
14.	Operating Elevation	0-3000 meters	
15.	Storage Temperature	- 4°F to 122° F / -20° C to 50° C	
16.	Storage Relative Humidity	0% - 90%	
17.	Online Thermal Dissipation	45BTU/hr	
18.	Manufacturer Credentials	Manufacturer should be ISO 9001, ISO14001 & 18001, BIS Certified	
19.	Warranty	Three (3) years on-site comprehensive warranty including battery from OEM. OEM certificate should be submitted	

Section - O

$\frac{\textbf{TECHNICAL SPECIFICATION COMPLIANCE STATEMENT}}{FOR \ \textbf{Zone} - 3}$

1. Eligibility criteria for OEMs for Integrated VC System

S1. No.	General Conditions	Compliance with Document / Undertaking
1	Complete camera, speakerphone, remote control and microphone should single OEM solution.	
2	System should, support USB Connectivity for Video conference	
3	The camera and speakerphone should have CB/UL,CE,FCC and RoHS certifications.	
4	The Systems Should have ISO 9001:2015	
5	The OEM Must have valid ISO 9001:2015,ISO 45001:2018, ISO 27001:2022 and ISO 14001:2015 Certified Company	
6	Make In India OEM	
7	OEM for the system should be listed in India for more than 15 years as on bid calling date.	
8	Service centre in each of the metro cities : Kolkata, Delhi ,Mumbai , Bangalore ,	

	Chennai.	
9	The OEM must not be blacklisted or banned by any State/Central Government, Semi-	
	Government or PSU and any other GOVT. organization in INDIA	

SlNo	Feature	Specification	Compliance (Y/N)	Remarks
		Complete camera, speakerphone, remote control and microphone should single OEM solution.		
		System should, support USB Connectivity for Video conference		
		System must have all required certification CE, FCC, ROHS & CB certification.		
		System should be Indian Standard: 9000 certified		
		OEMforthesystemshouldbeISO9001:2008certified.		
		All required components of the system should have Make In India OEM		
1	General	OEM for the system should be listed in India 15+ Years. (Valid Certificate of incorporation required).		
•	Requirement (OEM Eligibility Criteria)	Service centre in each of the metro cities : Kolkata, Delhi ,Mumbai , Bangalore .		
		OEM should not be a foreign brand. OEM should be Make In India, to promote the local brands under the Govt. Of India 'Make in India' initiative.		
		OEM should be Make In India OEM & Turnover 100 cr last 3 Years		
		USB PLUG & Play Device		
		System should support should support on Board H.264 or better on board Encoding to save PC processing power and should support USB 2.0 Plug and play		
		Output: H.264 ,USB		
		Optical Resolution: 2 MP (1080p 30fps or above).		
		Sensor size: 1/2.7 ', CMOS		
		High SNR of CMOS sensor combined with 2D and 3D noise reduction algorithm, effectively reduce the noise, even under low illumination conditions		
2	Camera	Port:USB2.0 for end device connectivity.		

		FOV: Diagonal 68°, Horizontal 55° and vertical 42° or above.	
2		Aperature : F2.0 ~ 3.0	
		Should support autofocus.	
		It should also be possible for user to control camera via simple software application in PC & Mac.	
		Lens Should be sony lens	
-		Support RS232 for Camera Control	
		The camera must support at least 10x optical zoom, 16x Digital zoom	
		Camera Control: Standard VISCA / Mini din 6pin or equivalent.	
		The camera should have a PAN rotation angle of -170 degree to +170 Tilt rotation angle of -30 degrees to +90degree or better	
		Minimum illumination : 0.5 lux	
		Preset : 255 or above	
		All necessary cables for all the components, power adaptors, regional plugs, quick start guide along with the mounting bracket should be supplied by the OEM.	
		Buttons:- Mute Mic, Mute Speaker, Vol Up/Down buttons. USB port for software Video- calling.	
	Integrated Speaker	Audio Technology : Must support Echo cancellation, Noise reduction,	
1 .5	phone	Must have full duplex performance for real time communication.	
		Frequency response : 100hz - 22 kHz	
		Noise reduction 18dB	
		92DB	
		Built in Accoustic Echo Cancellation	
		Four inbuilt omni-directional microphones supporting 20-foot or more diameter range	
4	Integrated Micro phones	Frequency response : 100hz - 22 kHz	
J	•	Noise reduction 18dB	

		System should be supplied with atleast 2 expansion microphones to increase coverage for large conference rooms.	
		increphones to increase develope for large definerence recens.	
		Integrated microphone and supported expansion microphone	
		should have mute/unmute button so that user sitting at any	
		corner of conference room have provision to mute/ unmute.with LED indication on each ofmicrophone.	
		minute: with him indication on each officiophone.	
		Noise reduction 18dB	
	7	Type : Omni-directional	
5	Expansion Micro phones	Should support noise canceling individually.	
		Frequency response : 100hz - 22 kHz	
		LED color indicator : Green -active call ; Red -microphone Mute.	
	Cable Management and ambience	System should support cable manager for connection of all	
6		components in system so that the USB cable (for camera &	
		speakerphone) with 3mts of minimum length is connected	
		to end device(laptop/Mac/Codec/desktop or thin client)	
		All necessary cables for all the components , power	
		adaptors , regional plugs, quick startguide along with	
		the mounting bracket should be supplied by the OEM.	
		Type: Infrared with removable / replaceable batteries.	
7	Remote Control	System should be supplied with all-in-one remote	
		control to manage Camera (Pan,Tilt,Zoom, Preset)	
		Speakerphone Volume control through Bottom (mute /unmute)	
_	Operating		
8	Temperature	Camera should operate from -10 to 40degree	

2. Minimum Technical Specification of 4K LED Interactive Touch Panel

Qty.				
Make				
Model				
S1. No.	Component	Minimum Specification	Specification (Quoted / Applicable – by the bidder)	Complied (Yes / No)
1.	Display Panel Diagonal size	65 Inches or higher		
2.	Resolution	3840 x 2160 (4K or Higher)		
3.	Display Colour	1.07 Billion or Higher		
4.	Brightness	≥400 cd/m² or better		
5.	Viewing Angle	±178 °or better viewing angle		

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6.	Contrast ratio	1200:1		
ο.	Contrast ratio	1200:1		
7.	Dynamic Contrast Ratio	30000:1		
8.	Response Time	Not more than 8 ms		
9.	Lifetime	50,000 hours or more		
10.	Speakers	2 x 18 Watts or Higher		
11.	Deployment of Touch Technology	Advanced Infrared		
12.	Thickness of the touch glass	4mm Toughened Glass with 9H Toughness or better		
13.	Surface technology	Anti-Glare		
14.	Touch accuracy	1mm or better		
15.	Touch Points in Windows	Must have a touch capability of minimum 20 points		
16.	Front Interface	HDMI in*1, USB touch*1,USB3.0*2		
17.	Inputs	HDMI in*2,VGA*1, VGA audio in*1,USB2.0*1,Public USB3.0*1, USB touch*1, LAN in*1		
18.	Outputs	SPDIF out*1,Audio Out		
19.	Other	RS232*1		
20.	CPU	Quad-core * A55 1.5GHz or better		
21.	GPU	G52 2EE MC1@550MHz or better		
22.	Android version	Android 11.0 or Higher (With Play store)		
23.	Built-in Software:	Whiteboard, File manager, Screen mirroring, Chrome, googleplaystore, Youtube, WPS, Welcome Page, Settings, Calculater, User Manual, Float tool, Side tool bar, Note, Vote, Screen recording., Wireless Content sharing, text recognition.		
24.	Inbuilt WIFi	Dual WIFI (5G & 2.4G), Dual Hotspot (5G & 2.4G) or better		
25.	Bluetooth	BT5.0 or better		
26.	RAM	4 GB or Higher		
27.	ROM	32 GB or Higher		
28.	Certification	BIS (Indian), CE, FCC & ROHS certification. ISO 9001:2015,ISO		

		45001:2018, ISO 27001:2013 and ISO 14001:2015 Certified Company. (Related certificate copy required)	
29.	Warranty	3 Years or Higher.	

OEM Eligibility Criteria for 55" Display:

General Conditions	Compliance with Document from OEM
OEM should have presence in India for more than 10 years	
The manufacturer should have minimum annual turnover of Rupees 1500 Crores (each year) during last three financial years.	
OEM should have its legal Office in West Bengal	
OEM should have complete direct service set-up in West Bengal with a service team of minimum 2 trained Service Manager/Engineers on OEM's payroll. They should have either Bachelor / Diploma degree	
OEM Should have ISO 9001:2015 & BS OHSAS 18001:2007 or ISO45001:2018 certifications.	
The OEM must not be blacklisted or banned by any State/Central Government, Semi-Government or PSU and any other GOVT. organization in INDIA	

3. Minimum Technical Specification of Specification for 55" Display

Qty.				
Make				
Model				
S1. No.	Feature	Minimum Specification	Specification (Quoted / Applicable – by the bidder)	Complied (Yes / No)
1.	Display Size(Diagonal)	55"		
2.	Resolution	3840x2160		
3.	Backlight Unit Type	Direct / Edge		
4.	Brightness	300 nits or above		
5.	Dynamic Contrast Ratio(Dynamic MCI(Hz))	10,00,000:1		
6.	Static(Panel) Contrast Ratio	1,200:1		
7.	Refresh Rate	60Hz		
8.	HDR(10PRO/HLG)			
9.	Speaker (Sound Output)	10W + 10 W		
10.	Input Interface	HDMI IN(3(2.0)), Headphone Out (Phone Jack type),RS232(D-SUB9 pin/Phone Jack)(Phone Jack 4 Pin)		
11.	Jack Interface	USB 2.0,Digital Audio Out (Optical), External Speaker Out(3.5mm Phone Jack), RJ45(Usage Purpose) (LAN)		

12.	Power Supply (VoltageHz)	AC 120V-50/60 Hz	
13.	Typical Power Consumption	145 W	
14.	Safety Certification	CB,CU,TR	
15.	EMC	CE	
16.	Smart Features	Web Browser, Pre-Loaded App, Soft AP, Wi-Fi (802.11ac), Bluetooth, HDMI- ARC	
17.	Screen Share	Miracast, Smart Share	

4. Minimum Technical Specification of UPS

Qty.								
Make								
Model			1					
Sl. No.	Feature	Minimum Specification	Specification (Quoted / Applicable – by the bidder)	Complied (Yes / No)				
1.	Capacity	Capacity: 1KV						
2.	Input Voltage range	140Vac - 300Vac						
3.	Input Frequency	40-70Hz						
4.	Output on battery Voltage	220/230/240Vac±10%						
5.	Automatic Voltage Regulation (AVR)	Double Boost/Single Buck						
6.	On Battery Frequency	50/60Hz ± 1%						
7.	Outlets - Total	4						
8.	Battery Type	Sealed lead acid battery						
9.	Battery Quantity	2						
10.	Backup Time	15 mins						
11.	Audible Alarm	Alarm when on battery backup mode, Low battery, overload.						
12.	Operating Temperature	+ 32°F to 104° F / 0° C to 40° C						
13.	Operating Humidity	0% - 90% non-condensing						
14.	Operating Elevation	0-3000 meters						
15.	Storage Temperature	- 4°F to 122° F / -20° C to 50° C						
16.	Storage Relative Humidity	0% - 90%						
17.	Online Thermal Dissipation	45BTU/hr						
18.	Manufacturer	Manufacturer should be ISO 9001,						

	Credentials	ISO14001 & 18001, BIS Certified	
19.	Warranty	Three (3) years on-site comprehensive warranty including battery from OEM. OEM certificate should be submitted	