

CORRIGENDUM

(22.10.2019)

BID FOR SUPPLY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF VIDEO WALL & REQUIRED ACCESSORIES FOR CALL CENTRE AT HON'BLE CM BUNGALOW (TENDER NO. HWT111019587)

Revised Technical Specification

Minimum Technical Specification

Item No. 1 - HD Video Wall – 4 x 3 Matrix of 55" or above LED (Diagonally)				
Item Description		Qty.	Matched/ Not Matched	Deviation, if any
Screen Size	55" or above	12		
Aspect ratio	16:9			
Panel Type	Direct LED/IPS			
Panel Life	50,000 hours (Backlight half-life) or Better			
Number of Pixels (H x V)	1,920 x 1,080 pixels or Better			
Brightness	500 cd/m2 or better			
Contrast Ratio	1,400:1 or better			
Dynamic Contrast Ratio	>= 500,000:1			
Viewing Angle	>= 178°/178° (Horizontal/Vertical)			
Response Time	8 ms (G to G) or better			
Connection Terminal	HDMI Connector Type A -2 Nos, DVI-D in and Out -24-Pin x 1 Nos (Optional), Display Port In and Out-1Nos. USB Port 1 no's, Serial Number RS 232 C – D sub 9pin -1 Nos (Optional), Audio Out -Stereo Mini Jack -1 nos.			
Power Requirements	220-240 V AC, 50/60 Hz			
Power Consumption	185 W or lower			
Bezel gap (Bezel to bezel)	1.8 mm or lesser			
Accessories	All require Manual, Cable, Connector, Software Etc, Remote sensing device			
Certification	CE/UL/BIS/FCC			

Item No. 2 - Wall Mounting Kit for 4 x 3 Video Wall with Standing Metal Wall				
Item Description		Qty.	Matched/ Not Matched	Deviation, if any
Allowing Displays to be mounted directly onto wall thereby saving entire back room space. Exclusive mount design permits rear sides of all individual monitors being accessible from front for any service, maintenance or cabling etc. Suitable for proposed LED Display & up to 65 Kgs individual monitor weight Metal wall paneling to hold minimum 1000 kgs weight of Video Wall and brackets. Independent brackets have retractable facility. Standing Metal Wall to hold Video Wall		1		

Item No. 3 - Remote Sensing Device for controlling of Video Wall				
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Item Description	Qty.	Matched/ Not Matched	Deviation, if any
This device will be used for giving remote commands to all the Video wall cubes simultaneously	1		
There will be Loop in - loop out system for giving user remote signals			
This can be used for remote programming & maintenance.			
Appropriate Probes & Sensors to be supplied.			

Item No. 4 - Video Wall Digital Controller			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
SDRAM- 512 MB	1		
Flash – 4GB			
Memory Card - supports SD and SDHC cards up to 32 GB			
External Storage Support USB mass storage devices up to 1 TB			
Ethernet:-10/100 Mbps; auto-switching; auto-negotiating; auto-discovery; full/half duplex; industry-standard TCP/IP stack; UDP/IP; CIP; DHCP; SSL; IEEE 802.1X; SNMP; BACnet IPv4 or IPv6; Active Directory authentication; IIS v.6.0 Web Server; SMTP e-mail client			
USB:- Supports USB HID and USB mass storage class devices via rear panel USB 2.0 host ports, supports computer console via front panel USB 2.0 device port			
RS- 232/ 422/ 485:- For 2-way device control and monitoring, all ports support RS-232 up to 115.2k baud with software handshaking, one port also supports RS-422 or RS-485 and hardware handshaking			
IR/ Serial:- Supports 1-way device control via infrared up to 1.2 MHz or serial TTL/RS-232 (0-5 Volts) up to 115.2k baud			
Power Pack:- 2.0 Amps @ 24 Volts DC; 100-240 Volts AC, 50/60 Hz power pack			
Power:- 24 Watts (1 Amp @ 24 Volts DC) when using power pack			
IR/ Serial:- Supports 1-way device control via infrared up to 1.2 MHz or serial TTL/RS-232 (0-5 Volts) up to 115.2k baud			
USB: (1) USB Type A female; USB 2.0 port for storage devices			
COM 1: (1) 5-pin 3.5mm detachable terminal block; Bidirectional RS-232/422/485 port; Up to 115.2k baud; hardware and software handshaking support			
IR - SERIAL OUTPUT 1 – 8: (2) 8-pin 3.5mm detachable terminal block comprising (8) IR/Serial output ports; IR output up to 1.2 MHz; 1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud			

Item No. 5 - Video Wall Engine			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
Configuration of the complete system via a graphical Interface.	1		
Administrative control of the complete system			
Live Preview of Input Source.			
Specifications of the Video wall controller / Processor			
Controller with processing board and required nos. Of Input & Output cards			
Deliver the screen wall management software as described before including all required licences and install it ready for Operation on the server of the large screen wall.			
Free definition of user rights and the user levels			
Management of operators to address rights and hierarchy to split the wall in different areas			
Auto detect of input and output			
Dynamic control of windows			

Creation of presets (layouts)		
Drag & drop function for all sources		
Control of the windows on the large screen wall from Control and observation computers.		
Chronological controlled showing of presets		
FPGA Technology based Architecture controller		
Non windows based video wall controller		
The processor should be controlled through RJ45 cable		
The software should be able to control through Wifi		
Input: 8 nos. Of HDMI connection.		
Output: 12 nos. Of HDMI connection.		

Item No. 6 - Application Software- GUI Interface			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
The system required to be configured the setup in such a way that it provides a GUI to control video wall and other application.	1		
GUI should be customized at any given time during support period as per customer requirement like logo, adding event, adding equipment interface etc.			
There will be multiple pages of GUI with 1 home page and there should not be any limitation in making no of pages in GUI			
GUI can be accessible from multiple devices and control the video wall and other AV equipment simultaneously			
GUI will be installed in operating component device as well as into the controllers for better synchronization and backup			
By operating GUI the software should call all Audio Visual equipment and video wall.			
GUI should be live synchronized simultaneously with different device			
There should be a button panel from where the agent can push the video and drag it to video wall			
There should be a provision to automatically reset the value after predefined time and the video get switch over the flipper unit.			

Item No. 7- Speaker			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
5.2ch platform with 5.1 package included	1		
140W (6 Ω , 1kHz, 1ch driven, THD 10%)			
4K / 60p full-rate pass-through (two designated HDMI inputs)			
Type / Full-range, 1 speaker, Frequency range 150 Hz - 20 kHz, Input impedance 6 ohms			
Type Built-in amplifier, Frequency range 35 Hz - 150 Hz, Dynamic power 100 W, Input impedance 22 kohms, Power supply 230 V, 50 Hz / 60 Hz, Power consumption 65 W			
Active compact subwoofer, 8" subwoofer, 140w amplifier, active crossover, line or speaker level stereo input, adjustable low-cut, White			

Item No. 8 - Power Amplifier			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
Power Output:- 140 W per channel (6 Ω , 1 kHz, THD 10%, 1 ch driven) 90 W per channel (6 Ω , 1 kHz, THD 0.7%, 2 ch driven) 70 W per channel (8 Ω , 20 Hz - 20 kHz, THD 0.08%, 2 ch driven)	1		

Output connectors:- 6 - 16 Ω			
Input sensitivity/impedance:- 200 mV / 47 kΩ			
Frequency response:- 10 Hz - 100 kHz — +1, -3 dB (Direct Mode)			
S/N Ratio:- 98 dB (IHF-A weighted, DIRECT mode)			
Tuning frequency range:- 87.5 - 108.0 MHz			
Tuning frequency range:- 522 - 1611 kHz			
Power supply:- AC 230 V, 50 / 60 Hz			
Power consumption:- 310 W (Standby 0.1W, Bluetooth Standby 1W)			
Dimensions (W x H x D):- 434 x 151 x 319 mm			
Weight:- 7.5 kg			
Built-in Bluetooth			
Auto setup with room EQ			
Front panel USB input			
HDMI Rear 5 in / 1 out			
Digital audio inputs : 2 Opt / 1 Coax			
Audio: 2 in, Video : CVBS 2 in / 1out			
AM / FM Radio			

Item No. 9 - Input / Output Switcher			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
This will be an intelligent software to control matrix switching unit	1		
It should support HDMI, DVI and VGA ports.			
16-Port Master Room Controller with 4 RS-232, 4 IR, 4 GPI/O, 4 Relay, 1 Ethernet, 1 USB-A, 1 USB-Micro ,Relay Controller - 08 Ch. 220V AC,16-Port Master Room Controller with 4 RS-232, 4 IR, 4 GPI/O, 4 Relay, 1 Ethernet, 1 USB-A, 1 USB-Micro			
The HDMI Room Controller Should supply with Minimum 9 inch or Higher Touch Pad which Support IOS .			

Item No. 10 - HDMI Matrix Control Switcher			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
4K HDMI 2.0a matrix switcher should able to handle the absolute maximum 2.0a bandwidth and high dynamic range content with ease. The SPDIF outputs on every channel extract the audio in HD formats such as DTS-X and Dolby Atmos for use with external amplification and Digital sound.	1		
The unique auto-adaptive equalizers enable the use of longer cables for TV or LCD's connection anywhere in the home. It provides commercial grade output with several control options for switching.			
The unit is controlled through a front panel source selection switches with provision for RS232C & contact closure. It can also be controlled through IR remote Control, RF remote control or also through remote IP address.			
The unit also senses which input has the signal and switch the TV to that source automatically in auto mode.			
Resolution range: 640x480@60Hz ~ 4K@60Hz 4:4:4, 1080P 3D. NTSC, PAL, SECAM, 480p, 576p, 720p, 1080i, 1080p, and 2k, 4K*			
Analog sampling 12 bits per color; 13.5 MHz standard (video) 170 MHz standard (RGB) HDMI 8 input and Output with digital audio Out put			

Item No. 11 - Digital Video Scalar			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
Number/signal type 1 Composite1 RGBHV/YUV (YUVi, YUVp, and YUV-HD) 1 HDMI/DVI	1		
Connectors 1 female BNC for composite1 female 15-pin HD for RGB/YUV1 female HDMI for HDMI/DVI			
Resolution range 640x480 to 1600x1200 and 1920x1200* NTSC, PAL, SECAM, 480p, 576p, 720p, 1080i, 1080p, and 2k* reduced blanking			
Analog sampling 12 bits per color; 13.5 MHz standard (video) 170 MHz standard (RGB)			
Digital pixel data bit depth 8, 10, or 12 bits per channel; 165 Mhz pixel clock (HDMI)			
Number/signal type 1 HDMI (HDCP)			
Connectors 1 female HDMI			
Frequency response 20 Hz to 20 kHz, ±0.5 dB			
THD + Noise < 0.1% @ 1 kHz, 20 Hz to 20 kHz bandwidth (at nominal level)			
S/N >90 dB, at maximum output (unweighted)			
Number/signal type 3 stereo unbalanced			
Connectors (3) 3.5 mm TRS connectors			
Number/signal type (1) 2-channel LCPM audio or digital pass-through			
Connectors 1 female HDMI (shared with HDMI video)			
Serial control port 1 bidirectional RS-232 rear panel 3 pole captive screw connector			
USB control ports 1 front panel female mini USB B			

Item No. 12 - Video Data Flipper			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
The flipper server has the capacity to view minimum 8 video feeds.	1		
There should be capacity scale and make proper resolution of each video feeds.			
There will be facility to show minimum 8 feeds in 1 screen in different size and similar size.			
User can change 5 of the video feeds by clicking, dragging of input/ video feeds.			
Should have capacity to flip the video/ input to video wall in the time interval of 3,5,7,10 seconds or time will be customized as per requirement.			
Flipper server can harden operating system to avoid any virus and malfunctioning.			
Appropriate hardware to be supplied with HDMI/ DVI and Ethernet port.			

Item No. 13 - Tran receiver (In Lot)			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
Tran receiver with 1080p full HD video and audio transfer at 9.5 Mhz	1		
Tran receiver should support CAT 5 and above cables			

LED indication feedback for:- 1. Receiving the signal 2. Non availability of the signal 3. Signal pas through			
Tran receiver should give text message on display or video wall for status of video signal and It should have RS 232 port -1,IR inand out-1			

Item No. 14 - 24 Port Switch			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
Connector Options:- 10/100/1000 Mbps ports: RJ-45 1 Gbps SFP ports for uplink/stacking: SX, LX, TX, LHA, LHB, direct-attached copper cable (Twinax) for stacking 100 Mbps/1 Gbps SFP ports for uplink: FX, SX, LX, TX, LHA, LHB; 10/100/1000 Mbps RJ-45 ports for uplink 1/10 Gbps SFP+ ports for uplink/stacking: USR, SR, LR, ER, LRM, direct-attached copper cable (Twinax) for stacking Out-of-band Ethernet management: 10/100/1000 Mbps RJ-45 Console management: RJ-45 serial External power connector: Redundant system power supply and extended PoE power supply	1		
IPV 6 support:- Host functionality management, Hardware support for IPV6, IPV 6 static routing			
Maximum jumbo frame size:- 9216 bytes			
Traffic management:- ACL-based inbound rate limiting and traffic policies, Broadcast, multicast, and unknown unicast rate limiting, Inbound rate limiting per port, Outbound rate limiting per port and per queue.			
High Availability:- Redundant external/internal power supply, Layer 3 VRRP protocol redundancy, Real-time state synchronization across the stack, Hitless failover from master to standby stack controller, Protected link groups, Hot insertion and removal of stacked units			
Embedded Security:- 802.1X Accounting, MAC authentication, DHCP snooping, Dynamic ARP inspection, Bi-level Access Mode (Standard and EXEC Level), EAP pass-through support, Packet filtering on TCP Flags, IEEE 802.1X username export in sFlow, Protection against Denial of Service (DoS) attacks			

Item No. 15 - Distribution Amplifier			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
It should be able to boost the Signal	1		
It will be used to send your HDMI output of set-top boxes, DVD Players, D-VHS Players, PC's and other HDTV devices to as many as 2/4/8 HDMI inputs of monitor /LCD/Plasma/Projectors with the same strength & quality and an ability to daisy chain or cascade for multiple larger number of displays.			
The resolutions, the distribution amplifier should support are 720i, 720P, 1080i and 1080P.			
It should work on simple plug and play functionality.			
It should be able to connect to both HDMI and DVI-D single link Displays.			
It should have minimum 16 ports.			

Item No. 16 - Connectors / Cables and Accessories
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Item Description	Qty.	Matched/ Not Matched	Deviation, if any
Bracket and connectors as required (in Lot)	1		
HDMI Active Optical Cable Type A to Type A which shall support data rate of up to 18.2 Gbps. Resolutions of up to 3820x2160@60 Hz or better. Bend radius of 80mm or better. static bend radius of 40mm or better. It shall support lossless signal transmission capability up to 100 meters or better. I HDMI 2.0 or better. HDCP 2.2 or better. It shall be highly resistant with RF and EMI interference. It shall work without the use of External Power Supplies.			
Wifi Router 300 MBPS			

Item No. 17 - Rack			
Item Description	Qty.	Matched/ Not Matched	Deviation, if any
27" 800 x 800 24 U Rack with front Glass/ Acrylic door, Ventilated Top & Bottom, Fully powder coated Rigid Steel body with Accessories like Cooling Fan, Power Strip-5 Amp with Mounting Hardware	1		

Note: The bidder will have to submit the technical solution document as part of their technical offering mentioning the detailed schematic diagram. If the proposed solution does not match the RFP functional requirement then the same will be technically disqualified. In such case, if separate item is not required, then bidder will quote "0" (Zero) in the financial bid of the particular line item.