Adigrat University Digital Signage National Bid for 2009 E.C

Rno	Item	Description			Unit	Quantity	Unit Price	Total Price	Remark
1	Interactive Touch	**LCD Panel**	**Size**	80-inch with light blocking technology	pcs	15			
			Max. Resolution	1,920 x 1,080 pixels					
			Max. Display Colours (approx.)	1.06 billion colours					
			Pixel Pitch (H x V)	0.923x0.923					
			Max. Brightness (average)	300 cd/m^2					
			Contrast Ratio	4,000 : 1					
			Viewing Angle (H/V)	176°/176° (CR $\geqq$ 10)					
			Active Screen Area	1,771.2x996.3mm(69 3/4" x 3)9 3/4"					
			(W x H) (approx.)	(60 9/16" x 34 1/16")					
			Response Time	4 ms (grey to grey, avg.)					
			Backlight	LED, full array					
		Touchscreen	**Touch Technology**	captive touch technology					
			PC Connection Port	USB 2.0 (type B) x 2					
			Power Supply	Supplied from main unit					
			Multi Touch	10 points					
			Protection Glass	Thickness: Approx. 3.8 mm					
				Shock resistance: 130 cm					
		Touch Pen	**Communication**	Wireless communication method(captive touch technology)					
			Function Button	Yes					
		Whiteboard Function		Built-in					
		Computer Input	**Video**	Analogue RGB (0.7 Vp-p) [75Ω], DisplayPort 1.1a					
			Synchronisation	Horizontal/vertical separation (TTL: positive/negative),					
				Sync on green (D-sub 15-pin only), Composite sync (TTL: positive/negative)					
			Plug & Play	VESA DDC2B					
			Power Management	VESA DPMS					
		Video Colour System		NTSC (3.58 MHz, 4.43 MHz), PAL, PAL60, SECAM					
		Input Terminals		PC analogue: Mini D-sub 15-pin x 2, HDMI (HDCP and 1080p compatible, PC/AV signal compatible) x 3, 3.5 mm-diameter mini stereo jack x 2,					
				Video x 1, Component video x 1,DisplayPort (HDCP compatible,					
				PC signal compatible) x 1					

Output Terminals		3.5 mm-diameter mini stereo jack x 1, DisplayPort (HDCP compatible) x 1
Input/Output Terminals		LAN port (10Base-T/100Base-TX) x 1
Controller	**USB**	Type A x 4
	LAN port	10Base-T
		/100Base-TX
		/1000Base-T x 1
Speaker Output	**Built-in**	10 W + 10 W
	External	10 W + 10 W (6Ω)
Mounting		VESA (4 points), 600 x 400 mm pitch, M6 screw
Power Supply		100V – 240V AC, 50/60 Hz
Power Consumption		280 W
Environmental	**Operating Temperature**	5℃ to 35℃
Conditions	**Operating Humidity**	20% to 80% RH (no condensation)
Dimensions (W x D x H)		1,850 x 96 x 1,072 mm
(display only)		(72 13/16" x 3 3/4" x 42 3/4")
Weight (approx.)		77 kg (134.5 lbs)
Main Accessories		AC power cord, remote control unit, batteries (AA size x 2), set-up manual, blank sticker, cable clamps x 7, camera mount, USB cable (3.0 m), eraser, pen tray
		Touch pen (with function button), pen adaptor, touch pen battery (AAA size), Touch Display Link 2.0 software CD-ROM
MFP (Multi-Function Printer) Connectivity		Documents and images scanned from a color-scan-capable MFP can be imported directly to the software for display on the LCD monitor. For added convenience, image data shown on screen—including notations—can be saved to a PC or sent directly to an MFP for printout
PC Connectivity		Yes,Linking the Touch Display to a PC makes it easy
Tablet Connectivity		Connect Touch screen with both Android and IOS tablets
		Send a meeting file to Touch screen for annotation
		Share screen function between Touch screen and tablets
		After meeting; presenter can easily send annotated data to all participants.
		the software can accommodate 50 client tablets or laptops.
Microsoft office Ink Tools		The touch display support Microsoft® Office ink

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2	**Wireless Annotation and Communication Software**	**Purpose**			pcs	15			
				Enable tablets and laptops to be wirelessly connected to the screen					
				Both host and participant licenses must be included					
		System Configuration							
				Monitor preinstalled with this software (Host [lite version host])					
				Wireless LAN Access point Client					
		Minimum number of clients the software should		20 Client tablets or laptops					
		Client OS support		The client software should support the following operating systems:					
				· iOS (Apple)					
				· Android					
				· Windows					
		File Sharing		The software should allow file sharing between participants					
		Screen Sharing		The software should allow the participants to share their screens on the interactive white board and vice versa					
		Handwriting		The software should allow the participants to share their handwriting from their devices to the interactive whiteboard and vice versa					

Rno	Item	Description			Unit	Quantity	Unit Price	Total Price	Remark
3	**Mobile LED Screen Mount**	**Size to be accommodated**		60" – 80"	pcs	15			
		Min Load Capacity		90 Kg					
		Material		Aluminum alloy with anodized finish for a light weight.					
				High tensile strength SPCC for a durable finish					
				Must have built in Cable management within the stand itself for safe and tidy presentation.					
		Expandability							
				Must be able to expand to handle two screens side by side (see diagram for details) for future expandability.					
		Mobility							
				Must have precision braked swivel casters to easily move the screen from one place to another.					
		Training		Training and installation of the interactive boards should be considered for the interactive boards					
		Product Dimensions		Must comply to the dimensions listed in the diagram.					

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4	**Outdoor display**	**Mandatory General Requirement**	The manufacturer shall have a local agent with trained certified personnel having experience in installing, integrating, supporting and maintenance of of the outdoor screen. (Please attach employment agreement and certificates of the staff)	pcs	3			
			The bidder shall be authorized directly by the manufacturer to sell, install and support the outdoor screen by virtue of an agreement with the manufacturer. Please attach evidence letter directly from the manufacturer.					
			The Proposed Outdoor screen brand should be of the latest fabricated by the manufacturing company. (Attach proof document from the manufacturing company)					
			The local agent shall ensure the deployment of the outdoor screen from the installation, configuration, and integration with the current infrastructure					
			The local agent shall ensure stock of recommended spare parts for the outdoor screen please refer to the list of the spare parts required below.					
			The local agent shall have experience of installing the proposed outdoor screens in Ethiopia (please provide reference letter from client)					
			The proposed outdoor screen should have been implmented in Ethiopia before.					

Panel Specifications	
Item	**Parameter**
Pixel pitch	10mm
Pixel configuration	SMD (1 RGB)
Color Capacity	≥ 280 Trillion colors or better
Main Technical Parameter	
Item	**Parameter**
Display Size	4.5 m X 2.3 m
Use	Outdoor
Input Signal	HDTV, DVD, S-Video, VGA,RF, RGB, COMPONENT, RGBH
Color Temperature	3500 - 10,500 K (adjustable)
Color Management	16 and/or, 32 and more bit per color (advanced elaboration for high image quality)
Contrast Ratio	>30 at 10.000 Lux
Maintenance Access	Must have both front and back access
System Working Environment Temperature	-20~+70 Celsius degree,
System Working environment humidity	10%— 95%RH
Exchange Frame Speed	>60 frames/second
Water proof	Must ensure 360 degree complete environmental defence (Waterproof, Heatproof, Dustproof etc)
Display Brightness	≥6000cd/m2
Brightness Adjustment	256 level grade automatic, 8 grade manual or 256 grade by software or by Auto-optic induced or better option.
Brightness Uniformity	>0.95
Grey Scale	≥ 687 displaying color (16,7 77,216 grade)
Available Color Palette	281 Trillion Colors or more
Calibrated Color Temprature	>4000° — 10,000° K (adjustable)
Screen option mode:	Video, Text, Graphics
Uniformity	Uniform Brightness
Power	Manual/Auto switch
Power Load of the Switch	5V/40A
Maintenance	Front and Rear
Mandatory Spare Part Kit	**Spare part kit must include:** (1) LED panel X 1 per screen (2)Spare bulbs X 30 per screen (3)Driver for the Screens X 1 per screen (4) Flat Cables X 5 per screen (5) Power Supply X 1 per screen

Protection from power problem	**Adequate power protection from the following recurring problems:** (1) Over-current protection (2) Short current protection (3) Over-load protection (4) Short-load protection (5) Electrical line noise (6) Frequency Variation (7) Switching Transient (8) Undervoltage (9) Power Sag
Certification	CE/ EMC certified (Must submit certification)
maximum Power comsumption (w/display sq meter	960 w/sq meter or better
Optimal Viewing Distance	8-150 meters
View Angle	≥160 degrees（horizontal）>60 (+20 / - 40) degree（vertical）
Storage temperature	-40°c +85°c
Humidity	10%~95%RH

Screen Lifespan(50% brightness)	>100,000 hours
Storage Humidity(RH)	0-99%
Operation Humidity(RH)	0-95%
Interface port	DVI interface (DVI connector)
Operating Voltage	AC220V±10% 47/380V～ 64HZ or 110V ± 10%,
Normal Screen Body Power Consumption	Less than 390W/ m^2
Short circuit protection	Yes
Brightness	Must be adjustable
Calibration	Must be calibrated full-depth, LED to LED
Calibrating Options	To allow flexiblity for the technical staff displays must have the capacity to allow the following calibration techniques: 1) Factory Calibrated 2) Remote Field Calibration 3) In Field Calibraton
Safety	All displays must meet international building codes (Please attach certification)
Refresh Frame Frequency	$\geq$ 4,500 Hz

Display Panels	
IV. Module and Cabinet Parameter	
Item	**Parameter**
Module dimension	256 mm (w) x 128 mm (H) or better option
Module material	Pure PC material, adding high strength fibre glass & flame retardant
Signal Redundancy	Must provide signal redundancy or bi-directional paths with signal redundancy
Matrix Size in Pixels	$\geq$ 320 X 192
Cabinet Depth	180 mm or less
Cabinet material	Aluminum (Corrision Resistant)
Size of cabinets	$\geq$ 4.5 m X 2.3 m
Total Uncrated Weight	$\leq$ 547 Kg

Desplay Screen Spesfication

V. Power Supply	
Item	**Parameter**
Control Mode	Video Frequency synchronization with computer
Data Transmission	By Serial Fiber Optic
System Operating Platform	WINDOWS（WIN XP, Window 7, Window 8, Linux and others）friendly interface, Keep the interface for the secondary development.

VI. Image Control System	
Control Distance	upto 2 km via fibreoptic at 100 mb data transmission
Control system must also have the following options available	1) Serial Radio (450 m) 2) Serial RS 422 (1,200m) 3) Serial RS 232 allowing ability to connect a pc (laptop) directly at the base of the screen.
Control System	Must be able to control each parameter of the LED display by: (1) Setting brightness (2) Contrast adjustment (3) Calibration adjustment (4) Program Scheduling (5) Statistics (6) Visualizations
Image Processor spec	Min. Intel Core i3, 3,800 Hz refresh rate, 16 bit processing depth, DVI IN, DVI OUT, USB Port X 2, Line out Audio, Signal Connector OUT (Redundance for the screen), RS232 Ports, Capture Card (for external video sources), S-Video Connector, Network LAN,
Built In Diagnositc System	Image processor should actively monitor every aspect of the screen and send information about the screen and should include the following: (1) Alarm and telemetry on the screen to be controlled via PLC (programmable logic unit) (2) GSM: Alerts that can be sent through SMS and receive commands through SMS (3) Internet: Player should report all faulty message via internet

Diagnostic Alerts	The following diagnostic alerts need to be shown by the controller: * Individual LEDs not functioning * LED modules not functioning * Signal faults * Power supply working roder * Player not functioning * Air conditioning not working
Diagnostic Automation	The following diagnostic automation features must be supported: * Automatic switch off of screen over maximum temperature * Automatic Re-Start of Player * Automatic Switch Off of Faulty Player * Air Conditioning Compressors Central Management * Forced Ignition of Air Conditioning System over Threshold * Forced Ignition of Heaters over Threshold

Remote Control	The following features need to be controlled remotely from a central location: * Control brightness by the hour * Turn on/off of LED display * Turn on/off of Air Conditioning * Check of Temperature * Sensor Counter * Checking of Brightness Sensor Counter		
Temperature Control	The following temperature regulation features need to be present: * T° Warning Exceeded * Forced Turn On off Air Conditioning - Signal Faults - Exceeded T° Out of Range - Turn Off LED parts - Signal Faults		
Television Standard	NTSC, PAL, PALM & N, SECAM		
Composite Video	2 X via BNC		
YC (S-Video)	2 X via 4 pin mini - DIN		
YUV / YPbPr	1 X via 3 BNC		
SD/HD-SDI	1 X via BNC		
Computer Inputs	1 X DVI -D, 1 X Analog		
Format	RGB HV, RGBS, RGsB, YPbPr		
Refresh Rate	Upto 250 Hz		
Positioninig	Automatic Via Auto or Manual		
Image Size	User Definable presets		
Zoom Range	variable upto 10X zoom		
Shrink Range	variable upto 10%		
Image mirroring	Horizontal / and/ or vertical		
Color Resolution	24 - bit		
Sampling Rate	162 MHz		
Digital Sampling	24 bit 4:4:4 format		
Audio Input / Output	I: 4 X unbalanced via terminals, O: Unbalanced via terminals		
HD Input	720 p (1280 X 720), 1035i (1920 X 1035), 1080i (1920 X 1080p)		
Control methods	*Local via pannel buttons * RS-232 Interface * IP Interface * IR Remote * Input Expansion control		

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5	Accessories	All accessories such as docoration, electrical equipments, fiber related componenets, UTP cable and related units, Network equipment, installations and other relevant materials sould be considered.		set				
6	Installation, Commissioning, and testing	Successful Bidders are required to install, commission, and test all digital signage facilities after delivery. Successful Bidders are required to extend the optic fiber lines to the outdoor unit location from the near by building or the university data center. They are also required to make necessary splicing and expansion of fiber lines. Any form of deformations or changes to the building or other facilities during installation, commissioning, and testing must be patched or repaired or restored by the supplier/winner.						
7	Relevant Trainings & Visits	On-Site Trainings	Successful Bidders are required to arrange germane onsite trainings for the AdU-ICT staffs covering all concomitant expenses during & after installation & commissioning.	num	10			
		On-factory Trainings & Visits	Successful Bidders are required to arrange visits to factories and on-factory trainings (on Facilities installation, configuration, & management) & certifications prior to the start of installation works covering all concomitant expenses (per-dime + certification fees + Air transport fares).	num	3			
				Total Price				