Date: October 26*, 2018*

REQUEST FOR QUOTATION

RFQ Nº UNFPA /RFQ\_EECARO/2018/04

Dear Sir/Madam,

UNFPA hereby solicits a quotation for the following service:

Procurement, installation and configuration of Audio Visual (AV) equipment

UNFPA requires the provision of procurement for new AV equipment and upgrade of existing equipment. The selected contractor will deliver and install the equipment, will train UNFPA staff on how to operate the equipment.

This Request for Quotation is open to all legally-constituted companies that can provide the requested products & services outlined in in Annex II and have legal capacity to deliver in Turkey, or through an authorized representative.

1. **About UNFPA**

UNFPA, the United Nations Population Fund (UNFPA), is an international development agency that works to deliver a world where every pregnancy is wanted, every child birth is safe and every young person’s potential is fulfilled.

UNFPA is the lead UN agency that expands the possibilities for women and young people to lead healthy sexual and reproductive lives. To read more about UNFPA, please go to: [UNFPA about us](http://www.unfpa.org/about-us)

**Objectives and scope of the services**

The UNFPA EECARO intends to equip several rooms of its regional office in Istanbul, Turkey with audio visual systems to update some of the existing equipment. The Agency is looking for a qualified company to contract for purchase of new AV equipment and maintenance of existing one. The selected contractor will deliver and install the equipment, will train UNFPA staff on how to operate the equipment.

The use of AV facilities is intended to provide a framework for meeting activities and events of a wide-ranging scope and nature. The requirements for the AV facilities are therefore first and foremost a high degree of flexibility and future-proofing. In addition, all systems and installations should be based on equipment of very high quality so as to achieve superlative picture and sound quality combined with a simple and intuitive user interface.

1. **Questions**

Questions or requests for further clarifications should be submitted in writing to the contact person below:

|  |  |
| --- | --- |
| Name of contact person at UNFPA: | *Elif Seda Ercan* |
| Tel Nº: | *+90 212 705 36 65* |
| Email address of contact person: | *ercan@unfpa.org* |

The deadline for submission of questions is [*Tuesday, November 6th 2018 at 5:00 PM Istanbul Time*]. Questions will be answered in writing and shared with all parties as soon as possible after this deadline.

1. **Content of quotations**

Quotations should be submitted in a single e-mail whenever possible, depending on file size. Quotations must contain:

1. Technical proposal, in response to the requirements outlined in the service requirements / TORs.
2. Price quotation, to be submitted strictly in accordance with the price quotation form.

Both parts of the quotation must be signed by the bidding company’s relevant authority and submitted in PDF format.

1. **Instructions for submission**

Proposals should be prepared based on the guidelines set forth in Section III above, along with a properly filled out and signed price quotation form, are to be sent by e-mail to the contact person indicated below no later than : [*Friday, November 9th 2018 at 5:00 PM Istanbul Time*][[1]](#footnote-1).

|  |  |
| --- | --- |
| Name of contact person at UNFPA: | *EECARO Procurement Unit* |
| Email address of contact person: | *eecaro.procurement@unfpa.org* |

Please note the following guidelines for electronic submissions:

* The following reference must be included in the email subject line: RFQ Nº UNFPA /RFQ\_EECARO/2018/04 Procurement, installation and configuration of AV Equipment. Proposals that do not contain the correct email subject line may be overlooked by the procurement officer and therefore not considered.
* The total e-mail size may not exceed **20 MB (including e-mail body, encoded attachments and headers)**. Where the technical details are in large electronic files, it is recommended that these be sent separately before the deadline.

1. **Overview of Evaluation Process**

Quotations will be evaluated based on the technical proposal and the total cost of the services (price quote).

The evaluation will be carried out in a two-step process by an ad-hoc evaluation panel. Technical proposals will be evaluated for technical compliance prior to the comparison of price quotes.

1. **Award Criteria**

UNFPA shall award a Professional Service Contract on a fixed-cost basis with duration of 15 (fifteen) days to the lowest-priced technically acceptable offer.

1. **Right to Vary Requirements at Time of Award**

UNFPA reserves the right at the time of award of contract to increase or decrease by up to 20% the volume of services specified in this RFQ without any change in unit prices or other terms and conditions.

1. **Payment Terms**

UNFPA payment terms are net 30 days upon receipt of invoice and delivery/acceptance of the milestone deliverables linked to payment as specified in the contract.

1. [**Fraud and Corruption**](http://www.unfpa.org/about-procurement#FraudCorruption)

UNFPA is committed to preventing, identifying, and addressing all acts of fraud against UNFPA, as well as against third parties involved in UNFPA activities. UNFPA’s Policy regarding fraud and corruption is available here: [Fraud Policy](http://www.unfpa.org/resources/fraud-policy-2009#overlay-context=node/10356/draft). Submission of a proposal implies that the Bidder is aware of this policy.

Suppliers, their subsidiaries, agents, intermediaries and principals must cooperate with the Office of Audit and Investigation Services of UNFPA as well as with any other oversight entity authorized by the Executive Director of UNFPA and with the UNFPA Ethics Advisor as and when required. Such cooperation shall include, but not be limited to, the following: access to all employees, representatives, agents and assignees of the vendor; as well as production of all documents requested, including financial records. Failure to fully cooperate with investigations will be considered sufficient grounds to allow UNFPA to repudiate and terminate the contract, and to debar and remove the supplier from UNFPA’s list of registered suppliers.

A confidential Anti-Fraud Hotline is available to any Bidder to report suspicious fraudulent activities at [UNFPA Investigation Hotline](http://web2.unfpa.org/help/hotline.cfm).

1. **Zero Tolerance**

UNFPA has adopted a zero-tolerance policy on gifts and hospitality. Suppliers are therefore requested not to send gifts or offer hospitality to UNFPA personnel. Further details on this policy are available here: [Zero Tolerance Policy](http://www.unfpa.org/about-procurement#ZeroTolerance).

1. **RFQ Protest**

Bidder(s) perceiving that they have been unjustly treated in connection with the solicitation or award of a contract may submit a complaint directly to the Chief, Procurement Services Branch at [procurement@unfpa.org](mailto:procurement@unfpa.org).

Bidder(s) perceiving that they have been unjustly or unfairly treated in connection with a solicitation, evaluation, or award of a contract may submit a complaint to the UNFPA Head of the Business Unit [Mr. Heimo Laakkonen, Regional Director] at [laakkonen@unfpa.org]. Should the supplier be unsatisfied with the reply provided by the UNFPA Head of the Business Unit, the supplier may contact the Chief, Procurement Services Branch at [procurement@unfpa.org](mailto:procurement@unfpa.org).

1. **Disclaimer**

Should any of the links in this RFQ document be unavailable or inaccessible for any reason, bidders can contact the Procurement Officer in charge of the procurement to request for them to share a PDF version of such document(s).

PRICE Quotation Form

|  |  |
| --- | --- |
| **Name of Bidder:** |  |
| **Date of the quotation:** | 01/11/2018 |
| **Request for quotation Nº:** | UNFPA /RFQ\_EECARO/2018/04 |
| **Currency of quotation:** | USD |
| **Delivery charges based on the following 2010 Incoterm:** | N/A |
| **Validity of quotation:**  *(The quotation shall be valid for a period of at least 3 months after the submission deadline.)* |  |

* Quoted rates must be **exclusive of all taxes**, since UNFPA is exempt from taxes.

Example Price Schedule below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Description | Number items | Total | |
| 1 | *55” LED TV* | 2 |  | |
| 2 | *Cable access enclosure* | 1 |  | |
| 3 | *Control Processor* | 1 |  | |
| 4 | *Matrix switcher* | 1 |  | |
| 5 | *Power Injector* | 2 |  | |
| 6 | *Signal Transmitter* | 5 |  | |
| 7 | *Wireless presentation system* | 1 |  | |
| 8 | *7” Touch panel* | 2 |  | |
| 9 | *HDMI and DP Transmitter* | 1 |  | |
| 10 | *HDMI Cable* | 5 |  | |
| 11 | *Signal Receiver* | 5 |  | |
| 12 | *Installation, cabling, setup and configuration* | 1 |  | |
| *Total Out of Pocket Expenses* | | | | $$ |
| ***Total Contract Price***  *(Professional Fees + Out of Pocket Expenses)* | | | | $$ |

*Vendor’s Comments:*

I hereby certify that the company mentioned above, which I am duly authorized to sign for, has reviewed RFQ UNFPA /RFQ\_EECARO/2018/04 including all annexes, amendments to the RFQ document (if applicable) and the responses provided by UNFPA on clarification questions from the prospective service providers. Further, the company accepts the General Conditions of Contract for UNFPA and we will abide by this quotation until it expires.

|  |  |  |
| --- | --- | --- |
|  | Click here to enter a date. |  |
| Name and title | Date and place | |

**ANNEX I:**

**General Conditions of Contracts:**

**De Minimis Contracts**

This Request for Quotation is subject to UNFPA’s General Conditions of Contract: De Minimis Contracts, which are available in: [English,](http://www.unfpa.org/resources/unfpa-general-conditions-de-minimis-contracts) [Spanish](http://www.unfpa.org/sites/default/files/resource-pdf/UNFPA%20General%20Conditions%20-%20De%20Minimis%20Contracts%20SP_0.pdf) and [French](http://www.unfpa.org/sites/default/files/resource-pdf/UNFPA%20General%20Conditions%20-%20De%20Minimis%20Contracts%20FR_0.pdf)

**ANNEX II:**

**Technical Specifications and Scope of Work**

1

**Purchase, installation and configuration of AV equipment for the UNFPA EECARO Office**

**1.0 General remarks**

The UNFPA EECARO intends to equip several rooms of its regional office in Istanbul, Turkey with audio visual systems to update some of the existing equipment. The Agency is looking for a qualified company to contract for purchase of new AV equipment and maintenance of existing one. The selected contractor will deliver and install the equipment, will train UNFPA staff on how to operate the equipment.

The use of AV facilities is intended to provide a framework for meeting activities and events of a wide-ranging scope and nature. The requirements for the AV facilities are therefore first and foremost a high degree of flexibility and future-proofing. In addition, all systems and installations should be based on equipment of very high quality so as to achieve superlative picture and sound quality combined with a simple and intuitive user interface.

Proposed system should be compatible and must be integrated into existing Audio Visual system. List of the existing equipment which is already installed can be found in Annex III

.

All proposed electrical equipment should support 100-240 VAC, 50/60 Hz power. All power cables should be 2 pin EU type.

All proposed equipment should have minimum of two years parts and labor warranty.

**2.0 The following equipment will be procured and installed**

**2.1 55” LED Monitor**

Two 55” TV screen will be mounted into the ceiling of big meeting room on 18th floor. The size of the screen will make it possible to show several images at a time and/or presentations requiring high resolution. The TV screen shall meet the following specifications:

Screen Size: 55" diagonal

Resolution: 1,920 x 1,080 (FHD) or better

Brightness : 450 cd/m2 or higher

Inputs: Minimum HDMIx2, DP, DVI-D, RGB, Audio, USB 3.0

Output: DP, Audio

External Control: RS232C in/out, RJ in, IR Receiver, Pixel Sensor

Weight (without stand): Max. 20 kg

Power Supply: 100-240 V~, 50/60 Hz

Power Consumption: Max. 100 W

Certification: UL / cUL / CB / TUV / KC, FCC Class "A" / CE / KCC, ErP / Energy Star

Accessory: Remote Controller with batteries, Power Cord, QSG, RGB Cable  
*Power:* Energy star certification, European style power cablePower supply (v): 100v - 240v, 50/60 HzStandby power consumption: Must be under 0.3W  
Warranty: Minimum 2 Years Parts & Labor

**2.2 Cable Access Enclosure**

Purpose of the module is to provide a modular, configurable, and furniture-mountable enclosure that shall support a combination of AC power modules, AV cables, and cable retraction modules.

The device shall include:

1. Minimum 1 HDMI, USB power connection, Mini Display, USB-C, Network, and 3.5 mm stereo audio connection.
2. Device should be furniture mountable.
3. Dimensions should be 18cm x 18cm maximum.
4. All connections should be terminated at main control unit.
5. All cables should operate with retractors.

**2.3 Control Processor**

Purpose of the device is to provide an Ethernet-enabled control processor for the purpose of remotely controlling, monitoring and troubleshooting connected AV equipment and AV systems.

* Ethernet-enabled control processor

1. Provide two RS-232 ports that can be used for uni/bi-directional control of AV
2. Provide one RS-232/RS-422/RS-485 connector for uni/bi-directional control
3. Provide two IR/Serial ports to allow the transmission of IR signals
4. Provide four low voltage relays to control lighting, screens, or other functions.
5. Provide four digital I/O’s to interface with sensors, LEDs and relays
6. Provide one eBUS port for connecting to eBUS devices
7. Device shall have a three female RJ-45 jacks located on the back of the enclosure
8. Device shall have a 12-volt connection located on the back of the panel
9. Device shall support the following protocols: ICMP (ping), IPv4, TCP, UDP, DHCP, DNS, HTTP, HTTPS, NTP, SFTP, SMTP, SNMP, SSH
10. Device shall include a multi-function button that allows for the reset of the
11. Should have a web-based AV resource management application
12. Device shall have at least 4 GB of nonvolatile memory
13. Front panel LED indicators for power status, eBUS status, RS-232/RS-422/RS-485

* **Mounting requirements**

1. Device shall be 1U rack mountable

* **Security Requirements**

1. Device shall support SSH and HTTPS for secure communication between the control processor and controlled device for programmed systems
2. Device shall support SFTP and SSH for secure communication between the control processor and the configuration or programming software
3. Device shall provide the option to modify administrator and user credentials
4. Device shall support security updates to maintain network health
5. Device shall require that a Secure Socket Layer (SSL) Certificate is installed to maintain system confidentiality and data integrity

* **Shall meet regulatory compliances**

1. CE
2. c-UL
3. UL
4. C-Tick
5. FCC Class A
6. ICES
7. KCC
8. VCCI
9. RoHS
10. WEEE

**2.4 Matrix Switcher**

Device should provide a fixed I/O matrix switcher that shall support up to eight inputs and eight outputs for distribution and routing of HDCP-compliant digital video and embedded digital audio signals. Shall be a matrix switcher for HDMI video and embedded digital audio signals.

 Video input requirements

I. Shall provide eight (8) female HDMI Type A connectors for digital video signals with embedded audio

II. Shall provide automatic input cable equalization for signals up to 4096x2160/60 with 8-bit color depth

 Video output requirements

I. Shall provide eight (8) female HDMI Type A connectors for digital video signals

II. Shall provide automatic output re-clocking

III. Shall provide automatic reformatting of HDMI source signals when routed to a DVI display device

 Audio output requirements

I. Shall provide four (8) female HDMI Type A connectors for embedded two-channel audio – shared with video signal

II. Shall provide two (2) five-pole captive screw connectors for analog audio

III. Shall provide two (2) RCA connectors for S/PDIF digital audio

IV. Shall support audio de-embedding from HDMI signal

V. Shall provide independent routing of audio and video signals – break-away routing

VI. Audio assignment from any HDMI input source to analog and S/PDIF output 2

VII. Shall provide audio extraction to analog audio outputs

 EDID requirements

I. Maintain continuous EDID communication with all connected sources

II. User-selection of EDID from any connected display device, pre-stored data files, or EDID capture from any connected display device via configuration software

III. User upload of custom-generated EDID files via configuration software

IV. Assignment of pre-stored, capture, or custom uploaded files per input via configuration software

 HDCP requirements

I. Shall be HDCP 2.2 compliant

II. Authenticate and maintain continuous verification of HDCP key exchange

III. One-to-one, one-to-many, or one-to-all matrix ties with HDCP-encrypted content

IV. HDCP encryption between the input and output devices

V. Shall provide real-time verification of HDCP status for each port

VI. Electronically accessible over Ethernet or RS-232

 Switching requirements

I. Shall provide video and audio matrix switching between any input and any output

II. HDMI video with embedded audio and HDMI video without embedded audio

III. Independent routing of de-embedded audio

IV. Shall provide front panel visual confirmation of active input and output connections

 Control requirements

I. Shall provide minimum one (1) three-pole captive screw RS-232 connector

II. RS-232 and RS-422 protocols support

**2.5 Power** **Injector**

Purpose of the device is to provide a single port power injector that is compatible with XTP Systems transmitters and receivers.

 Single port power injector that provides power to one (1) remote device in order to eliminate the need for a local power supply

I. Provide two (2) RJ-45 style jacks

II. One (1) XTP signal input

III. One (1) XTP loop-through with power

IV. Supports high data rate of XTP System devices

V. Provides integrated mounting solution

**2.6 Signal Transmitter**

Device should provide an HDMI twisted pair transmitter that shall support the distribution of video, audio, and control over a shielded CATx cable. It should be Rack-mountable.

 Video input requirements

I. Provide one (1) video input for digital video signals

II. Supported HDMI specifications include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, HD lossless audio formats, and CEC pass-through

 Audio input requirements

I. Support embedded digital audio on HDMI input

II. Provide a dedicated analog audio input connection

III. One (1) stereo analog audio

 Control input requirements

I. Provide communication connections for AV device control

II. One bidirectional RS-232 pass-through

III. One bidirectional IR pass-through

 Interconnection requirements

I. Support interconnection between transmitter and receiver or DTP-enabled products

II. One RJ-45 twisted pair connection

 Transmission requirements

I. Provide signal transmission distance capability of 70 m at 1920x1200, including 1080p @ 60 Hz and 2K using a shielded CATx cable

II. Support signal transmission distance capability of 4K @ 30 Hz, UHD, and 2560x1600 up to 40 m using a shielded CATx cable

III. Support video, audio, and control over a single shielded CATx cable

IV. Support embedded HD lossless audio formats

V. Actively buffer DDC channels

 Resolution requirements

I. Support computer and video resolutions up to 4K, including 1080p/60 Deep Color

II. Support RGB and YCbCr digital video formats

 Audio requirements

I. The unit should accept additional analog stereo audio signals for simultaneous transmission with HDMI embedded audio

II. The unit shall support multiple embedded audio formats

III. The unit shall support embedded HD lossless audio formats

 HDCP requirements

I. The unit shall be HDCP 2.2 compliant with backward compatibility with earlier HDCP versions

 Communication requirements

I. The unit shall support bidirectional RS-232 communication pass-through up to 115200 baud

II. The unit shall support bidirectional IR pass-through

III. The unit shall support EDID and HDCP transmission

 Power requirements

I. The unit shall support remote power capability

II. The unit shall support being locally powered

**2.7 Wireless Presentation System**

1. Operating system: Windows 7/8/8.1/10 32 & 64 bit, macOS 10.10/10.11/10.12/10.13
2. Video outputs: 1x HDMI or more
3. Frame rate: Up to 30 fps
4. Output resolution: Up to 1920x1200
5. Noise Level: Should be zero (Without Fan)
6. Number of sources simultaneous on screen: Minimum 1 (one)
7. Number of simultaneous connections: Up to 8 (eight)
8. Audio: Via HDMI, analog via Audio Jack 3.5mm
9. iPad, iPhone and Android compatibility: Sharing of documents, browser, camera for both Android and iOS devices through application
10. Authentication protocol: WPA2-PSK or later
11. Wireless transmission protocol: IEEE 802.11 a/g/n
12. Connections: Minimum 1x Ethernet LAN1x (back) + 1x (front) USB
13. Audio: analog line out on mini jack socket (3.5mm)
14. Weight: Max. 1 kg
15. Dimensions (HxWxD): Max. 210mm x 120mm x 50mm

**2.8 Touch Panel**

Purpose of the device is to provide a 7" capacitive touchscreen interface for switching and control of AV equipment

 Wall mountable 7" touchscreen user interface for AV control

I. Provide a 7" LCD touchscreen that supports 6.7M colors and 1024x600 resolution

II. Device shall feature scratch and smudge-resistant

III. Device shall have a female RJ-45 jack that supports 10/100/1000Base-T, PoE and 802.3af

IV. Device shall include a single high-speed micro USB 2.0 type B receptacle

V. Provide a front panel status LED that blinks red if the touch panel loses network connectivity with the control processor

VI. Device shall have a menu button located on the back setup of items such as IP address and sound volume at minimum

VII. Device shall include a multi-function button located on the back of the enclosure that allows for the reset of the device or its communication properties at minimum

VIII. Device shall support the following protocols: DHCP, DNS, HTTP, HTTPS, ICMP, SFTP, SSH, TCP/IP, UDP/IP

IX. Device shall have the following memory available, at minimum: 2 GB SDRAM, 4 GB Flash

X. Device shall have the ability to be controlled by Silverlight enabled web browser or an iOS or Android based device as a secondary point of control

XI. Device shall be black in color

 Mounting requirements

I. Device shall have the ability to be mounted directly in a wall, lectern, or other flat surface and shall be able to be secured using the included mounting plate

II. Device shall have the ability to be mounted into a rack using an optional rack mount kit

 Security requirements

I. Device shall support SFTP and SSH for secure communication between the control processor and the configuration or programming software

II. Device shall provide the option to modify administrator and user credentials

III. Device shall require that a Secure Socket Layer (SSL) Certificate is installed to maintain system confidentiality and data integrity

IV. Device shall support the installation of an owner furnished certificate

 Shall meet regulatory compliances

I. CE

II. c-UL

III. UL

IV. C-Tick

V. FCC Class B

VI. ICES

VII. VCCI

VIII. RoHS

IX. WEEE

**2.9 Transmitter for DisplayPort and HDMI with Embedded Audio**

Device should provide a two input decorator-style wall plate twisted pair transmitter that shall support the distribution of video, audio, and control over a shielded CATx cable.

 Video input requirements

I. Provide one (1) DisplayPort input for digital video signals

II. Shall support DisplayPort SST data rates up to 10.8 Gbps

III. Provide one (1) HDMI input for digital video signals

IV. Supported HDMI specifications include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats

 Switching requirements

I. Provide automatic switching between input sources

II. Automatically switch to the highest-numbered input with an active video signal when multiple inputs are active

III. Shall support RS-232 control

 Audio input requirements

I. Support embedded digital audio on HDMI and DisplayPort inputs

II. Provide dedicated analog audio input connections

III. Two (2) stereo analog audio

IV. Support embedding of the analog audio input signals on the digital video output signal and transport over DTP

 Control input requirements

I. Provide communication connections for AV device control

II. One bidirectional RS-232 pass-through

III. One bidirectional IR pass-through

IV. The transmitter shall be RS-232 controllable

 Video output requirements

I. Provide one (1) RJ-45 twisted pair connection

II. Support the connection of DVI displays that do not recognize HDMI-specific formats

III. Automatically enable or disable embedded TMDS audio and InfoFrames

IV. Automatically set the correct color space

 Interconnection requirements

I. Support interconnection between transmitter and receiver or DTP®-enabled products

II. One RJ-45 twisted pair connection

III. Shall be configurable for sending digital video and embedded audio, plus bidirectional RS-232 and IR signals to an HDBaseT-enabled display

 Transmission requirements

I. Provide signal transmission distance capability of 70 m at 1920x1200, including 1080p @ 60 Hz

II. Support computer and video resolutions up to 4K, including 2560x1600 and 1080p/60. Support RGB and YCbCr digital video formats

 Audio requirements

I. The unit shall accept additional analog stereo audio signals for simultaneous transmission with DisplayPort or HDMI embedded audio

II. The unit shall support multiple embedded audio formats

III. The unit shall support embedded HD lossless audio formats

**2.10 HDMI Cable**

Purpose of the cable is provide interconnection for the transmission of HDMI digital video and audio signals over a copper cable assembly.

 Shall support resolutions up to 4096x2160 @ 60 Hz with 4:4:4 Chroma sampling and 8-bit color depth

 Shall support data rates up to 18.0 Gbps

 Shall meet the following cable construction requirements:

I. 22 AWG copper wire

II. HDMI type A male connectors with gold-plated contacts

III. Bend radius of 105 mm or smaller

IV. Cable outer diameter of 12.0 mm or smaller

V. Cable shall be minimum 7 m in length

VI. Cable shall provide protection from outside electrical interference

VII. Cables shall comply with UL CM and CSA FT-1 standards

**2.11 Signal Receiver**

Device should provide an HDMI twisted pair receiver that shall support the distribution of video, audio, and control over a shielded CATx cable. It should be Rack-mountable.

I. Should receive HDMI plus control and analog audio up to 70 meters over a shielded CATx cable

II. Input: One twisted pair input on RJ-45

III. Outputs: One HDMI, stereo audio

IV. Should support computer and video resolutions up to 4K

V. Shall be compatible with CATx shielded twisted pair cable

VI. Should accept additional analog stereo audio

VII. Should support bidirectional RS-232 and IR for AV device control

VIII. Should support multiple embedded audio formats

IX. Should support EDID and HDCP

X. Should have LED indicator for signal presence and power

**Annex.III. Existing audio/video & automation system**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NO | BRAND | MODEL | DESCRIPTION | QTY | UNIT |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | SHARP | PG-D3050W | 16:10 DLP 3000 ANS PROJECTION | 1 | pcs |
| 2 |  |  | PROJECTION CEILING MOUNT BRACKET | 1 | pcs |
| 3 | DRAPER | TARGA | 99"/252 cm 119 x 221 MOTORIZED SCREEN | 1 | pcs |
| 4 | SONY |  | BLU-RAY DVD PLAYER | 1 | pcs |
| 5 | EXTRON | CrossPoint Ultra 84 HVA | 8x4 Ultra-Wideband Matrix Switcher with ADSPTM for RGB and Stereo Audio | 1 | pcs |
| 6 | BEYERDYNAMIC | SHM 22 H SW SET | Miniature condenser gooseneck mic, black, for hanging ceiling mounting, with cable 8 m (26 ft.), incl. pre-amplifier CV 15 PV-N(C)-R | 4 | pcs |
| 7 | BEYERDYNAMIC | SHM 22 H SW SET | Acoustic Echo Canceling MICROPHONE | 1 | pcs |
| 8 | AVUNO | sC6 | 2-WAY 6" CEILING SPEAKER | 6 | pcs |
| 9 | BIAMP | NEXIA TC | 8 wide-band TrueSoundTM AEC inputs, 2 mic/line inputs, 4 mic/line outputs, & telephone interface. DSP for teleconferencing applications. | 1 | pcs |
| 10 | BIAMP | NEXIA VC | 8 wide-band TrueSoundTM AEC inputs, 2 mic/line inputs, 4 mic/line outputs, & codec interface. DSP for videoconferencing applications. | 1 | pcs |
| 11 | BIAMP | CPA130 | Dual 65 watt/channel @ 4 ohms passively cooled amp | 1 | pcs |
|  | BIAMP | D60EQ | 60 watt amplifier, distribution autoformer, and 9-band graphic EQ (†) | 1 | pcs |
| 12 | CRESTRON | AV2 | Economical Dual Bus Control System. 1 Z-Bus slot, optional CAGE2 card cage adds 3 Y-Bus slots. Built-in Power Supply | 1 | pcs |
| 13 | CRESTRON | C2ENET-1 | Single Port 10/100BaseT Ethernet Card with e-Control®2 for Z­Bus Expansion Slot | 1 | pcs |
| 14 | CRESTRON | DIN-2MC2 | DIN Rail Motor Control, 2 feeds, 2 channels | 1 | pcs |
| 15 | CRESTRON | TPMC-8LB-T KIT | Isys i/O 8.4" Wall Mount Touchpanel Media Center, Black, Textured. Includes TPMC-8L-FPB-T\_BLANK button faceplate and TPMC-8L-FPB-T-NBBLANK no-button faceplate. | 1 | pcs |
| 16 | CRESTRON | CNPWSI-75 | Cresnet Power Supply, 75 watt - International Version, 230V | 1 | pcs |

**Annex.III. Existing audio/video & automation system**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NO | BRAND | MODEL | DESCRIPTION | QTY | UNIT |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | SHARP | PG-D3050W | 16:10 DLP 3000 ANS PROJECTION | 1 | pcs |
| 2 |  |  | PROJECTION CEILING MOUNT BRACKET | 1 | pcs |
| 3 | DRAPER | TARGA | 99"/252 cm 119 x 221 MOTORIZED SCREEN | 1 | pcs |
| 4 | SONY |  | BLU-RAY DVD PLAYER | 1 | pcs |
| 5 | EXTRON | CrossPoint Ultra 88HVA | 8x8 Ultra-Wideband Matrix Switcher with ADSPTM for RGB and Stereo Audio | 1 | pcs |
| 6 | BEYERDYNAMIC | SHM 22 H SW SET | Miniature condenser gooseneck mic, black, for hanging ceiling mounting, with cable 8 m (26 ft.), incl. pre-amplifier CV 15 PV-N(C)-R | 8 | pcs |
| 7 | BEYERDYNAMIC | SHM 22 H SW SET | Acoustic Echo Canceling MICROPHONE | 3 | pcs |
| 8 | AVUNO | sC6 | 2-WAY 6" CEILING SPEAKER | 10 | pcs |
| 9 | BIAMP | AudiaFLEX CM | AudiaFLEX chassis with CobraNet® Module, 2RU | 1 | pcs |
| 10 | BIAMP | AEC-2HD | 2-channel TrueSoundTM acoustic echo canceling card | 2 | pcs |
| 11 | BIAMP | VoIP-2 | 2-channel Voice over Internet Protocol card | 1 | pcs |
| 12 | BIAMP | PA-2 | 2-channel power amplifier output card | 4 | pcs |
| 13 | BIAMP | IP-2 | 2-channel mic/line input card | 4 | pcs |
| 14 | BIAMP | AudiaEXPI-4 | 4 mic/line analog inputs to CobraNet output, PoE | 1 | pcs |
| 15 |  |  | POE HUB | 1 | pcs |
| 16 | CRESTRON | AV2 | Economical Dual Bus Control System. 1 Z-Bus slot, optional CAGE2 card cage` adds 3 Y-Bus slots. Built-in Power Supply | 1 | pcs |
| 17 | CRESTRON | C2ENET-1 | Single Port 10/100BaseT Ethernet Card with e-Control®2 for Z­Bus Expansion Slot | 1 | pcs |
| 18 | CRESTRON | CAGE2 | 3-Card Y-Bus Expansion Cage for AV2 | 1 | pcs |
| 19 | CRESTRON | C2COM-2 | 2 Port RS-232/422/485 Card for Y-Bus Expansion Slot | 1 | pcs |
| 20 | CRESTRON | DIN-8SW8-I | DIN Rail High-Voltage Switch, 8 feeds, 8 channels | 1 | pcs |
| 21 | CRESTRON | TPMC-8LB-T KIT | Isys i/O 8.4" Wall Mount Touchpanel Media Center, Black, Textured. Includes TPMC-8L-FPB-T\_BLANK button faceplate and TPMC-8L-FPB-T-NBBLANK no-button faceplate. | 1 | pcs |
| 22 | CRESTRON | TPMC-8X | Crestron's Isys i/O TPMC-8X is a compact, stylish Wi-Fi touchpanel featuring the Windows® XP Embedded OS to deliver a 2-way wireless control solution with blazingly fast performance and native capabilities for browsing the Internet, streaming multimedia, and much more. A brilliant 8.4" active-matrix SVGA display and 16-bit color depth combine to produce stunning 3D graphics using DNav dynamic menu objects, dynamic graphics and text, animations, multimode objects, PNG translucency, and exclusive SynapseTM image rendering - all with astonishing speed. | 1 | pcs |
| 23 | CRESTRON | TPMC-8X-DS | Desktop Docking Station for TPMC-8X | 1 | pcs |
| 24 | CRESTRON | CNPWSI-75 | Cresnet Power Supply, 75 watt - International Version, 230V | 1 | pcs |

1. <http://www.timeanddate.com/worldclock/city.html?n=69> [↑](#footnote-ref-1)