

TERMS OF REFERENCE

SUPPLY, DELIVERY, AND INSTALLATION OF VIDEO AND AUDIO EQUIPMENT SYSTEMS FOR THE MARINA CENTRAL OFFICE

A. Background

The Maritime Industry Authority (MARINA) is a government agency established pursuant to Presidential Decree No. 474 and attached to the Department of Transportation (DOTr). In compliance with the Republic Act No. 9184 known as the “Government Procurement Reform Act”, the MARINA will be conducting a public bidding for the Supply, Delivery, and Installation of Video and Audio Equipment for the MARINA Central Office.

B. Objective

To procure a complete set of video and audio equipment systems for the board and conference rooms having the specifications stipulated in Section VII of this TOR

C. Approved Budget for the Contract

The Approved Budget of the Contract (ABC) is Ten Million Five Hundred Thousand Pesos (Php10,500,000.00), inclusive of VAT and other applicable government taxes to be charged against the 2019 GAA.

D. MARINA Requirements

In addition to the provisions of RA 9184 and its IRR, the following are the MARINA requirements:

1. The bidders must be continuously operating in the Philippines for the past ten (10) years.
2. The bidders must have no pending case(s) against the government. The bidder shall submit a notarized Certificate of No Pending Case(s) against the Government, as part of the bid.

E. Deliverables

a. For the Boardroom

1. 1 unit – Smart TV with wall mounting bracket

Screen Size	:	minimum of 85”
Video	:	240Hz
Resolution	:	3,840x2,160
Dolby digital Plus	:	Yes
3D Sound	:	Yes
Woofers	:	Yes
Ethernet	:	Yes
Wireless LAN Built-in	:	Yes
USB	:	Yes
Audio Out	:	Yes
HDMI	:	Yes

2. **17 units – Table Top Monitor**
11”(minimum size), 13”(maximum size) Monitor with HDMI/VGA input
3. **4 units – Six Output VGA Distribution Amplifier**
4. **1 unit – 4K/60 HDMI Distribution Amplifier**
5. **1 unit – HDMI to VGA/Audio Converter with Scaler**
6. **1 unit – Laptop**
with Windows OS
minimum 8 GB Memory
minimum 1 TB HDD storage
7. **1 unit – 4K Presentation Matrix Switcher with Scaler**
All-in-one 8x2 4K matrix switcher, scaler, audio DSP with AEC, audio power amplifier
Inputs: Six HDMI, two twisted pair inputs on RJ-45, six stereo balanced/unbalanced audio inputs on captive screw, four mic/line audio inputs on captive screw
Outputs: Two twisted pair outputs on RJ-45; one S/PDIF digital audio output on coaxial RCA; two variable audio outputs on captive screw; speaker outputs on 5 mm
Two twisted pair inputs and six HDMI inputs
Two independently scaled twister pair outputs
Two twisted pair outputs feature mirrored HDMI connections to support local monitoring
8. **2 units - Two Input Wall Plate for Transmitter for HDMI and VGA with Audio Embedding**
Transmits HDMI or analog video, control, and analog over a shielded CATx cable
One HDMI input and one VGA input
Auto-switching between inputs
Supports computer and video resolutions up to 1920x1200, including 1080p/60 and 2K
Analog stereo audio embedding
Compatible with CATx shielded twisted pair cable
9. **1 unit - HDMI Receiver**
Receives HDMI plus control and analog audio over a shielded CATx cable
Input: One twisted pair input on RJ-45
Outputs: One HDMI, stereo audio on captive screw
Supports computer and video resolutions up to 4K
Compatible with CATx shielded twisted pair cable
10. **1 unit - Wireless Collaboration Gateway**
Operating systems - Windows® 7/8/10, macOS® (10.7-10.13)
Video file formats - MP4, MPG, MPEG, AVI, MOV, MKV, WMV
Audio file formats - MP3, WAV, WMA, AAC
Image file formats - JPG, BMP, PNG, GIF
Network connectivity
 - Standards - IEEE 802.3 (10BASE-T), IEEE 802.3u (100BASE-TX), IEEE 802.3ab (1000BASE-T)
 - Protocol - TCP/IP, SNMP, Sntp/NTP
 - IP Configuration - DHCP (default), static IP – configurable
 - Management - Web based configuration, SNMP v3
 Video output
 - Connectors - 1 female HDMI type A
 - 1 female 15-pin HD connector
 Audio output

- Connectors - (1) embedded on HDMI
- (1) 3.5 mm, stereo mini jack: tip (L), ring (R), sleeve (Gnd)

11. 1 unit - Document Camera with extender cable

- Image Sensor - 1/3" CMOS color image sensor
- Total Pixels - 5M
- Output Resolution - Full HD1080p (1920 x 1080)
- TV Lines - 1000 (max.)
- Zoom - 240X total zoom (16X optical zoom + 15X digital zoom)
- Frame Rate - 30fps (max.)
- Focus - Auto / Manual
- Shooting Area - Greater than A4 portrait (400 x 300 mm)
- Image Rotation - Electronic rotation 0° / 90° / 180° / 270°
- Camera Head Rotation - -125° ~ 90° vertical & ±90° horizontal
- USB 2.0 port - Yes
- Audio Input - Built-in MIC; MIC in (3.5 mm jack, pink)
- Audio Output - Audio Out (3.5 mm jack, green)

12. 1 unit – Wireless Router

- Radio Frequency Bands - 2.4 & 5GHz
- Ports - Power, USB(1), Ethernet(1-4)
- LEDs - Power, Internet, Ethernet(1-4)
- Buttons - Reset, Power
- Max. Link Rate - 867 Mbps

13. 8 units – Ceiling Speaker

- Frequency Response (+/-3 dB) - 80 Hz - 17 kHz
- Frequency Range (-10 dB) - 70 Hz - 19 kHz

14. 1 unit – Power Amplifier

- 100 watts rms output power per channel at 8 ohms, 4 ohms, or 70/100V, four channels
- Multiple protection circuits

15. 1 unit – Digital Signal Processors

- Inputs: 12 balanced or unbalanced mic/line level on 3.5 mm, 3-pole and 6-pole captive screw connectors
- Outputs: Eight balanced or unbalanced line level on 3.5 mm, 6-pole captive screw connectors

16. 1 unit – Wireless Control Unit

- Ensure high immunity from interference
- High Definition audio mode
- True diversity antenna technology ensures highest transmission and reception reliability
- The control unit can manage up to 100 microphone units
- 4 audio up-streams for up to 4 microphone signals
- 2 audio down-streams for loudspeaker transmission and headphone output
- Number of open Microphones function allows the allocation of up to 4 microphone units simultaneously
- Processor-controlled and automatic audio channel allocation of the microphone units
- Different operating modes:
 - Manual – each participant can turn the microphone on and off;
 - Voice Activation – the microphone is turned on when someone speaks into it;

- Override – when a microphone unit is activated, the one that was activated before will be turned off;
 - Push-To-Talk – as long as the participant speaks into the microphone, he/she must press the microphone button.
- 17. 1 unit – Wireless Chairman Microphone Unit**
 Transmitter power - max. 20 dBm per channel and region
 Battery voltage - 8 NiMH cells, 2080 mAh
 External DC operation - 15 V DC (± 0.5 V), residual hum < 20 mV, 950 mA
 Loudspeaker - Wide-band, integrated loudspeaker
 Volume decrease when Mic On (“Ducking”)
 Headphone output - Jack socket (3.5 mm, stereo)
 Power supply - 9.6 V with integrated NiMH battery (8 cells)
- 18. 16 units – Wireless Delegate Microphone Unit**
 Transmitter power - max. 20 dBm per channel and region
 Battery voltage - 8 NiMH cells, 2080 mAh
 External DC operation - 15 V DC (± 0.5 V), residual hum < 20 mV, 950 mA
 Loudspeaker - Wide-band, integrated loudspeaker
 Volume decrease when Mic On (“Ducking”) - 15 dB fixed setting
 Headphone output - Jack socket (3.5 mm, stereo)
 Power supply - 9.6 V with integrated NiMH battery (8 cells)
- 19. 2 units – Charging & Transport case (10 microphone units / case)**
- 20. 2 units - antenna (any form factor)**
 Frequency (MHz)
 - Band 1: 2400 – 2500
 - Band 2: 5150 – 5875
- 21. 2 units - Antenna mounting device**
- 22. 2 units - Antenna cable**
 Cable with very low attenuation, length 20m (minimum)
- 23. 1 unit - Control System Processor**
 Supports secure industry standard communications protocols
- 24. 1 unit - 10" Tabletop Touchpanel**
 10" capacitive touchscreen with 1280x800 resolution and 24-bit color depth
 Faster, quad-core processing and eight times more memory
 Built-in speaker
 Light sensor adjusts screen brightness as the ambient room lighting changes
 System connection status indicator provides visual feedback if the touchpanel is not communicating with a control processor
- 25. 1 unit - Power and Device Control Processor**
- 26. 2 units – IR Probe/Sensor**
- 27. 1 unit - Network Switch - 8ports (4ports with PoE)**
- 28. 1 unit - Equipment Rack - 5ft (minimum), 6ft (maximum)**
 with casters, door, lock and power strip
- 29. Polyester Fiber Sound Proofing Panel**
 All Four Side Wall Area: 80 sqm.
 4kg. X 9mm thk. X 4' x 8' Polyester Fiber Panel (Color:tdb)
- 30. Slotted Wooden Groove Panel**
 2 Side Wall Area: 42 sqm
 15mm thk. X 128mm x 2400mm
- 31. 1 Licensed MS Office**
- 32. 1 Licensed Anti-Virus**

b. For the 5 Conference Rooms

1. 5 units – minimum of 65” Interactive Flat Panel

65” interactive flat panel display

Up to 20 single-point users or 10 dual-touch and gestures users with Touch 360° interactivity, driving collaborative learning to a new level (* Multi-touch available on Windows systems. Mac and Linux are single touch.)

Built-in Android OS for touch control plus Whiteboard app.

video resolution- (3,840 x 2,160)

Effective Screen Size - 1,428 mm x 803 mm

Input/Output

- Input: - VGA: Yes, HDMI-Yes, HDMI: Yes, PC audio: Yes, Display Port: Yes

- Output: - HDMI: Yes

- USB: Yes

Audio

- Sound: System Stereo

- Equalizer: Yes

- Sound Status Memory: Yes

- Balance: Yes

Core i7 with 8GB DDR3, 128GB SSD (minimum)

Windows 10 preinstalled

2. 5 units – Wall Mounting Bracket

3. 5 units – Ultra HD 4K Camera Soundbar

Camera:

- Sensor - Yes

- Frame rate - 4K 30fps; 1080p, 720p, 960x540, 848x480, 640x480, 640x360, 424x240, 320x240, 320x180 at 60, 30, 15 fps

- Lens iris, focus, zoom – Yes

- Digital zoom rate - up to 4x

Audio:

- Microphones: Yes

- full range speakers: Yes

HDMI:

- DisplayLink USB 3.0 to HDMI adapter built-in

Remote Control:

- Camera presets: Yes

Hardware Requirements:

- 2.4GHz Intel Core 2 Duo processor (minimum)

- 2GB RAM (minimum)

Power Supply:

- AC 100V ~ 240V

- Consumption: DC12V/5A

Live:

- Real-time streaming / annotating / snapshots / video recording

4. 5 units – HDMI Patch Cable, 1 meter

5. 10 units – HDMI Cable, 5 meters

6. 5 sets - Twisted Pair Extender for USB Peripherals (Transmitter & Receiver)

F. Delivery Schedule

1. The video and audio equipment systems must be delivered and installation within forty-five (45) days upon receipt of the Notice to Proceed (NTP);
2. Deliveries should be made within office hours and on regular working days on or before the stipulated date in the contract unless otherwise specified for valid reason why the same cannot be complied with;
3. MARINA shall impose penalty of 1/10 of 1% if the total value of the undelivered order for each day of delay as liquidated damages after the specified allowable number of days to deliver the units

G. Other Requirements

1. One (1) year warranty (parts and service) on all deliverables/items.
2. During the warranty period, the winning bidder shall provide technical personnel free of charge to service the system and all its components/peripherals whenever hardware and/or related problem should occur. Should there be a need to pull-out a unit for repair: a replacement unit with at least the same specifications must be provided by the supplier before actual pull-out of the malfunctioned unit.
3. After Sales Service and Support during the warranty period, all reported defects shall be completely / satisfactorily repaired / replaced by the winning bidder/supplier.
4. The winning bidder must provide a training program and technology transfer to all of the MFAS/GSD technical staff.

H. Inspection and Acceptance

The MARINA shall have the right to reject and return the unit(s) and cancel the corresponding Contract if units delivered are defective, incomplete or noncompliant to the specifications herein specified.

I. Terms of Payment

The payment shall be done within thirty (30) working days upon submission of complete documents including, delivery, testing and upon issuance of Inspection and Acceptance Report by the authorized/designated representatives of MARINA.