

# **STATE OF KUWAIT**

## **MINISTRY OF INFORMATION**

**Supply and guarantee a variety of broadcast  
equipment to Continuity studio Department for HD80  
Studio improvement**

### **1. Introduction:**

MOI invites specialist bidders to quote their best prices for the supply, and guarantee of broadcast equipment according to the following requirements & specifications. The required equipment should be compliant with the SMPTE 292M, 424M, and 259M.

### **2 General conditions**

- 2.1 All equipment should be guaranteed for two years
- 2.2 All equipment should be delivered within four months after the contract signing
- 2.3 The required equipment should be broadcast quality and confirm SMPTE 292M, 424M, 259M recommendations.
- 2.4 BOQ prices list for all items should be submitted.
- 2.5 The offered prices should be itemized prices for each item according to specification.

### **Scope of work:**

- The required video and audio equipment's to enhance broadcast quality of the studio
- Audio accessories like ( Ear piece set, lavalier microphone, clip on microphone, etc ...) are included to meet studio equipment's upgrade and staff requirements.
- Video equipment's like ( vision mixers and waveform etc ... ) are included to improve video quality and expand input and output sources of the studio to make all the equipment's channels fully integrated and connected>
- Professional displays to upgrade the Multiviewer system.

### **3 Digital Master control switcher: Qty1**

**Master control switcher with the following features:**

- 3.1** 42x 1080p/1080i/720p inputs
- 3.2** 12x HD/SD/1080p (270 Mb/s / 1.485 Gb/s / 2.97 Gb/s) outputs
- 3.3** Video standard 1080i/ 50 Hz/ 16x9 HD.
- 3.4** Supports, 1080i50 video formats with embedded audio.
- 3.5** Supports AES, embedded audio and capability of Dolby E detection.

- 3.6** 4 keyers for channel branding
- 3.7** 4 channels of DVE assignable to keys.
- 3.8** Full feature Desktop Control panel with at least 16 cross-point Push Buttons with PGM /PST /AUX /Preview Buses, Key and Audio Monitoring controls.
- 3.9** At least 15" External touch screen monitor with GUI interface
- 3.10** Cut, Mix and Wipe with auto-transition or manual Lever arm using Audio follow video and split audio/video Transition.
- 3.11** Four DSKs with preview can insert Animation, stills and Clock, timer with clip gain and Transparency adjustment and masking.
- 3.12** Luminance and linear keying using separate/ external key Sources or Self-keying.
- 3.13** Audio monitoring meters for PGM, PST and AUX.
- 3.14** Audio level control with LCD display.
- 3.15** Configured independent video/audio transitions.
- 3.16** Audio mixer which supports voice over audio lead and lag
- 3.17** Pre-fade listen audio selection directly from control buttons on the panel.
- 3.18** Source name display on the control panel.
- 3.19** Redundant power supply for electronic and control panel.
- 3.20** Tally outputs for all master control switcher inputs.
- 3.21** Internal clip-store backed up by 1 TB HDD

#### **4 Lighting control console Qty(2)**

lighting console with the following features

- 4.1** 10 motorized submasters faders, Motorized A/B playback faders,5 motorized multi-function faders and Dual motorized grand masters
- 4.2** 4 Indented push encoders each with LCD display for assignment
- 4.3** 4 DMX Out Ports, 1 DMX In Port and 2 Network Ports
- 4.4** 24-inch touchscreen monitor
- 4.5** Keyboard drawer with storage with USB
- 4.6** 4 USB 3.0 connectors
- 4.7** Time line effects

#### **5 75" UHD display Qty(4)**

75" indoor display panel providing better visibility regardless of ambient light with 24/7 operation capability

- 5.1** Resolution 3,840 x 2,160
- 5.2** Pixel Pitch (HxV, mm) 0.42975 x 0.42975

- 5.3 Brightness (cd/m2) 700
- 5.4 Contrast ratio 4,000 : 1
- 5.5 Viewing Angle (H/V) 178 / 178
- 5.6 Color Gamut 92 % (DCI-P3, CIE 1976)
- 5.7 2 HDMI in, 1 DVI in and 2 USB
- 5.8 Set Dimension (WxHxD, mm) 1681.1 x 960.1 x 49.7
- 5.9 Bezel Width (mm) 11.5 (U/L/R), 12.5 (D)

## **6 9-inch HDTV/SDTV Full HD Multi-format LCD Monitor Qty(8)**

- 6.1 9-inch Full HD 1920×1080 pixel 400cd 8-bit resolution LCD panel
- 6.2 Multi-format SDI, 3G-SDI, HDMI, Ethernet and VBS inputs
- 6.3 WFM and Vector displays, Audio level monitoring
- 6.4 AC or DC Powering, with battery bracket
- 6.5 Contrast Ratio (typical) 700:1
- 6.6 Display Color 16.77 million colors / 8-bit
- 6.7 View Angle (up & down, left & right typical) 178°
- 6.8 USB connector for auto setup, mouse control & file storage

## **7 Logo generator Qty(2)**

A complete HD/SD Logo Insertion package that will key one, or many, static/animated "bugs" over an HD or SD video signal with the following features

- 7.1 Stores and inserts static and animated logos or media clips
- 7.2 Multiple simultaneous logos can be keyed directly onto the HD or SD video signal
- 7.3 Multi-layer keying
- 7.4 Supports 1080i, 720p, 1035i, 1080psF, 480p, 525, and 625 formats
- 7.5 Full 12-bit linear video keyer with logo fade-in and fade-out processing
- 7.6 Independent control of logo position, transparency and offset
- 7.7 Independent control of fade in and fade out of static logos
- 7.8 Input bypass relays for power failure protection
- 7.9 Automatic equalization up to 100m @ 1.5GB/s (Belden 1694A or equivalent)
- 7.10 Program and Preview outputs
- 7.11 Reference to input video or colour black
- 7.12 Gigabit Ethernet interface

- 7.13** LTC input for analogue or digital "Breakfast Clocks"
- 7.14** Manage logos from a standard PC using Ethernet
- 7.15** +HTXT feature to support crawls and text teasers/snipes
- 7.16** 8GB internal compact flash storage
- 7.17** additional removable flash memory of 8GB
- 7.18** playout cache of 8GB DRAM
- 7.19** Up to 16 logos can be keyed simultaneously, with independent fade control for each logo
- 7.20** Logo position, fade rates, clip association and animation rates are all user-controllable
- 7.21** Redundant Power Supply
- 7.22** Desktop Remote Control Panel **Qty (2)**
- 7.23** 30m length terminated Remote cable **Qty (6)**

**8 Non-Linear Editing system with the following features: Qty1**

- 8.1** M2 Ultra with 24-core CPU, 60-core GPU, 32-core Neural Engine
- 8.2** 128GB unified memory
- 8.3** 8TB SSD storage
- 8.4** Front: Two Thunderbolt 4 ports, one SDXC card slot
- 8.5** Back: Four Thunderbolt 4 ports, two USB-A ports, one HDMI port, one 10Gb Ethernet port, one 3.5 mm headphone jack
- 8.6** Magic keyboard with touch ID and numeric keypad Arabic black keys and magic mouse **Qty (1)**
- 8.7** Finalcut pro editing software
- 8.8** 27-inch 5K Retina display. 12MP Ultra-Wide camera with Centre Stage. Studio-quality mics. Six-speaker sound system with Spatial Audio with tilt and height adjustable stand **Qty (1)**

**9 capture and playback break out box Qty (2)**

Rack mount Thunderbolt or Thunderbolt 2 based capture and playback "break out box"

**Some features for the required equipment**

- 9.1** SDI Video Inputs 2 x 12Gb/s and 2 x 6Gb/s SD/HD/2K/4K. Supports single/dual/quad link 4:2:2/4:4:4. 2D/3D switchable
- 9.2** SDI Video Output 2 x 12Gb/s and 2 x 6Gb/s SD/HD/2K/4K. Supports single/dual/quad link 4:2:2/4:4:4. 2D/3D switchable
- 9.3** HDMI Inputs 1 x HDMI type A connector
- 9.4** HDMI outputs 1 x HDMI type A connector
- 9.5** 4 Channels balanced analog audio inputs via XLR connectors

- 9.6** 4Channels balanced analog audio outputs via XLR connectors
- 9.7** Computer interface Thunderbolt™ 3 (Mac OS and Windows), PCI Express 4 lane generation 2
- 9.8** Sync input 1 x Reference input. Tri-Sync or Black Burst
- 9.9** Sync. Output 1 x Reference Loop Output. Tri-Sync or Black Burst

## **10 Video accessories**

- 10.1** 15cm length DIN 1.0/2.3 to BNC Male converter **Qty (30)**

## **11 4 M/E HD production switcher Qty (1)**

4M/E 3G/HD-SDI production switcher with the following features

- 11.1** 40 x 3G-SDI inputs and 24 x 3G-SDI outputs 1.5G, 3G
- 11.2** SDI standards SMPTE 292M, SMPTE 296M, SMPTE 424M, SMPTE 425M level A and B.
- 11.3** Automatically detects between 1.5G-SDI and level A or level B 3G-SDI.
- 11.4** Video Sampling 4:2:2
- 11.5** Color Precision 10-bit
- 11.6** 16 upstream key each has advanced chroma key and 4 downstream key
- 11.7** 4 Stinger transition and 4 DVE
- 11.8** 4 x multi views each configurable to 16, 13, 10, 7 or 4 up views. Includes monitoring of Program, Preview, Inputs, Media Players, M/Es, DSKs, SuperSource, Clean Feed with optional labels and audio meters
- 11.9** 4 media players with fill and key per each
- 11.10** 60 media still capacity
- 11.11** Media player clip length equal to 600 frames in 1080 HD
- 11.12** Still image format PNG, TGA, BMP, GIF, JPEG and TIFF
- 11.13** Video file format TGA sequence
- 11.14** Processing delay less than 10 line
- 11.15** 2 x balanced 1/4 inch Jack, 1 x 32 stereo channel BNC MADI in and 1 x 5 pin XLR Talkback Audio input
- 11.16** 2 x balanced 1/4 inch Jack, 1 x 32 stereo channel BNC MADI in and 1 x 5 pin XLR Talkback Audio output

## **12 4 M/E Advanced Panel Qty (1)**

Advanced control panel with 4 rows and 40 buttons per row