

Section VI. Schedule of Supply

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1. List of Goods and Related Services

a). List of Good

Lot No. 01 – Studio Equipment

Spec: No.	Item Description	Total Quantity. Nos.
	<i>Cameras And Accessories</i>	
A1	Digital production Camera and accessories	03
A2	Tripod Adaptor	03
A3	Triax System for cameras with 10Mhz Bandwidth Includes: Camera Head Adapter	03
A4	Serial Digital Input/Outputs Board	03
A5	Studio Remote Control with preview capability	03
A6	New 5inch Studio Viewfinder, Switchable Aspect Ratio 4:3, 16:9	03
A7	Sport Hood for VF	03
A8	Headphone set	03
A9	19" Dual Rack Mount Adaptor	03
A10	20:1 Zoom Lens, 8.5-170mm Shuttle Shot, f1.8 with Internal Focus Lens	03
A11	Rear Zoom & Focus Control Kit for all 1/2" or 2/3" Professional Lenses	03
A12	Studio kit for zoom and focus	03
A13	30 m Triax cable per camera	03
	<i>Vision Mixer</i>	
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A36	Master Sync Generator	01
A37	Sync Pulse Change Over Unit	01
A38	HD & SD Test Pattern Generator	01
A39	Master Clock System	01
A40	Remote Clock Displays	01
A41	Telop Camera (Sensor)	01
A42	Digital Audio Hard Disk Recorders	01
A43	HDCAM studio editing recorder	01
A44	DVD Recorder/Hard Disk Drive	01
A45	Hard Disc Recorder	01
A46	DVD Disc	1000
A47	CD/DVD Duplicator	01
A48	CD/DVD Printer	01
A49	Input Selector Switch (Compatible with Vision Mixer)	01
A50	Tally Unit and Communication Unit (Compatible with Vision Mixer)	01
A51	UPS (Bidder should be stated the capacity of power)	01
Note	Overseas Training for 2 maintenance personals	
	Local Training should for all studio staff in OUSL (Should Includes Airfare and Accommodation)	
	Installation, Testing & Commissioning of project (Should Includes Airfare and Accommodation)	

Lot No. 02 – Studio Audio Equipment

Spec: No.	Item Description	Total Quantity. Nos.
B1	Wireless Dynamic Microphone	03
B2	Shot Gun Microphone	03
B3	Wireless Clip On Microphone	07
B4	Dynamic Microphone	03
B5	Microphone Stand with Fish Pole	01
B6	Portable Digital Audio Recorder	02
Note	Local Training should for all studio staff in OUSL (Should Includes Airfare and Accommodation)	
	Installation, Testing & Commissioning of project (Should Includes Airfare and Accommodation)	

Lot No. 03 - Maintenance Equipment

Spec: No.	Item Description	Total Quantity. Nos.
C1	Digital Multi Meter	03
C2	Heat Control Soldering Station	02
C3	De Soldering Vacuum Station	02
	Studio Maintenance Tool Set	
C4	High Quality Vanadium Flat Screw Driver Set	01
C5	High Quality Vanadium Cross (Phillips) Screw Driver Set	01
C6	High Quality Pliers Set	01
C7	High Quality Hex Combination Wrench Set	01
C 8	High Quality Allen Key Wrench Set	01
C9	Computer Technicians Portable Tool Kit (Compete with the leather case)	01
C10	Wire Stripper	01
C11	BNC Crimping Tool Kit (with Stripper)	01
C12	Adjustable Table Lamp with Circular Fluorescent Lamp& Magnifying Lens	01
C13	Small Universal Bench Vise	01
C14	Drawers (12 x 8) – Component Drawer Set	01
C15	Electric Drill (with Hammer)	01
C16	Electric Hand Blower	01
C17	Electric Vacuum Cleaner	01
C18	Cable Tester	01

Lot No. 04 – Lighting Equipment

Spec: No.	Item Description	Total Quantity. Nos.
D1	ENG Lights Units	02
D2	Controller and Intelligent Lighting Unit	01
D3	Battery Operated Lighting Kit	01
Note	Overseas Training for 2 maintenance personals	
	Local Training should for all studio staff in OUSL (Should Includes Airfare and Accommodation)	
	Installation, Testing & Commissioning of project (Should Includes Airfare and Accommodation)	

b). List of Related Services

Item No	Name of Related Services	Description
01	Inland delivery from port of Colombo to final destination for CIF offers.	1.1. Expenses for clearance of goods from harbour. (Except duties/taxes). 1.2. Transportation 1.3. Insurance (if applicable). 1.4. Charges for delivery up to final destination (delivery site) 1.5. Any other expenses would be involved in delivery of goods up to final destination & acceptance of same. 1.6. Installation 1.7 Training of personal 1.8 Supplying Maintenance Tools
02	Inland delivery from Show Room, Factory, where house or off-the-self to final destination for EXW offers. (If applicable only)	2.1. Transportation 2.2. Insurance (if applicable). 2.3. Charges for delivery up to final destination (delivery site) 2.4 . Any other expenses would be involved in delivery of goods up to final destination & acceptance of same 2.5 Installation 2.6 . Training of personal 2.7 . Supplying Maintenance Tools

2. Delivery and Completion Schedule

The delivery period shall start as of _____.

Lot: No.	Description of Goods or Related Services	Delivery Schedule (Duration)	Location	Required Arrival Date of Goods or Completion Date for Related Services
01	Studio Equipment	Within 03 months from the date of opening of the L/C for CIF offers	Open University of Sri Lanka, Nawala Nugegoda, Sri Lanka	
02	Studio Audio Equipment			
03	Maintenance Equipment	Within 03 months from the date of signing of the Contract for EXW offers		
04	Lighting Equipment			

3. Technical Specifications

Lot No. 01 – Studio Equipment

A1 ~ A9 Digital Colour Camera (Studio)

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Color System	PAL		
Optical system	2/3" F1.4 prism		
Pickup system	RGB 3IT- CCD, 2/3"Image format		
Imaging size	4 : 3 8.8 x 6.6mm		
Picture elements (pixels)	Total 811(H) x 508(V) Effective 768(H) x 494(V)		
Sync system	Internal or genlock		
Horizontal resolution	900 TV lines		
Signal-to-noise ratio	65 dB typical (Gamma : 1, DTL : off, Gain : 0 dB, Y-OUT)		
Standard sensitivity	F11 at 2000 lx		
Minimum illumination	0.5 lx F1.4 / 0.8 lx F1.8 (Gain : +24dB, digital gain : on)		
Gamma correction	0.35 to 1.0 (ON/OFF switchable)		
Geometric distortion	All zones : less than measurement limit (excluding lens)		
Registration	All zones : less than 0.05% (excluding lens)		
Optical filters	3200K, 5600K +1/16ND, 5600K, 5600K+1/64ND		
Vertical detail correction	2H		
DTL controls	DTL LEVEL, DTL FREQ, FLESH TONE, LEVEL DEP, CRISP, H-V BAL, SOFT DTL, etc.		
Lens mount	Bayonet (Backfocus : 48mm in air)		

Gain selector	Low : 0dB Mid : +6/ +9 / +12dB High: +12/ +18 / +24dB Remote mode : 0dB to +24dB (3dB steps)		
Digital-Gain function	Gain is increased +6dB, +12dB by Internal processing of DSP		
Scene file	4 scene files Items: gain, DTL, masking, gamma, electronic shutter, auto iris mode, contrast, etc.		
Electronic shutter	Preset mode 1/100, 1/250, 1/500, 1/1000, 1/2000 CC FRAME Lock SCAN mode : approx 1/60 to approx. 1/2000 (in 1H steps); Automatic Electronic Shutter (AES) mode : (up to 4 lens-stops)		
Input signals	1.Genlock input (BNC or multi-connector) : VBS 1.0Vp-p (± 3 dB or black burst/75 Ω) (sync 0.3 \pm 0.1Vp-p, burst : 0.3 \pm 0.1Vp-p) 2.Viewfinder AUX input (multi-connector) : VBS 1.0Vp-p ± 3 dB / 75 Ω		
Output signals	1.Video output(BNC) VBS 1.0Vp-p / 75 Ω 2.VTR output 1(multi-connector) VBS 1.0Vp-p / 75 Ω 3.VTR output 2(multi-connector) a : Composite signal: VBS 1.0Vp-p / 75 Ω b : Y/C output : Y : 1.0Vp-p / 75 Ω , C : 0.3Vp-p (burst), c : RGB output : RGB : 0.7Vp-p / 75 Ω d : Component output: VS :1.0Vp-p / 75 Ω R-Y, B-Y : 0.525Vp-p / 75 Ω 4.Monitor output (BNC) VBS 1.0Vp-p / 75 Ω , with characters 5.Audio output (multi-connector) – 20dBm or –60dBm		
Accessories	Tripod Adaptor, Wide Band Triax System, Serial Digital Input/Outputs Board, Studio Remote Control, Viewfinder, Sport Hood, Headphone		

	set, Rack Mount Adaptor		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two Years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A10~A13 Camera Lens with Other Accessories

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Zoom ratio	20x		
Range of Focal length (with extender)	8.5- 170mm		
Maximum relative Aperture (with extender)	1:1.8 at 8.5 -113.3 mm 1:2.7 at 170 mm		
Angular Field of View (with Extender)	54.7 deg x 42.4 deg at 8.5 mm 3.0 deg x2.2 deg at 170mm		
M.O.D. from lens front	0.9 m(10mm with macro)		
Object dimensions at M.O.D	85.2 x 63.9 cm at .5mm 4.4 x 3.3 cm at 170mm		
Macro Facility	Should be available		
Tripod Adapter	Should be compatible with Vinten pedestal		
Rear Zoom & Focus Control Kit	Should be compatible with zoom lens		
Studio kit	Should be compatible with zoom lens		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two Years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Vision Mixer**A14 - Digital Video Switcher/Mixer (1.5 M/E)**

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue/ Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Video Processing	SD & HD		
Video and Key Inputs	The switcher shall include 16 standard inputs. The switcher shall be expandable up to 48 inputs internally without an external matrix or routing system.		
Video Outputs	The switcher shall be expandable to 16 outputs with 48 inputs or 24 outputs with 32 inputs all of which will be assignable. All output buses are to be auto-timed. Switcher video and key outputs shall meet the following specifications: 10 Bits, conforming to ITU-R BT.601-5, SMPTE 259M-C and SMPTE 292M BNC, 75 Ohm Signal Level: 800mV +/- 10% Output Jitter: <130ps Rise and Fall Time: 800 ps +/- 10% (SD), 240 ps +/-10% (HD) Return Loss: >18 dB at 1.5GHz DC Offset: 0 Volts Overshoot: < 8%		
Serial Ports	The switcher shall be equipped with 12 assignable RS-422 ports for external device interfacing and control. The switcher shall offer an optional port expansion to allow up to 36 RS-422 ports.		
Tally Outputs	The switcher shall be equipped with 36 assignable tally outputs.		

	<p>Tally outputs shall be a dry contact closure type.</p> <p>The switcher shall offer optional serial tally outputs using industry standard tally protocols.</p>		
Mix Effects (ME)	<p>The switcher shall be equipped with 2 full MEs</p> <p>The switcher shall be capable of expanding up to 4 MEs</p> <p>Each ME shall have ability to wipe between any combination of background, key 1, key 2, key 3 and key 4 by the push of the ME fader handle or auto transition button.</p> <p>Each ME shall have the ability to dissolve between any combination of background, key 1, key 2, key 3 and key 4 by the push of the ME fader handle or auto transition button.</p> <p>Each ME shall have the ability to use the internal DVE as a transition between any combination of background, key 1, key 2, key 3 and key 4 by the push of the ME fader handle or auto transition button.</p> <p>Each ME shall include 4 effects Keyes</p> <p>Each ME shall include 2 quality chroma Keyes</p> <p>Each ME shall include a 5th keyer exclusively for transition effects with the internal DVE.</p> <p>Each ME shall have key priority transition capability.</p> <p>Each ME shall have the ability to set a transition limit.</p> <p>Each ME shall have 100 dedicated memories</p> <p>Each ME shall have the option for internal still stores on program and preset buses and in the keyers.</p>		

Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Video Wall & Multi Viewer

A15 ~ A 17 – Video Wall & Multi viewer

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Video Inputs	<ul style="list-style-type: none"> • Twelve auto-sensing HD/SD/analog video inputs • Accepts either 4:3 or 16:9 • Auto-detects 525/625 format SD inputs (single frame rate conversion) • Computer graphic input (DVI-I up to UXGA resolution) source is used for background display or for cascading multiple VIP™ modules together. Also can be used in place of the last video input as a scaled source. • Additional DVI/VGA input used as a background or as a scaled input 		
Audio Inputs	<ul style="list-style-type: none"> • Handles embedded or unbalanced AES/EBU, and balanced analog audio (up to 48 AES and 12 L/R) via break-out panel • VU/PPM level indicators 		

<p>Video Output</p>	<ul style="list-style-type: none"> • One DVI-I output - Drive a single DVI-D and a single RGBHV (VGA-type) display simultaneously with the same content up to WUXGA (1920x1200 resolution) • One selectable HD/SD serial digital (BNC) video output, also carrying same content as DVI-I output or select from input • Minimal processing delay (~1 frame) • Optional fiber output (-G option) • Optional support for "portrait" display via 2430GDAC-WARP • Thumbnails of any or all selected inputs to VistaLINK® PRO Thumbnail Server(or equivalent) 		
<p>Graphics</p>	<ul style="list-style-type: none"> • User-configurable tally indicators and configurable UMD static and/or dynamically updated text, background colors • User-configurable borders • LTC input drives digital clock display • Count-up or down timer displays (GPI triggered) 		
<p>Signal Monitoring</p>	<ul style="list-style-type: none"> • Extensive list of user-configurable signal fault conditions with "logic" settings • On-screen messages triggered by fault conditions • Detects frozen video (patent pending) and black video 		

	<ul style="list-style-type: none"> • User-configurable fault condition alert messages per video input with configurable background colors, opacities, thresholds and duration settings • Closed caption presence detection 		
Auxiliary Inputs	<ul style="list-style-type: none"> • RS-232/RS-422 communication port Interface to common UMD protocols -TSL, Image Video • 20 assignable general purpose inputs, 8 general purpose outputs 		
Physical	<ul style="list-style-type: none"> • Number of slots – 4 • Genlock reference loop input for proper timing - 1 NTSC/PAL • Fast power-cycle time (< 30 seconds) 		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Glue Equipments**A18 ~ A22 - Glue equipment**

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue/Package No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Broadcast quality	HD to SD		
AES inputs and 8 AES outputs	Supports with audio delay tracking video processing delay (-AES8 version)		
Up Converter	SD to common HD/SMPTE 292M		
Distribution Amplifier	<ul style="list-style-type: none"> • Supports up to 540Mb/s operation • DVB-ASI compatible • Non-reclocking mode for SMPTE 310M • Features independent isolated output drivers to ensure no cross channel loading effects (i.e. no need to terminate unused outputs) • capable offering remote monitoring, control and configuration capabilities via SNMP Input • SMPTE 259M (143Mb/s to 540Mb/s), DVB-ASI, M2S, SMPTE 310M (19.4Mb/s) - Non-reclocking mode • Return loss > 15dB up to 540Mb/s • 300m auto equalization at 270Mb/s (Belden 8281) • 210m auto equalization at 540Mb/s (Belden 8281) Outputs <ul style="list-style-type: none"> • 7 reclocked outputs • Return loss > 15dB up to 540Mb/s • Wideband jitter < 0.2 UI 		
Manuals	Service Manual and Operation Manual		

Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Video Signal Monitors**A 23 - Waveform Monitor**

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
General	A quadrant display for viewing an input on up to four different displays as picture, waveform, vector, optional audio, alarm status, timing, optional eye pattern, simultaneously or individually as a full screen display of each separately. Data analyzer display for pixel analysis		
Waveform	Composite, YC _B C _R or RGB, parade/overlay of like formats		
Sweep Time Base	1H or 2H, with x1, x5 and x10 horizontal magnification 1V or 2V with x1, x5 and x25 horizontal magnification		
Waveform Accuracy	±1%		
Measurement Analog	250 kHz to 2250 MHz, -3 to +1 dB relative to 750 MHz		
Jitter Overshoot	≤20% for all frequencies up to 300 kHz		
Intrinsic Jitter	<70 ps for HD <150 ps for SD		
Intrinsic Wander	<150 ps for HD <300 ps for SD		
Display Range	0 UI to 1.0 UI		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A24 – Audio Analysis Option

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue No./Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Audio Analysis Option			

A25 - Oscilloscope

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Bandwidth	500 MHz		
Sample Rate	5/2.5/1.25 GS/s		
Record Length	16 M		
Channels	4		
Calculated Rise Time 5 mV/div (typical)	800 ps		
Hardware Bandwidth Limits	150 MHz or 20 MHz		
Input Coupling	AC, DC, GND		
Input Impedance, 1 MΩ	$\pm 1\%$		
Input Sensitivity, 1 MΩ	1 mV/div to 10 V/div		

Input Sensitivity, 50 Ω	1 mV/div to 1 V/div		
Vertical Resolution	8-bits (>11-bits w/ averaging)		
Max Input Voltage, 1 MΩ	150 V CAT I, \leq 400 V peak		
Max Input Voltage, 50 Ω	5 V _{RMS} with peaks \leq \pm 30 V		
DC Gain Accuracy	1.5% with offset set to 0 V		
Channel-to-channel Isolation for Any Two Channels at Equal Vertical Scale	\geq 100:1 at \leq 100 MHz and \geq 30:1 at >100 MHz up to the rated bandwidth		
Timebase Range	200 ps/div to 1000 s/div		
Timebase Delay Time Range	(s/div \times 10) to 1000 s		
Channel-to-channel Deskew Range	\pm 75 ns		
Timebase Accuracy	15 ppm		
Trigger Jitter (RMS)	8 psRMS (typical)		
Long Term Sample Rate and Delay Time Accuracy	\pm 15 ppm over any \geq 1 ms interval		
Equivalent Time Sample Rate (max)	250 GS/s		
Trigger System			
Sensitivity Internal DC Coupled External (auxiliary input) Main Trigger Modes Trigger Sequences Standard Trigger Types	0.35 div DC to 50 MHz increasing to 1 div at rated bandwidth 400 mV from DC to 50 MHz increasing to 750 mV at 100 MHz Auto, Normal, and Single Main, Delayed by time, Delayed by events. All sequences can include separate horizontal delay after the trigger event to position the		

	acquisition window in time. Edge, Glitch, Runt, Window, Width, Transition Time, Timeout, Pattern, Video, State, Setup/Hold		
Trigger Level Range Any Channel	±10 divisions from center of screen ±8 V		
External (auxiliary in) Trigger Coupling	DC, AC (attenuate <60 Hz), HF reject (attenuate >30 kHz) LF reject (attenuates <80 kHz) Noise reject (reduce sensitivity)		
Trigger Holdoff Range	1.5 µs to 12 s maximum		
Display Type	10.4 in. Liquid crystal active-matrix color display		
Touch Screen	Yes		
Display Resolution	640 horizontal x 480 vertical pixels		
Waveform Styles	Vectors, Dots, Intensified Samples, Variable Persistence, Infinite Persistence		
Operating System	Windows XP		
Probe	Yes		
Power requirement	230V/50Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Multi – format Converters**A 26 - Up/Down/Cross Converters**

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue/ Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Coax Inputs:	Number of Inputs: 4 Connector: BNC per IEC 61169-8 Annex A Input Equalization: 300m @ 270 Mbs with Belden 1694A or equivalent 100m @ 1.5 Gbs with Belden 1694A or equivalent Return Loss: > 15 dB to 1.5 GHz Data Rate Auto-sensing SD and HD (270 Mbs & 1.5 Gbs) Formats 525i/59.94, 720p/59.94, 1080i/59.94 625i/50, 720p/50, 1080i/50 *		
Fiber Inputs	Number of Inputs 4 Connector LC Form Factor Dual Optical SFP Receiver Wavelength 1260-1620 nm Data Rate Auto-sensing SD and HD (270 Mbs and 1.5 Gbs) Formats 525i/59.94, 720p/59.94, 1080i/59.94 625i/50, 720p/50, 1080i/50*		
DVI and Analog Video Inputs	Number of Inputs 1 Connector DVI-I (Female) Breakout Cable DVI-I to DVI-D and 5x RGBHV BNCs included Standards DVI-D: 1080p/1080i/720p @ 59.94 HZ (no HDCP)		

	<p>DVI-D: 1080p/1080i/720p @ 50 Hz (no HDCP)*</p> <p>RGBHV/YPbPr 1080i/720p/525i @ 59.94Hz</p> <p>RGBHV/YPbPr 1080i/720p/625i @ 50 Hz*</p> <p>CVBS – NTSC on G channel</p> <p>CVBS – PAL on G channel*</p>		
Analog Audio Inputs	<p>Number of Inputs 4</p> <p>Type Mono signals, balanced analog audio</p> <p>Connector Removable terminal strip</p> <p>Input Impedance 10k Ω minimum (differential)</p> <p>Sampling Freq Analog signal sampled at 48 KHz</p> <p>Signal Level 0 dBFS = 19 dBu/25 dBu software selectable</p> <p>Freq Response \pm 0.1 dB (20 Hz to 20 kHz)</p> <p>SNR > 100 dB</p> <p>THD+N > 100 dB (20 Hz to 20 KHz, - 1 dBFS)</p> <p>CMRR > 80 dB @ 1 KHz</p>		
AES Audio Input	<p>Number of Inputs 8x AES inputs</p> <p>Standard SMPTE 276M, synchronous or asynchronous</p> <p>Connector DB15</p> <p>Input Type Unbalanced</p> <p>Impedance 75 Ω</p> <p>Signal Level 1 Vp-p</p> <p>Sampling Rate 48 KHz</p>		
Reference Input and Passive Loop	<p>Type NTSC color black 1V p-p</p> <p>PAL color black 1 Vp-p*</p> <p>Tri-level sync*</p> <p>Connector BNC per IEC 61169-8 Annex A</p>		
GPIO	<p>Number 8 (configurable as inputs or outputs)</p> <p>Type Opto-isolated, active low with internal pull-ups to +5V</p> <p>Connector Removable terminal block</p> <p>Signal Level Closure to ground</p> <p>Function Virtual front panel button push</p> <p>Tally of front panel button push</p>		

Coax Outputs:	Number of Outputs: 4 Connector: BNC per IEC 61169-8 Annex A Signal Level: 800 mV nominal DC Offset 0V \pm 0.5V Rise/Fall Time 200 ps nominal (HD) 900 ps nominal (SD) Overshoot < 10% of amplitude Return Loss: > 15 dB to 1.5 GHz Wide Band Jitter < 0.20 UI Format 525i/59.94, 720p/59.94, 1080i/59.94 625i/50, 720p/50, 1080i/50		
DVI and Analog Video Outputs	Number of Outputs 1 Connector DVI-I (Female) Breakout Cables DVI-I to 2x.single link DVI and 5x RGBHV BNCs included DVI-D "Y Cable" included Standards DVI-D Out A: 1080i/720p/525i @ 59.94 HZ (no HDCP) DVI-D Out A: 1080i/720p/625i @ 50 (no HDCP)* DVI-D Out B: 1680x1050 out when running 1080i DVI-D Out B: 1920x1080p out when running 720p DVI-D Out B: 1440x900 out when running 525i RGBHV/YPbPr 1080i/720p/525i @ 59.94Hz RGBHV/YPbPr 1080i/720p/625i @ 50 Hz* CVBS – NTSC on G channel CVBS – PAL on G channel*		
Analog Audio Outputs	Number of Outputs 8 Type Mono signals, balanced analog audio Connector Removable terminal strip Output Impedance 60k Ω max Output Loads Hi Z Peak Conv Level 0 dBFS = 18 dBu/24 dBu software selectable Sampling Freq 48 KHz		

		Freq Response +/- 0.1 dB (20 Hz to 20 kHz) SNR > 100 dB THD+N >100 dB (20 Hz to 20 KHz, - 1 dBFS)		
AES Outputs Number of Outputs 8x inputs	Audio of AES	Standard SMPTE 276M, Connector DB15 Input Type Unbalanced Impedance 75 Ω Signal Level 1 Vp-p Sampling Rate 48 KHz		
Manuals		Service Manual and Operation Manual		
Make		Should be stated by the bidder		
Model		Should be stated by the bidder		
Year of manufacture		2007/2008		
Country of origin		Should be stated by the bidder		
Warranty period		Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

*Cables & Accessories***A27 - Digital Video and Audio Cables**

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
	Video Cable		
Type	Suitable type Digital/Analogue Video Cable		
Insulation	Polyethylene		
Shield	Braid		
Jacket	Polyethylene		
Length	Actual		
	Audio Cables		
Type	Suitable type Digital/Analogue Audio Cable		
Length	Actual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A28 - Audio and Video Connectors

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Video Connectors	Suitable type connectors		
Audio Connectors	Suitable type connectors		
SDI Connectors	Suitable type connectors		
AES Connectors	Suitable type connectors		
Power Cables	IEC		
	Standard cable designating system (Numbering system) Power distribution		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A29 - Digital Video Patch Panel

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Bandwidth	DC to 1.75GHz		
Impedance	75Ω		
Video Jacks	Actual numbers (non-terminated)		
Housing	rugged die cast		
Patch panel cable	Actual numbers		
Accessories	Actual numbers of suitable patch cords		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two Years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Graphics**A30 – Single Channel Graphics System**

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
CPU	2x AMD Opteron 280 Dual-Head Nvidia FX4600/512 4GB DDR400 RAM x 160GB SATA media drives		
Supported Video Resolutions	Serial digital component 4:2:2 video @ 1920x1080: /60i/59.94i/50i (SMPTE 274M)1920x1080: /30p/29.97p/25p/24p/23.98p (SMPTE 274M) 1280x720: /60p/59.94p/50p (SMPTE 296M) 720x486 (525): /59.94i (ITU-R BT601) 720x576 (625): /50i (ITU-R BT601)		
Video Inputs	One Serial Digital (SD/HD) Program/Frame Grab input: 4:2:2 SMPTE 259M and SMPTE 292M, 8/10 bit SDI (270 Mbps @ 525/625 and 1.485 G bps for HD) One Serial Digital (SD/HD) Key Input: 4:2:2 SMPTE 259M and SMPTE 292M, 8/10 bit SDI (270 Mbps @ 525/625 and 1.485 G bps for HD) One Analog Reference input: Tri-level sync (HD) or black burst (SD)		

Input Levels SDI	SDI: 800mv P-P Analog Ref: 1V P-P Black Burst or 0.6V P-P for Tri-level sync		
Input Impedence	75 Ohms		
Video Outputs	One Serial Digital (SD/HD) Program/Fill output: 4:2:2 SMPTE 259M and SMPTE 292M, 8/10 bit SDI (270 Mbps @ 525/625 and 1.485 G bps for HD) One Serial Digital (SD/HD) Key output: 4:2:2 SMPTE 259M and SMPTE 292M, 8/10 bit SDI (270 Mbps @ 525/625 and 1.485 G bps for HD)		
Output Levels	SDI: 800mv P-P		
Output Impedence	75 Ohms		
Audio Specifications	2 input / 2 output AES/EBU audio channels through the unbalanced /BNC connectors on the separate PC I/O paddle board On-board audio mixer 3.5mm stereo jack on faceplate for analog audio monitoring		
Additional Features	All internal video processing at 12-bits component 4:2:2:4 Video and audio bypass on HD/SDI program input-to-output in the event of a power fail or application reset Shaped or unshaped fill signal processing Internal watchdog timer to ensure hardware stability Monitoring and signal status LEDs GPIO: 24 port (10 outputs/14 inputs)		
Time code	SMPTE time code reader		

Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Studio Audio Equipments

A31 - Studio Audio Monitors

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Maximum Power	150 Watts		
Impedance	8 Ohms		
Sensitivity (2.83V @ 1m)	90dB		
Frequency Response (-3dB)	60Hz – 20kHz		
Crossover Frequencies	650Hz, 3000Hz		
High-Frequency Driver	1" Pure-titanium dome with EOS™ waveguide		
Midrange Driver	4" WeatherPlas™ cone		
Low-Frequency Driver	6" WeatherPlas™ cone		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		

Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A32 - Studio-Sub Control Console

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Studio-Sub Control Room Current Control Desk Should Be Adjusted to Suite the Following Equipment Vision Mixer, Remote Controls of Camera Control Units, Digital Audio Mixer Vector/Waveform Monitor Display	Standard Steel Console		
Colour	Light Gray		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A33 - Headphone

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Type	Full Covered		
Nominal impedance	32 Ohm		
Jack plug	3.5/6, 3 mm stereo		
Transducer principle	Dynamic		
Cable length	2 m approximately		
Frequency response (headphones)	60-20000 Hz or better		
THD, total harmonic distortion	<0,2%		
Sound pressure level (SPL)	105 dB (SPL)		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A34 - Digital Audio Mixer

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Number of Channels	24 mic/line Three band parametric equalizer 6 Auxes per channel 100 mm moving faders		
Frequency Response	20 Hz to 20 kHz relative to 1 kHz +0/-0.5dB		
THD	Less than .005%		
Hum and noise:	Mic equivalent input noise -126dBu 9		
Common mode rejection ratio	>70dB		
Cross talk	Between adjacent input channel .95dB		
Fader attenuation	>95dB		
Channel mute attenuation	>88 dB		
Sampling Frequency	Internal 44.1 KHz/48 KHz External 40 KHz to 50 KHz		
	Digital to analogue conversion		
Mic /line inputs:	24bit, 128 x Over sampling		
Stereo inputs	24bit, 128 x Over sampling		
Two track input	24bit, 128 x Over sampling		
Digital to analogue conversion	24bit, 128 x Over sampling		
Mixed output	24bit, 128 x Over sampling		
Control room output	24bit, 128 x Over sampling		
Aux output	24bit, 128 x Over sampling		
Digital output dither	Word length 16,20,24 bit		

	Dynamic range		
Digital input to mixed output	115dB		
Mic input to mixed output:	108 dB		
Stereo input to mixed output	108Db		
AES/EBU inputs	24, XLR		
No of Analogue mic /line input	16, XLR		
	2 AES/EBU out puts SLR stereo, 2 analogue out puts SLR + 4dBu 150 Ohm impedance, balanced stereo		
Power Requirement	AC 240V/50Hz		
Monitor out put	Analogue		
Level Metering	Multi segment LED for PGM out AUX PFL/monitor		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Other Studio Equipments**A35 - Frequency Counter**

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
No of Channels	2		
Frequency range	CH1 - 1Hz to 100 MHz CH2 - 80 m Hz to 1.3 GHz		
Sensitivity	CH1- 20 mVrms, 1Hz to 30 MHz - 50 Vrms, 30 MHz to 100 MHz CH2- 5m Vrms, 80 MHz to 600 MHz - 15m Vrms, 600 MHz to 900 GHz - 35m Vrms, 900 MHz to 1.3 GHz		
Impedance	CH1 - 1.0M Ω paralleled by 40 PF CH2 - 50 Ω		
Measurements	Frequency, Period, Pulse width		
Time base stability	less than 1 ppm		
Power requirement	220V- 240V 50Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A36 - Digital Sync Pulse Generator

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
	Serial Digital Video Outputs		
Standards Conformance	ITU-R BT 601		
Reference and Test Signals	Colour bars: SMPTE, 75% and 100% full field; 75% and 100% colour bars over red		
Coding	10-Bit linear PCM, all channels		
Quantization to Video Level Relationships	Y: 877 levels corresponding to video levels 64 through 940. C _B C _R : 897 levels centered around level 512		
Ancillary Data	EDH (RP 165); embedded audio, 20-Bits, same channels, frequencies and levels as AES/EBU Digital Audio Outputs		
Format/Bit Rate	Scrambled NRZI @ 270 Mb/s		
Amplitude	800mV ± 10%		
Rise and Fall Times	<1.5 ns		
Jitter	<0.25ns, averaged over a period of one horizontal line		
Output Impedance	75 Ω		
Return Loss	>15dB, 5 to 270 MHz		
Serial Digital Audio Outputs Standards Conformance	ANSI S4.40 (AES 3); SMPTE 276M		
Number of Audio Channels	4; 2 AES/EBU audio pairs		

	Audio Tones		
Frequency	1kHz, 800Hz,		
Silence level	-10 to -20 dBFS in 2dB steps		
Pre-emphasis	None		
Sampling frequency	48,000 kHz, locked to video.		
Coding	Linear PCM, 20- or 24- Bits, twos complement binary representation, bi-phase mark coding.		
Amplitude	Unbalanced (BNC): $1V \pm 0.2V$ Balanced (XLR): 3 to 10 V_{p-p}		
Internal Reference	Frequency -13.5MHz Stability-<1 ppm per year long term drift		
Analog Black Burst Outputs	Standards Conformance- EBU N14(PAL) F_{sc} Stability- ± 1 Hz over temperature		
SCH Phase	0 degrees ± 5 degrees		
Return Loss	>30 dB to 5 MHz		
Genlock Input Configuration	One 75Ω loop through or two 75Ω terminating inputs, user selectable.		
Return Loss	>36 dB to 5 MHz.		
Output Timing Ranges Genlock	Range : ± 2 fields, ± 8.5 lines; moves all timing relative to the reference input. Resolution:<0.5 degrees of sub carrier		
Power Source	Voltage: 180 to 250 VAC Frequency:48 to 62 Hz		
Input Requirements	Signals: PAL black burst Amplitude: Nominal ± 3 dB S/N ratio:>40 dB SCH phase: Nominal ± 40 degrees Signals: 1,3.58,4.43 and 10 MHz CW Amplitude: 2 V_{p-p}		

Performance	Pull-in range: $F_{sc} \pm 20\text{Hz}$ Jitter: Burst lock: <0.5 degrees Sync lock: <2 ns		
Black Burst Outputs	Range: ± 2 fields, ± 8.5 lines, relative to the genlock timing setting		
Resolution	2 Outputs: Field: Field increments Vertical: Line Increments Horizontal: <0.5 degrees of sub carrier 4 Outputs : Field: Field Increments Vertical: Line Increments Horizontal:74 ns (one clock cycle)		
Digital Video Outputs	Range - ± 1 field, ± 8.5 lines, relative to the genlock timing setting. Resolution - Field: Field Increments Vertical: Line Increments Horizontal: 74 ns(one clock cycle)		
Power requirement	AC 230V $\pm 10\%$ 50Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A39 - Combo Master Sync Pulse Generator/Master Clock

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
	Inputs and Outputs		
Return Loss	1-6 channels: 30 dB, 0 to 10 MHz 15 dB, 10 to 750 MHz, 10 dB, 750 MHz to 1.5 Hz 7-11 channels : 30 dB, 0 to 10 MHz 15 dB, 10 to 270 MHz 12 dB at 360 MHz (15dB typical) when selected		
Insertion Loss	1-6 Channels : 0.2 dB, DC to 10 MHz. In a frequency range of 10 MHz to 1.5 GHz, the instrument approximates less than 20 meters of Belden 1694A cable. 7-11 Channels: 0.2 dB, DC to 10 MHz 0.5 dB, 10 to 200 MHz 1.0 dB, 200 to 360 MHz		
Cross talk (unselected input to output or channel to channel)	1-6 Channels: 60 dB to 10MHz 30 dB to 1.0 GHz 20 dB to 1.5 GHz 7-11 Channels: 60 dB to 10 MHz 30 dB to 200 MHz 15dB to 360MHz		
Switch Time	10 ms.		
	Fault condition. Detection level		
Black Burst	PAL: 190 to 235mV between 2-4 dB		
AES/EBU Digital Audio	630 to 790 mV		

DARS & AES Test Generator Outputs	SMPTE 276M single ended AES (24-bits) (1V p-p into 75Ω) AES3-1992 (24-bits) (4V p-p unterminated) BNC per IEC 61169-8 Annex A 1V p-p nominal		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A40 - Remote Clock Displays

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Code Input	SMPTE 12M-1 Time code 20KΩ balanced or unbalanced DQS-B6 available on special order		
Accuracy	Approximately 1 second per week on internal crystal oscillator		
Time zone	±12 hours, Offset from SMPTE 12M-1 code input (1 hour increments)		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A41 - Telop (Sensor) Cameras

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Pick-up device	1/3 type IT (Interline Transfer) CCD (x3)		
Effective picture elements	752 (H) x 582 (V)		
Sensing area	6.00(H) x 4.96(V) mm		
Scanning system	2:1 interlaced, 625 lines		
Horizontal frequency	15.625 kHz		
Vertical frequency	50Hz		
Phase control	H/SC phase control		
Sync system	Internal or External with VBS, HD/VD(Automatic Switching)		
Horizontal resolution	800TV lines		
Lens mount	C mount		
Sensitivity	F8.0 at 2000 lux		
Minimum illumination	4 lux (F2, GAIN: HYPER)		
S/N ratio	61dB		
Gain	STEP/AGC/HYPER selectable STEP: 0 to 24 dB by 1 dB STEP AGC: 0 to 24 dB (Limit value: 6dB, 12dB, 18dB, 24dB variable) HYPER: 30dB		
Electronic shutter	OFF/STEP/VARIABLE/CCD IRIS selectable		

Lens	Remote (Auto or Manual) / Video selectable		
Contrast Effect	Manual/ DynaLatitude /DCC+ selectable		
Knee Point	High/Normal/Low selectable (Contrast Effect: Manual)		
Black stretch	Variable (Contrast Effect: Manual)		
Gamma	ON/OFF Variable		
Pedestal	Master and R/B Manual adjustable		
Black balance	ABB		
White balance	AWB/ATWNORMAL/ATW WIDE/MANUAL/3200K/5600K selectable AWB or ATW R/B Paint, MANUAL R/B Gain		
ATW area	NORMAL/MANU selectable		
ATW speed	FAST/NORMAL/SLOW selectable		
Detail level	ON/OFF (Variable at ON)		
Detail Frequency	HICH/MID/LOW selectable		
Linear matrix	ON/OFF		
Linear matrix MODE	STANDARD/R Enhance/G Enhance/B Enhance/Manual selectable		
Partial Enhance	ALL/IN/OUT selectable		
CCD integration mode	FIELD/FRAME selectable		
Shading Compensation	OFF/ON (Manual control)		
Trigger Polarity	Positive edge trigger/ Negative edge trigger selectable		
Baud rate	19200/9600/4800/2400/1200 selectable		
Sync	RGB/G/OFF selectable		
Strobe	ON/OFF		
User File	A/B switchable (Two pattern memories)		

Scene File	STANDARD/MICROSCOPE/FULL AUTO/ STROBE/FILE A or B		
Output signal	VBS:1.0 V _{p-p} , 75Ω, sync negative RGB: 0.7 V _{p-p} , 75Ω, Sync ON/OFF possible SYNC: 2 V _{p-p} , 75Ω, Y: 1.0 V _{p-p} , 75Ω, C: 0.3 V _{p-p} , 75Ω, without sync		
Accessories	Camera Control Unit with Component output 2m length camera cable Suitable lens for Telop camera		
Power Supply	200 - 240v, 50Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A42 - Digital Audio Hard Disk Recorder

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Features	Instant access up to 1000 Audio cuts with 50 Hot keys Edit Audio cuts (Trim need one tails , fade and levels) Display cut names, ID numbers and length Store multiple play lists No restriction to cut length Printer port to print Audio lists		
Audio formats	16 bit stereo, 48 k or 44.1 k linear 48 k Dolby AC-2		
Input sample frequencies	24 k to 56 k samples/second converted to 48 k or 44.1 k via sample rate converter		
Analogue Inputs	Balanced, XLR 3 pin connectors Impedance 10k Ω Input level +27 dBu balanced Common mode Rej. >80 dB		
Analogue outputs	Balanced XLR 3 pin connectors		
Output level	+24 dBu balanced		
Frequency response	20 Hz – 20 kHz		
Dynamic Range	90 dB		
THD + Noise	Less than 0.005%		
Digital I/O	AES/EBU on XLR 3 pin connectors		
Headphone out	Stereo 1/4" jack, with level control		
Total recording time	24 hours - Dolby AC-2 4 hours – 16 bit linear		
Recording Medium	Internal hard disk		

Maximum number of cuts	1000		
Maximum cut length	Equal to remaining time on disk		
Audio level meter	LED bar graph display, 2 channel, peak reading		
Printer port	Parallel output on 25 pin D connector		
Display	2 line x 20 character, fluorescent		
Panel Buttons	50 Nos Illuminated, silent action		
Power requirement	220V- 240V 50Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A43 - Digital Studio Recorder/HDCAM Studio Editing Recorder

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Recording Format:	HDCAM (1080/50i, 59.94i, 25P, 29.97P, 23.98P, 24P)		
Replay Formats:	HDCAM (1080/50i, 59.94i, 25P, 29.97P, 23.98P, 24P) Digital Betacam MPEG IMX		
Analogue reference: Video Input Signals	1 x BNC with loop through		
HD-SDI:Video Input Signals	1 x BNC (SMPTE 292M) 1.485Gbps		
IEEE 1394 (HDV) with HKDW-105: Video Input Signals	1 x 4-pin		
Analogue reference: Video Output Signals	3 x BNC (one with character display)		
SDI: Video Output Signals	3 x BNC (one with character display)		
HD-SDI: Video Output Signals	3 x BNC (one with character display)		
Analogue Audio: Audio Input Signals	2 x XLR 3-pin (CH 1 and 2)		
Digital Audio (AES/EBU): Audio Input Signals	2 x BNC (CH1/2 and CH3/4)		
Time Code: Audio Input Signals	1 x XLR 3-pin		

Analogue Audio: Audio Output Signals	2 x XLR 3-pin (CH 1 and 2)		
Digital Audio (AES/EBU): Audio Output Signals	4 x BNC (CH1/2, CH3/4, CH5/6*, CH6/7*)		
Time Code: Audio Output Signals	1 x XLR 3-pin		
Monitor Output: Audio Output Signals	2 x XLR 3-pin		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A44 - DVD Recorder/Hard Disk Drive

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
	<u>General</u>		
Power Supply	AC 240 V±10% 50 Hz		
Type	DVD Recorder/Hard Disk		
Recording format	-R(Video), -R(VR), +R, -RW,-R(Video)Dual Layer, R(VR)Dual Layer, +R Double Layer		
Play back format	DVD-RAM,, -R(Video), -R(VR), +R, -RW,-R(Video)Dual Layer, R(VR)Dual Layer, +R Double Layer, CD-R, CD-RW, CD-DA, VCD, Super VCD, JPEG		
Recording and Timing	Recording Time(455 hours(HDD) Manual Recording Time Features: Recovery recording-DVD to HDD, High Speed dubbing(HDD to DVD/DVD to HDD)		
Play back	Features: Fast Playback, Repeat, Simultaneous Recoding and Playback, Chasing playback		
Editing and Content Hub	Features: Automatic Chaptering from DV/DB Camcorder Play list Edit -VR JPEG Storage on HDD JPEG copy on DVD Printer Connection JPEG Slide Show		
Picture Quality	Video D/A Converter: 10bit/108MHz Features: Black Noise Reduction Mosquito Noise Reduction Progressive Output 1080p Up Scaling		

	YNR CNR		
Inputs	Composite Video (1) S-Video(1) Audio Input (L/R) IEEE 1394 (DV) Input		
Outputs	Composite Video (CVBS) (1) S-Video(1) Audio Input (L/R) Digital Audio output(Coaxial)(1) Component Video Output (1) G-Link(STB Control) (1) HDMI (with CIC)		
In/Out	Line 1 SCART : IN/OUT (Decoder IN) Line 3 SCART : OUT (TV OUT/Smart Link) RGB Input Rec. (Line 1 SCART) USB Type A USB Type B-PicBridge compatible		
Additional Features	DVD Menu Wall paer Tray Lock		
Accessories	RF Cable, Remote Set -to Box Controller (IR Blaster)		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A45 - Hard Disk Recorder

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Power Supply	AC 240 V±10% 50 Hz		
Recording/Playback time	12 hours		
	Video performance		
Band Width(via analogue component I/O)	Luminance: 25Hz to 5.0MHz +1.0 Db Chrominance: 25Hz to 2.0MHz +1.0/-2.0 dB		
Signal to Noise ratio(via analog component I/O)	54dB or more		
K Factor	2% or less		
Y/C delay	30ns or less		
	Audio Performance		
Frequency Response	2CH mode (48khz/16bit): 20Hz to 20kHz,+ or - 1.0dB 4CH mode (32khz/12bit): 20Hz to 14.5kHz,+ or - 1.0dB		
Dynamic Range	More than 87dB		
Distortion (THD+N)	Less than 0.07% (48kHz)		
	Signal Input		
Video (Analogue) input	Reference Video :BNC (2) 0.3 Vp-p, 75Ω sync negative Composite Video: BNC (2) loop through connection 1.0 Vp-p, 75Ω sync negative Component: BNC (3) Y: 1.0 Vp-p, 75Ω sync negative R-Y/B-Y: 0.7 Vp-p, 75Ω (100% colour bar) S-Video : BNC (2) Y: 1.0 Vp-p, 75Ω sync negative C: 0.3 Vp-p, 75Ω (at burst level)		

Video (Analogue) input	SDI: BNC (1), conforms to SDI(270 Mb/s)ITU-R BT 656 IEEE 1394 based		
Analogue Audio Input	Audio: XLR 3 pin female(2) +4/0/-3/-6 dBu (selectable by menu),high impedance		
Digital Audio Input	ASE/EBU, BNC (2), 75Ω Unbalance		
Time Code Input	BNC (1), 0.5 Vp-p to 18.0 Vp-p, 3kΩ Unbalance		
	Signal Outputs		
Video (Analogue) output	Video ½ (SUPER),BNC (2) Composite, 1.0Vp-p 75Ω , sync negative Component: BNC (3) Y: 1.0 Vp-p, 75Ω sync negative R-Y/B-Y: 0.7 Vp-p, 75Ω (100% colour bar) S-Video : BNC (2) Y: 1.0 Vp-p, 75Ω sync negative C: 0.3 Vp-p, 75Ω (at burst level)		
Video (Digital) output	SDI: BNC (2), conforms to SDI(270 Mb/s)ITU-R BT 656 IEEE1394 (DV): 6 pin (1) IEEE 1394 based		
Analogue Audio Output	Audio : XLR 3 pin male(2) +4/0/-3/-6 dBu (selectable by menu) Monitor RCA(1) -9 dBu, 47kΩ, Unbalanced (-18dBFS) Headphone: JM-60 head phone jack (1), -infinity to -11dBu, 8Ω, Unbalanced(-18dBFS)		
Digital Audio output	ASE/EBU, BNC (2), 75Ω Unbalance		
Time Code output	BNC (1), 2.2 Vp-p, 600Ω,unbalance		
Remote	RS-422 :D-sub 9 pin, female(2) Control: Mini jack (1)		
Network	Ethernet (1): 10 Base- T/100Base-TX Ethernet, rj-45 modular jack		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		

Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A46 - DVD Discs

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Capacity	4.7 GB		
Base	Polycarbonate		
Recording layer	Organic Layer		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A47 - CD/DVD Duplicator

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Operational Specifications	Completely stand alone, without a PC		
Hopper capacity	50 CD R discs able to duplicate CD and DVD		
Reliability	Mean SBF > 200,000 MTBF < 10,000 hours MTTR < 30 min		
Vibration	Operating > 0.3 G (5-150HZ)		
Shock	Operating > 5 G (11ms max)		
Humidity	Operating 20% to 80% RH		
	Support for up to 4X recording speed		
	Write support for DVD-R (General Use) and DVD-RW		
	Support for all CD formats		
	16X CD burning and 4X DVD Burning)		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A48 - CD/DVD Printer

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue/ Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Bin Capacity	Four 25 disc bins configurable as input, output, or reject Maximum input capacity is 100 discs		
Power	240V, 50 Hz, 5.3-3.2A, 600W maximum		
Operating Temperature	15 °C-30°C		
Software	Windows 98/2000 Compatible		
Printing Technology	Thermal		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

A49 – Input Selector Switch (Compatible with Vision Mixer)

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue No./Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Input Selector Switch (Compatible with Vision Mixer)			

A50 – Tally Unit and Communication Unit (Compatible with Vision Mixer)

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue No./Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Tally Unit and Communication Unit (Compatible with Vision Mixer)			

A51 – UPS (Bidder should be stated the capacity of power)

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue No./Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
UPS (Bidder should be stated the capacity of power)			

Note :

1 Overseas Training for 2 maintenance personals

Local Training should for all studio staff in OUSL (Should Includes Airfare and Accommodation)

2. Installation, Testing & Commissioning of project
(Should Includes Airfare and Accommodation)

LOT No- 02- Studio Audio Equipments

B 1 - Wireless Dynamic Microphone

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue/ Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
	Hand held Microphone & Transmitter		
Capsule type	Dynamic		
Frequency response	50 Hz to 18 kHz		
Directivity	Uni-directional		
RF output power	30mv		
Power supply	1.5v - 9v		
Frequency response	50 to 15,000 Hz		
TX frequency range	UHF		
	Rack Mount Receiver		
Receiver type	True Diversity		
Antenna inputs	2BNC Sockets		
AF outputs	XLR		
Max output level	balance + 10 dBu Unbalance + 4 dBu		
Power	AC 230v 50Hz		
Accessories	Suitable microphone clamp Windshield		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

B2 - Shot Gun Microphone

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue/ Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Pick up pattern	Super Cardioids		
Frequency response	40 - 20 KHz		
Sensitivity (no load) (1 KHz)	25 mV/Pa ± 1 dB		
Nominal impedance	25Ω		
Min. terminating impedance	800Ω		
Max. sound pressure level	130 dB at 1 kHz		
Accessories	Battery Power supply unit phantom 48 ± 12 V, Supply current 2 mA, The unit must be fitted with XLR connectors. Suitable microphone clamp Suitable shock mount Suitable Fish pole with angle bar Windshield		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

B3 - Wireless Clip on Microphone & Receiver Unit

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
	Clip on Microphone		
Transducer	electrets		
Sensitivity	40 mV/pa		
Max SPL	120 dB		
Pick-up pattern	Cardioids		
	Body pack Transmitter		
TX frequency range	UHF		
RF output power	30 mw		
Max input voltage mic/line	1.8 Vrms/2.4Vrms		
Power supply	9V		
Dimensions	Approximately 110 x 65 x 22 mm		
	Rack Mount Receiver		
Receive type	True Diversity		
Antenna inputs	2 BNC Socket		
AF outputs	XLR		
Max output level	balance + 10 dBu unbalance +4 dBu		
Power	AC 230v 50Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

B4 - Dynamic Microphone

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Pick up pattern	Super Cardioids		
Frequency response	40 – 16,000 Hz		
Sensitivity (free field, no load) (1 kHz)	2 mV/Pa ± 3 dB		
Nominal impedance	250 Ω		
Min. terminating impedance	1 kΩ		
Dimensions in mm	Ø 49 x 200, body Ø 31		
Microphone connector	XLR-3type		
Stand screw/mic holder screw	PF-1/2-inch thread		
Accessories	Suitable microphone clamp		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

B5 - Microphone Stand with Fish Pole

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Boom Mike Stand	Maximum height 60 inches Telescopic, with screw Adaptor		
With fish pole 10 feet approximately	Telescopic		
With microphone holder	Shock Mount type		
Colour	Black matte		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

B6- Portable Digital Audio Recorder

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Recording Format	DSS (Digital Speech Standard) WMA (Windows Media Audio)		
Recording Media	128MB integrated flash memory.		
Recording Time	SHQ mode: 4 hours 20 minutes HQ mode: 8 hours 45 minutes SP mode: 20 hours 55 minutes LP mode: 44 hours 45 minutes		
Input Level	-70 dBV		
PC Interface	USB		
LCD	Large backlit full dot display		
Folders Messages	5 folders		
Sampling Frequency	SHQ mode: 44.1 kHz HQ mode: 44.1 kHz SP mode: 12 kHz LP mode: 8 kHz		
LP Mode	yes,		
Voice Activation	yes 0,		
Speaker	Built-in 23 mm round dynamic speaker		
Microphone Jack	3.5 mm mini-jack, impedance MIC 2 kW , EAR 8W or more		
Earphone Jack	3.5 mm mini-jack, impedance MIC 2 kW , EAR 8W or more		
Power Supply	Rated Voltage: 3V DC Batteries: Two AAA External Power Supply: AC Adapter		
Size	109.5 x 39.5 x 15 mm (without protrusions)		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		

Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		
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Note :

1 Local Training should for all studio staff in OUSL (Should Includes Airfare and Accommodation)

2. Installation, Testing & Commissioning of project
(Should Includes Airfare and Accommodation)

Lot No – 03 – Maintenance Equipment

C1 - Specifications for Digital Multi meter (bench)

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
DC Voltage Ranges	200mV, 2V, 20V, 200V, 500V		
Basic DC Volts Accuracy	±(0.5% of reading + 1 count)		
Max DC Input Voltage	500 VCD (DC + peak AC)		
AC Voltage Ranges	200 mV, 2V, 200V, 500V		
Basic AC Volts Accuracy	± (1.0% of reading + 4 counts)		
Max AC Input Voltage	350 VAC sys 500 V (DC + peak AC)		
DC Current Ranges	200μ, 2mA, 20mA, 200mA, 2A, 10A		
Basic DC Current Accuracy	(±1.0% of reading +1 count)		
Max DC Input Current	2 A fused, 10 A unfused		
AC Current Ranges	200 μA, 2 mA, 20 mA, 200mA, 2 A, 10 A		
Basic AC Current Accuracy	±(1.5% of reading +4 counts)		
Max AC Input Current Voltage	650 V pk, current input to common		
Resistance Ranges	200Ω, 2kΩ, 20 kΩ, 200kΩ, 2 MΩ, 20MΩ		
Basic Resistance Accuracy	±(0.75% of reading + 1 count)		
Max Resistance Input Voltage	500 V (DC +peak AC)		

Safety	UL1244, CSA231, EN61010-1		
EMC	Meets Directive 89/336/EEC		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C2 - Specifications for Heat control soldering station

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
	IRON		
Input voltage	AC 24 v (using special Power supply)		
Power Consumption	30 W		
Heater	Ceramic heater (metal mold)		
Temp. range of airflow	300 ⁰ C~450 ⁰ C		
Standard tip	HS-272(0.7 mm max. dia)		
Insulation resistance	CLASS 2		
	STATION		
Input Voltage	AV 230 V 50/60 Hz		
Power output	AC 24 V		
Temperature control	Zero voltage cross ON-OFF temperature control circuit		

Insulation resistance	CLASS 2		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C3 - Specifications for de soldering Vacuum Station

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalog No. / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
	HAND PIECE		
Heating element	100 W ceramic		
Temp Range	with temp controller 200 ^o C to 450 ^o C		
Nozzle	2.0 mm Ø & 1.6 mm Ø		
	STATION		
Rating	AC 220v/230v 50 Hz		
Vacuum pump	Diaphragm Type		
Air Absorption	18 l/min		
Max vacuum	600 mm Hg		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	Two years comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

*Studio Maintenance Tool Set***C4 - High Quality Vanadium Flat Screw Driver Set**

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalog No. / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Sizes	Small, Medium, Large		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive. Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C5 - High Quality Vanadium Cross (Phillips) Screw Driver Set

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue No./Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Sizes	Small, Medium, Large		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C6 - High Quality Pliers Set

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue No./Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Types of Pliers	Combination Plier – 01 Long Nose Plier – 01 Circlip Plier – 01 Cutter Plier – 01		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C7 - High Quality Hex Combination Wrench Set

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue No./Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Sizes	6 mm to 22 mm		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 8 - High Quality Allen Key Wrench Set

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue/P age No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Size	1 mm to 10 mm		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 9 - Computer Technicians Portable Tool Kit (Compete with the leather case)

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue/P age No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 10 - Wire Stripper

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue/ Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 11 - BNC Crimping Tool Kit (with Stripper)

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 12 - Adjustable Table Lamp with Circular Fluorescent Lamp & Magnifying Lens

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 13 - Small Universal Bench Vise

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 14 - Drawers (12 x 8) – Component Drawer Set

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue No./Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 15 - Electric Drill (with Hammer)

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Power requirement	650 Watt / 230 V AC / 50Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 16 - Electric Hand Blower

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Speed of rotation	16,000RPM		
Power requirement	230 V AC / 50 Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 17 - Electric Vacuum Cleaner

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Power requirement	1,000 Watt / 230 V AC / 50Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

C 18 - Cable Tester

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Lot No – 04 – Lighting Equipment

D1 - ENG Portable Lighting Kit

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Features	Focusing facility 4 Leaf Barn doors with filter connector 800W - 1000W lamps Light colour Temperature : 3200 k 3 lights in one kit Center intensity 2,850 lux at 2m length Weight with light : Less than 15 kg		
Hardware	Light weighted aluminium stands Carrying case : Hard case kit with accessory holders 3 meter cable with in line switch Connector : 15 A plug Top or RDS type connector		
Power requirement	220V- 240V 50Hz		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive. Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

D2 - Controller and Intelligent Lighting Unit

Description	Minimum requirements	Bidder's compliance (Yes/No/Details)	Bidder's catalogue / Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
	Controller		
Mechanical	12 channels in 2 scene mode 48 channels in normal mode 512 DMX outputs 512 DMX inputs 288 memories in normal mode LCD Menu for configuration and preview English		
Playback Controls	Channel Faders: 2 preset banks x 12 channels in two preset mode 24 channel faders x 2 banks in normal mode for access to all 48 channels individual bump buttons on all channel faders with solo or pile-on operation Memory Faders: 24 memory faders x 12 pages in normal mode for access to all 288 memories Individual bump buttons on all memory faders with solo or pile-on operation Backup Faders: 24 memory faders in DMX Backup mode for access to DMX backup looks Each memory can store 512 channels Cross faders: Cross faders pair for manual, timed or rate override playback in all modes with Go, Pause, Rate and Clear buttons Master fader and Blackout button Bumps fader Independent channels		

Programming Tools	Snapshot storage: Ten locations for temporary storage of memories		
Interfaces	DMX 512 Output DMX 512 Input USB		
	Dimmer Rack		
General	Rack - 24 modules(Dual Density), 48 dimmers (3KW)		
Mechanical	Rugged 16-gauge steel construction Floor mount Front access to all wiring and terminations Full height locking door High efficiency cooling system		
Electrical	Three phase 230v AC Line feed frequency 50Hz		
Control Electronics	Sensor + control electronics module Single Ethernet control signal input Two DMX 512 inputs Standard diagnosis reporting		
Rising time	Should be stated by the bidder and it should compatible with analogue system		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

D3 - Battery Operated Lighting Kit

Description	Minimum requirements	Bidder's compliance (Yes/No)	Bidder's catalogue /Page No.
	If the exact minimum requirement is offered the bidder may say 'complied/yes'. If not, please give full detail. Any ambiguity may lead to consideration as being 'not complied'.		
Features	12V 250W Light complete with Tungsten Lamps Daylight Filter Parallel Barn Doors Universal Camera Clamp Spare Lamps (2 Nos) Belt with integral charges (230V) Hard Carrying Case Handle		
Manuals	Service Manual and Operation Manual		
Make	Should be stated by the bidder		
Model	Should be stated by the bidder		
Year of manufacture	2007/2008		
Country of origin	Should be stated by the bidder		
Warranty period	One year comprehensive, Bidder should provide a replacement, if the unit is taken out for repairs and vender must do the transportation of the unit.		

Note :

1 Overseas Training for 2 maintenance personals

Local Training should for all studio staff in OUSL (Should Includes Airfare and Accommodation)

2. Installation, Testing & Commissioning of project

(Should Includes Airfare and Accommodation)

Notes:

Unless specified against each specification / requirement what is stated above are considered as minimum

- All bids should provide original manufacturer's catalogues in English Language and each parameter/feature should be highlighted on the relevant page/s of the catalogue/s. The page/s of catalogue/s, where such a parameters/features is/are printed, should be identified against the relevant specification/requirement.
- All Equipments/Machines should be brand new and supplied by the manufacturers through local agents.
- Successful bidder shall supply the equipments/machines with the user manual and the repair manual issued by the manufacturer/s.
- Bidders shall not use the words "Yes" or "No" in the compliance sheet. Nevertheless, (yes or no) bidder shall write in words the specifications of the proposed makes and models appropriately against the space in the compliance sheet/bidder's response columns. Whenever, the space provided is insufficient, written on separate sheets arranged on the same format is required.
- Bidder shall not modify or delete any written specifications on the left hand side of the compliance sheet/ bidder's response column.
- Camera Control Unit and Camera Adaptor should be compatible with current Triax cable using in the Studio.
- Camera Tripod Adaptor should be compatible with Osprey Vinten Studio type Pedestal.
- ***Final Configuration (Complete System)***
 - ❖ 01 Digital Television Production Studio
 - ❖ 01 Fully equipped Sub Control Room for the Studio
- Bidders should forward their intended HD Television equipment specifications, A/V wiring diagrams and related Diagrams/designs/ modifications and material with the tender proposal.
- The successful bidder should provide two complete sets of finalized Audio/Video/Power wiring diagram after the installation and before the Commissioning to the OUSL.

- All the Cables/Connectors/Conversions and mounting Hardware or conversion equipment required (as per the equipment supplied) for the installation should be provided by the supplier and be priced in its bid.
- Bidder should do all the delivery, installation, commissioning, training and after sales services
- Reference of previous supply, installation, commissioning and after sales service of equipment should be provided.