

Government of India
Ministry of Information & Broadcasting
Broadcast Engineering Consultants India Limited
No.162, II Main, I Cross, AGS Layout, RMV II Stage, Bangalore – 560094

Amendment#1

NIT: e-TENDER FORSITC OF TV STUDIO, COMMUNITY RADIO STATION (CRS), INTERNET RADIO EQUIPMENTS AT CENTRAL UNIVERSITY OF JHARKHAND(CUJ), RANCHI

NIT No: BECIL\CU\JHARKHAND\TV&CRS\Equip\2021-22 Dated: 12/04/2021

Date: 30/04/2021

1. No	BOQ Sl. No	Item Description as per the specifications mentioned in the tender	Amendments	Remarks
Section 3.2 Page No 14		A. Detailed technical specification for TV studio		
1	5	49" Full HD LED Display with suitable stand compatible for above production switcher		Acceptable Brands :Panasonic/Samsung/LG/Sony
2	6	32" Display Monitors		Brands :Panasonic/Samsung/LG/Sony
3	11	Wireless Lapel Microphone Back-Electret Condenser Microphone, clip and grille/windscreen. Power supply: 12 - 48 V phantom powered Pick-up pattern: 2 nos. Omni-directional Frequency response 40 - 20,000 Hz ± 3 dB Nominal impedance 1000 Ω Connector 3-pin XLR with integral phantom power adaptor Cable	Wireless Lapel Microphone (Tx' r +Rx' r) Back-Electret Condenser Microphone, clip and grille/windscreen. Power supply: 12 - 48 V phantom powered Pick-up pattern: 2 nos. Omni-directional Cable: 1.4m terminated with HRS 4-pin Microphone Accessories : Tie clip; battery; foam windscreen FREQUENCY RESPONSE: 60 Hz - 16 kHz SENSITIVITY: 10dBµV (S/N 60dB @ 20 kHz deviation) FREQUENCY STABILITY: +/- 0.005%, Phase lock loop frequency control	Brands : AUDIO TECHNICA/ SHURE/ BEYERDYNAMIC/ SENNHEISER/AKG

		<p>length: 3 m Sensitivity: (free field, no load) (1 kHz) 10 mV/Pa ± 2.5 dB</p>	<p>MODULATION MODE: FM ACCESSORIES: AC Adapter, Antennas, Rack mount adapter, protective carrying case FOUR-PIN LOCKING CONNECTOR: Pin 1: GND Pin 2: INST Pin 3: Mic Pin 4: DC Bias +10V AUDIO OUTPUT DIRECT OUTPUT 1 : Unbalanced -2dBV AUDIO OUTPUT DIRECT OUTPUT 2 : Balanced 4dBV OUTPUT CONNECTOR : (Microphone) Balanced: XLRM-type, (Instrument) Unbalanced: 6.3 mm mono jack NUMBER OF CHANNELS VOICE : 2 x 4 frequencies MAX OUTPUT LEVEL : Mic / Line (0 / -20dB) ANTENNA INPUT : BNC type, 50 - BIAS voltage 12V DC 100mA each RECEIVING SYSTEM TRUE DIVERSITY IMAGE REJECTION : 55dB minimum RF POWER OUTPUT : 10 mW OPERATING FREQUENCIES : 824 - 831 MHz, 863 - 865 MHz TOTAL HARMONIC DISTORTION : <1% - 20 kHz deviation @ 1 kHz DYNAMIC RANGE : HH: 108 dB, BP 103 dB (@ max deviation) OPERATING RANGE : 60m, typical</p>	
<p>4</p>	<p>12</p>	<p>Wireless hand-held microphone system Back-Electret Condenser Microphone, clip and grille/windscreen. Power supply: 12 - 48 V phantom powered Pick-up pattern: 2 nos. Omni-directional Frequency response 40 - 20,000 Hz ± 3 dB Nominal impedance 1000 Ω Connector 3-pin XLR with integral phantom power adaptor Cable length: 3 m</p>	<p>Wireless hand-held microphone system (Tx' r +Rx' r) Back-Electret Condenser Microphone Power supply: 12 - 48 V phantom powered Pick-up pattern: 2 nos. Omni-directional Frequency Range : 824 - 831 MHz, 863-865 MHz Number of Frequencies : 2x 4-frequencies Simultaneous Frequencies : 4 Maximum Deviation : +/- 33 kHz Operating Range : 60m, typical Operating Temperature : +5°C - +45° C Frequency Response : 60Hz-16kHz Frequency Stability : +/- 0.005%, Phase lock loop frequency control Receiving System: Antenna switching diversity Image Rejection: 55dB minimum Dynamic Range: HH: 108 dB, BP 103 dB (@ max deviation)</p>	<p>Acceptable Brands : AUDIO TECHNICA/ SHURE/ BEYERDYNAMIC/ SENNHEISER/ AKG</p>

			<p>Sensitivity: 10dBμV (S/N 60dB @ 20 kHz deviation) Total Harmonic Distortion: <1% - 20 kHz deviation @ 1 kHz Level Control: Mic / Line (0 / -20dB) Antenna Input: BNC type, 50Ω - BIAS voltage 12V DC 100mA each Audio Output: Unbalanced -2dBV, Balanced 4dBV Output Connectors: Unbalanced: 6.3 mm mono jack, Balanced: XLRM-type Squelch Level: 2μV(min)~60μV(max) Channel Select: 2-Digit 7-segment LED display Power Supply: 100-240 V DC12V 500mA RF Output power: 10mW</p>	
5	14	<p>Speaker on studio floor + PCR Type Active Low/mid driver 6" or more dimensions: Tweeter dimensions (mm) 25 mm to 50 mm RMS: (Both LF + HF) \geq 80 watt Frequency response \leq 85 Hz - \geq 15000 Hz Max. SPL \geq 100 dB ,Protection circuits: Overload ,Controls: Treble, volume, mic gain, bass, mains switch (on/off) Line inputs: Minimum 1 Line inputs connectors: XLR & 6.3 mm Jack Mic inputs: 6.3 mm Jack & XLR, minimum 1 Line outputs: Minimum 1 Line outputs connectors: 6.3 mm Jack & XLR Operating voltage: 230 V A C \pm 10%, 50 Hz Cabinet material: ABS/ Polypropylene / MDF</p>	<p>Speaker on studio floor + PCR Monitor Type : Active 2-Way ,Low/mid driver 6" or more dimensions Power Rating: 100 watt or more RMS: (Both LF + HF) \geq 80 watt Frequency response \leq 85 Hz - \geq 15000 Hz Max. SPL \geq 100 dB Enclosure Bass-Reflex, Shielded Drivers: HF Driver: 1 x 1"(min) / 25 mm Tweeter, LF Driver: 1 x 6.5"(min) / 16.51 cm Audio I/O : 1 x XLR Balanced Analog Input, 1 x 1/4" TRS Balanced Analog Input, 1 x RCA Unbalanced Analog Input, Cabinet material: ABS/ Polypropylene / MDF</p>	<p>Acceptable Brands : Behringer/Yahama/JBL/BEYERDYNAMIC/M-Audio/Genelac</p>
6	16	<p>Digital SD / HD-SDI Video Distribution Amplifier</p> <ul style="list-style-type: none"> • Re-lockable SDI inputs • SD/HD through SDI 		<p>Acceptable Brands :DATAVIDEO/AJA/KRAMER/BMD</p>

		Minimum 1 IN and 4 OUT		
7	23	<p>Teleprompter Display Device Specification Display Device Size: 19" LCD/LED Monitor TP hood with complete tripod mounting assembly Reading Range: Up to 10 meters Video Input: VGA/ PAL System Requirement Operating System: Windows XP (32 bit or 64 bit) Windows 7(32 bit or 64 bit) Min 2.6Ghz CPU: 2 GB RAM; 1 Free PCI Express Slot (For Desktop), Antivirus licensed for one year. Software: Breaking News, Type N Play, Import RTF/Doc/Html/Txt, Import Run Downs, Reader Management, Anchor Messages, Multi Camera Support, Background Color Selection, Date & Time Display, Bookmarks, Timer, Auto Detect and import files, Run Time Script Editing, Run-Time Run order Updating, Block Story, Clip Reference, Multilingual Support, CDAC software for multi-language support. import .rtf and .doc files into the run orders. USB Hand Control unit Required cable and media driver should be available to complete the system</p>		<p>Acceptable Brands : SAMVAD/HABARI/PROMPTER PEOPLE/</p>
Section B Page No 19		Detailed technical specification for the Community Radio & Internet Radio studio equipment's		
8	1	12 Channel Digital audio Mixer	12 Channel Digital audio Mixer	Acceptable Brands : PRE

		<p>General: Audio Frequency Response 20 Hz to 20 kHz (± 1 dB) Dynamic Range Analog-to-Analog: 110 dB 20 Hz to 20 kHz, A-weighted, Dimensions 44 mm x 483 mm x 289 mm (1.7 in. x 19.0 in. x 11.4 in.), H x W x D, Weight 5.5 kg (12.0 lbs) Power Requirements 100 to 240 V AC, 50-60 Hz, 1 A Operating Temperature Range -18°C (0°F) to 63°C (145°F) Configuration Channel input, Mix output: Active balanced Aux input: stereo, unbalanced Direct output: Impedance balanced Clipping level Channel Inputs: Line (+0): +20 dBV, Mic (+26): -6 dBV, Mic (+46): -26 dBV Aux Input: +10 dBV ,Phantom Power 48 V DC, selectable per channel, 14 mA max. Max Output Level Line (+0): +20 dBV, Line (-20): 0 dBV, Mic (-46): -26 dBV, AD/DA Converter 24-bit, 48 kHz, 113 dB dynamic range typical, Latency Analog to Analog: 0.51 ms Analog to Dante: 0.29 ms, Gain Adjustment Range Channel Input, Mix Output: -110 dB to +18 dB, Input Processing Low cut, high shelf ,Output Processing 8-band PEQ, limiter, Networking Interface SCM820: Single Port, 10/100 Mbps Ethernet SCM820-DAN: Dual Port, Gigabit Ethernet, Dante Digital Audio</p>	<p>Audio Frequency Response 20 Hz to 20 kHz (± 1 dB) Dynamic Range Analog-to-Analog: 110 dB 20 Hz to 20 kHz, Operating Temperature Range -18°C (0°F) to 63°C (145°F) Configuration Channel input, Mix output: Active balanced Aux input: stereo, unbalanced Direct output: Impedance balanced Clipping level Channel Inputs: Line (+0): +20 dBV, Mic (+26): -6 dBV, Mic (+46): -26 dBV Aux Input: +10 dBV ,Phantom Power 48 V DC, selectable per channel, 14 mA max. Max Output Level Line (+0): +20 dBV, Line (-20): 0 dBV, Mic (-46): -26 dBV, AD/DA Converter 24-bit, 48 kHz, 113 dB dynamic range typical, Latency Analog to Analog: 0.51 ms Analog to Dante: 0.29 ms, Gain Adjustment Range Channel Input, Mix Output: -110 dB to +18 dB, Input Processing Low cut, high shelf ,Output Processing 8-band PEQ, limiter, Networking Interface SCM820: Single Port, 10/100 Mbps Ethernet SCM820-DAN: Dual Port, Gigabit Ethernet, Dante Digital Audio</p>	<p>SONUS/YAHAMA/ SOUNDCRAFT/ BEHRINGER /SHURE</p>
9	4	Speakers with Mount Stand	Speakers with Mount Stand	Acceptable Brands :

		<p>Near field distance-1 to 1.5 Meter distance, Bi-amplified and matched active crossover network, Connectors: Balanced XLR connectors, Volume control facility, Frequency level control, Protection for open circuit, short circuit current and thermal overload, Power supply: 230 v± 5% ac 50±2 Hz, single phase power supply Frequency Response: within ± 3 db between 50 Hz & 18 Khz with respect to 1kHz. Amplified power: 50W Input impedance: 10 k ohms (balanced) nominal input level: 0 dbu input level range: -10 Dbu to +10 Dbu Maximum spl continuous: > 104 db</p>	<p>Low Frequency Driver: 4.75" Mid Frequency Driver : No High Frequency Driver: 2.5" LF Amplifier : 40 Watts (20W per ch.) HF Amplifier : No Frequency Range :50 Hz - 25 kHz Impedance:20 kOhms(inputs) Controls and Indicators : 2 x Volume Knobs 1 x Treble Control Knob 1 x Bass Control Knob 1 x Power Switch Connectors : 2 x RCA Phono Line 1 In 1 x 1/8" Stereo Mini Line 2 In 1 x Coaxial SPDIF Digital In 1 x TOSLINK Optical In 1 x 1/4" Stereo Headphone Out 1 x RCA To Left Speaker Out Shielded : Yes</p>	<p>Behringer/Yahama/JBL/ BEYERDYNAMIC/M-Audio/GENELAC</p>
10	5	<p>Professional Headphones Frequency range: 20 – 22000Hz Electrical impedance: less than 75 ohms/channel Sensitivity at 1khz: 100 dbspl at 1mw input Max power handling Capacity: 100 mw total harmonic distortion: 0.5% at max. Permissible input level. Headphone diaphragm material: hard polyvinyl chloride or similar ear- pads material: leatherette and velvet Average pressure on ears: max 4/6 n Cord length (may be detachable): at least 5 meters Phone plug: gold plated stereo mini jack (3.5 mm) with gold plated screw- on adaptor (3.5 mm to 6.35</p>	<p>Professional Headphones Frequency Response : 15 - 20,000 Hz Maximum Input Power: 700 mW at 1 kHz Sensitivity : 60-100 dB Impedance : 40-75 ohms Cable : 3.0 m (9.8'), straight, left-side exit Accessories : 6.3 mm (1/4") snap-on adapter</p>	<p>Acceptable Brands : AKG/Beyerdynamic/Audio technica/Sennheiser/Shure</p>

		mm) Head-strap: Adjustable. Max power handling capacity: 100 mw total harmonic distortion: 0.5% at max. permissible input level		
11	9	<p>Condenser Microphone with Flexible Arm Stand, one Spider Shock Mount with Stand clip and puff filter: Transducer type: Pre-polarized Back plate condenser Frequency response: 20 - 20 kHz Polar pattern: Cardioid Power requirements: 9 - 52 Vdc Impedance: 200 ohms Recommended load impedance: >2000 ohms Output connector: Gold plated XLR-M Sensitivity: 6 mV/Pa; -45 dB (re 1 V/Pa) Sound pressure level for 1% (3%) THD: 139 dB SPL (142 dB SPL) Equivalent noise level: 17.5 dB-A to DIN 45412,Dynamic range: 121.5 dB Environmental operation: Temperature: -10°C to +65°C,Maximum relative humidity at +20°C: 90% Size: Maximum diameter: 2.0 in. (50 mm) 7.1 in.length (180 mm) Net weight: 10.4 oz. (295 g)</p>	<p>Condenser Microphone with Flexible Arm Stand, one Spider Shock Mount with Stand clip and puff filter for RJ: POLAR PATTERN: Cardioid FREQUENCY RESPONSE: 20-20,000 Hz IMPEDANCE: 100-120 ohms SENSITIVITY:-33db to -31.9 db dB re 1 Volt/Pascal MAXIMUM INPUT SOUND LEVEL: 137-148 dB SPL, PHANTOM POWER REQUIREMENTS : 24,48 V SWITCHES: Flat, roll-off; 10 dB pad (nominal) OUTPUT CONNECTOR: Integral 3-pin XLRM-type ACCESSORIES: Shock mount for 5/8"-27 threaded stands; 5/8"-27 to 3/8"-16 threaded adapter; soft protective pouch</p>	<p>Acceptable Brands : AUDIO TECHNICA/ SHURE, BEYERDYNAMIC/SENNHEISE R/RHODES</p>

		Shipping weight: 1.4 lb. (650 g) Accessories included: Carrying bag PB 1000 presence boost adapter SA 61stand adapter Optional accessories: TM40 UHF transmitter module, AKG WMS 40 Series wireless receivers B15 phantom adaptor		
12	8	Automation/scheduling & play out software		Acceptable BRANDS : Transman/station playlist studio pro/ATC/4C PLUS
13	25	24 port Gigabit Ethernet Switch	24 port Gigabit Ethernet Manageable Switch	
Section 3.1 (Page No 12):B. BOQ OF COMMUNITY RADIO STATION(CRS) & INTERNET RADIO				
14	9	Condenser Microphone with Flexible Arm Stand, one Spider Shock Mount with Stand clip and puff filter	Condenser Microphone with Flexible Arm Stand, one Spider Shock Mount with Stand clip and puff filter for RJ	
Section B (Page No 34):B. BOQ OF COMMUNITY RADIO STATION(CRS) & INTERNET RADIO				
15	9	Condenser Microphone with Flexible Arm Stand, one Spider Shock Mount with Stand clip and puff filter	Condenser Microphone with Flexible Arm Stand, one Spider Shock Mount with Stand clip and puff filter for RJ	

Note: Anything above the minimum required technical specifications are acceptable to BECIL.

All other terms & conditions of the NIT remain unaltered

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DGM (BECIL-Ro)
BECIL, Bangalore