# Contract

**Contract No:** GEMC-511687711654899

**Generated Date:** 14-Sep-2020

**Bid/RA/PR No:** GEM/2020/B/634837

## Organisation Details

| | |
|---|---|
| Type: | Central PSU |
| Ministry: | Ministry of Coal |
| Department: | Materials Management |
| Organisation Name: | Bharat Coking Coal Limited |
| Office Zone: | Bccl Dhanbad |

## Buyer Details

| | |
|---|---|
| Name: | Mrunal Mehta |
| Designation: | Deputy Manager MM |
| Contact No.: | - |
| Email ID: | mrunal.mehta@nic.in |
| GSTIN: | 20AAACB7934MFZB |
| Address: | MM Department, level 3, Commercial Building, Koyla Bhawan, Koyla Nagar, DHANBAD, JHARKHAND-826005, India |

## Financial Approval Detail

| | |
|---|---|
| IFD Concurrence: | Yes |
| Designation of Administrative Approval: | DT(P&P) |
| Designation of Financial Approval: | DT(P&P) |

## Paying Authority Details

| | |
|---|---|
| Name: | BIKRAM GHOSH |
| Designation: | HOD Purchase Finance |
| Email ID: | hodpurfin.bccl@nic.in |
| GSTIN: | N |
| Address: | MM Department, level 3, Commercial Building, Koyla Bhawan, Koyla Nagar, DHANBAD, JHARKHAND-826005, India |

## Seller Details

| | |
|---|---|
| Company Name: | HUE SERVICE PRIVATE LIMITED |
| Contact No.: | 03322835240 |
| Email ID: | gem@hueservice.com |
| Address: | 38A,BROAD STREET, Kolkata, WEST BENGAL-700019, - |
| MSME verified: | Yes |
| MSE Social Category: | General |
| GSTIN: | 19AACCH6467K1Z2 |

## Product Details

| # | Item Description | Category Name | Model | HSN Code | Ordered Quantity | Unit | Price (Inclusive of all Duties and Taxes in INR) |
|---|---|---|---|---|---|---|---|
| 1 | netrack 12U Rack Enclosures Networking/Server Rack | Networking/Server Rack | WM-12-550500 | HSN not specified by seller | 28 | pieces | 364,000 |
| 2 | Digisol Single mode OS2 HDPE Fibre Cable For Networking | Fibre Cable for Networking | DIGISOL SM (OS2) UNITUBE, ARMOURED, 12 CORE | HSN not specified by seller | 4,000 | meter | 81,600 |
| 3 | HIKVISION 2MP DOME CAMERA | Camera for CCTV System | Hikvision DS-2DE7A245IX-AE | HSN not specified by seller | 2 | pieces | 242,800 |
| 4 | 8 Channel NVR with 1 no 4TB HDD | Video Recorder for CCTV System | Hikvision DS-7608NI-K2 | HSN not specified by seller | 22 | pieces | 710,600 |
| 5 | Digisol Green CAT6 U/UTP Cable for Indoor use 305 mtrs. | CAT 6 Cable for Indoor use | Digisol UTP | HSN not specified by seller | 7,625 | meter | 104,081.25 |
| 6 | netrack 9U Rack Enclosures Networking/Server Rack | Networking/Server Rack | 9U 600 Depth Outdoor rack | HSN not specified by seller | 2 | pieces | 62,800 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7 | Molex Single mode OS2 LSZH Fibre Cable For Networking | Fibre Cable for Networking | Molex 91.9L.872.00300 | HSN not specified by seller | 50 | meter | 77,500 | |
| 8 | DELL EMC 2 X Intel DDR4 SDRAM with ECC 64 | Server | DELL EMC PowerEdge R540 | HSN not specified by seller | 1 | pieces | 358,900 | |
| 9 | HIKVISION 256 Channels Video Management System Software | Video Management System Software | HikCentral | HSN not specified by seller | 1 | pieces | 5,300 | |
| 10 | Ruckus SFP Small form-factor pluggable transceiver | Small form-factor pluggable transceiver | Ruckus-ICX E1MG-LX-OM | HSN not specified by seller | 50 | pieces | 720,000 | |
| 11 | CyberPower 3.0 KVA UPS | Online UPS | OLS3000EXL | HSN not specified by seller | 2 | pieces | 479,000 | |
| 12 | LARGE FORMAT DISPLAY SAMSUNG QM75R | Professional Large Format Display | SAMSUNG QM75R | HSN not specified by seller | 1 | pieces | 218,000 | |
| 13 | Ruckus Non Chassis Based Layer-3 Core Switch 5 Year Warranty | Layer-3 Core Switch | Ruckus ICX7450-24 + ICX7400-4X10GF + RPS15-E*(2) + ICX-FAN10-E*(2) + PCINDIA*(2) + ICX7450-SVL-RMT-5 | HSN not specified by seller | 2 | pieces | 934,200 | |
| 14 | HIKVISION 4MP BULLET CAMERA | Camera for CCTV System | Hikvision DS-2CD3643G1-IZS | HSN not specified by seller | 31 | pieces | 868,000 | |
| 15 | RICHA Insulated Electrical Conduit Pipe 3 Meter | insulated electrical conduits Pipe | 25MM CONDUIT PIPE | HSN not specified by seller | 9,000 | pieces | 663,300 | |
| 16 | SAMSUNG 59.5-61.5 CM Liquid Crystal Display LCD Panel or Monitors | Liquid Crystal Display LCD Panel or Monitors | 24" Curved Monitor | HSN not specified by seller | 15 | pieces | 198,000 | |
| 17 | ICX7150-24P-4X10GR | Layer 2 Access Switch | Ruckus ICX7150-24P-4X10GR+PCINDIA+ICX7150-SVL-RMT-5 | HSN not specified by seller | 10 | pieces | 1,449,000 | |
| 18 | HIKVISION 4MP DOME CAMERA | Camera for CCTV System | Hikvision - DS-2CD3743G1-IZS | HSN not specified by seller | 108 | pieces | 1,555,200 | |
| 19 | Molex Yes CAT 6 U/UTP Cat 6 Patch Panel | CAT 6 Patch Panel | 24 Port LIU (12 Port Loaded LIU) (Molex) (Molex 24 Port LIU (12 Port Loaded LIU)) | HSN not specified by seller | 8 | pieces | 63,200 | |
| 20 | netrack 42U Rack Enclosures Networking/Server Rack | Networking/Server Rack | Netrack NRS 42U 600x1000 | HSN not specified by seller | 1 | pieces | 88,000 | |
| 21 | ICX7150-C08P-2X1G | Layer 2 Access Switch | Ruckus ICX7150-C08P-2X1G+PCINDIA | HSN not specified by seller | 25 | pieces | 1,360,000 | |
| 22 | 16 Channel NVR with 2 nos 4TB HDD | Video Recorder for CCTV System | Hikvision DS-7716NI-K4 | HSN not specified by seller | 2 | pieces | 125,800 | |
| 23 | NVR 128 Chanel with 8 nos 16TB HDD | Video Recorder for CCTV System | Hikvision DS-96128NI-I16 | HSN not specified by seller | 1 | pieces | 1,577,800 | |
| Total Order Value (in INR) | | | | | | | 12,307,081.25 | |

**Consignee Detail**

| | | | | | | | **Delivery To** |
|---|---|---|---|---|---|---|---|

| S.No | Consignee | Item | Lot No. | Quantity | Delivery Start After | Be Completed By |
|---|---|---|---|---|---|---|
| 1 | Name: Rohit Kumar<br>Designation: -<br>Email ID: con1.bccl.jh@gembuyer.in<br>Contact: 62876-95727-<br>GSTIN: 20AAACB7934MFZB<br>Address: Depot Officer, Central Store, Ekra, BCCL, Post Office- BANSJORA, Dhanbad, Jharkhand-828101., DHANBAD, JHARKHAND-828101, India | HIKVISION 2MP DOME CAMERA | - | 2 | 14-Sep-2020 | 23-Dec-2020 |
| | | DELL EMC 2 X Intel DDR4 SDRAM with ECC 64 | - | 1 | 14-Sep-2020 | 23-Dec-2020 |
| | | LARGE FORMAT DISPLAY SAMSUNG QM75R | - | 1 | 14-Sep-2020 | 23-Dec-2020 |
| | | SAMSUNG 59.5-61.5 CM Liquid Crystal Display LCD Panel or Monitors | - | 15 | 14-Sep-2020 | 23-Dec-2020 |
| | | netrack 42U Rack Enclosures Networking/Server Rack | - | 1 | 14-Sep-2020 | 23-Dec-2020 |
| | | netrack 12U Rack Enclosures Networking/Server Rack | - | 28 | 14-Sep-2020 | 23-Dec-2020 |
| | | netrack 9U Rack Enclosures Networking/Server Rack | - | 2 | 14-Sep-2020 | 23-Dec-2020 |
| | | Ruckus SFP Small form-factor pluggable transceiver | - | 50 | 14-Sep-2020 | 23-Dec-2020 |
| | | HIKVISION 4MP BULLET CAMERA | - | 31 | 14-Sep-2020 | 23-Dec-2020 |
| | | HIKVISION 4MP DOME CAMERA | - | 108 | 14-Sep-2020 | 23-Dec-2020 |
| | | 16 Channel NVR with 2 nos 4TB HDD | - | 2 | 14-Sep-2020 | 23-Dec-2020 |
| | | 8 Channel NVR with 1 no 4TB HDD | - | 22 | 14-Sep-2020 | 23-Dec-2020 |
| | | HIKVISION 256 Channels Video Management System Software | - | 1 | 14-Sep-2020 | 23-Dec-2020 |
| | | Ruckus Non Chassis Based Layer-3 Core Switch 5 Year Warranty | - | 2 | 14-Sep-2020 | 23-Dec-2020 |
| | | ICX7150-24P-4X10GR | - | 10 | 14-Sep-2020 | 23-Dec-2020 |
| | | ICX7150-C08P-2X1G | - | 25 | 14-Sep-2020 | 23-Dec-2020 |
| | | Digisol Single mode OS2 HDPE Fibre Cable For Networking | - | 4,000 | 14-Sep-2020 | 23-Dec-2020 |
| | | Molex Single mode OS2 LSZH Fibre Cable For Networking | - | 50 | 14-Sep-2020 | 23-Dec-2020 |
| | | CyberPower 3.0 KVA UPS | - | 2 | 14-Sep-2020 | 23-Dec-2020 |
| | | RICHA Insulated Electrical Conduit Pipe 3 Meter | - | 9,000 | 14-Sep-2020 | 23-Dec-2020 |
| | | Molex Yes CAT 6 U/UTP Cat 6 Patch Panel | - | 8 | 14-Sep-2020 | 23-Dec-2020 |
| | | NVR 128 Chanel with 8 nos 16TB HDD | - | 1 | 14-Sep-2020 | 23-Dec-2020 |
| | | Digisol Green CAT6 U/UTP Cable for Indoor use 305 mtrs. | - | 7,625 | 14-Sep-2020 | 23-Dec-2020 |

### Product Specification for netrack 12U Rack Enclosures Networking/Server Rack

| Specification | Sub-Spec | Value |
|---|---|---|
| | Type of Server Racks | Rack Enclosures |
| | Size of Server Rack Enclosure | 12U |
| | Depth of the Rack (mm) | Upto 500 |
| | Mount Type | Wall mount |
| | Front glass Door | Yes |

| | | | |
|---|---|---|---|
| **Specifications** | Type of glass used in front door | | Transparent Toughened Glass |
| | Material used for rear door | | CRCA Steel |
| | Both rear and front doors with Perforation | | No |
| | Side Panels With Key Locks and Slam Latch | | No |
| | Secure Locks | | Available |
| | Rear split door design | | No |
| | Keyboard Tray Sliding and Rotary | | No |
| | Shelf For CRT/TFT Display | | No |
| | Cable channel in rear side for cable management | | No |
| | Support cable entry from top or bottom | | Yes |
| | Vertical & Horizontal managers | | Yes |
| | Numbers of Rack trays | | 1 |
| | Number of Fan For Heat dissipation (nos) | | 1 |
| | Number of fan trays | | 1 |
| | Heavy Duty Caster Wheels | | NA |
| | If yes, then Front Break Options | | NA |
| | Load Bearing Capacity (Kgs) | | 50 |
| | If Wall mount racks then ,Swing-Out Racks | | NA |
| | Dust or water resistant | | No |
| | PDU Power Strips | | Available |
| | Weight (Kg) | | 15 |
| | Warranty (Years) | | 5 |

## Product Specification for Digisol Single mode OS2 HDPE Fibre Cable For Networking

| Specification | Sub-Spec | Value |
|---|---|---|
| **Generic** | Fibre cable generally conforming to IEC 60793-1, IEC 60793-2, and to conform other normative specifications as specified in IEC:60793 Part 1 and Part 2 | Yes |
| | Fibre count | 12 |
| | Jacket material | HDPE |
| | Fibre type | Single mode OS2 |
| | Nominal Cable weight Kg/Km - Must declare | 1000 |
| | Operational temperature range | -10 to +60 deg. C |
| | Storage temperature range | -10 to +60 deg. C |
| **Constructional** | Type of tube / no. of tube / no. of core per tube | Unitube /1/12 |
| | Cable Armouring | Armoured with ECCS tape |
| | Each meter printed with sequential length counter of cable apart from marking requirement as per relevant specifications and certifications | Yes |
| **Certifications** | Availability of complete and satisfactory type test Report from Central Government / NABL/ ILAC accredited laboratory to conformity of the Specification | Yes |
| | Test report Number | DG-110 |
| | Report date | 17.03.2010 |
| | Name and address of Lab | Banglore |

| | All the test reports and certificates shall furnish to the buyer/consignee on demand | Yes |
|---|---|---|
| Performance | | |

## Product Specification for HIKVISION 2MP DOME CAMERA

| Specification | Sub-Spec | Value |
|---|---|---|
| CAMERA TYPE | Type of Camera Housing | DOME CAMERA |
| | IP Camera | Yes |
| | PTZ Camera | Yes |
| IMAGE SENSOR | Image Sensor Type | CMOS |
| | Image Sensor Size | 0.357 |
| | Camera Image Sensing capacity (Picture Mode) | 2MP |
| | Resolution | Full HD (1920 x 1080 Pixel) |
| | Day/Night Capable | Yes |
| | IR illumination Range(mtr) | 150 |
| OPTICS | Lens Type | Motorized Varifocal |
| | Focal Length(mm) | 4.5 - 162 |
| | Iris Control | Yes |
| | Focus Mode | Auto |
| VIDEO | Frame Rate (fps) | 25,30,50,60 |
| | Video Compression | H.264,H.265,H.265+,MJPEG |
| | Video Streaming | Triple compressed stream |
| PAN / TILT / ZOOM | Panning Range | 0-360 |
| | Pan Speed (deg/sec) | 240 |
| | Tilt Range below horizontal (deg) | 0-90 |
| | Tilt Range above horizontal (deg) | 0-5 |
| | Tilt Speed (deg/sec) | 120 |
| | Optical Zoom | 44X |
| | Digital Zoom | 16X |
| AUDIO | Audio Support | Yes |
| | Audio Compression | G.726,G.711,AAC |
| | Audio Streaming | Two-Way |
| | Number of Audio Input Channel | 1 |
| | Number of Audio Output Channel | 1 |
| | External Microphone Support | Yes |
| | Alarm Support | Yes |

| | | | |
|---|---|---|---|
| ALARM | Number of Alarm Digital Input | 2 | |
| | Number of Alarm Relay Output | 1 | |
| | Pre/Post Alarm Buffer | Yes | |
| SECURITY | Multi Level User ID/Password | Yes | |
| | IP Address Filtering | Yes | |
| | Encrypted Data Transmission | HTTPS (SSL/TSL) | |
| PERFORMANCE | Minimum Illumination for Capturing Color Image | 0.01 | |
| | Electronic Shutter Speed(sec) | 1/3 to 1/10000 | |
| | WDR (Wide Dynamic Range) | 120 dB | |
| | SNR (Signal to Noise Ratio) | 50-60 | |
| | Auto Exposure | Auto Level Control | |
| FEATURES | White Balance ( Indoor/Out door/Manual Selectable) | Yes | |
| | Auto Gain Control (On/Off selectable) | Yes | |
| | Back Light Compensation | Yes | |
| | Remote Administration (Remote configuration and status using web based tool) | Yes | |
| | Remote System Update Over Network | Yes | |
| | PC Client (PC application client with a channel recording feature support) | Yes | |
| | Web Client (Viewer through HTTP system configuration) | Yes | |
| | On Screen Display in English | Yes | |
| | ONVIF Support | Yes | |
| | Presets | 100 | |
| | Group Touring | 4 | |
| | Privacy Zones | 24 | |
| | Supported Protocols | UDP,SNMP,IGMP,DHCP,RTP,RSTP,HTTP,SMTP,FTP,ICMP,HTTPS,DNS,DDNS,RTSP,RTCP,NTP,UPnP,QoS,TCP/IP | |
| | IP Support | Static,Dynamic | |

| | | |
|---|---|---|
| NETWORK AND INTERFACE | Signal Processing | Digital Signal Process |
| | IPv6 ready | Yes |
| | Wireless | No |
| | Simultaneous Connections | 20 |
| STORAGE | On Board SD Card Support | Yes |
| | SD Card Memory(GB) | 256 |
| HOUSING | Installation Type | Indoor,Outdoor |
| | Material of the Housing construction | Alluminium |
| | Protection | IP 66 |
| | Vandal Resistant Housing | No |
| | If Yes, IK rating | NA |
| | Mounting bracket | Pole Mounted |
| | Weight | 4500 |
| | Dimensions (mm x mm x mm) | 220 x 353 |
| POWER SUPPLY | Power Input | 24 V DC,PoE |
| | Power Consumption | 40 |
| | Suitable Adapter Shall be Supplied to Make the Equipment Work on 230 V (+/- 10 %), 50 Hz | Yes |
| OPERATING CONDITIONS | Operating Temperature Range | -20 to +50 deg C |
| | Relative Humidity Non Condensing (%) | 90 |
| WARRANTY / SERVICES | Warranty | 5 |
| | Time for Replacement of Defective Product During Warranty Period | 24 |
| | Supply of Compatible drivers and software included | Yes |
| | Availability of facility & infrastructure for verification of all parameters, features, and capability with Seller | Yes |
| | Availability of facility to test signal to noise ratio of camera at 0-01 lux | Yes |
| | Conformity to Dry Heat test at 55 | |

| Specification | Sub-Spec | Value |
|---|---|---|
| ENVIRONMENTAL / CERTIFICATION | degree C for 16 hours as per IS :9000 latest | Yes |
| | Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest | Yes |
| | Conformity to Cold test at -10 / -20 degree C for 4 hours as per IS: 9000 latest, as applicable | Yes |
| | BIS Registration for safety general requirements as per IS 13252 (Part 1):latest | Yes |
| | Availability of Type Test Report from Central Govt /NABL/ILAC accredited lab to prove conformity to specification | Yes |
| | Test Report Number and Date | E307937 24/11/2018 |
| | Name and Address of Test Lab | NACP UL LLC |
| | Certification | FCC,CE,UL |

## Product Specification for 8 Channel NVR with 1 no 4TB HDD

| Specification | Sub-Spec | Value |
|---|---|---|
| VIDEO | Number of Video Input Channels | 8 |
| | Number of Non-IP based Video input Channels for HVR | NA |
| | Number of IP based Video input Channels for HVR | NA |
| | Number of Video Output Channels | 2 |
| | Recording Resolution | 4K (3840 × 2160) |
| | Supported Compression Technique | H.264,H.265,MJPEG,H.265+,H.264+ |
| | Maximum Number of cameras to be viewed on a single display | 8 |
| | Total number of simultaneous local views | 2 |

| | | |
|---|---|---|
| | Simultaneous Monitoring Connections for All Cameras (Users in Local Network for Client Connection) | 4 |
| | Recording Speed for all channels (fps) | 25 |
| | Minimum Through put (Mbps) | 256 |
| | Display Image Rate | Real time per channel |
| TYPE | Type of Recording Device | NVR |
| | IP Camera Support | Yes |
| | PTZ Camera control Support | Yes |
| | Housing construction | Alluminium |
| | Mounting | Rack Mounted |
| | Rack Mount configuration | 2U |
| | Capability of Recorder to Work with Other Makes of CCTV Cameras (ONVIF support) | Yes |
| AUDIO | Audio Support | Yes |
| | Audio Input | 1 |
| | Audio Output | 1 |
| | Audio Compression | G.726,G.711,G.722.1,A-Law,MP2L2,AAC |
| | Minimum Number of Simultaneous Channels for Two-way Audio Support | 1 |
| SECURITY | Type of Encryption | HTTPS (SSL/TSL),HTTP (SSL/TSL) |
| | Multi Level User ID / Password | Yes |
| ALARM | Alarm Support | Yes |
| | Alarm Input | 4 |
| | Alarm Output | 1 |
| | Pre / Post Alarm Buffer | Yes |
| | Pre-Alarm Recording | 60 |
| | Post-Alarm Recording | 60 |
| | Video Content Analytics (VCA) | Trip-wire Detection,Motion Detection,Crossing line,Intrusion Detection,Tampering,Object Removal |
| | Operating System Supported | Windows,MAC,Linux |

| | | | |
|---|---|---|---|
| NETWORK PROTOCOLS / INTERFACE / OPERATING SYSTEM | Supported Network Protocols | UDP,SNMP,IGMP,DHCP,RTP,RSTP,HTTP,HTTPS,DNS,DDNS,RTSP,RTCP,NTP,UPnP,SMTP,FTP,ICMP,QoS,TCP/IP | |
| | Supported Interface | Ethernet,HDMI,VGA,USB | |
| | Physical Layer of Ethernet | 10/100/1000 Base TX | |
| | Number of Ethernet Ports | 1 | |
| | Number of HDMI Ports | 1 | |
| | Number of VGA Ports | 1 | |
| | Number of CVBS Ports | 0 | |
| | Number of USB Ports | 2 | |
| | Number of Serial Ports | 0 | |
| | Number of PoE Ports | 0 | |
| | Supported SIM Slot | NA | |
| | Number of SIM Slots | 0 | |
| FEATURES | Video Loop Support | Yes | |
| | Video Recorder supports recording on NAS Directly | Yes | |
| | Remote Administration (Remote Configuration And Status Using Web Based Tool) | Yes | |
| | System Update (Remote System Update Over Network Using Web Client) | Yes | |
| | PC Client (PC Application Client With A Channel Recording Feature Support) | Yes | |
| | Web Client (Viewer through HTTP system configuration) | Yes | |
| | On Screen Display (In English) | Yes | |
| | Drivers / Compatible Software (Wherever Applicable) Part Of Supply | Yes | |
| | Recording schedule support | Yes | |
| | Bandwidth Control | Yes | |

| | Camera Notification | Spot (POP up Window) on Event,E-mail |
|---|---|---|
| | Network transmission Speed | Real time display @ D1 resolution |
| | Other features, if any | NA |
| PLAYBACK / VIEW / MANAGEMENT | Search | Date,Time,Event,Log,Motion,Bookmarks |
| | Bookmarks | Forward,Backward,adjustable playback speed,Full Screen,Next Camera,Previous Camera,Repeat |
| | Page preview | Multi Monitor Support,Video Window |
| | Total Management | Group add,Delete,Group management |
| | Camera | Add,Edit,Delete,Use Master account,Use Specific account |
| STORAGE | Internal Hard Drive Interface | SATA III |
| | Number of Hard Disks (inclusive in the scope of supply) | 1 |
| | Storage Capacity of each Hard Disk (TB) | 4 |
| | Total Storage Capacity(TB) | 4 |
| | Internal Storage Expandable upto (TB) | 8 |
| | Number of Hard Disks supported | 2 |
| | Redundancy Option | NA |
| POWER SUPPLY | Power Input | 12 V DC |
| | Power Consumption | 40 |
| | Suitable Adapter to be Supplied to Make the Equipment Work on 230 V ± 10 %, 50 Hz | Yes |
| | Redundant Power Supply | No |
| OPERATING CONDITIONS | Minimum Operating Temperature | -10 |
| | Maximum Operating Temperature | 55 |
| | Relative Humidity Non Condensing at 40 deg C | 90 |
| WARRANTY / SERVICES | Warranty | 5 |
| | Time for Replacement of Defective Product During Warranty Period | 24 |
| | Availability of facility and infrastructure for verification of all the | Yes |

| | | |
|---|---|---|
| | parameters, features and capability with the Seller | |
| ENVIRONMENTAL / CERTIFICATION | Conformity to Dry Heat test at Specified Maximum Operating Temperature for 16 hours as per IS :9000 latest | Yes |
| | Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest | Yes |
| | Conformity to Cold test at Specified Minimum Operating Temperature for 4 hours as per IS: 9000 latest | Yes |
| | BIS Registration for safety general requirements as per IS: 13252 (Part 1): latest | Yes |
| | Availability of Test Report from Central Govt/NABL/ILAC accredited lab to prove conformity to specification | Yes |
| | Test Report Number and Date | 50700225901 12/08/15 |
| | Name and Address of Test Lab | Shanghai |
| | Certification | FCC,CE,UL |
| LIST OF ITEMS | List of Items and Quantity of each item included in the offer | PWR CABLE, NVR REMTE |

## Product Specification for Digisol Green CAT6 U/UTP Cable for Indoor use 305 mtrs.

| Specification | Sub-Spec | Value |
|---|---|---|
| GENERIC | Cate 6 cable conforming to ANSI/TIA/EIA-568 C.2 latest or ISO/IEC:11801 latest | Yes |
| | Cable category: Category 6 Unshielded/Unshielded twisted pair or Category 6 Foiled/Unshileded twisted pair or Category 6 Shielded /Foiled Twisted Pair | CAT6 U/UTP |
| | Cable colour | Green |
| | Conductor diameter | 0.51 mm (24 AWG) |
| | Conductor count (in Nos.,) | 8 |
| | Length of cable in a bundle (Mtrs) | 305 mtrs. |
| | "CAT6 Cable can transmit data at 1000 Mbps (~1 Gigabit per second) with a frequency of 250 MHz and suitable for 10BASE-T, 100BASE-TX Fast Ethernet and 1000BASE-T / 1000BASE-TX (Gigabit Ethernet)." | Yes |
| | Maximum DC resistance - in Ohm/Km | Max. 100 Ohm/Km |

| | | | |
|---|---|---|---|
| CONSTRUCTIONAL | Conductor Materail | | Bare Copper |
| | Conductor Insulation Material | | Polyethylene |
| | Cable jacket material | | Low Smoke zero halogen (LSZH) |
| | Conductor stranding | | Solid |
| | Cable should have internal cross separator | | Yes |
| | Storage temperature range | | minus 20 degree C to plus 60 degree C |
| | Operating temperature range | | minus 20 degree C to plus 60 degree C |
| | Each meter printed with sequential length counter of cable apart from marking requirement as per relevant specifications and certifications | | Yes |
| CERTIFICATIONS | Category 6 cable shall have valid verified certificate from ERTL/ETL /Intertek/3P /GHMT /Delta/UL as per CAT 6 standards ANSI//TIA/EIA-568 C.2 latest or ISO/IEC:11801 latest | | Yes |
| | If "Yes" Certificate Number - Must declare | | Dsl1920 |
| | UL Marking on Cable | | Yes |
| | Availability of complete and satisfactory type test Report from Central Government / NABL/ ILAC accredited laboratory to conformity of the Specification | | Yes |
| | Test report Number | | Dsl 1920 |
| | Report date | | 01feb2019 |
| | Name and address of Lab | | Inhouse |
| | All the test reports and certificates shall furnish to the buyer/consignee on demand | | Yes |

### Product Specification for netrack 9U Rack Enclosures Networking/Server Rack

| Specification | Sub-Spec | Value |
|---|---|---|
| Specifications | Type of Server Racks | Rack Enclosures |
| | Size of Server Rack Enclosure | 9U |
| | Depth of the Rack (mm) | Upto 600 |
| | Mount Type | Wall mount |
| | Front glass Door | Yes |
| | Type of glass used in front door | NA |
| | Material used for rear door | CRCA Steel |
| | Both rear and front doors with Perforation | No |
| | Side Panels With Key Locks and Slam Latch | No |
| | Secure Locks | Available |
| | Rear split door design | No |
| | Keyboard Tray Sliding and Rotary | No |
| | Shelf For CRT/TFT Display | Yes |
| | Cable channel in rear side for cable management | No |
| | Support cable entry from top or bottom | Yes |
| | Vertical & Horizontal managers | Yes |
| | Numbers of Rack trays | 1 |
| | Number of Fan For Heat dissipation (nos) | 2 |
| | Number of fan trays | 2 |

| | Heavy Duty Caster Wheels | NA |
|---|---|---|
| | If yes, then Front Break Options | NA |
| | Load Bearing Capacity (Kgs) | 50 |
| | If Wall mount racks then ,Swing-Out Racks | NA |
| | Dust or water resistant | Yes |
| | PDU Power Strips | Available |
| | Weight (Kg) | 20 |
| | Warranty (Years) | 1 |

## Product Specification for Molex Single mode OS2 LSZH Fibre Cable For Networking

| Specification | Sub-Spec | Value |
|---|---|---|
| Generic | Fibre cable generally conforming to IEC 60793-1, IEC 60793-2, and to conform other normative specifications as specificed in IEC:60793 Part 1 and Part 2 | Yes |
| | Fibre count | 12 |
| | Jacket material | LSZH |
| | Fibre type | Single mode OS2 |
| | Nominal Cable weight Kg/Km - Must declare | 10 |
| | Operational temperature range | -10 to +60 deg. C |
| | Storage temperature range | -10 to +60 deg. C |
| Constructional | Type of tube / no. of tube / no. of core per tube | Unitube /1/12 |
| | Cable Armouring | Unarmoured |
| | Each meter printed with sequential length counter of cable apart from marking requirement as per relevant specifications and certifications | Yes |
| Certifications | Availability of complete and satisfactory type test Report from Central Government / NABL/ ILAC accredited laboratory to conformity of the Specification | Yes |
| | Test report Number | 048ML26E |
| | Report date | 01/01/2018 |
| | Name and address of Lab | Molex Lad India |
| | All the test reports and certificates shall furnish to the buyer/consignee on demand | Yes |
| Performance | | |

## Product Specification for DELL EMC 2 X Intel DDR4 SDRAM with ECC 64

| Specification | Sub-Spec | Value |
|---|---|---|
| Processor | Processor Architecture | CISC(X86) |
| | Processor Make | Intel |
| | Number of Cores per Processor | 8 |
| | Processor Base Frequency (GHz) | 2.1 |
| | Processor Turbo Frequency (GHz) | 3.2 |

| | | |
|---|---|---|
| | Total Cache (L1+L2+L3)(MB) | 11 |
| | Processor Description/ Number | Intel Xeon Silver 4208 |
| Chassis | Form Factor | Rack |
| | Size (RU) | 2 |
| Motherboard | Chipset compatible with CPU | Intel C621 |
| | Expansion Slots Gen 3 (PCIe x1) | 0 |
| | Expansion Slots Gen 3 (PCIe x4) | 2 |
| | Expansion Slots Gen 3 (PCIe x8) | 2 |
| | Expansion Slots Gen 3 (PCIe x16) | 1 |
| | Maximum number of Sockets available on Server | 2 |
| | Maximum number of Sockets populated with Processors available on Server | 2 |
| Co Processor / GPU | Availability of Co Processor /GPU | No |
| | If Yes, Maximum Number of Slots available for Co-Processor/GPU | 0 |
| | If Yes, Maximum Number of slots populated with Co processor/GPU | 0 |
| | If Yes, Co Processor /GPU Description | NA |
| Memory | Type of RAM | DDR4 SDRAM with ECC |
| | Total Number of DIMM Slots available | 16 |
| | Number of DIMM Slots populated with DDR SDRAM | 4 |
| | Number of DIMM Slots populated with DDR NVRAM | 0 |
| | DDR SDRAM Size(GB) | 64 |
| | DDR NVRAM Size (GB) | 0 |
| | DDR SDRAM upgradable upto using spare DIMM Slots (GB) | 192 |
| | DDR NVRAM upgradable upto using spare DIMM Slots (GB) | 0 |
| | Type of Interface for SSD | NA |
| | Type of SATA SSD | NA |

| | | | |
|---|---|---|---|
| | | SATA SSD Hot Swappable | NA |
| | | Endurance for SATA SSD (DWPD - Drive Writes Per Day) (X) | 0 |
| | | Total Number of Slots available for SATA SSD | 0 |
| | | Number of Slot Populated with SATA SSD | 0 |
| | | Capacity offered per SATA SSD (GB) | 0 |
| | | Total Capacity Offered with SATA SSD (GB) | 0 |
| | | Type of SAS SSD | NA |
| | | SAS SSD Hot Swappable | NA |
| SSD Storage | | Endurance for SAS SSD (DWPD - Drive Writes Per Day) (X) | 0 |
| | | Total Number of Slots available for SAS SSD | 0 |
| | | Number of Slots populated with SAS SSD | 0 |
| | | Capacity Offered per SAS SSD (GB) | 0 |
| | | Total Capacity Offered with SAS SSD (GB) | 0 |
| | | Type of NVMe SSD | NA |
| | | NVMe SSD Hot Swappable | NA |
| | | Endurance for NVMe SSD (DWPD - Drive Writes Per Day) (X) | 0 |
| | | Total Number of Slots available for NVMe SSD | 0 |
| | | Number of Slots populated with NVMe SSD | 0 |
| | | Capacity Offered per NVMe SSD (GB) | 0 |
| | | Total Capacity Offered with NVMe SSD (GB) | 0 |
| | | Type of Interface for Hard Disk Drive | SAS |
| | | Total number of Slots available for SATA Drive | 0 |
| | | Number of Slots populated with SATA Drive | 0 |
| | | Capacity offered per SATA Drive (GB) | 0 |

| | | | |
|---|---|---|---|
| | SATA drive speed (hot plug or better) (RPM) | NA | |
| | Total Storage Capacity offered with SATA Drive (GB) | 0 | |
| | Total number of slots available for SAS drive | 8 | |
| | Number of Slots populated with SAS Drive | 1 | |
| HDD Storage | Capacity offered per SAS Drive (GB) | 1800 | |
| | SAS drive Speed (Hot plug or better) (RPM) | 10K | |
| | Total Storage Capacity offered with SAS Drive (GB) | 1800 | |
| | Total number of slots available for NL SAS drive | 0 | |
| | Number of Slots populated with NL SAS Drive | 0 | |
| | Capacity offered per NL SAS Drive | 0 | |
| | NL SAS drive speed (hot plug or better) (RPM) | NA | |
| | Total Storage Capacity offered with NL SAS Drive (GB) | 0 | |
| RAID | RAID level | 1 | |
| | No of RAID Controller Ports | 2 | |
| | Speed of RAID Controller Ports (Gbps) | 6 | |
| | RAID Controller Cache (GB) | 0 | |
| | Network Card Supported | 1G,10G | |
| | Number of Networking Interface Cards (LAN) | 1 | |
| | Whether Network Interface Card Embedded | Yes | |
| | Total Number of Ethernet Ports required in Server | 2x1G | |
| | Networking Interface Card Features | Asset Feature Tracking,Security Management,Remote Wake up | |
| | Server Network Ports should Support SR-IOV Feature | No | |
| | Server network ports should support DPDK and it should deliver zero | | |

| | packet loss as per RFC 2544 and deliver 100% line rate for all the packet sizes over 64 Bytes, | | |
|---|---|---|---|
| | | No | |
| Ports & Interfaces | | | |

| | | |
|---|---|---|
| | Vendor to submit latest DPDK test report for the same | |
| | Number of Single port FC HBA card | 0 |
| | Number of Dual port FC HBA card | 0 |
| | Number of Quad port FC HBA card | 0 |
| | FC HBA Speed (Gbps) | NA |
| | vHBA Card Features Supported | No |
| | Number of Converged Network Adaptor (CNA) | 0 |
| | Number of Ports per CNA card | NA |
| | CNA Port Speed (Gbps) | 0 |
| | Length of LC-LC Cable per SFP+ Port (meter) | 0 |
| | Length of LC-LC Cable per HBA Port (meter) | 0 |
| | Length of LC-LC Cable per CNA Port (meter) | 0 |
| | Length of Twinax Breakout Cables per Port (meter) | 0 |
| | Video Controller (support VGA or above resolution) | Yes |
| | Keyboard Port | No |
| | Mouse Port | No |
| | DVD ROM (Internal/Exrternal) | Yes |
| | USB Ports (version 2point0/3point0) | 3 |
| | Total number of Spare Bays Available for Future Upgradation (Internal) | 7 |
| | Total number of Spare Bays Available for Future Upgradation (Hot Plugable) | 0 |
| Certifications | Certifications/Compliance (OS) | Windows,Red Hat Linux,Suse Linux,Ubuntu,Cent OS |
| | Certification/Compliance (Virtualization/Cloud Platform) | VM ware,HyperV,Red Hat Virtualization |
| | Management Features-1 | Remoter power On/ Shutdown of server,,Remote Management of Server over LAN & WAN with SSL encryption through gigabit management port,,Should have virtual Media support with all required licenses.,Remote KVM,Server Health Logging,Out of Band Management |
| | | Management of multiple Servers from single console with single source of truth for multiple sites.,Automated infrastructure management for patch upgrades, version upgrades ,etc.,Simplified management with analytics driven actionable intelligence.,System tagging giving admin flexibility to provide metadata tags to each System to enable users to filter and sort systems based on user-assigned attributes,Hardware Profile based deployment to multiple Servers |

| Features | Management Features-2 | simultaneously,Policy template for deployment of single policy to multiple Servers simultaneously,Platfrom inventory and helath status,Server utilization statistics collection (including firmware updates and diagnostic tools),Should provide an alert in case the system is not part of OEM hardware complatibilty test,Solution should be open and programmable providing Rest API, SDK for programming lanugaes like Python , power shell scripts etc.,Should have customizable dashboard to show overall faults/health/inventory for all managed infrastructure the solution should provide option to create unique dashboards for individual users.the user should be flexibility to select name for dshasboards and widgets |
| --- | --- | --- |

| | | |
|---|---|---|
| | | (viz. health, utilization etc),Single pane of glass for auto Provisioning across Multi vendor & multi hypervisor platform,Self service portal deployment for automated provisioning,Real-time out-of-band hardware performance monitoring & alerting |
| | Security Features-1 | Secure Boot(Firmware and Bios Level Security),Provision to lock the system on breach,Hardware root of trust/Dual Root of Trust,Server should provide policy based security,Server should provide server intrusion detection, |
| | Security Features-2 | Provision for Cryptographic firmware updates,Capability to stop execution of Application/Hyperviser/ Operating System on predefined security breach,Secure /Automatic BIOS recovery,Network Card secure firmware boot,In case of any security breach system should provide the lock down feature |
| | Server scalability to be achived within the box & without adding nodes | Yes |
| | support for high availability clustering and virtualization | Yes |
| Generic | Redundant Power Supply | Yes |
| | Hot Swappable (Redundant Power Supply) | Yes |
| | Power Supply Efficiency | Platinum |
| | Redundant Fan | Yes |
| | Hot Swappable (Redundant Fan) | No |
| | Server Main Supply | 230 +/- 10%Vac |
| Benchmark | SPEC int_rate_base 2017 for the product (must be available on SPEC dot ORG before evaluation) | 83.9 |
| | SPEC fp_rate_2017 for the product (must be available on SPEC dot ORG before evaluation) | 90.8 |
| | SPEC int_speed_base 2017 for the product (must be available on SPEC dot ORG before evaluation) | 0 |
| | SPEC fp_speed_2017 for the product (must be available on SPEC dot ORG before evaluation) | 0 |
| | Maximum power consumption of the system (Watts) | 750 |
| | BIS Registration under CRS of MeitY | Yes |
| | BIS Registration Number Under CRS of MeitY and its validity | R-61000388 |
| | Other Certifications Available | UL,FCC |
| | RoHS Compliance | Yes |
| | Availability of the type test report from Central | |

| | | Government / NABL / ILAC acredited laboratory covering verification of all features | | |
|---|---|---|---|---|---|
| | | | No | | |
| Miscellaneous | | | | | |

| | | |
|---|---|---|
| | & functional parameters & environmental tests sequence | |
| | a) Dry heat:test - for 16 hrs at 45 deg C as per IS: 9000/pt-3/sec-5/1977 b) Cold test - for 4 hrs at 0 deg C as per IS: 9000/pt-2/sec-4/1977 c) Damp Heat Cyclic Test - for 2 cycles of 24 hrs at 40 deg C & 95% RH as per IS: 9000/pt-5/sec-1/1981 | NA |
| | The server has been checked for all the parameters before conditioning, After completion of the environmental tests sequence, with a recovery period of 1 to 2 hrs, the server found to be functional | NA |
| | Test Report Number & date | NA |
| | Name & Address of Lab | NA |
| Scope of Supply | Installation and Commissioning shall be included in the scope of supply | Yes |
| Warranty | On Site OEM Warranty (Year) | 3 |

## Product Specification for HIKVISION 256 Channels Video Management System Software

| Specification | Sub-Spec | Value |
|---|---|---|
| Basic Information | Software domain | Video Management System Software |
| | Type of video management system software | 1. VMS software for local monitoring,2. VMS software for centralised monitoring for multi-location installation |
| | Type of licence | 1. Perpetual |
| | Licence Cost | Per channel license |
| | Deployment option | 1. On site compute device |
| | Name of Software | HikCentral |
| | Name of the OEM | HIKVISION |
| | OEM Model / Part No | Hikcentral |
| | Brief Description | HikCentral |
| | Software Version | 1.5 |
| | Date of Launch of Version | 2017 |
| | No of days Training Provided at Site | 0 |
| | Number of Years | |

| | | | |
|---|---|---|---|
| | upto which Support is available from OEM | 2 | |
| GENERIC FEATURES | Generic feature in the offered product | 1. Video Management software is highly scalable Enterprise level software & a complete video surveillance solution. It is scalable to required numbers of cameras that can be added on a unit -by-unit basis.,2. Video Management software is licensed & operate on open architecure & require no proprietary IT hardware.,3. The Video Management software allow video to be streamed on workstation monitor or on a Video wall.,4. The User with administrative rights to create clients(users) & give access to the software client application based on predefined user access rights.,5. System allow the recording, live monitoring, playback of archived video and data simultaneously.,6. The VMS Video management system to be seamlessly integrated with Face recognition software and have the capability to receive the alerts.,7. Management screen:Lock, unlock with password support.,8. Virtual key board support. | |
| | Software provides | 1. Several simultaneous live picture connections of camera in network.,2. Configuration of monitoring situation(site maps).,3.Programming of alarm-triggered automatic events in various alarms configuration.,4. System set up with limited operation options for clearly defined surveillance tasks.,5.Programming of automatic recording events on a network recorder. | |
| | Type of Streaming | 1. Single Streaming.,2. Dual Streaming.,3. Multi-streaming. | |
| | Video compression format supported by the software in real time | 1. H.264,,2.MJPEG,,3.H.265,,4.Higher video streams | |
| | Frame rate range supported by the software (in fps) | upto 60 | |
| | Resolution | 1. Full HD,2. Ultra HD,3. HD,4. SD | |
| | Number of monitor for displaying live video with one server /workstation (Hint : Select '0' if not applicable) | 4 | |
| | Number of level of users and alarm prioritization supported by the offered product(Hint : Select '0' if not applicable) | 20 | |
| | Number of cameras to be replayed simultaneously by the offered product(Hint : Select '0' if not applicable) | 64 | |
| | Compliance of standard of the offered product | 1. Global standards ONVIF Profile 'S' for the interface of network video product (ONVIF- Open Network Video Interace Forum).,2. Offered product available on ONVIF website and confirmation certificate to be provided to buyer on demand. | |
| | Cysecurity Parameters | 1. HTTPS encryption,2. SSL/TLS,3. Complex passwords,6. user lockout | |
| CAMERA RELATED | Camera related feature in the offered product | 1. Camera's bit rate , frame rate and resolution to be set independently from other Cameras in the system and altering these settings do not affect the recording and display settings of other Cameras.,2. The software capable to provide automatic search & discovery of components of video surveillance system on the network which can be network Cameras.,3. The software capable to provide drag & drop functions on the system & also for set up of connection between Cameras and monitors connected to one workstation.,4.The Software capable of handling Camera & alarm icons on area map & area map to be configurable to pop up upon the receipt of an alarm recieved from a camera on the map. This can be on the same or other monitors on the PC.,5. The Software enable the client to dynamically create connections between Cameras and clients and view live or recorded video on monitors.,6. Software capable to provide the client seamless operation of all cameras & clients available in the system regardless of the actual connection to different network video | |

| FEATURE | | recording servers.,7. Scalable licensing model supporting unlimited cameras per server based on the available hardware configuration,8. Camera License not tied to MAC address of cameras,9. Unrestricted camera replacement in case of camera failure |
|---|---|---|
| | The offered product capable to allow | 1. Live Display of Cameras,2. Live Display of Camera sequences,3. Control of PTZ Cameras,4. Playback of archived video,5. Retrieval of archived video,6. Instant Replay of live Video,7. Use of Site maps,8. Configuration of System Settings,9. Configuration and programming of P /T /Z Cameras, features like auto tours, presets etc.,10. Digital PTZ Control.,11. Comport Joystick support.,12. Preset position setup.,13. Preset position search.,14. Optical zoom in, Zoom out.,15. Digital zoom enable/disable.,16. Full screen view enable/disable.,17. Camera connect/disconnect. |
| VIDEO MANAGEMENT FEATURES | Software capable to record video on | 1. Inbuilt hard disks on the server,2. Direct attached storage boxes attached to the servers,3. Network attached storage,4. Storage area network |
| | Software capable to select recording based on | 1. Time at which recording was activated,2. Duration of recording,3. Operator activated recording,4. Event activated recording,5. Scheduled recording,6. Camera,7. Date |
| | Option available in the offered product for reporting utility for tracking for | 1. video clips and image snapshots to be strored with reports for documenting events,2. Alarms,3. Incidents,4. Operator logs |
| | Video management and recording feature in the offered product | 1.Software have the facility to export the desired portion of clipping of video from a Desired date/ Time to another desired date/ time on DVD on any client/ Network storage device. Viewing of the recording possible on authorized player or in media player on computer utilizing a Window environment.,2. The video management server not to limit the number of video recording servers can be networked together to form video management and recording system.,3. The video management servers capable to maintain a catalog of settings for all clients, servers and IP Cameras & IP enabled Cameras in the system. In case of single server, if recording can not be managed then offered product have a provision for addition of server.,4. The Software enable the client to dynamically create connections between Cameras and clients and view live or recorded video on monitors.,5. Software capable to provide the client seamless operation of all cameras & clients available in the system regardless of the actual connection to different network video recording servers.,6. Software capable to commence the video recording from the date & time specified by the end-user & also able to playback more than one camera recording simultaneously.,7.Watermarking, Encrypt and Digital Signature option while video exporting,8. Software shall support encryption based recording. Encrypted recording shall play only in Video Management Software,9. Video push feature to send individual cameras or an entire view of cameras to public view or other monitor,10. Manage users thorugh LDAP/Active directory,11. Client bandwidth throttling to Optimize video data rates over limited bandwidth client connections,12. Scheduled Access time for Operation with assign permission. |
| | Supporting feature in the offered product | 1. The Video management software provide a full matrix operation of IP video to display monitors.,2. Video management software have the capability of creating camera sequences with following functionalities:-i) Capability to sequence cameras ii). Each camera in the sequence have its own individual dwell time iii). Multiple users able to view the same camera sequence simultaneously,not necessarily synchoronized one with the other. |
| | NO of cameras VMS Software can sequence upto(Hint : Select '0' if not applicable) | 64 |
| | Each camera in the sequence have its own individual dwell time in seconds((Hint : Select '0' if not applicable) | 60 |
| | Maximum VMS Througout | 800 Mbps,1000 Mbps,1200 Mbps |
| | Client Interface (Thick Client)(Hint : Select '0' if not applicable) | 0 |
| | Suspect Tracking thorugh Multiple link of Cameras(Hint : Select '0' if not applicable) | 0 |

| | Server Connections(Hint : Select '0' if not applicable) | 100 |
|---|---|---|
| | Operating System Compatibility | Window |
| | Architecture | 1. Client & Server on Multiple Hardware,2. Client & Server on Same Hardware |
| DISPLAY MODE | Number of monitor for displaying live video with one server / workstation (Hint : Select '0' if not applicable) | 4 |
| | Number of Video Streams (Channels )concurrently supported by Local VMS(Hint : Select '0' if not applicable) | 200 |
| | Number of Video Streams (Channels) expandable for local VMS up to(Hint : Select '0' if not applicable) | 256 |
| | Number of Video Streams (Channels )concurrently supported by Central VMS (Hint: Select'0' if not applicable) | 3000 |
| | Image rotate(in degree) | 180 |
| | No of Auto Tour selectable option (Hint : Select '0' if not applicable) | 8 |
| | Status display | Free disk space,Camera status,CPU usage |
| | Display clock (in real time) | day,date,time,year |
| | Display mode (split screen matrix) | 64 |
| | Display Characteristics Overlay of the Cameras during - | Live view,Live View & Navigate,Live view & Navigate over camera icons |
| AUDIO | Type of audio | 2-way |
| | Type of Codec | G.711 |
| | Support offered in the Audio | Audio broadcasting |
| | No of Motion detection selectable area(Hint : Select '0' if not applicable) | 0 |

| | | |
|---|---|---|
| EVENT TRIGGER | Motion detection selectable area | NA |
| | System event | shutdown,restart,login,logoff,Camera reboot,external I/O trigger |
| | Hot-Spot Window Feature | 1.To activate and switch the channel with event to the hot-spot window,2. The original video in the hot-spot window to be switched over. |
| | Hotspot window split Screen from the matrix | 1,2,4 |
| | Type of Hot spot window, Hot spot split screen | NA |
| RECORDING | Recording type | schedule,continuous,manual,motion,event |
| | Recording Recycle | Auto,FIFO mode Audio and video simultaneous recording,Motion Detect from camera |
| | Audio Recording | Pre-record,Post -record support |
| STORANGE/BACK UP | Number of selectable path in Local storage simultaneously(Hint : Select '0' if not applicable) | 0 |
| | Network storage path | ISCSI,network share,NAS |
| | Storage/ BackUp features | Multiple local storage support,Network Storage Device Support,CD Burning,DVD Burning,USB backup support,back up Tape device |
| PLAYBACK | Playback Search from Local and Network storage | 1.Channels,2.Date and time,3. Bookmarking,4. Alarm,5. All - Channels; Date & Time; Bookmarking; Alarm |
| | Event Playback Search from video loss, motion detection and manual recording | 1.Channels,2.Date and time |
| | Playback mode | 1.Play, Stop,Pause, Forward,Backward, Next, Previous. |
| | Forward/Backward mode | x1/4,x1/2,x1,x2,x4,x16,x32,x 64 |
| | Video Search | External alarm input trigger |
| | Image Export | Image Export by JPEG |
| Network Feature | Protocols | 1. HTTP,2. TCP,3. UDP,4. RTSP |
| | Remote View | 1. Remote Live streaming.,2. Video record to AVI/ASF,3. Image Snapshot to JPEG.,4. PTZ control.,5. Event notification.,6. Video playback. |
| | E-Map | 1. Multi E-map layers support.,2. Indicator camera &I/O.,3. E-Map Type BMP/JPG/GIF/PNG/TIF.,5. Camera Preview.,6. Online Google Map integration.,8. Online control:left,right,up,down, Zoom in and Zoom out. |
| | Tools | 2. Backup system.,4. File export to AVI, ASF, MP4 |
| | Compatibility | 1. Compatible with 3rd party IP cameras,2. Widescreen Support,3. SDK Integration |
| | The GUI software capable to perform the applications simultaneously without interfering with any of the storage server | 1. Live display of Cameras,2. Live display of Camera sequences,3. Control of PTZ Cameras,4. Playback of archived video,5.Retrieval of archived video,6.Instant replay of live video,7. Use of graphical controls (maps) and alarm management,8. Configuration of system settings |

| | | |
|---|---|---|
| GRAPHIC USER INTERFACE | operations (recording, alarms etc) | |
| | The GUI software capable to support | 1. Any form of IP network connectivity including LAN,WAN and wireless LAN technologies,2. Multicast video streaming,3. Unicast video streaming |
| | GUI Software Feature | 1. Capable to provide an authentication mechanism, which verifies thevalidity of the user.,2. Capable to allow live monitoring of video.,3. Capable to provide management and control over the system using a standard PC mouse, keyboard and Digital keyboard,4. Capable to display all Cameras attached to the system regardless of their physical location on the network.,5. Capable to display all Camera sequences created in the system,6. Capable to display all Cameras, sequences and users in a logical tree.,7. Capable to support graphical site representation (map) functionality,where digital maps are used to represent the physical location of Cameras and other devices throughout facility,8. The maps have the ability to contain hyperlinks to create a hierarchy of interlinked maps,9. Capable to support digital zoom on a fixed Camera's live video streams,10. Capable to support digital zoom on a PTZ Camera's live video streams,11. Capable to display video of Cameras on 40 inch Large FormatDisplay Monitors and Workstation Monitors,12. Capable to allow the control of display from the client PC,13. The operator from the GUI software able to decide the screen layout and also the Cameras that shall be displayed on the monitors,14. Capable to support multicasting,15. Capable to switch the screen layout in response to an alarm,17. Adaptive Streaming. Option to switch stream to lower to higher or vice-versa based on full screen |
| | Frame rate per camera in the GUI Software | 60 |
| | No Of video tiles enable on a single digital monitor | 64 |
| | Tiles Views provided on each of the digital monitors independently | 1. Full screen,2. Quad view,3. 4x4(16-view),4. Support any other window division based on the site requirement |
| | GUI Software Operator Feature | 1. Allow operators to view an instant replay of any Camera.,2. The operator able to define the amount of time he wishes to go back from timeline bar or through a custom setup period,3. The operator able to control the playback with play, pause, forward, and speed buttons,4. Operator capable to drag and drop a Camera from a tree of available Cameras into any video tile for live viewing,5. Operator capable to view the Camera from a tree of available Cameras into any video tile for live viewing.,8. The operator capable to control Pan, Tilt and Zoom patterns of P/T/Z Camera |
| | The operator capable to choose and trigger following action from a macro/site map | 1. View Camera in a video tile,2. View map or procedure in a video tile,3. Starting/stopping PTZ pattern,4. Go to PTZ preset |
| | Video Recording Feature by the offered product | 1. Support recording H.264/MJPEG/H.265 or higher video streams and audio for all the channels.,3. Software operates on open architecture and not requires any proprietary hardware.,4.Software capable to record different video streams or more simultaneously accessible from any client PC connected to the network.,5. Software provides network time server function to ensure the synchronization of the video servers and the recordings.,6. Servers/NVRs be connected to the network so that these can be placed at any location which has network access.,7. Software capable to receive alarms of different types from equipment to start a recording These alarms be motion detection, video loss, unifiedpicture and trigger input.,8. Software alarm recording supports pre-and post-alarm periods both can be configured in duration.,9. Software shall provide a status of the available recording capacity.,10. Software shall define limits and alerts for low disk space at warning and recording stopped levels |
| | Video Recording Software supports redundancy configurations for recording severs VideoRecording Servers/ Network Video Recorders | 1. N to X redundancy.,2. X to N redundancy.,3. N to N redundancy. |
| | Failover Time ( Maximum Time to which application swtiches from main server to Failover | |

server )(Hint :

VIDEO
RECORDING
SOFTWARE

5

| | | |
|---|---|---|
| | Select '0' if not applicable)(in seconds) | |
| | Features of Fault Tolerance Recording | 1.Software & Server(s)/ NVRs operation are interrupted, like power disconnection and once the server(s) are restarted, these automatically resume recordingof any Cameras these were recording prior to the interruption.,2. Software supports network fault-tolerant recording such that if thenetwork connection between a video management server and video recordingserver becomes unavailable, for example through cable breakage, networkcongestion or WLAN interruption, the system operation shall automatically recoverwhen the connection is restored. |
| | Feature of Search & Export | 1.Search for recordings in the software by Camera, date and time if a data and time is specified, playback shall commence from that date andtime possible to playback more than one Camera simultaneously.,2. Software be capable to export sections of recordings to a separate Windows folder, which then be written to CD-ROM, DVD-ROM or USB Flash Drives etc. to be played back at a location not connected to the network video management& recording network. The export process make available a player application, which provided with the exported video. Export be possible in Windows media player or any other media player compatible format.Simultaneous export of multiple Cameras be possible.,3. Software provides secured recording for evidence purposes and user authentication to protect data integrity.,4.Software supports activity controlled video recording. This is required to automatically adjust recording bit rate depending on motion & scene. During periods of negligible motion, the recording bits rate shall drop and when motion occurs, the recording bit rate shall return to normal without any perceptible delay.,5. Video Recording Software be compliant to global standards ONVIFProfile 'S' for the interface of network video product (ONVIF - Open Network Video Interface Forum). The quoted models should appear on the ONVIF website and a confirmation certificate for the offered models to be provided.,6. Watermarking, Encrypt and Digital Signature option while video exporting |
| CENTRAL MONITORING SOFTWARE | Central Monitoring Software | 2. Centralized monitoring of Unlimited devices spread across multiple station,3.Local recording at branch with High Quality Video and Low bandwidth streaming to Central station.,5. The alert send by VMS, Video Analytics software can be view in form of pop up on screen. |
| | No of cameras monitored from the central location by the software | 100000 |
| ALERT FEATURE | Alert feature in the offered product | 1. The software capable to detect signal loss & have the capability to alert the Systems administrator.,2. Software capable to recieve all incoming events(motion detection , triggered digital input & relay output) in the system and take the appropriate actions based on user-defined event/action relationships.,3. The Software shall create an audit trail of all events and user activities.,4. Software capable to provide alarm management module.,5. Alarm management able to set any monitor or groups of monitors to automatically display cameras in response to alarm inputs.,6. Ability to send SNMP traps messages on events,7.Inbuilt Video Analytic Alerts required: Abondoned Baggage, Intrusion, Camera Tampering, Crowd Detection |
| INSTALLATON | Installaion in the scope of supply | Yes |
| | If Yes, then scope of Installation | 1. Installation of Central Management System on servers .,2. Installation of VMS on the various location as per clients requirement.,3.Bundling all software & application requirement i.e. Operating System, database, firmware etc. and to make VMS operational with camera license cost. |
| COMMISSIONING | Commissioning in the scope of supply | No |
| | If Yes, then scope of Commissioning | 3. NA |
| SUPPORTED HARDWARE REQUIREMENT PARAMETERS | Minimum Hard Disk Space Required | 650 GB |
| | Minimum RAM Size required | 8 GB |
| | Server requirements | Windows 8.1 64-bit |
| | CPU required | Intel® Core i5 |
| | Other Hardware requirements | NA |
| | Operating Systems supported | Windows |
| | Supported Web browsers | IE,Chrome,Mozilla |

| | Supported Database | MSSQL | |
|---|---|---|---|
| GENERIC PARAMETERS | Free Upgradation to Higher Version within support period | Yes | |
| | Valid Licence copy to be provided | Yes | |
| | Software supplied through | Media & URL Link | |
| | Hyper link to OEM Data sheet | NA | |
| | No of Softwares sold | 10000 | |
| | Number of software installed within Government Department | 10000 | |
| | Details of Government Department email, phone no Of concerned authority where Software installed | NA | |

## Product Specification for Ruckus SFP Small form-factor pluggable transceiver

| Specification | Sub-Spec | Value |
|---|---|---|
| Specification | Type of Transceiver | SFP |
| | SFP Mode | Single |
| | Supported Protocols | IEEE 802.3z |
| | Compatability with OEMs Products | Ruckus ICX |
| | Wavelength(nm) | 1310 |
| | Fibre Cable Type | SMF |
| | Core Size (Micron) | 62.5 |
| | Maximum Data Rate | 1.25 |
| | Modal Bandwidth (MHz/Km) | 10000 |
| | Max.Cable Distance | 10000 |
| | Optical Component (nm) | 1310 |
| | Digital Optical Monitoring (DOM) Support | Yes |
| | Interface | LC |
| | Tx Power (dBm) | -3 |
| | Receiver Sensitivity (dBm) | 0 |
| | Operating Temperature Range(Degree C) | 70 |
| | Operating Humidity (RH) (%) | 95 |
| | On Site OEM Warranty (Year) | 5 |

## Product Specification for CyberPower 3.0 KVA UPS

| Specification | Sub-Spec | Value |
|---|---|---|
| Generic | Rating in KVA (KVA) | 3.0 KVA |
| | Technology | IGBT-PWM without inbuilt isolation transformer |
| | Input Power | single phase 160V - 260V sinewave,50Hz |
| | Output power | Single phase 230V +/-1% sinewave 50 Hz |
| | Backup time (Minutes) | 60 |
| | Minimum VAH (VAH) | 4800 |
| | Warranty for UPS (Years) | 5 |
| | Movable trolly for Batteries | Without trollery but with rack |
| | Warranty for battery | 2 |
| | Degree of Protection | IP21 |
| | Cabling 5 meters for input and out put | With |
| | Paralleling kit for synchronising | Without |
| | Installation and Commissioning | Yes |
| Constructional | Minimum thickness of M.S.Sheet Enclosure duly painted (mm) | 1.2 |
| | Type of Battery | SMF-VRLA conforming to JISC:8702(Pt.I,II&III) |
| Functional | Maximum overshoot and Under shoot of output rated voltage | 4 |
| | Voltage Regulation from no load to full load (%) | < / = 3% |
| | 20% Overload limit for minimum 10 minutes | Yes |
| | Overall Efficiency (%) | >/=90% |
| | Total Harmonic Distortion(THD) (%) | Maximum 3% |
| | 50% Overload limit for minimum 1 minutes | Yes |
| Protection | Protection for under voltage at battery terminal at 10.5V per 12 V battery | Yes |
| | Protection of Over voltage,Short Circuit & over load at UPS output terminal | Yes |
| Metering And Indications | Digital Metering in UPS for AC Input Voltage,Output AC Voltage,Current,Frequency,Battery Voltage and Current | Yes |
| | Indicators for mains presence,Battery charging and discharging,Output Over Load, Low Battery Voltage | Yes |
| Reports And Certification | Damp Heat : in accordance with IS:9000(part 5/sec.2)1981 at Temperature of 40 degree C,two cycles of (12+12) hours each 2007) | Yes |
| | Dry Heat Test : in accordance with IS:9000 (part 3/sec.5)1977 (reaffirmed 2007) at 55 degree C for 16 hrs | Yes |
| | Cold Test : in accordance with IS:9000 (Part 2/Sec.4)1977 (Reaffirmed 2007) at -10 degree C for 4 hrs. | Yes |
| | Availability of the Type Test Report from Central Govt. /NABL/ILAC Accredited lab covering all technical requirements. | Yes |
| | Type Test Certificate No. | R-41016861 |
| | Type Test Certificate date | 22/7/2019 |
| | Name of Lab | BIS |
| | Address of Lab | New delhi-110002 |
| | As per Meity (Government of India) guidelines UPS shall have valid BIS CRS certifications as applicable | Yes |

## Product Specification for LARGE FORMAT DISPLAY SAMSUNG QM75R

| Specification | Sub-Spec | Value |
|---|---|---|
| Ungrouped | Screen Size (Diagonal) Minimum (cm) | 189 |
| | Technology | LED Backlit |
| | Screen Type | Non Touch |
| | Panel Technology | Vertical Alignment (VA) |
| | Orientation | Portrait and Landscape |
| | Native Resolution (Pixels) | 3840 x 2160 (UHD) |
| | Aspect Ratio | 16:9 |
| | Brightness (Nits) Minimum | 500 |
| | Native Contrast Ratio (Minimum) | 4000:1 |
| | Viewing Angle (Horizontal:Vertical) | 178:178 |
| | Response Time (milli seconds) | 8 |
| | Bezel width (mm) | 11.5 |
| | Number of Speakers | 2 |
| | Arrangement of Speakers | Inbuilt |
| | Wattage of Speaker (with maximum 10% THD) (Watt) | 20 |
| | Output Port for audio output if internal speakers are not there | Available |
| | VGA Port | Not Available |
| | HDMI Port | Available |
| | DVI-D Port | Available |
| | Display Port | Available |
| | USB Port | Available |
| | RS 232C Port | Available |
| | RJ 45 | Available |
| | In built Sinage Software | Available |
| | Power Consumption in Operating Mode (Maximum) (Watt) | 231 |
| | Power Consumption in Sleep Mode (Maximum) (Watt) | 0.5 |
| | Duty Cycle | 24 x 7 |
| | Mounting arrangement | WALL MOUNT |
| | BIS Registration under CRS of Meity | Yes |
| | If Yes, BIS Registration number | R-41033448 |
| | ROHS Compliance | Yes |
| | Power Supply | 230 V AC, 50 Hz |
| | Operating Temperature Range (Degree C) | 0?~ 40? |
| | Operating Humidity (%RH) | 10% ~80% |
| | Dimensions (L X B) (cm x cm) | 1681.1x 960.1x 49.7 |
| | Weight (Kg) | 38.2 |
| | Accessories to be supplied : AC Power cord, remote control, user manual, wall mount bracket, necessary cables and connectors | Yes |

| | On Site OEM Warranty (Year) | 3 |
| --- | --- | --- |

## Product Specification for Ruckus Non Chassis Based Layer-3 Core Switch 5 Year Warranty

| Specification | Sub-Spec | Value |
| --- | --- | --- |
| Generic | Type Of Core Switch | Non Chassis Based |
| | No. of Interface Slots | 0 |
| | No. of MPU/SUP/Fabric Slots (with redundancy) | 0 |
| | No. of Power supply (with redundancy) | 2 |
| | No. of FAN Tray | 2 |
| | No. of 1G/10G SFP+ Port | 4 |
| | No. of 1000 base-T Ports | 24 |
| | Support for 40G QSFP+ Port | No |
| | Number of 40G Q SFP+ Porta | 0 |
| | Support for 100G QSFP+ Port | No |
| | Number of 100 G QSFP+ Port | 0 |
| | Console Port | Available |
| | Modular OS | Available |
| | Support for virtual Chassis | No |
| | Switching Capacity (Gbps) | 288 |
| | Throughput (MPPS) | 214 |
| | Advance Layer-3 Protocol | RIP,static routing |
| | Security Feature | 802.1X,MAC Auth.,DHCP snooping,RADIUS/TACACS/TACACS+,SSHv2,RADSEC |
| | Management Protocol | RSPAN,TFTP,TELNET Client and Server,VCT,SCP,sFlow,NMPv1/v2c |
| | QoS | ACL Mapping/Marking ofToS/DSCP(CoS),Honoring DSCP&802.1p (CoS),Priority Queue Manage using WRR, SP. |
| | Dimension/ Form Factor(RU) | 440×393.7×43.7mm;1U |
| | Wattege (Watt) | 500 |
| | Operating Temperature (Degree C) | ?5°C to 50°C/23°F to 122°F |
| | Operating Humidity (RH)(%) | 10% to 90% at 50°C, non-condensing |
| | IPv6 Ready | Yes |
| | On Site OEM Warranty(Year) | 5 |

## Product Specification for HIKVISION 4MP BULLET CAMERA

| Specification | Sub-Spec | Value |
| --- | --- | --- |
| CAMERA TYPE | Type of Camera Housing | BULLET CAMERA |
| | IP Camera | Yes |
| | PTZ Camera | No |
| | Image Sensor Type | CMOS |
| | Image Sensor Size | 0.34 |
| | Camera Image Sensing capacity | 4MP |

| | | |
|---|---|---|
| IMAGE SENSOR | (Picture Mode) | |
| | Resolution | Full HD (1920 x 1080 Pixel) |
| | Day/Night Capable | Yes |
| | IR illumination Range(mtr) | 50 |
| OPTICS | Lens Type | Motorized Varifocal |
| | Focal Length(mm) | 2.8 - 12 |
| | Iris Control | Yes |
| | Focus Mode | Auto |
| VIDEO | Frame Rate (fps) | 25,30 |
| | Video Compression | H.264,H.265+,H.265+,MJPEG |
| | Video Streaming | Triple compressed stream |
| PAN / TILT / ZOOM | Panning Range | NA |
| | Pan Speed (deg/sec) | NA |
| | Tilt Range below horizontal (deg) | NA |
| | Tilt Range above horizontal (deg) | NA |
| | Tilt Speed (deg/sec) | NA |
| | Optical Zoom | NA |
| | Digital Zoom | 16X |
| AUDIO | Audio Support | Yes |
| | Audio Compression | G.726,G.722.1,G.711,A-Law,MP2L2 |
| | Audio Streaming | Two-Way |
| | Number of Audio Input Channel | 1 |
| | Number of Audio Output Channel | 1 |
| | External Microphone Support | Yes |
| ALARM | Alarm Support | Yes |
| | Number of Alarm Digital Input | 1 |
| | Number of Alarm Relay Output | 1 |
| | Pre/Post Alarm Buffer | Yes |
| SECURITY | Multi Level User ID/Password | Yes |
| | IP Address Filtering | Yes |
| | Encrypted Data Transmission | HTTPS (SSL/TSL) |
| | Minimum Illumination for Capturing Color Image | 0.01 |
| | Electronic Shutter Speed(sec) | 1/3 to 1/10000 |

| | | |
|---|---|---|
| PERFORMANCE | WDR (Wide Dynamic Range) | 120 dB |
| | SNR (Signal to Noise Ratio) | 50-60 |
| | Auto Exposure | Auto Level Control |
| FEATURES | White Balance ( Indoor/Out door/Manual Selectable) | Yes |
| | Auto Gain Control (On/Off selectable) | Yes |
| | Back Light Compensation | Yes |
| | Remote Administration (Remote configuration and status using web based tool) | Yes |
| | Remote System Update Over Network | Yes |
| | PC Client (PC application client with a channel recording feature support) | Yes |
| | Web Client (Viewer through HTTP system configuration) | Yes |
| | On Screen Display in English | Yes |
| | ONVIF Support | Yes |
| | Presets | 0 |
| | Group Touring | 0 |
| | Privacy Zones | 4 |
| NETWORK AND INTERFACE | Supported Protocols | UDP,SNMP,IGMP,DHCP,RTP,RSTP,HTTP,SMTP,FTP,ICMP,HTTPS,DNS,DDNS,RTSP,RTCP,NTP,UPnP,QoS,TCP/IP |
| | IP Support | Static,Dynamic |
| | Signal Processing | Digital Signal Process |
| | IPv6 ready | Yes |
| | Wireless | No |
| | Simultaneous Connections | 6 |
| STORAGE | On Board SD Card Support | Yes |
| | SD Card Memory(GB) | 128 |
| | Installation Type | Outdoor |
| | Material of the Housing construction | Alluminium |
| | Protection | IP67 |
| | Vandal Resistant Housing | Yes |

| HOUSING | If Yes, IK rating | IK 10 |
| --- | --- | --- |
| | Mounting bracket | Wall Mounted |
| | Weight | 1300 |
| | Dimensions (mm x mm x mm) | ?140 × 334.6mm |
| POWER SUPPLY | Power Input | 12 V DC,PoE |
| | Power Consumption | 11 |
| | Suitable Adapter Shall be Supplied to Make the Equipment Work on 230 V (+/- 10 %), 50 Hz | Yes |
| OPERATING CONDITIONS | Operating Temperature Range | -20 to +50 deg C |
| | Relative Humidity Non Condensing (%) | 95 |
| WARRANTY / SERVICES | Warranty | 5 |
| | Time for Replacement of Defective Product During Warranty Period | 24 |
| | Supply of Compatible drivers and software included | Yes |
| ENVIRONMENTAL / CERTIFICATION | Availability of facility & infrastructure for verification of all parameters, features, and capability with Seller | Yes |
| | Availability of facility to test signal to noise ratio of camera at 0-01 lux | Yes |
| | Conformity to Dry Heat test at 55 degree C for 16 hours as per IS :9000 latest | Yes |
| | Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest | Yes |
| | Conformity to Cold test at -10 / -20 degree C for 4 hours as per IS: 9000 latest, as applicable | Yes |
| | BIS Registration for safety general requirements as per IS 13252 (Part 1):latest | Yes |

| | Availability of Type Test Report from Central Govt /NABL/ILAC accredited lab to prove conformity to specification | Yes |
|---|---|---|
| | Test Report Number and Date | E307937 24/11/2018 |
| | Name and Address of Test Lab | NACP UL LLC |
| | Certification | FCC,CE,UL |

## Product Specification for RICHA Insulated Electrical Conduit Pipe 3 Meter

| Specification | Sub-Spec | Value |
|---|---|---|
| GENERIC | Conformity to Indian Standard | IS:9537( Part-3) Latest |
| | Classification of Conduit | Heavy Mechanical Stresses |
| CONSTRUCTIONAL | Material | PVC |
| | Nominal Size of the Conduit, (mm) | 25 |
| | Length (Metres) | 3 |
| | Socket ended conduit (at one end ) | Yes |
| CERTIFICATION | ISI Marked | Yes |
| | CM/L No | 8604577 |
| | Availability of Test Reports from Central Govt./State Govt/NABL/IL AC accredited Lab covering all the Declared Parameters as per IS Specification | YES |
| | Test Report No and Date | 5294/17-03-2017 |
| | Name of the Lab | NABL |
| | Address of the Lab | GUJRAT |

## Product Specification for SAMSUNG 59.5-61.5 CM Liquid Crystal Display LCD Panel or Monitors

| Specification | Sub-Spec | Value |
|---|---|---|
| | Screen Size (Diagonal) (cm) | 59.5-61.5 |
| | Panel Type | Vertical Alignment (VA) |
| | Resolution (Pixels) | 1920 x 1080 (Full HD) |
| | Aspect Ratio | 16:9 |
| | Brightness (Nits) | 250 |
| | Native Contrast Ratio (Minimum) | 1200 : 1 |
| | Viewing Angle (Horizontal : Vertical) (Degree) | 178 : 178 |
| | Response Time (millisecond) | 4 |
| | Antiglare Coating | Yes |
| | Split Screen Feature | Not-Available |
| | Inbuilt Speakers | Not-Available |
| | VGA Port | Available |
| | HDMI Port | Available |

| Specification | DVI-D Port | Not-Available |
| --- | --- | --- |
| | Display Port | Not-Available |
| | Power Consumption in Operating Mode (Maximum) (Watt) | 25 |
| | Power Consumption in Sleep Mode (Maximum) (Watt) | 0.3 |
| | Mounting Arrangment | Table Mount |
| | TCO Certification | TCO-07 |
| | BIS Registration under CRS of Meity | Yes |
| | Operating Temperature Range (Degree Celsius ) | 10~40 ? |
| | Operating Humidity (%RH) | 10~80 |
| | Power Supply | 230V AC, 50 Hz |
| | Type Of Power Supply | External |
| | On Site OEM Warranty (Year) | 3 |
| | Technology | LED Backlit |
| | If yes, BIS Registration Number | R-41033448 |

## Product Specification for ICX7150-24P-4X10GR

| Specification | Sub-Spec | Value |
| --- | --- | --- |
| Specification | Type of Switch | Managed |
| | Technology | PoE+ |
| | Number of 1G Copper Ports | 24 |
| | Number of 10G Copper Ports | 0 |
| | No. of 1 G SFP Port (Uplink) | 0 |
| | No. of 10 G SFP+ Port (Uplink) | 4 |
| | Multi-Gigabit Support | No |
| | Redundant Power supply ( from day one) | Not available |
| | Console Port | Available |
| | Switching Capacity -Non Blocking (Gbps) | 132 |
| | Throughput (MPPS) | 98 |
| | Operating System | available |
| | Dedicated Stacking Port/Slot ( from day one) | Not available |
| | Stacking Bandwidth (Gbps) | 480 |
| | Basic Layer-3 Protocol | RIP v1/v2,RIPng,ECMP,Routing Between Directly Connected Subnets,Layer 3/Layer 4 ACLs |
| | Security Feature | 802.1X/Flexible/MAC/Web authentication,DHCP snooping,RADIUS/TACACS/TACACS+,SSHv2 |
| | Management Protocol | DHCP,TFTP,Telnet,web,CLI,Bootp,SNMPv1/v2c |
| | QoS | ACL Mapping and Marking of ToS/DSCP (CoS), ACL Mapping and Marking of 802.1p |
| | Operating Temperature Range (Degree C) | 0-45 |
| | Operating Humidity (RH)(%) | 0-95% |
| | IPv6 Ready from day one and dully certified | Yes |
| | PoE Power Budget ( Watt ) | 370 |
| | on Site OEM Warranty | 5 |

| **Product Specification for HIKVISION 4MP DOME CAMERA** | | |
| --- | --- | --- |
| **Specification** | **Sub-Spec** | **Value** |
| CAMERA TYPE | Type of Camera Housing | DOME CAMERA |
| | IP Camera | Yes |
| | PTZ Camera | No |
| IMAGE SENSOR | Image Sensor Type | CMOS |
| | Image Sensor Size | 0.34 |
| | Camera Image Sensing capacity (Picture Mode) | 4MP |
| | Resolution | Full HD (1920 x 1080 Pixel) |
| | Day/Night Capable | Yes |
| | IR illumination Range(mtr) | 30 |
| OPTICS | Lens Type | Motorized Varifocal |
| | Focal Length(mm) | 2.8 - 12 |
| | Iris Control | Yes |
| | Focus Mode | Auto |
| VIDEO | Frame Rate (fps) | 25,30 |
| | Video Compression | H.264,H.265+,H.265+,MJPEG |
| | Video Streaming | Triple compressed stream |
| PAN / TILT / ZOOM | Panning Range | NA |
| | Pan Speed (deg/sec) | NA |
| | Tilt Range below horizontal (deg) | NA |
| | Tilt Range above horizontal (deg) | NA |
| | Tilt Speed (deg/sec) | NA |
| | Optical Zoom | NA |
| | Digital Zoom | NA |
| AUDIO | Audio Support | Yes |
| | Audio Compression | G.726,G.722.1,G.711,MP2L2 |
| | Audio Streaming | Two-Way |
| | Number of Audio Input Channel | 1 |
| | Number of Audio Output Channel | 1 |
| | External Microphone Support | Yes |
| ALARM | Alarm Support | Yes |
| | Number of Alarm Digital Input | 1 |
| | Number of Alarm Relay Output | 1 |

| | | |
|---|---|---|
| | Pre/Post Alarm Buffer | Yes |
| SECURITY | Multi Level User ID/Password | Yes |
| | IP Address Filtering | Yes |
| | Encrypted Data Transmission | HTTPS (SSL/TSL) |
| PERFORMANCE | Minimum Illumination for Capturing Color Image | 0.01 |
| | Electronic Shutter Speed(sec) | 1/3 to 1/10000 |
| | WDR (Wide Dynamic Range) | 120 dB |
| | SNR (Signal to Noise Ratio) | 50-60 |
| | Auto Exposure | Auto Level Control |
| FEATURES | White Balance ( Indoor/Out door/Manual Selectable) | Yes |
| | Auto Gain Control (On/Off selectable) | Yes |
| | Back Light Compensation | Yes |
| | Remote Administration (Remote configuration and status using web based tool) | Yes |
| | Remote System Update Over Network | Yes |
| | PC Client (PC application client with a channel recording feature support) | Yes |
| | Web Client (Viewer through HTTP system configuration) | Yes |
| | On Screen Display in English | Yes |
| | ONVIF Support | Yes |
| | Presets | 0 |
| | Group Touring | 0 |
| | Privacy Zones | 4 |
| NETWORK AND INTERFACE | Supported Protocols | UDP,SNMP,IGMP,DHCP,RTP,RSTP,HTTP,SMTP,FTP,ICMP,HTTPS,DNS,DDNS,RTSP,RTCP,NTP,UPnP,QoS,TCP/IP |
| | IP Support | Static,Dynamic |
| | Signal Processing | Digital Signal Process |
| | IPv6 ready | Yes |
| | Wireless | No |
| | Simultaneous | |

| | Connections | 6 |
|---|---|---|
| **STORAGE** | On Board SD Card Support | Yes |
| | SD Card Memory(GB) | 128 |
| **HOUSING** | Installation Type | Indoor |
| | Material of the Housing construction | Alluminium |
| | Protection | IP67 |
| | Vandal Resistant Housing | Yes |
| | If Yes, IK rating | IK 10 |
| | Mounting bracket | Ceiling Mounted |
| | Weight | 835 |
| | Dimensions (mm x mm x mm) | ? 153.3 × 111.6mm |
| **POWER SUPPLY** | Power Input | 12 V DC,PoE |
| | Power Consumption | 10 |
| | Suitable Adapter Shall be Supplied to Make the Equipment Work on 230 V (+/- 10 %), 50 Hz | NA |
| **OPERATING CONDITIONS** | Operating Temperature Range | -20 to +50 deg C |
| | Relative Humidity Non Condensing (%) | 95 |
| **WARRANTY / SERVICES** | Warranty | 5 |
| | Time for Replacement of Defective Product During Warranty Period | 24 |
| | Supply of Compatible drivers and software included | Yes |
| | Availability of facility & infrastructure for verification of all parameters, features, and capability with Seller | Yes |
| | Availability of facility to test signal to noise ratio of camera at 0-01 lux | Yes |
| | Conformity to Dry Heat test at 55 degree C for 16 hours as per IS :9000 latest | Yes |
| | Conformity to Damp heat at 40 degree C - | |

| | | 95% RH (cyclic test): | |
| --- | --- | --- | --- |
| | ENVIRONMENTAL / CERTIFICATION | Yes | |

| | | |
|---|---|---|
| | two cycles of 16+8 hours as per IS: 9000 latest | |
| | Conformity to Cold test at -10 / -20 degree C for 4 hours as per IS: 9000 latest, as applicable | Yes |
| | BIS Registration for safety general requirements as per IS 13252 (Part 1):latest | Yes |
| | Availability of Type Test Report from Central Govt /NABL/ILAC accredited lab to prove conformity to specification | No |
| | Test Report Number and Date | NA |
| | Name and Address of Test Lab | NA |
| | Certification | FCC,CE,UL |

## Product Specification for Molex Yes CAT 6 U/UTP Cat 6 Patch Panel

| Specification | Sub-Spec | Value |
|---|---|---|
| CONSTRUCTIONAL | Applications: 0BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T (IEEE802.3) , 100VG-AnyLAN (IEEE802.12), 250 MHz Broadband Video, Voice, T1, ISDN, 155/ 622 Mbps ATM , Power over Ethernet (POE, POE+, 4 PPOE) | Yes |
| | Material of patch panel | Cold rolled steel |
| | Modular plug fitting (RJ 45) | Individual ports for loaded |
| | Plug insertion durability | ? 750 mating cycles" |
| | Holder for connector / module | Yes |
| | Dust protection for information outlet | No |
| GENERIC | CAT 6 patch Panel conforming to ANSI/TIA/EIA-568 C.2 latest or ISO/IEC:11801 latest | Yes |
| | Patch panel suitability for (Category 6 Unshielded/Unshielded twisted pair or Category 6 Foiled/Unshileded twisted pair) | CAT 6 U/UTP |
| | Height of patch panel | 1 U |
| | No. of ports (RJ 45) | 24 Ports Un-Loaded |
| | Cable Management (Rear side) | With out |
| CERTIFICATIONS | Category 6 pacth panel / information outlet shall have valid verified certificate in channel from ETL /3P /GHMT /Delta/UL/Intertek as per CAT 6 standards ANSI//TIA/EIA-568 C.2 latest or ISO/IEC:11801 latest | Yes |
| | If "Yes" Certificate Number - Must declare | ML18/45897 |
| | Availability of complete and satisfactory type test Report from Central Government / NABL/ ILAC accredited laboratory as per Governing Specification | Yes |
| | Test report number | 048ML26E |

| | Report date | 01.01.2018 |
|---|---|---|
| | Name and address of lab | INDIA LAB |
| | All the test reports shall furnish to the buyer/consignee on demand | Yes |

## Product Specification for netrack 42U Rack Enclosures Networking/Server Rack

| Specification | Sub-Spec | Value |
|---|---|---|
| Specifications | Type of Server Racks | Rack Enclosures |
| | Size of Server Rack Enclosure | 42U |
| | Depth of the Rack (mm) | Upto 1000 |
| | Mount Type | Free-Standing |
| | Front glass Door | Yes |
| | Type of glass used in front door | Transparent Toughened Glass |
| | Material used for rear door | SPCC Quality Cold Rolled Steel Metal |
| | Both rear and front doors with Perforation | No |
| | Side Panels With Key Locks and Slam Latch | Yes |
| | Secure Locks | Available |
| | Rear split door design | Yes |
| | Keyboard Tray Sliding and Rotary | Yes |
| | Shelf For CRT/TFT Display | Yes |
| | Cable channel in rear side for cable management | Yes |
| | Support cable entry from top or bottom | Yes |
| | Vertical & Horizontal managers | Yes |
| | Numbers of Rack trays | 2 |
| | Number of Fan For Heat dissipation (nos) | 2 |
| | Number of fan trays | 2 |
| | Heavy Duty Caster Wheels | Yes |
| | If yes, then Front Break Options | Available |
| | Load Bearing Capacity (Kgs) | 750 |
| | If Wall mount racks then ,Swing-Out Racks | NA |
| | Dust or water resistant | No |
| | PDU Power Strips | Available |
| | Weight (Kg) | 90 |
| | Warranty (Years) | 5 |

## Product Specification for ICX7150-C08P-2X1G

| Specification | Sub-Spec | Value |
|---|---|---|
| | Type of Switch | Managed |
| | Technology | PoE+ |
| | Number of 1G Copper Ports | 8 |
| | Number of 10G Copper Ports | 0 |
| | No. of 1 G SFP Port (Uplink) | 2 |
| | | |

| Specification | Sub-Spec | Value |
|---|---|---|
| | No. of 10 G SFP+ Port (Uplink) | 0 |
| | Multi-Gigabit Support | No |
| | Redundant Power supply ( from day one) | Not available |
| | Console Port | Available |
| | Switching Capacity -Non Blocking (Gbps) | 20 |
| | Throughput (MPPS) | 14.88 |
| Specification | Operating System | available |
| | Dedicated Stacking Port/Slot ( from day one) | Not available |
| | Stacking Bandwidth (Gbps) | 0 |
| | Basic Layer-3 Protocol | NA |
| | Security Feature | 802.1X auth.,MAC authentication, Web authentication |
| | Management Protocol | DHCP, TFTP, Telnet, WEB, CLI |
| | QoS | comprehensive qos policy Yes, ACL Mapping and Marking of ToS/DSCP (CoS) |
| | Operating Temperature Range (Degree C) | 0-45 |
| | Operating Humidity (RH)(%) | 5-95 |
| | IPv6 Ready from day one and dully certified | Yes |
| | PoE Power Budget ( Watt ) | 62 |
| | on Site OEM Warranty | 3 |

## Product Specification for 16 Channel NVR with 2 nos 4TB HDD

| Specification | Sub-Spec | Value |
|---|---|---|
| | Number of Video Input Channels | 16 |
| | Number of Non-IP based Video input Channels for HVR | NA |
| | Number of IP based Video input Channels for HVR | NA |
| | Number of Video Output Channels | 2 |
| | Recording Resolution | 4K (3840 × 2160) |
| | Supported Compression Technique | H.264,H.265,MJPEG,H.265+,H.264+ |
| VIDEO | Maximum Number of cameras to be viewed on a single display | 16 |
| | Total number of simultaneous local views | 2 |
| | Simultaneous Monitoring Connections for All Cameras (Users in Local Network for Client Connection) | 4 |

| | | |
|---|---|---|
| | Recording Speed for all channels (fps) | 25 |
| | Minimum Through put (Mbps) | 256 |
| | Display Image Rate | Real time per channel |
| TYPE | Type of Recording Device | NVR |
| | IP Camera Support | Yes |
| | PTZ Camera control Support | Yes |
| | Housing construction | Alluminium |
| | Mounting | Rack Mounted |
| | Rack Mount configuration | 2U |
| | Capability of Recorder to Work with Other Makes of CCTV Cameras (ONVIF support) | Yes |
| AUDIO | Audio Support | Yes |
| | Audio Input | 1 |
| | Audio Output | 1 |
| | Audio Compression | G.726,G.711,G.722.1,A-Law,AAC |
| | Minimum Number of Simultaneous Channels for Two-way Audio Support | 1 |
| SECURITY | Type of Encryption | HTTPS (SSL/TSL),HTTP (SSL/TSL) |
| | Multi Level User ID / Password | Yes |
| ALARM | Alarm Support | Yes |
| | Alarm Input | 16 |
| | Alarm Output | 4 |
| | Pre / Post Alarm Buffer | Yes |
| | Pre-Alarm Recording | 60 |
| | Post-Alarm Recording | 60 |
| | Video Content Analytics (VCA) | Trip-wire Detection,Motion Detection,Crossing line,Intrusion Detection,Tampering,Object Removal |
| | Operating System Supported | Windows,MAC,Linux |
| | Supported Network Protocols | UDP,SNMP,IGMP,DHCP,RTP,RSTP,HTTP,HTTPS,DNS,DDNS,RTSP,RTCP,NTP,UPnP,SMTP,FTP,ICMP,QoS,TCP/IP |
| | Supported Interface | Ethernet,HDMI,VGA,USB,RS 232,RS-485 |
| | Physical Layer of Ethernet | 10/100/1000 Base TX |

| | | | |
|---|---|---|---|
| NETWORK PROTOCOLS / INTERFACE / OPERATING SYSTEM | Number of Ethernet Ports | 2 | |
| | Number of HDMI Ports | 1 | |
| | Number of VGA Ports | 1 | |
| | Number of CVBS Ports | 0 | |
| | Number of USB Ports | 2 | |
| | Number of Serial Ports | 2 | |
| | Number of PoE Ports | 0 | |
| | Supported SIM Slot | NA | |
| | Number of SIM Slots | 0 | |
| FEATURES | Video Loop Support | Yes | |
| | Video Recorder supports recording on NAS Directly | Yes | |
| | Remote Administration (Remote Configuration And Status Using Web Based Tool) | Yes | |
| | System Update (Remote System Update Over Network Using Web Client) | Yes | |
| | PC Client (PC Application Client With A Channel Recording Feature Support) | Yes | |
| | Web Client (Viewer through HTTP system configuration) | Yes | |
| | On Screen Display (In English) | Yes | |
| | Drivers / Compatible Software (Wherever Applicable) Part Of Supply | Yes | |
| | Recording schedule support | Yes | |
| | Bandwidth Control | Yes | |
| | Camera Notification | Spot (POP up Window) on Event,E-mail | |
| | Network transmission Speed | Real time display @ D1 resolution | |
| | Other features, if any | NA | |

| | | |
|---|---|---|
| PLAYBACK / VIEW / MANAGEMENT | Search | Date,Time,Event,Log,Motion,Bookmarks |
| | Bookmarks | Forward,Backward,adjustable playback speed,Full Screen,Next Camera,Previous Camera,Repeat |
| | Page preview | Multi Monitor Support,Video Window |
| | Total Management | Group add,Delete,Group management |
| | Camera | Add,Edit,Delete,Use Master account,Use Specific account |
| STORAGE | Internal Hard Drive Interface | SATA III |
| | Number of Hard Disks (inclusive in the scope of supply) | 2 |
| | Storage Capacity of each Hard Disk (TB) | 4 |
| | Total Storage Capacity(TB) | 16 |
| | Internal Storage Expandable upto (TB) | 16 |
| | Number of Hard Disks supported | 4 |
| | Redundancy Option | NA |
| POWER SUPPLY | Power Input | 230 ± 10%, 50Hz |
| | Power Consumption | 80 |
| | Suitable Adapter to be Supplied to Make the Equipment Work on 230 V ± 10 %, 50 Hz | Yes |
| | Redundant Power Supply | No |
| OPERATING CONDITIONS | Minimum Operating Temperature | -10 |
| | Maximum Operating Temperature | 55 |
| | Relative Humidity Non Condensing at 40 deg C | 90 |
| WARRANTY / SERVICES | Warranty | 5 |
| | Time for Replacement of Defective Product During Warranty Period | 24 |
| | Availability of facility and infrastructure for verification of all the parameters, features and capability with the Seller | Yes |
| | Conformity to Dry Heat test at Specified Maximum Operating | Yes |

| | | |
|---|---|---|
| ENVIRONMENTAL / CERTIFICATION | Temperature for 16 hours as per IS :9000 latest | |
| | Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest | Yes |
| | Conformity to Cold test at Specified Minimum Operating Temperature for 4 hours as per IS: 9000 latest | Yes |
| | BIS Registration for safety general requirements as per IS: 13252 (Part 1): latest | Yes |
| | Availability of Test Report from Central Govt/NABL/ILAC accredited lab to prove conformity to specification | Yes |
| | Test Report Number and Date | 50700225901 12/08/15 |
| | Name and Address of Test Lab | Shanghai |
| | Certification | FCC,CE,UL |
| LIST OF ITEMS | List of Items and Quantity of each item included in the offer | NVR with 2 HDD 4TB |

## Product Specification for NVR 128 Chanel with 8 nos 16TB HDD

| Specification | Sub-Spec | Value |
|---|---|---|
| VIDEO | Number of Video Input Channels | 128 |
| | Number of Non-IP based Video input Channels for HVR | NA |
| | Number of IP based Video input Channels for HVR | NA |
| | Number of Video Output Channels | 2 |
| | Recording Resolution | 4K (3840 × 2160) |
| | Supported Compression Technique | H.264,H.265,MJPEG,H.265+,H.264+ |
| | Maximum Number of cameras to be viewed on a single display | 64 |

| | | |
|---|---|---|
| | Total number of simultaneous local views | 4 |
| | Simultaneous Monitoring Connections for All Cameras (Users in Local Network for Client Connection) | 16 |
| | Recording Speed for all channels (fps) | 25 |
| | Minimum Through put (Mbps) | 768 |
| | Display Image Rate | Real time per channel |
| TYPE | Type of Recording Device | NVR |
| | IP Camera Support | Yes |
| | PTZ Camera control Support | Yes |
| | Housing construction | Alluminium |
| | Mounting | Rack Mounted |
| | Rack Mount configuration | 3U |
| | Capability of Recorder to Work with Other Makes of CCTV Cameras (ONVIF support) | Yes |
| AUDIO | Audio Support | Yes |
| | Audio Input | 1 |
| | Audio Output | 1 |
| | Audio Compression | G.726,G.711,G.722.1,A-Law,AAC |
| | Minimum Number of Simultaneous Channels for Two-way Audio Support | 1 |
| SECURITY | Type of Encryption | HTTPS (SSL/TSL),HTTP (SSL/TSL) |
| | Multi Level User ID / Password | Yes |
| ALARM | Alarm Support | Yes |
| | Alarm Input | 16 |
| | Alarm Output | 8 |
| | Pre / Post Alarm Buffer | Yes |
| | Pre-Alarm Recording | 60 |
| | Post-Alarm Recording | 60 |
| | Video Content | Trip-wire Detection,Motion Detection,Crossing line,Intrusion Detection,Object counting,Tampering,Object |

| | Analytics (VCA) | Removal,Number Plate Recognition |
|---|---|---|
| NETWORK PROTOCOLS / INTERFACE / OPERATING SYSTEM | Operating System Supported | Windows,MAC,Linux |
| | Supported Network Protocols | UDP,SNMP,IGMP,DHCP,RTP,RSTP,HTTP,HTTPS,DNS,DDNS,RTSP,RTCP,NTP,UPnP,SMTP,FTP,ICMP,QoS,TCP/IP |
| | Supported Interface | Ethernet,HDMI,VGA,USB,RS 232,RS-485 |
| | Physical Layer of Ethernet | 10/100/1000 Base TX |
| | Number of Ethernet Ports | 4 |
| | Number of HDMI Ports | 2 |
| | Number of VGA Ports | 1 |
| | Number of CVBS Ports | 0 |
| | Number of USB Ports | 4 |
| | Number of Serial Ports | 2 |
| | Number of PoE Ports | 0 |
| | Supported SIM Slot | NA |
| | Number of SIM Slots | 0 |
| FEATURES | Video Loop Support | Yes |
| | Video Recorder supports recording on NAS Directly | Yes |
| | Remote Administration (Remote Configuration And Status Using Web Based Tool) | Yes |
| | System Update (Remote System Update Over Network Using Web Client) | Yes |
| | PC Client (PC Application Client With A Channel Recording Feature Support) | Yes |
| | Web Client (Viewer through HTTP system configuration) | Yes |
| | On Screen Display (In English) | Yes |
| | Drivers / Compatible Software (Wherever Applicable) Part Of Supply | Yes |

| | | |
|---|---|---|
| | Recording schedule support | Yes |
| | Bandwidth Control | Yes |
| | Camera Notification | Spot (POP up Window) on Event,E-mail |
| | Network transmission Speed | Real time display @ D1 resolution |
| | Other features, if any | NA |
| PLAYBACK / VIEW / MANAGEMENT | Search | Date,Time,Event,Log,Motion,Bookmarks |
| | Bookmarks | Forward,Backward,adjustable playback speed,Full Screen,Next Camera,Previous Camera,Repeat |
| | Page preview | Multi Monitor Support,Video Window |
| | Total Management | Group add,Delete,Group management |
| | Camera | Add,Edit,Delete,Use Master account,Use Specific account |
| STORAGE | Internal Hard Drive Interface | SATA III |
| | Number of Hard Disks (inclusive in the scope of supply) | 16 |
| | Storage Capacity of each Hard Disk (TB) | 8 |
| | Total Storage Capacity(TB) | 128 |
| | Internal Storage Expandable upto (TB) | 128 |
| | Number of Hard Disks supported | 16 |
| | Redundancy Option | RAID 10 |
| POWER SUPPLY | Power Input | 230 ± 10%, 50Hz |
| | Power Consumption | 140 |
| | Suitable Adapter to be Supplied to Make the Equipment Work on 230 V ± 10 %, 50 Hz | Yes |
| | Redundant Power Supply | Yes |
| OPERATING CONDITIONS | Minimum Operating Temperature | 0 |
| | Maximum Operating Temperature | 50 |
| | Relative Humidity Non Condensing at 40 deg C | 90 |
| WARRANTY / SERVICES | Warranty | 5 |
| | Time for Replacement of Defective Product During Warranty Period | 24 |

| | | |
|---|---|---|
| | Availability of facility and infrastructure for verification of all the parameters, features and capability with the Seller | Yes |
| | Conformity to Dry Heat test at Specified Maximum Operating Temperature for 16 hours as per IS :9000 latest | Yes |
| | Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest | Yes |
| ENVIRONMENTAL / CERTIFICATION | Conformity to Cold test at Specified Minimum Operating Temperature for 4 hours as per IS: 9000 latest | Yes |
| | BIS Registration for safety general requirements as per IS: 13252 (Part 1): latest | Yes |
| | Availability of Test Report from Central Govt/NABL/ILAC accredited lab to prove conformity to specification | Yes |
| | Test Report Number and Date | 0700225901 12/08/15 |
| | Name and Address of Test Lab | Shanghai |
| | Certification | FCC,CE,UL |
| LIST OF ITEMS | List of Items and Quantity of each item included in the offer | NVR, 16HDD8TB, Adptr |

**Corrigendum**

1. **1: a. All the quoted Cameras, NVR, and VMS Shall be from single OEM for better compatibility similarly all the Quoted Switches & SFP Module shall be from single OEM and both the UPS (1KVA & 3 KVA from the Single OEM). b.OEM Authorization for quoted items (Cameras, NVR, VMS, Switches, SFP Transceiver, UPS, UTP and OFC Cables) is mandatory and should be enclosed with the bid. 2: c. Supply Installation, testing and commissioning of all the items are mandatory, hence prospective bidder may survey the site before bidding to understand the site condition and installation procedures. A proposed diagram must be uploaded with bid. If anything extra required for execution of the project shall be borne by bidder. BCCL is not liable to pay any extra charges for the same. d. All the 8Chanel and 16Chanel and 128 Chanel NVR display will be separately with customized view as per requirement by the specific department and similarly a single display for all the camera shall be placed at the control room. 3: e. VMS will be per channel license based and provision to add more license and cameras if required. f. OFC will be laid through underground with HDPE pipe or over wall PVC Pipe, in that case all the civil work (Digging/Cutting, Road Boring including refilling) will be in bidders scope. OFC joint pit wherever required will be included in scope of work. All the UTP cable laid with PVC conduits as per IT standard practice. g. Vendor should provide the following: (i)The required Video Management Software (VMS) with per channel license to complete the project. (ii)The VMS Software compatible with the supplied cameras and capacity to handle over 300 camera. (iii) The VMS should be run at different locations as per site requirements 4: h. The number of Hard Disks inclusive in the Scope of Supply: NVR (16 Channel): 2 NVR (8 Channel): 1 NVR (128 Channel): 16**
2. **Extended Upto :** 2020-05-27 13:00:00

## Terms and Conditions

### 1. Special terms and conditions

**1.1**

Calculation of Minimum VAH based on Back up time
Minimum VAH requirements would be calculated on the basis of following:
(VAH Calculation: Battery Voltage x Battery Ah x No. of Batteries = VAH)

| UPS Rating | 15 Minutes | 30 Minutes | 60 Minutes | 90 Minutes | 120 Minutes | 180 Minutes | 240 Minutes |
|---|---|---|---|---|---|---|---|
| 1 KVA | 400 VAH | 800 VAH | 1600 VAH | 2400 VAH | 3200 VAH | 4800 VAH | 6400 VAH |
| 2 KVA | 800 VAH | 1600 VAH | 3200 VAH | 4800 VAH | 6400 VAH | 9600 VAH | 12800 VAH |
| 3 KVA | 1200 VAH | 2400 VAH | 4800 VAH | 7200VAH | 9600 VAH | 14400 VAH | 19200 VAH |
| 5 KVA | 2000 VAH | 4000 VAH | 8000 VAH | 12000 VAH | 16000 VAH | 24000 VAH | 32000 VAH |
| 6 KVA | 2400 VAH | 4800 VAH | 9600 VAH | 14400 VAH | 19200 VAH | 28800 VAH | 38400 VAH |
| 7.5 KVA | 3000 VAH | 6000 VAH | 12000 VAH | 18000 VAH | 24000 VAH | 36000 VAH | 48000 VAH |
| 10 KVA | 4000 VAH | 8000 VAH | 16000 VAH | 24000 VAH | 32000 VAH | 48000 VAH | 64000 VAH |
| 15 KVA | 6000 VAH | 12000 VAH | 24000 VAH | 36000 VAH | 48000 VAH | 72000 VAH | 96000 VAH |
| 20 KVA | 8000 VAH | 16000 VAH | 32000 VAH | 48000 VAH | 64000 VAH | 96000 VAH | 128000 VAH |
| 30 KVA | 12000 VAH | 24000 VAH | 48000 VAH | 72000 VAH | 96000 VAH | 144000 VAH | 192000 VAH |
| 40 KVA | 16000 VAH | 32000 VAH | 64000 VAH | 96000 VAH | 128000 VAH | 192000 VAH | 256000 VAH |
| 60 KVA | 24000 VAH | 48000 VAH | 96000 VAH | 144000 VAH | 192000 VAH | 288000 VAH | 384000 VAH |
| 80 KVA | 32000 VAH | 64000 VAH | 128000 VAH | 192000 VAH | 256000 VAH | 384000 VAH | 512000 VAH |
| 100 KVA | 40000 VAH | 80000 VAH | 160000 VAH | 240000 VAH | 320000 VAH | 480000 VAH | 640000 VAH |

### 2. General Terms and Conditions

**2.1** This Contract between the Seller and the Buyer, is for the supply of the Goods and/ or Services, detailed in the schedule above, in accordance with the General Terms and Conditions (GTC) as available on the GeM portal (unless otherwise superseded by Goods / Services specific Special Terms and Conditions (STC) and/ or BID/Reverse Auction Additional Terms and Conditions (ATC), as applicable

**2.2 Terms of delivery:** Free Delivery at Site including loading/unloading. In respect of items requiring installation and / or commissioning and other services in the scope of supply (as indicated in respective product category specification / STC / ATC), and the cost of the same is also included in the Contract price.

**2.3 Delivery period:** The Delivery Period/Time shall be essence of the Contract and delivery must be completed not later than such date(s). Any modification thereto shall be mutually agreed and incorporated in the Contract as per the provisions of the GTC.

**2.4 Performance Security:** If the Seller fails or neglects to observe or perform any of his obligations under the contract it shall be lawful for the Buyer to forfeit either in whole or in part, the Performance Security furnished by the Seller.

**2.5 Taxes and Duties:** Contract Prices are all inclusive i.e. including all taxes, duties, local levies / transportation / loading-unloading charges etc. Break up of GST shall be indicated by the Seller while raising invoice / bill on GeM. While submitting the bill / invoice Seller shall undertake that the Goods and Services Tax (GST) charged on this bill is not more than what is payable under the provision on the relevant Act or the Rules made there under and that the Goods on which GST has been charged have not been exempted under the GST Act or the Rules made there under and the charges on account of GST on these goods are correct under the provision of that Act or the rules made there under.

**2.6 Octroi Duty and / or other local taxes:** Contract Prices are all inclusive hence no reimbursement over and above the contract price(s) shall be allowed to seller towards payment of local taxes (such as levy of town duty, Octroi Duty, Terminal Tax and other levies of local bodies etc).

**2.7 Limitation of Liability:** The provisions of limitation of liability between Buyer and Seller as given in the GTC shall be applicable here.

**2.8 Resolution of disputes:** The provisions of DISPUTE RESOLUTION BETWEEN BUYER AND SELLER as given in the GTC shall be applicable here.

**2.9 Liquidated Damages:** If the Seller fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value without any controversy/dispute of any sort whatsoever. In case, Service Level Agreement (SLA) is applicable the same shall be applicable for the Contract.

**2.10 Financial Certificate:**

**2.10.1** The expenditure involved for this purpose has received the Sanction of the competent financial authority.

**2.10.2** The funds are available under the proper head in the sanction budget allotment for the concern financial year.

**2.10.3** I have been fully authorized by the department to sign the supply order or incur the liability of the Goods being ordered.

**2.11** The bidder should submit a self declaration to the effect in bidder's official letter head that their agency have not been black listed by any Agency whatsoever till date.

## 3. Additional Terms and conditions

**3.1** Scope of supply (Bid price to include all cost components) : Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)

**3.2** Availability of Service Centres: Bidder/OEM must have a Functional Service Centre in the State of each Consignee's Location in case of carry-in warranty. (Not applicable in case of goods having on-site warranty). If service center is not already there at the time of bidding, successful bidder / OEM shall have to establish one within 30 days of award of contract. Payment shall be released only after submission of documentary evidence of having Functional Service Centre.

**3.3** Bidder Turn Over Criteria: The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

**3.4** Dedicated /toll Free Telephone No. for Service Support : BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support.

**3.5** Escalation Matrix For Service Support : Bidder/OEM must provide Escalation Matrix of Telephone Numbers for Service Support.

**3.6** IMPORTED PRODUCTS: In case of imported products, OEM or Authorized Seller of OEM should have a registered office in India to provide after sales service support in India. The certificate to this effect should be submitted.

**3.7** OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity by up to 25% of the contracted quantity during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly.

**3.8** The Bidder / OEM {themselves or through reseller(s)}, should have executed project for supply and installation / commissioning of same or similar Category Products during preceding 3 financial years (i.e. current year and three previous financial years) as on opening of bid, as per following criteria:

(i) Single order of at least 35% of estimated bid value; or
(ii) Two orders of at least 20% each of estimated bid value; or
(iii) Three orders of at least 15% each of estimated bid value.
Satisfactory Performance certificate issued by respective Buyer Organization for the above Orders should be uploaded with bid. In case of bunch bids, the Category related to primary product having highest bid value should meet this criterion

**3.9** Timely Servicing / rectification of defects during warranty period: After having been notified of the defects / service requirement during warranty period, Seller has to complete the required Service / Rectification within 3 days time limit. If the Seller fails to complete service / rectification with defined time limit, a penalty of 0.5% of Unit Price of the product shall be charged as penalty for each week of delay from the seller. Seller can deposit the penalty with the Buyer directly else the Buyer shall have a right to recover all such penalty amount from the Performance Security (PBG).Cumulative Penalty cannot exceed more than 10% of the total contract value after which the Buyer shall have the right to get the service / rectification done from alternate sources at the risk and cost of the Seller besides forfeiture of PBG. Seller shall be liable to re-imberse the cost of such service / rectification to the Buyer.

**3.10** Preference to Make In India products: Preference shall be given to local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a local supplier, should be as per relevant notification / order issued by the nodal ministry as available on the website of Department of Promotion of Industries and Internal Trade (DPIIT). If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 29.5.2019.