

Organisation Details	Buyer Details
Type: Central PSU	Designation: Deputy Manager MM
Ministry: Ministry of Coal	Contact No.: -
Department: Materials Management	Email ID: mrunal.mehta@nic.in
Organisation Name: Bharat Coking Coal Limited	GSTIN: 20AAACB7934MFZB
Office Zone: Bccl Dhanbad	Address: MM Department, level 3, Commercial Building, Koyla Bhawan, Koyla Nagar, DHANBAD, JHARKHAND-826005, India

Financial Approval Detail	Paying Authority Details
IFD Concurrence: Yes	Payment Mode: Offline
Designation of Administrative Approval: DT(OP)	Designation: HOD Purchase Finance
Designation of Financial Approval: DT(P&P)	Email ID: pao5.bccl.jh@gembuyer.in
	GSTIN: N
	Address: MM Department, level 3, Commercial Building, Koyla Bhawan, Koyla Nagar, DHANBAD, JHARKHAND-826005, India

Seller Details	
GeM Seller ID:	096D180000093861
Company Name:	MINESOURCE INDIA PRIVATE LIMITED
Contact No.:	09334000314
Email ID:	msical.india@gmail.com
Address:	13C,JABAKUSUM HOUSE,34, C.R.AVENUE,NEAR YOGAYOG BHAWAN, Kolkata, WEST BENGAL-700012, -
MSME verified:	Yes
MSE Social Category:	General
GSTIN:	23AADCM3464E1ZT , 19AADCM3464E1ZI

\*GST / Tax invoice to be raised in the name of - Consignee

Product Details							
#	Item Description	Category Name	Model	HSN Code	Ordered Quantity	Unit	Price (Inclusive of all Duties and Taxes in INR)
1	<b>Product Name :</b> Video Recorder For Cctv System-IS 9000 <b>Brand :</b> IDIS <b>Brand Type :</b> Registered Brand <b>Catalogue Status :</b> OEM verified catalogue <b>Selling As :</b> OEM verified Reseller	Video Recorder For Cctv System-IS 9000	DR-8364D	HSN not specified by seller	6	pieces	4,403,592
2	<b>Product Name :</b> Fiber Optic Patch Cord <b>Brand :</b> D-Link <b>Brand Type :</b> Registered Brand <b>Catalogue Status :</b> Catalogue not verified by OEM <b>Selling As :</b> Reseller not verified by OEM	Fiber Optic Patch Cord	LC-LC Patch Cord single Mode 3Mtr	HSN not specified by seller	102	pieces	167,688
3	<b>Product Name :</b> Insulated Electrical Conduits Pipe-IS 9537 <b>Brand :</b> RICHA <b>Brand Type :</b> Registered Brand <b>Catalogue Status :</b> Catalogue not	Insulated Electrical Conduits Pipe-IS 9537	Richa 25MM CONDUIT PIPE	HSN not specified by seller	2,534	pieces	182,448

	verified by OEM <b>Selling As</b> : Reseller not verified by OEM						
4	<b>Product Name</b> : Camera for CCTV System <b>Brand</b> : IDIS <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Camera for CCTV System	DC-D4513WRX	HSN not specified by seller	124	pieces	4,218,108
5	<b>Product Name</b> : Layer 2 Access Switch <b>Brand</b> : DELL EMC <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Layer 2 Access Switch	DELL EMC N1524P	HSN not specified by seller	43	pieces	10,633,212
6	<b>Product Name</b> : Online Ups-IS:9000 <b>Brand</b> : NUMERIC <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Online Ups-IS:9000	3 KVA ONFINITI FM - 1 HR BACKUP	HSN not specified by seller	18	pieces	2,014,524
7	<b>Product Name</b> : Server <b>Brand</b> : DELL EMC <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Server	DELL EMC PowerEdge R740 Server	HSN not specified by seller	3	pieces	1,784,460
8	<b>Product Name</b> : CAT 6 Cable for Indoor use <b>Brand</b> : D-Link <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	CAT 6 Cable for Indoor use	NCB-C6UGRYR-305-E	HSN not specified by seller	5,620	meter	157,360
9	<b>Product Name</b> : Power Cable For Direct Burial Xlpe Ugac Cable-IS: 10418 <b>Brand</b> : POLYCAB <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Power Cable For Direct Burial Xlpe Ugac Cable-IS: 10418	PLCUAR4X3.0	HSN not specified by seller	13,850	meter	2,548,400
10	<b>Product Name</b> : Camera for CCTV System <b>Brand</b> : IDIS <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Camera for CCTV System	DC-E4513WRX	HSN not specified by seller	116	pieces	4,208,712
11	<b>Product Name</b> : Fibre Cable for Networking <b>Brand</b> : D-Link <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Fibre Cable for Networking	NCB-FS09O-AUHD-12	HSN not specified by seller	15,000	meter	1,020,000
	<b>Product Name</b> : Fiber Optic Patch Panels, Rack Mountable <b>Brand</b> : D-Link <b>Brand Type</b> : Registered Brand						

12

Fiber Optic Patch Panels,  
Rack Mountable

NLU-FXXUXXR-24

HSN not  
specified  
by seller

44

pieces

307,692

	catalogue <b>Selling As</b> : Reseller not verified by OEM						
13	<b>Product Name</b> : Video Management System Software <b>Brand</b> : IDIS <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : Catalogue not verified by OEM <b>Selling As</b> : Reseller not verified by OEM	Video Management System Software	IDIS Solution Suite Expert	HSN not specified by seller	3	pieces	3,889,692
14	<b>Product Name</b> : CAT 6 Cable for Outdoor <b>Brand</b> : D-Link <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : Reseller not verified by OEM	CAT 6 Cable for Outdoor	NCB-C6UBLKR-305-O-E	HSN not specified by seller	2,440	meter	95,160
15	<b>Product Name</b> : Supply & Installation of Pole / Mast Suitable for CCTV System (Accessories) <b>Brand</b> : NA <b>Brand Type</b> : Unbranded <b>Catalogue Status</b> : Catalogue not verified by OEM <b>Selling As</b> : Reseller not verified by OEM	Supply & Installation of Pole / Mast Suitable for CCTV System (Accessories)	UNITED & BOP07	HSN not specified by seller	38	pieces	455,620
16	<b>Product Name</b> : Camera for CCTV System <b>Brand</b> : IDIS <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Camera for CCTV System	DC-S6283HRXL	HSN not specified by seller	13	pieces	2,161,900
17	<b>Product Name</b> : Networking/Server Rack <b>Brand</b> : D-Link <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Networking/Server Rack	NFR-42U-6010-BL-SK-5Y	HSN not specified by seller	1	pieces	69,220
18	<b>Product Name</b> : Networking/Server Rack <b>Brand</b> : D-Link <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Networking/Server Rack	NWR-12U-6060-GR	HSN not specified by seller	21	pieces	191,436
19	<b>Product Name</b> : Liquid Crystal Display LCD Panel or Monitors <b>Brand</b> : LG <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : Catalogue not verified by OEM <b>Selling As</b> : OEM verified Reseller	Liquid Crystal Display LCD Panel or Monitors	LG24MK430H-5YEAR WARRANTY	HSN not specified by seller	8	pieces	101,648
20	<b>Product Name</b> : CAT 6 Patch Panel <b>Brand</b> : D-Link <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	CAT 6 Patch Panel	NPP-C61BLK241	HSN not specified by seller	18	pieces	68,184

21	<b>Product Name</b> : Camera for CCTV System <b>Brand</b> : IDIS <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Camera for CCTV System	DC-D4513WRX	HSN not specified by seller	10	pieces	340,170
22	<b>Product Name</b> : Layer 2 Access Switch <b>Brand</b> : DELL EMC <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Layer 2 Access Switch	DELL EMC N1524P	HSN not specified by seller	8	pieces	1,978,272
23	<b>Product Name</b> : Networking/Server Rack <b>Brand</b> : D-Link <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Networking/Server Rack	NWR-9U-5550-GR-IP55-5Y	HSN not specified by seller	30	pieces	812,100
24	<b>Product Name</b> : Professional Large Format Display <b>Brand</b> : LG <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Professional Large Format Display	75UH5F	HSN not specified by seller	12	pieces	3,937,092
25	<b>Product Name</b> : Cat 6 Patch cord <b>Brand</b> : D-Link <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Cat 6 Patch cord	D-LINK & NCB-C6UGRYR1-1	HSN not specified by seller	255	meter	35,955
26	<b>Product Name</b> : Video Recorder For Cctv System-IS 9000 <b>Brand</b> : IDIS <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Video Recorder For Cctv System-IS 9000	DR-2308P	HSN not specified by seller	10	pieces	1,106,430
27	<b>Product Name</b> : Small form-factor pluggable transceiver <b>Brand</b> : DELL EMC <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : Catalogue not verified by OEM <b>Selling As</b> : Reseller not verified by OEM	Small form-factor pluggable transceiver	DELL EMC SFP, 1000BASE-LX, 1310nm wavelength, up to 10km reach	HSN not specified by seller	102	pieces	3,222,078
28	<b>Product Name</b> : Hdpe Pipes For Water Supply-IS 4984 <b>Brand</b> : MAHASHAKTI <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : Catalogue not verified by OEM <b>Selling As</b> : Reseller not verified by OEM	Hdpe Pipes For Water Supply-IS 4984	MAHASHAKTI	HSN not specified by seller	10,150	meter	324,800
29	<b>Product Name</b> : Layer-3 Core Switch <b>Brand</b> : DELL EMC <b>Brand Type</b> : Registered Brand	Layer-3 Core Switch	DELL EMC N3224T-ON	HSN not specified by seller	8	pieces	3,652,832

	<b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller						
30	<b>Product Name</b> : Online Ups-IS:9000 <b>Brand</b> : NUMERIC <b>Brand Type</b> : Registered Brand <b>Catalogue Status</b> : OEM verified catalogue <b>Selling As</b> : OEM verified Reseller	Online Ups-IS:9000	1 KVA ONFINITI INBUILT BATTERY ( UPS 5 YEARS, BATTERY 2 YEARS WARRANTY )	HSN not specified by seller	7	pieces	302,477

Total Order Value (in INR)

**54,391,262**

### Consignee Detail

S.No	Consignee	Item	Lot No.	Quantity	Delivery Start After	Delivery To Be Completed By	
1	Designation: - Email ID: con1.bccl.jh@gembuyer.in Contact: 62876-95727- GSTIN: 20AAACB7934MFZB Address: Depot Officer, Central Store, Ekra, BCCL, Post Office- BANSJORA, Dhanbad, Jharkhand-828101., DHANBAD, JHARKHAND-828101, India	Camera for CCTV System	-	124	25-Mar-2021	23-Jun-2021	
		Camera for CCTV System	-	116	25-Mar-2021	23-Jun-2021	
		Camera for CCTV System	-	13	25-Mar-2021	23-Jun-2021	
		Camera for CCTV System	-	10	25-Mar-2021	23-Jun-2021	
		Video Recorder For Cctv System-IS 9000	-	10	25-Mar-2021	23-Jun-2021	
		Video Recorder For Cctv System-IS 9000	-	6	25-Mar-2021	23-Jun-2021	
		Server	-	3	25-Mar-2021	23-Jun-2021	
		Video Management System Software	-	3	25-Mar-2021	23-Jun-2021	
		Liquid Crystal Display LCD Panel or Monitors	-	8	25-Mar-2021	23-Jun-2021	
		Professional Large Format Display	-	12	25-Mar-2021	23-Jun-2021	
		Layer-3 Core Switch	-	8	25-Mar-2021	23-Jun-2021	
		Layer 2 Access Switch	-	43	25-Mar-2021	23-Jun-2021	
		Fibre Cable for Networking	-	15,000	25-Mar-2021	23-Jun-2021	
		Networking/Server Rack	-	1	25-Mar-2021	23-Jun-2021	
		Layer 2 Access Switch	-	8	25-Mar-2021	23-Jun-2021	
		Small form-factor pluggable transceiver	-	102	25-Mar-2021	23-Jun-2021	
		Fiber Optic Patch Cord	-	102	25-Mar-2021	23-Jun-2021	
		CAT 6 Cable for Indoor use	-	5,620	25-Mar-2021	23-Jun-2021	
		CAT 6 Cable for Outdoor	-	2,440	25-Mar-2021	23-Jun-2021	
		CAT 6 Patch Panel	-	18	25-Mar-2021	23-Jun-2021	
		Cat 6 Patch cord	-	255	25-Mar-2021	23-Jun-2021	
		Online Ups-IS:9000	-	7	25-Mar-2021	23-Jun-2021	
		Online Ups-IS:9000	-	18	25-Mar-2021	23-Jun-2021	
		Fiber Optic Patch Panels, Rack Mountable	-	44	25-Mar-2021	23-Jun-2021	
		Networking/Server Rack	-	21	25-Mar-2021	23-Jun-2021	
		Networking/Server Rack	-	30	25-Mar-2021	23-Jun-2021	
		Hdpe Pipes For Water Supply-IS 4984	-	10,150	25-Mar-2021	23-Jun-2021	
		Insulated Electrical Conduits Pipe-IS 9537	-	2,534	25-Mar-2021	23-Jun-2021	
		Power Cable For Direct Burial Xlpe Ugac					

	Cable-IS: 10418	-	13,850	25-Mar-2021	23-Jun-2021
	Supply & Installation of Pole / Mast Suitable for CCTV System (Accessories)	-	38	25-Mar-2021	23-Jun-2021

### Product Specification for Video Recorder For Cctv System-IS 9000

Specification	Sub-Spec	Value
VIDEO	Number of Video Input Channels	64
	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	64
	Recording Resolution	4K (3840 x 2160)
	Supported Compression Technique	H.264,H.265
	Maximum Number of cameras to be viewed on a single display	64
	Total number of simultaneous local views	2
	Simultaneous Monitoring Connections for All Cameras (Users in Local Network for Client Connection)	8
	Recording Speed for all channels (fps)	25
	Minimum Through put (Mbps)	768
	Display Image Rate	Real time per channel
	TYPE	Type of Recording Device
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	64
	Audio Output	64
	Audio Compression	G.726,G.711,A-Law,U-Law
	Minimum Number of Simultaneous Channels for Two-way Audio Support	64
SECURITY	Type of Encryption	HTTPS (SSL/TSL),HTTP (SSL/TSL)
	Multi Level User ID / Password	Yes
ALARM	Alarm Support	Yes
	Alarm Input	64
	Alarm Output	64
	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,Video Loss,Text-IN,Tampering
NETWORK PROTOCOLS / INTERFACE / OPERATING SYSTEM	Operating System Supported	Linux
	Supported Network Protocols	UDP,DHCP,RTP,HTTP,HTTPS,DNS,DDNS,RTSP,NTP,UPnP,SMTP,FTP,QoS,TCP/IP
	Supported Interface	Ethernet,HDMI,VGA,RS 232,RS-485,4 Number of e-SATA external Port
	Physical Layer of Ethernet	10/100/1000 Base TX
	Number of Ethernet Ports	4
	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
Video Recorder supports recording on NAS Directly		No
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 ALONG WITH MOTION BASED, ALARM BASED, FREE RUN 24 *7, EVENT BASED, ANALYTICS BASED
Bandwidth Control		Yes
Camera Notification		E-mail,Spot (POP up Window) on Event
Network transmission Speed		Real time display @ D1 resolution,Synchronous Playback up to 16 Ch full HD,,Constant Bit Rate (CBR),Variable Bit Rate (VBR)
Other features, if any		NA
PLAYBACK / VIEW / MANAGEMENT	Search	Date,Time,Event,Log,Motion,Bookmarks,Time- Lapse,Event,Thumbnail,Motion,Text-In
	Bookmarks	Forward,Backward,Full Screen,Next Camera,Previous Camera
	Page preview	Video Window,Video matrix
	Total Management	Group add,Delete,Group management,Remote Data Export
	Camera	Add,Edit,Delete,Use Master account,Use Specific account
	Internal Hard Drive Interface	SATA II
	Number of Hard Disks (inclusive in the scope)	



STORAGE	of supply)	8
	Storage Capacity of each Hard Disk (TB)	8
	Total Storage Capacity(TB)	64
	Internal Storage Expandable upto (TB)	64
	Number of Hard Disks supported	8
	Redundancy Option	RAID 5
POWER SUPPLY	Power Input	230 ± 10%, 50Hz
	Power Consumption	120
	Suitable Adapter to be Supplied to Make the Equipment Work on 230 V ± 10 %, 50 Hz	NA
	Redundant Power Supply	Yes
OPERATING CONDITIONS	Minimum Operating Temperature	0
	Maximum Operating Temperature	40
	Relative Humidity Non Condensing at 40 deg C	90
WARRANTY / SERVICES	Warranty	5
	Time for Replacement of Defective Product During Warranty Period	96
ENVIRONMENTAL / CERTIFICATION	Availability of facility and infrastructure for verification of all the parameters, features and capability with the Seller	No
	Conformity to Dry Heat test at Specified Maximum Operating Temperature for 16 hours as per IS :9000 latest	No
	Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest	No
	Conformity to Cold test at Specified Minimum Operating Temperature for 4 hours as per IS: 9000 latest	No
	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	No
	Test Report Number and Date	NA
	Name and Address of Test Lab	NA
	Certification	FCC,CE,UL,CB
LIST OF ITEMS	List of Items and Quantity of each item included in the offer	Mouse Remote Manual

### Buyer Defined Additional Specification for Video Recorder For Cctv System-IS 9000

Specification	Value
Mounting	Rack Mounted
Rack Mount configuration	2U
Capability of Recorder to Work with Other Makes of CCTV Cameras (ONVIF support)	Yes
Maximum Number of cameras to be viewed on a single display	64

**Product Specification for Fiber Optic Patch Cord**

Specification	Sub-Spec	Value
GENERIC	Description of item	Fiber Optic Patch Cord for Optical Fiber Cabling
	Connector type, Connector End A	LC
	Connector type, Connector End B	LC
	Cable type	Duplex
	Fiber type	Single Mode 9/125 micron
	Cable Size, Outer dia (in mm)	0.9
	Cord Length (in m)	3
	Jacket material (Sheath material)	PVC
	Cable color	Yellow
	Operating temprature	-10 deg.C to +60 deg C
CONSTRUCTION	Connector Insertion loss, Max. (in dB)	0.3
	Connector Return loss , Min. (in dB)	50
	Material of Ferrule	Zirconia Ceramic, PreRadiused and pre polished
	Durability	200 Mating cycle
CERTIFICATIONS	Availability of Type test report from Central government/NABL/ILAC accredited laoratory to prove conformity of products to the specification	Yes
	Test report number - Must declare	D-Link-2019/FPC_1
	Report date - Must declare Must declare	February 2019
	Name of lab - Must declare Must declare	D-Link
	Address of lab - Must declare Must declare	Goa
	Agreed to furnish all the test reports and certificates to the buyer/consignee on demand	Yes

**Product Specification for Insulated Electrical Conduits Pipe-IS 9537**

Specification	Sub-Spec	Value
GENERIC	Conformity to Indian Standard	IS:9537( Part-3) Latest
	Classification of Conduit	Medium 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	EL(C)/2013/252
	Name of the Lab	national test house

**Product Specification for Camera for CCTV System**

Specification	Sub-Spec	Value
IMAGE SENSOR	Image Sensor Type	CMOS
	Image Sensor Size	0.357
	Camera Image Sensing capacity (Picture Mode)	5MP
	Resolution	D1 (704 x 480 Pixel),HD (1280 x 720 Pixel),Full HD (1920 x 1080 Pixel)
	Day/Night Capable	Yes
	IR illumination Range(mtr)	30
CAMERA TYPE	Type of Camera Housing	DOME CAMERA
	IP Camera	Yes
	PTZ Camera	No
OPTICS	Lens Type	Fixed
	Focal Length(mm)	2.8
	Iris Control	Fixed iris
	Focus Mode	NA
VIDEO	Frame Rate (fps)	30
	Video Compression	H.264,MJPEG,H.265
	Video Streaming	Quad 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,G711ulaw,G711alaw
	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	0.1

PERFORMANCE	Electronic Shutter Speed(sec)	1/50 to 1/10000
	WDR (Wide Dynamic Range)	120 dB
	SNR (Signal to Noise Ratio)	40-50
	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	8
	NETWORK AND INTERFACE	Supported Protocols
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)	NA
HOUSING	Installation Type	Indoor,Outdoor
	Material of the Housing construction	Alluminium
	Protection	IP67
	Vandal Resistant Housing	Yes
	If Yes, IK rating	IK 10
	Mounting bracket	Ceiling Mounted
	Weight	460
	Dimensions (mm x mm x mm)	120 x 92.9
POWER SUPPLY	Power Input	PoE
	Power Consumption	6.2
	Suitable Adapter Shall be Supplied to Make the Equipment Work on 230 V (+/- 10 %), 50 Hz	NA
OPERATING CONDITIONS	Operating Temperature Range	-30 to +50 deg C
	Relative Humidity Non Condensing (%)	90
WARRANTY /	Warranty	5
	Time for Replacement of Defective Product During	

SERVICES	Warranty Period	72
	Supply of Compatible drivers and software included	Yes
ENVIRONMENTAL / CERTIFICATION	Availability of facility & infrastructure for verification of all parameters, features, and capability with Seller	No
	Availability of facility to test signal to noise ratio of camera at 0-01 lux	No
	Conformity to Dry Heat test at 55 degree C for 16 hours as per IS :9000 latest	No
	Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest	No
	Conformity to Cold test at -10 / -20 degree C for 4 hours as per IS: 9000 latest, as applicable	No
	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

### Buyer Defined Additional Specification for Camera for CCTV System

Specification	Value
Mounting bracket	Ceiling Mounted

### Product Specification for Layer 2 Access Switch

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)	Supported
	Console Port	Available
	Switching Capacity -Non Blocking (Gbps)	128
	Throughput (MPPS)	128
	Operating System	available
	Dedicated Stacking Port/Slot ( from day one)	Not available
	Stacking Bandwidth (Gbps)	40
	Basic Layer-3 Protocol	Layer 3 Static routing, Ripv1,Ripv2
	Security Feature	ACL, 802.1x,TACACS/RADIUS
Management Protocol	GUI,CLI,Telnet,SNMPv1/v2/v3	

QoS	Flowbased/Port based
Operating Temperature Range (Degree C)	0-45
Operating Humidity (RH)(%)	95
IPv6 Ready from day one and dully certified	Yes
PoE Power Budget ( Watt )	370
on Site OEM Warranty	5

### Buyer Defined Additional Specification for Layer 2 Access Switch

Specification	Value
Switching Capacity -Non Blocking (Gbps)	128 or higher
Throughput (MPPS)	128 or higher
Stacking Bandwidth (Gbps)	40 or higher
External Power Supply	Supported, datasheet required to be uploaded in the bid for the same.

### Product Specification for Online Ups-IS:9000

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 trolley for Batteries	Without trolley but with rack
	Warranty for battery	2
	Degree of Protection	IP20
	Cabling 5 meters for input and out put	Without
	Paralleling kit for synchronising	Without
	Installation and Commissioning	Yes
Constructional	Minimum thickness of M.S.Sheet Enclosure duly painted (mm)	1.0
	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	No, only for 5 Minutes
	Overall Efficiency (%)	>=90%
	Total Harmonic Distortion(THD) (%)	Maximum 3%
	50% Overload limit for minimum 1 minutes	No, only for 3 seconds
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.	NTH(SR)/EL(C)/2019
	Type Test Certificate date	2019
	Name of Lab	NATIONAL TEST HOUSE
	Address of Lab	TARAMANI, CHENNAI
	As per Meity (Government of India) guidelines UPS shall have valid BIS CRS certifications as applicable	Yes

### Product Specification for Server

Specification	Sub-Spec	Value
Chassis	Form Factor	Rack
	Size (RU)	2
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
Motherboard	Chipset compatible with CPU	Intel C621
	Expansion Slots Gen 3 (PCIe x1)	0
	Expansion Slots Gen 3 (PCIe x4)	0
	Expansion Slots Gen 3 (PCIe x8)	5
	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	24
	Number of DIMM Slots populated with DDR SDRAM	2
	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)	4000
	DDR NVRAM upgradable upto using spare DIMM Slots (GB)	0
SSD Storage	Type of Interface for SSD	SAS,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
	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

HDD Storage

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	5
Capacity offered per SAS Drive (GB)	1200
SAS drive Speed (Hot plug or better) (RPM)	10K
Total Storage Capacity offered with SAS Drive (GB)	6000
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	5
	No of RAID Controller Ports	8
	Speed of RAID Controller Ports (Gbps)	12
	RAID Controller Cache (GB)	2
Ports & Interfaces	Network Card Supported	1G,10G
	Number of Networking Interface Cards (LAN)	2
	Whether Network Interface Card Embedded	Yes
	Total Number of Ethernet Ports required in Server	2x1G,2x10G RJ 45
	Networking Interface Card Features	Asset Feature Tracking,Security Management
	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, Vendor to submit latest DPDK test report for the same	No
	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)	3
	Total number of Spare Bays Available for Future Upgradation (Hot Plugable)	0
Certifications	Certifications/Compliance (OS)	Windows,Red Hat Linux,Ubuntu
	Certification/Compliance (Virtualization/Cloud Platform)	HyperV,Red Hat Virtualization
Features	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 Features-2	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 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 complatibility 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/Hypervisor/ 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
	Redundant Power Supply	Yes

Generic	Hot Swappable (Redundant Power Supply)	Yes
	Power Supply Efficiency	Titanium
	Redundant Fan	Yes
	Hot Swappable (Redundant Fan)	Yes
	Server Main Supply	230 +/- 10%Vac
Benchmark	SPEC int_rate_base 2017 for the product (must be available on SPEC dot ORG before evaluation)	0
	SPEC fp_rate_2017 for the product (must be available on SPEC dot ORG before evaluation)	0
	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
Miscellaneous	Maximum power consumption of the system (Watts)	1000
	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 accredited laboratory covering verification of all features & functional parameters & environmental tests sequence	No
	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)	5

### Buyer Defined Additional Specification for Server

Specification	Value
Form Factor	Rack
Size (RU)	2U
Processor Architecture	CISC(X86)
Power Supply Efficiency	Only Gold shall be considered as bid requirement allowed value

### Product Specification for CAT 6 Cable for Indoor use

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/Unshilded twisted pair or Category 6 Foiled/Unshilded twisted pair or Category 6 Shielded /Foiled Twisted Pair	CAT6 U/UTP
	Cable colour	Grey
	Conductor diameter	0.57 mm (23 AWG)
	Conductor count (in Nos.,)	8
	Length of cable in a bundle (Mtrs)	305 mtrs.
CONSTRUCTIONAL	"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
	Conductor Materail	Bare Copper
	Conductor Insulation Material	Polyethylene
	Cable jacket material	Fire retardant PVC
	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	103821667CRT-001a
	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	103821667CRT-001b
	Report date	4th February 2019
	Name and address of Lab	Intertek
	All the test reports and certificates shall furnish to the buyer/consignee on demand	Yes

### Product Specification for Power Cable For Direct Burial Xlpe Ugac Cable-IS: 10418

Specification	Sub-Spec	Value
GENERIC	Mode of Buying	Through bidding only
	Size of Cable (in Sq.mm)	4.0
	Number of cores (nos)	3
	Cable Type	Cross linked polyethylene and XLPE Insulated PVC Outer sheathed Cable with copper conductor suitable for rated voltage at 1100 Volts Grade and confirming to IS 7098 Part-1 1988 with amendment No.1 ,2 & 3 reaffirmed in 2005
	BIS marked	yes
	BIS certificate number	7180164
	Armouring	Galvanised round steel wire armoured
	Armouring Type	single wire or strip armouring
	shape of conductor	Stranded
CONSTRUCTIONAL	Number of armouring strip/wire for each size of cable	1.40
	size of armouring strip/wire for each size of cable	1.40
	Material of conductor	Copper
	Weight of finished cable per meter	0.46
	In addition to marking requirements as per relevant specification, sequential marking for length, Size of the cable, Type of the cable and Drum Number shall be embossed on every metre of the cable	yes
	standard cable length on a drum	1000 meter
	Part length which can be supplied by seller (meter)	100
	cable to be supplied on wooden drums conforming to IS: 10418/82 with latest amendments.	yes
	Quantity supplied shall not be more than the ordered quantity.	yes
CERTIFICATIONS	Availability of Type test report from Central government/NABL/ILAC accredited laboratory to prove conformity to the specification for minimum and maximum ratings.	N.A.
	Type Test Certificate No.	NA
	Type Test Certificate date	NA
	Name of Lab	NA

	Address of Lab	NA
	Test Report to be furnished to the buyer on demand	yes

### Product Specification for Camera for CCTV System

Specification	Sub-Spec	Value
IMAGE SENSOR	Image Sensor Type	CMOS
	Image Sensor Size	0.357
	Camera Image Sensing capacity (Picture Mode)	5MP
	Resolution	D1 (704 x 480 Pixel),HD (1280 x 720 Pixel),Full HD (1920 x 1080 Pixel)
	Day/Night Capable	Yes
	IR illumination Range(mtr)	30
CAMERA TYPE	Type of Camera Housing	BULLET CAMERA
	IP Camera	Yes
	PTZ Camera	No
OPTICS	Lens Type	Fixed
	Focal Length(mm)	2.8
	Iris Control	Yes
	Focus Mode	NA
VIDEO	Frame Rate (fps)	25,30
	Video Compression	H.264,H.265,MJPEG
	Video Streaming	Quad 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	12X
AUDIO	Audio Support	Yes
	Audio Compression	G.726,G711ulaw,G711alaw
	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	0.1
	Electronic Shutter Speed(sec)	1/50 to 1/10000
	WDR (Wide Dynamic Range)	120 dB
	SNR (Signal to Noise Ratio)	40-50
	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	8
	NETWORK AND INTERFACE	Supported Protocols
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)	NA
HOUSING	Installation Type	Indoor,Outdoor
	Material of the Housing construction	Alluminium
	Protection	IP67
	Vandal Resistant Housing	Yes
	If Yes, IK rating	IK 10
	Mounting bracket	Wall Mounted
	Weight	655
	Dimensions (mm x mm x mm)	75 x 70 x 196
POWER SUPPLY	Power Input	PoE
	Power Consumption	6.1
	Suitable Adapter Shall be Supplied to Make the Equipment Work on 230 V (+/- 10 %), 50 Hz	NA
OPERATING CONDITIONS	Operating Temperature Range	-30 to +50 deg C
	Relative Humidity Non Condensing (%)	90



WARRANTY / SERVICES	Warranty	5
	Time for Replacement of Defective Product During Warranty Period	72
	Supply of Compatible drivers and software included	Yes
ENVIRONMENTAL / CERTIFICATION	Availability of facility & infrastructure for verification of all parameters, features, and capability with Seller	No
	Availability of facility to test signal to noise ratio of camera at 0-01 lux	No
	Conformity to Dry Heat test at 55 degree C for 16 hours as per IS :9000 latest	No
	Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest	No
	Conformity to Cold test at -10 / -20 degree C for 4 hours as per IS: 9000 latest, as applicable	No
	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

### Buyer Defined Additional Specification for Camera for CCTV System

Specification	Value
Mounting bracket	Wall Mounted

### Product Specification for 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 OS1
	Nominal Cable weight Kg/Km - Must declare	72
	Operational temperature range	-20 deg C to +60 deg. C
	Storage temperature range	-20 deg C 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
	Availability of complete and satisfactory type test Report from Central Government / NABL/ ILAC accredited laboratory to conformity of the Specification	Yes

Certifications	Test report Number	DIN-SM12UA
	Report date	23rd July 2019
	Name and address of Lab	D-Link
	All the test reports and certificates shall furnish to the buyer/consignee on demand	Yes
Performance	Maximum Crush Resistance(short)	125 lbs/in (220 N/cm)
	Maximum Crush Resistance(long)	63 lbs/in (110 N/cm)
	Minimum Bend Radius(installation)	20 X OD
	Minimum Bend Radius(in service)	10 X OD
	Max Tensile load	long term: 800N
	Installation temperature range	-30 deg C to + 60 deg C
	Loose tube diameter	2.5±0.2mm

### Product Specification for Fiber Optic Patch Panels, Rack Mountable

Specification	Sub-Spec	Value
GENERIC	Description of item	Rack Mountable Fiber Optic Patch Panels (Pre-Loaded) for Fiber Cabling and it manage both splices and terminations and panel with rubber grommet
	Type of Connector for which optic fiber panel is compatible	SC
	Fiber Optic Panels Compatible for	Single Mode, Simplex
	No. of ports (in Nos.)	24
	Size of Fiber Optic Patch panel suitable for	19 inch 1 U Rack
	Material of Panel	Steel
	Color of the panel	Black (Powder coated)
	Accessories	Mounting kit /Bracket,Cable ties,Mounting Ear Screw,Cable entry Gland,Fiber Management clip,Cable Grounding kits,Port Caps
	Cable saddles	Front mounted
	Top and Front cover	Removable
CERTIFICATIONS	Availability of Type test report from Central government/NABL/ILAC accredited laoratory to prove conformity of products to the specification	Yes
	Test report number - Must declare	D-Link-2020/NLU_22
	Report date - Must declare Must declare	FEBRUARY 2020
	Name of lab - Must declare Must declare	D-LINK
	Address of lab - Must declare Must declare	INDIA
	Agreed to furnish all the test reports and certificates to the buyer/consignee on demand	Yes

### Buyer Defined Additional Specification for Fiber Optic Patch Panels, Rack Mountable

Specification	Value
Type of Connector for which optic fiber panel is compatible	Only LC shall be considered as bid requirement allowed value

### Product Specification for 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	IDIS Solution Suite
	Name of the OEM	IDIS
	OEM Model / Part No	ISS Expert - 100Ch
	Brief Description	100 Channel VMS
	Software Version	ISS Expert
	Date of Launch of Version	07-05-2018
	No of days Training Provided at Site	upto 5
	Number of Years upto which Support is available from OEM	5
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 architecture & 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.,7. Management screen:Lock, unlock with password 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.
	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)	Unlimited
	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)	1

	Number of cameras to be replayed simultaneously by the offered product(Hint : Select '0' if not applicable)	4
	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	2. SSL/TLS,3. Complex passwords
CAMERA RELATED FEATURE	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 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.
	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,4. Event activated recording,5. Scheduled recording,6. Camera,7. Date
	Option available in the offered product for reporting utility for tracking for	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.,9. Video push feature to send individual cameras or an entire view of cameras to public view or other monitor
	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 synchronized one with the other.
	NO of cameras VMS Software can sequence upto(Hint : Select '0' if not applicable)	4
	Each camera in the sequence have its	

own individual  
dwell time in

VIDEO  
MANAGEMENT  
FEATURES

seconds((Hint : Select '0' if not applicable)	
Maximum VMS Througout	800 Mbps,1000 Mbps,1200 Mbps
Client Interface (Thick Client)(Hint : Select '0' if not applicable)	1
Suspect Tracking thorough Multiple link of Cameras(Hint : Select '0' if not applicable)	4
Server Connections(Hint : Select '0' if not applicable)	1
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)	64
	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)	4
	Image rotate(in degree)	NA
	No of Auto Tour selectable option (Hint : Select '0' if not applicable)	4
	Status display	Free disk space,Camera status
	Display clock (in real time)	date,time,year
	Display mode (split	

	screen matrix)	4
	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
EVENT TRIGGER	No of Motion detection selectable area(Hint : Select '0' if not applicable)	4
	Motion detection selectable area	128x128
	System event	login,logoff,external I/O trigger
	Hot-Spot Window Feature	3. NA
	Hotspot window split Screen from the matrix	NA
	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
STORAGE/BACK UP	Number of selectable path in Local storage simultaneously(Hint : Select '0' if not applicable)	1
	Network storage path	ISCSI,network share,NAS
	Storage/ BackUp features	Multiple local storage support,Network Storage Device Support,USB backup support
PLAYBACK	Playback Search from Local and Network storage	1.Channels,2.Date and time,4. 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,x2,x4
	Video Search	NA
	Image Export	Image Export by JPEG
	Protocols	1. HTTP,2. TCP,3. UDP,4. RTSP

Network Feature	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.,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,3. SDK Integration
GRAPHIC USER INTERFACE	The GUI software capable to perform the applications simultaneously without interfering with any of the storage server operations (recording, alarms etc)	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
	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 the validity 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 Format Display 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
	Frame rate per camera in the GUI Software	30
	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.,6. Operator able to view the Camera from a map into a video tile for live viewing in the same browser without opening a new browser,7. Operator able to click on an icon in a map to initiate PTZ Camera preset, run PTZ pattern, view Camera in an analog monitor or send an I/O stream,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
		1. Support recording H.264/MJPEG/H.265 or higher video streams and audio for all the channels.,2. Supports triplex applications, recording, re-play and backup simultaneously compatible with windows Server OS or Linux for highest performance and reliability.,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

Video Recording  
Feature by the  
offered product

VIDEO  
RECORDING  
SOFTWARE

		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.
	Video Recording Software supports redundancy configurations for recording servers VideoRecording Servers/ Network Video Recorders	4. NA
	Failover Time ( Maximum Time to which application switches from main server to Failover server )(Hint : Select '0' if not applicable)(in seconds)	0
	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 recording of any Cameras these were recording prior to the interruption.,2. Software supports network fault-tolerant recording such that if the network connection between a video management server and video recording server becomes unavailable, for example through cable breakage, network congestion or WLAN interruption, the system operation shall automatically recover when 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 and time 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.,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 ONVIF Profile '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.
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	4
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 receive 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.
INSTALLATION	Installation 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.
COMMISSIONING	Commissioning in the scope of supply	Yes
	If Yes, then scope of Commissioning	1. Display of video recording, playback, live monitoring etc. at various buyer premises.,2.Display of all client camera (video) on Central Dashboard . The centralized display consists of display of all camera, alerts etc.
	Minimum Hard Disk Space Required	4 TB
	Minimum RAM Size required	8 GB

SUPPORTED HARDWARE REQUIREMENT PARAMETERS	Server requirements	Optional
	CPU required	i7-8700 processor
	Other Hardware requirements	1GB Ethernet Port
	Operating Systems supported	Win10 Pro or better
	Supported Web browsers	IE
	Supported Database	SQL
GENERIC PARAMETERS	Free Upgradation to Higher Version within support period	Yes
	Valid Licence copy to be provided	Yes
	Software supplied through	Media
	Hyper link to OEM Data sheet	<a href="http://www.idisglobal.com">www.idisglobal.com</a>
	No of Softwares sold	10
	Number of software installed within Government Department	0
	Details of Government Department email, phone no Of concerned authority where Software installed	NA

**Note:** Seller has given an undertaking that it has made arrangements for getting the stores from an authorized distributor / dealer / channel partner of the OEM of the offered product. At the time of delivery of goods, Seller will provide necessary chain documents (in the form of GST Invoice) to prove that the supplied goods are genuine and are being sourced from an authorized distributor / dealer / channel partner of the OEM. In case of any complaint about genuineness of the supplied products, Seller shall be responsible for providing genuine replacement supplies.

### Product Specification for CAT 6 Cable for Outdoor

Specification	Sub-Spec	Value
CONSTRUCTIONAL	"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
	Conductor Material	Bare Copper
	Conductor Insulation Material	Polyethylene
	Inner jacket material	PVC
	Conductor stranding	Solid
	Cable should have internal cross separator	Yes
	Storage temperature range	-20 deg.C to +60 deg. C
	Operating temperature range	-20 deg.C to +60 deg. C

	Each meter printed with sequential length counter of cable apart from marking requirement as per relevant specifications and certifications	Yes
Generic	Cate 6 cable (Out door use) conforming to TIA/EIA-568 C.2 or ISO/IEC:11801 latest	Yes
	Cable category	CAT6 UTP - Outer Jacket HDPE with UV resistant
	Conductor diameter	0.57 mm (23 AWG)
	Conductor count	8
	Length of cable in a bundle (Mtrs)	305 mtrs
CERTIFICATIONS	Category 6 cable shall have valid verified certificate from ETL /Intertek/UL/3P /GHMT /Delta as per CAT 6 standards ANSI//TIA/EIA-568 C.2 latest or ISO/IEC:11801 latest	Yes
	If "Yes" Certificate Number - Must declare	DIN-CAT6UOD
	UL Marking on Cable	No
	Availability of complete and satisfactory type test Report from Central Government / NABL/ ILAC accredited laboratory as per Governing Specification	Yes
	Test report Number	DIN-CAT6UOD
	Report date	March 2019
	Name and address of Lab	D-Link India
	All the test reports shall furnish to the buyer/consignee on demand	Yes

### Product Specification for Supply & Installation of Pole / Mast Suitable for CCTV System (Accessories)

Specification	Sub-Spec	Value
Supply & Installation of Pole / Mast Suitable for CCTV System (Accessories)	Type of Pole	Swaged Pole
	Mounting Bracket	Without
	Material of Pole	Mild Steel
	Finish	PU Painted
	Pole/Mast Dia at Top(minimum)	65
	Pole/Mast Dia at Top(maximum)	70
	Pole Thickness	3
	Pole / Mast Height	7
	Type of Fixing	With Base Plate
	Agreed to STC of the Product	Yes

### Product Specification for Camera for CCTV System

Specification	Sub-Spec	Value
IMAGE SENSOR	Image Sensor Type	CMOS
	Image Sensor Size	0.5
	Camera Image Sensing capacity (Picture Mode)	2MP
	Resolution	D1 (704 x 480 Pixel),HD (1280 x 720 Pixel),Full HD (1920 x 1080 Pixel)
	Day/Night Capable	Yes
	IR illumination Range(mtr)	200
CAMERA TYPE	Type of Camera Housing	DOME CAMERA
	IP Camera	Yes

	PTZ Camera	Yes
OPTICS	Lens Type	Motorized Varifocal
	Focal Length(mm)	5.7-205
	Iris Control	DC- iris
	Focus Mode	Auto,Zooming,One Push,Manual
VIDEO	Frame Rate (fps)	25
	Video Compression	H.264,MJPEG,H.265
	Video Streaming	Quad Compressed Stream
PAN / TILT / ZOOM	Panning Range	0-360
	Pan Speed (deg/sec)	320
	Tilt Range below horizontal (deg)	0-90
	Tilt Range above horizontal (deg)	0-5
	Tilt Speed (deg/sec)	120
	Optical Zoom	36X
	Digital Zoom	12X
AUDIO	Audio Support	Yes
	Audio Compression	G.726,G711ulaw,G711alaw
	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	0.1
	Electronic Shutter Speed(sec)	1/50 to 1/10000
	WDR (Wide Dynamic Range)	120 dB
	SNR (Signal to Noise Ratio)	40-50
	Auto Exposure	Auto Level Control
	White Balance ( Indoor/Outdoor/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	

FEATURES	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	8
	Privacy Zones	8
NETWORK AND INTERFACE	Supported Protocols	UDP,SNMP,DHCP,RTP,HTTP,SMTP,FTP,HTTPS,DNS,DDNS,RTSP,NTP,UPnP,TCP/IP,IPv4,IPv6,IEEE 802.1x
	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)	256
HOUSING	Installation Type	Indoor,Outdoor
	Material of the Housing construction	Alluminium
	Protection	IP 66
	Vandal Resistant Housing	Yes
	If Yes, IK rating	IK 10
	Mounting bracket	Pole Mounted
	Weight	7200
	Dimensions (mm x mm x mm)	242mm x 401.1mm
POWER SUPPLY	Power Input	PoE,24 VAC
	Power Consumption	55.2
	Suitable Adapter Shall be Supplied to Make the Equipment Work on 230 V (+/- 10 %), 50 Hz	NA
OPERATING CONDITIONS	Operating Temperature Range	- 40 to +60 deg C
	Relative Humidity Non Condensing (%)	90
WARRANTY / SERVICES	Warranty	5
	Time for Replacement of Defective Product During Warranty Period	72
	Supply of Compatible drivers and software included	Yes
	Availability of facility & infrastructure for verification of all parameters, features, and capability with Seller	No

ENVIRONMENTAL / CERTIFICATION	Availability of facility to test signal to noise ratio of camera at 0-01 lux	No
	Conformity to Dry Heat test at 55 degree C for 16 hours as per IS :9000 latest	No
	Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest	No
	Conformity to Cold test at -10 / -20 degree C for 4 hours as per IS: 9000 latest, as applicable	No
	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	-
	Name and Address of Test Lab	-
	Certification	FCC,CE,BIS

### Buyer Defined Additional Specification for Camera for CCTV System

Specification	Value
Mounting bracket	Pole Mounted

### Product Specification for 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	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	0
Number of Fan For Heat dissipation (nos)	4	

Number of fan trays	1
Heavy Duty Caster Wheels	Yes
If yes, then Front Break Options	Available
Load Bearing Capacity (Kgs)	500
If Wall mount racks then ,Swing-Out Racks	NA
Dust or water resistant	No
PDU Power Strips	Available
Weight (Kg)	85.3
Warranty (Years)	5

### Product Specification for Networking/Server Rack

Specification	Sub-Spec	Value
Specifications	Type of Server Racks	Portable Racks
	Size of Server Rack Enclosure	12U
	Depth of the Rack (mm)	Upto 600
	Mount Type	Wall mount
	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	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	0
	Number of Fan For Heat dissipation (nos)	1
	Number of fan trays	0
	Heavy Duty Caster Wheels	NA
	If yes, then Front Break Options	NA
	Load Bearing Capacity (Kgs)	25
	If Wall mount racks then ,Swing-Out Racks	NA
	Dust or water resistant	No
	PDU Power Strips	Available
Weight (Kg)	14	
Warranty (Years)	5	

### Product Specification for Liquid Crystal Display LCD Panel or Monitors



Specification	Sub-Spec	Value
Specification	Screen Size (Diagonal) (cm)	59.5-61.5
	Panel Type	In Plane Switching (IPS)
	Resolution (Pixels)	1920 x 1080 (Full HD)
	Aspect Ratio	16:9
	Brightness (Nits)	250
	Native Contrast Ratio (Minimum)	1000 : 1
	Viewing Angle (Horizontal : Vertical) (Degree)	178 : 178
	Response Time (millisecond)	5
	Antiglare Coating	Yes
	Split Screen Feature	Available
	Inbuilt Speakers	Not-Available
	VGA Port	Available
	HDMI Port	Available
	DVI-D Port	Not-Available
	Display Port	Not-Available
	Power Consumption in Operating Mode (Maximum) (Watt)	27
	Power Consumption in Sleep Mode (Maximum) (Watt)	0.5
	Mounting Arrangement	Table Mount
	TCO Certification	TCO-07
	BIS Registration under CRS of Meity	Yes
	Operating Temperature Range (Degree Celsius )	0-40
	Operating Humidity (%RH)	10-80
	Power Supply	230V AC, 50 Hz
	Type Of Power Supply	External
On Site OEM Warranty (Year)	5	
Technology	LED Backlit	
If yes, BIS Registration Number	R-41012530	

### Buyer Defined Additional Specification for Liquid Crystal Display LCD Panel or Monitors

Specification	Value
Panel Type	In Plane Switching (IPS)
Native Contrast Ratio (Minimum)	1000 : 1

### Product Specification for 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	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/Unshielded twisted pair)	CAT 6 U/UTP
	Height of patch panel	1 U
	No. of ports (RJ 45)	24 Ports Loaded
	Cable Management (Rear side)	With
CERTIFICATIONS	Category 6 patch 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	103821667CRT-001a
	Availability of complete and satisfactory type test Report from Central Government / NABL/ ILAC accredited laboratory as per Governing Specification	Yes
	Test report number	103821667CRT-001b
	Report date	12th March 2019
	Name and address of lab	Intertek
	All the test reports shall furnish to the buyer/consignee on demand	Yes

### Product Specification for Camera for CCTV System

Specification	Sub-Spec	Value
IMAGE SENSOR	Image Sensor Type	CMOS
	Image Sensor Size	0.357
	Camera Image Sensing capacity (Picture Mode)	5MP
	Resolution	D1 (704 x 480 Pixel),HD (1280 x 720 Pixel),Full HD (1920 x 1080 Pixel)
	Day/Night Capable	Yes
	IR illumination Range(mtr)	30
CAMERA TYPE	Type of Camera Housing	DOME CAMERA
	IP Camera	Yes
	PTZ Camera	No
OPTICS	Lens Type	Fixed
	Focal Length(mm)	2.8
	Iris Control	Fixed iris
	Focus Mode	NA
VIDEO	Frame Rate (fps)	30
	Video Compression	H.264,MJPEG,H.265
	Video Streaming	Quad 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,G711 ulaw,G711 alaw
	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	0.1
	Electronic Shutter Speed(sec)	1/50 to 1/10000
	WDR (Wide Dynamic Range)	120 dB
	SNR (Signal to Noise Ratio)	40-50
	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	8	
NETWORK AND INTERFACE	Supported Protocols	UDP,DHCP,RTP,HTTP,FTP,HTTPS,DNS,DDNS,NTP,UPnP,QoS,TCP/IP,RTSP
	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)	NA
	Installation Type	Indoor,Outdoor
	Material of the Housing construction	Alluminium

HOUSING	Protection	IP67
	Vandal Resistant Housing	Yes
	If Yes, IK rating	IK 10
	Mounting bracket	Ceiling Mounted
	Weight	460
	Dimensions (mm x mm x mm)	120 x 92.9
POWER SUPPLY	Power Input	PoE
	Power Consumption	6.2
	Suitable Adapter Shall be Supplied to Make the Equipment Work on 230 V (+/- 10 %), 50 Hz	NA
OPERATING CONDITIONS	Operating Temperature Range	-30 to +50 deg C
	Relative Humidity Non Condensing (%)	90
WARRANTY / SERVICES	Warranty	5
	Time for Replacement of Defective Product During Warranty Period	72
	Supply of Compatible drivers and software included	Yes
ENVIRONMENTAL / CERTIFICATION	Availability of facility & infrastructure for verification of all parameters, features, and capability with Seller	No
	Availability of facility to test signal to noise ratio of camera at 0-01 lux	No
	Conformity to Dry Heat test at 55 degree C for 16 hours as per IS :9000 latest	No
	Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest	No
	Conformity to Cold test at -10 / -20 degree C for 4 hours as per IS: 9000 latest, as applicable	No
	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

### Buyer Defined Additional Specification for Camera for CCTV System

Specification	Value
Mounting bracket	Ceiling Mounted

### Product Specification for Layer 2 Access Switch

Specification	Sub-Spec	Value
	Type of Switch	Managed
	Technology	PoE+
	Number of 1G Copper Ports	12
	Number of 10G Copper Ports	0

Specification

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)	Supported
Console Port	Available
Switching Capacity -Non Blocking (Gbps)	128
Throughput (MPPS)	128
Operating System	available
Dedicated Stacking Port/Slot ( from day one)	Not available
Stacking Bandwidth (Gbps)	40
Basic Layer-3 Protocol	Staticrouting, Ripv1,Ripv2
Security Feature	ACL, 802.1x,TACACS/RADIUS
Management Protocol	GUI,CLI,Telnet.SNMPv1/v2/v3
QoS	Flowbased/Port based
Operating Temperature Range (Degree C)	0-45
Operating Humidity (RH)(%)	95
IPv6 Ready from day one and dully certified	Yes
PoE Power Budget ( Watt )	370
on Site OEM Warranty	5

### Buyer Defined Additional Specification for Layer 2 Access Switch

Specification	Value
Number of 1G Copper Ports	12 or higher
Stacking Bandwidth (Gbps)	40 or higher
External Power Supply	Supported, Datasheet required to be uploaded in the bid for the same.

### Product Specification for Networking/Server Rack

Specification	Sub-Spec	Value
	Type of Server Racks	Rack Enclosures
	Size of Server Rack Enclosure	9U
	Depth of the Rack (mm)	Upto 1000
	Mount Type	Wall mount
	Front glass Door	No
	Type of glass used in front door	NA
	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	No
	Secure Locks	Available
	Rear split door design	No
	Keyboard Tray Sliding and Rotary	No
	Shelf For CRT/TFT Display	No

Specifications	Cable channel in rear side for cable management	No
	Support cable entry from top or bottom	Yes
	Vertical & Horizontal managers	No
	Numbers of Rack trays	0
	Number of Fan For Heat dissipation (nos)	2
	Number of fan trays	0
	Heavy Duty Caster Wheels	NA
	If yes, then Front Break Options	NA
	Load Bearing Capacity (Kgs)	40
	If Wall mount racks then ,Swing-Out Racks	NA
	Dust or water resistant	Yes
	PDU Power Strips	Available
	Weight (Kg)	20
	Warranty (Years)	5

### Buyer Defined Additional Specification for Networking/Server Rack

Specification	Value
Depth of the Rack (mm)	Upto 500 to 1000 shall be considered as bid requirement allowed value.

### Product Specification for Professional Large Format Display

Specification	Sub-Spec	Value
	Technology	LED Backlit
	Screen Size (Diagonal) Minimum (cm)	189
	Screen Type	Non Touch
	Panel Technology	In Plane Switching (IPS)
	Orientation	Portrait and Landscape
	Native Resolution (Pixels)	3840 x 2160 (UHD)
	Aspect Ratio	16:9
	Brightness (Nits) Minimum	500
	Native Contrast Ratio (Minimum)	1100:1
	Viewing Angle (Horizontal:Vertical)	178:178
	Response Time (milli seconds)	6
	Bezel width (mm)	14.9
	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)	180
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 - 41001040
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)	168.24 x 96.03 x 6
Weight (Kg)	41.5
Accessories to be supplied : AC Power cord, remote control, user manual, wall mount bracket, necessary cables and connectors	Yes
On Site OEM Warranty (Year)	5

### Buyer Defined Additional Specification for Professional Large Format Display

Specification	Value
Panel Technology	In Plane Switching (IPS)
Native Contrast Ratio (Minimum)	1100:1
Arrangement of Speakers	Inbuilt
BIS Registration under CRS of Meity	Yes

### Product Specification for Cat 6 Patch cord

Specification	Sub-Spec	Value
GENERIC	Cate 6 patch cord conforming to ANSI/TIA/EIA-568 C.2 or ISO/IEC:11801 latest	Yes
	Patch cord type : Category 6 Unshielded/Unshielded twisted pair or Category 6 Foiled/Unshileded twisted pair	CAT6 U/UTP
	Patch cord colour	Grey
	Conductor diameter	24 to 26 AWG
	Length of Patch cord (Mtrs)	1.0
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
	Termination type / Connection type	Insulation Displacement connection (IDC)
	Modular plug	RJ45
	Plug insertion durability	? 750 mating cycles"
	Conductor Materail	Stranded copper

	Conductor Insulation Material	Polyethelene
	Cable jacket material	Fire retardant PVC
	Storage temperature range	-20 deg.C to +70 deg.C
	Operating temperature range	-20 deg.C to +60 deg.C
CERTIFICATIONS	Category 6 patch cord shall have valid verified certificate in channel from ETL /3P /GHMT /Delta/Intertek /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	103821667CRT001a
	UL Marking on Cable	Yes
	Availability of complete and satisfactory type test Report from Central Government / NABL/ ILAC accredited laboratory as per Governing Specification	Yes
	Test report number	103821667CRT001a
	Report date	4th February 2019
	Name and address of lab	Intertek
	All the test reports shall furnish to the buyer/consignee on demand	Yes

### Product Specification for Video Recorder For Cctv System-IS 9000

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	8
	Recording Resolution	4K (3840 × 2160)
	Supported Compression Technique	H.264,H.265
	Maximum Number of cameras to be viewed on a single display	8
	Total number of simultaneous local views	1
	Simultaneous Monitoring Connections for All Cameras (Users in Local Network for Client Connection)	8
	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	8
	Audio Output	8
	Audio Compression	G.726,G.711,A-Law,U-Law



	Minimum Number of Simultaneous Channels for Two-way Audio Support	8
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	8
	Pre / Post Alarm Buffer	Yes
	Pre-Alarm Recording	60
	Post-Alarm Recording	60
	Video Content Analytics (VCA)	Trip-wire Detection,Motion Detection,Crossing line, Text-IN,Video Loss, Tampering,Intrusion Detection
NETWORK PROTOCOLS / INTERFACE / OPERATING SYSTEM	Operating System Supported	Linux
	Supported Network Protocols	UDP,DHCP,HTTP,RTSP,FTP,TCP/IP
	Supported Interface	Ethernet,HDMI,VGA,USB,RS 232
	Physical Layer of Ethernet	10/100/1000 Base TX
	Number of Ethernet Ports	8
	Number of HDMI Ports	1
	Number of VGA Ports	1
	Number of CVBS Ports	0
	Number of USB Ports	2
	Number of Serial Ports	1
	Number of PoE Ports	8
	Supported SIM Slot	NA
	Number of SIM Slots	0
FEATURES	Video Loop Support	No
	Video Recorder supports recording on NAS Directly	No
	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 ALONG WITH MOTION BASED, ALARM BASED, FREE RUN 24 *7, EVENT BASED, ANALYTICS BASED
	Bandwidth Control	Yes
	Camera Notification	E-mail
	Network transmission Speed	Synchronous Playback up to 16 Ch full HD,,Variable Bit Rate (VBR),Constant Bit Rate (CBR)
	Other features, if any	Playback Sync 8 Ch

PLAYBACK / VIEW / MANAGEMENT	Search	Date,Time,Event,Log,Motion,Bookmarks,Time-Lapse,Event,Thumbnail,Motion,Text-In
	Bookmarks	Forward,Backward,adjustable playback speed,Full Screen,Next Camera,Previous Camera
	Page preview	Video Window,Video matrix
	Total Management	Group add,Delete,Group management,Remote Data Export
	Camera	Add,Edit,Delete,Use Master account,Use Specific account
STORAGE	Internal Hard Drive Interface	SATA II
	Number of Hard Disks (inclusive in the scope of supply)	1
	Storage Capacity of each Hard Disk (TB)	8
	Total Storage Capacity(TB)	8
	Internal Storage Expandable upto (TB)	16
	Number of Hard Disks supported	2
	Redundancy Option	NA
POWER SUPPLY	Power Input	12 V DC
	Power Consumption	21.12
	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	0
	Maximum Operating Temperature	40
	Relative Humidity Non Condensing at 40 deg C	90
WARRANTY / SERVICES	Warranty	5
	Time for Replacement of Defective Product During Warranty Period	96
ENVIRONMENTAL / CERTIFICATION	Availability of facility and infrastructure for verification of all the parameters, features and capability with the Seller	No
	Conformity to Dry Heat test at Specified Maximum Operating Temperature for 16 hours as per IS :9000 latest	No
	Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest	No
	Conformity to Cold test at Specified Minimum Operating Temperature for 4 hours as per IS: 9000 latest	No
	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	No
	Test Report Number and Date	NA
	Name and Address of Test Lab	NA
	Certification	FCC,CE
LIST OF ITEMS	List of Items and Quantity of each item included in the offer	Manual Remote Mouse

**Buyer Defined Additional Specification for Video Recorder For Cctv System-IS 9000**

Specification	Value
Mounting	Rack Mounted

Rack Mount configuration	2U
Capability of Recorder to Work with Other Makes of CCTV Cameras (ONVIF support)	Yes
Minimum Through put (Mbps)	256 or higher

**Product Specification for Small form-factor pluggable transceiver**

Specification	Sub-Spec	Value
Specification	Type of Transceiver	SFP
	SFP Mode	Single
	Supported Protocols	1G LX SM
	Compatability with OEMs Products	DELL
	Wavelength(nm)	1310
	Fibre Cable Type	LC
	Core Size (Micron)	9
	Maximum Data Rate	1000
	Modal Bandwidth (MHz/Km)	1000
	Max.Cable Distance	10
	Optical Component (nm)	1310
	Digital Optical Monitoring (DOM) Support	Yes
	Interface	LC
	Tx Power (dBm)	-9.5
	Receiver Sensitivity (dBm)	-20
	Operating Temperature Range(Degree C)	0 to 60
Operating Humidity (RH) (%)	80	
On Site OEM Warranty (Year)	5	

**Buyer Defined Additional Specification for Small form-factor pluggable transceiver**

Specification	Value
Type of Transceiver	SFP+ or SFP both shall be considered as bid requirement allowed values

**Product Specification for Hdpe Pipes For Water Supply-IS 4984**

Specification	Sub-Spec	Value
Specification	Conformity to Indian Standard IS 4984 Latest	Yes
	ISI Marked	Yes
	CM/L No	5731165
Raw Material	Material	Virgin
	Material Grade	PE 100
Dimensions	Pressure Rating at 30 degree Centigrate	PN 10
	Nominal Diameter (mm)	32
	Length of Pipe (Metre)	500
Supply Type and Colour	Supply Type	Coils
	Colour of Pipe	black
	Availability of Test Reports of from Central Govt./State Govt/NABL/IL AC accredited Lab to prove conformity to the	

Test Report	Specification	YES
	Test Report No	PTC/TR/2019-20/0662
	Test Report Date	14/02/2020
	Name of the Lab	CIPET
	Address of the Lab	HAJIPUR, BIHAR
	Test Report to be furnished on request by Buyer	Yes

### Product Specification for Layer-3 Core Switch

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	Yes
	Switching Capacity (Gbps)	528
	Throughput (MPPS)	733
	Advance Layer-3 Protocol	BGP,RIP,OSPF,PBR
	Security Feature	802.1X,BPDU Guard, ACL, Port-based ACLs,TACACS+&RADIUS auth,RMON
	Management Protocol	Telnet, SSH,SNMPv1/v2/v3, NTP, TFTP
	QoS	WRED,Port Based QoS Services (TCP/UDP),DiffServ Architecture,Audio Video Bridging Mode (IPv4/IPv6)
	Dimension/ Form Factor(RU)	1RU
	Wattege (Watt)	201
	Operating Temperature (Degree C)	0° to 45°C
	Operating Humidity (RH)(%)	95%
IPv6 Ready	Yes	
On Site OEM Warranty(Year)	5	

### Buyer Defined Additional Specification for Layer-3 Core Switch

Specification	Value
Stacking Bandwidth	Support minimum 400 GBPS, Datasheet required to be uploaded in the bid for the same

## Product Specification for Online Ups-IS:9000

Specification	Sub-Spec	Value
Generic	Rating in KVA (KVA)	1.0 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)	NA
	Minimum VAH (VAH)	270
	Warranty for UPS (Years)	5
	Movable trolley for Batteries	Without
	Warranty for battery	2
	Degree of Protection	IP20
	Cabling 5 meters for input and out put	Without
	Paralleling kit for synchronising	Without
	Installation and Commissioning	Yes
Constructional	Minimum thickness of M.S.Sheet Enclosure duly painted (mm)	1.0
	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	No, only for 5 Minutes
	Overall Efficiency (%)	>/=90%
	Total Harmonic Distortion(THD) (%)	Maximum 3%
	50% Overload limit for minimum 1 minutes	No, only for 3 seconds
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.	NTH(SR)/EL(C)/2019
	Type Test Certificate date	2019
	Name of Lab	NATIONAL TEST HOUSE
	Address of Lab	TARAMANI, CHENNAI
	As per Meity (Government of India) guidelines UPS shall have valid BIS CRS certifications as applicable	Yes

## Corrigendum

- 1: (a) OFC will be laid through underground with HDPE 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. (b) All the quoted Cameras NVRs and VMS Shall be from single OEM for better compatibility similarly all the Quoted Servers/Work Stations Switches & SFP Transceivers shall be from single OEM for better compatibility and both the Online UPS (1KVA & 3 KVA from the Single OEM).(c) OEM Authorizations for Cameras NVRs VMS Displays Work Stations/Servers Switches SFP Transceiver Online UPS Network racks Cat6 Cable and OFC Cable are mandatory and should be enclosed with the bid.(d) All the 8Chanel and 64 Chanel NVRs display will be separately with customized view as per requirement and similarly a single view for all the camera shall be placed at the control room. 2: (e) Bidder should provide the following:(i) VMS will be per channel license based and provision to add more license and cameras if required.(ii)The required Video Management Software (VMS) with per channel license to complete the project.(iii)The VMS Software compatible with the quoted cameras and capacity to handle over 300 camera.(iv) The VMS should be run at different locations as per site requirements.(f) The number of 08 TB Standard Hard Disks inclusive in the Scope of Supply: In 1 no. of 08 Channel NVR : 01 No. of 08 TB HDD In 1 no/ of 64 Channel NVR : 08 No. of 08 TB HDD(g) The bidder should supply SD MEMORY CARD(Min128GB) for all cameras.(h) All the relevant documents for below mentioned should be attached with the bid 1. Certification of Incorporation of OEMs of quoted product should be uploaded in the Bid.2. Certification from OEM that the mac address ID of the IP cameras must be registered.
2. Extended Upto : 2021-01-15 11:00:00

## Terms and Conditions

### 1. Special terms and conditions- Version:1 effective from 04-05-2020

#### 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

1.2 Specification for Cross linked Polyethylene insulated thermoplastic sheathed cables" is as per IS:7098 (Part 1):1988 with latest amendments including amendment no.5. Manufacturer shall furnish calculation sheet as per Appendix-C of IS:7098 (Part 1):1988 amd., no.5 to buyer/consignee on demand. (Gem Category: Cross linked polyethylene and XLPE insulated PVC outer sheathed cable with aluminum conductor suitable for rated voltage at 1100 volts grade and conforming to IS: 7098 Part-1 1988 with latest amendment including amendment no.5)

1.3 In addition to General Terms and Conditions of the GeM following Special T&C shall be applicable for Supply & Installation of Pole / Mast suitable for CCTV System.

1.3.1 Inclusive in the Scope of installation and Commissioning:

1.3.1.1 Supply of Pole / Mast and mounting bracket, where applicable.

1.3.1.2 Civil work for fixing of Pole / Mast into the ground

1.3.1.3 All necessary accessories such as nuts, bolts, rivets, anchoring bolts, base plate, bracket, etc., for fixing of Pole / Mast and provisioning of cabling glands for CCTV Cameras.

1.3.2 Not - inclusive in the Scope of installation and Commissioning:

1.3.2.1 Obtaining necessary approvals / permissions from the concerned Authorities, if any, for Installation of Pole / Mast suitable for CCTV System.

1.3.3 Buyer's obligations:

1.3.3.1 Obtaining necessary approvals / permissions from the concerned Authorities, if any, for Installation of Pole / Mast suitable for CCTV System."

## 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.

2.2.1 Contracted goods should be delivered at the consignee or designated delivery location as per the working time of the buying organisation. Seller may get the same confirmed from consignee before scheduling delivery.

2.2.2 A copy of the contract should be available with the messenger / dispatching agency that delivers the Goods at consignee / delivery location (preferably pasted / attached outside the consignment / package) for easy reference and ease in delivery acceptance.

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 **Nominated Inspection Agency:** On behalf of the Buyer organization, any one of the following Inspection Agency would be conducting inspection of stores before acceptance:

Pre-dispatch Inspection at Seller Premises (applicable only if pre-dispatch inspection clause has been selected in ATC): NOT APPLICABLE

Post Receipt Inspection at consignee site before acceptance of stores: BY AUTHORIZED REPRESENTATIVE OF HOD(IT), HQ, BCCL

3.4 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.

**3.5** Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

**3.6** Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.

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

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

**3.9** Experience Criteria: The Bidder or its OEM (themselves or through reseller(s)) should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for 3 years before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the year. In case of bunch bids, the primary product having highest value should meet this criterion.

**3.10** 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.

**3.11** 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.

**3.12 OPTIONAL SITE VISIT:**

1. The Bidder is advised to visit and examine the installation site and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid. The costs of visiting the site shall be borne by the Bidder. YES, MAY SURVEY THE SITE BEFORE BIDDING TO UNDERSTAND THE SITE CONDITION AND INSTALLATION PROCEDURE.

2. The Bidder representative shall be allowed entry upon consignee premises for such visits, only upon the express conditions that the Bidder will release and indemnify the Buyer and Consignee against all liabilities arising out of such visit including death or injury, loss or damage to property, and any other loss, damage, costs, and expenses incurred as a result of such visit.

3. The Bidder shall not be entitled to hold any claim against Buyer for noncompliance due to lack of any kind of pre-requisite information as it is the sole responsibility of the Bidder to obtain all the necessary information with regard to site, surrounding, working conditions, weather etc. on its own before submission of the bid.

**3.13** Over and above the normal Warranty terms as per GeM GTC, the successful bidder / OEM shall have to provide Comprehensive Warranty during the entire Standard warranty period as per contract. : The comprehensive warranty shall be covering the following scope FIVE YEARS OF COMPREHENSIVE WARRANTY FOR ALL MATERIALS SUPPLIED. (Upload an undertaking with the bid confirming compliance by the bidder if Bidder is taking onus of this compliance. In case OEM is taking onus of this compliance, OEM undertaking is to be uploaded along with Bidder undertaking)

**3.14** 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-imburse the cost of such service / rectification to the Buyer.

**3.15** 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

**3.16** The successful bidder has to supply all essential accessories required for the successful installation and commissioning of the goods supplied. Besides standard accessories as per normal industry practice, following accessories must be part of supply and cost should be included in bid price: PROPOSED DIAGRAM TO BE UPLOADED WITH THE BID, IF ANYTHING EXTRA EG FIBER/CAT6 PATCH CORD, LOADED FIBER PANEL/LIU, SWITCH BOARD, WIRES AND CABLES ETC REQUIRED FOR THE EXECUTION OF PROJECT SHALL BE BORN BY THE BIDDER. BCCL SHAL NOT BE LIABLE TO PAY ANY EXTRA CHARGES FOR THE SAME..

**3.17** 1. The Seller shall not assign the Contract in whole or part without obtaining the prior written consent of buyer.

2. The Seller shall not sub-contract the Contract in whole or part to any entity without obtaining the prior written consent of buyer.

3. The Seller shall, notwithstanding the consent and assignment/sub-contract, remain jointly and severally liable and responsible to buyer together with the assignee/ sub-contractor, for and in respect of the due performance of the Contract and the Sellers obligations there under.

**3.18** Without prejudice to Buyer's right to price adjustment by way of discount or any other right or remedy available to Buyer, Buyer may terminate the Contract or any part thereof by a written notice to the Seller, if:

i) The Seller fails to comply with any material term of the Contract.

ii) The Seller informs Buyer of its inability to deliver the Material(s) or any part thereof within the stipulated Delivery Period or such inability otherwise becomes



- apparent.
- iii) The Seller fails to deliver the Material(s) or any part thereof within the stipulated Delivery Period and/or to replace/rectify any rejected or defective Material(s) promptly.
  - iv) The Seller becomes bankrupt or goes into liquidation.

- v) The Seller makes a general assignment for the benefit of creditors.
- vi) A receiver is appointed for any substantial property owned by the Seller.
- vii) The Seller has misrepresented to Buyer, acting on which misrepresentation Buyer has placed the Purchase Order on the Seller.

**3.19 Upload Manufacturer authorization:** Wherever Authorised Distributors are submitting the bid, Manufacturers Authorisation Form (MAF)/Certificate with OEM details such as name, designation, address, e-mail Id and Phone No. required to be furnished along with the bid.

**3.20** While generating invoice in GeM portal, the seller must upload scanned copy of GST invoice and the screenshot of GST portal confirming payment of GST.

---

Note: This is system generated file. No signature is required. Print out of this document is not valid for payment/ transaction purpose.

---