

**Bill of Quantity (BOQ)**

To Damak Municipality,  
Office of Municipal Executive  
Damak, Jhapa  
Koshi Province, Nepal

**Subject: Rate Submission for CCTV in Ward No. 6**

SN	Item	Unit	Qty	Unit Price	Unit Price in Words	Total
1	Electricity Concentric Cable 10mm	meter	1150			
2	8 MP IP Bullet Color Camera ( Location: Shankhadhar Chowk (3) Devkota Chowk (3), Golden Gate Chowk (2)	pcs	9			
3	32 Channel 4K NVR	pcs	1			
4	4TB Surveillance HDD (for Road Surveillance )	pcs	1			
5	Pole Mount Bracket Branded	pcs	9			
6	Installation( Water proof Junction Box(ABS Material size min 290*215mm, depth 84mm)- 1pcs, 1 DPMCB 6A, Power Supply Unit(12V, 10A) 1pcs, and all other required items like cat6, electric wires etc)	site	3			
7	100AH Sealed Maintenance Free Battery 2year warranty	pcs	1			
8	Optical Fiber Lease (4 port ONU or 4 port Media Converter, Fiber Drop Cable, etc shall ) including AMC Charge for 1 Year) 3 spot	ls	1			
<b>Total</b>						
<b>VAT 13%</b>						
<b>Total with VAT</b>						

**Submitted By:**

**Signature:**

**Name of Designation of:**

**Signatory:**

**Firms Name:**

**Seal of the Firm:**



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**Technical Compliance Sheet for 4K NVR 32 Channel**

<b>Feature</b>	<b>Specification</b>	<b>Compliance (Fully Compliant, Partially Compliant, Non Compliant) or Bidders Offer</b>
<b>Manufacture, Country</b>	To filled by Bidder	
<b>Brand Name</b>	To filled by Bidder	
<b>Model No.</b>	To filled by Bidder	
<b>Video Compression/Format</b>	H.265/ H.265+/ H.264+/ H.264	
<b>Video Output (VGA)</b>	1-ch, 1920 1080/60 Hz, 1280 1024/60 Hz, 1280 720/60 Hz	
<b>Video Output (HDMI)</b>	1-ch, 4K (3840 2160)/30 Hz, 2K (2560 1440)/60 Hz, 1920 1080/60 Hz, 1600 1200 /60 Hz, 1280 1024/60 Hz, 1280 720/60 Hz, 1024 768/60 Hz	
<b>Video Recording Res.</b>	1920 x 1080	
<b>Max. Video Recording Res.</b>	3840 x 2160	
<b>IP Video Input</b>	32-ch	
<b>Audio Input Channel (RCA)</b>	1 Channel RCA	
<b>Audio Compression</b>	G.711ulaw/G.711alaw/G.722/G.726/AAC	
<b>Audio Output Channel</b>	1 Channel RCA	
<b>Two way Audio</b>	1-ch, RCA (Linear, 1 KΩ)	
<b>Stream Type</b>	Video, Video & Audio	
<b>Live View / Playback Resolution</b>	12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF	
<b>Decoding Capability</b>	AI on: 1-ch@12 MP (30 fps)/2-ch@8 MP (30 fps)/4-ch@4 MP (30 fps)/8-ch@1080p (30 fps), AI off: 2-ch@12 MP (30 fps)/3-ch@8 MP (30 fps)/6-ch@4 MP (30 fps)/ 12-ch@1080p (30 fps)	
<b>Synchronous Playback</b>	16-ch	
<b>Network Protocol</b>	TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, ISUP, UPnP, HTTP, HTTPS	
<b>Number HDD Interface (SATA)</b>	2 SATA	
<b>Max HDD Support (GB,TB)</b>	Up to 10TB capacity for each HDD	
<b>Max. Storage Support</b>	20TB	
<b>Network Interface (RJ45)</b>	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface	
<b>USB Port</b>	Front panel: 1 x USB 2.0; Rear panel: 1 x USB 2.0	
<b>Remote Connections</b>	128	
<b>Video Detection</b>	Motion Detection 2.0	
<b>Power Supply</b>	12 VDC, 3.3 A	
<b>Approx. Power Consumption</b>	< 15 W (without HDD)	
<b>API</b>	ONVIF (profile S/G); SDK; ISAPI	



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**Technical Compliance Sheet for 8 MP Bullet Camera**

<b>Feature</b>	<b>Specification</b>	<b>Compliance (Fully Compliant, Partially Compliant, Non Compliant) or Bidders Offer</b>
<b>Manufacture, Country</b>	To filled by Bidder	
<b>Brand Name</b>	To filled by Bidder	
<b>Model No.</b>	To filled by Bidder	
<b>Image Sensor</b>	1/1.2" Progressive Scan CMOS	
<b>Max. Resolution</b>	3840 × 2160	
<b>Min. Illumination</b>	Color: 0.0005 Lux @ (F1.0, AGC ON), 0 Lux with Light	
<b>Shutter Time</b>	1/3 s to 1/100,000 s	
<b>Day &amp; Night</b>	24/7 Color	
<b>Angle Adjustment</b>	Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°	
<b>Focal Length &amp; FOV</b>	2.8 mm: horizontal FOV 102°, vertical FOV 52°, diagonal FOV 124° 4 mm: horizontal FOV 88°, vertical FOV 47°, diagonal FOV 104° 6 mm: horizontal FOV 54°, vertical FOV 30°, diagonal FOV 62°	
<b>Aperture</b>	F1.0	
<b>Supplement Light Range</b>	White light Up to 40 m	
<b>Main Stream</b>	50 Hz: 25 fps (3840 × 2160, 3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720) 60 Hz: 24 fps (3840 × 2160) 30 fps (3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720)	
<b>Sub-Stream</b>	50 Hz: 25 fps (640 × 480, 640 × 360), 60 Hz: 30 fps (640 × 480, 640 × 360)	
<b>Third Stream</b>	50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360) 60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)	
<b>Video Compression</b>	Main stream: H.265/H.264/H.264+/H.265+ Sub-stream: H.265/H.264/MJPEG Third stream: H.265/H.264	
<b>Protocols</b>	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SNMP, WebSockets	
<b>API</b>	Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK	
<b>Region Of Interest</b>	1 fixed region for main stream and sub-stream	
<b>Audio Compression</b>	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/AAC-LC, Environment Noise Filtering-UF: Yes	
<b>Image</b>	Day, Night, Auto, Schedule, BLC, HLC, 3D DNR, Rotate, mirror, privacy mask, saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser	
<b>Ethernet Interface</b>	1 RJ45 10 M/100 M self-adaptive Ethernet port	
<b>Basic Event</b>	Motion detection (human and vehicle targets classification), video tampering alarm, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)	
<b>Power</b>	12 VDC ± 25%, 0.5 A, max. 6 W, Ø 5.5 mm coaxial power plug, reverse polarity protection PoE: (802.3af, Class 3, 36 V to 57 V), 0.25 A to 0.15 A, max. 7.5 W	
<b>Protection</b>	IP67 (IEC 60529-2013)	

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**Technical Compliance Sheet for 4TB Surveillance HDD**

<i>Feature, Specification</i>		<i>Compliance (Fully Compliant, Partially Compliant, Non Compliant) or Bidders Offer</i>
<b>Manufacture, Country</b>	To filled by Bidder	
<b>Brand Name</b>	To filled by Bidder	
<b>Model No.</b>	To filled by Bidder	
Capacities	4TB / 4000GB	
Interface	SATA 6Gb/s	
<b>FEATURES AND PERFORMANCE</b>		
Drive Bays Supported	8+	
Cameras Supported	Up to 64	
Max Sustained Transfer Rate OD (MB/s)	190	
Cache (MB)	64	
<b>RELIABILITY/DATA INTEGRITY</b>		
Tarnish Resistant	Yes	
Load/Unload Cycles	300,000	
Nonrecoverable Read Errors Rate, Max	1 per 10E14	
Power-On Hours per year	8760	
Workload Rate Limit (WRL)	180	
Mean Time Between Failures (MTBF) (hours)	1M	
<b>POWER MANAGEMENT</b>		
Startup Current, Typical (12V, A)	1.8	
Average Operating Power (W)	5.5	
Idle Average (W)	3.2	
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	
Voltage Tollerance (5V)	±5%	
Voltage Tolerance (12V)	±10%	
<b>ENVIRONMENTAL/TEMPERATURE</b>		
Operating (ambient, min °C)	0	
Operating (drive case, max °C)	70	
Nonoperating (ambient, min °C)	-40	