"Industrial, Touristic and Green City, Clean, Safe and Prosperous City"
Damak Municipality
Office of the Municipal Executive
Damak,Jhapa
Koshi Province, Nepal

Technical Compliance Sheet for 4 MP ANPR Camera

Feature	*Specification*	*Compliance (Fully Compliant, Partially Compliant, Non Compliant) or Bidders Offer*
Manufacture		
Brand		
Model No		
Camera		
Image Sensor	1/1.8" Progressive Scan CMOS	
Max. Resolution	2688 × 1520	
Min. Illumination	Color: 0.0005 Lux @ (F1.2, AGC ON),0 Lux with light	
Shutter Speed	1/25 s to 1/100,000 s	
Day & Night	24/7 color imaging	
Lens		
Type	Fixed Focal Length, 2.8mm, 4mm	
Lens Type & FOV	2.8-12mm : Horizontal: 113.5° to 39°, Vertical: 58.4° to 22.7°, Diagonal: 141.3° to 44.3°8-32mm : Horizontal: 41.9° to 15.1°°, Vertical: 22.9° to 8.64°, Diagonal: 48.8° to 17.3°10-50mm: Horizontal: 32.2° to 7.8°°, Vertical: 18.1° to 4.4°, Diagonal: 37.1° to 8.95°	
Focus	Auto	
Iris Type	DC-IRIS	
Aperture	2.8-12mm : F1.38,8-32mm : F1.7, 10-50mm : F1.7	
Illuminator		
Built-in Supplement Light Type	White light	

Built-in Supplement Light Range	Up to 50 m	
Supplement Light Number	3	
Video		
Main Stream	50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 760, 704 × 576, 352 × 288) 60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 760, 704 × 576, 352 × 288)	
Sub Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 760, 704 × 576, 352 × 288) 60 Hz: 30 fps (1920 × 1080, 1280 × 760, 704 × 576, 352 × 288)	
Third Stream	50 Hz: 25 fps (1280 × 760, 704 × 576, 352 × 288) 60 Hz: 30 fps (1280 × 760, 704 × 576, 352 × 288)	
Video Compression	H.264 and H.265 encoding, Main stream: H.265/H.264/MJPEG,Sub-stream: H.265/H.264/MJPEG	
Video Bit Rate	32 Kbps to 16 Mbps	
H.264 Type	Baseline Profile/Main Profile/High Profile	
H.265 Type	Main Profile	
Audio Compression	G.711/G.722.1	
Audio Bit Rate	8Kbps (G.711) /16Kbps (G.722.1)	
Network		
Simultaneous Live View	Up to 6 channels	
API	ISAPI,SDK,ISUP,ONVIF (PROFILE S, PROFILE G, PROFILE T, PROFILE M)	
Protocols	TCP/IP,ICMP,HTTP,HTTPS,FTP,SFTP, DHCP,DNS,DDNS,RTP,RTSP,RTCP,NTP, SMTP,SNMP,IGMP,802.1X,QoS,IPv4/IPv6, UDP,SSL/TLS,ISUP,ARP	
User/Host	Up to 32 users. 3 user levels: administrator, operator and user	
Security	Password protection, Complicated password, HTTPS encryption,802.1X authentication (EAP-PEAP, EAP-LEAP, EAP-MD5),Watermark, IP address filter, Basic and digest authentication for HTTP/HTTPS,WSSE	

	and digest authentication for ONVIF,RTP/RTSP over HTTPS, Control timeout settings, Security audit log, TLS 1.2, 1.3,Host authentication (MAC address)	
Network Storage	Micro SD/TF card (512 GB), local storage and CVR, NVR, ANR	
Web Browser	Supported Yes	

Image

Day/Night Switch	Auto/Scheduled/Manaul	
Image Enhancement	BLC, 3D DNR	
Wide Dynamic Range (WDR)	140 dB	
Image Settings	Saturation, Brightness, Contrast, Sharpness, Gain, White balance, Adjustable by client software or web browser., AGC	

Interface

On-board Storage	Built-in memory card slot, supporting microSD/SDHC/SDXC card, up to 512GB	
Ethernet Interface	1 RJ45 10M/100M/1000M Ethernet interface	
Audio	Supported	
Alarm	1 input interface, 1 output interface, 2 relays	

Event

Basic Event	HDD error, Network disconnected, IP address conflict	
Coverage	Up to 3 lane(s)	
Smart Function	Traffic flow detection : Average speed, traffic flow, queuing length, and traffic status Incident detection: congestion, stopped vehicle, lane change, wrong-way driving, speeding, low-speed driving	

Road Traffic and Vehicle Detection

Accuracy (Under	Capture rate > 99%,	
Recommended Installation And lighting conditions	Vehicle moving direction recognition accuracy > 98.5%, LPR accuracy > 98%, Mistaken capture rate < 2%	
No License Plate Detection	Supported	
Motorcycle LPR	Supported	

Vehicle Type/ Vehicle Color	Car, Van ,Bus, Truck, Light Truck, SUV(MPV), Pickup, Motorcycle, Tricycle Red, yellow, green, blue, pink, purple, cyan, brown, white, grey, black Recognizable at daytime only	
General		
Power	DC 12 V to 24 V, 1.25 A, max. 15 W, two-core terminal block, PoE: 802.3at, Type 2, Class 4, max. 15 W	
Capture Speed Range	5 to 120 km/h	
Blocklist and Allow list	Max. 50000 records	
Material	Aluminum alloy	
Web Client Language	English	
General Function	One-key reset, three streams, heartbeat, password protection, watermark	
Startup and Operating Conditions	-30 °C to 70 °C (-22 °F to 158 °F). Humidity 95% or less (non-condensing) 30 °C to 70 °C (-22 °F to 158 °F). Humidity 95% or less (non-condensing)	
Approval		
EMC	Yes	
Safety	Yes	
Environment	Yes	
Protection	IK10, IP67	

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Koshi Province, Nepal

Technical Compliance Sheet for 8 MP Bullet Camera

Feature	*Specification*	*Compliance (Fully Compliant, Partially Compliant, Non Compliant) or Bidders Offer*
Manufacture, Country	To filled by Bidder	
Brand Name	To filled by Bidder	
Model No.	To filled by Bidder	
Image Sensor	1/1.2" Progressive Scan CMOS	
Max. Resolution	3840 × 2160	
Min. Illumination	Color: 0.0005 Lux @ (F1.0, AGC ON), 0 Lux with Light	
Shutter Time	1/3 s to 1/100,000 s	
Day & Night	24/7 Color	
Angle Adjustment	Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°	
Focal Length & FOV	2.8 mm: horizontal FOV102°, 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°	
Aperture	F1.0	
Supplement Light Range	White light Up to 40 m	
Main Stream	50 Hz: 25 fps (3840 × 2160, 3200 × 1800 , 2688 × 1520, 1920 × 1080, 1280 × 720)60 Hz: 24 fps (3840 × 2160)30 fps (3200 x 1800 , 2688 × 1520, 1920 × 1080, 1280 × 720)	
Sub-Stream	50 Hz: 25 fps (640 × 480, 640 × 360), 60 Hz: 30 fps (640 × 480, 640 × 360)	
Third Stream	50 Hz: 10 fps (1920 x 1080 , 1280 × 720, 640 × 480, 640 × 360) 60 Hz: 10 fps (1920 x 1080 , 1280 × 720, 640 × 480, 640 × 360)	
Video Compression	Main stream: H.265/H.264/H.264+/H.265+ Sub-stream: H.265/H.264/MJPEG Third stream: H.265/H.264	

Protocols	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, Web Sockets	
API	Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK	
Region Of Interest	1 fixed region for main stream and sub-stream	
Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/AAC-LC, Environment Noise Filtering-UF: Yes	
Image	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	
Ethernet Interface	1 RJ45 10 M/100 M self-adaptive Ethernet port	
Basic Event	Motion detection (human and vehicle targets classification), video tampering alarm, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)	
Power	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	
Protection	IP67 (IEC 60529-2013)	

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Technical Compliance Sheet for 10 TB Hard Disk

Feature	*Specification*	*Compliance (Fully Compliant, Partially Compliant, Non Compliant) or Bidders Offer*
Manufacture		
Brand		
Model No		
Form factor	3.5-inch (Compatible with provided NAS)	
Interface	SATA 6.0 Gbit/s	
RoHS compatible	Yes	
Halogen Free	Yes	
Rotational speed	7,200 rpm	
Buffer size	256 MB	
Transfer Rate	up to 215MB/s	
24/7 operation	Supported	
Warranty	2 years	

Bill of Quantity (BOQ)

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

Subject: Rate Submission for Bus Park CCTV in Ward No. 6, FY 2081-082

SN	Item	Unit	Qty	Unit Price	Unit Price in Words	Total
1	Electricity Concentric Cable 10mm	meter	500			
2	ANPR 4MP Camera with pole mount	pcs	1			
3	8 MP IP Bullet Color Camera	pcs	8			
4	10 TB Surveillance HDD (for Road Surveillance)	pcs	1			
5	Pole Mount Bracket Industry Standard	pcs	8			
6	Water proof Junction Box(ABS Material size min 290*215mm, depth 84mm)	pcs	4			
7	4 Port PoE Switch with 2 Uplink	pcs	4			
8	Outdoor PureCopper Cat6 Cable (305m)	drum	1			
9	1 DPMCB 6A	site	4			
10	Installation Charge (with All complete Work, electrical wires, tapes, RJ45etc) All the cameras should be	ls	1			

installed in the NVR Which is located in Ward 6 Office. The network shall be provided by Municipality					
Total					
VAT 13%					
Total with VAT					

Submitted By:

Signature:

Name of Designation of:

Signatory:

Firms Name:

Seal of the Firm: