



राप्ती सोनारी गाउँपालिका
RAPTI SONARI RURAL MUNICIPALITY
गाउँ कार्यपालिकाको कार्यालय

OFFICE OF THE RURAL MUNICIPAL EXECUTIVE

अगैया, बाँके
AGAIYA, BANKE

लुम्बिनी प्रदेश, नेपाल
LUMBINI PROVINCE, NEPAL

पत्र संख्या/Ref. No.:- ०८१/०८२

च.नं./ Dispatch No.:- २४८



मिति २०८१/०६/१६

श्री गाउँपालिका भित्र सूचीकृत भएका/ नभएका सप्लायर्स सबै,

विषय: दर रेट उपलब्ध सम्बन्धमा।

प्रस्तुत विषयका सम्बन्धमा राप्ती सोनारी गाउँपालिका अन्तर्गतका सम्पूर्ण वडा र पालिकामा CCTV camera नयाँ जडान तथा मर्मत गर्नुपर्ने भएको हुँदा सोको लागत स्टेटमेन्ट तयार गर्नु परेको हुँदा तपसिल बमोजिमको स्पेशीफिकेश भएका समानहरुको शिलबन्दी वा गाउँपालिकाको इमेलमा सूचना प्रकाशित गरेको मितिले ७ (सात) दिन भित्र उपलब्ध गराईदिनुहुन अनुरोध छ ।

दाज बहादुर रेग्मी
प्रमुख प्रशासकीय अधिकृत

"समृद्ध राप्ती सोनारीको आधार, शिक्षा, स्वास्थ्य, कृषि, पर्यटन र दीगो पूर्वाधार"

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Price Schedule for Goods

Name of Bidder _____

Item	Description	Country of Origin	Quantity	Unit Price EXW (in NRs)		Total Price (in NRs) (cols. 4x5)
				In Figure	In Words	
1	2	3	4	5		
1	NVR 128 Port		1 Pcs			
2	Camera PTZ 4 MP		1Pcs			
3	Camera 4 MP colorvu outdoor		1 Pcs			
4	Camera 2 MP colorvu Indoor		1 Pcs			
5	NVR 8 Port Accusense 2 Sata		1 Pcs			
6	POE Switch 4 port harsh 2 uplink		1 pcs			
7	Cat 6 Cable Pure Copper (305m)		1 Drum			
8	Monitor Surveillance 22"		1 Pcs			
9	Monitor Surveillance 55"		1 point			
10	Hard Disk 1 TB surveillance		1 pcs			
11	Metal Poll Box		1 pcs			
12	Rack 4 U		1 pcs			
13	Optical Fiber		1 meter			
14	Tiffin Box		1 pcs			
15	Media convector		1pcs			
16	Asso cories and other items		1pcs			
17	Hard Disk 16 TB surveillance		1pcs			
18	Installation		1 point			
Total						
13 % VAT						
Grand Total						

Total Amount In word :

Name :

In the capacity of :

Signed :

Duly authorized to sign the Sealed Quotation for and on behalf of :

Date: _____

Specification

1. NVR 128 Port

Video and Audio	
IP Video Input	128-ch
Incoming Bandwidth	400 Mbps Or higher
Outgoing Bandwidth	400 Mbps Or higher
HDMI 1 Output	8K (7680 × 4320)/30Hz, 4K (3840 × 2160)/60Hz, 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz or higher
HDMI 2 Output	4K (3840 × 2160)/60Hz, 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz or higher *: When HDMI 1 output resolution is 8K, the maximum HDMI 2 output resolution is 1080p.
VGA 1 Output	1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz or higher
VGA 2 Output	1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz or higher
Video Output Mode	HDMI 1 and VGA 1 provide simultaneous video output, and work as the main output; HDMI 2 and VGA 2 provide simultaneous video output, and work as the auxiliary output
CVBS Output	1-ch, BNC (1.0 Vp-p, 75 Ω), resolution: PAL: 704 × 576, NTSC: 704 × 480
Audio Input	1-ch, RCA (2.0 Vp-p, 1 KΩ)
Audio Output	2-ch, RCA (Linear, 1 KΩ)
Two-Way Audio	1-ch, RCA (2.0 Vp-p, 1 KΩ, using the audio input)
Decoding	
Decoding Format	H.265+/H.265/H.264+/H.264 or higher
Recording Resolution	32 MP/24 MP/12 MP/8 MP/7 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
Synchronous playback	16-ch
Decoding Capability	2-ch@32 MP (30 fps)/2-ch@24 MP (30fps)/4-ch@16 MP (30fps)/8-ch@8 MP (30fps)/16-ch@4 MP (30fps)/32-ch@2 MP (30fps)
Audio Compression	G.711ulaw/G.711alaw/G.722/G.726/AAC/MP2L2/PCM
Network	
Network Protocol	TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, ISUP, UPnP™, HTTP, HTTPS, ONVIF(Version 2.2), OTAP
Network Interface	2, RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
Camera Access Protocol	ONVIF(Version 2.5), RTSP
RAID	
Raid Type	RAID0, RAID1, RAID5, RAID6, RAID10
Auxiliary Interface	
Serial Interface	1 RS-485 (full-duplex), 1 RS-232
SATA	16 SATA interfaces supporting hot-plug or higher
eSATA	1 eSATA interface
Capacity	Up to 16 TB capacity for each disk or higher
Alarm In/Out	16/9
USB Interface	Front panel: 2 × USB 2.0; Rear panel: 2 × USB 3.0
Ctrl 12V	Controllable 12 VDC, 1 A power output for external alarm device; The power will be turned on when the alarm output is triggered. *: The Ctrl 12V power is controlled by alarm output 9.
DC 12V	12 VDC, 1 A power output
General	
Power Supply	Maximum 100 to 240 VAC, 50 to 60 Hz
Consumption	≤ 50 W (without HDD)
Working Temperature	-10 °C to 55 °C (14 °F to 131 °F)
Working Humidity	10% to 90%
Chassis	3U chassis
Dimension (W × D × H)	445 × 496 × 150 mm (17.5" × 19.5" × 5.9")
Weight	≤ 12.5 kg (without HDD, 27.6 lb.)
Certification	
Obtained Certification	CE, FCC
FCC	Part 15 Subpart B, ANSI C63.4-2014
CE	EN 55032:2015, EN 61000-3-2, EN 61000-3-3, EN 50130-4

2. PTZ Camera 4MP

Image Sensor	[Bullet channel]: 1/3" Progressive Scan CMOS; [PTZ channel]: 1/2.8" progressive scan CMOS
	[Bullet channel]: 0.0005 Lux @ (F1.0, AGC ON), 0 Lux with light;

Min. Illumination	[PTZ channel]: Color: 0.005 Lux @ (F1.6, AGC ON), B/W: 0.001 Lux @ (F1.6, AGC ON), 0 Lux with IR
Shutter Speed	1 s to 1/30,000 s or higher
Slow Shutter	yes
Focus	semi-auto, manual, auto
Zoom	[PTZ channel] 25 × optical, 16 × digital or higher
Day & Night	ICR
Day/Night Switch	day, night, auto, scheduled-switch
White Balance	auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB, Locked WB
Max. Resolution	[Bullet channel] 2560 × 1440, [PTZ channel] 2560 × 1440 Or Higher
Lens	
Focal Length	[Bullet channel]: 2.8 mm; [PTZ channel]: 4.8 to 120 mm, 25 × optical
Zoom Speed	[PTZ channel]: approx. 3.6 s [Bullet channel]: Horizontal field of view: 96.1°, Vertical field of view: 52.1°, Diagonal field of view: 113.3°; [PTZ channel]: Horizontal field of view: 55° to 2.4° (wide-tele), Vertical field of view: 33° to 1.4° (wide-tele),
FOV	Diagonal field of view: 61.5° to 2.8° (wide-tele)
Aperture	[Bullet channel]: F1.0; [PTZ channel]: F1.6
Illuminator	
Supplement Light Type	[PTZ channel]: IR; [Bullet channel]: White Light
Smart Supplement Light	Yes
Supplement Light Range	[PTZ channel]: up to 100 m; [Bullet channel]: up to 30 m or higher
PTZ	
Movement Range (Pan)	360°
Movement Range (Tilt)	-15° to 90° (auto flip)
Pan Speed	pan speed: configurable from 0.1° to 80°/s; preset speed: 80°/s
Tilt Speed	tilt speed: configurable from 0.1° to 80°/s, preset speed 80°/s
Proportional Zoom	yes
Presets	300
Patrol Scan	8 patrols, up to 32 presets for each patrol
Pattern Scan	4 pattern scans
Power-off Memory	yes
Park Action	preset, pattern scan, patrol scan, auto scan, tilt scan, random scan, frame scan, panorama scan
3D Positioning	yes
PTZ Status Display	yes
Preset Freezing	yes
Scheduled Task	preset, pattern scan, patrol scan, auto scan, tilt scan, random scan, frame scan, panorama scan, dome reboot, dome adjust, aux output
Exception Detection	IP address conflict, HDD full, illegal login, HDD error, network disconnected, Abnormal Reboot
Video	
Region of Interest (ROI)	8 fixed regions for each stream
Stream Type	main stream, sub-stream, third stream [Bullet channel]: 50 Hz: 25 fps (2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720) or higher 60 Hz: 30 fps (2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720) or higher
Main Stream	[PTZ channel]: 50 Hz: 25 fps (2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720) or higher 60 Hz: 30 fps (2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720) or higher [Bullet channel]: 50 Hz: 25 fps (704 × 576, 640 × 480, 352 × 288) or higher 60 Hz: 30 fps (704 × 480, 640 × 480, 352 × 240) or higher
Sub-Stream	[PTZ channel]: 50 Hz: 25 fps (704 × 576, 640 × 480, 352 × 288) or higher 60 Hz: 30 fps (704 × 480, 640 × 480, 352 × 240) or higher [Bullet channel]: 50 Hz: 25 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288) or higher 60 Hz: 30 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240) or higher
Third Stream	[PTZ channel]: 50 Hz: 25 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288) or higher 60 Hz: 30 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240) or higher
Video Compression	H.265,H.264,MJPEG
Video Bit Rate	32 kbps to 16384 kbps or higher
H.264 Type	baseline profile, main profile, high profile
H.265 Type	main profile
H.264+	yes

H.265+	yes
SVC	yes
Audio	
Audio Compression	G.711,G.722.1,G.726,MP2L2,PCM,AAC-LC
Audio Bit Rate	32 to 160 Kbps (MP2L2),16 to 64Kbps (AAC-LC)
Audio Sampling Rate	8 kHz,16 kHz,32 kHz,48 kHz or higher
Environment Noise Filtering	yes
Smart Features	
Smart Record	ANR, Dual-VCA
Network	
API	Open Network Video Interface (Profile S, Profile G, Profile T),ISAPI,SDK,ISUP
Network Storage	NAS (NFS, SMB/ CIFS), ANR
Protocols	IPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTCP,RTP,TCP/IP,UDP,IGMP,ICMP,DHCP, PPPoE, Bonjour, Web Socket, Web Sockets
Simultaneous Live View	20 or higher
User/Host	32 or higher
Security Measures	Authenticated username and password, MAC address binding, HTTPS encryption,802.1X authenticated access, IP address filter
Client	iVMS-4200
Web Browser	IE 10+, Chrome 57+, Firefox 52+, Safari 12+
Image	
Image Settings	sharpness, saturation, brightness, contrast
Wide Dynamic Range (WDR)	120 dB or higher
SNR	≥ 52 dB
Defog	Digital defog
Image Stabilization	EIS
Image Enhancement	BLC,HLC,3D DNR
Regional Focus	Yes
Regional Exposure	Yes
Image Parameters Switch	Yes
Privacy Mask	[Bullet channel] 8 programmable polygon privacy masks, [PTZ channel] 24 programmable polygon privacy masks; mask color or mosaic configurable
Interface	
Communication Interface	RJ45, self-adaptive 10M/100M Ethernet port
On-board Storage	Built-in memory card slot, support Micro SD/Micro SDHC/Micro SDXC, up to 256 GB
Alarm Input	1 alarm input
Alarm Output	1 alarm output
Audio Input	1 audio input, 2.0 to 2.4Vp-p, 1k Ohm±10%
Audio Output	1 audio output, line level, impedance: 600 Ω
Event	
Basic Event	motion detection, video tampering alarm, alarm input and output, exception
Smart Event	audio exception detection, line crossing detection, intrusion detection, region entrance detection, region exiting detection
	[Bullet channel] Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, and trigger recording
	[PTZ channel] Upload to FTP/NAS/memory card, notify surveillance center, send email,
Alarm Linkage	trigger alarm output, trigger recording, and PTZ actions (such as preset, patrol scan, pattern scan)
Deep Learning Function	
Face Capture	[Bullet channel] no,[PTZ channel] yes
General	
General Function	mirror, password protection, watermark, IP address filter
Power	12VDC, PoE+
Power Consumption and	Max. 24 W, including max. 2.6 W for heater and max. 11 W for supplement light
Operating Conditions	-30°C to 65°C (-22°F to 149°F) ,humidity lower than 90%RH
Demist	Demist by heating the glass
Material	ADC12

3. Outdoor Camera 4 MP Colourvu with audio and SD card slot

Camera	
Image Sensor	1/3" Progressive Scan CMOS
Max. Resolution	2560 × 1440 or higher

Min. Illumination	Color: 0.001 Lux @ (F1.0, AGC ON),0 Lux with light
Shutter Time	1/3 s to 1/100,000 s or higher
Day & Night	24/7 color imaging or higher
Angle Adjustment	Pan: 0° to 360°,tilt: 0° to 90°,rotate: 0° to 360°
Lens	
Lens Type	Fixed focal lens, 2.8 and 4 mm optional
Focal Length & FOV	2.8 mm, horizontal FOV 96°, vertical FOV 52°, diagonal FOV 113° 4 mm, horizontal FOV 76°, vertical FOV 41°, diagonal FOV 89°
Lens Mount	M12
Iris Type	Fixed
Aperture	F1.0
DORI	
DORI	2.8 mm: D: 64 m, O: 25 m, R: 12 m, I: 6 m 4 mm: D: 82 m, O: 32 m, R: 16 m, I: 8 m
Illuminator	
Supplement Light Type	White Light
Supplement Light Range	Up to 30 m
Smart Supplement Light	Yes
Video	
Main Stream	50 Hz: 20 fps (2560 × 1440),25 fps (1920 × 1080, 1280 × 720) or higher 60 Hz: 20 fps (2560 × 1440),30 fps (1920 × 1080, 1280 × 720) or higher
Sub-Stream	50 Hz: 25 fps (1280 × 720, 640 × 480, 640 × 360) or higher 60 Hz: 30 fps (1280 × 720, 640 × 480, 640 × 360) or higher
Third Stream	50 Hz: 1 fps (640 × 360) or higher 60 Hz: 1 fps (640 × 360) or higher
Video Compression	Main stream: H.265+/H.265/H.264+/H.264 Sub-stream: H.265/H.264/MJPEG Third stream: H.265/H.264
Video Bit Rate	32 Kbps to 8 Mbps or higher
H.264 Type	Baseline Profile, Main Profile, High Profile
H.265 Type	Main Profile
Bit Rate Control	CBR,VBR
Region of Interest (ROI)	1 fixed region for main stream and sub-stream
Audio	
Audio Type	Mono sound
Environment Noise Filtering	Yes
Audio Sampling Rate	8 kHz/16 kHz or higher
Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/AAC-LC
Audio Bit Rate	64 Kbps (G.711 ulaw)/64 Kbps (G.711 alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 160 Kbps (MP2L2)/16 to 64 Kbps (AAC-LC)
Network	
Security	Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-MD5), watermark, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network Video Interface, RTP/RTSP over HTTPS, security audit log, TLS 1.2, TLS 1.3, host authentication (MAC address)
Simultaneous Live View	Up to 6 channels
API	Open Network Video Interface (Profile S, Profile T, Profile G), ISAPI, SDK
Protocols	TCP/IP, ICMP, DHCP, DNS, HTTP, RTP, RTSP, NTP, IGMP, IPv4, IPv6, UDP, QoS, FTP, SMTP, HTTPS, DDNS, UPnP, 802.1X
User/Host	Up to 32 users 3 user levels: administrator, operator, and user
Client	iVMS-4200,
Web Browser	Plug-in required live view: IE 10, IE 11 Local service: Chrome 57.0+, Firefox 52.0+
Image	
Wide Dynamic Range (WDR)	120 dB
SNR	≥ 52 dB
Day/Night Switch	Day, Night, Auto, Schedule
Image Enhancement	BLC, HLC, 3D DNR
Image Settings	Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance, adjustable by client software or web browser
Privacy Mask	4 programmable polygon privacy masks
Interface	
Ethernet Interface	1 RJ45 10 M/100 M self-adaptive Ethernet port
On-Board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 256 GB
Built-in Microphone	Yes
Reset Key	Yes
Event	

Basic Event	Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception
Smart Event	Line crossing detection, intrusion detection
Linkage	Upload to FTP/memory card, send email, notify surveillance center, trigger recording, trigger capture
General	
Power	12 VDC \pm 25%, 0.4 A, max. 5 W, \varnothing 5.5 mm coaxial power plug, PoE: IEEE 802.3af, Class 3, 36 V to 57 V, 0.2 A to 0.15 A, max. 6.5 W
Material	Front cover: metal, body: metal, bracket: plastic
Storage Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
Language	English, Ukrainian
General Function	Heartbeat, anti-banding, mirror, password protection, password reset via email, pixel counter
Approval	
EMC	FCC: 47 CFR Part 15, Subpart B CB: IEC 62368-1: 2014+A11,
Safety	CE-LVD: EN 62368-1: 2014/A11: 2017, BIS: IS 13252 (Part 1): 2010/ IEC 60950-1: 2005
Environment	CE-RoHS: 2011/65/EU
Protection	IP67: IEC 60529-2013

4. 2mp Indoor Camera Colorvu with audio and SD card Slot

Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Max. Resolution	1920 \times 1080 or higher
Min. Illumination	Color: 0.001 Lux @ (F1.0, AGC ON), 0 Lux with light
Shutter Time	1/3 s to 1/100,000 s or higher
Day & Night	IR cut filter
Angle Adjustment	Pan: 0° to 360°, tilt: 0° to 75°, rotate: 0° to 360°
Lens	
Lens Type	Fixed focal lens, 2.8 and 4 mm optional
Focal Length & FOV	2.8 mm, horizontal FOV 106°, vertical FOV 56°, diagonal FOV 129° 4 mm, horizontal FOV 88°, vertical FOV 47°, diagonal FOV 103°
Lens Mount	M12
Iris Type	Fixed
Aperture	F1.0
DORI	
DORI	2.8 mm, D: 44 m, O: 17 m, R: 8 m, I: 4 m 4 mm, D: 53 m, O: 21 m, R: 10 m, I: 5 m
Illuminator	
Supplement Light Type	IR, White Light
Supplement Light Range	Up to 30 m
Smart Supplement Light	Yes
IR Wavelength	850 nm
Video	
Main Stream	50 Hz: 25 fps (1920 \times 1080, 1280 \times 720) or higher 60 Hz: 30 fps (1920 \times 1080, 1280 \times 720) or higher
Sub-Stream	50 Hz: 25 fps (640 \times 480, 640 \times 360) or higher 60 Hz: 30 fps (640 \times 480, 640 \times 360) or higher
Video Compression	Main stream: H.265+/H.265/H.264+/H.264, Sub-stream: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 8 Mbps or higher
H.264 Type	Baseline Profile, Main Profile, High Profile
H.265 Type	Main Profile
Bit Rate Control	CBR, VBR
Region of Interest (ROI)	1 fixed region for main stream
Audio	
Audio Type	Mono sound
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/AAC-LC
Audio Bit Rate	64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 160 Kbps (MP2L2)/16 to 64 Kbps (AAC-LC)
Audio Sampling Rate	Minimum 8 kHz/16 kHz
Environment Noise Filtering	Yes
Network	
Protocols	TCP/IP, ICMP, DHCP, DNS, HTTP, RTP, RTSP, RTCP, NTP, IGMP, UDP, QoS, FTP, SMTP, UPnP
Simultaneous Live View	Up to 6 channels
API	Open Network Video Interface (Profile S, Profile T, Profile G (only -F model supports)), ISAPI, SDK
User/Host	Up to 32 users 3 user levels: administrator, operator, and user

	Password protection, complicated password, watermark, basic and digest authentication for HTTP, WSSE and digest authentication for Open Network Video
Security	Interface, security audit log, host authentication (MAC address)
Client	iVMS-4200
Web Browser	Plug-in required live view: IE 10, IE 11, Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+
Image	
Image Settings	Rotate mode, saturation, brightness, contrast, sharp ness, gain, white balance, adjustable by client software or web browser
Day/Night Switch	Day, Night, Auto Schedule
Wide Dynamic Range (WDR)	Digital WDR
SNR	≥ 52 dB
Image Enhancement	BLC,HLC,3D DNR
Privacy Mask	4 programmable polygon privacy masks
Interface	
Ethernet Interface	1 RJ45 10 M/100 M self-adaptive Ethernet port
On-Board Storage	-F: Built-in memory card slot, support micro SD/micro SDHC/micro SDXC card, up to 512 GB
Built-in Microphone	Yes
Reset Key	-F: Yes
Event	
Basic Event	Motion detection (support alarm triggering by specified target types (human and vehicle)),video tampering alarm, exception
Linkage	Upload to memory card (-F model supports), trigger recording (-F model supports), upload to FTP, notify surveillance center, send email, trigger capture
General	
Power	12 VDC ± 25%, 0.45 A, max. 5.4 W,Ø5.5 mm coaxial power plug, reverse polarity protection, PoE: IEEE 802.3af, Class 3, max. 6.5 W
Material	Metal & Plastic
Storage Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
Language	English, Ukrainian
General Function	Heartbeat, anti-banding, mirror, password protection, password reset by email
Approval	
	CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN 50130-4: 2011 +A1: 2014,
EMC	RCM: AS/NZS CISPR 32: 2015, IC: ICES-003: Issue 7
	UL: UL 62368-1,
	CB: IEC 62368-1: 2014+A11,
Safety	CE-LVD: EN 62368-1: 2014/A11: 2017,
	BIS: IS 13252 (Part 1): 2010/IEC 60950-1: 2005
	CE-RoHS: 2011/65/EU, WEEE: 2012/19/EU,
Environment	Reach: Regulation (EC) No 1907/2006
Protection	IP67: IEC 60529-2013

5. NVR 8 Port System

Intelligent Analytics	
AI by NVR	Facial recognition, perimeter protection, motion detection 2.0
	Facial recognition, perimeter protection, video structuralization, throwing objects from
AI by Camera	building, motion detection 2.0, ANPR, people counting, VCA
Engine	1, engine mode is adjustable
Facial Recognition	
	Up to 16 face picture libraries, with up to 50,000 face pictures in total (each picture ≤)
Face Picture Library	512 KB, total capacity ≤ 1 GB) or Higher
Face Picture Comparison	8-ch
Facial Detection and Analytics	Face picture comparison, human face capture, face picture search
Performance	4-ch human face capture (HD network camera, up to 8 MP, H.264/H.265)
Motion Detection 2.0	
By Camera	All channels
Perimeter Protection	
By Camera	4-ch, 2 MP (H.264/H.265) video analysis for human and vehicle recognition to reduce false alarm; Up to 12 rules in total All channels
ANPR	
By Camera	All channels

Vehicle Attributes	Plate number, license plate color, license plate type
Plate Attributes	Vehicle brand, vehicle color, vehicle type
Video and Audio	
IP Video Input	8-ch
Incoming Bandwidth	80 Mbps or higher
Outgoing Bandwidth	256 Mbps or higher
HDMI Output	4K (3840 × 2160)/30 Hz, 2K (2560 × 1440)/60 Hz, 1920 × 1080/60 Hz, 1600 × 1200/60Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz, 1024 × 768/60 Hz or higher
VGA Output	1920 × 1080/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz, 1024 × 768/60 Hz or higher
Video Output Mode	HDMI/VGA independent output
CVBS Output	1-ch, BNC (1.0 Vp-p, 75 Ω), resolution: PAL: 704 × 576, NTSC: 704 × 480
Audio Output	1-ch, RCA (Linear, 1 KΩ)
Two-Way Audio	1-ch, RCA (2.0 Vp-p, 1 KΩ)
Decoding	
Decoding Format	H.265+/H.265/H.264+/H.264 32 MP/24 MP/12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA /4CIF/DCIF/2CIF/CIF/QCIF
Recording Resolution	*: The NVR supports up to 4-ch 32 MP/24 MP IP video inputs.
Synchronous playback	8-ch
Live View Window Division	1/2/4/6/8/9
Aux Port Window Division	1/2/4/6/8/9
Decoding Capability	Enable AI by NVR: 20-ch@1080p (30 fps) Disable AI by NVR: 32-ch@1080p (30 fps)
Dual-Stream Recording	Support
Audio Compression	G.711ulaw/G.711alaw/G.722/G.726/AAC/MP2L2/PCM
Stream Type	Video, Video & Audio
Network	
Network Interface	2, RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
Remote Connection	128
	TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, ISUP,
Network Protocol	UPnP™, HTTP, HTTPS
API	ONVIF (profile S/G); SDK; ISAPI
Compatible Browser	IE11, Chrome V57, Firefox V52, Safari V12, Edge V89, or above version
Auxiliary Interface	
SATA	2 SATA interfaces or higher
Capacity	Up to 14 TB capacity for each disk
Alarm In/Out	1-Apr
USB Interface	Front panel: 1 × USB 2.0; Rear panel: 1 × USB 3.0
General	
Power Supply	Maximum 100 to 240 VAC, 50 to 60 Hz
Consumption	≤ 30 W (without HDD)
Working Temperature	-10 °C to 55 °C (14 °F to 131 °F)
Working Humidity	10% to 90%
Chassis	1U chassis
Certification	
Obtained Certification	CE, CB, REACH, WEEE, UKCA, LOA
CE	EN 55032:2015, EN 61000-3-2, EN 61000-3-3, EN 50130-4

6. POE Switch

General	<ul style="list-style-type: none"> ➤ Shell Metal material, fan-free design ➤ Operating Temperature-30 °C to 65 °C (-22 °F to 149°F) ➤ Storage Temperature-40 °C to 85 °C (-40 °F to 185 °F) ➤ Operating Humidity5% to 95% (no condensation) ➤ Relative Humidity5% to 95% (no condensation) ➤ Power Supply48VDC, 1.35A ➤ Max. Power Consumption65 W ➤ Power Consumption in Idle5 W ➤ Installation Mode Desk-Mounted, Rail ➤ Surge Protection6 KV
Network Parameters	<ul style="list-style-type: none"> ➤ Ports4 × Gigabit PoE port,2 × Gigabit fiber optical port ➤ MAC Address Table 2 K ➤ Switching Capacity12 Gbps ➤ Packet Forwarding Rate8.928 Mpps

	➤ Internal Cache1 Mbits
PoE Power Supply	➤ PoE Standard IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt ➤ PoE Power Pin8-pin power: 1/2(-), 3/6(+), 4/5(+), 7/8(-)
PoE Port	➤ Minimum Hi-PoE: Port 1 ➤ Minimum PoE: Ports 2 to 4
Max. Port Power	➤ Port 1: 60 W ➤ Ports 2 to 4: 30 W
Dialing Function	➤ Long Range Ports 3 to 4: up to 300 m ➤ Long range performance may vary depend on camera model or cable condition. ➤ Port Isolation Ports 1 to 4: port isolation mode to improve network security. ➤ PoE Watchdog Ports 1 to 4: auto detect and restart the cameras that do not respond.
PoE Power Budget	➤ Maximum 65 W
Approval	➤ EMCFCC (47 CFR Part 15, Subpart B), CE-EMC (EN 55032: 2015+A11: 2020, EN IEC 61000-3-2: 2019, EN 61000-3-3: 2013+A1: 2019, EN 50130-4: 2011+A1: 2014, EN 55035: 2017+A11: 2020), IC (ICES-003: Issue 7:2020), RCM (AS/NZS CISPR 32: 2015)
Safety	➤ UL (UL 60950-1), CB (AMD1:2009, AMD2:2013, IEC 62368-1: 2014 (Second Edition), CE-LVD (EN 62368-1: 2014+A11: 2017)
Chemistry	➤ CE-RoHS (2011/65/EU)

7. Cable

Category	Cat.6	
Reference standard	ISO/IEC 11801, ANSI/TIA-568.2-D, RoHS 2.0	
Fire resistance	No	
Conductor	Material	Solid-Bare Copper (99.95%)
	Diameter	0.50 ± 0.01 mm 24AWG
Insulation	Material	HDPE
	Diameter	0.88 ± 0.05 mm
	Thickness	0.50 ± 0.05 mm
Sheath	Diameter	5.30 ± 0.50 mm
	Material	PVC
	Color	
Rip-cord	Yes	
Separator	Yes	
	Before aging	Tensile strength ≥ 13.5 Mpa Elongation ≥ 150%
	Aging period	100°C × 24h × 10d
Sheath physical properties	After aging	Tensile strength ≥ 12.5 Mpa Elongation ≥ 125%
	Cold bend	-20 ± 2°C × 4h, 8 × cable O.D, no visible cracks
	1.0-250.0 MHz impedance	100 ± 15 Ω
	1.0-250.0 MHz delay skew	≤ 45 ns/100 m
	DC resistance	≤ 9.38 Ω/100 m
	DC conductor resistance unbalance	≤ 4.0%
	Package dimension	390 mm X 390 mm X 210mm
Electrical	Weight	9.9 ± 0.5 kg
Characteristics (20°C)	Cable length	(305 ± 1.5) m
	Ambient temperature	-20°C to 70°C
	Operating voltage	57 V

8. Surveillance Monitor 22"

Screen Size	21.45 inch or Higher
Active Display Area	478.656 (H) mm × 260.280 (V) mm or higher
Resolution	1920 × 1080 or higher
Backlight	E-LED
Pixel Pitch	0.241 (H) mm × 0.241 (V) mm or Higher
Brightness	250 cd/m ² Or higher
Viewing Angle	178° (H)/178° (V)
Color Depth	8 bit, 16.7 M Or higher
Contrast Ratio	1000:01:00 or Higher
Response Time	Maximum 6.5 ms
Refresh Rate	Typ 60 Hz, Max 100 Hz or higher
Haze	Haze 25%, 3H
Reliability	7 × 16 H
Color Gamut	72% NTSC

Video & Audio Input	HDMI 1.4 × 1, VGA × 1
Power Supply	Maximum DC 12V, 2.0A
Power Consumption	Maximum ≤ 24 W
Standby Consumption	Maximum ≤ 0.5 W
Casing Material	
Packing List	Monitor × 1, Base component × 1, Power adapter (12 V, 2.0 A) × 1, HDMI cable (1.5 m) × 1, User manual × 1, Multilingual manual × 1
Working Temperature	0 °C to 40 °C (32 °F to 104 °F)
Working Humidity	20% RH to 90% RH (Non-Condensing)
Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Storage Humidity	10% RH to 90% RH (Non-Condensing)

9. Surveillance Monitor 55"

Screen Size	55"
Active Display Area	1209.6 (H) mm × 680.4 (V) mm Or higher
Resolution	3840 × 2160@60 Hz Or Higher
Backlight	LED
Pixel Pitch	0.315 (H) mm × 0.315 (V) mm
Brightness	350 cd/m ²
Viewing Angle	178° (H)/178° (V)
Color Depth	8 bit or higher
Contrast Ratio	1200:01:00 or higher
Response Time	Maximum 8 ms
Refresh Rate	60 Hz or higher
Haze	1%
Reliability	7 × 24 H
Color Gamut	72% NTSC
Video & Audio Input	HDMI 1.4 × 1, HDMI 2.0 × 1, VGA × 1, Audio in × 1
Video & Audio Output	Speaker (6 Ω 7 W) × 2
Data Transmission Interface	USB × 1 or more
Power Supply	Maximum 100~240 VAC, 50/60 Hz
Power Consumption	Maximum ≤ 145 W
Standby Consumption	Maximum ≤ 0.5 W
Working Temperature	0 °C to 40 °C (32 °F to 104 °F)
Working Humidity	20% to 80% RH (Non-Condensing)
Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Storage Humidity	10% to 90% RH (Non-Condensing)
Casing Material	Plastic
Packing List	Monitor × 1, Remote control × 1, Quick start guide (multilingual) × 1, EU energy, efficiency label × 1, Power cable × 1, Screw pack × 1, User manual × 1, Base × 1

10. Hard Drive Surveillance 1 TB

Interface	SATA 6Gb/s
Recording Technology	CMR
Drive Design	Air
Features and Performance	
Drive Bays Supported	Up to 8
Cameras Supported	Up to 64
RV Sensors	—
Max Sustained Transfer Rate OD (MB/s)	180MB/s
Cache (MB)	256MB

Reliability/Data Integrity	
Tarnish Resistant	Yes
Load/Unload Cycles	600,000
Non recoverable Read Errors Rate, Max	1 per 10E14
Power-On Hours per year	8760
Workload Rate Limit (WRL) 1	180
Mean Time Between Failures (MTBF) (hours)	1000000hr
Warranty, Limited (years) 3	3
Power Management	
Startup Current, Typical (12V, A)	1.8A
Average Operating Power (W)	3.7W
Idle Average (W)	2.5W
Standby Mode/Sleep Mode, Typical (W)	0.25W
Voltage Tolerance (5V)	±5%
Voltage Tolerance (12V)	±10%
Environmental/Temperature	
Operating (ambient, min °C)	0°C
Operating (drive reported, max °C) 3	65
Non-operating (ambient, min °C)	-40°C
Physical	
Height (mm/in, max)	20.20mm/0.795in
Width (mm/in, max)	101.6mm/4.0in
Depth (mm/in, max)	146.99mm/5.787in
Weight (g/lb, typical)	415g/0.915lb
Carton Unit Quantity	25
Cartons per Pallet/Cartons per Layer	40/8

Other Goods

S.N	Goods Name	Speciation
12	Metal Poll Box	<ul style="list-style-type: none"> ➤ Premium quality ➤ Perfect finish ➤ Rust free body
13	Rack 4 U	U Size 4U Cab Depth 450mm Cab Height 280mm Cab Width 600mm Fans 0 (Space for 2 fans) Shelves Can be added Cage Nuts Can be Added from Options Assembly Time Pre Assembled
14	Optical Fiber	
15	Tiffin Box	
16	SFPI	
17	ASS	
18	Installation	

11. 16TB Enterprise Surveillance Hard drive

Brand	
Model no.	
Storage	16 TB SATA III (6 Gb/s) 3.5" HDD

Features	Helium Sealed-Drive Design, Super Parity, Low Halogen, Power Choice™ Idle Power Technology, PowerBalance™ Power/Performance Technology, Hot-Plug Support3, Organic Solderability Preservative, RSA 2048 Firmware Verification (SD&D)
Cache, Multisegmented (MB)	256
Reliability/Data Integrity	
Mean Time Between Failures (MTBF, hours)	2,500,000
Reliability Rating @ Full 24×7 Operation (AFR)	0.35%
Nonrecoverable Read Errors per Bits Read	1 sector per 10E15
Power-On Hours per Year (24×7)	8760
512e Sector Size (Bytes per Sector)	512
4Kn Sector Size (Bytes per Sector)	4096
Performance	
Spindle Speed (RPM)	7200RPM
Interface Access Speed (Gb/s)	6.0, 3.0
Max. Sustained Transfer Rate OD (MB/s, MiB/s)	261, 249
Random Read/Write 4K QD16 WCD (IOPS)	170/440
Average Latency (ms)	4.16
Interface Ports	Single
Rotation Vibration @ 20-1500 Hz (rad/sec ²)	12.5
Power Consumption	
Idle A (W) Average	5.00W
Max Operating, Random Read/Write 4K/16Q (W)	10.0, 6.3
Power Supply Requirements	+12 V and +5 V
Environmental	
Temperature, Operating (°C)	5°C – 60°C
Vibration, Nonoperating: 2 to 500Hz (Grms)	2.27
Shock, Operating 2ms (Read/Write) (Gs)	50
Shock, Nonoperating 2ms (Gs)	200
Warranty (years)	5

TIFFIN BOX Joint En-Closer

BRAND	STANDARD
SIZE	170X 45MM or equivalent
SUPPORT	Outdoor optical tiffin box from FTTH, FTTx, FTTP, OSP
Material	Fresh PVC

Note: Every tiffin box should have labeling name of “**Rapti Sonari Rural- MUNICIPALITY OFFICE, Agaiya BANKE**”.

Technical Specification of 6 Core Optical Fiber

Fiber	
Fiber Count	6 cores or above
Tube diameter (mm)	2.0mm
Strength member (steel wire)	10 steel wires ×0.6 mm (PE coated 1mm)
Messenger wire	7×0.6 mm Steel wire
Outer Sheath thickness (nominal*)(mm)	1.7mm or above
Outer Sheath Material	MDPE...
Cable diameter (nominal**)(mm)	7.8 *13.6 mm or above
Weight (approx.)(kg/km)	100 Kg ±10%
Max. allowable pulling force(N)	Installation: 3000/operation1500
Crush resistance(N/100mm)	1000N/600N
Min bend radius(mm)	Long-term 600N Short-term 1500N
Operating temperature range	-20°C to +60°C
Storage / Transport temperature range	-20°C to +70°C
Installation temperature range	-20°C to +70°C

Technical Specification of Media convector**Metal Poll Box**

Pure Copper CAT6 Cable (outdoor and indoor)

Brand	
Model no.	
CATEGORY	CAT 6 or Higher
AWG	23 AWG (0.574/0.007mm) Base Copper
Type	Pure Copper
Insulation	HD-PE
Length	1000Ft

Technical Specification of Optical Fiber Pole Box and Accessories

SPECIFICATIONS	MEASUREMENTS
APPLICATION	FFTH BOX
Size	274.3x334.2x114.1mm
Material	Plastic/PVC

Usage/Application	Junction Boxes
Dimension	8X6X4 Inch, 8x10x4 Inch
IP Rating	IP65
Shape	Rectangular
Mounting Type	Pole Mounted
Surface Finish	Powder Coated
Material	MS

Note: Every pole box should have labeling name of “**Raptisonari Rural Municipality , Agaiya BANKE**”.

