

B. Technical Specification Schedule

1. Technical Specification for E-Attendance Device

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	Display	2.8-inch TFT Screen		
2	Fingerprint Capacity	min 3000		
3	Card Capacity	min 3,000 (optional SSR:1,000)		
4	Transaction Capacity	min 2,00,000		
5	Communication	TCP/IP, USB-host		
6	Standard Functions	Workcode, SMS, DST, Record Query, Automatic status switch, Timed ring, T9 input, 9-digit User ID, Simple access control, Backup Battery		
7	Optional Functions	ID Card, IC Card, Webserver, Photo ID, ADMS, SSR, DNS, external bell		
8	Power Supply	DC 12V/1.5A		
9	Operating Temperature	0°C to 45°C		
10	Operating Humidity	20% to 80%		
11	Dimensions	184*136*40.29 (L*W*T)		
11	Data push	Real time autopush system adms		
12	Device compatibility :	Must be compatible with Nepal government e-hajiri Centralize attendance software		

2. Technical Specification for 4MP Colorful Bullet Camera

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	Sensor	1/1.8", 4.0 megapixel, progressive scan, CMOS or better		
2	Minimum Illumination Colour:	0.0003lux (F1.0, AGC ON)		
3	Shutter	Auto/Manual, 1 ~ 1/100000s		
4	WDR	120dB		
5	Lens	4.0mm@F1.0		
6	Warm Light Range	Up to 30m (98ft)		
7	Light On/Off Control	Auto/Manual		

8	Video Compression	Ultra265, H.265, H.264, MJPEG		
9	Video Bit Rate	128 Kbps~6144Kbps		
10	White Balance	Auto/Outdoor/Fine Tune/Sodium Lamp/Locked/Auto2		
11	Digital noise reduction	2D/3D DNR		
12	Basic Detection	Cross line, intrusion(based on human body detection),Motion detection, Ultra motion detection, Tampering alarm, Audio Detection		
13	Audio Compression	G.711U, G.711A		
14	Edge Storage	Micro SD, up to 256GB		
15	Network Storage	ANR, NAS(NFS)		
16	Protocols	IPv4, IPv6, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, RTCP, DNS, DDNS, NTP, FTP, UPnP, HTTP, HTTPS, SMTP, 802.1x, SNMP, QoS, RTMP,SSL/TLS		
17	Protection	IP67 (IEC 60529)		
18	Surge protection	4KV		
19	Reset Button	Support		

3. Technical Specification for 2MP Colorful Bullet Camera

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	Sensor	1/2.9", 2.0 megapixel, progressive scan, CMOS or better		
2	Minimum Illumination Colour:	Colour: 0.005 lux (F1.6, AGC ON)		
3	Shutter	Auto/Manual, 1 ~ 1/100000s		
4	S/N	>52dB		
5	WDR	DWDR		
6	Lens	4.0mm@F1.6		

7	Warm Light Range	Up to 30m (98ft)		
8	Light On/Off Control	Auto/Manual		
9	Video Compression	Ultra265, H.265, H.264, MJPEG		
10	Video Bit Rate	128 Kbps~6144Kbps		
11	White Balance	Auto/Outdoor/Fine Tune/Sodium Lamp/Locked/Auto2		
12	Digital noise reduction	2D/3D DNR		
13	Basic Detection	Motion detection, Audio Detection		
14	Audio Compression	G.711U, G.711A		
15	Edge Storage	Micro SD, up to 256GB		
16	Network Storage	ANR, NAS(NFS)		
17	Protocols	IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, RTP, RTSP, RTCP, RTMP, DNS, DDNS, NTP, UPnP, HTTP, HTTPS, Qos, ,SSL/TLS		
18	Protection	IP67 (IEC 60529)		
19	Surge protection	4KV		

4. Technical Specification for 2MP Colorful Dome Camera

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	Sensor	1/2.9", 2.0 megapixel, progressive scan, CMOS or better		
2	Minimum Illumination Colour:	Colour: 0.005 lux (F1.6, AGC ON)		
3	Shutter	Auto/Manual, 1 ~ 1/100000s		
4	WDR	DWDR		
5	S/N	>52dB		
6	Lens	2.8mm@F1.6		
7	Warm Light Range	Up to 30m (98ft) or better		
8	Light On/Off Control	Auto/Manual		
9	Video Compression	Ultra265, H.265, H.264, MJPEG		
10	Video Bit Rate	128 Kbps~6144Kbps		

11	White Balance	Auto/Outdoor/Fine Tune/Sodium Lamp/Locked/Auto2		
12	Digital noise reduction	2D/3D DNR		
13	Basic Detection	Motion detection, Audio Detection		
14	Audio Compression	G.711U, G.711A		
	Compatible Integration	ONVIF (Profile S, Profile T, Profile G),API,SDK		
15	Edge Storage	Micro SD, up to 256GB		
16	Network Storage	ANR, NAS(NFS)		
17	Protocols	IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP,RTP, RTSP, RTCP, RTMP, DNS, DDNS, NTP, UPnP, HTTP, HTTPS, Qos, ,SSL/TLS		
18	Protection	IP67 (IEC 60529)		
19	Surge protection	4KV		

5. Technical Specification for Network Video Recorder

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	IP Video Input	9-ch or better		
2	Incoming bandwidth	min 150Mbps		
3	Outgoing bandwidth	min 60Mbps		
4	Remote Users	min 128		
5	Protocols	TCP/IP, P2P, UPnP, NTP, DHCP, PPPoE, HTTP, HTTPS, DNS,		
6	HDMI/VGA Output	HDMI:		
		4K (3840x2160)@30, 1920x1080p@60, 1920x1080p@50,		
		VGA: 1920x1080p@60, 1920x1080p@50,		
7	Synchronous Playback	9-ch		
8	Decoding format	Ultra 265/H.265/H.264		

9	SATA	2 SATA interfaces		
10	Network Interface	2 RJ-45 10M/100M/1000M self-adaptive Ethernet Interface		
11	USB Interface	Rear panel: 1 x USB2.0, 1 x USB3.0 Front panel: 1 x USB2.0		
12	Certification	CE, FCC, UL, RoHS, WEEE		

6. Technical Specification for POE Switch

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	Ports	8 x 10/100BASE-T PoE+ ports 2 x 10/100BASE-T ports		
2	Switching Capacity	2.0 Gbps or better		
3	Layer type	Unmanaged		
4	Forwarding Rate	1.48 Mpps		
5	Surge Protection	4 kV		
6	Certification	CE		

7. Technical Specification for Hard Disk

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	Storage / Memory Size	4.0 TB		
2	Interface	3.5" SATA III		
3	RPM	5400		
4	BUS Speed	6Gb/s		
5	Size	3.5" Inch		
6	Ports #	1 Port		
7	Port Type & Size	SATA 3.5"		
8	Color	Silver , Black , Violet / Purple		

8. Technical Specification for CAT6 Cable

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	Test Standard	ISO/IEC11801、 TIA-568-C.2 or better		
2	Product specification	HSYV-6 4x2x0.52		
3	Packing length	305±1m		
4	AWG	24		
5	Nom.O.D.(mm)	0.52±0.03 mm		
6	DC resistance	≤95 Ω/km		

7	Material	OFC(Oxygen free copper)		
8	Diameter	0.93±0.05 mm		
9	Material	HDPE		
10	Thickness	0.2±0.02 mm		
11	Tensile strength	>13.5 Mpa		

9. Technical Specification for Monitor

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	Display Type	LED Backlight or better		
2	Screen Size	23.8" or better		
3	Aspect Ratio	0.672916667		
4	Pixel Pitch(mm)	0.2745*0.2745		
5	Max Resolution	1920*1080 or better		
6	Brightness(cd/m ²)	min 250		
7	Refresh Rate	min 60Hz		
8	Input	1*VGA、 1*HDMI		
9	Audio Input	1, 3.5 mm mini-jack		
10	Speaker	2*1.5W		
11	Power supply	DC 12V, 2A		
12	Consumption	<24 W(on)		
		<0.5 W(Standby)		

10. Technical Specification for Rack

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
1	Assembly:	Supplied Assembled		
2	Fans:	Not Included		
3	Material:	Cold Rolled Steel; Powder Coated		
4	Mounting:	Fixed Wall-Mount		
5	Size:	4U 450mm Deep		
6	Weight Capacity:	min 60kg		
7	Dimensions:	280 x 600 x 450mm (H x W x D)		
8	Weight:	min 12kg		
9	Volumetric Weight:	min 23kg		

11. Technical Specification for Wiring, Installation and Configuration

S. No.	Feature	Requirements	Offered Specification	Compliance/NonCompliance
--------	---------	--------------	-----------------------	--------------------------

1	Other Consumables	Listy, Killa, Flexible Pipe, Junction Box, Cable Ties		
2	Wiring Installation & Configurations	Laying, Crippling, Managing the Cables, Configurations of NVR, Camera & E-Attendance		

12. Technical Specification for Centralized Software

Unified management for IP cameras, NVRs, hybrid NVRs, network keyboards, decoding devices, and access control etc.	
Efficient device management: Automatic device discovery (or search by network segment); add devices by IP	
Diverse functions:	
1	Live view: scene, custom layout, split screen, auxiliary screen display, corridor mode, sequence display, audio, two-way audio
2	Recording: local recording, alarm-triggered recording, scheduled recording, recording download
3	Playback: synchronous/asynchronous playback, instant playback, recording search by time/event, and play recordings on SD card
4	PTZ control: preset, preset patrol, recorded patrol, patrol plan
5	Alarm: Service alarm (event alarm), device alarm (online/offline, etc.), alarm triggering (live view, etc.), real-time/history alarm management