

**BANGLADESH RURAL ELECTRIFICATION BOARD (BREB)**  
**Specifications for**  
**CCTV CAMERA (IP BASE) & ACCESSORIES**

<b>4 MP Fixed Bullet Network Camera</b>	
<b>Descriptions</b>	<b>Minimum Required Specification</b>
Brand	To Be Mentioned By Tenderer
Model	To Be Mentioned By Tenderer
Country of Origin	To Be Mentioned By Tenderer
Country of Manufacturer	To Be Mentioned By Tenderer
<b>Technical Specification</b>	
ASMAG	Brand Should be at top 5 in Surveillance Ranking
Image Sensor	Min. 1/2.9" Progressive Scan CMOS
Min. Illumination	Mn Color: 0.02 Lux @ (F1.0, AGC ON) or higher
Wide Dynamic Range	120 dB
Lens Mount	M12
IR Range	Min. 30 m
Visual Alarm	Yes
Resolution	Minimum 2560 × 1440
Video Compression	H.265/H.264/H.265/MJPEG
Video Bit Rate	Min. 32 Kbps to 6144 Kbps
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, NTP, SMTP, IGMP, IPv4, IPv6, UDP, ARP, SNMP
Bit Rate Control	CBR/VBR
Region of Interest (ROI)	1 fixed region for main stream and sub-stream
Audio Compression	G.711A/G.711Mu/G.726
User/Host	Min. 20 users. 3 user levels: administrator, operator and user
Image Enhancement	BLC, HLC, 3D DNR
API	Open Network Video interface (PROFILES. PROFILE G), ISAPI
Ethernet Interface	1 RJ45 10 M/100 M self-adaptive Ethernet port
Power Supply	12 VDC ± 25%; PoE: 802.3af
Camera Material	Metal & Plastic
Protection	IP67
Warranty	01 (One) Year

<b>4 Channel NVR</b>	
<b>Descriptions</b>	<b>Minimum Required Specification</b>
Brand	To Be Mentioned By Tenderer
Model	To Be Mentioned By Tenderer
Country of Origin	To Be Mentioned By Tenderer
Country of Manufacturer	To Be Mentioned By Tenderer
<b>Technical Specification</b>	
IP video input (Minimum)	Minimum 4-channel
	Minimum 4 MP resolution
Two-way audio	1-ch, RCA (2.0 Vp-p, 1 k Ω)
ASMAG	Brand Should be at top 5 in Surveillance Ranking
Minimum Incoming bandwidth	Min. 40 Mbps
Minimum Outgoing bandwidth	Min. 60 Mbps
Recording resolution	Min. 6MP resolution
Video output mode	HDMI/VGA simultaneous output
Decoding format	H.265+/H.265/H.264/H.264
Synchronous playback	4-ch
Network protocols	TCP/IP, DHCP, DNS, DDNS, NTP, SMTP or Equivalent
SATA	Min. 1 SATA interfaces
Capacity	Up to 4TB capacity for each HDD
Network interface	Minimum 1, RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
USB interface	2 × USB 2.0
Warranty	01 (One) Year

<b>4-Port PoE Switch</b>	
<b>Descriptions</b>	<b>Minimum Required Specification</b>
Brand	To Be Mentioned By Tenderer
Model	To Be Mentioned By Tenderer
Country of Origin	To Be Mentioned By Tenderer
Country of Manufacturer	To Be Mentioned By Tenderer
<b>Technical Specification</b>	
ASMAG	Brand Should be at top 5 in Surveillance Ranking
Ports	Minimum 4 x 10/100 Mbps PoE port, 1 x 10/100 Mbps RJ45 port.
Switching Capacity	Min. 1 Gbps
Packet Forwarding Rate	Min. 0.7 Mpps
PoE Port	Min. PoE: Ports 1 to 4
Max. Port Power	Min. 30 W
Long Range	Min. Ports 1 to 4.
Warranty	01 (One) Year

<b>22 inch Monitor</b>	
<b>Descriptions</b>	<b>Minimum Required Specification</b>
Brand	To Be Mentioned By Tenderer
Model	To Be Mentioned By Tenderer
Country of Origin	To Be Mentioned By Tenderer
Country of Manufacturer	To Be Mentioned By Tenderer
<b>Technical Specification</b>	
Display Size	21.5 inches / 54.61 cm
Shape	Wide Screen Monitor
Display Type	FULL HD 1080p
Display Resolution	Minimum 1920 x 1080 at 60Hz
Brightness	250 cd/m <sup>2</sup>
Contrast Ratio	1000:1 (Typical)
Connectivity	VGA & HDMI
Typical viewing angle	178° Degree (H) / 178° Degree (V)
Backlight Technology	LED Edgelight System
Response Time	5 ms typical (black to gray, gray to black)
Aspect Ratio	>16:9
Panel Type	In-Plane Switching (IPS); Anti-glare with 3H hardness
Speaker	NO
Colour depth	16.7 Million Colours
I/O Slots	NO
Warranty	01 (One) Years






<b>2TB Surveillance HDD</b>	
<b>Descriptions</b>	<b>Minimum Required Specification</b>
<b>Brand</b>	<b>To Be Mentioned By Tenderer</b>
<b>Model</b>	<b>To Be Mentioned By Tenderer</b>
<b>Country of Origin</b>	<b>To Be Mentioned By Tenderer</b>
<b>Country of Manufacturer</b>	<b>To Be Mentioned By Tenderer</b>
<b>Technical Specification</b>	
Specifications	Minimum 2TB
Product Type	Surveillance HDD
Interface	SATA 6Gb/s
Cache, MB	128
Surveillance Performance	
Surveillance Performance Max Sustained Data Rate, OD Read (MB/s)	180
Warranty	01 (One) Year

<b>1 KVA Offline UPS</b>	
<b>Brand</b>	<b>Internationally/Nationally Reputed Brand</b>
<b>Model</b>	<b>To be Mentioned by bidder</b>
<b>Country of Origin</b>	<b>To be Mentioned by bidder</b>
Capacity	Min.1000VA or Higher
Backup time	Minimum 45 minutes backup upto 8 IPC
Input voltage range	Minimum 140-300VAC.
Frequency	50 Hz + 1%.
Protection	Fuse. Over load, discharge and overcharge protection.
Out put voltage	220V/230V + 10%AC
Transfer time	2-6 ms typically.
Battery type	12 V / 9 Ah
Recharge time	Min 6-8 hours ( To 90% capacity).
DC start up	Yes.
Protection	Built-in Automatic voltage Regulator with lightning surge protection, Spike burnouts, over voltage & under Voltage cut- off, Battery low & over charge protection & Surge protection.
Warranty	1 Year.

UTP Cat-6 PVC 23 AWG Cable		
Descriptions	Minimum Required Specification	
Brand	To Be Mentioned By Tenderer	
Model	To Be Mentioned By Tenderer	
Country of Origin	To Be Mentioned By Tenderer	
Country of Manufacturer	To Be Mentioned By Tenderer	
Technical Specification		
Category	Cat.6	
Reference standard	ISO/IEC11801, ANSI/TIA-568-C.2, RoHS 2.0	
Fire resistance	No	
Conductor	Material	Solid-Bare Copper (99.95%)
	Diameter	0.55 ± 0.005 mm, 23 AWG
Insulation	Material	HDPE
	Diameter	0.98 ± 0.05 mm
Sheath	Thickness	0.50 ± 0.10 mm
	Diameter	6.00 ± 0.30 mm
	Material	PVC
	Color	Orange
Rip-cord	Yes	
Separator	Yes	

Power cable	
Descriptions	Minimum Required Specification
Brand	To Be Mentioned By Tenderer
Model	To Be Mentioned By Tenderer
Country of Origin	To Be Mentioned By Tenderer
Country of Manufacturer	To Be Mentioned By Tenderer
Technical Specification	BYM 1C (2 x 2.5 RM)-BYM PVC Insulated Multi core 300/500V Cable

RJ-45 Connector, Cat-6	
Descriptions	Minimum Required Specification
Brand	To Be Mentioned By Tenderer
Model	To Be Mentioned By Tenderer
Country of Origin	To Be Mentioned By Tenderer
Country of Manufacturer	To Be Mentioned By Tenderer
Technical Specification	
Product	RJ-45 Connector, Cat-6
Plug Type	RJ-45, Cat-6
Ethernet Speed	Gigabit
Molding Type	snag-less
Maximum data signal	Yes

*JKU*

*Z*

*Q*

*mn*

<b>PVC Pipe/Channel</b>	
Descriptions	Minimum Required Specification
Brand	Mention By the tenderer
Model	To Be Mentioned By Tenderer
Country of Origin	To Be Mentioned By Tenderer
Country of Manufacturer	To Be Mentioned By Tenderer
Technical Specification	PVC Pipe/Channel 0.75/1 inch dia minimum wall thickness 1.5 mm.

<b>Installation Configuration, Cable Laying and Service</b>	
Technical Specification	
UTP and Power Cable Laying-Surface	UTP Cable and power Laying in building Surface area with Conoealed with PVC Pipe/Channel
Installation & Configuration of all CCTV Solution	VMS Configuration & Camera Installation
Warranty	1 (One) Year Service warranty

<b>Housing Unit</b>	
Brand	To be Mentioned by bidder
Model	To be mentioned
Type	Outdoor
Materials	Almunium or SS
Description	To be supplied and set as per camera
Others	Sample Housing unite to be approved by the authority before installation