

# Technical Specifications

Note:

- i. All the quoted equipment should be recognized/reowned brands.
- ii. Supplier must have to supply & install all equipment's at BOM-MIE required Site.

## Specifications of Security Camera System (CCTV) Equipment.

Equipment		
No	Name of Item	Specification
1.	<b>HikVision 4MP BULLET Camera With 30M IR or Equivalent (15)</b>	<b>4MP IR BULLET Camera</b> 1/3" progressive scan CMOS 3D DNR (Digital Noise Reduction), 2560 × 1440@20fps Up to 30 m IR range, 2.8 mm/4 mm/6 mm fixed lens PoE (Power over Ethernet) H.265+, H.265, H.264+, H.264 IP67, Dual stream Digital WDR (Wide Dynamic Range). <b>01-Year Warranty</b>
2.	<b>UBNT Lite Beam AC Gen2 or Equivalent (09)</b>	<b>LBE-5AC-Gen2</b> <b>Dimensions:</b> 358 x 271.95 x 272.5 mm (14.09 x 10.71 x 10.73"), <b>Weight:</b> Without Mount 800 g (1.76 lb), With Mount 980 g (2.16 lb), <b>Power Supply:</b> 24V, 0.3A Gigabit PoE Adapter (Included), <b>Max. Power Consumption:</b> 7W, <b>Supported Voltage Range:</b> 24V ± 10%, <b>Operating Frequency:</b> Worldwide USA: U-NII-1 USA: U-NII-2A USA: U-NII-2C USA: U-NII-3, 2412 - 2462 MHz, 5150 - 5875 MHz, 5150 - 5250 MHz 5250 - 5350 MHz 5470 - 5725 MHz 5725 - 5850 MHz, <b>Gain:</b> 23 dBi, <b>Networking Interface:</b> (1) 10/100/1000 Ethernet Port, <b>Processor Specs:</b> MIPS 74Kc, <b>Memory:</b> 64 MB DDR2 <b>LEDs:</b> Power, Ethernet, <b>Channel Sizes:</b> PtP Mode PtMP Mode, 10/20/30/40/50/60/80 MHz 10/20/30/40 MHz, <b>Mounting:</b> Pole-Mounting Kit (Included), Wind Loading 275 N @ 200 km/h (61.8 lbf @ 125 mph), Certifications CE, FCC, IC. Wind Survivability 200 km/h (125 mph), ESD/EMP Protection ± 24 kV Contact / Air, Operating Temperature -40 to 70° C (-40 to 158° F), Operating Humidity 5 to 95% Noncondensing. <b>01-Year Warranty</b>
3.	<b>UBNT Power Beam AC Gen2 or Equivalent (03)</b>	<b>PBE-5AC-Gen2</b> <b>Dimensions:</b> 420 x 420 x 230 mm (16.54 x 16.54 x 9.06"), <b>Weight:</b> 2.22 kg (4.89 lbs), <b>Power Supply:</b> 24V, 0.5A Gigabit PoE Adapter (Included), <b>Max. Power Consumption</b> 8.5W, <b>Power Method</b> Passive PoE (Pairs 4, 5+; 7, 8 Return) <b>Supported Voltage Range</b> 20 to 26VDC, <b>Gain</b> 25 dBi, <b>Networking Interface</b> (1) 10/100/1000 Ethernet Port <b>Processor Specs</b> MIPS 74Kc, <b>Memory</b> 64 MB <b>LEDs</b> Power, Ethernet, (4) Signal Strength, <b>Channel Sizes:</b> PtP Mode PtMP Mode 10/20/30/40/50/60/80 MHz 10/20/30/40 MHz, <b>Enclosure Characteristics:</b> Antenna Feed Dish Reflector Outdoor UV Stabilized Plastic Powder-Coated SPCC, <b>Mounting</b> Pole-Mounting Kit (Included), <b>Wind Loading</b> 380 N @ 200 km/h (85.4 lbf @ 125 mph), <b>Wind Survivability</b> 200 km/h (125 mph). <b>01-Year Warranty</b>

No	Name of Item	Specification
4.	UBNT Lite AP AC 120 or Equivalent (01)	<b>5 GHz airMAX® AC AP Models: LAP-120</b> <b>Dimensions</b> (Mount Not Included) 452.3 x 78.7 x 54.4 mm (17.81 x 3.10 x 2.14"), <b>Weight (No Mount)</b> 420 g (14.82 oz) Mounting Kit Pole, <b>Mounting Kit</b> (Included), <b>Networking Interface</b> (1) 10/100/1000 Ethernet Port, <b>Memory</b> 64 MB, <b>Max. Power Consumption</b> 7W, <b>Max. TX Power</b> 25 dBm, <b>Antenna Gain</b> 16 dBi, <b>Power Supply</b> 24V, 0.5A Gigabit PoE Adapter (Included), <b>Power Method</b> Passive PoE (Pairs 4, 5+; 7, 8 Return), <b>Processor Specs</b> Atheros MIPS 74Kc, 533 MHz, <b>Shock and Vibration</b> ETSI300-019-1.4, <b>ETSI Specification</b> EN 302 326 DN2, <b>ESD/EMP Protection</b> ± 24 kV Contact / Air, <b>RoHS Compliance</b> Yes, <b>Operating Temperature</b> -40 to 70° C (-40 to 158° F), <b>Operating Humidity</b> 5 to 95% Noncondensing, <b>Certifications</b> FCC, IC, CE. <b>01-Year Warranty</b>
5.	D-Link 05 Port PoE Gigabit Switch or Equivalent (05)	<b>DGS-1005P</b> <b>1000Base-T Interface:</b> 1, <b>1000Base-T PoE Interface:</b> 4, <b>Auto MDI/MDIX:</b> Yes, <b>Switching Capacity:</b> 10Gbps, <b>Max. Packet Forwarding Rate:</b> 7.44 Mbps, <b>Dimension:</b> 100x 98 x 28 mm, <b>Weight:</b> 0.26 kgs, <b>Maximum Power Consumption:</b> 65.4W (PoE on) 3.08W (PoE off), <b>Packet Buffer Size:</b> 192KB, <b>Power Input:</b> 53.5V/1.2A, <b>Maximum PoE Budget:</b> 60W. <b>01-Year Warranty</b>
6.	TP-Link 5-Port Gigabit Desktop Switch or Equivalent (02)	<b>Model SG1005D</b> 5 Gigabit Auto-Negotiation RJ45 ports, Supports Auto MDI / MDIX, Green Ethernet technology saves power consumption, IEEE 802.3x flow control provides reliable data transfer, Plastic case, desktop or wall-mounting design, Plug and play, no configuration required. <b>01-Year Warranty</b>
7.	Crown Micro Durant Solar 1200VA-M Inverter UPS or Equivalent (10)	<b>1200VA UPS With 100Amp Dry battery</b> <b>CAPACITY:</b> 1200VA/900W, <b>Input Voltage:</b> 230 VAC, <b>Frequency Range:</b> 50 Hz/60 Hz (Auto sensing), <b>Output Voltage Regulation (Batt. Mode):</b> 230 VAC ± 10%, <b>Frequency Range (Batt.Mode):</b> 60 Hz or 50Hz ±1 Hz, <b>Transfer Time:</b> 20 ms (Typical), <b>Waveform (Batt. Mode):</b> Simulated sine wave. <b>01-year Warranty</b>

### Passive Networking/Stands and Installation

No	Name of Item	Specification
1.	Waterproof Cabinet 2*2*1 or Equivalent (10)	<b>Waterproof Cabinet for UPS and Battery</b> Base on electric pole/Building Wall, <b>Breaker:</b> 6A Double Pole x01, <b>Power Connector Strip:</b> 60A x05, <b>Fan:</b> 220 Volt Fan with thermostat x01, <b>Dust Filter:</b> Yes, <b>Lock:</b> Imported built-in lock x02, <b>Shade:</b> Yes. <b>(for each cabinet)</b>
2.	UBNT Tough Cable Cat6 (SFP Outdoor Cable) or Equivalent (02 Roll)	<b>TOUGH Cable PRO 1000' Outdoor Shielded Ethernet CAT6 Cable</b> <b>Cable Length:</b> 1000' / 304.8m, <b>Ethernet Support:</b> Up to 1 Gbps, <b>Conductor Wire Gauge:</b> 24AWG
3.	Waterproof Box (Outdoor 4*4) or Equivalent (15)	Outdoor Waterproof Box for Cable Jointing.
4.	Power Cable 2 Core or Equivalent (as per actual)	Silver Power Cable 02 Core, 07/.52 Gage, Outdoor Cable.
5.	Electric Breaker 6Amp or Equivalent (11)	6Ampair Double Pole Breaker With Waterproof Cover Box.

No	Name of Item	Specification
6.	Power Cable or Equivalent (01 Roll)	Coper Power Cable Single Core, Size: 03/.29 Cable.
7.	PVC Flexible Pipe or Equivalent (02 Roll)	PVC Flexible Pipe 3/4" Outdoor, Color: Wight.
8.	Iron Pole for LiteBeam or Equivalent (02)	<b>Pole:</b> Iron Pipe 02 Inches dia, <b>Length:</b> 02Feet, <b>Mounted:</b> On Street Light Pole top, <b>Detachable:</b> Yes, <b>Paint:</b> Yes With all fittings and accessories. <b>(01x for Nadirabad and 01x for MB Naseem Oil/Total Site).</b>
9.	Iron Pole for Lite AP and LiteBeam or Equivalent (01)	<b>Pole:</b> Iron Pipe 2.5 Inches dia, <b>Length:</b> 20Feet, <b>Mounted:</b> Water Tank Roof, <b>Detachable:</b> Yes, <b>Multi Stage:</b> Yes, <b>Paint:</b> Yes, <b>Guy-wire:</b> Yes With all fittings and accessories. <b>(Near UBL Chowk on Water Tank Roof).</b>
10.	Iron Pole for LiteBeam or Equivalent (02)	<b>Pole:</b> Iron Pipe 2 Inches dia, <b>Length:</b> 15Feet, <b>Mounted:</b> Wall Mounted/Roof fitting, <b>Detachable:</b> Yes, <b>Paint:</b> Yes, <b>Multi Stage:</b> No, <b>Guy-wire:</b> Yes, With all fittings and accessories. <b>(01x Qadir agro / Royal Star Site, and 01x Glass Factory / 3Star Site).</b>
11.	Iron Pole for LiteBeam or Equivalent (03)	<b>Pole:</b> Iron Pipe 2 Inches dia, <b>Length:</b> 20Feet, <b>Mounted:</b> Wall Mounted/Roof fitting, <b>Detachable:</b> Yes, <b>Multi Stage:</b> No, <b>Paint:</b> Yes, <b>Guy-wire:</b> Yes With all fittings and accessories. <b>(01x Haji Block Site, 01x Akhtar inds/Poly Pet Site and 01x Petron Site).</b>
12.	Iron Stand for Wireless Equipment or Equivalent (03)	<b>Wireless Equipment Stand base on Electrical Cement Pole, Length:</b> 02Feet, <b>Mounted:</b> Base on Electrical Cement Pole, <b>Detachable:</b> Yes, <b>Multi Stage:</b> No, <b>Paint:</b> Yes, <b>Guy-wire:</b> No, With all fittings and accessories. <b>(01x SOS School Site, 01x MG Site and 01x Rescue 1122 Site).</b>
13.	Camera Stand Iron Angle Made or Equivalent (02)	<b>Stand for Camera iron angel made with Supporting Arms, Length:</b> 12Feet, <b>Mounted:</b> Base on Street Light Pole, <b>Detachable:</b> Yes, <b>Multi Stage:</b> No, <b>Paint:</b> Yes, With all fittings and accessories. <b>(At Nadirabad Site).</b>
14.	Camera Stand Iron Angel Made or Equivalent (08)	<b>Camera Stand Made with Iron Angel, Length:</b> 03Feet, <b>Mounted:</b> Base on Street Light/Electrical Pole/Wall, <b>Detachable:</b> Yes, <b>Multi Stage:</b> No, <b>Paint:</b> Yes, With all fittings (Ring Fitting) and accessories. <b>(02x MB Naseem oil/ Total Site, 01x SOS School, 01X Qaider agro/Royal Star Site, 02x Glass Factory / 03 strar Site, 01x Shaeen Woord MG Site, 01x Rescue 1122).</b>
15.	Camera Stand Iron Pipe Made or Equivalent (02)	<b>Camera Stand Made with Iron Pipe with 'L' Shape Bend, Length:</b> 10Feet, <b>Mounted:</b> Base on Wall, <b>Detachable:</b> Yes, <b>Multi Stage:</b> No, <b>Paint:</b> Yes, With all fittings (Clump Fitting) and accessories. <b>(01x /Petron/Farmeco Site (for 02x Cameras), 01x Akhtar inds/Poly Pet Site).</b>
16.	Installation and Commissioning (01 Job)	<b>Installation and Commissioning of Complete Project Including Wireless Links, Camera, New Cabinets on poles Relocation/ Installation of pre-installed UBL Chowk and China Chowk Data Cabinet and etc. (All work which is required to install said project but not mentioned).</b>

No	Name of Item	Specification
17.	<b>Adjustable Over Voltage, Current and Under Voltage Dual Display Protective Device (17)</b>	<b>Functions:</b> Over-voltage protection, Under-voltage protection, Over-current protection, Automatic recovery, Voltage display (voltage measurement), current display (current measurement), Voltage calibration A13, <b>Parameters: Power supply:</b> 230VAC 50/60Hz, Max. <b>Loading power:</b> 1~63A Adjustable(default:63A), <b>Over-voltage protection value range:</b> 230V~300V (default:270V), <b>Over-voltage recovery voltage range:</b> 225V~295V(default:250V), <b>Over-voltage protection action time:</b> 0.1s~30s(default value:0.5s), <b>Over-voltage recovery delay time:</b> 1s~500s(default:30s), <b>Under-voltage protection value range:</b> 140V~210V (default:170V), <b>Under-voltage recovery voltage range:</b> 145V~215V (default:190V), <b>Under-voltage protection action time:</b> 0.1s~30s(default:0.5s), <b>Under-voltage recovery delay time:</b> 1s~500s(default:30s), <b>Over-current adjustment range:</b> 1-40A (default:20A) 1-63A (default:40A), <b>Over-current action range:</b> 0.1~30 second (default:0.5s), <b>Over-current recovery delay time:</b> 1s~500s(default:30s), <b>Power-on delay time:</b> 1s~500s(default:10s), <b>Power consumption :</b> <2W, <b>Electric machinery life :</b> 100,000 times, <b>Installation:</b> 35mm DIN rail. <b>01x for each cabinet. 01-year Warranty</b>

### Civil Work/Hardware Accessories

No	Name of Item	Specification
1.	<b>Road Cutting and Digging (02)</b>	<b>Road Cut:</b> 60 Feet (30 feet for each site), <b>Digging:</b> 10 Feet in length Digging 01 feet depth / as per actual, <b>Pipe:</b> HDPE Pipe (Size 01x1Inch) for Power Cable Road crossing, at China Chowk and Total Oil Site/Al-Qaim.
2.	<b>Foundation Civil Work (01)</b>	<b>Foundation for 10 Meter Street light Pole, Made:</b> Iron reinforcement with Concrete Filling, <b>Pole Fixing:</b> Nut Bolts. (For Total Site).
3.	<b>Hardware Accessories for Entire Job (01)</b>	<b>All Hardware and Accessories which are required but not mention in Above List.</b>

### Maintenance Agreement

No	Name of Item	Specification
1.	<b>Maintenance Contract (12 Months)</b>	<b>Maintenance Contract of CCTV Equipment for 12 months (12 Months Maintenance Free of Cost) as per terms mentioned in this document, from the date of completion.</b>

### Adjustable Over Voltage, Current and Under Voltage Dual Display Protective Device



## Site Wise Items Detail:

S/#	Location	Connectivity	Pole	Road Cut	Cam Stand	Cabinet Location	Cam	Switch
1	Nadir Abad Pahial	LB, On Pole	2F Pipe 2" on top ST Pole for LB	Road Cut 30 F 10 F Digging / as per actual Water Pipe for Power Cable crossing	12 F 2 Arms for Camera with iron angel Support for 12 F	On ST Pole	2	Switch 5 Port POE
2	MB Naseem Oil/ Total Site	LB	Shift dismantled st pole from water tank Location to actual location, foundation civil work for ST Pole	Road Cut 30 F 10 F Digging/ As per actual Water Pipe for Cable crossing	02x Camera Stand Deattachable on Pole length 3f Each	On Pole ST Pole	2	Switch 5 Port POE
3	UBL Chowk	PB, LA	20 Feet 2.5" dia Pole on top of water tank with multi stage		---	Shifting of Old Cabinet from pole to water tank foundation, Cabine Lock		Switch 5 Port Giga
4	SOS/Romi	LB	LB on 15 feet pole with wall fitting		Camera on electric pole build in age1, 3F , ring for electric pole	cabinet in building wall	1	Switch 5 Port Giga
5	Qadir Agro/Royal Star	LB	LB on 15 feet pole with floor stand and guy wires with fitting		Camera Stand on 10 F "L" Bend Pipe 1 \Inch with wall fitting	cabinet in building wall	1	
6	Sheesha Factory	PB for Office PB for Water Tank	Option 1 New Pole 10 M with foundation work		Camera Stand Deattachable on top of Pol total length 3f	On Pole		
			Option 2 From Water Tank Deismantleled Damaged Pole install after repairing with civil work		Camera Stand Deattachable on top of Pol total length 3f	On Pole	2	Switch 5 Port POE
7	Petroon Chemicals	LB	Option 3 3 Star Hosiery Building 15 F with Wall Fitting		Camera Stand on wall fitting Pol total length 3f	cabinet in building		
			LB on Petron tower		Camera Stand on 10 F "L" Bend Pipe 1 \Inch with wall fitting	cabinet in building	2	Switch 5 Port POE
8	Shaaen Woods	LB	LB Stand on Electric Pole		Camera on electric pole build in age1, 3F , ring for electric pole	cabinet in building	1	
9	Rescue 1122	LB	LB Stand on Electric Pole		Camera on electric pole build in age1, 3F , ring for electric pole	Cabinet on Electric Pole	1	
10	Haji Block	LB	LB on 20 feet pole with wall fitting		1' x 1' angl stand Qty 2	cabinet in building	2	Switch 5 Port POE
12	akhar industries/ Poly Pet	LB	LB on 20 feet pole with wall fitting/ floor fitting		Camera Stand on 10 F Bend Pipe 1 \Inch with wall fitting	cabinet in building	1	

LB = UBNT LiteBeam AC Gen2  
LAP = UBNT Lite AP AC M5  
PB= UBNT Power Beam AC M5  
ST= Street Light Pole  
F= Feet

