

<u>SER</u>	<u>DESCRIPTION</u>	<u>UOM</u>	<u>QTY</u>
1	<p>2 Megapixel Full HD IR IP PTZ Dome Camera OR Box camera with housing with heater and blower assembly and PT assembly.</p> <p><b><u>PTZ Dome Camera Specifications</u></b></p> <p><b>(a) Housing</b></p> <ul style="list-style-type: none"> <li>(i) Dome</li> <li>(ii) Box Camera with heater and blower assembly</li> </ul> <p><b>(b) Camera</b></p> <ul style="list-style-type: none"> <li>(i) Image Sensor 1/3" or better progressive scan CMOS</li> <li>(ii) Optical zoom Powerful 20X</li> <li>(iii) Digital Zoom 12X</li> <li>(iv) Lens Auto Focus</li> <li>(v) Iris control Auto</li> <li>(vi) White Balance (AWB) Auto</li> <li>(vii) Resolution 2 Mega Pixel /Full HD 1080p</li> <li>(viii) Back Light Compensation (BLC) On/Off</li> <li>(ix) AGC Auto</li> </ul> <p><b>(c) IP Specifications</b></p> <ul style="list-style-type: none"> <li>(i) Video compression H.264 M-JPEG</li> <li>(ii) Frame Rate 30/25 fps(frames per second)</li> <li>(iii) Video Resolution 1080p</li> <li>(iv) Video streaming Dual Streaming</li> <li>(v) Supported protocols Compatible with all generic protocols</li> <li>(vi) Network security IEEE 802.1x</li> <li>(vii) Storage Micro SD</li> </ul> <p><b>(d) Operational</b></p> <ul style="list-style-type: none"> <li>(i) Pan Travel 360° Endless</li> <li>(ii) Pan Speed</li> <li>(iii) Day/Night (Infrared Cut filter) Auto/on/off</li> <li>(iv) IR Illuminator &gt;100m</li> <li>(v) Wide Dynamic Range (WDR) On/Off</li> <li>(vi) Audio Alarm Dev</li> <li>(vii) Noise Reduction Digital Noise Reduction (DNR) 2D/3D</li> <li>(viii) Presets Upto 255</li> <li>(ix) Preset Tours 8</li> <li>(x) Auto Scan &gt; 4</li> <li>(xi) Central Monitoring Station Software</li> </ul> <p><b>(e) Environmental</b></p> <ul style="list-style-type: none"> <li>(i) Ingress Protection (IP) IP 66</li> </ul>	Nos	18
2	Outdoor Power Supply Unit Housing with Heater & Blower for PTZ Cameras	Nos	18

<u>SER</u>	<u>DESCRIPTION</u>	<u>UOM</u>	<u>QTY</u>
3	1/3" 2Megapixel progressive scan CMOS Network Camera .	Nos	72
<b><u>Network Fixed Lens Camera Specifications</u></b>			
<b>(a) Housing</b>			
(i) Outdoor fixed lens Camera			
<b>(b) Camera Specifications</b>			
(i) Image Sensor 1/3" or better progressive scan CMOS			
(ii) White Balance (AWB) Auto			
(iii) Resolution 2 Mega Pixel /Full HD 1080p			
(iv) Back Light Compensation (BLC) On/Off			
(v) AGC			
<b>(c) IP Specifications</b>			
(i) Video compression H.264 M-JPEG			
(ii) Frame Rate 30/25 fps(frames per second)			
(iii) Video Resolution 1080p			
(iv) Video streaming Dual Streaming			
(v) Supported protocols Compatible with all generic protocols			
(vi) Network security IEEE 802.1x			
(vii) Storage Micro SD			
<b>(d) Operational</b>			
(i) Day/Night (Infrared Cut filter) Auto/on/off			
(ii) IR Illuminator >100m			
(iii) Wide Dynamic Range (WDR) On/Off			
(iv) Audio Alarm Dev			
(v) Noise Reduction Digital Noise Reduction (DNR) 2D			
(vi) Central Monitoring Station Software			
<b>(e)Environmental</b>			
(i) Ingress Protection (IP) IP 66			
<b>(f) Electrical</b>			
(i) Power Source PoE + IEEE802.3at-2009			
4	C/CS Mount Vari-Focal 5.0 - 50mmMegapixel Lens	Nos	72
5	Outdoor Power Supply Unit 24V/3 Amps Housing with Heater & Blower	Nos	72
6	220 Metre High Range IR Illuminator with Mounting bracket & arrangement	Nos	72

SER	DESCRIPTION	UOM	QTY																																										
7	<p><b>Network Video Recorder</b></p> <p><b><u>Network Video Recorder Specifications</u></b></p> <p><b><u>(a) General</u></b></p> <table border="0"> <tr> <td>(i)</td> <td>Video Channels</td> <td>128</td> </tr> <tr> <td>(ii)</td> <td>Front Display</td> <td>LCD</td> </tr> <tr> <td>(iii)</td> <td>Ingress Protection</td> <td>IP 43</td> </tr> <tr> <td>(iv)</td> <td>ONVIF(Open Network</td> <td>Version 2.0</td> </tr> <tr> <td>(v)</td> <td>RAID</td> <td>1/5</td> </tr> </table> <p><b><u>(b) System</u></b></p> <table border="0"> <tr> <td>(i)</td> <td>Main Processor</td> <td>Intel Core i5 Processor or higher version</td> </tr> <tr> <td>(ii)</td> <td>Operating System</td> <td>Windows embedded</td> </tr> <tr> <td>(iii)</td> <td>HDD ports</td> <td>16 SATA with support for Hot swap</td> </tr> </table> <p><b><u>(c) Video</u></b></p> <table border="0"> <tr> <td>(i)</td> <td>Input</td> <td>128Ch@D1/64Ch@720p/32Ch@1080p/ Compatible to the connected camera Compatible</td> </tr> <tr> <td>(ii)</td> <td>Transmission</td> <td>128Ch@D1/64Ch@720p/32Ch@1080p/ Compatible to the connected camera</td> </tr> <tr> <td>(iii)</td> <td>Recording</td> <td>128Ch@D1/64Ch@720p/32Ch@1080p/ Compatible to the connected camera</td> </tr> <tr> <td>(iv)</td> <td>Output</td> <td>6 HDMI+1 VGA (Default : 2 HDMI)</td> </tr> <tr> <td>(v)</td> <td>Video Compression</td> <td>H.264 M-JPEG</td> </tr> </table> <p><b><u>(d) Network</u></b></p> <table border="0"> <tr> <td>(i)</td> <td>Security</td> <td>Password protected/user access log</td> </tr> </table> <p>Note:</p> <p>1.All operating software including data should be stored on respective NVR Server at CMS room. 2 All data of cameras should be recorded / stored on NVR recording servers (three Nos.)</p>	(i)	Video Channels	128	(ii)	Front Display	LCD	(iii)	Ingress Protection	IP 43	(iv)	ONVIF(Open Network	Version 2.0	(v)	RAID	1/5	(i)	Main Processor	Intel Core i5 Processor or higher version	(ii)	Operating System	Windows embedded	(iii)	HDD ports	16 SATA with support for Hot swap	(i)	Input	128Ch@D1/64Ch@720p/32Ch@1080p/ Compatible to the connected camera Compatible	(ii)	Transmission	128Ch@D1/64Ch@720p/32Ch@1080p/ Compatible to the connected camera	(iii)	Recording	128Ch@D1/64Ch@720p/32Ch@1080p/ Compatible to the connected camera	(iv)	Output	6 HDMI+1 VGA (Default : 2 HDMI)	(v)	Video Compression	H.264 M-JPEG	(i)	Security	Password protected/user access log	Nos	3
(i)	Video Channels	128																																											
(ii)	Front Display	LCD																																											
(iii)	Ingress Protection	IP 43																																											
(iv)	ONVIF(Open Network	Version 2.0																																											
(v)	RAID	1/5																																											
(i)	Main Processor	Intel Core i5 Processor or higher version																																											
(ii)	Operating System	Windows embedded																																											
(iii)	HDD ports	16 SATA with support for Hot swap																																											
(i)	Input	128Ch@D1/64Ch@720p/32Ch@1080p/ Compatible to the connected camera Compatible																																											
(ii)	Transmission	128Ch@D1/64Ch@720p/32Ch@1080p/ Compatible to the connected camera																																											
(iii)	Recording	128Ch@D1/64Ch@720p/32Ch@1080p/ Compatible to the connected camera																																											
(iv)	Output	6 HDMI+1 VGA (Default : 2 HDMI)																																											
(v)	Video Compression	H.264 M-JPEG																																											
(i)	Security	Password protected/user access log																																											
8	SATA Hard disk. Capacity - 4TB	Nos	48																																										
9	HD Network Control Keyboard,	Nos	1																																										
10	<p><b><u>Video Management System Software</u></b> – Client PC/ workstation PC/s should be provided to process all operations as per Central Management Software and network joystick. All cameras (except fixed camera) should be controlled (PTZ) with single network joystick. Video Data from all cameras located at proposed locations will be received through network switches &amp; recorded in recording servers, viewed through CMS &amp; VMS server on monitors. Cameras, Housing, Video Management Software and Enterprise Level Software shall be either of the same make for ease of seamless integration</p> <p><b><u>(a) General</u></b></p> <table border="0"> <tr> <td>(i)</td> <td>Supports upto 64 ch recording &amp; viewing on a single display</td> </tr> <tr> <td>(ii)</td> <td>Supports Multi monitors</td> </tr> <tr> <td>(iii)</td> <td>Support group or sequence display</td> </tr> <tr> <td>(iv)</td> <td>Supports redundancy for recording (fail over)</td> </tr> <tr> <td>(v)</td> <td>Support Video wall function</td> </tr> <tr> <td>(vi)</td> <td>Instant playback last 10 sec ~8 min</td> </tr> <tr> <td>(vii)</td> <td>Ease of search</td> </tr> <tr> <td>(viii)</td> <td>One click emergency recording Camera wise disk calculation based on frame rate and 2 way audio communication, audio chat</td> </tr> </table>	(i)	Supports upto 64 ch recording & viewing on a single display	(ii)	Supports Multi monitors	(iii)	Support group or sequence display	(iv)	Supports redundancy for recording (fail over)	(v)	Support Video wall function	(vi)	Instant playback last 10 sec ~8 min	(vii)	Ease of search	(viii)	One click emergency recording Camera wise disk calculation based on frame rate and 2 way audio communication, audio chat	Nos																											
(i)	Supports upto 64 ch recording & viewing on a single display																																												
(ii)	Supports Multi monitors																																												
(iii)	Support group or sequence display																																												
(iv)	Supports redundancy for recording (fail over)																																												
(v)	Support Video wall function																																												
(vi)	Instant playback last 10 sec ~8 min																																												
(vii)	Ease of search																																												
(viii)	One click emergency recording Camera wise disk calculation based on frame rate and 2 way audio communication, audio chat																																												