

No. V-17017/13(j)/06-Prov.I
Government of India
Ministry of Home Affairs

Jaisalmer House, Man Singh Road,
New Delhi. 17.11.2006

To
The DGs: Assam Rifles/BSE/CISE/CRPF/TBPN/NSG/SSB/BPR&D

Subject:- Finalization of QRs/specifications for Electronic Security Gadgets.

The QRs of certain security related Equipments which belong to the following four categories have been finalized and accepted by the MHA:-

- (i) VIDEO SURVEILLANCE SYSTEM- List of items at Annexure 'A'
 - (ii) ACCESS CONTROL SYSTEM -- List of items at Annexure 'B'
 - (iii) PERIMETER PROTECTION SYSTEM- List of items at Annexure 'C'
 - (iv) INTRUSION DETECTION SYSTEM9 -List of items at Annexure 'D'
2. The QRs of all the individual's items mentioned at (Annexure A,B,C & D) are sent herewith.
 3. Henceforth, all the CPMFs should procure the above items required by them strictly as per the laid down QRs/Specifications.

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(Alok Mukhopadhyay)
Under Secretary(Prov-I)

Copy to:-

DD(Procurement),MHA

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- 1.PS to JS(PM),MHA
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VIDEO SURVEILLANCE SYSTEM

ANNEXURE - 'A' Page 1 To 21

TECHNICAL SPECIFICATIONS OF OUTDOOR SPEED DOME COLOUR CAMERA

1. Pick-up device -- 1/4 or 1/3 format, interline transfer CCD image sensor
2. Horizontal resolution -- 520 TV Lines or better.
3. Sensitivity -- 1 Lx day mode or better
(Usable video) -- 0.05 Lx Night mode
4. Signal to noise ratio -- ≥ 50 dB
5. White balance -- Auto/Manual
6. Gain control -- Auto/Manual
8. Zoom -- 25 X optical with 8 X digital or more
9. Pan/Tilt -- 360° continuous pan, 0 to 90° tilt
10. Preposition Speed -- 360°/sec,
11. variable speed -- 120°/sec minimum
11. Features --
 - Sector/ titles
 - Pre-set positions – 99 or more
 - Alarm inputs / outputs
 - Auto tours – Recorded or preset
 - Pre-programmed tours
 - Password control
 - Privacy masking
12. Operating Temperature-- -10 °C to + 50 °C

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TECHNICAL SPECIFICATIONS OF DIGITAL VIDEO RECORDER (STAND ALONE)

Video Inputs	:	8 CH minimum (As specified up to 16 channels)
Video outputs	:	2 Monitors, one composite & one VGA
Video Format	:	NTSC/PAL
Display speed	:	480 fps or more
Display Mode	:	Full, Quad, combination multi-screen
Resolution	:	720x240 or better
Recording	:	240 fps or better (Real time, linear & ring recording up to 8 CH & should be able to specify record rate for each camera separately)
Playback speed	:	50 fps or better
Back up	:	HDD, DVD,
Pan/Tilt/Zoom	:	RS 232/485/422
Alarm	:	Sensor in - 8, out- 2
Audio	:	1 in/out
Network	:	RJ-45 (10/100 Ethernet)
Controller	:	IR-Remote Controller
Protocol	:	TCP/IP etc
Power source	:	12- 24 VDC, 220 VAC
HDD Capacity	:	400 GB

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TECHNICAL SPECIFICATIONS OF PAN/TILT UNIT

It should be a light weight indoor Pan/Tilt unit for cameras.

- Power : 220 ± 10% VAC, 12 to 24 VDC
- Pan Speed : 6° per second or more
- Pan Travel : 345° with adjustable limit stops
- Tilt Speed : 4° per second or more
- Tilt Travel : 70° or more
- Maximum Load : For Pan – not less than 6 Kg
For Tilt - Not less than 4 kg
- Duty Cycle : Continuous for Pan & intermittent for Tilt

It should have dust proof seals.

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Asstt. Director (Tech) I.B.

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(Harish Kumar)
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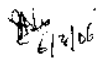
Suraj Mal
(Suraj Mal)
DIG/TECH, CISF

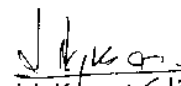
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Auto iris vari-focal lens-

1. Image format -- 1/3-inch format
2. Focal length -- 3.5-8 mm
3. Iris range -- F1.8
4. Min. object distance -- 0.3m (1 ft)
5. Iris control -- DC.
6. Focus control -- Manual


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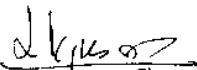
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Varifocal lens

- | | | |
|-------------------------|----|-----------------|
| 1. Image format | -- | 1/3-inch format |
| 2. Focal length | -- | 3.5 - 8 mm |
| 3. Iris range | -- | F1.8 |
| 4. Min. object distance | -- | 0.3m (1 ft) |
| 5. Iris control | -- | DC. |
| 6. Focus control | -- | Manual |
| 7. 4-pin connector | -- | DC-iris |


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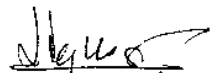

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DIGITAL VIDEO RECORDER CARD

1. No of channels 8 channels (or its specified from 1 to 7 channels)
2. Frames per channel 25 f/s PAL per channel (Total- 200 f/s)
3. It should be able to work on Window XP, Window- 2000 etc.
4. It should have real time display, play back and recording (Triplex) simultaneously.
5. It should be provide local and remote surveillance.
6. It should have PSTN/ISDN modem/LAN connectivity.
7. It should have PTZ camera control.
8. It should have various recording modes.
9. It should have video motion detection feature.
10. The no. of frames per channel should be adjustable.
11. It should be possible to use the PC for other purposes as well and should not be dedicated only for DVR purpose.
12. It should have facility to zoom recorded images.
13. It should have date/time stamp for verification of authenticity of recorded material.


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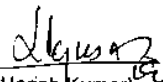

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TECHNICAL SPECIFICATIONS OF DIGITAL KEYBOARD FOR DIGITAL VIDEO RECORDER &

1. Features
 - Control of Multiple DVRs , & P/T/Z Cameras at the same time
 - Soft backlit keys with user friendly menu and easy to read display
 - Joystick for P/T/Z control of camera
 - Shall be interfaced to DVR for control of Camera selection and P/T/Z control.
 - LCD display of complete menu for selection of various functions
2. Connectors
 - Suitable for connectivity to DVR and preferably RJ11
 - Aux power, for extended distances
 - RS-232 port for remote programming
3. DVR and Keyboard should be compatible


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TECHNICAL SPECIFICATIONS OF IP CAMERA

- Sensor : 1/3" or 1/4" CCD sensor
- Sensitivity : 0.5 Lux
- Monitoring : It should provide a real time monitoring via network (LAN/WAN) through built in webserver.
- Image format : MPEG-4 & Motion JPEG, QVGA, VGA
- Frame rate : 25 fps or better (PAL)
- Image Control : Adjustment of brightness, contrast & colour, EIR on/off, electronic Iris
- Resolution : 640X480 or better
- Motion Detection : Should have built in motion detection and post alarm buffers.

The image should be viewed, recorded, played back and managed simultaneously through internet explorer.

it should have multi-level password protection to prevent unauthorized access.

it should support minimum 10 users to browse the camera simultaneously.

it should have scheduled & triggered event functionality with capability on e-mail IDs

it should have inbuilt memory for recording half an hour and should have slot for inserting higher capacity memory stick or card.

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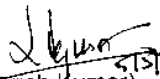
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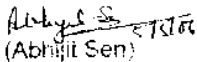
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- Operating Channels : At least 8 non- overlapping channels
- Transmit output power : Up to 100 mW
- Interfaces : RJ-45, 10/100 Base-Tx, Radio wave, Antenna N-male
- Antenna type : External High gain antenna
- Security system : Encryption
- Software support : GUI Interface, SNMP Network management interface, FTP

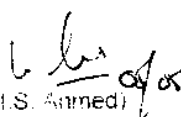
Optional Feature-

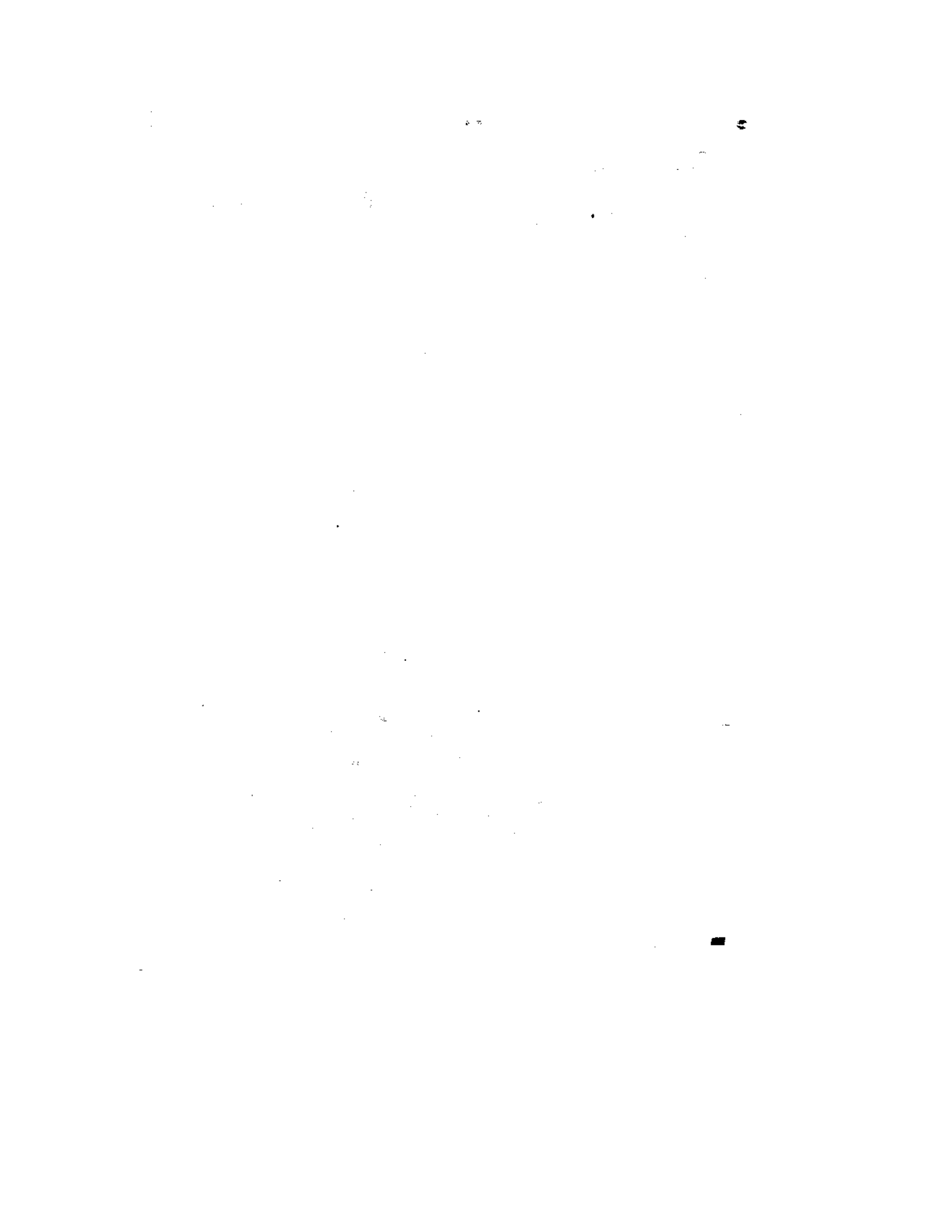
The system should be capable of controlling all the features of a dome camera like Pan/tilt/zoom etc/receiving end with all the accessories. Lat


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Technical Specifications of Button Camera with DVR

CAMERA-

- Image Sensor : 1/3" or 1/4" CCD
- Resolution : 450 TV Lines
- S/N Ratio : 48 db min
- Video System : NTSC/PAL
- Illumination : 0.3 Lux or better
- Video output : 1V p-p Composite at 0.5 Ohm
- Audio output : 2V p-p
- Lens : 4.3 mm approx.
- Angle of view : 70 degree min
- Power : 6-12 VDC

It should be a button type wired CCD Camera for covert use.

The front cover lens should be interchangeable.

Complete power and cable accessories should be offered.

It should be provided with wireless kit.

PORTABLE TRANSMITTER AND RECEIVER KIT

- Frequency Band : 1200 MHz or 2400 MHz
- Channel : At least two channels
- Range : 100 M
- DC Power : 6-12 V

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Technical Specifications of Wireless System for Video Surveillance

The system should consist a transmitter receiver and connecting accessories so that remote camera signals could be connected to a monitor or DVR.

TRANSMITTER-

It should be based on 2.4 GHz or 5.8 GHz audio/video transmission technology

It should be capable to send the camera signals to receiver at a distance of 5 km(or as specified by the tenderer)

It should have at least four independent channels

It should have high performance antenna enabling efficient transmission

It should be providing with brackets supporting transmitter at an angle

RECEIVER-

It should be capable of receiving wireless signals from transmitter at a distance not less than 5 km (or as specified by the tenderer's word requirement)

It should have at least four independent compatible channels

It should have high performance antenna for reception

It should be provided with brackets supporting receiver at an angle

Other features-

It should be compatible to any type of Camera and DVR

The transmission should not be affected by RF or any other wireless transmission.

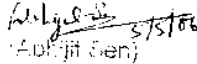
Frequency Band : Two to three bands between 3-5 GHz
In the given frequency range.

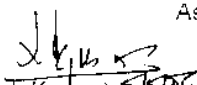
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TECHNICAL SPECIFICATIONS OF LCD MONITOR

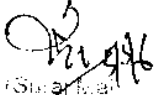
LCD Panel : 40 inch TFT LCD (As specified)
 TV System : PAL
 Resolution : 1280 X 768 or better
 Aspect Ratio : 16:9
 Brightness : 500 Cd/sq m or more
 Contrast ratio : 800:1
 Viewing angle : 170° (H)/170° (V)
 Connector type : 2 Speakers output
 1 VGA input
 1 Composite video input (BNC)
 Component Video input
 RF input
 S-Video, Coaxial RF, USB

 Other features :
 Picture & Picture (PDP)
 RS-232C
 PAL
 Auto power on/off
 On screen menu
 Remote control
 Stand should be included
 CE, FCC Certified.


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TECHNICAL SPECIFICATIONS OF VIDEO CAMERA JAMMER

Frequency Band : 900 MHz to 2.5 GHz
Effective range : 30- 50 meter
Input Power : 6-12 VDC
Signal source : Synthesized
Operating temp : -10 to 55 deg C
Humidity : 80%
Size : 20 cm x 19 cm x 55 cm Max height

This should be capable to jam any wireless camera with Bluetooth.

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
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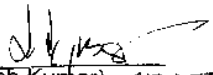
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PIN HOLE CAMERA

Pick up device 1/3 " CCD image sensor
Resolution 380 TV Lines
Sensitivity 1 Lux


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FIX INDOOR COLOUR CAMERA

1. Pick-up device -- 1/3-inch format, interline transfer, CCD image sensor
2. Active picture elements -- standard(752H x 582V)
3. Horizontal resolution -- 520 TV Lines or better
4. Scene illumination
Color mode -- 1 lx at Usable picture
5. Signal to noise ratio -- $\geq 48\text{dB}$ minimum
6. Aperture correction -- Horizontal & Vertical symmetrical
7. Backlight compensation -- Center Zone photometry System
8. White Balance -- Auto tracking
9. Electro Iris range -- 1 to 50,000 lx (With F 1.2)
10. Video outputs -- Composite video - 1.0 V p-p, 75 ohm
11. Synchronization -- Line lock - for roll-free vertical viewing
12. Controls -- BLC: On/Off, AGC: On/Off,
13. Operating Temperature -- $-10\text{ }^{\circ}\text{C}$ to $50\text{ }^{\circ}\text{C}$
14. EMC -- All relevant immunity and safety standards

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FIX COLOUR DAY/NIGHT CAMERA

- 1. Pick-up device -- 1/3-inch format, interline transfer, CCD image sensor
- 2. Horizontal resolution -- 520 TV Lines or better
- 3. Scene illumination
 - Color mode -- 0.6 lx at Usable picture
 - Monochrome -- 0.03 lx or better
- 4. Signal to noise ratio -- ≥ 48 dB minimum
- 5. Electronic Shutter -- Automatic On/off selectable.
- 6. Aperture correction -- Horizontal & Vertical symmetrical
- 7. Backlight compensation -- Required auto with manual override
- 8. Video outputs -- Composite video - 1.0 V p-p, 75 ohm
- 9. Synchronization -- Internal/External Synchronization
- 10. Controls -- BLC: On/Off, AGC: On/Off, Auto Black: On/Off
- 11. Operating Temperature-- -10 °C to +50 °C at 90% humidity
- 12. EMC -- Relevant intentionally recognized standards of Immunity and safety
- 13. It should automatically switch to night mode in low light conditions.

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TECHNICAL SPECIFICATIONS OF ZOOM COLOUR CAMERA

- Image Pick-up Device : 1/2" interline CCD
- Effective Pixels : 752(H) x 582(V) minimum
- Resolution : 520 Lines for Colour or better
- S/N Ratio : 50 dB or more
- Illumination : 0.5 Lux for normal mode @ F 1.6 or better
0.05 Lux for night mode @ F 1.6 or better
- Gain Control : Low, middle, high, off selectable
- White Balance : Auto & selectable
- Electronic Shutter speed : Auto/Manual selectable (1/50 - 1/1,00,000 sec)
- OSD : Built in
- Motion Detection : on/off selectable
- Zoom : 30X optical, 8X digital
- Preset : 8 or more positions
- Flip : Left, right, up & down
- Irish control : Auto/Manual selectable
- Control Out put : RS-485
- Operating Tem. : -5°C to 50°C
- Weight : not more than 800 gm

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- Zoom : Up to 4X
 - Compression protocol : MPEG 4
 - Archiving : DVD-R/RW
 - Date/Time Stamp : Should be available
 - Video authentication : Should have watermarking feature for detect of tampering.
 - Search : By time, date, event/motion, camera
 - Programmable modes : 4 or more- definite drift behavior like record rate, alarm handling, motion detection, should be set as per day/time
 - Motion Detection : yes, selectable area of scene, specification of direction of motion, speed sensitivity.
 - Camera Titring : 16 Character- user programmable.
 - Video loss : Alarm
 - It should have simultaneous display, recording, playback.
 - Recording : Recording should be event based/motion bas operator triggered /scheduled
- It should be provided with remote viewer software.
- It should have USB ports.

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- 13. Humidity -- 0 to 80 % relative, non-condensing.
- 14. EMC -- CE, Immunity, Safety, CE
- 16. Mount -- Either Pole or Wall mount as required

OUT DOOR HOUSING FOR SPEED DOME CAMERA

- 1. Construction Aluminum cover, neoprene gaskets, UV-resistant polymer end caps, and all stainless steel hardware. The mount shall have mounting head adjustable 360° pan, 180° tilt.
- 2. Environmental - Shall meet IP 65 or better protection. It should have sun shield with thermostatically controlled heater blower kit.

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