



Matrix SATATYA IP Cameras



Agenda

- Key Benefits
- Camera Details
- Technical Specifications



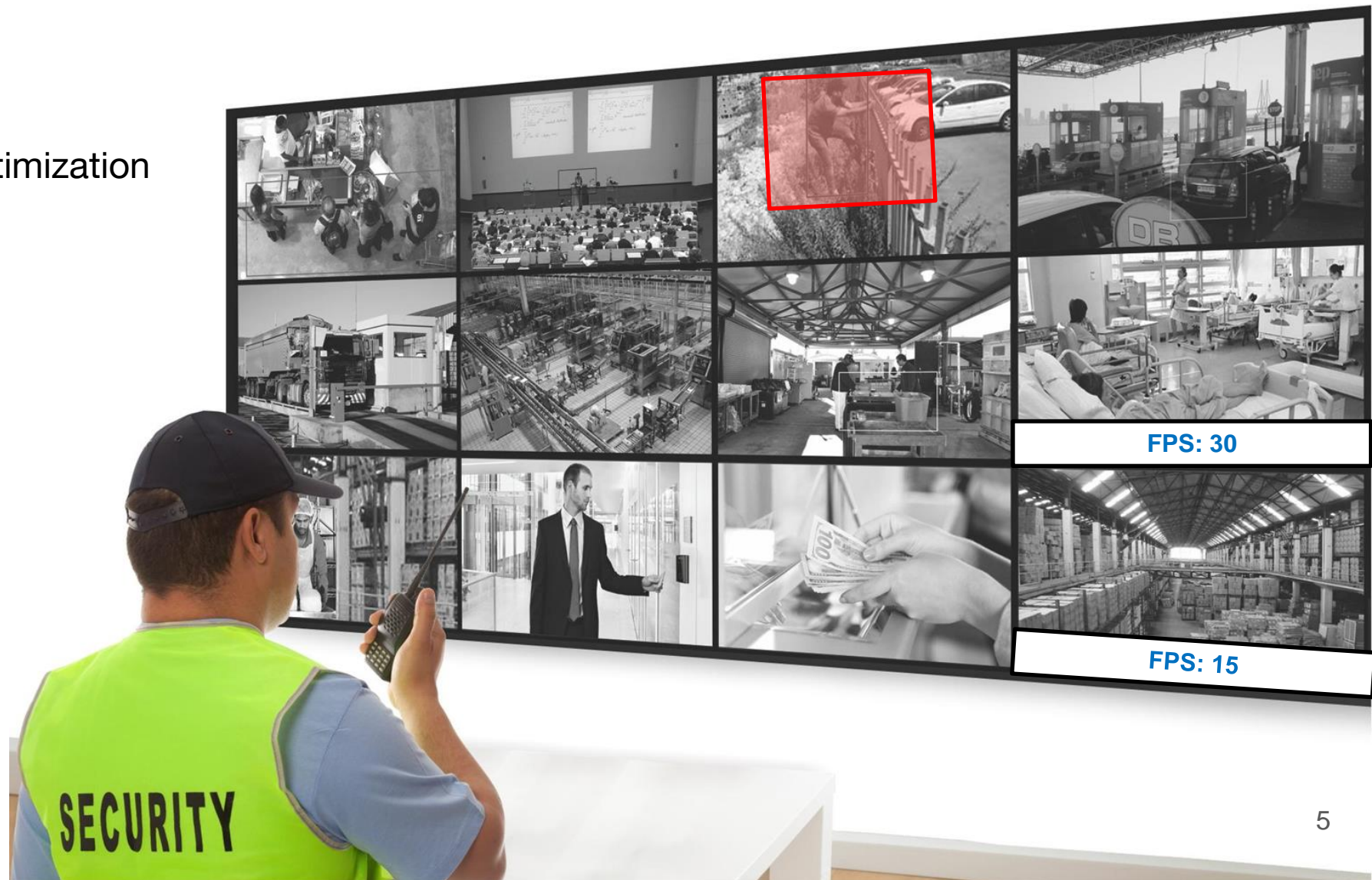
3-Dimensional Benefits of Matrix Video Surveillance

- Better Reliability
- Greater Visibility & Control
- Enhanced Security



Matrix SATATYA Key Benefits

- Better Image Quality
- Bandwidth and Storage Optimization
- Intelligent Video Analytics



Better Image Quality



Exceptional Low Light Images



Consistence Performance



Greater Coverage

Low Light Performance

- Exceptional Performance during Challenging Lighting Conditions
- Color Images even at 0.01Lux



*Sony STARVIS
Series Sensors*



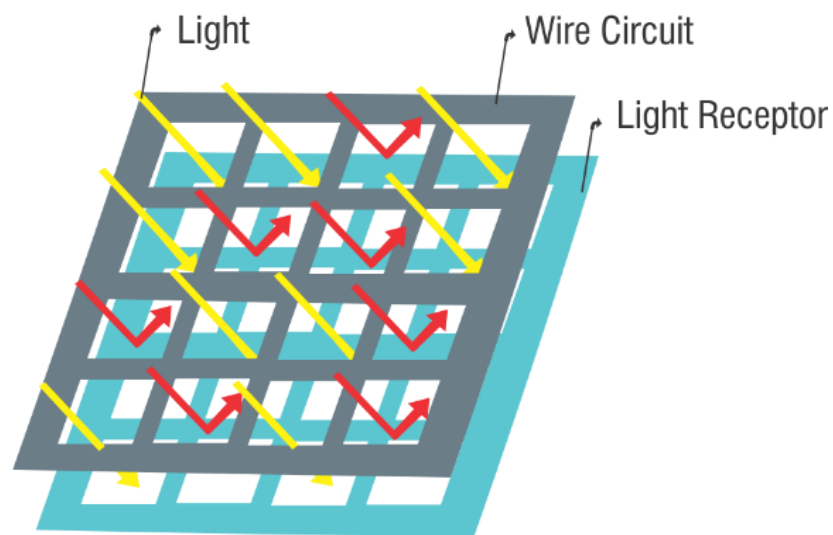
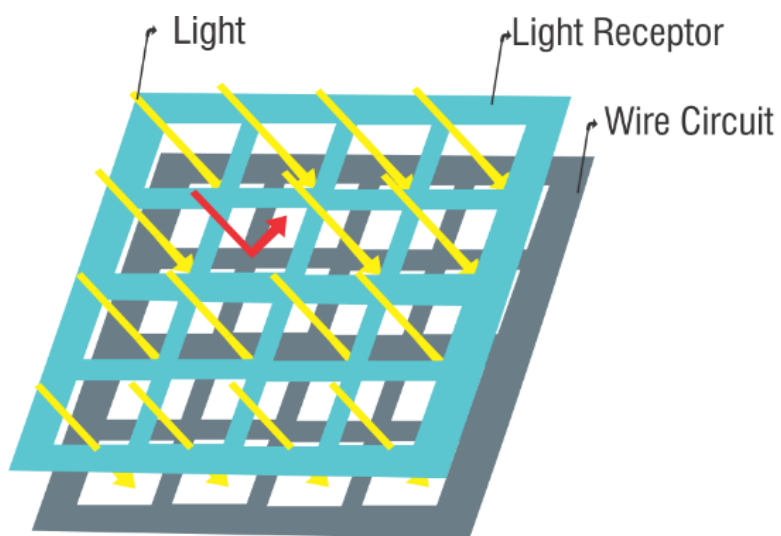
MATRIX



OTHERS

Technology

- Powered by Sony STARVIS Sensors with EXMOR Technology
- Back-illuminated Sensor with No Internal Reflection, Hence Reduced Noise
- Higher Photon Absorption Capacity - Exceptional Low Light Performance



Consistent Performance

- Smartly Varies Difference in Light Levels in an Image
- Rectifies Over-exposed and Under-exposed Areas
- Clearer, Detailed Images



True WDR

WDR ON (120dB)



MATRIX

WDR OFF

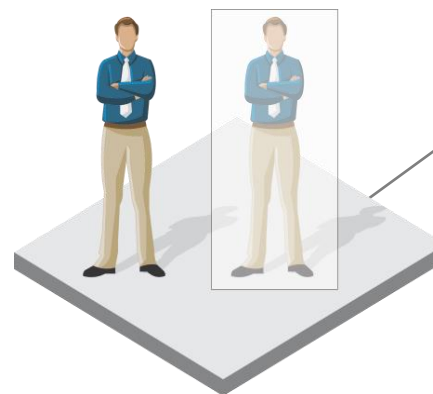
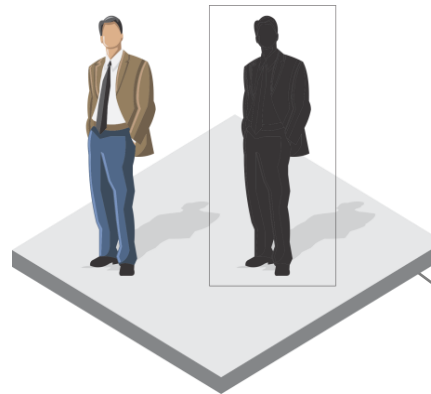


OTHERS

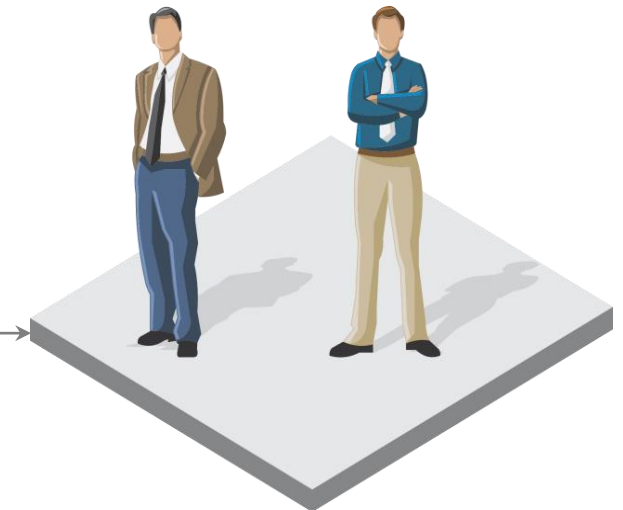
Technology

- Captures Varying Lighting Conditions
- Takes Two Snaps:
 - Slow Shutter Speed - For Dark Areas
 - Fast Shutter Speed - For Bright Areas
- Combines Them into One Image

Slow Shutter Speed Picture



Fast Shutter Speed Picture



Combined Picture

Greater Coverage

- Covers Large Area to Provide a Wider Field of View
- IP Camera 3.6mm Lens: FOV 90°
- IP Camera 6mm Lens: FOV 56°
- IP Camera 2.8-12mm Lens: FOV 113°-33°



Higher Field Of View

FOV 90°



MATRIX

FOV 82°



OTHERS

Technology

- Field of View: Area Covered by Camera
- Depends on Camera and Lens
- Smaller the Focal Length, Wider the Field of View



2.5 mm



3.6 mm



4.3 mm



6 mm



12 mm



25 mm

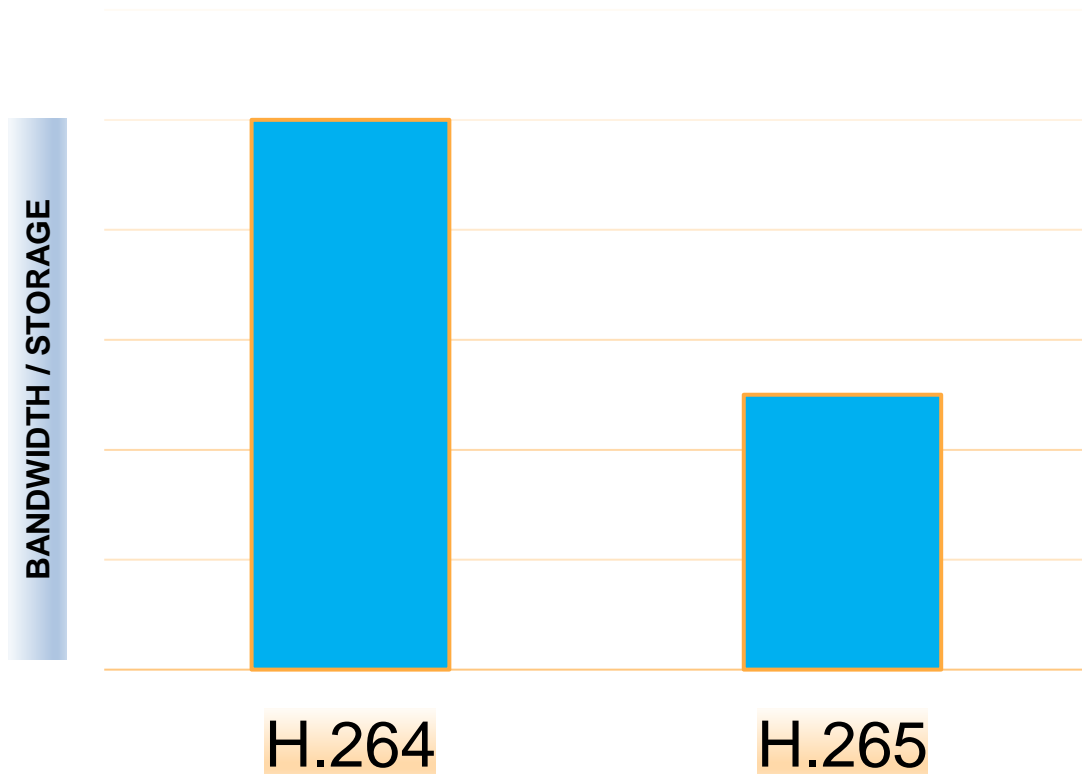
Smart Optimization

- Latest Compression Technique
- Optimized Storage & Bandwidth
- Onboard Storage Support (512GB)



Compression Technique

- Save 50% on bandwidth and storage



Bit-rate:1300Kbps



MATRIX

Bit-rate:2500Kbps



OTHERS

Technology

- H.264:
 - The video frame is divided into equal number of pixels
 - It is irrespective of the region information of the adjacent pixels

- H.265:
 - One pixel compares itself to its adjacent pixels
 - The ones having similar information get bundled up as one pixel



OTHERS



MATRIX

Optimized Storage

- Automatic Bit-rate Reduction during No Activity Period



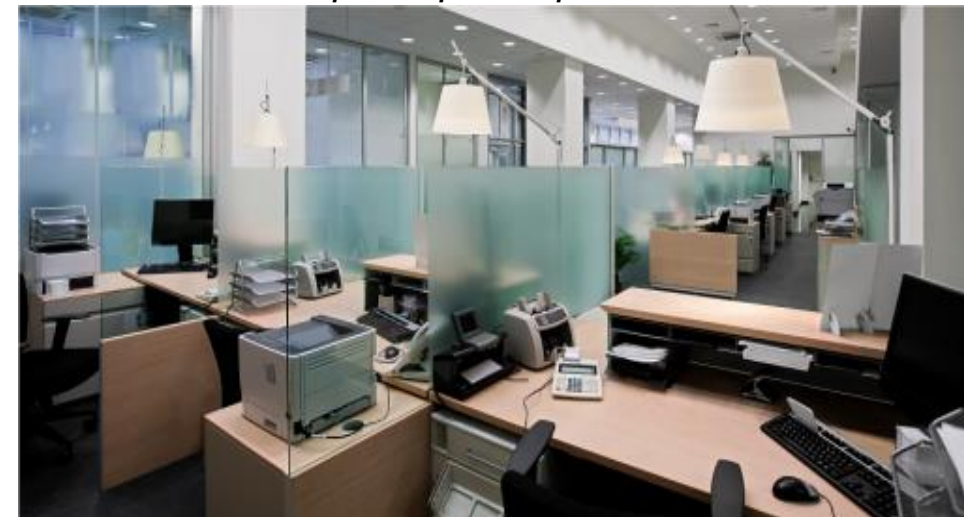
Adaptive Streaming

Bit-rate: 800kbps ; Fps:15fps



MATRIX

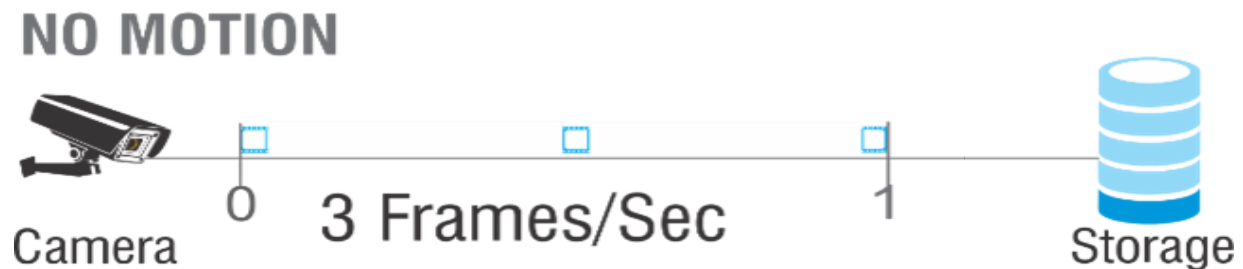
Bit-rate: 2500kbps ; Fps:25fps



OTHERS

Technology

- Automatically Reduces Frames/Second based on the Activity in the Region.
- Saves Storage Cost, up to 40%



Optimized Storage

- Divides a Single Stream into Multiple Bitrates based on its Importance



Smart Streaming



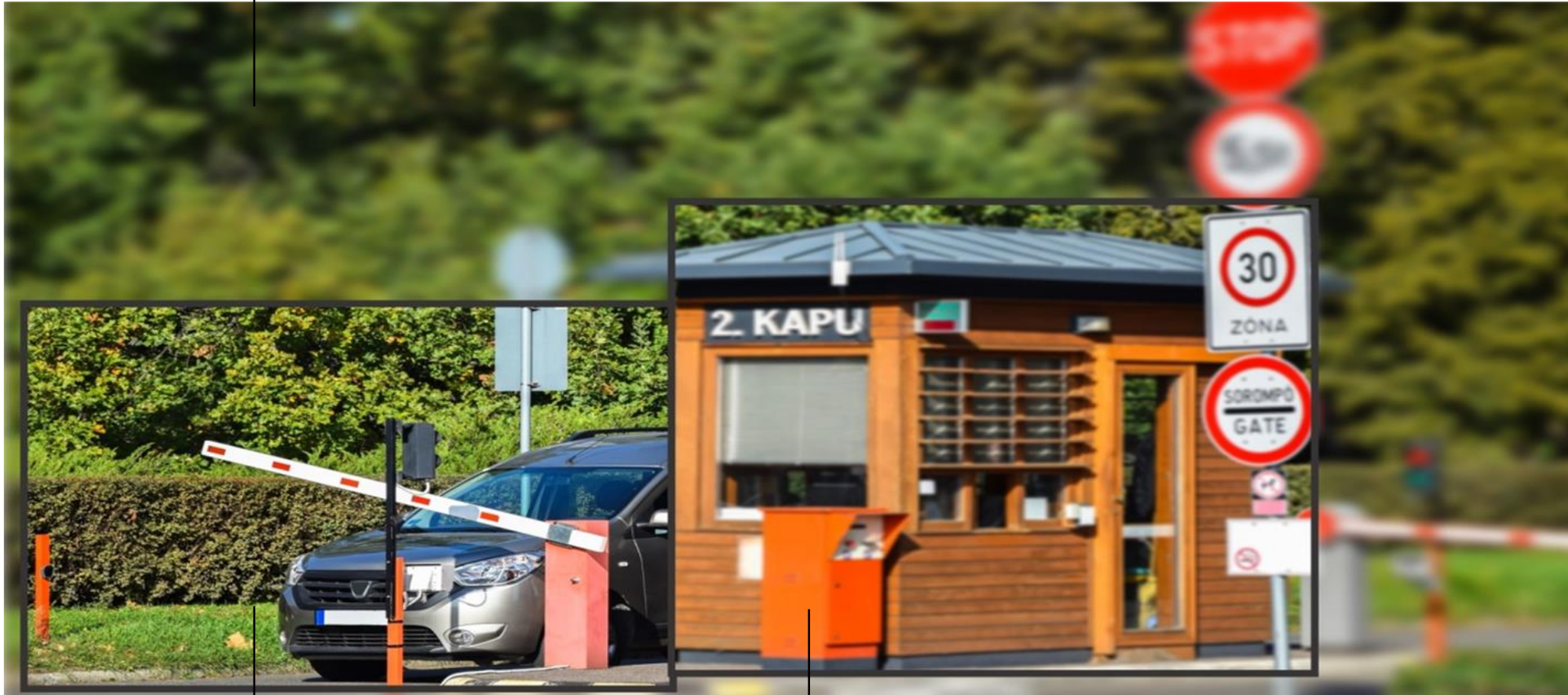
MATRIX



OTHERS

Technology

Bandwidth: 500kbps



Bandwidth: 1400kbps

Bandwidth: 900kbps

Optimize Bandwidth

- **Region Of Interest:** Streaming and Recording of only critical areas
- **Four Stream Support:** Different Streams for Viewing, Storing and Recording



Region Of Interest



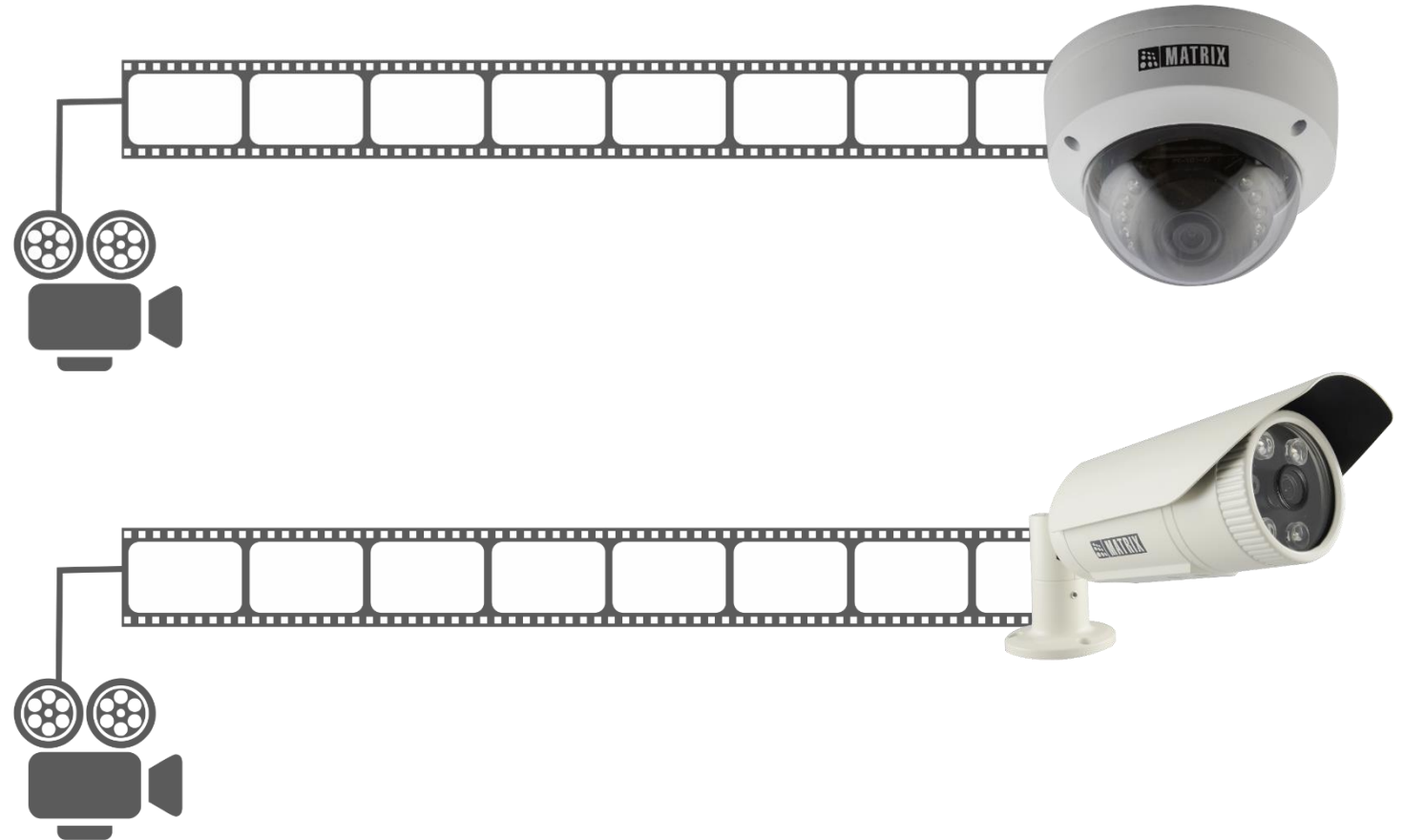
Four Stream Support

Onboard Storage

- Edge Recording-Up to 512GB

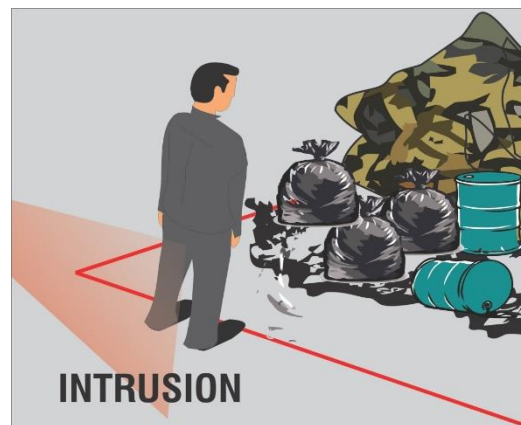
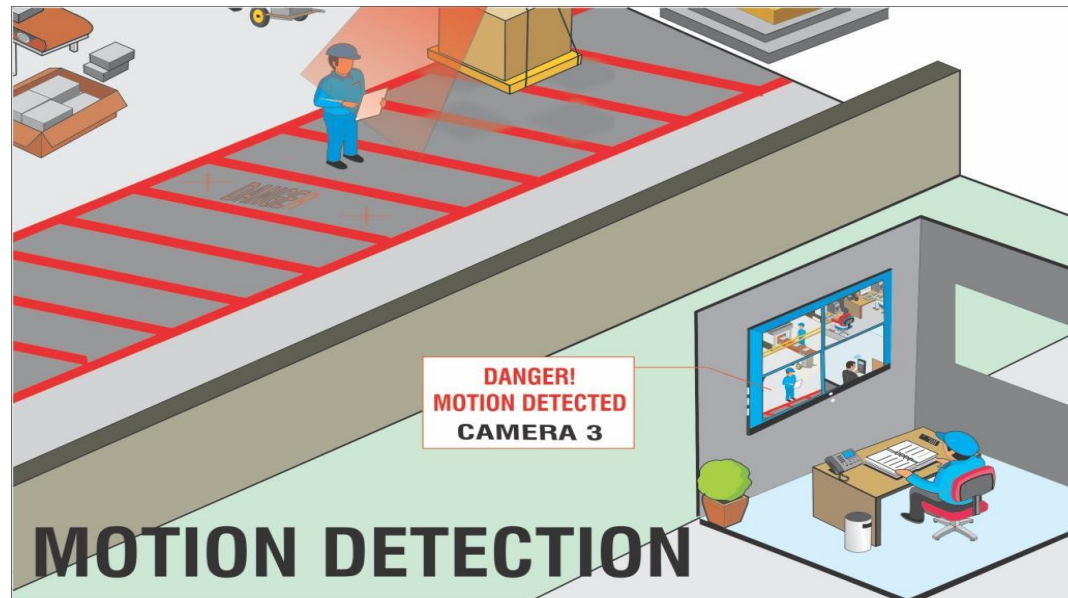


SD Card Support



Intelligent Video Analytics

- Motion Detection
- Intrusion
- Trip Wire



Motion Detection

- Mark Critical Areas where Motion is Prohibited.
- Sends Instant Notification on Motion Detection



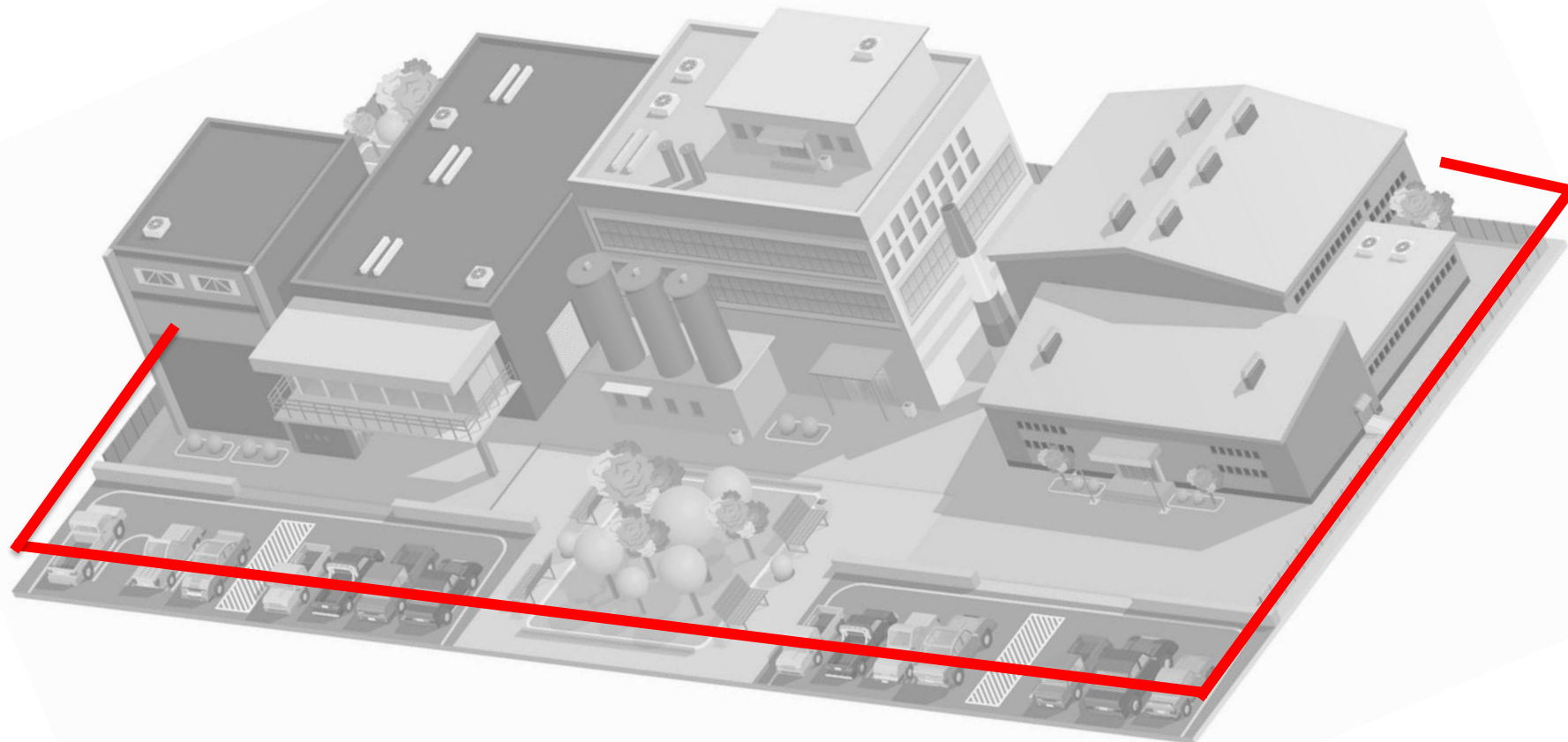
Intrusion

- Mark virtual box where Intrusion is Prohibited
- Sends Instant Notification on Entry or Exit
- Provides Safety
- Retains Secrecy



Trip Wire

- Identifies Motion Over a Defined Virtual Line
- Perimeter Security by Virtual Fencing



Alerts



Snapshot Schedule



Email With Snapshot



Pre/Post Alarm Recording



Upload Image/Clip



SMS

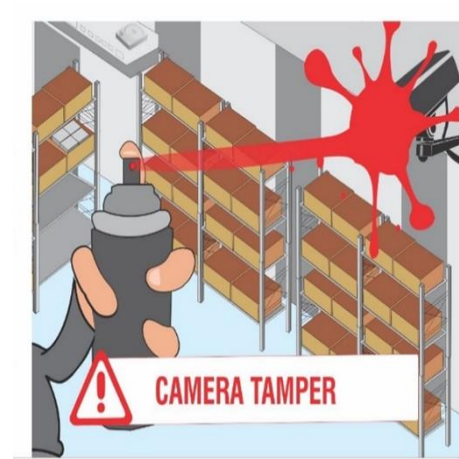
Events



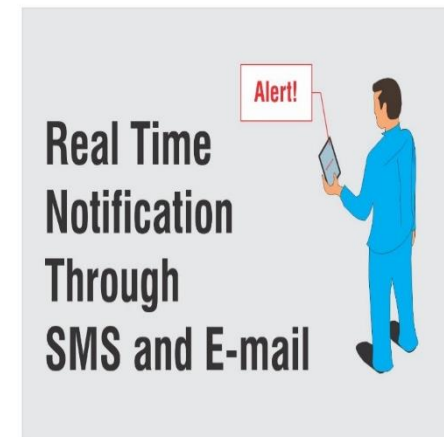
Network Disconnect



IP Conflict



Storage Alert



MATRIX



OTHERS

Reliability

- Bigger Metal Enclosure with Better Heat Dissipation and Better Endurance



Rugged Construction



Certifications



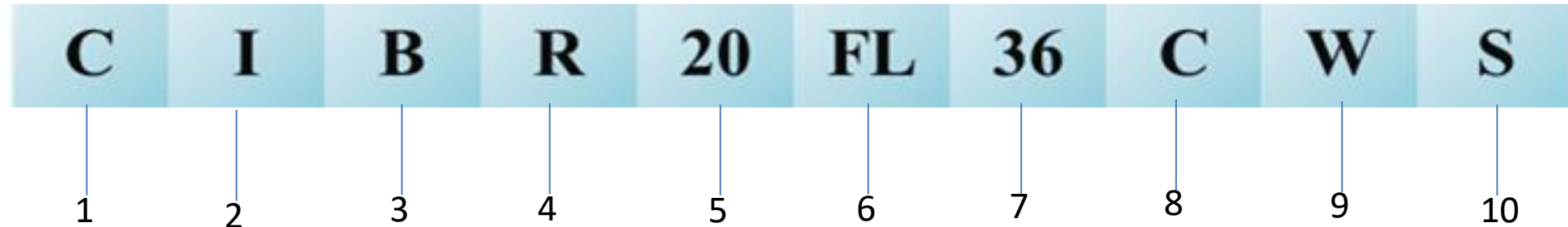


All of this, **Indigenously designed and manufactured in India!**

Matrix SATATYA Camera Details



Camera Nomenclature



1. CAMERA TYPE

- C-PROJECT CAMERA
- M-PROFESSIONAL CAMERA

2. CAMERA TYPE

- I-IP

3. CAMERA RANGE

- B-BULLET
- D-DOME

4. SENSOR

- R-IR

5. RESOLUTION

- 20-2MP
- 30-3MP
- 50-5MP

6. LENS TYPE

- FL-FIXED LENS
- VL-VARIFOCAL LENS
- MVL-MOTORIZED VARIFOCAL LENS

7. FOCAL LENGTH

- 36-3.6mm
- 60-60mm
- 12-2.8-12mm

8. SENSOR TYPE

- C-CMOS

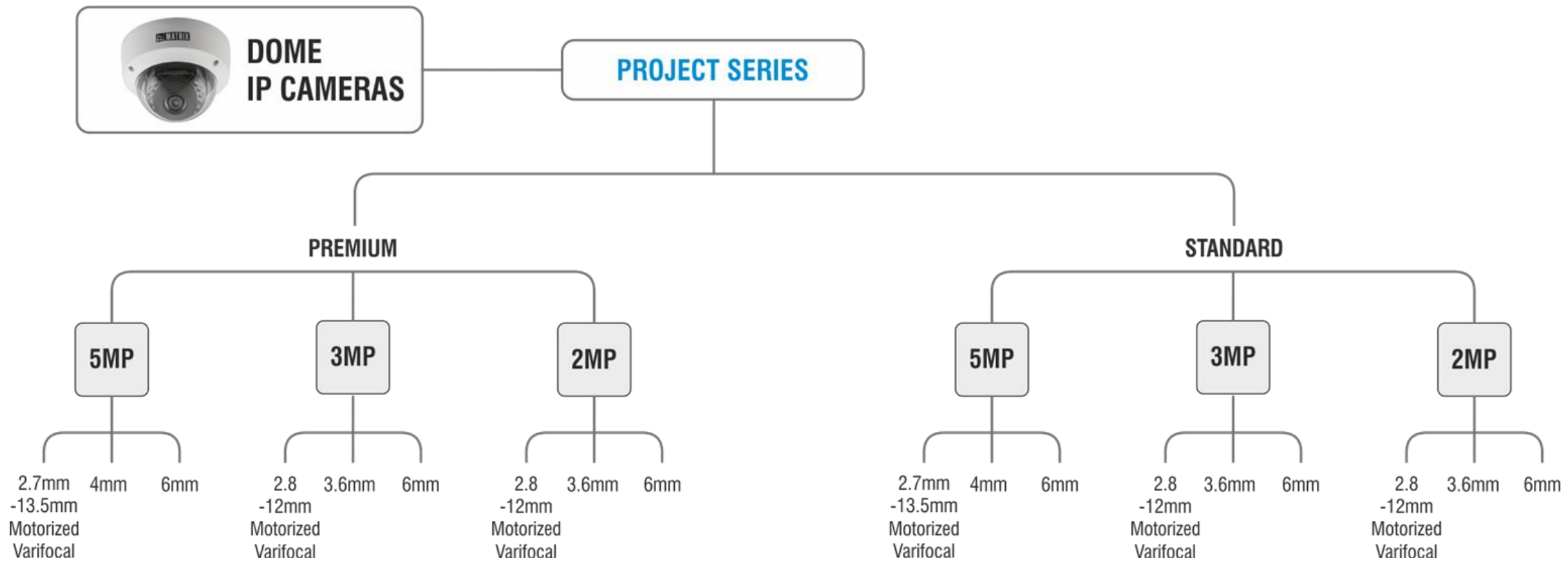
9. CAMERA COLOR

- W-WHITE

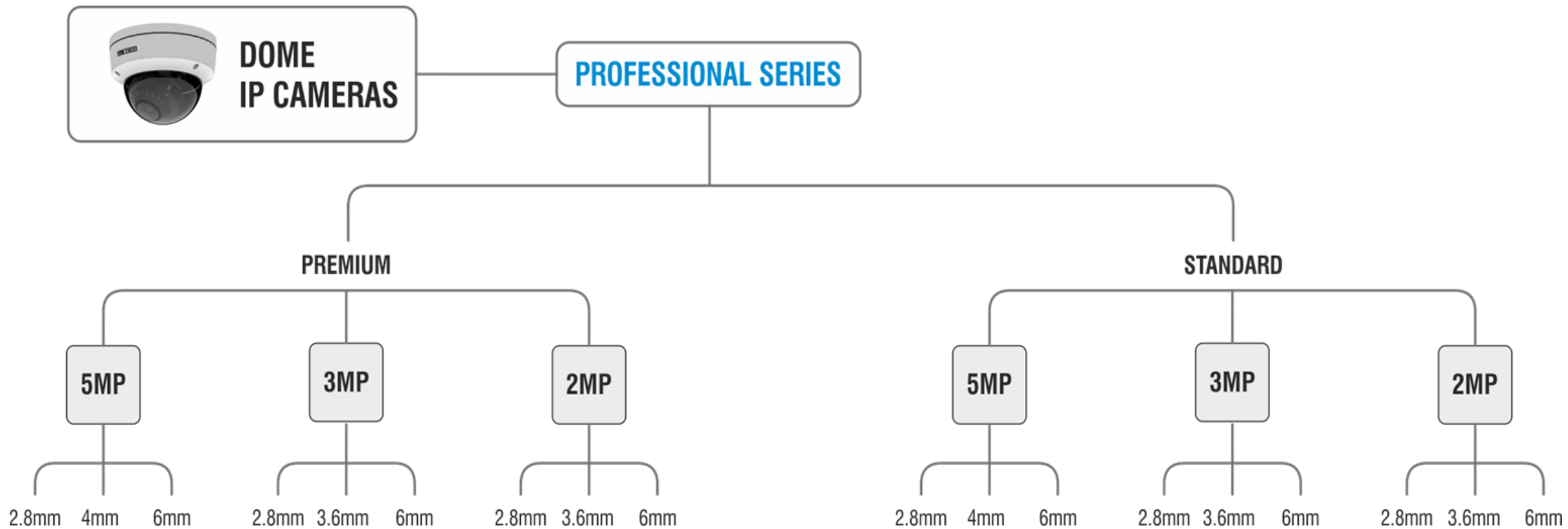
10. CAMERA SERIES

- S-STANDARD
- P-PREMIUM

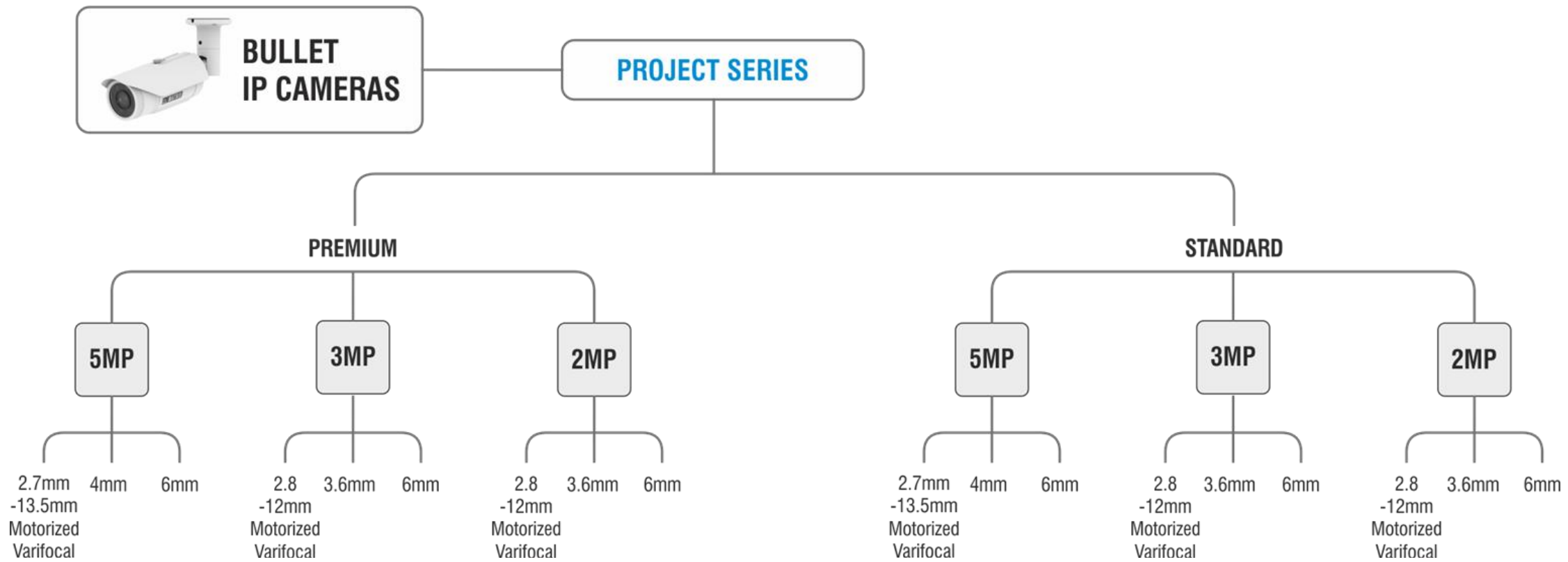
PRODUCT RANGE (DOME IP CAMERA)



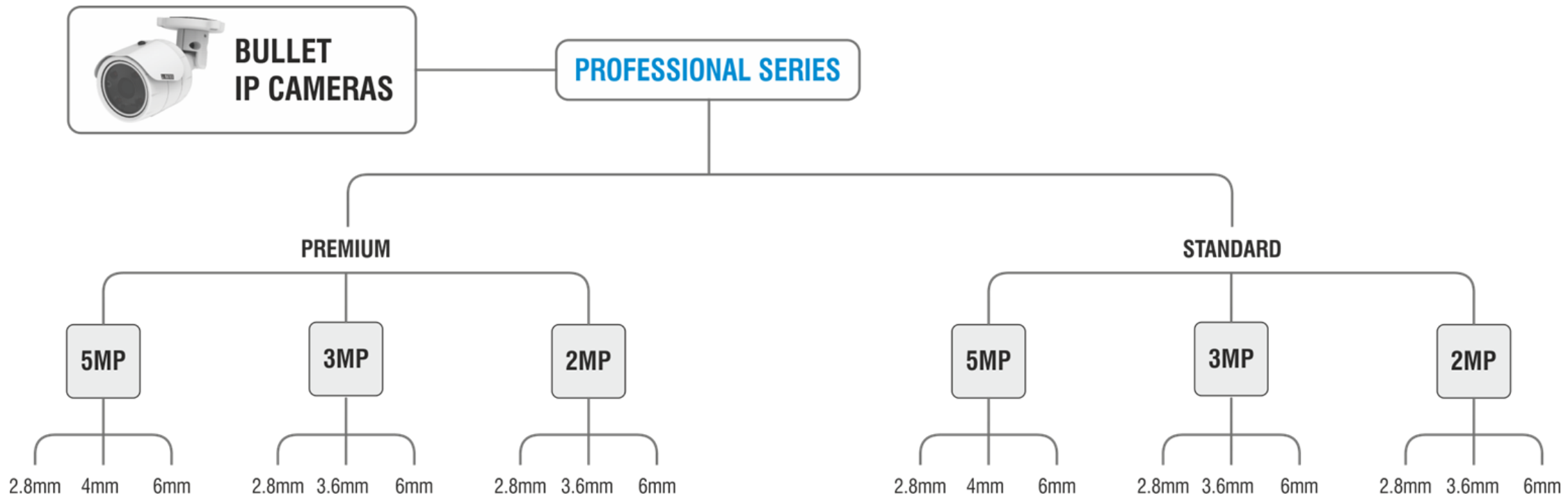
PRODUCT RANGE (DOME IP CAMERA)



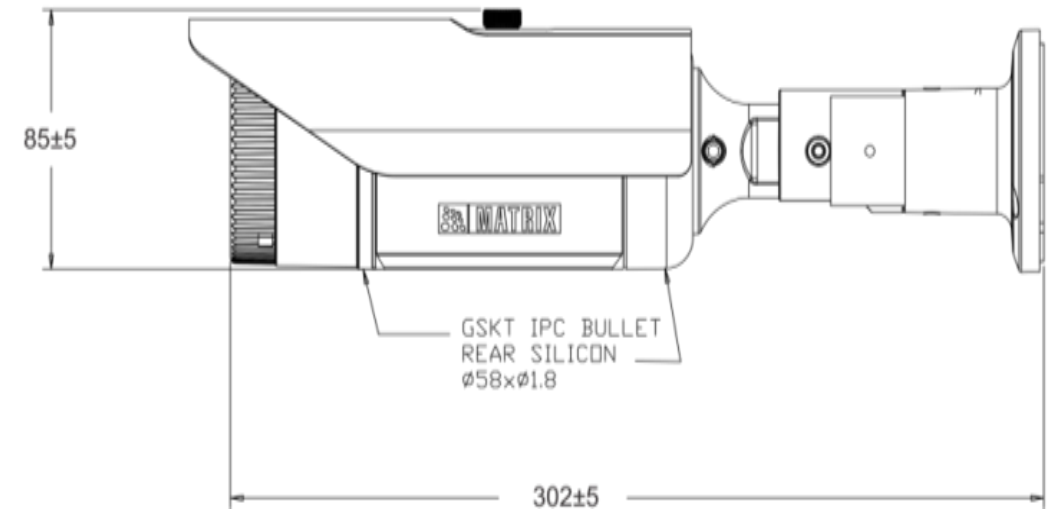
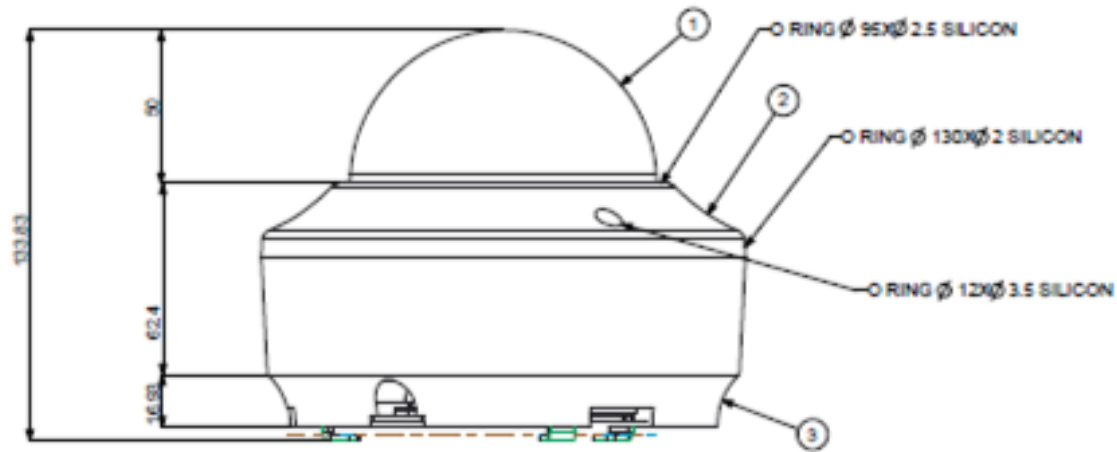
PRODUCT RANGE (BULLET IP CAMERA)



PRODUCT RANGE (BULLET IP CAMERA)



Matrix SATATYA Technical Specifications



IP PTZ Camera: PZCR20ML33CWP

- 33x Optical Zoom
- Maximum Resolution: 1920x1080 @ 60fps
- H.265, H.264, M-JPEG encoding
- IR Distance upto 200m
- Upto 256GB in-built storage
- IP67 & IK10 Compliant
- True WDR (140dB)
- Intelligent Video Analytics



IP PTZ Camera: PZCR20ML25CWP

- 25x Optical Zoom
- Maximum Resolution: 1920x1080 @ 60fps
- H.265, H.264, M-JPEG encoding
- IR Distance upto 150m
- Upto 256GB in-built storage
- IP67 & IK10 Compliant
- True WDR (140dB)
- Intelligent Video Analytics



Technical Specifications

Technical Specifications

Sensor Type and Size	1/2.8" SONY - CMOS 5MP Active Pixel Progressive Scan, Back Illuminated Image sensor (EXMOR Technology - STARVIS Series)
Minimum Illumination	Colour - 0.01 Lux @F1.2 (AGC ON)
	Monochrome - 0 Lux
Focal Length	2.8mm/3.6mm/4mm/6mm/2.8-12mm/2.7-13.5mm
Focus Range	0.3m to infinity
Field of View (FOV)	HFOV - 104°/80°/50°
	VFOV - 75°/58°/37°/
	DFOV - 129°/108°/62°
Lens Mount	M12
Focus	Fixed focus
Aperture (F#)	F 1.8/ F 1.6
Iris Type	Fixed
IR Range	30m/ 50m
IR Led Wavelength	850nm
IR Switching	Auto/ Manual

Technical Specifications

Audio IN	1
Audio OUT	1
Two-way Audio	Supported
Audio Compression	G.726 and G.711
SD Card	Up to 512GB
Camera Adjustment Angle	Pan: 0° to 180°
	Tilt: 0° to 180°
	Zoom: 0° to 360°
No of Stream Profiles	3/4
Stream Profiles	Profile 1: 2592X1944 @30fps (H.264/H.265)
	Profile 2: VGA @30fps (H.265/H.264)
	Profile 3: 2048x1536@8fps (MJPEG)
Available Resolutions	2592 X 1944, 2592 X 1520, 2048 X 1536, 1920 X 1080, 720p, D1, 2CIF, VGA, CIF, QCIF
Max Resolution	2592 x 1944

Technical Specifications

Bitrate	128kbps-16Mbps
Bitrate Type	CBR, VBR
Video Compression	H.265, H.264, MJPEG
Frame Rate	1-30fps
Shutter Speed	1/25-1/59000
Adaptive Streaming	Yes
ONVIF Profiles	Both S and G
Edge Recording	Yes
Alarm Recording	Pre and Post

Technical Specifications

Motion Recording	Yes
Video Parameters	Snapshot, Region of Interest (ROI), BLC, Day/Night Settings
Privacy Masks	3
WDR	True WDR (120dB)
SNR	73db
Image Enhancement	Saturation/ Contrast/ Sharpness/Brightness/Auto Exposure
DNR	2D &3D
Video Analytics	Motion/No Motion Detection, Tamper Detection, Trip/No Trip Detection, Object Intrusion/Zone Intrusion, IP Conflict, Network Disconnect, Storage Full, Time Triggered
Upload Image	SD, NAS, FTP
Upload Clip	SD, NAS, FTP
Notifications	E-mail, SMS, TCP
Supported protocols	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTCP, RTSP, PPPOE, SMTP, NTP, HTTPS, TLS/SSL, FTP, ICMP, IGMP v2 & v3
Web Viewer	Supported in IE 8.0-11.0, Firefox 15.0-47.0, Chrome 20.0-54.0
Plugins	IE: Matrix ActiveX
	Chrome: VLC plugin(2.0.4) and Quicktime(7.7.5)
	Mozilla: VLC Plugin(2.0.4) and Quicktime(7.7.5)

Technical Specifications

Power Supply	12V (DC); 802.3af (PoE)
Power Consumption	<6W
Operating Humidity	Less than 90% RH (non-condensing)
Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to 50°C
Communication interface	10Base-T/100BaseTX Ethernet (RJ-45)
Weight	450gm
Colour	Pantone 7527C
Dimensions	301.6 x 84 x 92.5 (Length x Height x Width)
Storage	NAS, SD Card
Certifications	BIS, CE, IP66, FCC Part-15 Class-A, ONVIF S & G, IK10

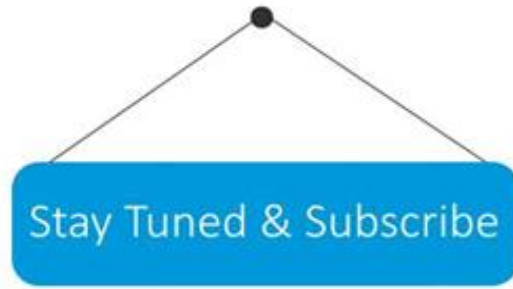
Who Are We

1 Million+
Customers

2,500+
Partners

60+
Products

50+
Countries



 @Matrix IP Video Surveillance

 MatrixComSec

 @Matrix_SATATYA

 @MatrixSATATYA

www.MatrixVideoSurveillance.com

THANK YOU!



www.MatrixComSec.com