

# Full HD Network Cameras

The benefits need to be seen to be believed!

- Resolutions – Summary
- The Wow Factor – Benefits of HD
- Security and more – Applications
- Key Features - Size matters! Tackling large file sizes
- Other features
- Viewing
- Recording



# Resolution:

Always Horizontal resolution first, then Vertical

*CIF = Common Intermediate Format (Video conferencing)*

CIF = 352x288   2CIF = 704x288   4CIF = 704x576

*VGA = Video Graphics Array (PC Industry)*

VGA = 640x480   SVGA = 800x600   XGA = 1024x768

*720P (HDTV)*

720p = 1280x720 (P standing for 'progressive scan')

*1080i / 1080p (HDTV)*

1080i = 1920x1080 (i standing for 'interlaced') 16:9

1080p = 1920x1080 (p standing for 'progressive scan') 16:9

# Resolutions

Always Horizontal resolution first, then Vertical

*Megapixel.... Single Megapixel = 1,000,000 pixels*

1.3 Megapixel = 1280x1024....(1,310,720 pixels)

2 Megapixel = 1600x1200....(1,920,000 pixels)

True HD = 1920x1080p....(2,073,600)

3 Megapixel = 2048x1536....(3,145,728 pixels)

5 Megapixel = 2592x1944....(5,038,848 pixels)

# Various Image Resolutions

3M Network cameras supports various resolutions simultaneously for various user applications.



# Full HD (1080p) Surveillance

3M Network Camera provides 16:9 Full HD and HD resolutions based on HDTV standard.



# 3 Mega Pixel Resolution



VS.



## Cameras which have the 'wow' factor

Full HD and megapixel cameras and domes are increasingly being deployed when high quality evidence grade images are required.



## Cameras which have the 'wow' factor

If sited correctly, HD cameras can do the job of several standard resolution CCTV cameras, because of the enhanced detail they capture over a wider area.



# Security and much more...

The superb quality images captured by HD cameras can be equally useful for organisations who are looking to ensure staff and visitors comply with Health & Safety policies.

HD quality images can also be a powerful management tool in, for example, a retail environment where merchandisers can use the high definition images with analytics to observe the buying patterns of their customers.

# Security and much more...

Banks, casinos, retailers, manufacturers, town centres, airports, ports and train stations are just a few of the environments where the remarkable quality of the images captured by Full HD network cameras can ensure that a video surveillance system exceeds the user's expectation.

# Key features to look out for in Full HD cameras

- Multiple resolutions supported from CIF (352 x 288) through to 16:9 format 1080p and Full HD (1920 x 1080p).
- Dual-streaming of video using H.264 and MJPEG compression.
- Simultaneous real-time monitoring, mobile monitoring - (i-Phone etc), high quality and high-efficiency recording, SD memory recording and E-mail notification.

# Smart Compression (Smart Codec)

Smart Compression based on User Defined Area



Normal Compressed Image  
(Higher Data size)



Smart Compressed Image  
(Effectively Saved Data size)

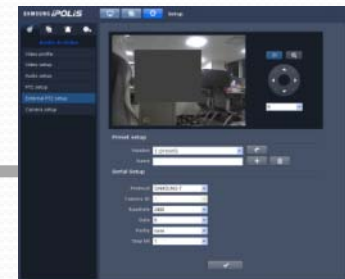
Smart Compression based on Intelligent analysis



# Remote Focus Control



Built-in 3~8.5mm Motorized Vari-Focal Lens



Remote control for focus  
and view angle via network

# Progressive Scan

Progressive scan technology allows for the capture of noiseless, high-quality video of moving subjects.



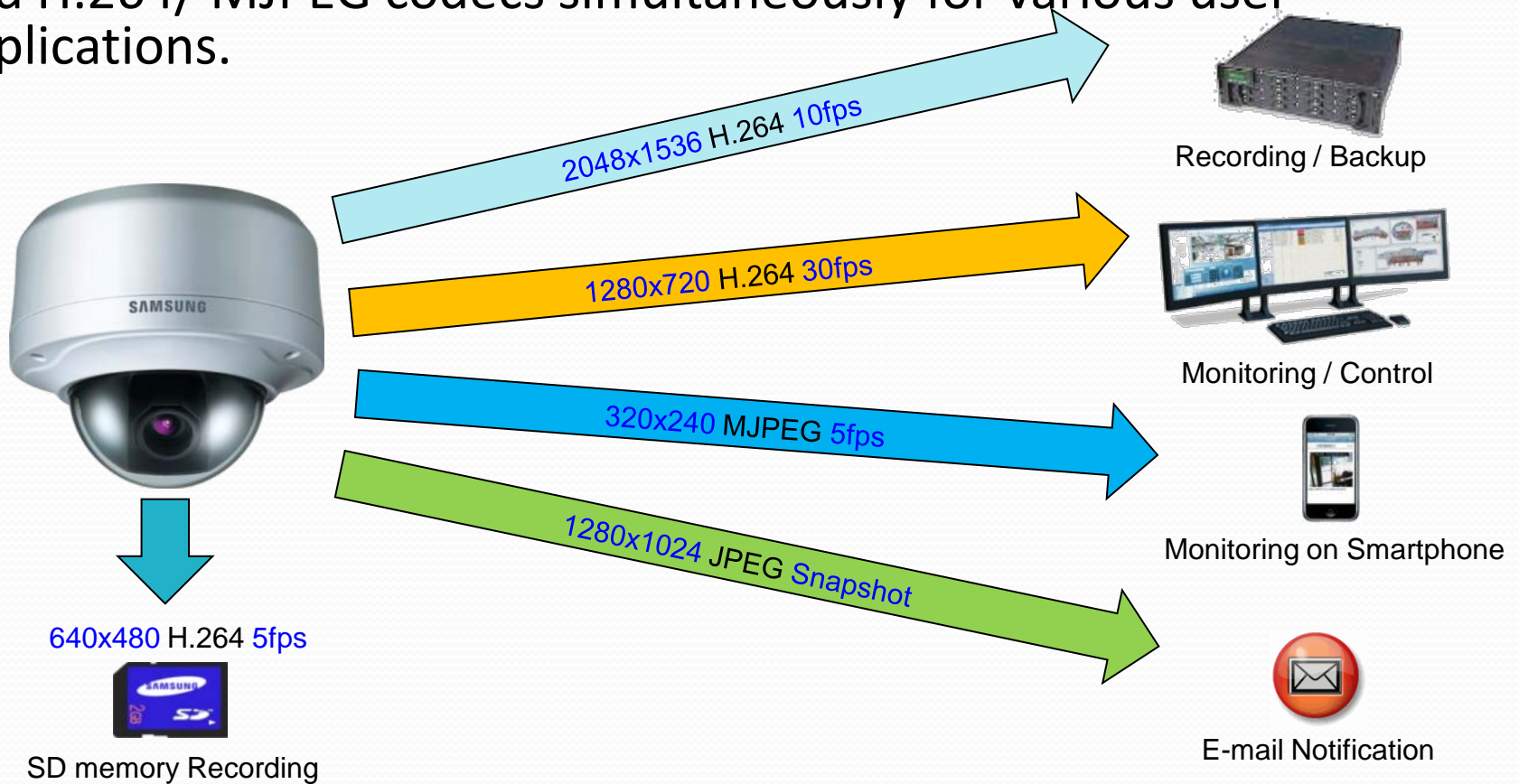
Conventional Interlaced Scan  
Network Camera



Samsung Progressive Scan  
Full HD Network Camera

# H.264/MJPEG Codec & Multiple Streaming

3M Network camera transmit multiple resolutions, frame rate and H.264/ MJPEG codecs simultaneously for various user applications.



# Day and Night Function

Network cameras should be equipped with a IR Cut Filter for seamless Day/Night operation. Cut filter provides improved performance in Low Light.



Day (Colour Mode)

Night (B/W Mode)

# Noise Reduction

- SSNR3
  - 3rd Gen technology
  - 2D & 3D
  - Proprietary
  - Reduces noise
  - Increases quality

2D

2D & 3D

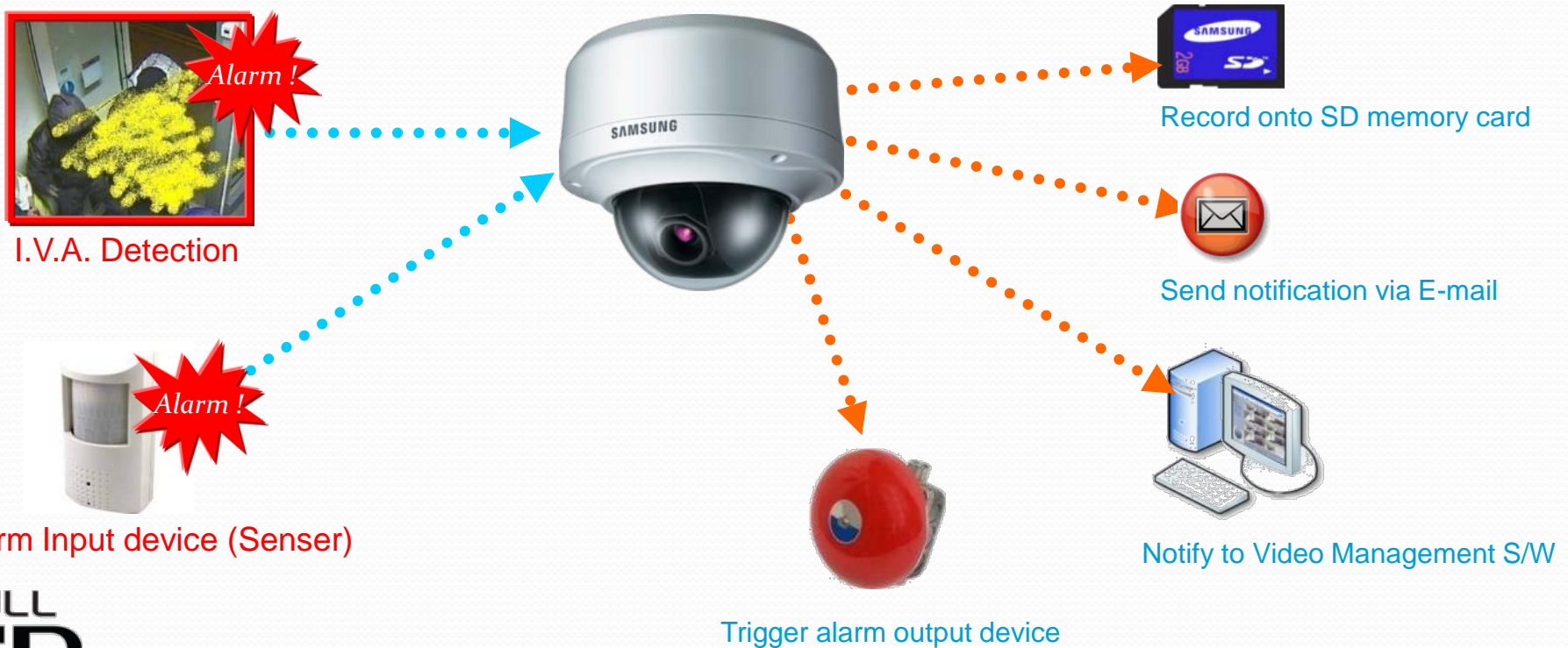
3D



# Alarm Event Control

Various alarm sources including the alarm input port and intelligent video detection can make the camera trigger alarm output and Pre/Post images will be recorded onto the SD memory card.

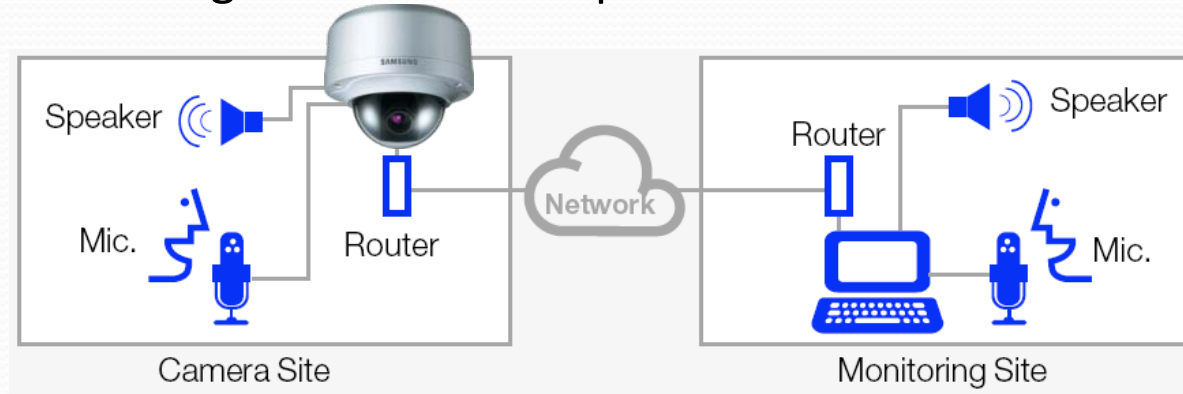
Alarm notification with a snapshot image can be sent to user via E-mail.



# Other Features

## Bi-Directional Audio Communication

Full duplex bi-directional audio allows interactive communication between camera site and monitoring site. Audio compression format is G.711.



## PoE (Power over Ethernet)

Power over Ethernet (PoE) offers an easy, fast and cost-effective solution for supplying power to Samsung network cameras without the need to install power outlets and electrical cabling.



# Full HD Viewing Software

There are multiple ways in which to view the images from each camera.

- Web Browser
- Manufacturer's viewer software
- ONVIF compatible software and 3<sup>rd</sup> Party software suppliers



# Recording Images

There are multiple ways in which to record the images from the camera.

- Built-in SD Card Slot
- Compatible Network Video Recorders
- ONVIF compatible Software
- 3<sup>rd</sup> Party software suppliers



Any Questions?