



May 2011

# Video Security 2011



**ASSET**  
security

## Aasset Security®

### Fact.....

The know how and technology of our product range allow us to position ourselves on various vertical markets :

- Museum
- Prisons
- Police stations
- Banks
- Trains and buses
- Petrol stations
- Super markets
- Cities and many high street stores

Aasset Security® is also established across Europe :



Germany



France



Italy



Aasset Security® UK

**M**anufacturer and distributor since 1984,  
a European leader in CCTV.

**A** wide range of standard CCTV products as well as custom made products for special applications.

**W**ell known brands like Samsung®, Hikvision® and Grundig® since 2010.

**A** technology leader who is evolving with a changing market, from analogue to digital with full IP solutions.

**O**ur know how :

A CCTV system must be thought about. It is important that it is developed in prevention and security spirit. This is what we perceive as an efficient CCTV solution.

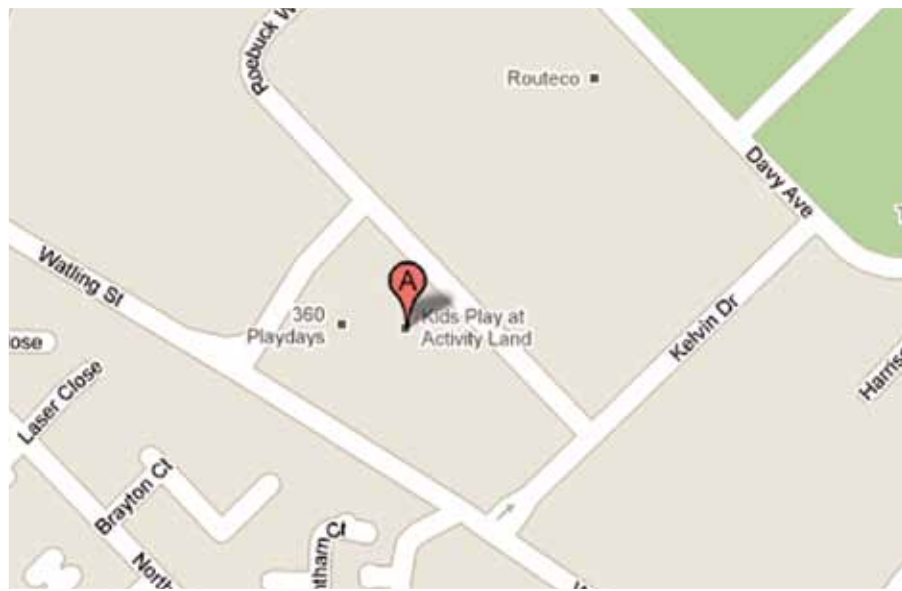
Aasset Security proposes a methodology responding to our customer needs and requirements. This is split in different phases :

- Risk analysis: identifying the needs and determining the threats, associated scenarios, the environment of the site to secure and protect.
- System design from the previous analysis : We try to propose the technical solutions from the identified requirements and needs, by providing fit for purpose equipment, responding to national or international regulation.

**W**ith our experience, we have been able to ensure secure, long lasting and stable installations, responding to national or international regulation.

### Access

Unit 9 Beaufort Court, Roebuck Way  
Milton Keynes, MK5 8HL. UK





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# IP Video Security



What are the advantages of an IP CCTV system ? \_\_\_\_\_

The advantages of an IP CCTV system are numerous :

• *Adaptation to all types of network :*

- Standard network      - Wifi / Wimax / Wimesh
- Fibre optic              - CPL network



• *High detail and quality images : megapixel resolution*

Megapixel cameras are a revolution for the CCTV industry : a megapixel camera can be used in place of analogue cameras. Enlarge an image; zoom in without a pixelation effect.



Standard Camera (720x576)



Megapixel Camera  
(1.3, 2, 3, 5 megapixels)

• *Mobility*

With the internet and Smartphones, monitor multiple sites, from anywhere, at anytime.\*



• *Easy integration on existing networks*

Multiple access points (ex : city networks), pre cabled sites (existing network racks and standardisation of RJ45 network in all new builds).



\*Ask for compatibility product and model list.



# IP Cameras & Domes



Grundig®

## Fact.....



Max Grundig, 1908-1989

Max Grundig, founder of the brand, he constantly brought innovation in the electronic sector, and a strong reputation in the CCTV industry.

1953 : Premiere for Grundig in the CCTV market. Grundig CCTV cameras are installed in many public environments (airports, train stations...).



## Grundig® owns a long tradition.

Leader from 1953 to 1997 for high quality products, he also created trends in the security market. In 2011, Grundig proposes innovating and high performing products, such as IP cameras, analogue Digital Video Recorder (DVR) and high resolution cameras. Being a member of the ONVIF Group, Grundig is offering its products to the market as well as having developer and software partners, releasing their protocols



1946. Heinzmann radio



1983 Camera model still in service



2008. LCD View 7



2011. IP PTZ Domes

GCI K0503B



GCI K0512W

# Grundig® IP Cameras, Domes

## High Quality, Advanced development, Innovation

IP technology enhances CCTV systems efficiency.

This is the reason why Grundig has developed a complete range including, PTZ domes, vandal resistant domes for internal and external applications. Each camera includes the best of CCTV standards.



FOR A GOOD  
**REASON**  
**GRUNDIG**



## IP Cameras **GRUNDIG**

Grundig® new technology IP Cameras, high definition, up to 2 megapixels full HD (1920x1080p), ONVIF® compatible, open to any monitoring and visualisation software.

### Standard Features :

- H.264 & M-JPEG compression (dual stream)
- Micro SD/SDHC card slot for alarm and/or continuous recording
- Advanced security features : HTTPS, filter, 802.1X, QoS...
- Bi-directional audio communication
- C/CS mount, DC lens



### GCI H0602B

IP Full HD Colour Camera - 2 MP

- 2 Megapixels camera with CMOS 1/2,7", Colour (1920x1080)
- Sensitivity 0.2 lux
- 25 fps in 720p and 12 fps in Full HD 1080p
- Tamper and shift camera function
- Power 12VDC and PoE



### GCI K0503B



IP Full HD Colour/B&W Camera - 2 MP

As above :

- Day/Night with mechanical filter (ICR)
- Sensitivity 0.2 lux (Colour) / 0.02 lux (B&W)
- 25 fps in Full HD 1080p and 2x25 fps in 720p (dual stream)
- Power 12/24V and PoE



### GCI H0503B

IP HD Colour/B&W Camera - WDR

- 1.3 megapixel camera (1280x960)
- 1/3" CCD Chipset High definition and high sensitivity
- Sensitivity 0.03 lux (Colour) / 0.001 lux (B&W)
- WDR Function, Day/Night with mechanical filter (ICR)
- 3DNR noise reduction technology
- Power 12/24V and PoE



### GCI H0503B : Rear view



## Technologies

### Compatibility

Grundig® IP range and DVRs are compatible with most web browsers for easy setup purposes.



- Firefox®\*
- Chrome®
- Internet Explorer®
- Safari®
- Opera®

### IP Cameras and security

IP cameras are installed on various networks, security has become very important to respect private life and security.

Grundig® cameras have :

- HTTPS : which allows to add security but also the use of a security certificate required for remote connection.
- 802.1x : Additional security linked to network infrastructure, a Radius server controls and authorise peripherals.
- QoS : Traffic and peripheral priority management. We can define which camera will have priority in case of low Bandwidth network.
- IP Filter : grant or deny IP addresses from customers who want to connect.

### Why do Grundig® cameras have a mechanical IR filter ?

Onboard all "Day/Night" cameras and other Colour/B&W cameras (except electronic), the IR filter can be very useful :

- Day vision : perfect colour render
- Night vision : increase of camera sensitivity



Without IR filter



With IR filter



Without IR filter

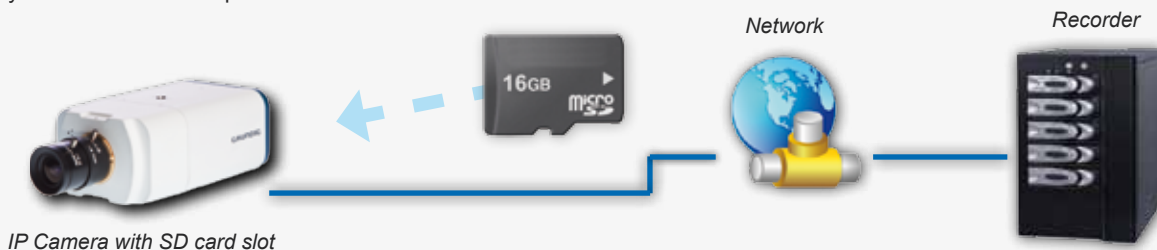


With IR filter

### What is the SD card used for in the Grundig® IP cameras ?

IP cameras with onboard SD card slot are standardising. They allow :

- Secure data in case of network failure : the SD card records
- Lower bandwidth consumption on existing networks : the camera is autonomous.
- Transmission costs reduction for isolated or poor serviced sites.
- Temporary installations are simplified.



## Internal/External IP Fixed Domes **GRUNDIG**

**ONVIF®** Vandal resistant domes for car parks, corridors, pubs, and other external applications.

### Standard features :

- Vandal resistant domes
- CMOS chipset; 2 Megapixels (1920x1080)
- IP 66 for internal/external applications
- H.264 & M-JPEG compression (dual stream)
- Micro SD/SDHC card slot for alarm and/or continuous recording
- Advanced security features : HTTPS, filter, 802.1X, QoS...
- Tamper and shift camera function



### GCI H0522V

IP HD Vandal Resistant Colour Fixed Dome

- Sensitivity 0.2 lux colour
- 25 fps in 720p and 12 fps in Full HD 1080p
- Varifocal DC lens : 3.3 - 12 mm, viewing angle 71° ~ 21°
- Identification < 10,5 meters\*\*
- Bi-directional audio communication
- Power 12/24V and PoE



### GCI K0322V



IP Full HD, VR Day/Night Fixed Dome with Built-in IR LEDs - 1080p

As above :

- Sensitivity 0.2 lux (Colour) / 0 lux (IR activated)
- 25 fps in Full HD 1080p and 2x25 fps in 720p (dual stream)
- IR LEDs, range 10/15 m\*



### GCI K0512W



IP Full HD Mini Fixed Dome - 1080p

- Sensitivity 0.2 lux Colour
- 25 fps in Full HD 1080p and 2x25 fps in 720p (dual stream)
- Lens : 4 mm, viewing angle 78°
- Identification < 3,6 meters\*\*
- Power PoE



## External Day/Night IP Camera **GRUNDIG**

### GCI K0523T



IP Full HD Bullet Camera with Built-in IR LEDs - 1080p

- 2 Megapixels (1920x1080) CMOS Chipset
- Day/Night with mechanical filter (ICR)
- Sensitivity 0.2 lux (Colour) / 0 lux (IR activated)
- 25 fps in Full HD 1080p and 2x25 fps in 720p (dual stream)
- Varifocal DC lens : 3.3 - 12 mm, viewing angle 71° ~ 21°
- Identification < 10,5 meters\*\*
- IR LEDs, range 20/30 m\*



\*Infrared distance range depends on the scene illumination reflection. \*\* Distance identification is calculated with maximum zoom.



## IP PTZ Domes **GRUNDIG**

Grundig® PTZ Domes allow to respond to many installation requirements : internal, external, backlight, low light and various mounts...

### Standard features :

- PTZ dome - D1 resolution (720x576)
- WDR function, Day/Night with mechanical filter (ICR)
- Sensitivity : 0.1 lux (Colour) / 0.01 lux (B&W)
- H.264 compression dual codec (25 fps)
- Onvif® protocol
- Micro SD/SDHC card slot for alarm and/or continuous recording
- P/T speed (400°/sec), mini speed (1°/sec)
- Bi-directional audio communication



### GCI C0735P

IP Day/Night PTZ Dome - 12x Zoom

- Internal applications
- Exview® Chipset for low sensitivity
- 12x optical zoom, identification < 32 meters\*\*
- Vandal resistant dome cover (IK10)
- GBR UC01 adaptor included for flush mount
- Power 24VAC



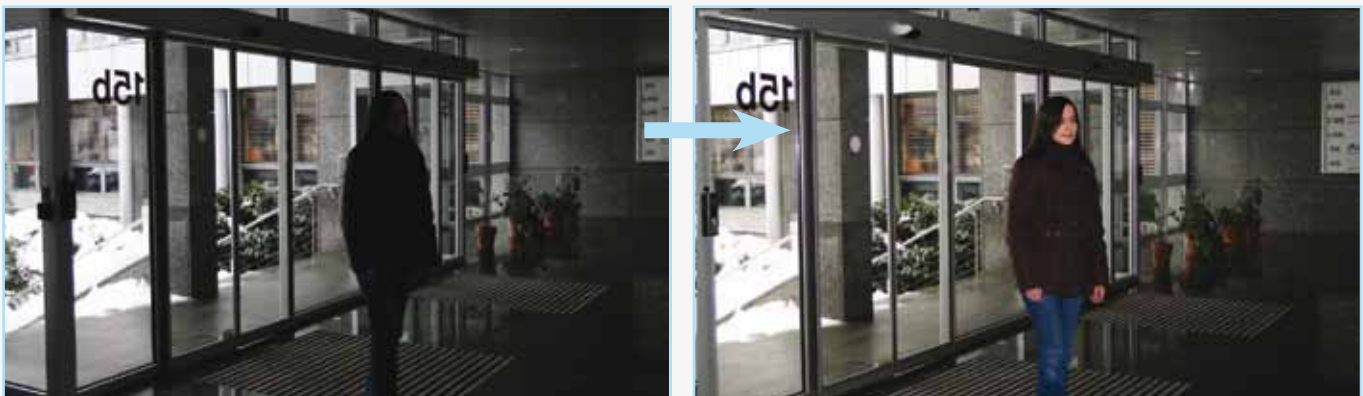
### GCI C0745P

IP External Day/Night PTZ Dome - 36x Zoom

- Internal / external applications
- 36x optical zoom, identification < 78 meters\*\*
- Vandal resistant dome (IK10)
- Standard 1.5" PT thread
- Power 24VAC



WDR Function : Especially for extreme backlight issues (windows, store entrances...) —



Obtaining an optimal image in extreme backlight situation, WDR takes two images : one under exposed reducing the white balance (back of the scene) and one over exposed increasing dark areas (front: faces).

Both images are merged in real time by the processor providing a quality image at the front and the back of the scene.

## IP PTZ Domes GCI C0735P and 0745P

• WDR • H.264 • Onvif® Protocol • Micro SD/SDHC card slot

GCI-C0735P • • •

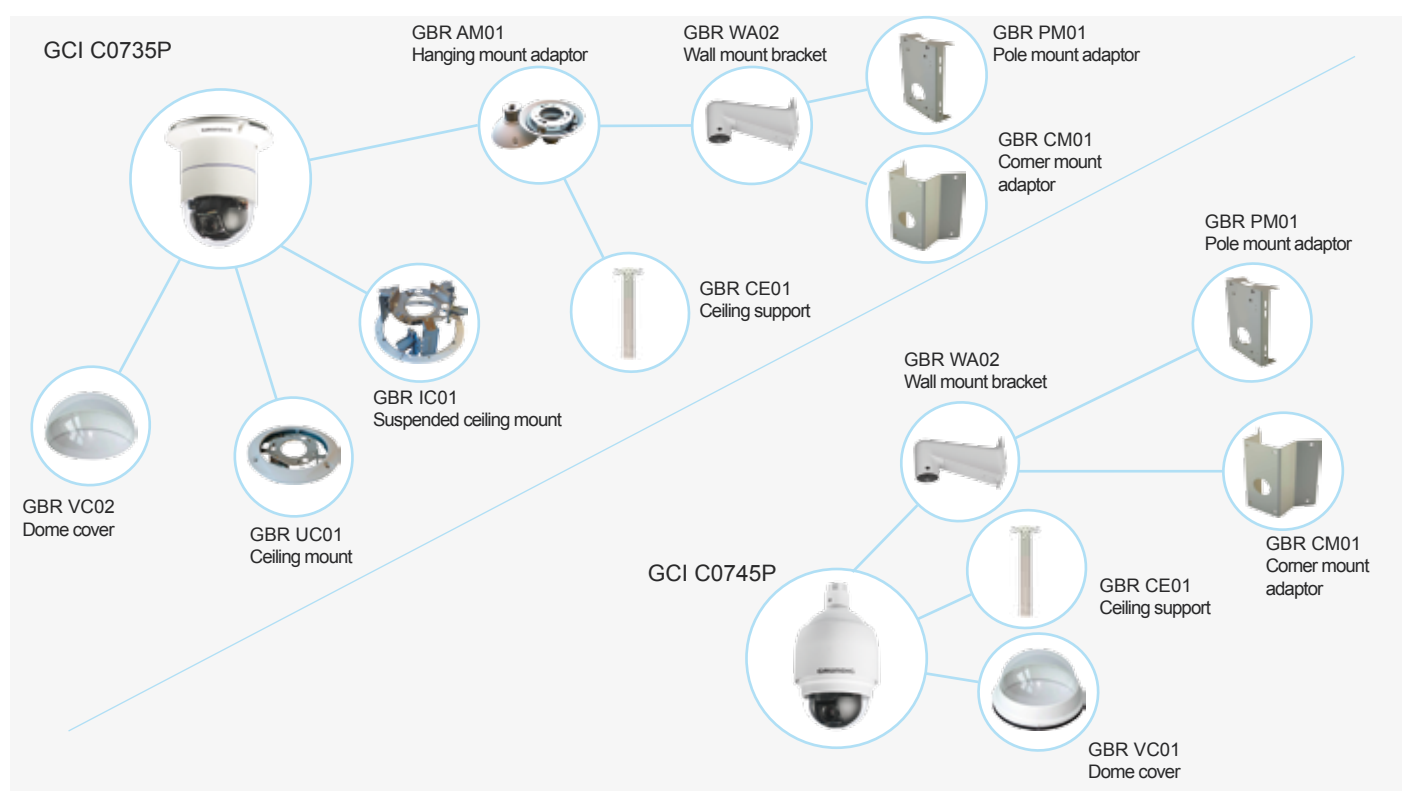


• • • GCI-C0745P

FOR A GOOD  
**REASON**  
**GRUNDIG**

## IP PTZ Grundig® Dome Accessories

Grundig® offers a large range of accessories, allowing multiple mounts.



## IP PTZ Grundig® Dome Accessories **GRUNDIG**

### GBR WA02

Wall mount bracket, cable managed



### GBR PM01

Pole mount adaptor for GBR WA02



### GBR CM01

Corner mount adaptor (90°) for GBR WA02



### GBR IC01

Suspended ceiling mount for dome GCI C0735P



### GBR VC01

Clear polycarbonate dome cover for GCI C0745P



### GBR VC02

Clear polycarbonate dome cover for GCI C0735P



### GBR AM01

Hanging mount for GCI C0735P



### GBR UC01

Ceiling mount for GCI C0735P



### GBR CE01

Ceiling support (0,5m) for dome GCI C0745P and adaptor GBR AM01





## Hikvision®

## Fact.....

Hikvision® is one of the 15 members of the ONVIF® Group (255 in total).



Hikvision® holds numerous worldwide recognized certifications :

- RoHS
- WEEE
- CE
- UL
- FCC
- C-Tick
- CCC
- NOM
- GOST
- ISO 9001:2008
- ISO14001:2004

Hikvision® IP Cameras are compatible with many CCTV software developed by different editors.

Below is a no exhaustive list :

- |                       |               |
|-----------------------|---------------|
| • Aimetis®,           | • Keyking®,   |
| • Alnet®,             | • Lenel®,     |
| • Avermedia®,         | • Maxxess®,   |
| • Axxon®,             | • Milestone®, |
| • Bold Technologies®, | • Mirasys®,   |
| • Genetec®,           | • Nuuo®,      |
| • Geoview®,           | • OnSSI®,     |
| • GVD®,               | • Qnap®,      |
| • IProcess®,          | • SeeTec®     |



Headquarter

**H**ikvision® was founded in 2001 by a couple of engineers who specialized in video compression and DSP treatment.

**T**he company has rapidly evolved, establishing a strong partnership with the DSP worldwide leader (Digital Signal Process) : Texas Instruments®.

**H**aving started with the manufacturing of digital cards, followed by DVRs (worldwide leader for DVR manufacturing), always enhancing their codec quality (one of the first manufacturer to propose H.264 as standard, while their competitors were still using MJPEG or MPEG4) and transmission quality, Hikvision® has naturally moved to encoder and decoders.

**M**iniaturization and the launch of camera ranges have allowed manufacturing IP cameras.

**T**oday, Hikvision® has around 3500 employees around the globe of which a team of 1000 engineers who are working closely with hi-tech universities.

**A**asset Security® signed a partnership with Hikvision® and proposes for this year 2011 an impressive list of high technology products, as well as a broad pallet of software.

# HIKVISION

New IP Range

**HIK**VISION



Cameras Recorders **IP** Domes

Encoders Vandal Resistant

Infra-Reds Megapixels

**HIK**VISION

## Results from a megapixel camera

The below example provides an overview of results obtained by a megapixel camera.

In Live or playback mode, megapixel cameras allow a high quality digital zoom. With a 5 megapixels camera, we have about 50 times more information than in CIF resolution (352x288).

**0.1 megapixel : CIF (352x288)**



In CIF, identification or recognition are not possible.

**1,3 megapixel (1280x960)**



1.3 Megapixel, the plate is visible.

**5 megapixels (2560x1920)**



5 Megapixels, all details are preserved when zooming in.

## High definition and low light is possible



Classic camera



Camera high sensitivity

The 1.3 megapixel CCD chipset included in some Hikvision® cameras has been conceived to keep a very high quality image in low light condition.

## What do ONVIF® and PSIA® mean ?



Onvif® (Open Network Video Interfaces Forum), is an international standard interface for network video products. Created in 2008, the purpose of this standard is to widen the compatibility of the products between various brands.



PSIA® is its competitor, created by other manufacturers. Today, the large manufacturers are mainly members of the two organizations and support both standards.

## IP Mini Domes / Cameras **HIKVISION**

IP mini domes/cameras for transport and retail installations.

### Standard features :

- CMOS chipset - progressive scan
- H.264 & M-JPEG compression (dual stream)
- Onvif® and PSIA® protocols
- Power 12VDC and PoE
- Lens 4 mm\*
- Sensitivity : 0,4 lux colour



### DS 2CD7133 E

IP Mini VR Colour Fixed Dome - VGA

- 1/4" CMOS Chipset
- 25 fps in 640x480
- IP 66 for internal/external applications
- Viewing angle : 48°



### DS 2CD7153 E

IP Mini VR Colour Fixed Dome - 2 MP

As above :

- 1/3" CMOS Chipset, 2.0 Megapixels
- 12,5 fps (1600x1200), 25 fps (1280x960)
- Viewing angle : 62°



### DS 2CD8133 E

IP Mini Colour Camera - VGA

- 1/3" CMOS Chipset, VGA
- Micro SD/SDHC card slot for alarm and/or continuous recording
- 25 fps in 640x480
- C/CS mount; Viewing angle : 48°
- Built in microphone and speaker



### DS 2CD8153 E

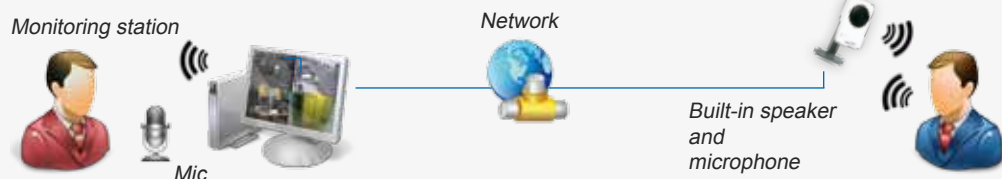
IP Mini Colour Camera - 2 MP

As above :

- 1/3" CMOS Chipset, 2.0 Megapixels
- 12,5 fps (1600x1200), 25 fps (1280x960)
- Viewing angle : 62°



### IP mini cameras: bi-directional audio transmission



IP cameras, DS 2CD8133E and DS 2CD8153E have a built-in microphone and speaker, for immediate remote monitoring and response.

\*Changeable lens for last two camera models.



## IP Cameras **HIKVISION**

IP cameras for all applications : colour, day/night, backlight WDR (Wide Dynamic Range)

### Standard features :

- Day/Night with mechanical filter (ICR)
- H.264 & M-JPEG compression (dual stream)
- 25 fps in 4CIF
- Onvif® and PSIA® protocols
- Micro SD/SDHC card slot for alarm and/or continuous recording
- Bi-directional audio communication
- Video output : BNC
- Power 12VDC and PoE



### DS 2CD833F E

IP Colour/B&W Camera

- 1/4" CMOS Chipset, VGA
- Sensitivity 0,2 lux (Colour) / 0,02 lux (B&W)



### DS 2CD893PF E

IP Colour/B&W Camera - High Sensitivity

- 1/3" CCD Chipset, 4CIF (704x576)
- Sensitivity 0,02 lux (Colour) / 0,002 lux (B&W)



### DS 2CD893PFWD E

IP Colour/B&W Camera - WDR

- 1/3" CCD Chipset, 4CIF (704x576)
- WDR function (x160), dual scan
- Sensitivity 0,1 lux (Colour) / 0,01 lux (B&W)



### WDR (Wide Dynamic Range)



Normal



WDR

Obtaining an optimal image in extreme backlight situation, WDR takes two images : one under exposed reducing the white balance (back of the scene) and one over exposed increasing dark areas (front : faces).



## Internal Fixed IP Domes **HIKVISION**

Vandal resistant fixed domes for internal applications.

### Standard features :

- H.264 & M-JPEG compression (dual stream)
- 25 fps in 4CIF
- Onvif® and PSIA® protocols
- Micro SD/SDHC card slot for alarm and/or continuous recording
- Bi-directional audio communication
- Video output : BNC
- Power 12VDC and PoE
- Optional accessories available

**Onvif®**

**PSIA®**

### DS 2CD733F E

IP Colour Dome - VGA

- 1/4" CMOS Chipset, VGA
- Sensitivity 0.2 lux colour
- Varifocal DC lens : 2,8 ~ 11 mm, viewing angle 70° ~ 18°
- Identification < 6 meters\*



### DS 2CD793PF E

IP Colour Dome - 4 CIF

- 1/3 CCD Chipset, 4CIF (704x576)
- Sensitivity 0,02 lux colour
- Varifocal DC lens : 2,8 ~ 11 mm, viewing angle 97° ~ 24°
- Identification < 5 meters\*



### DS 2CD793PFWD E

IP Colour Dome - WDR

- 1/3 CCD Chipset, 4CIF (704x576)
- WDR function (x160)
- Sensitivity 0,02 lux colour
- Varifocal DC lens : 2,8 ~ 11 mm, viewing angle 97° ~ 24°
- Identification < 5 meters\*



### DS 1227ZJ

Suspended ceiling mount

- For IP fixed dome DS 2CD7x3



### DS 1229ZJ

Wall mount Bracket

- For IP fixed dome DS 2CD7x3



\* Distance identification is calculated with maximum zoom.

## Megapixel Cameras **HIKVISION**

**S**uper high resolution cameras for high quality recording and playback.

### Standard features :

- Progressive scan chipset with mechanical filter
- H.264 & M-JPEG compression (dual stream)
- Onvif® and PSIA® protocols
- Micro SD/SDHC card slot for alarm and/or continuous recording
- Bi-directional audio communication
- Video output : BNC
- Power 12VDC and PoE



### DS 2CD863PF E

IP Colour/B&W Camera - High Sensitivity - 1.3 MP

- 1/3" CCD Chipset High definition and high sensitivity
- 1.3 Megapixel, Colour/B&W (1280x960)
- 12 fps in 1280x960; 25 fps in 1280x720
- Sensitivity 0,1 lux (Colour) / 0,01 lux (B&W)



### DS 2CD853F E

IP Colour/B&W Camera - 2 MP

- 1/3" CMOS Chipset, 2.0 Megapixels (1600x1200)
- 12,5 fps in 1600x1200; 25 fps in 1280x960
- Sensitivity : 0,5 lux (Colour) / 0,1 lux (B&W)



### DS 2CD854F E

IP Colour/B&W Camera - 3 MP

- 1/2.5" CMOS Chipset, 3.0 Megapixels (2048x1536)
- 12,5 fps in 2048x1536; 25 fps in full HD
- Sensitivity : 0,6 lux (Colour) / 0,08 lux (B&W)



### DS 2CD883F E

IP Colour/B&W Camera - 5 MP

- 1/2.5" CMOS Chipset, 5.0 Megapixels (2560x1920)
- 6 fps in 2560x1920, 12,5 fps in 2048x1536; 25 fps in full HD
- Sensitivity : 0,6 lux Colour / 0,08 lux B&W



## Internal Megapixel Fixed Domes **HIKVISION**

Vandal resistant fixed domes, super high resolution for detailed recording and playback.

### Standard features :

- Progressive scan chipset with mechanical filter
- H.264 & M-JPEG compression (dual stream)
- Onvif® and PSIA® protocols
- Micro SD/SDHC card slot for alarm and/or continuous recording
- Bi-directional audio communication
- Video output : BNC
- Power 12VDC and PoE



### DS 2CD763PF E

IP Colour Dome - 1.3 MP

As DS 2CD863F E, with :

- Sensitivity 0,1 lux colour
- Varifocal DC lens : 2,8 ~ 11 mm; viewing angle 97° ~ 24°
- Identification < 9,5 meters\*



### DS 2CD753F E

IP Colour Dome - 2 MP

As DS 2CD853F E, with :

- Sensitivity 0,5 lux colour
- Varifocal DC lens : 2,7 ~ 9 mm; viewing angle 101° ~ 30,4°
- Identification < 10 meters\*



### DS 2CD754F E

IP Colour Dome - 3 MP

As DS 2CD854F E, with :

- Sensitivity 0,6 lux colour
- Varifocal DC lens : 4,5 ~ 10 mm; viewing angle 71,5° ~ 33,5°
- Identification < 12 meters\*



### DS 2CD783F E

IP Colour Dome - 5 MP

As DS 2CD883F E, with :

- Sensitivity 0,6 lux colour
- Varifocal DC lens : 4,5 ~ 10 mm; viewing angle 71,5° ~ 33,5°
- Identification < 15 meters\*



### DS 2CD783F EP

IP Colour Dome - 5 MP - Lens 360°

As DS 2CD783F E, with :

- Fisheye Lens 360° for View 360° software (see next page)



\* Distance identification is calculated with maximum zoom.

## 360° view - Fisheye View **HIKVISION**

New security solution with 360 viewing angle for complete area recording. Very high quality panoramic and fish eye views can be displayed and recorded on a network video recorder.

360 Vision accepts different IP cameras with different resolution on the same NVR and viewing station. With the fish eye lens, the camera monitors the complete scene regardless of what is done by the operator, the fish eye view is always recorded.

### 360 Software functions :

- Up to 32 channels IP Cameras including 12x 360° Vision cameras.
- Dual screen display.
- One camera offers the possibility of 180 or 360° view.
- Mouse control (no latency).
- VMD or continuous recording.
- Playback with virtual ePTZ control.
- Compatible with NAS Storage devices.
- Remote control via client software.
- Privacy zones.
- Accepts different camera models in standard view.



Compatible camera DS 2CD783F EP (page 21)

### Example of camera views :



180° viewing angle



### Advantages :

- Less cameras to install
- Better understanding of people flow
- No blind spots
- Very discrete and flexible solution

## External Fixed IP Domes **HIKVISION**

**V**andal resistant fixed domes for external applications.

### Standard features :

- H.264 compression dual codec (25 fps)
- Varifocal DC lens 2,7~9 mm
- Micro SD/SDHC card slot for alarm and/or continuous recording
- Bi-directional audio communication
- Video output : BNC
- Power 12/24V and PoE

### DS 2CD762MF FB

IP Colour/B&W Dome - 1.3 MP

- 1/3" CCD Chipset High definition and high sensitivity
- 1.3 megapixel camera
- Day/Night with mechanical filter (ICR)
- Speed : 12 fps in 1280x960; 25 fps in 1280x720
- Sensitivity 0,1 lux (Colour) / 0,01 lux (B&W)



### DS 2CD752MF FB

IP Colour Dome - 2 MP

- Progressive scan chipset
- 2 Megapixel camera
- Speed : 12,5 fps in 1600x1200; 25 fps in 1280x960
- Sensitivity 0,5 lux colour



### DS 2CD752MF IFB

IP Colour/B&W Dome with Built-in IR LEDs - 2 MP

As above :

- IR LEDs for low light applications
- Day/Night with mechanical filter (ICR)
- Sensitivity : 0,5 lux (Colour) / 0 lux (IR activated)
- Range 10/20m\*



### DS 1217ZJ

Wall Mount Bracket

- To be used with DS 2CD752 and 762 domes



### DS 1215ZJ

Pole Mount Adaptor

- For DS1217ZJ



\*Infrared distance range depends on the scene illumination reflection.



## External Fixed IP Domes **HIKVISION**

Available from  
August 2011

New vandal resistant dome range for external applications, responding to different needs :  
Backlight, low light, high and super high resolution.

### Standard features :

- H.264 & M-JPEG compression (dual stream)
- IR LEDs projector ("I" models)
- Onvif® and PSIA® protocols
- Micro SD/SDHC card slot for alarm and/or continuous recording
- Bi-directional audio communication , Video output : BNC
- Power 12VDC and PoE



### DS 2CD7293PF E

IP Colour Fixed Dome

- 1/3" CCD Chipset, 4CIF (704x576)
- Sensitivity 0,02 lux colour
- Varifocal DC lens : 2,8 ~ 11 mm; viewing angle 97° ~ 24°
- Identification < 5 meters\*



### DS 2CD7293PF EI

IP Day/Night Fixed Dome

As above :

- Sensitivity : 0,02 lux (Colour) / 0 lux (IR activated)



### DS 2CD7293PFWD EI

IP Day/Night Fixed Dome - WDR

As above :

- 1/3" CCD Chipset, 4CIF (704x576)
- WDR function (x160), dual scan
- Sensitivity : 0,1 lux (Colour) / 0 lux (IR activated)



### DS 2CD7253F EI

IP Day/Night Fixed Dome - 2 MP

- 1/3" CMOS Chipset, 2.0 Megapixels
- 12,5 fps in 1600x1200; 25 fps in 1280x960
- Sensitivity : 0,5 lux (Colour) / 0 lux (IR activated)
- Varifocal DC lens : 2,7 ~ 9 mm; viewing angle 101° ~ 30,4°
- Identification < 10 meters\*



*In the next few months, more models will complete the Hikvision® vandal resistant external dome range.*

\* Distance identification is calculated with maximum zoom.

## IP PTZ Domes **HIKVISION**

Hikvision® also has a range of IP PTZ domes for external applications.

### Standard features :

- H.264 compression dual codec (25 fps)
- IP66 dome housing for external applications
- Micro SD/SDHC card slot for alarm and/or continuous recording
- Privacy zones : 24
- Video output : BNC
- Power 24VAC



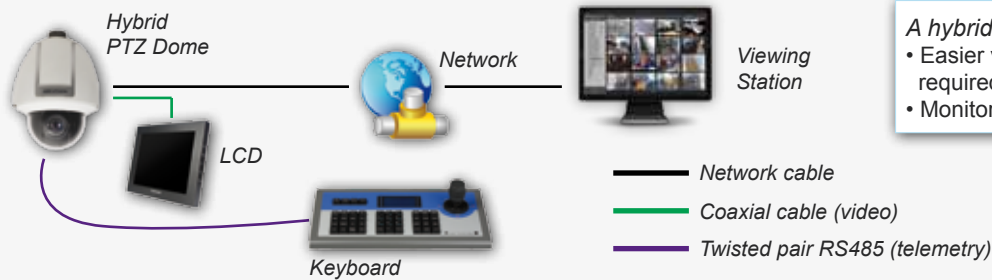
### DS 2DF1 518

IP External Day/Night PTZ Dome - 36x Zoom

- 1/4" CCD Chipset, Colour/B&W, 4CIF (704x576)
- Exview® Chipset for low sensitivity
- 36x optical zoom, identification < 78 meters\*
- Standard 1.5" PT thread



### Why use a hybrid camera/dome ?



A hybrid PTZ dome is useful for :

- Easier video setup : a PC is not required
- Monitor video output

### DS 2DF1 572

IP External PTZ Dome - 1.3 MP

- 1.3 megapixel dome (1280x960)
- CCD Chipset High definition and high sensitivity
- 18x optical zoom, identification < 73 meters\*
- Standard 1.5" PT thread



### Why use an IP megapixel PTZ dome ?

The images below show a digital zoom on playback : megapixel images provide more details on the recording.



Image 0.4 megapixel : 4CIF



Image 1.3 Megapixel

\* Distance identification is calculated with maximum zoom.

When lighting is insufficient, Infrared is the solution !

# HIKVISION

## DS 2DF1 715B

IP PTZ Dome with built-in IR-LEDs

- Exview® Chipset for low sensitivity , 4 CIF (704x576)
- WDR Function
- 26x optical zoom, identification < 65 meters\*
- Sensitivity 0 lux (IR activated)
- Auto adaptive IR LEDs : IR array and zoom are proportional
- Video output : BNC + network (RJ45)
- Privacy zones : 8 (polygonal) / 24 (standard)
- 10° above horizon line viewing
- Standard 1.5" PT thread
- Power 24VAC

ONVIF®



## What does the IR PTZ do ?

>> See in pitch black (0 lux) - The IR LEDs allow night viewing.



Without IR



With IR

>> View above the horizon

In most cities, street monitoring is becoming more and more important where some streets have a slope. A standard PTZ Dome installed at the bottom of the slope will not allow a proper street view. Therefore we require viewing above the horizon.



Standard PTZ view



DS-2DF1-715B view (10° above the horizon)

We find this issue in various applications. For example : football stadium, car parks, airports and more...

\* Distance identification is calculated with maximum zoom.

## IR PTZ Dome Features

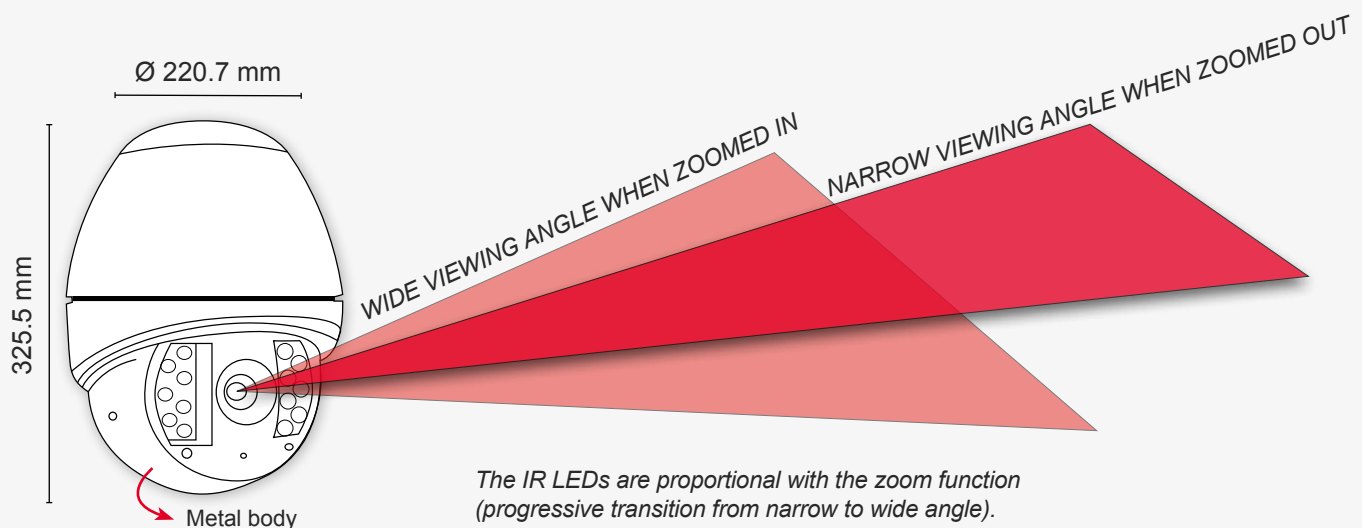


### New : proportional IR LEDs

The PTZ is equipped with IR LED projectors :

- Wide viewing angle when zoomed in
- Narrow viewing angle when zoomed out

The IR LED projectors are proportional to the zoom strength avoiding reflections on targets.



## IP PTZ Dome Accessories **HIKVISION**

- Hikvision® PTZ domes bracketry for different mounts
- Cable managed
- Aluminium body
- Colour : White

### DS 1614ZJ

Wall Mount Bracket



### DS 1622ZJ

Wall Mount Bracket for Pole Mount



### DS 1633ZJ

Wall Mount Bracket for Corner mount



### DS 1651ZJ

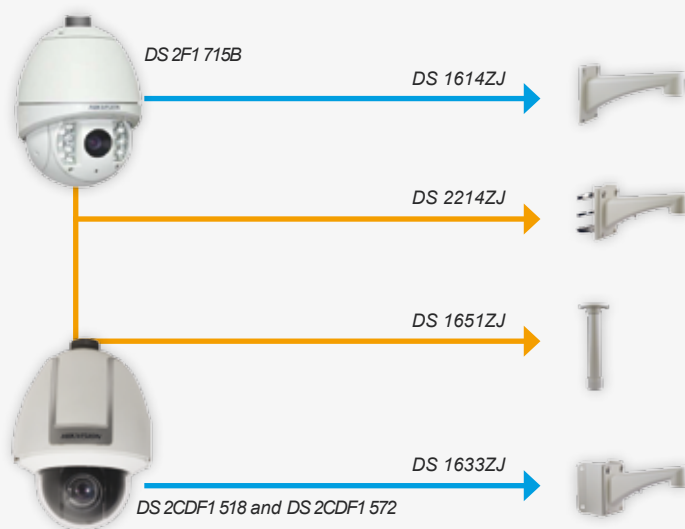
Ceiling Mount Bracket



## Compatibility Hikvision® accessories

Hikvision® PTZ domes are compatible with a wide range of accessories.

Example of installation with a corner mount adaptor.





# Network Samsung® Cameras

High definition, High technology, Mobility



- Better image clarity
- Easy integration
- More flexibility



## IP Cameras : 5000 Range

SAMSUNG

High definition IP Cameras, up to 1.3 megapixel, ONVIF® compatible and most web browsers.

## Standard features :

- 1/3" CMOS Chipset, 1.3 Megapixel
- Resolution 1280x1024 @ 22 fps; 720p @ 30 fps
- H.264, M-JPEG and MPEG4 compression
- Micro SD/SDHC card slot for continuous recording
- Onvif® protocol
- Video output : BNC (DIP for SNC 5010P)
- Power 12/24V and PoE (except SNV 5010P)



## SNB 5000P

IP Hybrid Camera

- Sensitivity 0,3 lux (Colour) / 0,01 lux (B&W) @ F1.2
- Day/Night with mechanical filter (ICR)
- C/CS mount



## SNO 5080R

IP Bullet Camera with Built-in IR LEDs

- Built-in IR LEDs
- Sensitivity 0,3 lux (Colour) / 0,01 lux (B&W) @ F1.2
- Day/Night with mechanical filter (ICR)
- Varifocal DC lens : 2,8 ~ 10 mm; viewing angle 94,6° ~ 28,8°
- Identification < 9,5 meters\*
- IP66, cable managed bracket



## SNV 5080P

IP Vandal Resistant Fixed Dome

- Sensitivity 0,3 lux (Colour) / 0,01 lux (B&W) @ F1.2
- Day/Night with mechanical filter (ICR)
- Varifocal DC lens : 2,8 ~ 10 mm; viewing angle 94,6° ~ 28,8°
- Identification < 9,5 meters
- Surface and flush mount
- IP66



## SNV 5010P

IP Vandal Resistant Mini Fixed Dome

- Sensitivity 1 lux colour @ F1.8
- Fixed lens : 3 mm; viewing angle 91,2°
- IP66
- Power 12VDC and PoE



\* Distance identification is calculated with maximum zoom.

## 5000 range : Terms &amp; Features

SAMSUNG

## IP cameras, 1.3 megapixel, HD



CIF resolution

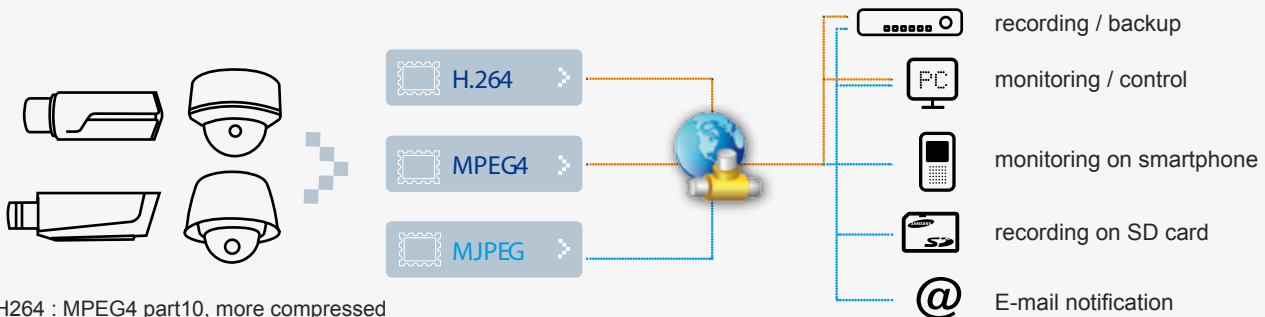
Samsung® HD Network cameras support various resolutions simultaneously for various user applications : CIF (352x288), VGA (640x480), SVGA (800x600), 16/9 HD (1280x720), 1.3 megapixel (1280x1024).



1.3 megapixel resolution

## Multiple codec

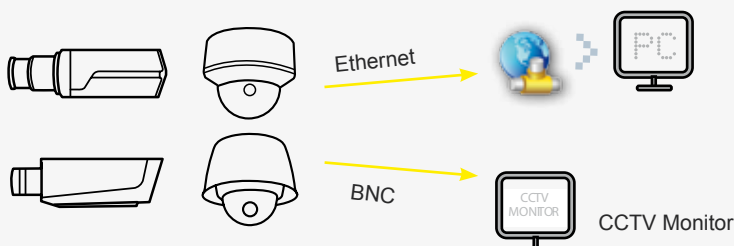
Multiple codec (H.264, MPEG4 and MJPEG) can be transmitted simultaneously, enabling multiple purposes such as real time monitoring, high quality or high efficiency recording, mobile monitoring, E-mail notification, and SD memory recording.



- H264 : MPEG4 part10, more compressed
- MPEG4 : requires less PC resources than H264, for video display
- MJPEG : more details, for image analysis, high bandwidth requirement

## Network / Analogue hybrid cameras

Network cameras enable true hybrid camera operation. With both Ethernet and BNC connections, Samsung® network cameras can simultaneously stream network video across a network and analogue video via coaxial cabling to support existing analogue equipment.



## IP Cameras : 3000 Range

SAMSUNG

New technology IP Cameras with 600TVL and H.264 compression.

## Standard features for both pages :

- CCD Chipset Colour/B&W, with mechanical filter
- 4CIF Encoding @ 25 fps (dual stream)
- WDR Function, dual scan
- Sensitivity 0,4 lux (Colour) / 0,04 lux (B&W) @ F1.2
- H.264, M-JPEG and MPEG4 compression
- A1 DSP : 3DNR noise reduction technology, reducing noise recording, Digital Image Stabilizer (DIS), eXtended Dynamic Range (XDR)
- Privacy zones : 12 (polygonal)
- Power 12/24V and PoE

## SNB 3000P

IP Hybrid Camera

- C/CS Mount



## SND 3080P

IP Internal Fixed Dome

- Varifocal DC lens : 2,8 ~ 11 mm; viewing angle : 28,8° ~ 94,6°;
- Identification < 5,8 meters\*



## SNV 3080P

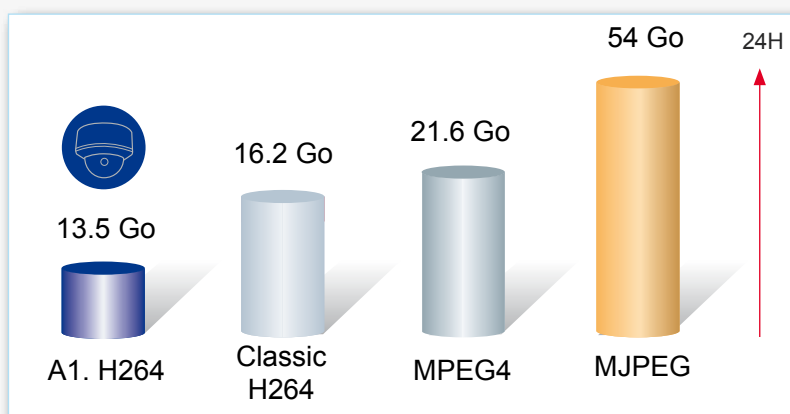
IP Vandal Resistant Fixed Dome

- Varifocal DC lens : 2,8 ~ 11 mm; viewing angle : 28,8°~94,6°
- Identification < 5,8 meters\*
- Surface and flush mount
- IP66
- Operating temperature -40°C, housing with fan and heater



## H264 CABAC : High performance compression

Samsung® network camera has adopted H.264 CABAC Entropy Coding Technology. The H.264 performance has been enhanced which is much better than normal H.264 compression method. With CABAC technology, Samsung® network camera will provide a significant benefit to network transmission with less bandwidth usage. Recording capacity requirement are the same than 4CIF video quality.



\* Distance identification is calculated with maximum zoom.

## IP Cameras : 3000 Range

SAMSUNG

## SNV 3120P

IP Vandal Resistant Fixed Dome - 12x Zoom

- 12x Optical zoom - 3.69 - 44.32 mm
- Viewing angle 4.64° to 54.44°, identification < 30m\*
- Surface and flush mount
- IP66
- Operating temperature -40°C, housing with fan and heater

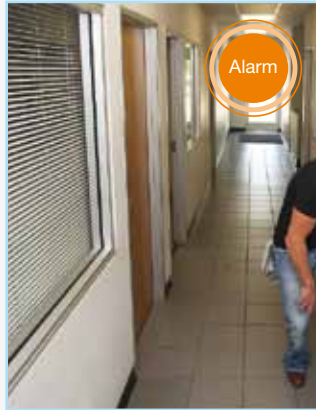


## Scene change

Scene change detection can detect interference and sends an alarm signal when the camera's operation has been tampered with, such as a manual change in the camera's angle, removal of the camera lens, defocus, blockage of the camera lens with cloth or spray paint.



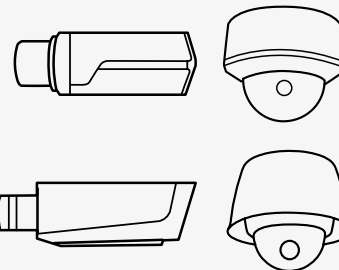
Manual change camera angle



Spray paint on lens

## Alarm event control

Various alarm sources including alarm input ports, motion detection, intelligent video detection can make the camera trigger alarm outputs and pre/post images will be transmitted to FTP server or recorder on to the SD memory card. Also alarm notification with images is sent via E-mail.

SD Card  
Recording@ Email  
NotificationFTP Server  
TransmissionCMS  
Notification

\* Distance identification is calculated with maximum zoom.



## IP Cameras

SAMSUNG

## SNB 1000P

IP Colour Camera

- 1/4" CMOS Chipset, VGA
- H.264 & M-JPEG compression (dual stream)
- Sensitivity : 1,4 lux @ F1.2
- C/CS mount
- Power 12VDC and PoE



## SNB 2000P

IP Hybrid Colour Camera

- 1/3" CCD Chipset, 4CIF (704x576)
- 3DNR noise reduction technology, reducing noise recording, Digital Image Stabilizer (DIS), eXtended Dynamic Range (XDR)
- H.264 & M-JPEG compression (dual stream)
- Sensitivity : 0,4 lux @ F1.2
- C/CS mount
- Power 12/24V and PoE

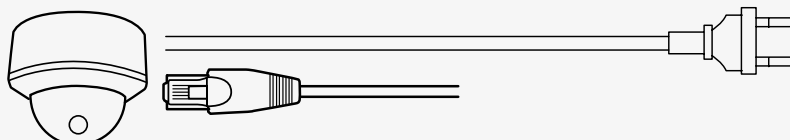


## Power PoE (Power over Ethernet)

With built-in support for Power over Ethernet (PoE), the Samsung Network camera can be powered through the network cable, simplifying installation.

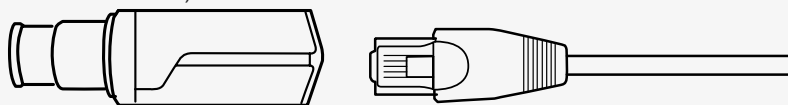
Also, Samsung network cameras offer three power choices, AC24V, DC12V or PoE, with automatic detection making installation fast and efficient.

*Normal connectivity (network cable and power line)*



*Distance : 90 meters max.*

*PoE (Only network cable needed)*



## 43x Optical zoom and high speed PTZ function : For urban applications



Samsung® PTZ domes have a very high speed rotation (360° pan/tilt) coupled with a very important optical zoom allowing better identification.

SNP 3430HP



SAMSUNG

# Samsung® A1 IP Cameras - Terms & Features

## Compatibility

Samsung® IP range and DVRs are compatible with most web browsers for easy setup purposes.

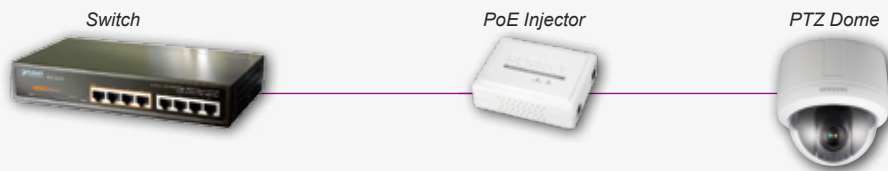


- Firefox®\*
- Chrome®
- Internet Explorer®
- Safari®
- Opéra®

## HiPoE network (High Power over Ethernet)

IP Samsung® IP PTZ domes are HiPoE /PoE+.

Therefore they can be powered over the network. (see pages 56 and 57).



## Video management software compatible with IP Samsung® cameras

IP Samsung® cameras are compatible with many video management software :

- |                                      |             |               |
|--------------------------------------|-------------|---------------|
| • Aimetis®,                          | • Geoview®, | • Milestone®, |
| • Avermedia®,                        | • GVD®,     | • Nuuo®,      |
| • Avigilon®,                         | • Heitel®,  | • Verint®,    |
| • Axxon®,                            | • Lenel®,   |               |
| • Digifort®,                         | • Mirasys®, |               |
| and soon Genetec®, Griffid®, SeeTec® |             |               |

## DIS (Digital Image Stabilization)

Cameras have the capability of digitally compensating for a camera shaking commonly caused by wind or air conditioning units. Removing even minor vibration in the picture results in significant savings in DVR storage space.



DIS Off



DIS On

## IP PTZ Domes

SAMSUNG

Hi-performance PTZ Dome accepting HiPoE and compatible with most web browsers.

## Standard features :

- 1/4" CCD Chipset, 4CIF (704 x 576)
- H.264 & M-JPEG compression (dual stream)
- WDR function
- Day/Night with mechanical filter (ICR)
- Power : HiPoE and/or 24VAC
- Privacy zones : 12
- Hybrid : network + video + RS-485 (multiprotocol)
- Micro SD/SDHC card slot for continuous recording

ONVIF®

## SNP 3120P

## IP Mini PTZ Dome

- Internal PTZ
- 12x optical zoom, 3.69 - 44.32 mm
- Identification < 30 meters\*
- Sensitivity 1,2 lux (Colour) / 0,12 lux (B&W) @ F1.2
- P/T speed (650°/sec), mini speed (0.05°/sec)



## SNP 3120VHP

## IP Mini PTZ External Dome

As above :

- IP66
- Operating temperature -40°C~+50°C
- Standard 1.5" PT thread



## SNP 3430HP

## IP PTZ External Dome

- Exview® Chipset for low sensitivity
- 43x optical zoom, 3.2 - 138.5 mm
- Identification < 90 meters\*\*
- Viewing angle : 1,47°~61,22°
- WDR function (x128)
- Day/Night with mechanical filter (ICR)
- Sensitivity 0,7 lux (Colour) / 0,07 lux (B&W) @ F1.2
- P/T speed (360°/sec)
- 8 Alarm inputs, 3 alarm outputs
- IP66
- Operating temperature -50°C~+50°C
- Privacy zones : 12
- Standard 1.5" PT thread



\*\*Distance identification is calculated with maximum zoom.

## IP PTZ Samsung Dome Accessories

SAMSUNG

## SCX 300WM

Wall mount bracket - Standard 1.5" PT thread



## SCX 300PM

Pole mount adaptor to be used with SCX 300WM



## SCX 300KM

Corner mount adaptor to be used with SCX 300WM



## SCX 300LM

Parapet mount adaptor - Standard 1.5" PT thread



## SCX 300CM

Ceiling support - Standard 1.5" PT thread



## SCX 300HM

Ceiling mount bracket for SCP 2250P and 3430P , and vandal resistant fixed domes

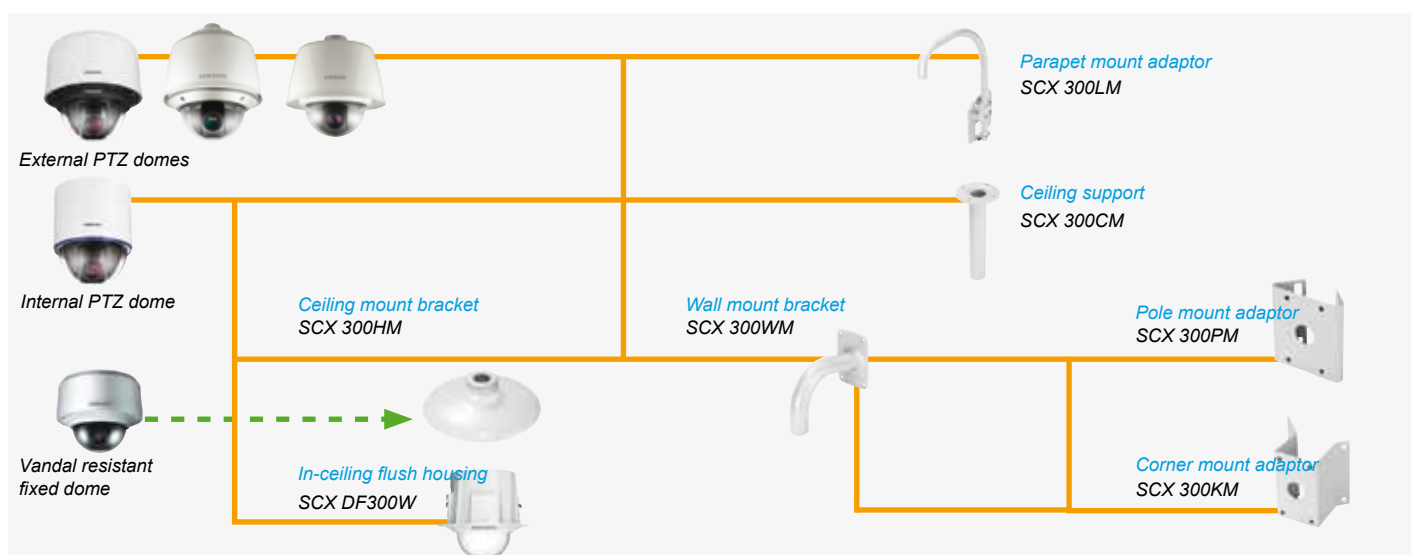


## SCX DF300W

In-ceiling flush housing for SCP 2250P et 3430P domes



## IP PTZ Mounting Options



# Lenses





## Varifocal Lenses

### AST 2812DCIRC

1/3" DC Iris Varifocal Lens - CS IR

- 1/3" lens
- Focal Length 2.8 ~ 12 mm
- Aperture Ratio F 1.6 ~ 360
- Lens Drive Type DC auto iris
- IR Corrected lens
- Minimum Object Distance 0.2m - Viewing Angle 104°~33°



### AST 0358DCIRC

1/3" DC Iris Varifocal Lens - CS IR

- 1/3" lens
- Focal Length 3.5~8 mm
- Aperture Ratio F 1.2 ~ 360
- Lens Drive Type DC auto iris
- IR Corrected lens
- Minimum Object Distance 0.3m - Viewing Angle 74°~33°



### AST 0550DCIRC

1/3" DC Iris Varifocal Lens - CS IR

- 1/3" lens
- Focal Length 5 ~ 50 mm
- Aperture Ratio F 1.6 ~ 360
- Lens Drive Type DC auto iris
- IR Corrected lens
- Minimum Object Distance 0.3m - Viewing Angle 52.2°~5.7°



## Why do we use IR correction ?

Many lenses are IR corrected allowing cameras to stay in focus Day and Night.

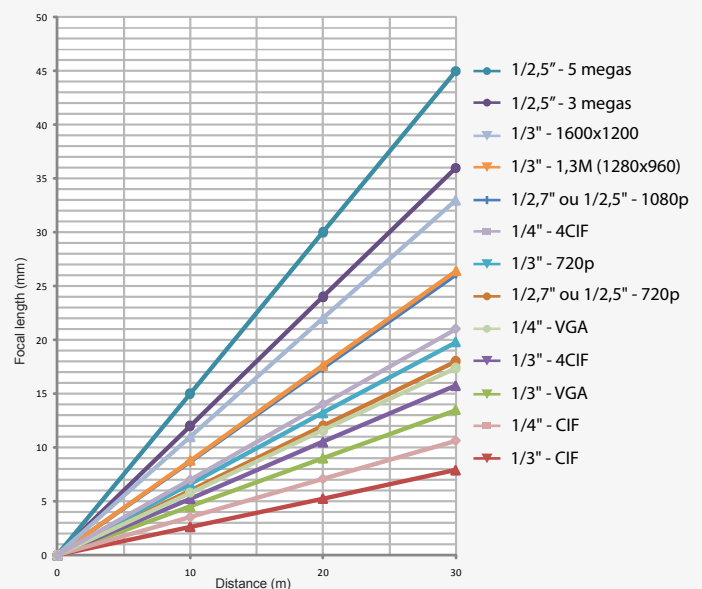
- The focus area with infra red is not the same during day time and night time.
- Infra-red light is used with IR LED Projectors, from the sun, halogene and white lights.
- IR corrected lenses can also be used in applications where lighting conditions vary a lot during day and night.

## How to choose a lens ?

Lens Focal requirement depending on distance and recording quality (CIF, 4CIF, 720p) or Full HD or more...

How to chose the appropriate lens ?

- 1) Chose the distance of the scene on the horizontal axis.
- 2) Go up to the line corresponding to the recording quality (CIF, 4 CIF...)
- 3) Go left on the vertical axis which will define the focal length to be chosen.



## How to chose a lens ?

These charts allow choosing the best focal length depending on the field of view. Viewing angles proportionally vary with the chipset format.

Example : for a 1/3" camera having a 70° viewing angle :

- Chose chipset format 1/3", slide to the right until you obtain the required viewing angle.
- In this case, we require a 3.4mm focal length

Horizontal Angle Field of View	Chipset	Focal mm Format	2,4	2,7	2,8	3	3,2	3,3	3,4	3,5
	1/2,5"	16/9	-	-	-	-	-	82,2°	80,5°	78,9°
			-	-	-	-	-	15,7m	15,3m	14,9m
	1/2,7"	16/9	-	-	-	-	-	78,3°	76,6°	75°
			-	-	-	-	-	14,8m	14,4m	14,1m
	1/3"	4/3	90,0°	83,3°	81,2°	77,3°	73,7°	72,1°	70,4°	68,9°
			16m	14,8m	14,4m	13,7m	13,1m	12,8m	12,5m	12,2m
	1/4"	4/3	-	-	-	-	58,7°	57,2°	55,8°	54,4°
			-	-	-	-	10,4m	10,1m	9,8m	9,6m
	Chipset	Focal mm Format	3,6	3,7	3,8	4	4,5	4,7	6	8
	1/2,5"	16/9	77,3°	75,8°	74,3°	71,5°	65,2°	63,0°	51,3°	39,6°
			14,6m	14,3m	13,9m	13,3m	12m	11,6m	9,3m	7,1m
	1/2,7"	16/9	73,4°	71,9°	70,5°	67,7°	61,6°	59,5°	48,2°	37,1°
			13,7m	13,4m	13,1m	12,6m	11,3m	10,9m	8,7m	6,6m
	1/3"	4/3	67,4°	65,9°	64,6°	61,9°	56,1°	54,1°	43,6°	33,4°
			11,9m	11,7m	11,4m	10,9m	9,9m	9,5m	7,7m	5,9m
	1/4"	4/3	53,1°	51,9°	50,7°	48,5°	43,6°	41,9°	33,4°	25,4°
			9,4m	9,1m	8,9m	8,5m	7,7m	7,4m	5,9m	4,4m

Example : Field of view of 10m with a 1/4" chipset at 10m of target distance.

- Chose chipset format 1/4", slide to the right until you obtain a 10m width.
- In this case, we require a 3.2mm focal length.

Horizontal Angle Field of View	Chipset	Focal mm Format	9	10	11	12	15	22	30	43,2
	1/2,5"	16/9	35,5°	32,1°	29,3°	27,0°	-	-	-	-
			6,3m	5,7m	5,2m	4,8m	-	-	-	-
	1/2,7"	16/9	33,2°	30,1°	27,4°	25,2°	-	-	-	-
			5,9m	5,3m	4,8m	4,4m	-	-	-	-
	1/3"	4/3	29,9°	27,0°	24,6°	22,6°	18,2°	12,5°	9,1°	-
			5,2m	4,7m	4,3m	4m	3,2m	2,2m	1,6m	-
	1/4"	4/3	22,6°	20,4°	18,6°	17,1°	13,7°	9,4°	6,9°	4,8°
			3,9m	3,6m	3,3m	3m	2,4m	1,64m	1,2m	0,84m
	Chipset	Focal mm Format	44,3	45,6	50	79,2	84,6	91	122,4	138,5
	1/2,5"	16/9	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
	1/2,7"	16/9	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
	1/3"	4/3	-	-	5,5°	-	-	-	-	-
			-	-	0,96m	-	-	-	-	-
	1/4"	4/3	4,7°	4,5°	4,1°	2,6°	2,4°	2,3°	1,7°	1,5°
			0,82m	0,79m	0,72m	0,45m	0,42m	0,4m	0,3m	0,26m

For a 20m distance, double the field of view or divide by 2 the focal length.

## 1/3" Megapixel Varifocal Lenses, Wide Angle

### M13VG246

1/3" DC Iris Varifocal Megapixel Lens

- Wide angle
- Focal Length 2.4 ~ 6 mm
- Viewing angle : 111,3° ~ 47,1°
- Aperture ratio : F 1,2 ~ 360
- CS mount



### M13VG308

1/3" DC Iris Varifocal Megapixel Lens

- Focal Length : 3 ~ 8 mm
- Viewing angle : 92,5° ~ 35,4°
- Aperture ratio : F 1,0 ~ 360
- CS mount



### M13VM308

As Above 1/3" Manual Varifocal Megapixel Lens

## Why choosing a megapixel lens ?

Megapixel cameras have a much higher resolution than standard cameras, this is the reason why they require specific lenses designed to work together for optimal results.



Standard lens  
Standard camera



Standard lens  
Megapixel camera



Megapixel lens  
Megapixel camera

## 1/3" Megapixel Varifocal Lenses, Narrow Angle

### M13VG550

1/3" DC Iris Varifocal Megapixel Lens

- Focal Length : 5 ~ 50 mm
- Viewing angle : 53,8° ~ 5,5°
- Aperture ratio : F 1,4 ~ 360
- CS mount



### M13VM550

As Above 1/3" Manual Varifocal Megapixel Lens

## 1/2" Megapixel Varifocal Lenses

### M12VG412

1/2" DC Iris Varifocal Megapixel Lens

- Focal Length : 4 ~ 12 mm
- Viewing angle : 100,5° ~ 33,4°
- Aperture ratio : F 1,4 ~ 360
- C mount



### M12VM412

As Above 1/2" Manual Varifocal Megapixel Lens

## Megapixel Lenses, Fisheye



Theia® lenses allow a very large field of view without distortion, up to 135°. Replacement of multiple cameras with a high definition cameras (from 1.3 to 5 megapixels).

### SY110M

1/2" Manual Megapixel Lens

- Focal Length : 1,67 mm
- Viewing angle : 1/3" (110°H), 1/2.5" (120°H), without distortion
- Aperture ratio : F 1.8
- CS mount
- IR Corrected lens



### SY110A

As Above 1/2" DC Iris Varifocal Megapixel Lens

### Example



With standard lens, two cameras are required.



With a Theia® lens, one camera is sufficient (especially in 16/9 format).

### SY125M

1/2" Manual Megapixel Lens

- Focal Length : 1,28 mm
- Viewing angle : 1/3" (125°H), 1/2.5" (135°H), without distortion
- Aperture ratio : F 1.8
- CS mount



### SY125A

As Above 1/2" DC Iris Varifocal Megapixel Lens

### Theia® lenses



«Fisheye» effect (important distortion)



Same picture with SY110M and SY110A Lenses (Viewing angle : 120°)

Theia® lenses provide a high resolution image, with a very wide field of view, without a fish eye effect. Compatible with standard and megapixel cameras.



# Encoders / NVRs





## Video Encoders **HIKVISION**

IP encoders transform an analogue video signal into IP video signal allowing the use of existing cameras, PTZ domes or conventional PTZ.

### Standard features :

- H.264 compression mode (25 fps max)
- Dual stream encoding
- Bi-directional audio communication
- RS485 for telemetry control
- 1 Alarm input

### DS 6101HFI IPA

1 Ch. IP Encoder

- Compact design
- 1 alarm output
- Power 12VDC

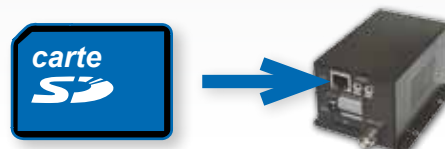


### DS 6101HFI IPSD

1 Ch. IP Encoder - SD/SDHC Card Slot

As above :

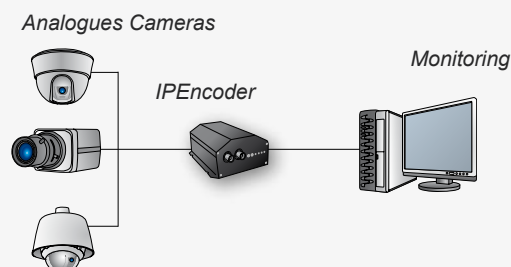
- SD/SDHC card slot
- Alarm or continuous recording



### Why encoding an analogue camera ?

Retro fit installation can require a mix of analogue cameras and IP cameras. This type of product is usually compatible with all analogue cameras and converts the video signal.

- Use existing working analogue cameras (Domes, Cameras...)
- Use existing specific cameras (PTZ Domes or standard PTZ...)
- Smooth transition to full IP



## Hikvision® Multichannel Encoders

### Standard features :

- Audio encoding per channel + Bi-directional audio communication
- 16 Alarm inputs and 4 alarm outputs
- Power 230VAC, Rack mount possible

### DS 6504HFI

IP Encoder, 4 Channels



### DS 6508HFI

IP Encoder, 8 Channels



### DS 6516HFI

IP Encoder, 16 Channels



## Video Decoders **HIKVISION**

IP video decoders allow the display of an IP video signal on an analogue display.

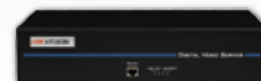
### Standard features :

- H.264 or MPEG 4 compression mode decoding stream (25 fps max)
- Bi-directional audio communication
- RS485 for telemetry control (multiprotocol)

### DS 6101DI

IP Decoder, 1 Channel

- Display 1 Camera in 4CIF or 1 Quad in CIF
- 2 Alarm inputs and 2 alarm outputs
- Power 12VDC



### DS 6401HDI



IP Decoder, 1 Channel - High definition

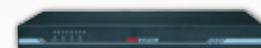
- Up to 2 megapixels resolution decoding
- 4 Channel video outputs : BNC, VGA, HDMI, DVI
- 2 Alarm inputs and 2 alarm outputs
- Power 12VDC



### DS 6301DI

IP Decoder, 1 Channel - Rack Mount

- Up to 720p resolution decoding
- 2 Channel video outputs : VGA, BNC
- 8 Alarm inputs and 8 alarm outputs
- Power 230VAC, rack mount possible



### DS 6304DI

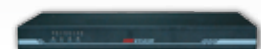
IP Decoder, 4 Channels - Rack Mount

- As above :
- 2 Channel video outputs : VGA (2x), BNC (4x)
  - Audio decoding per channel + Bi-directional audio communication



### DS 6308DI

IP Decoder, 8 Channels - Rack Mount



### How many channels can we display with a decoder ?

Product code	DS 6101DI	DS 6401HDI	DS 6301DI	DS 6304DI	DS 6308DI
BNC output(s)	1	1	2	4	8
VGA output(s)	0	1	1	2	4
HDMI / DVI output(s)	0 / 0	1 / 1	0 / 0	0 / 0	0 / 0
Display Resolution (max)	4 CIF	1080p	720p	720p	720p
1080p stream(s)	0	1	0	0	0
720p stream(s)	0	2	2	2	4
4CIF stream(s)	1	4	4	4	8
CIF stream(s)	4	-	8	8	16
Multivi screen possible*	4xCIF / 1x4CIF	4xCIF / 1x1080p	4xCIF / 2x4CIF / 1x720p	8xCIF / 4x4CIF / 2x720p	16xCIF / 8x4CIF / 4x720p

\*4xCIF = Quad view of 4 CIF video stream

## Network Video Recorders - 7000 Range **HIKVISION**

### DS 7604NI S05D

8 Channels, IP Network Recorder

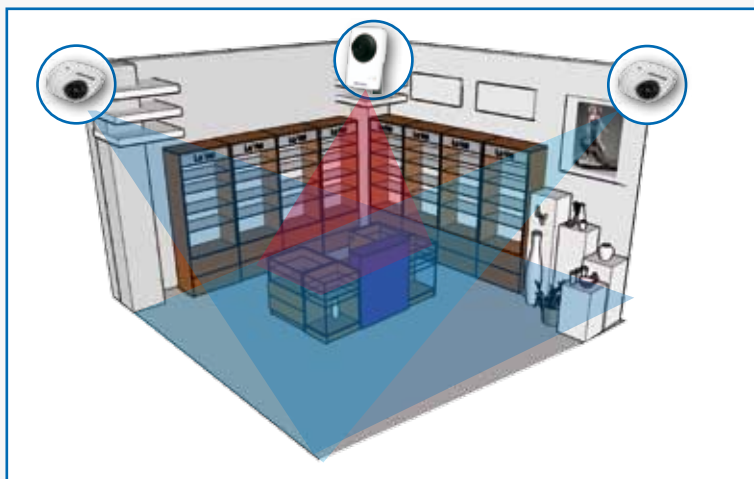
- Recording speed : 200 fps in 4CIF, 100 fps in 720p, 50 fps in 2 MP (1600x1200)
- 1 video output (VGA or BNC)
- Control : front panel, keyboard, WEB, IVMS 4000 software,  
Smartphones : iPhone®, Android®, Blackberry®, Windows Mobile®



### Retail solutions

This solution has been designed for remote viewing, for small and medium applications, responding to different needs and/or requirements :

- Person in charge can see everything.
- Person in charge can have a better understanding of people flow.
- Cameras will not be shifted or unset.
- Shrink reduction
- Deterrent for unsocial behaviour



Remote access via  
iPhone®, Blackberry®,  
Android® and Windows  
Mobile®



## Network Video Recorders - 9500 Range **HIKVISION**

The 9500 NVRs range are high speed recording units, accepting cameras up to 5 megapixel resolution, Hikvision® encoders as well as other brands.

### Standard features :

- Standard storage 1 Tb, expandable to 8 Tb
- Continuous and event recording (pre/post), audio/video
- Hikvision® compatibility : Cameras and domes (fixed and PTZ) H.264 up to 5 megapixels (single and multi channels)
- Compatible with IP brands : Acti®, Axis®, Bosch®, Panasonic®, Pelco®, Sanyo®, Sony®, Vivotek® and soon Grundig®\*
- Control : front panel, keyboard, WEB, IVMS 4000 software, smartphones : iPhone®, Android®, Blackberry®, Windows Mobile®
- RS485 for telemetry control (multiprotocol), 16 alarm inputs and 4 alarm outputs

### DS 9508NI S10

8 Channels Standalone NVR

- Recording speed : 200 fps in 4CIF



### DS 9516NI S10

16 Channels Standalone NVR

- Recording speed : 400 fps in 4CIF



### Recording speed (for Hikvision® cameras)

Product code	Speed	Bandwidth	DS 7604NI S05D	DS 9508NI S10	DS 9516NI S10	AST NRB4832P
Standard HDD			500 Gb	1 Tb	1 Tb	3 Tb
Max. HDD			2 Tb	8 Tb ( 4 x 2 Tb )	8 To ( 4 x 2 Tb )	
QVGA/CIF	6fps	128 Kbps	8 Ch - 41 d : 5 h	8 Ch - 82 d : 10 h	16 Ch - 41 d : 5 h	32 Ch - 61 d : 20 h
	12fps	256 Kbps	8 Ch - 20 d : 14 h	8 Ch - 41 d : 5 h	16 Ch - 20 d : 14 h	32 Ch - 30 d : 22 h
	25fps	512 Kbps	8 Ch - 10 d : 7 h	8 Ch - 20 d : 14 h	16 Ch - 10 d : 7 h	32 Ch - 15 d : 11 h
VGA/4CIF	12fps	1 Mbps	8 Ch - 5 d : 3 h	8 Ch - 10 d : 7 h	16 Ch - 5 d : 3 h	32 Ch - 7 d : 17 h
	25fps	2 Mbps	8 Ch - 2 d : 13 h	8 Ch - 5 d : 3 h	16 Ch - 2 d : 13 h	32 Ch - 3 d : 20 h
720p / 1,3 megas	12fps	1,5 Mbps	4 Ch - 6 d : 20 h	4 Ch - 13 d : 17 h	8 Ch - 6 d : 20 h	8 Ch - 6 d : 20 h
	25fps	3 Mbps	4 Ch - 3 d : 10 h	4 Ch - 6 d : 20 h	8 Ch - 3 d : 10 h	8 Ch - 3 d : 10 h
UXGA / FullHD	12fps	2 Mbps	2 Ch - 5 d : 3 h**	4 Ch - 10 d : 7 h	8 Ch - 5 d : 3 h	16 Ch - 7 d : 17 h
	25fps	4 Mbps	-	2 Ch - 10 d : 7 h	4 Ch - 5 d : 3 h	8 Ch - 7 d : 17 h
3 megas	12fps	8 Mbps	-	2 Ch - 4 d : 9 h	4 Ch - 2 d : 4 h	8 Ch - 3 d : 6 h
5 megas	6fps	8 Mbps	-	2 Ch - 4 d : 9 h	4 Ch - 2 d : 4 h	8 Ch - 3 d : 6 h

As per Hikvision® recommendations, these values are given considering specific settings with standard HDD sizes. IP cameras bandwidth requirements are in the 2nd column. Used settings are as follow: 128Kbps for CIF@ 6 fps and 512Kbps for 4CIF @ 12 fps. As H.264 compression is used, HDD usage can vary depending on the amount of activity in the image. Please allow for a 10% +/- for HDD storage variation.

\* Acti®, Axis®, Bosch®, Grundig®, Panasonic®, Pelco®, Sanyo®, Sony®, Vivotek® are registered brands. \*\* Full HDD Cameras not compatible.

# IP Client-Server Network Solution **HIKVISION**

## 32 channels multi-site solution : recording and viewing station

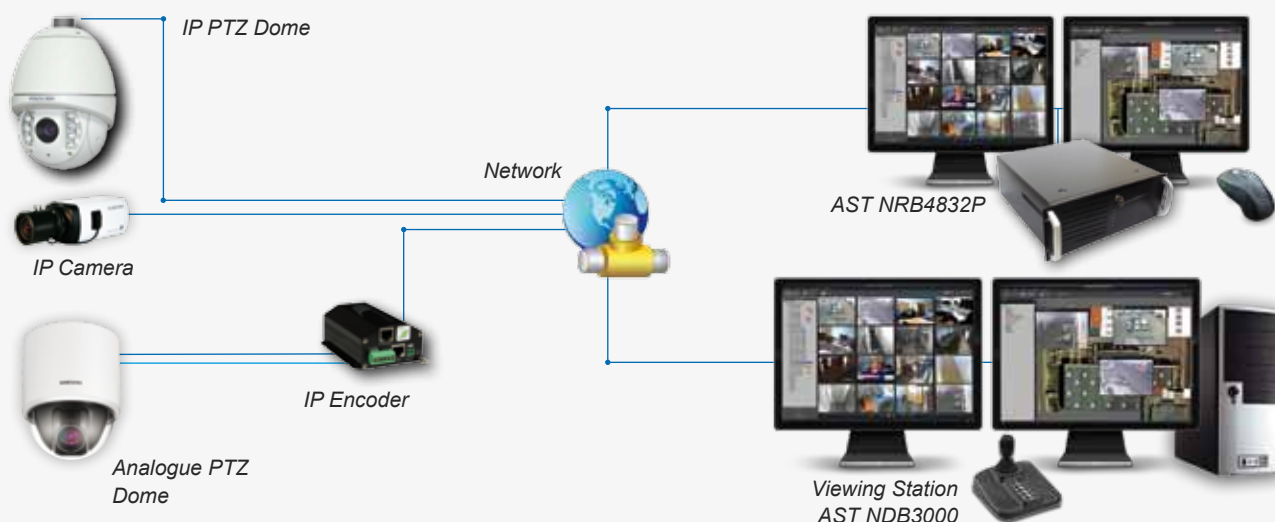
### AST NRB4832P

32 Channels, IP Recorder (NVR)

- High image quality : Up to 5 megapixels Hikvision® camera
- RAID5 possible 3Tb standard expandable
- Recording : continuous, schedule, motion detection, alarm
- Built-in DVD-RW burner for back-up
- Keyboard and mouse included



### AST NRB4832P Installation schematic



### AST NDB3000

Viewing Station, Multi-sites

- 2 Video outputs : VGA (1x) + DVI (1x) (VGA converter supplied)
- Compression mode H.264, MPEG4 (25 ips max)
- High quality image : up to 5 Megapixels
- Control : USB mouse, keyboard, and 3D USB joystick
- Built-in DVD-RW burner for back-up



### Remote viewing software : IVMS 4000

The software allows multi-sites monitoring (multiple users).





## Virtual Matrice Solution

Hikvision® virtual matrice solution schematic with recording equipment.



## Encoder

SAMSUNG

## SPE 100

1CH IP Video Encoder

- Real time video and audio transmission
- Compression mode H.264 (25 fps max)
- Video resolution : 4CIF/VGA/CIF
- RS485 for telemetry control
- Remote viewing and control via Internet Explorer or remote software included.



## NVRs : IP Recorders

SAMSUNG

Samsung® introduces its new NVRs Standalone range, High speed recording.

## SRN 1670

16 Channels NVR

- Dual codec H.264 / JPEG
- Recording Speed : 400 fps in 4CIF, 100 fps in 720p, 1,3 megas and Full HD
- VGA or HDMI display
- Standard 1Tb storage, expandable to 8Tb
- Continuous and event recording (pre/post)
- Remote access via WEB, NET-i viewer
- Compatible with all IP Samsung®\* cameras



## SRN 3250

32 Channels NVR

- Dual codec MPEG-4 / JPEG
- Recording Speed : 480 fps in 4CIF
- Standard 1Tb storage, expandable to 8Tb
- Continuous and event recording (pre/post)
- Remote access via WEB, NET-i viewer
- Compatible with all IP Samsung®\* cameras and VAPIX



## SRN 6450

64 Channels NVR

As above except :

- NAS & RAID5 extension
- Recording Speed : 1 152 fps in 4CIF



## SPC 2000

3D Joystick for NVRs

- 3 Way axis control (Pan : left/right, Tilt : up/down, Zoom)
- Easy install and setup
- USB2.0 interface



\*Please ask for compatibility and functions.

## Central Management Software

**SAMSUNG**

### NET-i viewer

#### Central Management Software

Use your PC like a video security monitor, with the free NET-i viewer. Everybody can use it with its intuitive graphical user interface.



Search



Map

- Support IP Cameras, NVRs, DVRs and encoders
- Up to 250 sites can be connected simultaneously
- Up to 32 images simultaneous display (two monitors)
- Event control function
- Bi-directional audio communication (listen & talk)
- Mapping
- User friendly interface



Live

## Mobile Software

**SAMSUNG**

### iPolis

Remote application for Android® and iPhone®\*

- Controls IP Samsung® iPolis cameras and PTZ
- Resolution and bandwidth setup
- User friendly interface



\*WIFI connection required.

# Network





## PoE & HiPoE Network Switches

Asset Security® offers a varied network product range as well as accessories.

### FSD 804PS

4 Ports Switch PoE + 4 Ports, Web Smart

- 8 Network Ports 10/100 base T
- PoE IEEE 802.3af, 60W
- Remote Web setup
- Superview with Level 2 functions : SNMP, VLAN, traffic



### FGSD 1022HP

8 Ports Switch PoE - Managed

- 8 Network Ports 10/100Base-TX - Fast Ethernet
- PoE IEEE 802.3af (standard) / IEEE 802.3at ( PoE+ or HiPoE)
- Total PoE : 150W on 8 ports
- 2 Gigabit Ports or 2 mini-GBIC/SFP (compatible with various copier or fibre modules)
- Superview with Level 2 functions : VLAN, Spanning Tree, Multicast, QoS...
- Advanced security functions : 802.1X, MAC address filter, SNMP



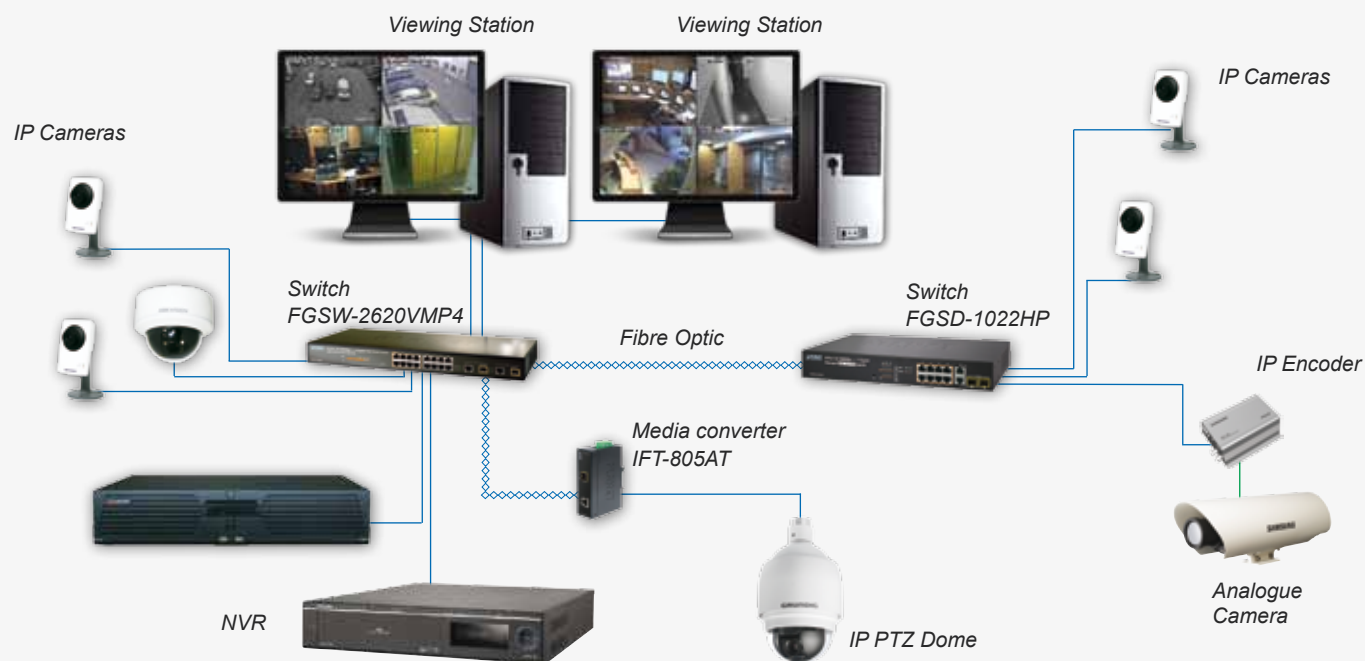
### FGSW 2620VMP4

24 Ports Switch PoE - Managed

- 24 Network Ports 10/100Base-TX - Fast Ethernet
- PoE IEEE 802.3af (standard) / IEEE 802.3at - Total PoE : 380W
- 2 Gigabit Ports or 2 mini-GBIC/SFP (compatible with various copier or fibre modules)
- Superview with Level 2 functions : VLAN, Spanning Tree, Multicast, QoS...
- Advanced security functions : 802.1X, MAC address filter, SNMP



## Network switch integrated solution





## Media Converter

### IFT 805AT

Industrial Media Converter: 10/100 base T to SFP (fibre)

- Very high temperature tolerance industrial unit : -40 to +75°C
- Compatible with SFP modules (fibre or copier) MFB series
- Power 12VDC to 48VDC not included



### IFT 805AT : Schematic



### MGB TL30

SFP Industrial Fibre Module 30km (18.5 miles)

- Mono Mode (1310nm)
- High temperature tolerance : -40 to +75°C
- LC connector



### MGB TSX

Module SFP Fibre Industriel 550m

- Multi Mode (850nm)
- High temperature tolerance : -40 to +75°C
- LC connector



### FT 905A

Media converter : 10/100 base T to SFP (fibre)

- Compatible with SFP modules (fibre or copier) MFB series
- Power 5VDC PSU included



### MGB L30

SFP Module 30km (18.5 miles)

- Mono Mode (1310nm)
- LC connector



### MGB SX

SFP Module Fibre 550m (0.3 miles)

- Multi Mode (850nm)
- LC Connector



## Transmission

### VC 201A

#### LAN Network Transmission on Twisted Pairs

- Allows to transmit symmetric or asymmetric network up to 1600m (1 mile)\*
- Requires a AWG24 wire or higher quality
- Existing telephone cables can be used in existing buildings
- LAN 10/100 base T connection + RJ11
- Power included



### VC 202A

#### LAN Network Transmission on Coaxial Cable

- Allows to transmit symmetric or asymmetric network up to 3000m (1.8 mile)\*
- Pre existing coaxial cables can be used (from previous installation)
- Allows to reduce expensive ground works (ex : petrol station, supermarkets, roads, ...)
- LAN 10/100 base T connection + RJ11
- Power included



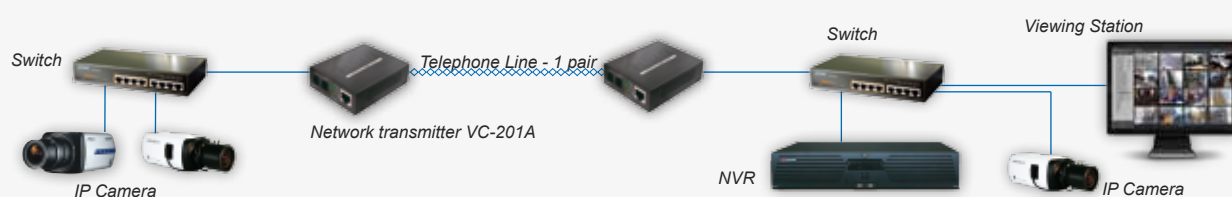
### IVC 2004PT

#### LAN Network Transmission Industrial Unit - Long Distance

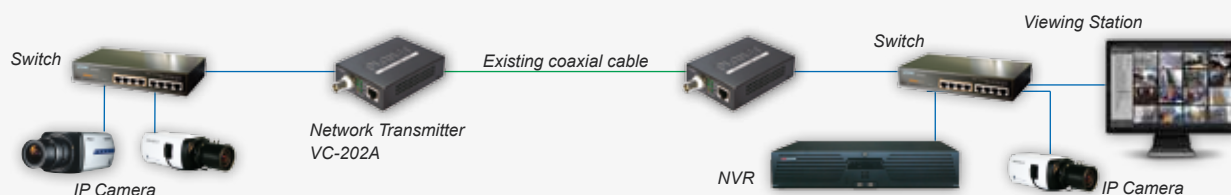
- Up to 2400m on coaxial and 1400m\* on twisted pair
- Built-in 4 PoE Network Switch 10/100 base T
- PoE IEEE 802.3af, total 55W
- Requires external 12V (PoE OFF) or 48V (PoE ON)
- Can be used in hostile environments : -40 to +75°C



### VC-201A



### VC 202A



\* Distance transmission varies according to cable quality and section, as well as the environment and interferences.

## Transmission

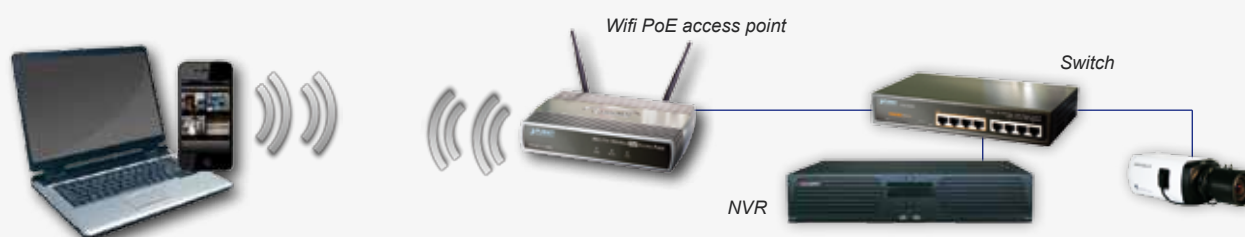
### WNAP 1120PE

Wifi PoE access point

- Peripheral unit for local or WIFI connections (smartphone, PC portable)
- Compatible with Wifi B/G and N standards (draft 2.0)
- Two antennas for higher speed and distance transmission
- Can be powered by a PoE injector or a PoE switch
- Power supply included



### Wifi application



## IP Camera PSUs

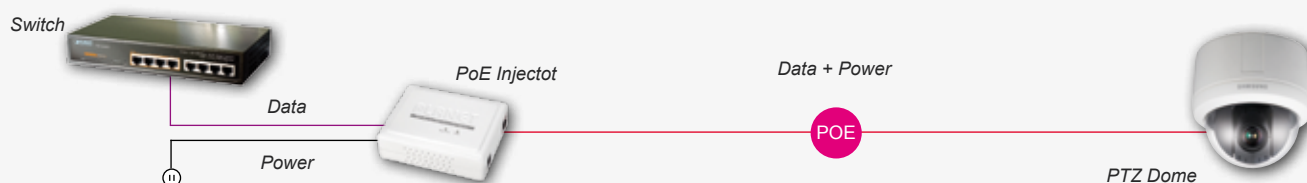
### POE 161

High PoE Injector (HiPoE / PoE+)

- Can power a PTZ Dome (802.3at)
- Auto detection of HiPoE and standard PoE cameras
- Up to 30W
- Gigabit compatible
- Power supply included



### POE 161 : schematic



## IP Camera Power Supplies

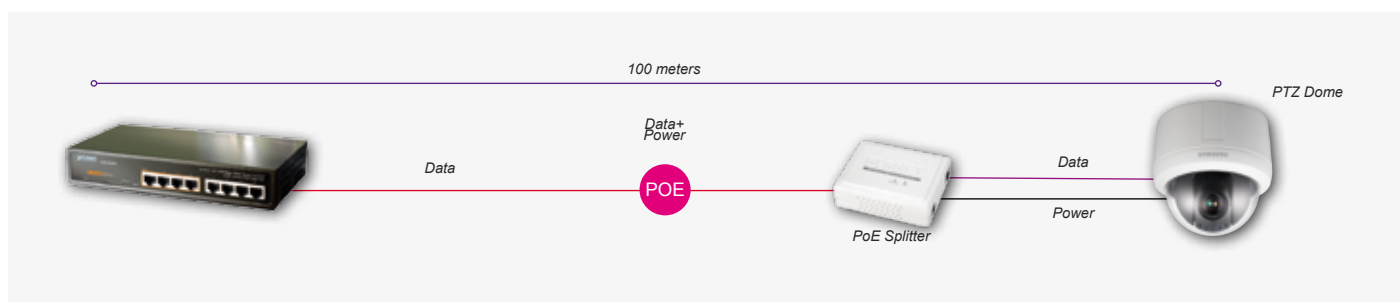
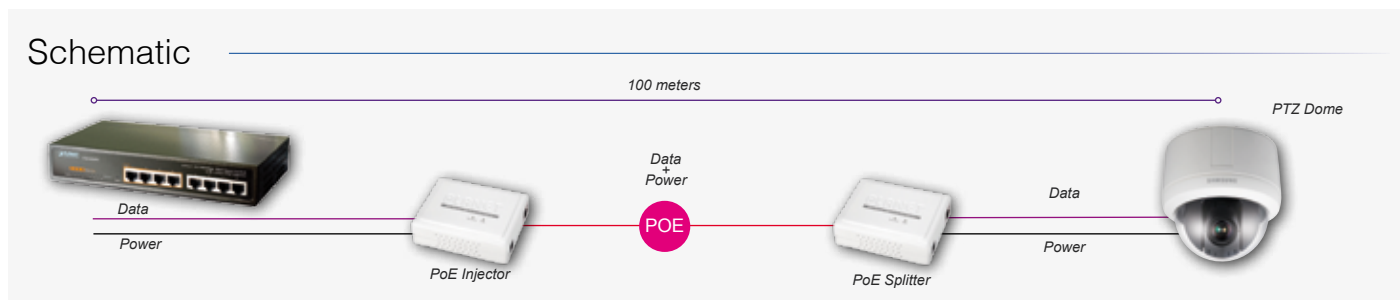
### POE 161S

#### High PoE Splitter

- Can power a non PoE PTZ Dome through the network
- Supplies power in 5VDC (4,5A) or 12VDC (2A)
- Does not require an external PSU
- Gigabit compatible



#### Schematic

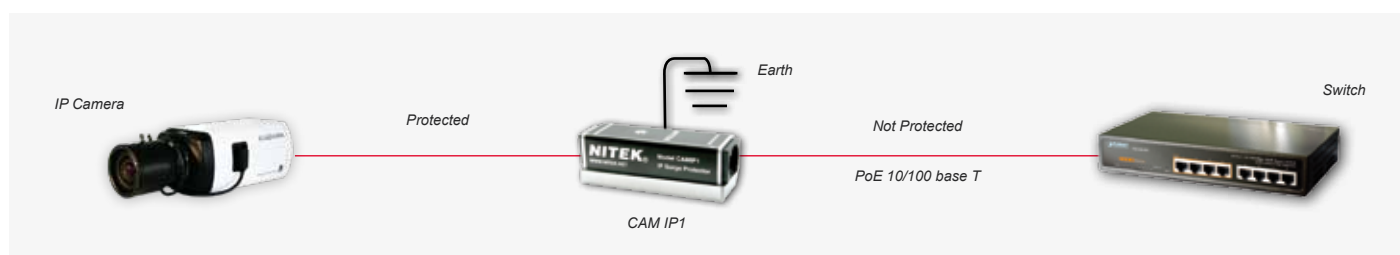


## IP Camera Accessories

### CAM IP1

#### Surge Protector, for PoE Camera

- Camera isolator
- No PSU required
- Data compatible (10/100 base T) and PoE
- Easy installation, lifetime warranty

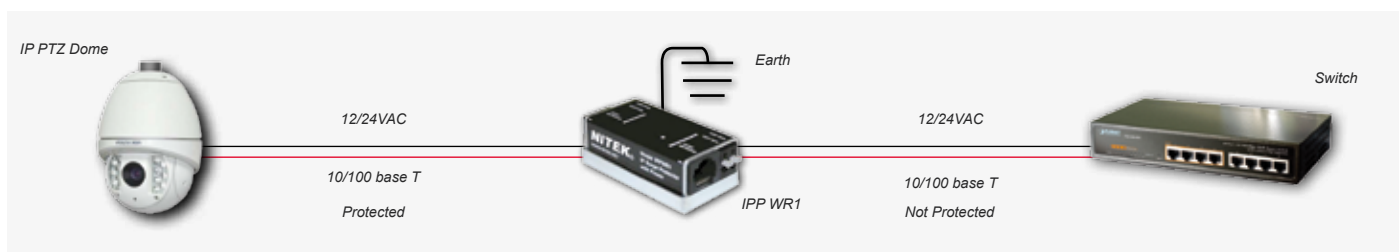
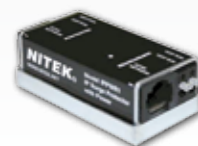


## IP Camera Accessories

### IPP WR1

Surge Protector for IP PTZ Domes

- Camera isolator
- No PSU required
- Data compatible (10/100 base T : RJ45) and Power 12VDC/24VAC
- Easy installation, Lifetime warranty



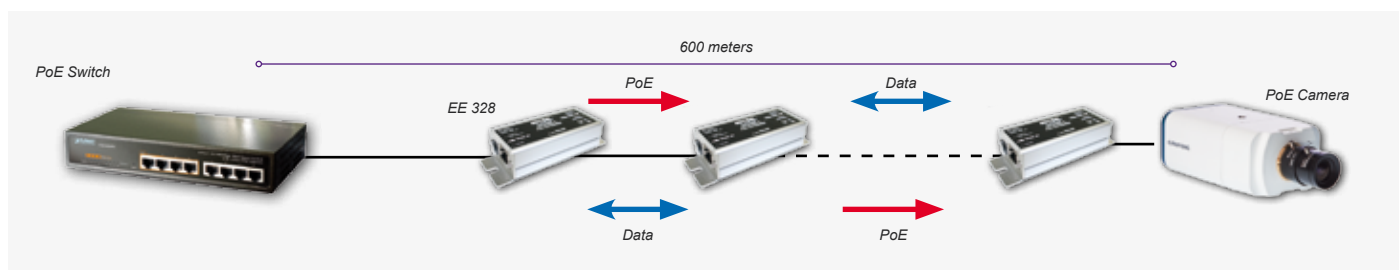
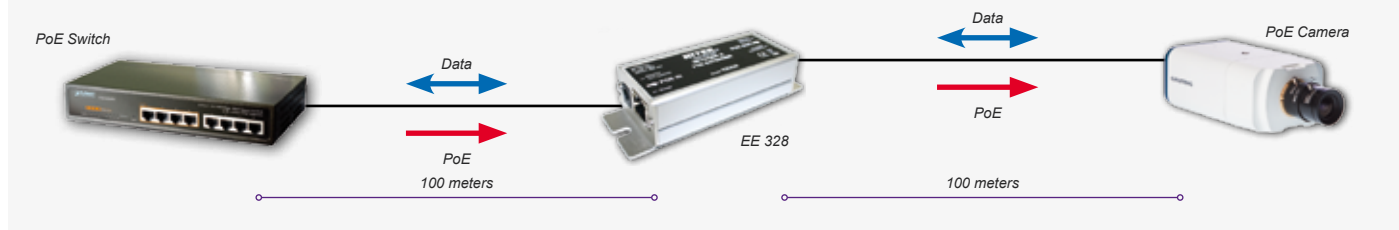
### EE 328

Network Extensions & PoE

- Distance extension between the switch and the camera
- Daisy chain up to 540 meters\*
- Data compatible (10/100 base T : RJ45) and PoE
- Powered by PoE or 48VDC (PSU not supplied, EE 328 becoming an injector)



### Schematic



\* EE328 must be added every 90 meters.



## IP Camera Accessories

### AHPV42 K2A600

External Housing for IP Cameras, High PoE (PoE+)

- Side opening, easy access
- Polycarbonate housing, vandal resistant
- IP66
- Housing and Camera powered by injector or HiPoE switch
- Internal or External application
- Ventilation
- Dimensions (L x H x P) : 70x70x230 mm



## PC Accessories

### VKM 02

VGA and USB Interface (PS/2 Keyboard, mouse) CAT5 Extender

- VGA and USB for PS/2 keyboard and mouse over 2 CAT5 (UTP or STP) cables
- Including local and remote units
- Passive devices - do not need power
- Up to 100 meters via standard 4 pairs CAT5 STP or UTP cable
- Supports up to 1280x1024 pixels



### TTA 111VGA

VGA CAT5 Extender

- Active long range VGA extension kit over 1UTP CAT5 cable
- Including local and remote units
- Built-in contrast, brightness adjustment at receiver
- Up to 300 meters via standard 4 pairs UTP CAT5 cable
- Supports up to 1600x1200 pixels
- 2 PSUs included (230VAC/5VDC, 0.5Amp)



### UE 04H2

USB CAT5 Extender

- Extend 4x USB 1.1 devices over UTP CAT5 cable
- Including local and remote units
- Power supply included (230VAC/5VDC, 1.2Amp)
- Up to 50 meters via standard 4 pairs UTP CAT5 cable
- Easy to install



# Analogue Video Security



## Advantages of coaxial cable CCTV installations ?

- **PLUG & PLAY** : Easy installation of different peripherals : you need to power a camera to receive an image.

1

Connect Camera to a monitor or DVR.



2

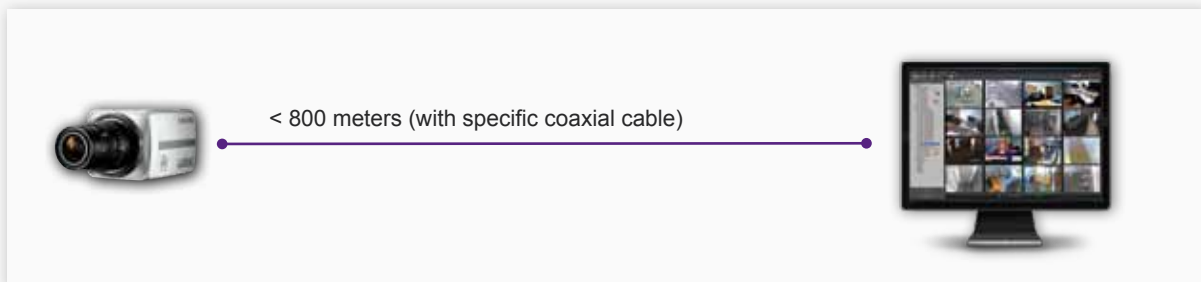
The system is functioning (PAL/CCIR).



- **COMPLETE COMPATIBILITY** : The main difference with an IP system is that the CCIR standard is already established : any camera can be displayed on any DVR and/or monitor.



- **DISTANCE TRANSMISSION** : As opposed to IP, coaxial cable can go further than 100m (up to 800m depending of the cable).



- **EXISTING INSTALLATIONS** : Thousands of analogue cameras have already been installed and the amount of existing cables is important, therefore the replacement of a camera or a DVR is simple for the system to work.

\* Nowadays, most PTZ Domes have open protocols.

# Cameras & Domes



## Analogue Cameras

**SAMSUNG**

High quality analogue cameras with A1 DSP or Winner 5.

### Standard features :

- C/CS mount
- Resolution : 600 TVL (Colour) / 700 TVL (B&W)\*
- 3DNR noise reduction technology
- Digital Image Stabilizer (DIS)
- Power 12/24V

### SCB 2000P

1/3" CCD Colour Camera

- Sensitivity 0,05 Lux @ F1,2 (Colour)
- W-V DSP with SSNR III, 2D/3D DNR, OSD, Digital Image Stabilizer (DIS)
- Privacy zones
- Motion detection function
- HLC (High Light Compensation)



### SCB 3000P

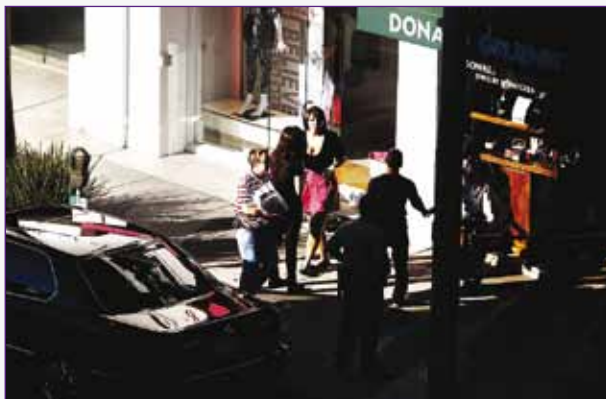
1/3" CCD Colour/B&W Camera - WDR

- Day/Night with mechanical filter (ICR)
- WDR function (x128), VPS (Virtual Progressive scan)
- Sensitivity : 0,3 lux @ F1,2 (Colour) / 0,01 lux @ F1,2 (B&W)
- SV-V DSP, OSD
- Privacy zones



### XDR (eXtended Dynamic Range)

Under strongly backlight or high contrast scenes, cameras generally produce images which reproduce detail in the brighter area of the scene. (1) Consequently, detail is often lost in the darker areas of the scene. Samsung® cameras provide XDR technology to increase the level of visible detail in the dark areas, whilst maintaining image clarity and detail in the brighter portions of the image. (2)



(1) XDR Off



(2) XDR On

\* Except SCB 2000P colour only.

## Analogue Cameras

SAMSUNG

## SCB 2001P



1/3" CCD Colour/B&amp;W Camera

- Day/Night with mechanical filter (ICR)
- Sensitivity : 0,05 Lux @ F1,2 (Colour) / 0,005 Lux @ F1,2 (B&W)
- A1 DSP : Privacy zones, DNR, DIS, XDR, CCVC, Motion Detection



## Vandal Resistant Mini Dome

SAMSUNG

## SCV 3120P

Fixed Vandal Resistant Colour/B&amp;W Dome - 12x Zoom

- 12x Optical zoom - 3.69 - 44.32 mm
- WDR function
- Viewing angle 4,64° to 54,44°, identification < 30m\*
- Surface and flush mount
- IP66
- Operating temperature -40°C, housing with fan and heater



## Dome for long distance identification



This dome is ideal for all applications requiring a dome with a long range lens. The WDR function provides quality pictures from the scene when looking at front doors or windows (retail, banking, and more).

## Internal Fixed Mini Domes

SAMSUNG

## SCD 2080P

Internal Fixed Colour/B&amp;W Dome

- Resolution : 600 TVL (Colour) / 700 TVL (B&W)
- Day/Night with mechanical filter (ICR)
- W-V DSP with SSNR III, 2D/3D DNR, OSD, Digital Image Stabilizer (DIS)
- Privacy zones
- Sensitivity : 0,15 lux @ F1,2 (Colour) / 0,001 lux @ F1,2 (B&W)
- Varifocal DC lens : 2,8 ~ 10 mm



## SCD 3080P

Internal Fixed Colour/B&amp;W Dome

As above :

- WDR function (x160), VPS (Virtual Progressive scan)
- Sensitivity : 0,3 lux @ F1,2 (Colour) / 0,01 lux @ F1,2 (B&W)
- Varifocal DC lens : 2,8 ~ 11 mm





## Zoom Cameras

SAMSUNG

Zoom cameras have a very high focal flexibility and have a preset position function (setup required) allowing focus for different lighting condition.

**Standard features :**

- A1 DSP : Privacy zones, DNR, DIS, XDR, CCVC, Motion Detection
- 1/4" Super HAD CCD
- Resolution : 600 TVL (Colour) / 700 TVL (B&W)
- 43x optical zoom, 3.2 - 138.5 mm, identification ~ 100m
- Day/Night with mechanical filter (ICR)
- CCVC function (Camera Control Via Coaxial)
- Power 12/24V

## SCZ 2430P

Colour/B&amp;W Zoom Camera

- Sensitivity : 0,7 lux (Colour) / 0,07 lux (B&W)
- Motion detection function (with alarm)



## SCZ 3430P

Colour/B&amp;W Zoom Camera - WDR

As above :

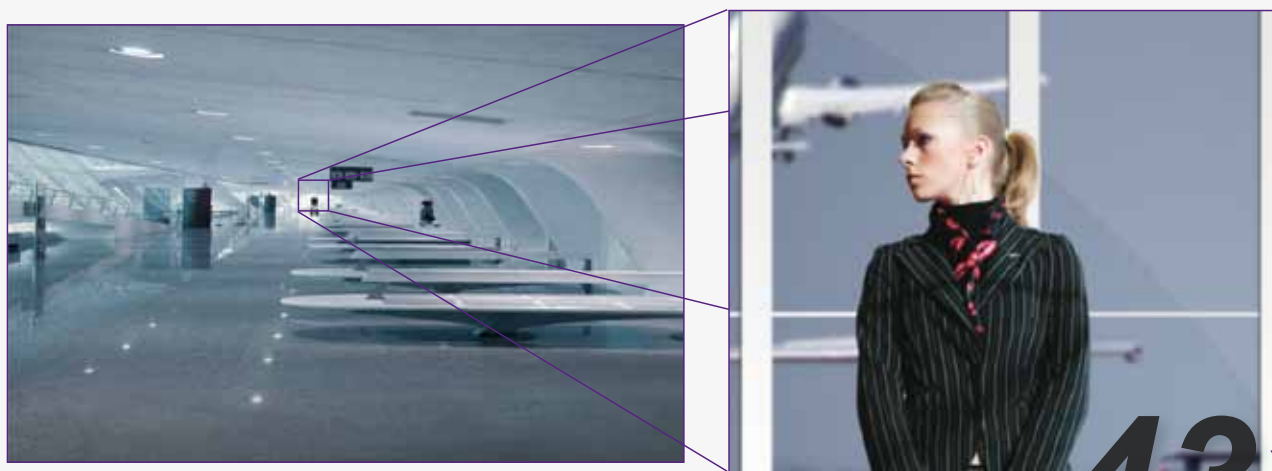
- Exview® Chipset for low sensitivity
- WDR function (x160), dual scan



## 43x Optical zoom

SCZ 2430P and SCZ 3430P cameras have a 43x optical zoom. It easily allows to identify a person or an object from far away. Having a more detailed image than standard box cameras.

The motion detection function allows to automatically zoom in on motion detection.



43x

# SCZ 2430P & 3430P

## Zoom Cameras



- Zoom Cameras
- A1 DSP
- High Focal Flexibility
- Preset position function

**SAMSUNG**

## Internal Fixed Domes **GRUNDIG**

**N**ew range of internal fixed domes integrating the latest technologies :

### Standard features for both pages :

- Resolution : 600 TVL (Colour) / 640 TVL (B&W)
- Tamron® aspherical lens, enhancing sensitivity and reducing optical defects.
- A1 DSP : Privacy zones, DNR, DIS, XDR, CCVC, Motion Detection
- CCVC function (Camera Control Via Coaxial)
- Intelligent video content analysis
- Built-in service monitor port & OSD control port
- Power 12/24V

### GCA B0323D

Fixed Varifocal Colour/B&W Dome with Built-in IR LEDs

- 36 IR LEDs, range 10/15m\*
- Day/Night with mechanical filter (ICR)
- Sensitivity 0,4 lux (Colour) / 0 lux (IR activated)
- Varifocal DC TAMRON® lens : 2,8 ~ 10,5 mm, viewing angle 93,7° ~ 28,3°
- Identification < 5,5 meters\*\*



### DNR (Digital Noise Reduction)



DNR Off



DNR On

The Digital Noise Reduction within the Grundig® analogue camera range minimizes image noise and movement blur. The cameras are ideal for challenging night-time or low-light surveillance applications and camera scenes with a lot of moving objects.

The technology incorporates a specialist filter system comprising, an intuitive 2D filter to reduce noise in low light parts of an image and an adaptive 3D filter which increases image clarity where movement occurs.

### Privacy zones



Without privacy zones



With privacy zones

It's essential that any CCTV camera is able to meet privacy laws and regulations, viewing only the required and legal areas in a scene.

Grundig analogue cameras contain Privacy masking technology, allowing private areas of a scene to be blanked out. This technology is easily configured to suit each application and camera view.

\*Infrared distance range depends on the scene illumination reflection. \*\* Distance identification is calculated with maximum zoom.

## Internal Fixed Domes **GRUNDIG**

### GCA B0325D

Fixed Varifocal Colour/B&W Dome - WDR

- WDR function, dual scan
- Day/Night with mechanical filter (ICR)
- Sensitivity 0,4 lux (Colour) / 0,04 lux (B&W)
- Varifocal DC TAMRON® lens : f = 2.8 - 10.5 mm, viewing angle 93,7°~28,3°
- Identification ~ 5,5 meters\*\*



### WDR (Wide Dynamic Range)

Back-light or high-contrast scenes, such as in the glazed entrance-areas of a building, can cause a loss of detail in the darker parts of an image. Grundig® PAL camera range offers excellent image quality for all areas of high contrast scenes, without compromising images detail in either the light or dark zones.

The Grundig® WDR cameras use a Wide Dynamic Range sensor to improve recording under backlight conditions, by up to 160 times.



WDR off



WDR On

### GCA B0326D

Fixed Varifocal Colour/B&W Dome with Built-in IR LEDs - WDR

As above GCA B0325D :

- 36 IR LEDs, range 10/15m\*
- Sensitivity 0,4 lux (Colour) / 0 lux (IR activated)



### Advantages of IR

GCA B0323D and B0326D domes have built-in with IR LEDs, for night viewing (10 to 15 meters).



Night picture (street lighting)



Same picture - IR On

\*Infrared distance range depends on the scene illumination reflection. \*\* Distance identification is calculated with maximum zoom.



## Vandal Resistant Fixed Domes **GRUNDIG**

New range of vandal resistant fixed domes, for all type of mounts.



### Standard features (pages 68, 69) :

- Resolution : 600 TVL (Colour) / 640 TVL (B&W)
- Varifocal DC TAMRON® lens : 2,8 ~ 10,5 mm, viewing angle 93,7°~28,3°
- Identification < 5,5 meters\*
- A1 DSP : Privacy zones, DNR, DIS, XDR, CCVC, Motion Detection
- CCVC function (Camera Control Via Coaxial)
- Intelligent video content analysis
- Built-in service monitor port & OSD control port
- Power 12/24V

### GCA B0322V

Fixed Vandal Resistant Colour Dome

- Software day/night (not IR sensitive)
- Sensitivity 0,4 lux



### 3 Standard mounts

Grundig® vandal resistant domes are delivered with three possible mounts (standard).

#### Flat base



#### Flush mount



#### Wedge base



FOR A GOOD  
**REASON**  
**GRUNDIG**

\* Distance identification is calculated with maximum zoom.



## Vandal Resistant Fixed Domes **GRUNDIG**

### GCA B0323V

Fixed Vandal Resistant Colour/B&W Dome with Built-in IR LEDs

- 36 IR LEDs, range 15/25m\*
- Day/Night with mechanical filter (ICR)
- Sensitivity 0,4 lux (Colour) / 0 lux (IR activated)



### GCA B0325V

Fixed Vandal Resistant Colour/B&W Dome - WDR

- WDR function, dual scan
- Day/Night with mechanical filter (ICR)
- Sensitivity 0,4 lux Colour / 0,01 lux (B&W)



### GCA B0326V

Fixed Vandal resistant Colour/B&W Dome with Built-in IR LEDs - WDR

As GCA B0325V with :

- 36 IR LEDs, range 15/25m\*
- Sensitivity 0,4 lux (Colour) / 0 lux (IR activated)



## Vandal Resistant Fixed Dome Accessories **GRUNDIG**

### GBR WA01

Wall Bracket for Vandal Resistant Domes (V Range)

- Cable managed and vandal resistant bracket
- Delivered with rubber seals
- Cable entrance (top, bottom, and back)



### Wedge base installation



These new Vandal Resistant domes have an exceptional design offering various mounts and unique features. Its unique design allows an unequalled wall mount result without the use of an additional bracket. Standard vandal resistant domes do not offer the same viewing angle and will require the use of an additional bracket which will increase the dome vulnerability. The wedge base mount increases the viewing angle and is ideal for short distance requirements such as ATM, windows, doors...

\*Infrared distance range depends on the scene illumination reflection. \*\* Distance identification is calculated with maximum zoom.

## Bullet Cameras with Built-in IR LEDs **GRUNDIG**

**B**ullet cameras with built-in IR LEDs for external applications.

### Standard features :

- Resolution : 600 TVL (Colour) / 640 TVL (B&W)
- Sensitivity 0,4 lux (Colour) / 0 lux (B&W) : Built-in IR LEDs
- A1 DSP : Privacy zones, DNR, DIS, XDR, CCVC, Motion Detection
- Cable managed bracket
- CCVC function (Camera Control Via Coaxial)
- Built-in service monitor port & OSD control port
- Power 12/24V

### GCA B0323T

Bullet Varifocal Camera with Built-in IR LEDs

- Varifocal DC lens : 2.8 ~ 11 mm, viewing angle 24,6° to 94°, identification < 6 m\*\*
- External adjustment for focus and focal length
- 36 IR LEDs, range 25/30 m\*



### GCA B1323T

Bullet Varifocal Camera with Built-in IR LEDs

- Varifocal DC lens : 6 ~ 50 mm, viewing angle 5,5° to 43,6°, identification < 26 m\*\*
- External adjustment for focus and focal length
- 48 IR LEDs, range 35/40 m\*



### Grundig® bullet IR camera features

External adjustment for focus and focal length, easy setup and installation, no need to open the camera.



IR Off



IR On



\*Infrared distance range depends on the scene illumination reflection. \*\* Distance identification is calculated with maximum zoom.

## Thermal View Cameras



Thermal cameras from military technology are becoming more common. They allow to view very specific events that standard camera can not see : fog, fire, human detection...

### Standard features :

- Resolution : 320x240 pixels, analogue output
- Min. discernable temperature : 0,08°C
- Light weight, Easy to install
- IP66
- RS 485 remote setup (OSD menu control up to 1200 m)

### SCB 9050P

Lens 14 mm 25HZ PAL

- Lens 14 mm Integrated micro bolometer chipset
- Outstanding 360m detection without lighting



### SCB 9051P

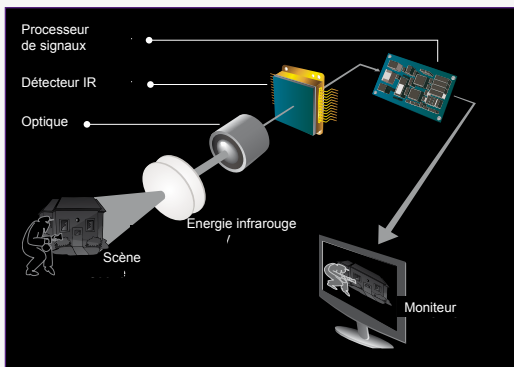
Lens 50 mm 25HZ PAL

- Lens 50 mm Integrated micro bolometer chipset
- Outstanding 360m detection without lighting



## Thermal cameras : terms & features

The thermal night vision camera is an advanced camera that detects differences in the infrared energy of objects and the background, converts them into electric signals, and produces digital images.



With color pattern function, it's easy to detect the temperature of the objects.



High Temperature Resolving Power (NETD). It means a minimum discernable temperature of 0.08, it's possible to detect objects and forms images clearly.



## Telemetry Receivers

### RS003I

#### USB to RS485 Converter

- PTZ control from a PC keyboard
- Surge protection
- 1 Input USB 2.0 - 1 Output RS 485 (Half Duplex)
- 1 Output RS 485 (Half Duplex)
- Distance transmission : 1.2 Km
- Connections : up to 32 units



### RS0082

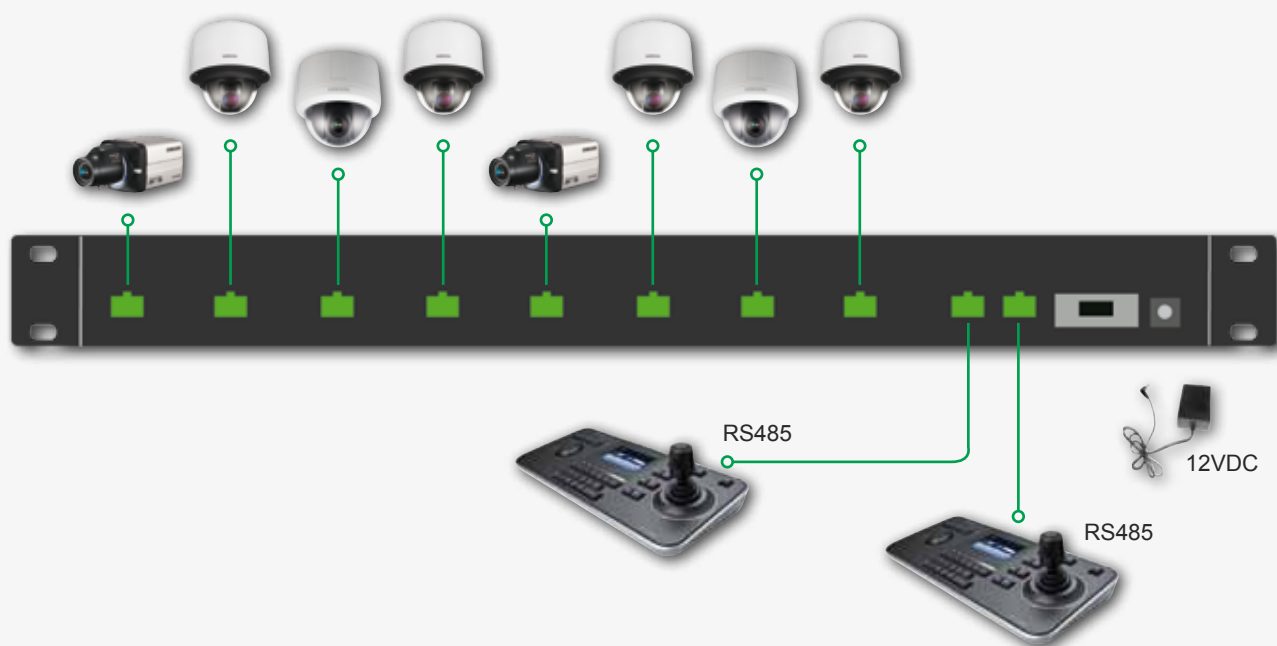
#### Serial Data Distributor

- Easy to install
- Metal case
- Power supply included (230Vac/12VDC, 0.5A)
- 3 Inputs : 1 RS 232, 2 RS 485
- 8 Outputs : 8 RS 485
- Transmission Distance : 1.2 Km
- Operating temperature 0°C ~ +45°C



### RS485 Serial data distributor

The RS008-2 gives serial data back on 8 outputs at the same time, ensuring flexibility and interoperability for awkward CCTV configurations. RS485 transmission operates simultaneously on all (8) ports. The receiving mode of the input can be selected in either RS485 or RS232.



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# PTZ Domes

*Extreme temperature resistance (-50°C~+50°C)\**

*\*HP models*



SAMSUNG



## PTZ Domes

SAMSUNG

New range of PTZ domes integrating the latest technologies.

## Standard features :

- A1 DSP : Privacy zones, DNR, DIS, XDR, CCVC, Motion Detection
- Day/Night with mechanical filter (ICR)
- P/T speed (600°/sec), mini speed (0.05°/sec)
- Resolution : 600 TVL (Colour) / 700 TVL (B&W)
- Coaxial telemetry with CCVC, Pelco® C or RS485 multiprotocol
- 8 Alarm inputs, 3 Alarm outputs
- Privacy zones : 12 (polygonal)
- IP66
- Operating temperature -50°C~+50°C, housing with fan and heater
- Polycarbonate dome cover
- Standard 1.5" PT thread
- Power 24VAC

## SCP 2250HP

External Colour/B&W Dome - 25x Zoom

- 1/4" Super-HAD CCD Chipset
- 25x optical zoom, identification ~ 65 meters\*\*
- Viewing angle : 2.25° to 55.32°
- Sensitivity : 0,2 lux (Colour) / 0,02 lux (B&W)



## SCP 2430HP

External Colour/B&W Dome - 43x Zoom

As above :

- Exview® Chipset for low sensitivity
- 43x optical zoom, identification ~ 90 meters\*\*
- Viewing angle : 1.47° to 61.22°
- Sensitivity : 0,7 lux (Colour) / 0,07 lux (B&W)



## SPC 300

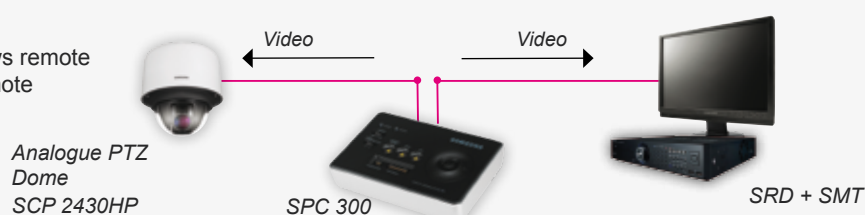
Remote Controller Over Coaxial Cable and RS485

- Controller for Samsung® A1 cameras
- Long distance control, up to 500m on coaxial cable and RS-485 communication
- Multiprotocols



## Simplified setup and control

The CCVC function (Samsung® cameras) allows remote camera setup with the use of the SPC 300 remote control.



\* The SPC 300 does not allow telemetry control \*\* Distance identification is calculated with maximum zoom.

## PTZ Domes



Compact PTZ domes, for short and medium range identification (max.30m).

**Standard features :**

- A1 DSP : Privacy zones, DNR, DIS, XDR, CCVC, Motion Detection
- Day/Night with mechanical filter (ICR)
- Resolution : 600 TVL (Colour) / 700 TVL (B&W)
- 12x optical zoom, viewing angle 4,66°~54,44°
- Coaxial telemetry with CCVC, Pelco® C or RS485 multiprotocol
- P/T speed (650°/sec), mini speed (0.05°/sec)

### SCP 2120P (SCP 3120P WDR)

Mini Colour/B&W PTZ Dome - 12x Zoom

- Internal mini PTZ
- Power 24VAC



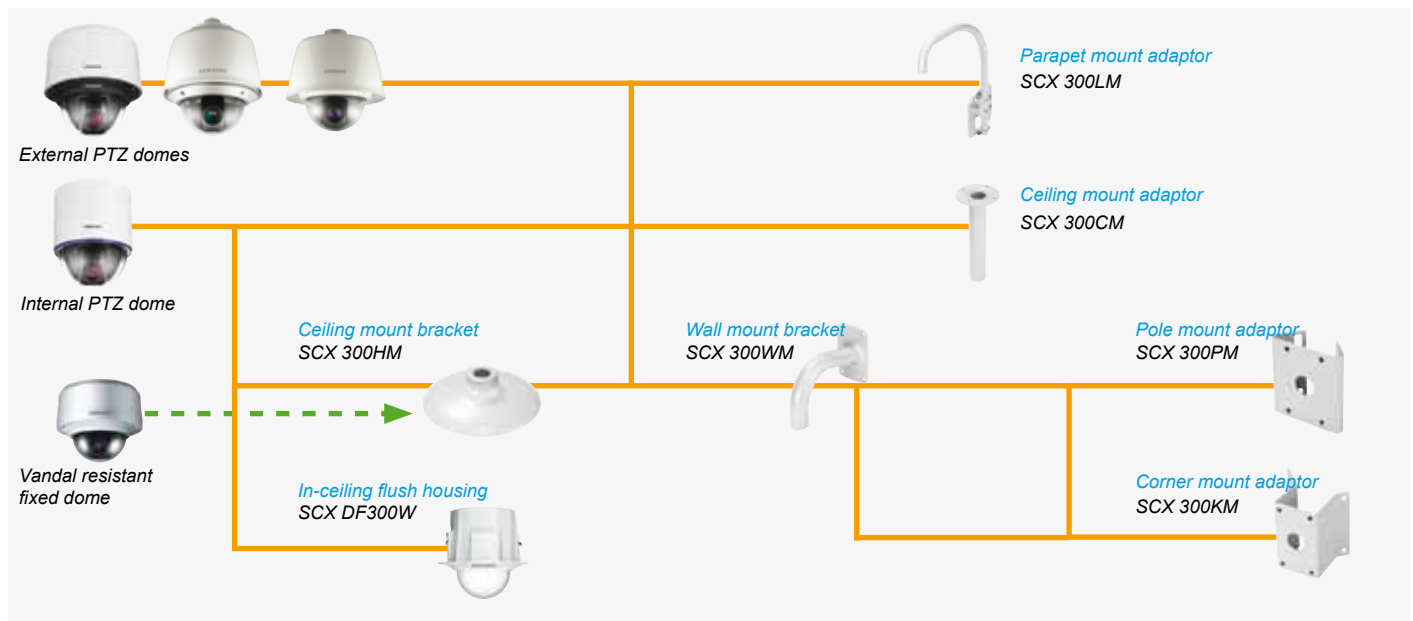
### SCP 3120VHP

Mini Colour/B&W PTZ Dome - 12x Zoom - WDR

- 1/4" Exview® WDR HAD CCD
- External mini PTZ, with sunshield
- Fan & heater
- Power 24VAC
- Standard 1.5" PT thread



## PTZ Mounting Options



## Power Supply

### PSU 00049

Power supply 12VDC - 1Amp - Encapsulated switch mode

### PSU 12-4-1

Power supply 12VDC - 4Amp - 1Way

### PSU 12-4-4

Power supply 12VDC - 4Amp - 4Way

### PSU 12-4-8

Power supply 12VDC - 4Amp - 8Way

### PSU 24-4-1

Power supply 24VAC - 4Amp - 1Way

### PSU 24-4-4

Power supply 24VAC - 4Amp - 4Way

## Coaxial Transmitter

### AST VDS2730

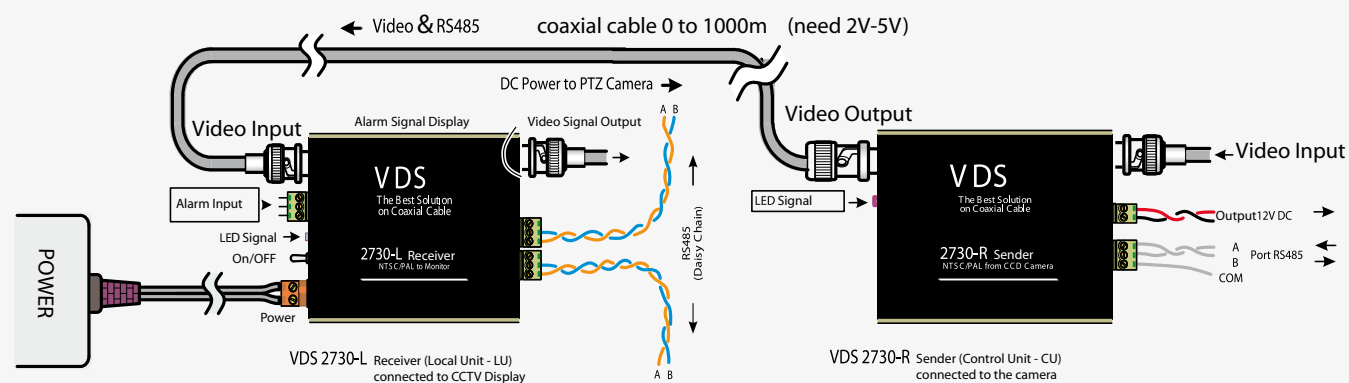
Coaxial Video, Data and 12V transceiver

- Video, camera power and RS485 over a standard coaxial cable
- Video transmission (1000m max.)
- Power transmission 12VDC 1A (600m max.)
- The set includes : transmitter, receiver and power supply 230VAC/ 40VDC



### Why using a coaxial transmitter ?

The VDS 2730 is the video signal transmission system to transmit video, alarm, audio, RS-485 data and DC power via one coaxial cable. VDS 2730 consists respectively of a remote and local unit. The remote unit connects to a PTZ (pan/tilt/zoom) camera, the local unit connects to a DVR or a monitor.



## Bracket &amp; Housings



## SM4B

## Camera Bracket

- Internal camera bracket with steering joint, metal
- Cable managed



## AST VH342

## Internal / External Camera Housing - Side Opening

- For internal /external use
- Side opening, easy to install
- Aluminium body
- Cable managed
- Fan and heater already installed
- Internal usable dimensions (WxHxL) : 70x70x270 mm
- 24VAC



## AST AH300CM

## Ceiling Support

- Ceiling support for AST VH342



## AST AD623PAH

## Pole Mount Adaptor

- Pole mount adaptor for AST VH342



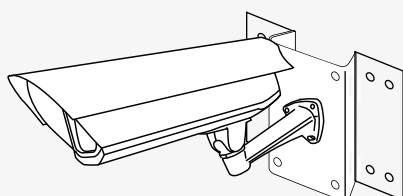
## AST AD623CAH

## Corner Mount Adaptor

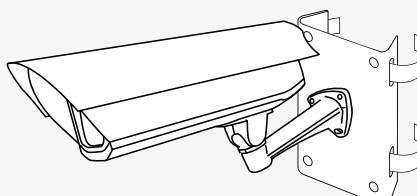
- Corner mount adaptor for AST VH342



## AST VH342 Accessories



AST AD623PAH



AST AD623CAH

# IR Projectors





## IR LEDs Projectors - 880nm

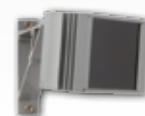
**Standard features :**

- Delivered with bracket, Power 12VDC / 230VAC (waterproof) and photocell
- IP66, aluminium case
- 100.000 Hours of use on average

**ASTIR 294S90 & S30**

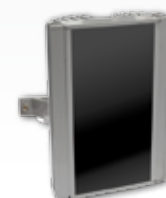
LEDs Infra-Red Projector 880nm

- 30m and 100m IR range
- Angle 90° and 30°
- Power consumption 14.4 W

**ASTIR 294L90 & L30**

LEDs Infra-Red Projector 880nm

- 60m and 170m IR range
- Angle 90° and 30°
- Power consumption 36 W

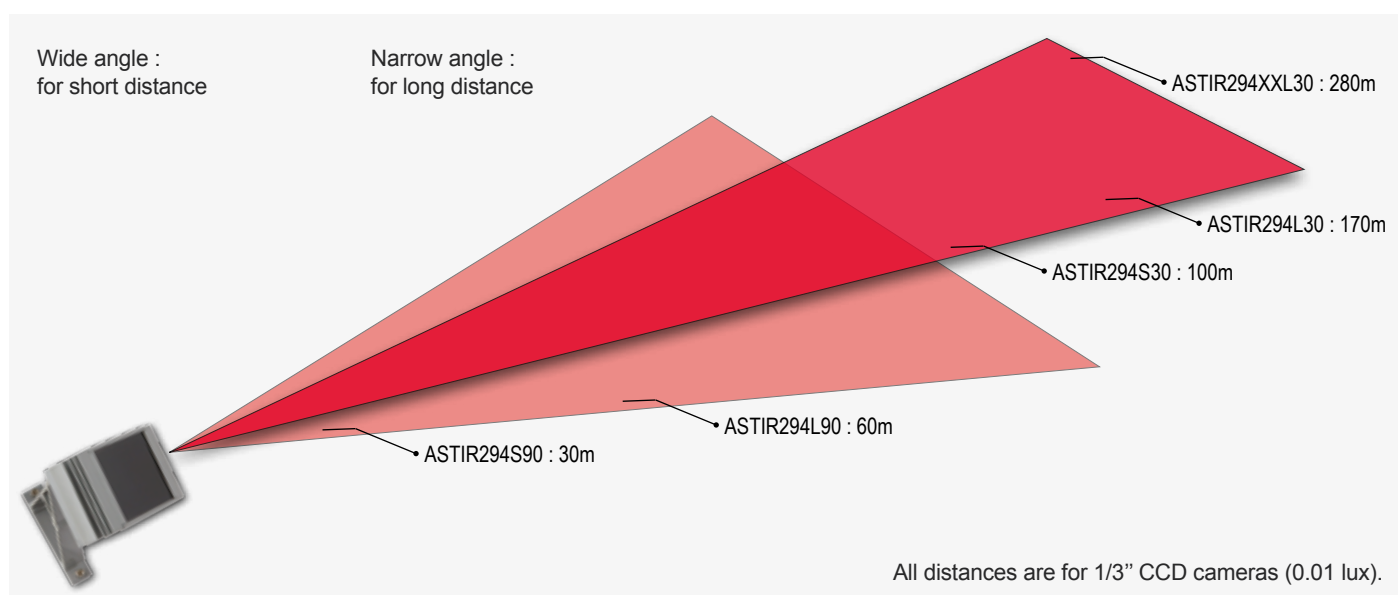
**ASTIR 294XXL 30**

LEDs Infra-Red Projector 880nm

- 280m IR range
- Angle 30°
- Power consumption 84 W



## 880 nm IR LEDs Comparison Chart



## IR LED Projectors - 940nm



**IR** LEDs projectors invisible to human eye for covert applications.

**Standard features :**

- Exview® cameras are recommended
- IP66, aluminium case
- 100.000 Hours of use on average
- Power 12VDC

**ASTIR PLATE 940**

LEDs Infra-Red Projector 940nm

- 3.5m IR range
- Angle 160°
- IP65
- Power consumption 5 W


**ASTIR 21 25 940**

LEDs Infra-Red Projector 940nm

- 20m IR range
- Angle 25°
- Power consumption 2.5 W


**ASTIR 56 20 940**

LEDs Infra-Red Projector 940nm

- 30m IR range
- Angle 20°
- Power consumption 7.5 W


**ASTIR 56 4060 940**

LEDs Infra-Red Projector 940nm

- 13m IR range
- Angle 60x40°
- Power consumption 7.5 W



## IR LEDs Projector Accessories

**AST ST1**

Micro Wall Bracket for IR LED Projectors

- Micro wall bracket for AST IR 21, 30, 56, 98
- Dimensions L\*H\*P : Ø 40x43 mm


**AST ST2**

Wall Bracket for IR LED Projectors

- Wall bracket for AST IR 21, 30, 56, 98
- Dimensions L\*H\*P : Ø 65x131 mm


**AST ST3A**

Wall Bracket for IR LED Projectors

- Wall bracket for AST IR 56, 98, 294
- Dimensions L\*H\*P : 25x132x173.5 mm



# Digital Video Recorders



## Digital Video Recorders - 7000 Range **HIKVISION**

**D**VR range for small and medium installations - remote access via Smartphones or PC.

### Standard features :

- High quality image : H.264 , 4CIF (704x576)
- Multi screen composite and XGA video output
- Dualstream network transmission
- Recording : continuous, schedule, motion detection, alarm
- Control : front panel, keyboard, WEB, IVMS 4000 software, smartphones : iPhone®, Android®, Blackberry®, Windows Mobile®
- Built-in DVD-RW burner for back-up



- Android®
- Apple®
- Blackberry®
- Windows Mobile®

### DS 7204ST 05D

4 Channels Compact Digital Video Recorder, H.264

- Recording per Channel : Up to 25 fps in CIF; 12 fps in 4CIF
- Internal 500 Gb HDD, expandable to 2 Tb internally



### DS 7308HIS 05D

8 Channels Compact Digital Video Recorder, H.264

- Recording per Channel : Up to 3Ch @ 12 fps in 4CIF + 5Ch @ 6 fps in CIF
- Internal 500 Gb HDD, expandable to 4 Tb internally



### DS 7316HIS 05D

16 Channels Compact Digital Video Recorder, H.264

- Recording per Channel : Up to 6CH @ 12 fps in 4CIF + 10CH @ 6 fps in CIF
- Internal 500 Gb HDD, expandable to 4 Tb internally



## Recorders Range 7000

*for small and medium installations*



• 4 to 16 channel • High quality image • Compatible with smartphones



# HIKVISION

## Digital Video Recorders - 8100 Range **HIKVISION**

**D**VDR range with H.264 compression and high recording frame rate.

### Standard features :

- High quality image : H.264 , 4CIF (704x576)
- 2 Monitor outputs : multi screen XGA or BNC + spot BNC
- Dualstream network transmission
- Recording : continuous, schedule, motion detection, alarm
- Control : front panel, keyboard, WEB, IVMS 4000 software, smartphones : iPhone®, Android®, Blackberry®, Windows Mobile®
- Built-in DVD-RW burner for back-up



- Android®
- Apple®
- Blackberry®
- Windows Mobile®

### DS 8108HDI S 05D

8 Channels Standalone Digital Video Recorder, H.264

- Recording per Channel : Up to 25 fps in CIF; 12 fps in 4CIF
- Internal 500 Gb HDD, expandable to 8 Tb internally



### DS 8116HDI S 10D

16 Channels Standalone Digital Video Recorder, H.264

- Recording per Channel : Up to 25 fps in CIF; 12 fps in 4CIF
- Internal 1 Tb HDD, expandable to 8 Tb internally



### DS 8108HFI S 10D

8 Channels Real-time Standalone Digital Video Recorder, H.264

- Recording per Channel : Up to 25 fps in 4CIF
- Internal 1 Tb HDD, expandable to 8 Tb internally



### DS 8116HFI S 10D

16 Channels Real-time Standalone Digital Video Recorder, H.264

- Recording per Channel : Up to 25 fps in 4CIF
- Internal 1 Tb HDD, expandable to 8 Tb internally





## Premium Digital Video Recorders - 9100 Range **HIKVISION**

**D**VDR range with H.264 compression and high recording frame rate. High speed network transmission, multiple interfaces and connections.

### Standard features :

- High quality image : H.264 , 4CIF (704x576)
- 2 Monitor outputs : multi screen XGA or BNC + spot BNC
- Recording : continuous, schedule, motion detection, alarm
- Control : front panel, keyboard, WEB, IVMS 4000 software, smartphones : iPhone®, Android®, Blackberry®, Windows Mobile®
- Built-in DVD-RW burner for back-up
- Internal 1 Tb HDD, expandable to 8 Tb internally



- Android®
- Apple®
- BlackBerry®
- Windows Mobile®

### DS 9108HDI S 10D

8 Channels Standalone Digital Video Recorder, H.264

- Recording per Channel : Up to 12 fps in 4CIF
- Dualstream network transmission (Smartphone/CIF at 25fps)
- Smart Search function for fast playback



### DS 9116HDI S 10D

16 Channels Standalone Digital Video Recorder, H.264

As above :

- Recording per Channel : Up to 12fps in 4CIF



Mobile applications for iPhone®, Android®, Blackberry® and Windows® Mobile



# iPhone® / iPod Touch® / iPad® application for remote monitoring



## Remote monitoring : IVMS 4500

DVRs and IP cameras have their own mobile monitoring software.

The mobile application IVMS 4500 can be downloaded from the AppStore® via iTunes®.



The following devices iPhone® 3G/3GS/4G, iPod Touch® and iPad®, will allow you to remotely connect to your CCTV devices when connected to a 3G network or WIFI.



Functions :

- Quad view
- Full screen (portrait & landscape)
- PTZ Control

## Keyboards **HIKVISION**

### DS 1003KI

System Keyboard with Joystick

- 3 Axis joystick
- LCD display
- Control DVRs and PTZ
- RS485, 2 ports



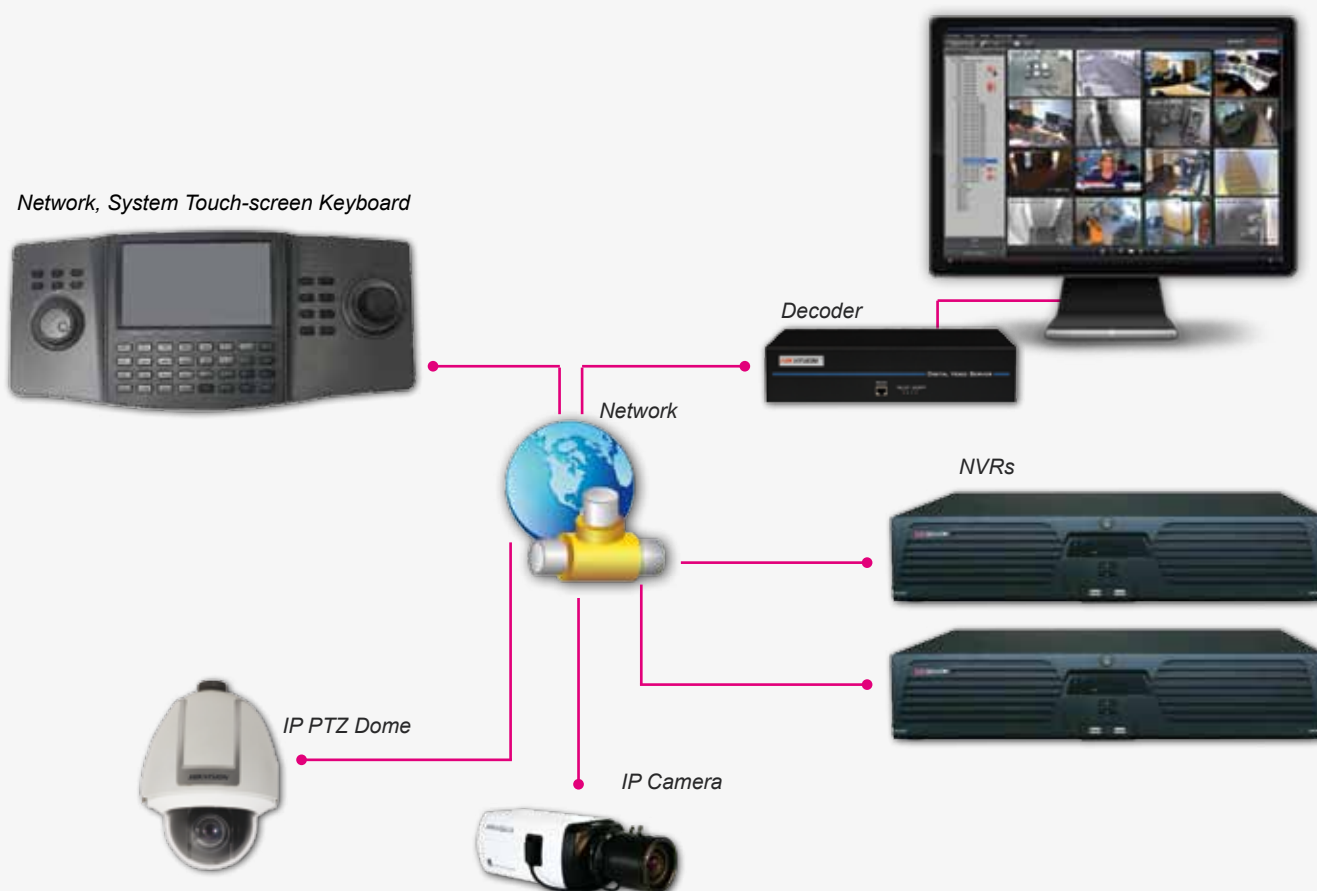
### DS 1100KI

Network, System Touch-screen Keyboard

- 3 Axis joystick and jogshuttle
- Touch-screen 800×480 LCD display
- Live and playback on LCD display
- Camera and monitor switch
- Control Hikvision® IP cameras, encoders, DVRs, NVRs and decoders
- Update via USB; Bi-directional audio communication
- Connection : RJ45, RS232, RS485, USB (video backup and configuration), audio in/out



### Schematic installation



## Hybrid Recorders - 9000 Range **HIKVISION**

Hybrid recorders allow a smooth transition to IP technology. They accept a mix of analogue and IP cameras.

- Same features as 9100 range, except :
- Compatible with camera IP brands : Acti®, Axis®, Bosch®, Panasonic®, Pelco®, Sanyo®, Sony®, Vivotek® and soon Grundig®\*

### DS 9008HFI S 10D

16 Channels Real-time Standalone Hybrid Digital Video Recorder

- 8 Video channels + 8 IP channels
- Recording per Channel : Up to 25 fps in 4CIF (analogue/IP) and 12 fps in 720p (IP)



### DS 9016HFI S 10D

24 Channels Real-time Standalone Hybrid Digital Video Recorder

- 8 Video channels + 8 IP channels+ 8 Analogue/IP cameras
- Recording per Channel : Up to 25 fps in 4CIF (analogue/IP) and 12 fps in 720p (IP)



### Hybrid recorders : Schematic installation



\* Acti®, Axis®, Bosch®, Grundig®, Panasonic®, Pelco®, Sanyo®, Sony®, Vivotek® are registered brands.

# Storage Capacity Chart **HIKVISION**

## Hikvision® storage capacity chart

Product code	DS 7204HI S05D	DS 7308HI S05D	DS 7316HI S05D	DS 8108HDI S05D	DS 8108HFI S10D	DS 9108HDI S10D	DS 8116HDI S10D	DS 8116HFI S10D	DS 9116HDI S10D
Standard HDD	500 Gb	500 Gb	500 Gb	500 Gb	1 Tb	1 Tb	1 Tb	1 Tb	1 Tb
Max. HDD	1 x 2 Tb	2 x 2 Tb	2 x 2 Tb	4 x 2 Tb	4 x 2 Tb	4 x 2 Tb	4 x 2 Tb	4 x 2 Tb	4 x 2 Tb
4 x CIF@6fps	82 d : 10 h								
1 x 4CIF@12fps + 3 x CIF@6fps	34 d : 11 h								
4 x 4CIF@12fps	10 d : 7 h								
8 x CIF@6fps	-			41 d : 5 h		41 d : 5 h			
3 x 4CIF@12fps + 5 x CIF@6fps	-	13 d : 1 h		13 d : 1 h		6 d : 12 h			
8 x 4CIF@12fps	-	-		5 d : 3 h	5 d : 3 h	5 d : 3 h			
8 x 4CIF@25fps	-	-		-	5 d : 3 h	-			
16 x CIF@6fps	-	-	20 d : 14 h	-	-	-	41 d : 5 h		41 d : 5 h
6 x 4CIF@12fps + 10 x CIF@6fps	-	-	6 d : 12 h	-	-	-	6 d : 12 h		6 d : 12 h
16 x 4CIF@12fps	-	-	-	-	-	-	5 d : 3 h	5 d : 3 h	5 d : 3 h
16 x 4CIF@25fps	-	-	-	-	-	-	-	2 d : 13 h	-

As per Hikvision® recommendations, these values are given considering specific settings with standard HDD sizes. Used settings are as follow: 128Kbps for CIF@ 6 fps and 512Kbps for 4CIF @ 12 fps. As H.264 compression is used, HDD usage can vary depending on the amount of activity in the image. Please allow for a 10% +/- for HDD storage variation.

## How many cameras can we connect to a hybrid recorder ?



Number of cameras and maximum recording speed rate for Hikvision® hybrid recorders

Product code	Analogue cameras CIF/4CIF	IP cameras 4CIF	IP cameras 720p	IP cameras 1600 x 1200
DS 9008HFIS 10D	8 in 25fps	8 in 25fps	4 in 25fps	4 in 12fps
DS 9016HFIS 10D	8 to 16 in 25fps	8 to 16 in 25fps	4 to 8 in 25fps	4 to 8 in 12fps



# Samsung® DVRs

High definition, Easy to use, Real-time recording



- High quality Image
- Intuitive graphical user interface
- Extendable HDD Capacity

**SAMSUNG**

## Digital Video Recorders

**SAMSUNG**

**H264** Samsung® DVR range, with a high image quality.

### Standard features :

- High quality image : H.264, 4CIF (704x576)
- One of the most user friendly interface in the CCTV market
- Recording : continuous, schedule, motion detection, alarm
- Dual codec for fast network transmission
- Telemetry RS485 and via coaxial cable (DC range)
- Built-in DVD-RW burner for back-up

### SRD 470D

4 Channels Compact Digital Video Recorder

- 4 Video and audio channels, real-time recording in 4CIF
- Recording during the playback (Triplex)
- USB mouse
- Internal 500 Gb HDD, expandable to 2 Tb internally



### SRD 850DC

8 Channels Standalone Digital Video Recorder

- Recording per Channel : Up to 25 fps in CIF; 6 fps in 4CIF
- Internal 500 Gb HDD, expandable to 8 Tb internally
- VGA/HDMI/BNC outputs + 2 BNC spot outputs
- Control and set-up of cameras via coaxial cable



### SRD 1630D

16 Channels Standalone Digital Video Recorder

- Recording per Channel : Up to 12.5 fps in CIF; 3 fps in 4CIF
- Internal 500 Gb HDD, expandable to 8 Tb internally
- VGA/BNC outputs + 2 BNC spot outputs



### SRD 1650DC

16 Channels Standalone Digital Video Recorder

As SRD 850DC, with :

- Recording per Channel : Up to 25 fps in CIF; 6 fps in 4CIF
- Internal 1 Tb HDD, expandable to 8 Tb internally
- 4 Spot outputs



## High definition real-time recording & playback



The SRD series features leading live and playback image quality. Each unit is capable of recording up to real-time 4CIF images across selected Channels, if not all channels.



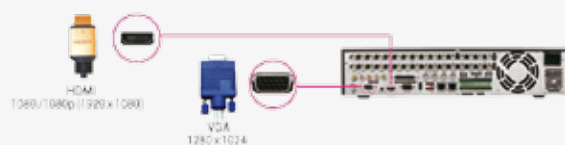
Real-time Playback

## Digital Video Recorders - Terms & Features

### High definition (1080p)

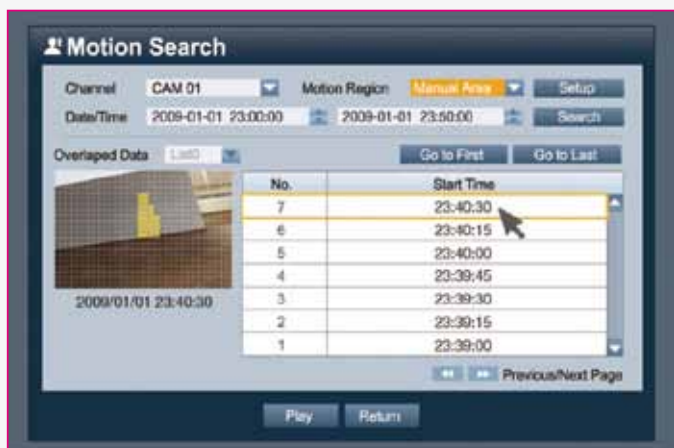


Selected models come complete with an HDMI output able to upscale image to 1080p (1920x1080) alongside VGA and BNC outputs to take advantage of the latest monitor formats.



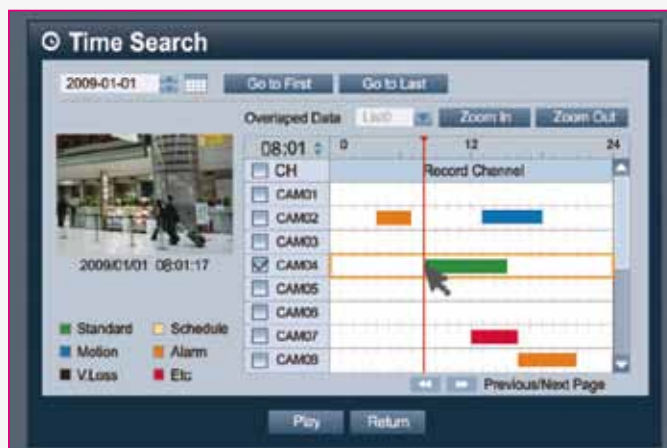
### Intuitive Graphical User Interface (GUI)

A shared GUI across all models makes it extremely easy to set-up and use the SRD series. Even a first time user will be able to easily navigate the menu and operational functions thanks to its intuitive, user friendly design.



#### Motion search :

One hour motion search can be easily set up by using the GUI on recorded video to display any changes within the scene within area of interest.



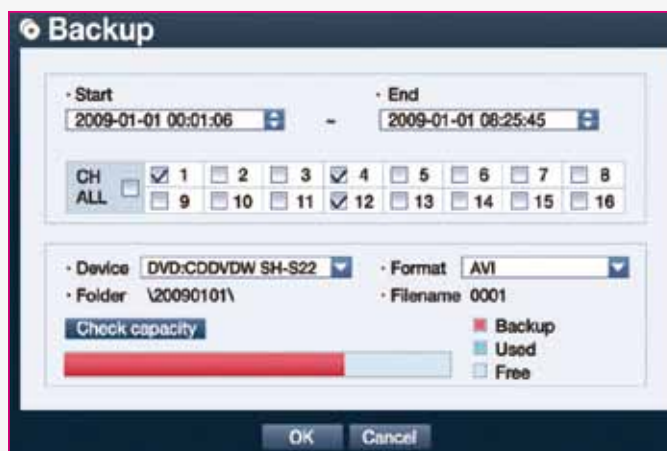
#### Searching preview :

When in search mode, SRD series DVRs display a still image allowing users to easily identify which channel is to be selected.



#### Easy Back-up during playback :

Convenient back-up is possible with all SRD series DVRs allowing users to assign the starting point and the ending point of the video that needs to be backed-up during Playback.



#### Easy Back-up GUI :

The easy-to-use GUI supports various back-up modes for each channel. Users can select a back-up device and start/end time, and then the DVR automatically checks the capacity of the device.

## Digital Video Recorders

SAMSUNG

## New real-time DVR range.

## Standard features :

- High quality image : H.264, 4CIF (704x576)
- Coaxial telemetry with CCVC, or RS485 multiprotocol
- Recording : continuous, schedule, motion detection, alarm
- USB2.0 Interface : USB memory/ external USB HDD/ Built-in DVD-RW burner
- DVI output maximum resolution of 1920x1080

## SRD 870DC

8 Channels Real-time Standalone Digital Video Recorder, H.264

- Recording : 25 fps in 4CIF
- Internal 1 Tb HDD, expandable to 8 Tb internally
- VGA/HDMI/BNC output + 2 spot BNC outputs



## SRD 1670DC

16 Channels Real-time Standalone Digital Video Recorder, H.264

As above :

- Recording : 25 fps in 4CIF
- 4 Spot outputs



## Samsung® storage capacity chart

Recording time (in day)	SRD 470D	SRD 850DC	SRD 870DC	SRD 1650DC	SRC 1670DC
Standard HDD	500 Gb	1 Tb	1 Tb	1 Tb	1 Tb
Level quality	6	6	6	6	6
Max. HDD	2 Tb	8 Tb (4x2 Tb)	8 Tb (4x2 Tb)	8 Tb (4x2 Tb)	8 Tb (4x2 Tb)
4 cam in CIF @ 6 fps	40d : 23h				
1 cam in 4 CIF @ 12 fps + 3 cam in CIF @ 6 fps	19d : 18h				
4 cam in 4 CIF @ 12 fps	7d : 18h				
4 cam in 4 CIF @ 25 fps	4d : 20h				
8 cam in CIF @ 6 fps	-	41d : 05h	41d : 05h		
4 cam in 4 CIF @ 12 fps + 6 cam in CIF @ 6 fps	-	16d : 11h	16d : 11h		
8 cam in 4 CIF @ 12 fps	-	-	10d : 07h		
8 cam in 4 CIF @ 25 fps	-	-	6d : 11h		
16 cam in CIF @ 6 fps	-	-	-	20d : 14h	20d : 14h
6 cam in 4 CIF @ 12 fps + 10 cam in CIF @ 6 fps	-	-	-	9d : 17h	9d : 17h
16 cam in 4 CIF @ 12 fps	-	-	-	-	5d : 03h
16 cam in 4 CIF @ 25 fps	-	-	-	-	3d : 05h

As per Samsung® recommendations, these values are given considering specific settings with standard HDD sizes. Used settings are as follow: level quality 6 (max. 8). As H.264 compression is used, HDD usage can vary depending on the amount of activity in the image. Please allow for a 10% +/- for HDD storage variation.



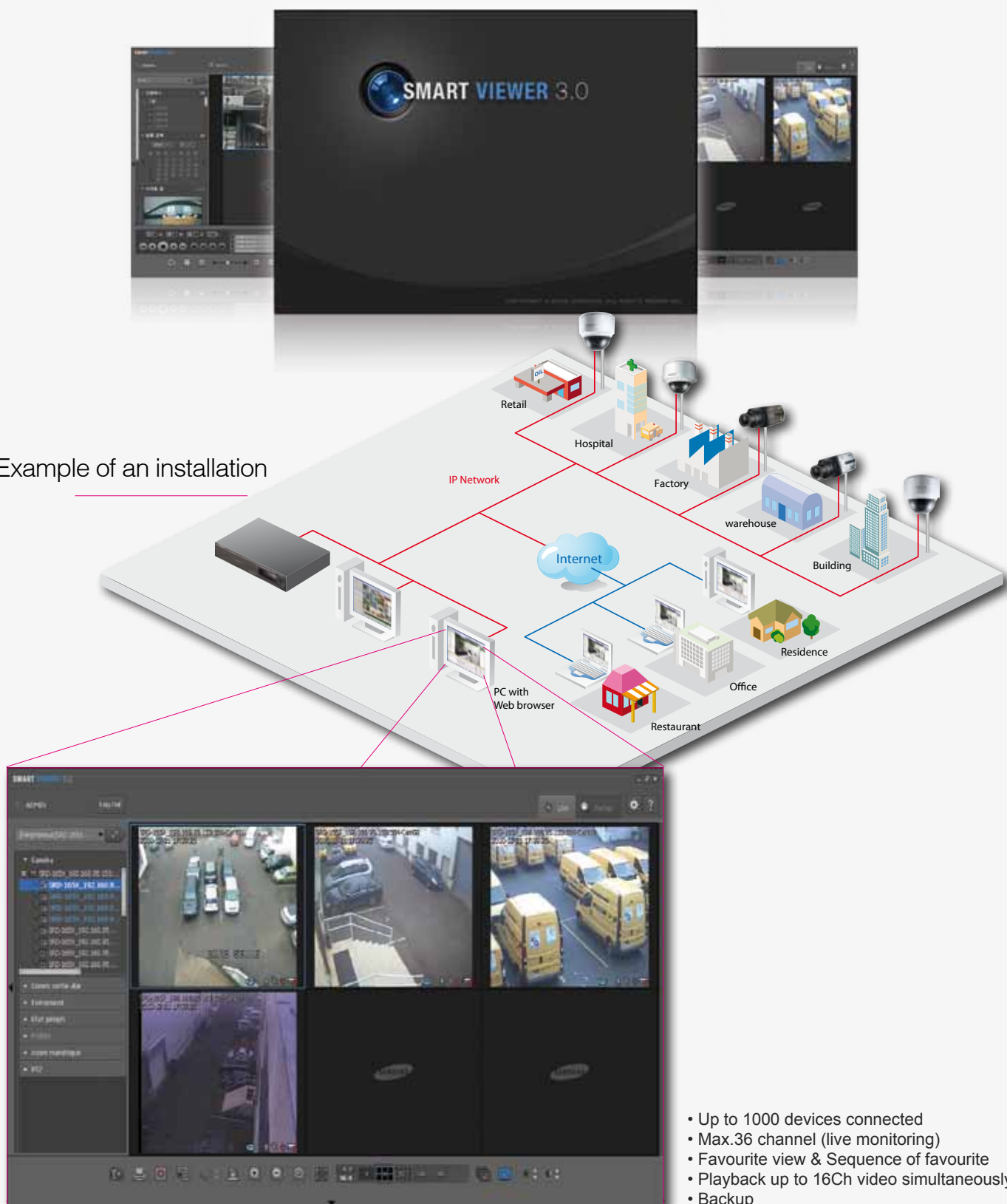
## Smart Viewer 3

SAMSUNG

## Remote monitoring software

SmartViewer 3.0 is an access control tool that enables you to connect to and control a remote Samsung DVR on your PC via the network. With this tool, you can access Samsung DVRs anywhere around the world via the network, and check the video data from the connected cameras. You can also search for and play recording data in the DVR on a remote site, which will be an effective and convenient monitoring system.

## Example of an installation





## Keyboards

SAMSUNG

## SPC 6000

Remote System keyboard for Samsung® PTZ Domes and DVRs

- LCD display (touch screen)
- Controls cameras, monitors, DVRs
- Can connect up to 16 keyboards simultaneously
- 3 axis joystick
- Easy to install
- Detachable joystick / jogshuttle for universal use (right/left hand use)
- Multiprotocol (12)



## SPC 6000 keyboard

The SPC 6000 is the only Samsung® Keyboard which allows telemetry via coaxial cable, when it used with SRD Recorders range. And, it's possible to invert its joystick with the jogshuttle to improve its using.



## SSC 5000P

Remote System keyboard for Samsung® PTZ Domes and DVRs

- 3 axis joystick
- LCD display (touch screen)
- Communication: RS485 (2)
- Multiprotocol (12)
- Can connect up to 32 keyboards simultaneously
- Power: 12VDC only



## SPC1010

Remote System keyboard for PTZ Domes and Zoom Cameras Only

- 3 axis joystick
- LCD display (two lines - 16 characters)
- Communication: RS485 (2)
- Power: 12VDC only

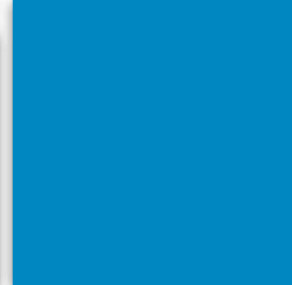


# Grundig® Digital Video Recorders

## Functional and Secure

Digital video recording is at the core of all surveillance systems. It's essential that a DVR is reliable, easily installed and controlled and meets all site application needs.

The Grundig DVR range has been designed to offer outstanding functionality, any time and any where. The range includes 8, 16 and 32 channel models; all equipped with a DVD-RW drive and two USB ports for back-up purposes. Their advanced functionality makes site operation and management straightforward.



FOR A GOOD  
**REASON**  
**GRUNDIG**

## Digital Video Recorders **GRUNDIG**

Grundig® introduces its new high end DVR range with H.264 compression and compatible with most web browsers and Smartphones.

### Standard features :

- High quality image : H.264, 4CIF (704x576)
- Remote monitoring and control through network (LAN)
- Recording : continuous, schedule, motion detection, alarm
- Internal 1 Tb HDD, expandable
- Built-in DVD-RW burner for back-up
- DVI output maximum resolution of 1920x1080



• Firefox®  
• Chrome®  
• Internet Explorer®

• Safari®  
• Opéra®

### GDV B2208A

8 Channels Standalone Digital Video Recorder

- Recording per Channel : Up to 12 fps in 4CIF
- 1 DVI output in high definition (full HD)



### GDV A4416A

16 Channels Standalone Digital Video Recorder

- Recording per Channel : Up to 6 fps in 4CIF
- 1 DVI output in high definition (full HD)



Grundig® DVRs allow mobile remote monitoring on most Smartphones.



\* Mozilla® Corp., Opera® Software ASA., Google® Inc., Apple® Inc., Microsoft® Corp are registered brands.

## Digital Video Recorders **GRUNDIG**

### GDV C4416A

16 Channels Real-time Standalone Digital Video Recorder

- Recording per Channel : Up to 25 fps in 4CIF
- 2 DVI outputs in high definition (full HD)



### GDV B8832A

32 Channels Standalone Digital Video Recorder

- Recording per Channel : Up to 12 fps in 4CIF
- 2 DVI outputs in high definition (full HD)



## Grundig® storage capacity chart

Product code	GDV B2208A	GDV A4416A	GDV C4416A	GDV B8832A
Standard HDD	1 Tb	1 Tb	1 Tb	1 Tb
Max. HDD	6 Tb 2 SATA + 1 eSATA in 2 Tb	6 Tb 2 SATA + 1 eSATA in 2 Tb	10 Tb 4*SATA + 1 eSATA in 2 Tb	10 Tb 4*SATA + 1 eSATA in 2 Tb
8 cam in CIF @ 6fps	21 d : 12 h			
4 cam in 4CIF @ 12fps + 4 cam in CIF @ 6fps	19 d : 0 h			
8 cam in 4CIF @ 12fps	12 d : 2 h			
16 cam in CIF @ 6fps	-	10 d : 18 h		
8 cam in 4CIF @ 12fps + 8 cam in CIF @ 6fps	-	9 d : 12 h		
16 cam in 4CIF @ 12fps	-	6 d : 1 h	6 d : 1 h	
16 cam in 4CIF @ 25fps	-	-	4 d : 4 h	
32 cam in CIF @ 6fps	-	-	-	5 d : 9 h
16 cam in 4CIF @ 12fps + 16 cam in CIF @ 6fps	-	-	-	4 d : 18 h
32 cam in 4CIF @ 12fps	-	-	-	3 d : 0 h

As per Grundig® recommendations, these values are given considering specific settings with standard HDD sizes. Used settings are as follow: level quality 4 (max. 5). As H.264 compression is used, HDD usage can vary depending on the amount of activity in the image. Please allow for a 30% decrease for HDD storage variation.

## High definition (1920x1080p)

Grundig® recorders come with DVI outputs . It allows a high definition display.



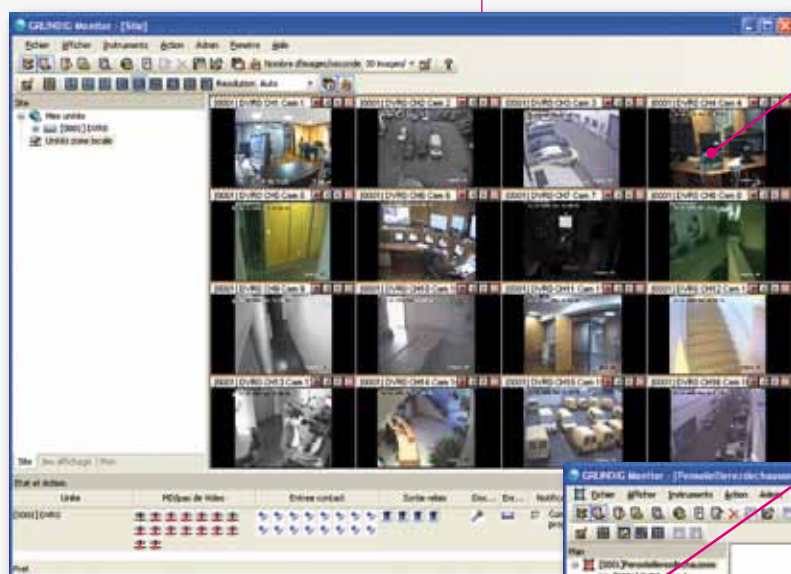


# Digital Video Recorders **GRUNDIG**

Grundig® DVRs are delivered with CMS software.

- Multiple remote connections with multi screen display
- Functions : live, playback, setup and backup
- Dual Screen display : 2 x 64 video channels
- Alarm notifications : VMD, relays in/out, bi-directional audio communication

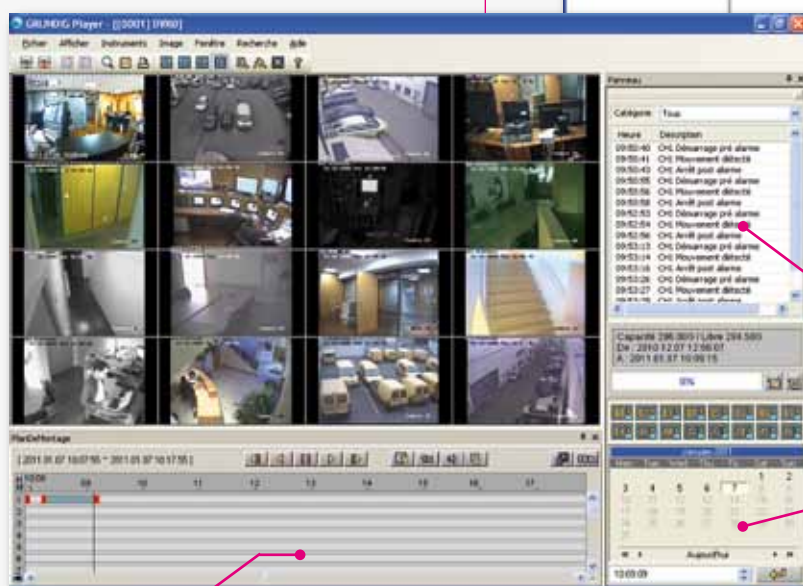
## Live display



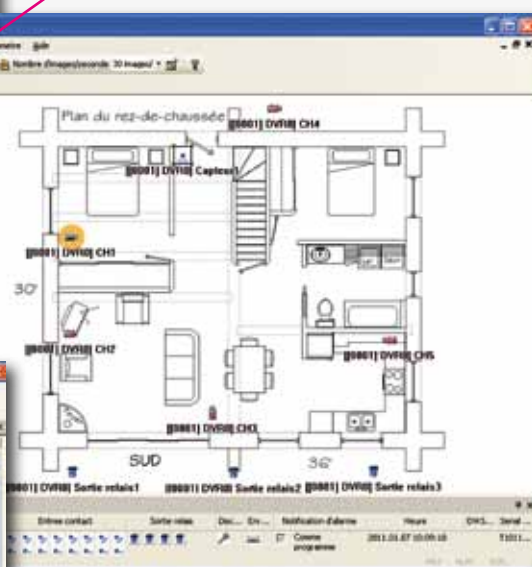
Customized Multi-screen

## Maps

## Playback display



Multi channel time-line



Alarm notification  
filtered by type

Recording search schedule



# Monitors



## LCD Monitors



## Cctv professional LCDs

## Standard features :

- High video resolution : 620 TVL
- Fast response time : 5 ms
- Viewing angle 160°x160°
- Remote control
- DNle Technology (Digital Natural Image engine)
- Tempered Glass Screen
- Speakers
- Power 230VAC

## SMT 1722P

17" TFT-LCD Monitor (43 cm)

- 2 video inputs, 1 S-VHS with looping, VGA input, Audio
- HAS : Height Adjustable Stand
- Aspect ratio : 4/3, resolution : 1280x1024



## SMT 1922P

19" TFT-LCD Monitor (48 cm)

As above :

- 19"



## SMT 2231P

22" TFT-LCD Monitor (55 cm)

- Full-HD
- 2 video inputs, with looping, 1 HDMI, VGA input, Audio
- Aspect ratio : 16/9, resolution : 1920x1080



## SMT 1712P

17" TFT-LCD Monitor (43 cm)

- VGA input
- Aspect ratio : 4/3, resolution : 1280x1024
- Viewing angle 170°x160°
- Response time 5ms



## SMT 1912P

19" TFT-LCD Monitor (48 cm)

As above :

- 19"



## LCD Monitors - Terms & Features



### DNle (Digital Natural Image engine)

Samsung proprietary DNle™, technology, developed through continued research & development programmes combined with 30 years of production experience, ensure pin sharp, vivid colours by taking the signal from a conventional broadcast source and turning it into stunning pictures on any Samsung LCD screen.

#### Contrast Enhancer



• Classic



• DNle

#### Colour Optimizer



• Classic



• DNle

#### Motion Optimizer



• Classic



• DNle

#### Detail Enhancer



• Classic



• DNle

### Response time

The Ultra fast response time ensures stable viewing of streaming video. Ideal for use with PTZ Cameras, multimedia-driven applications and for viewing video over the world wide web.



• Classic image



• Image with a fast response time

### Tempered glass screen / Height Adjustable Stand (HAS)



Monitors with tempered glass screen design protects the screen from dirt, repetitive touching or scratching. Monitors with "HAS" feature can be adjusted to users' comfort level.

## LCD Monitors - Large Size

**SAMSUNG**

**S**amsung® large professional monitor range for monitor wall.

### Standard features :

- Response time 8 ms
- Wide viewing angle : 178°/178°
- Contrast ratio 4000:1
- Connector : VGA / DVI / HDMI / Video composite
- Speakers
- Monitor wall up to, 5x5 monitors
- Optional foot stand; VESA DPM compatible

### SM 320MX3

32" TFT-LCD Monitor (81 cm)

- Resolution : 1366x768



### SM 400MX2

40" TFT-LCD Monitor (102 cm)

- Resolution : 1920x1080



### SM 460MX3

46" TFT-LCD Monitor (117 cm)

- Resolution : 1920x1080



### PIP (Picture In Picture), PBP (Picture By Picture)



For your convenience, Samsung® have added a PIP and PBP display functions. These functions ensure you can watch different CCTV Cameras on one screen, optimising operations and cutting costs.

## Foot Stand

### SMX 400STEXP

Foot Stand SMT3222P & SMT4022P Monitors

- For SMT-3222P & SMT-4022P



## LCD Monitors - Large Size



### SM 550EXLED

55" LED Monitor (140 cm)

- Ultra slim (less than 4 cm)
- Fast response time 6 ms
- Wide viewing angle : 178°x178°
- Contrast ratio 6000:1
- Connectors : VGA / DVI-D / HDMI
- Speakers
- Monitor wall up to, 10x10 monitors
- Optional foot stand; VESA 400x400 compatible



### SM 650MP

65" TFT-LCD Monitor (165 cm)

- Fast response time 5.5 ms
- Wide viewing angle : 178°x178°
- Contrast ratio 5000:1
- Connectors : VGA / DVI / HDMI / BNC / Video Composite
- Speakers
- Monitor wall up to, 5x5 monitors
- Optional foot stand; VESA DPM compatible



## Other monitors

### LCD-T56

5.4" TFT-LCD Monitor (14 cm)

- Resolution : 960 x 234
- 1 BNC and audio
- 12V and battery powered



### AST LCD64

6.4" TFT-LCD Monitor (16 cm)



- High resolution
- Wide viewing angle
- Delivered with bracket



### GMT 1031P

10.4" TFT-LCD Monitor (26.6 cm)



- 1 Video input with looping, VGA input (resolution 800x600)
- Wide viewing angle : 140°x140°
- VESA 75
- Power supply included
- Metal case





## LCD Monitor Accessories **GRUNDIG**

**V**esa brackets for LCD monitors.

### GBR M31553

Wall Bracket for LCD Monitor - Vesa Mount 75/100

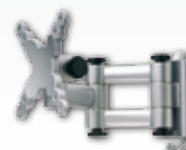
- Recommended monitor size : 33 cm ~ 68 cm (13" ~ 27")
- Maximum weight 18 kg



### GBR M31555

Wall Bracket for LCD Monitor - Vesa Mount 75/100

- Recommended monitor size : 33 cm ~ 68 cm (13" ~ 27")
- Maximum weight 18 kg



### GBR M31556

Wall Bracket for LCD Monitor - Vesa Mount 75/100/200

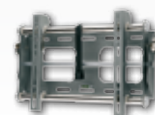
- Recommended monitor size : 43 cm ~ 81 cm (17" ~ 32")
- Maximum weight 25 kg



### GBR M31560

Wall Bracket for LCD Monitor - VESA adjustable

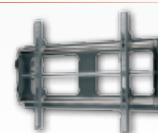
- Recommended monitor size : 58 cm ~ 94 cm (23" ~ 37")
- Maximum weight 40 kg



### GBR M31561

Wall Bracket for LCD Monitor - VESA adjustable

- Recommended monitor size : 94 cm ~ 127cm (37" ~ 50")
- Maximum weight 75 kg



### AST BRLCD 2405

Ceiling Bracket for LCD Monitor - Vesa Mount 75/100

- Dimensions : Ø 34 mm x 650 to 1050 mm (telescopic)
- Maximum weight 15 kg



## Compact Combined LCD monitor - WDR Camera



### AST LCD19CAM

19" TFT-LCD Monitor (48 cm) - WDR Camera

- Displays a full, flat 19" diagonal image
- Deterrent equipment
- Plug & Play installation
- WDR Camera for extreme backlight situations



### A real deterrent product

Designed to be installed at the entrance of shops or sensitive areas, this monitor acts as a deterrent.



## Control Room / Monitor Wall



### Monitor wall configuration

9 LCDs monitor wall

The installation includes 9 x 40" monitors, 1 video distributor, 1 video switch, 3 servers, and 1 PC.

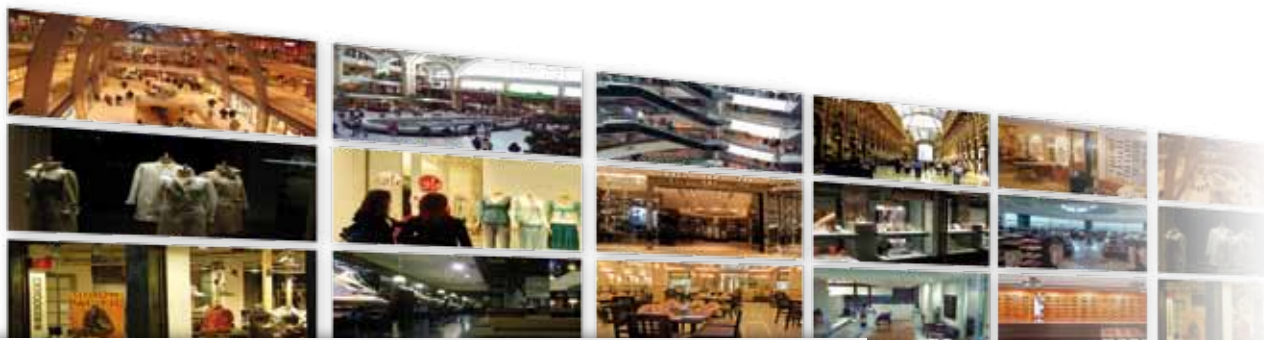




## Control Room / Monitor Wall

Aasset Security® proposes alternative solution for monitor walls.

From entry level to high-end installations, this CCTV viewing stations offer quality and are designed for all kind of needs.



## Video Distributors

### CD1022

1 up to 2 Video Distribution Amplifier

- Easy to install
- Video Input : 1 CH Composite, BNC female / Video Outputs : 2 CH Composite, BNC, 75 Ohms
- 230VAC / 12VDC, 0.5A - Power supply included



### CD1022 : 1 up to 2 video distribution amplifier

One input & two amplified outputs for easy cabling.  
For example, for a monitor near a specific camera.



12VDC or 24VAC using same power source than the camera.

Compact size (42.2x72.7x46 mm) :  
can fit in a camera housing or false ceiling...

### DV408

Video Distribution Amplifier

- Easy to install
- 4 Inputs / 8 Outputs
- Can select video input and output association
- 230VAC



### CD 8162

8 up to 16 Video Distribution Amplifier

- Easy to install - Metal cabinet
- Video Inputs : 8 CH Composite, BNC
- Video Outputs : 16 CH Composite, BNC, 75 Ohms
- 230VAC / 12VDC, 0.5A - Power supply included



### CD 16642

16 up to 64 Video Distribution Amplifier

- Easy to install - Metal cabinet
- Video Inputs : 16 CH Composite, BNC
- Video Outputs : 64 CH Composite, BNC, 75 Ohms
- 230VAC / 12VDC, 1A - Power supply included





## Sequential Switcher



## VS 208L2

8 Way Video Switcher with Alarms

- Video Inputs : 16 CH Composite, BNC
- Video Outputs : 64 CH Composite, BNC, 75 Ohms
- Adjustable switching time 1~15 seconds



## Colour Quad



## ASTDQ 400PC

Colour Quad - Real Time

- Video : 4 inputs (Looping), 2 outputs
- Alarm : 4 inputs, 1 output
- High resolution 720 x 576
- DVR/VCR input & output
- Time, date and text generator



## Colour Multiplexer



## ASTDM 316P

16 Channel Colour Real Time Duplex Multiplexer

- Video : 16 inputs (Looping), 2 outputs
- Alarm : 16 inputs, 1 output
- High resolution 720 x 576
- DVR/VCR input & output
- Time, date and text generator



# Transmission



## Video Twisted Pair : Passive Transmitters

Passive transmitters on twisted pairs (baluns) allow the use of phone, alarm or network cables avoiding the use of coaxial cable. They work by pair : sender and receiver.

### Standard features :

- Passive transmission
- Can be used as a transceiver or receiver
- Transmission on twisted pair (exemple: phone cables up to 225m)
- Distance can be extended to 900m with an active receiver

### TTP 111VL

Video Transceiver With Mini Coax Cable

- Superb quality on long range transmission
- Mini coaxial cable : 25 cm
- Immunity against noise and interferences



### TTP 111VT

Video Transceiver BNC Male to Terminal Block

- BNC male to 2 pin terminal Block
- 1 Video input



### TTP 111VPD

Video, Power, Data Transceiver (Terminal connection)

- Male BNC with DC Plug + 2 pin pigtail to 6 "push pin" terminal.
- Push pin terminal for easy cable connection.
- Video, low voltage camera power, Data (RS422, 485) transmission over one standard CAT 5 cable



## Video Twisted Pair : Passive Transmitters

### TTP 414VL

UTP 4 Channels Passive Video Transceiver HUB

- 4 x BNC female to 1 x RJ45 female + 8 pin terminal block
- Four passive transceivers in one product
- Choice of RJ45 or push pin terminal inputs/outputs
- No power required



### TTP 008

UTP 8 Channels Passive Video Transceiver HUB

- Video Output port (BNC connector) : 8 ports 1Vp-p, 75 Ohms
- Recommended cable : Cat5 cable 4 pairs (24AWG)
- 1u Rack mount



### TTP 016

UTP 16 Channels Passive Video Transceiver HUB

- Video Output port (BNC connector) : 16 ports 1Vp-p, 75 Ohms
- Recommended cable : Cat5 cable 4 pairs (24AWG)
- 1u Rack mount



## Video Twisted Pair : Active Receiver

### TPA 008

UTP 8 Channels Active Video Receiver HUB

- Video input port : 8 ports (terminal block)
- Video output port (BNC connector) : 8 ports 1Vp-p, 75 Ohms
- Recommended cable : Cat5 cable 4 pairs (24AWG)
- 1u Rack mount



### TPA 016

UTP 16 Channels Active Video Receiver HUB

- Video input port : 16 ports (terminal block)
- Video output port (BNC connector) : 16 ports 1Vp-p, 75 Ohms
- Recommended cable : Cat5 cable 4 pairs (24AWG)
- 1u Rack mount



## Carpark Access

Our access control solutions are innovating : they gather at the same time (generally in one only block) reading, and data transmission on a network (number plate, vehicle picture, etc.). Chipset simultaneously catches the view, lighting and image processing. They're autonomous and do not need external device. They identify automatically vehicles, even under extreme conditions.

### Carpark Access

Access control solution based on number plate recognition



Solution developed for :

- >> Hotels
- >> Camping
- >> Petrol Stations
- >> Town centers and Cities
- >> High Security Sites
- >> Car Park Companies
- >> Motorways

Unequalled performance  
installed on sites all over  
Europe

*With Carpark Access Solution, manage automatically your car parks access :*

- >> *Eliminate queues before barriers.*
- >> *Avoid unauthorised parking.*
- >> *Fight theft and vandalism.*



## Single lane, Multi lane, Standalone & Network Systems

**Anpr** autonomous units with built in DSP working while connected to a network or to a centralized server or to an access control system.

### Standard features :

- Monochrome camera with zoom
- Built-in IR LED Projectors, synchronized with the camera
- Remote setup
- Real time car plate export (IP or RS232) or barrier opening.
- Compact size and IP67
- RJ45 connection et multi-connections (14-pin : 2xRS 232, Power, I/O, 12V relay)
- AWBOVA2 bracket
- SDK for easy integration with third party software : access control, car park access, dedicated applications

### AST MP ANPR10

ANPR Camera

- 10 fps version for stopped vehicles or low speed applications



### AST MP ANPR25

ANPR Camera

- 25 fps version for moving vehicles



### AST PBSS

Box for cables protection

- Box for cables protection and adaptor for support WBOVA2
- Internal cable channel



### AST VCP

1 Channel IP Video Server

- To add cameras contexts on a number plate systems Carpark Access
- Video real-time transmission



## Single lane, Multi lane, Standalone & Network Systems

### AST ALS AF4

Central Configuration Server

- Centralisation of vehicle access rights
- Centralisation of log reports
- Centralisation and management of parameters
- Administration of licences and security parameters
- Accessible from any PC through a web interface



## Software

### AST VMS WL

Light Software With Simple White List

- Operates as an access control system
- Implementation with an unlimited number of AST MPANPRxx camera
- Saving and re-use user configurations



### AST VMS AF4

Visualisation and Access Rights Management Software

- Implementation with an unlimited number of ASTMPANPRxx camera
- Visualisation of real-time or record streams
- Search by time, by number plate or by name
- Activation of alert, for presence of vehicles on black-list
- Activation of alert for the presence of stalkers
- Wrong direction detection
- Saving and re-use of user configurations



## Cameras

**A**asset Security® offers a dedicated range for large scale projects combining aesthetic, performance, quality and a competitive pricing.

### ASTCB 1203PIR

Bullet Varifocal Camera with Built-in IR LEDs

- 1/3" Super HAD II CCD
- Resolution 540 TVL
- Sensitivity 0 lux (IR activated)
- External adjustment for focus and focal length
- Day/Night switch through photocell
- Varifocal DC lens : 4 ~ 9 mm
- Power 12VDC



### ASTCD 1203VPIR

Fixed Vandal Resistant Colour/B&W Dome with Built-in IR LEDs

- 1/3" HQ1 CCD
- Resolution 540 TVL
- Sensitivity 0 lux (IR activated)
- External adjustment for focus and focal length
- Day/Night switch through photocell
- Varifocal DC lens : 2,8 ~ 10 mm
- IP66
- Power 12VDC



### ASTCD 1203VPIR

This vandal resistant dome with built in IR LEDs have been designed for retail applications. Compact and aesthetically well finished with a white colour for discrete ceiling and/or wall mount. The aluminium body and its protection glass combined with the IR LED projectors allow the dome be installed internally and externally for day and night vision. Photocells will automatically activate the night mode when lighting becomes insufficient.



## Internal Fixed Dome

### ASTCD 1202P

Fixed Varifocal Colour Dome

- 1/3" Super HAD II CCD
- Resolution 540 TVL
- Varifocal DC lens : 2,8 ~ 11 mm
- Easy to install
- Power 12VDC



## Digital Video Recorders



### Standard features :

- High quality image : H.264, 4CIF (704x576)
- Internal 250 Gb, expandable to 2 Tb internally
- Built-in DVD-RW burner for back-up
- Telemetry RS485
- delivered with a CMS software
- Network : Client software, smartphones : iPhone®, Blackberry®, Windows Mobile®

### DVR 1004P

4 Channels Standalone Digital Video Recorder, H.264

- Recording : 100 fps in CIF; 25 fps in 4CIF
- Video output : VGA/BNC outputs



### DVR 2008P

8 Channels Standalone Digital Video Recorder, H.264

- Recording : 200 fps in CIF; 50 fps in 4CIF
- Video outputs : 1 (DVI + 1 BNC) + 1 spot









### DVR 2016P









16 Channels Standalone Digital Video Recorder, H.264







- As above :
- 16 Channels






Product Code	1,3 mega		Full HD		VD Full HD		Bullet
	GCI H0503B		GCI H0602B	GCI K0503B	GCI H0522V	GCI K0322V	GCI K0523T
							
Chipset:	CCD 1/3", 1,3 megapixel Yes (ICR)		CMOS 1/2,7" Omnivision of 2 Megapixels Yes (ICR)		CMOS 1/2,5" Aptina of 2 Megapixels Yes (ICR)		CMOS 1/2,7" Omnivision of 2 Megapixels Yes (ICR)
Col/B&W:	1280 x 960		Colour		Colour		Colour
Resolution:	1280 x 960		0,2 lux @ F1,2		Full HD 1920 x 1080@12im/s,		0,1 lux @ F1,6
Sensitivity (colour):	0,03 lux @ F1,2 (Colour)		0,02 lux @ F1,2		0,2 lux @ F1,4		0,2 lux @ F1,4
Sensitivity (B&W):	0,001 lux @ F1,2 (B&W)		-		0 lux @ F1,4 (with IR)		0 lux @ F1,4 (with IR)
IR range:			-		30/45 m (depending on environment)		30/45 m (depending on environment)
Lens							
Mount:	C/CS				-		
Focal:	-		-		3.3 - 12 mm		3.3 - 12 mm
Viewing Angle (H):					71° ~ 21°		71° ~ 21°
Max Distance for identification:	-		-		< 10,5 meters		< 11 meters
Features							
Backlight:	BLC, WDR (adjustable)		-		-		-
Privacy zones	5 zones, rectangles				2 zones, rectangles		
Shutter speed					1 sec to 1/10 000 sec		
Camera ID					20 characters		
DNR Filter	On/Off (3D + 2D)				-		
Video output:			1 CVBS, 1 Vcc, BNC				1 CVBS, 1 Vcc, BNC
Alarm Input / Output:			1 / 1				1 / 1
Network							
Web Browser:	I.E. 6.0 +, Firefox, Safari, Chrome						
Operating Systems	Windows® 7, Vista, XP & 2000						
Video Compression	Dual stream: H.264, MJPEG, MPEG-4		Dual stream: H.264, MJPEG				
Frame Per Second	1280 x 960@12im/s, 1280x720@25im/s, 704x576@25 im/s	1920 x 1080@12im/s, 1280 x 720@25im/s	1920 x 1080@25im/s, 1280 x 720@2x25im/s	1920 x 1080@12im/s, 1280 x 720@25im/s	1920 x 1080@25im/s, 1280 x 720 @2x25im/s		
Audio Compression			G.726 ADPCM, AAC		G.726 ADPCM, AAC		
Network Protocols	IPv4, IPv6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, 802.1X, NTF		-				
Alarm events:	Dry contact, VMD, Calendar: FTP, Email, Local recording on SD card, Alarm Output						
Micro SD/SDHC card slot:	Micro SD/SDHC						
Mechanical / Electrical							
Operating temperature:	0° C ~ +50° C				-10° C ~ +50° C		-20° C ~ +50° C
Operating Humidity:			10 ~ 90% without condensation		-		
Protection:			IP66, IK10		IP66, IK10		IP66
Standard	CE, FCC, RoHS						
Power	DC 12V / AC 24V / PoE IEEE 802.3af		DC 12V / AC 24V / PoE IEEE 802.3af		PoE IEEE 802.3af		
Power Consumption	6 W		4 W		5,5 W		3,8 W
Weight			0,36 kg		0,8 kg		0,18 kg
Dimensions L*H*P:	82 x 52 x 125 mm				Ø 151 x 130 mm		19 x 90 x 90 mm



Product Code	VGA		4CIF		4CIF WDR		1,3 mega	
	DS 2CD833F E	DS 2CD733F E	DS 2CD893PF E	DS 2CD793PF E	DS 2CD893PFWD E	DS 2CD793PFWD E	DS 2CD863PF E	DS 2CD763PF E
								
Chipset:	CMOS 1/4" Progressive Scan		CCD 1/3" Sony®		CCD 1/3" double scan Sony®		CCD 1/3" Progressive Scan Sony®	
Col/B&W:	Yes (ICR)	Colour	Yes (ICR)	Colour	Yes (ICR)	Colour	Yes (ICR)	Colour
Resolution:	640 x 480		704 x 576		704 x 576		1280 x 960	
Sensitivity (colour):	0,2 lux @ F1,2		0,02 lux @ F1,2		0,1 lux @ F1,2		0,1 lux @ F1,2	
Sensitivity (B&W):	0,02 lux @ F1,2		0,002 lux @ F1,2		0,01 lux @ F1,2		0,01 lux @ F1,2	
Lens								
Mount:	C/CS with adaptor	-	C/CS with adaptor	-	C/CS with adaptor	-	C/CS with adaptor	-
Focal:	-	2,8 ~ 11mm @ F1,4	-	2,8 ~ 11mm @ F1,4	-	2,8 ~ 11mm @ F1,4	-	2,8 ~ 11mm @ F1,4
Viewing Angle (H):	-	70° ~ 18°	-	97° ~ 24°	-	97° ~ 24°	-	97° ~ 24°
Max Distance for identification:	-	< 6 meters	-	< 5 meters	-	< 5 meters	-	< 9,5 meters
Features								
Iris	Auto Iris, DC or manual							
Backlight	BLC		BLC		BLC, WDR x160		BLC	
Privacy zones	4 zones, rectangles							
Shutter speed	1/25s~1/100 000s							
Camera ID	203 characters							
Video Output	1 x BNC							
Audio In / Out	1 jack 3,5mm / 1 jack 3,5mm							
Alarm In / Out	1 / 1	2 / 2	1	2	1	2	1	2
Network								
Web Browser:	I.E. 6.0 +							
OS Systems	Win 2000 / XP / VISTA							
Video Compression	H.264, MJPEG, dual stream							
Audio Compression	G.711							
Network Protocols	TCP/IP, UDP, HTTP, DHCP, DNS, DDNS, RTP/RTSP, PPPoE, SMTP, NTP (SNMP, HTTPS, SIP, FTP, SRTP, 802.1x, IPv6, ONVIF and PSIA optional)							
Frame Per Second	640x480@25 im/s		704 x 576@2x25 im/s		704 x 576@2x25 im/s		1280x960@12,5 im/s, 1280x720@25 im/s	
Alarm events:	Dry contact, VMD, Calendar: FTP, Email, Local recording on SD card, Alarm Output							
Micro SD/SDHC card slot:	Support SD SDHC up to 32Gb							
Control	RS-485 (2-pin), PTZ control							
Mechanical / Electrical								
Operating temperature:	-10°C ~ +60°C							
Operating Humidity:	Less than 90%							
Protection:	IK10		IK10		IK10		IK10	
Power	DC 12V / PoE							
Power Consumption	4,5 W		5,5 W		7,5 W		7,5 W	
Weight	0,5 kg	1,4 kg	0,5 kg	1,4 kg	0,5 kg	1,4 kg	0,5 kg	1,4 kg
Dimensions L*H*P:	68 x 57 x 144,8 mm	Ø140mm x 114mm	68 x 57 x 144,8 mm	Ø140mm x 114mm	68 x 57 x 144,8 mm	Ø140mm x 114mm	68 x 57 x 144,8 mm	Ø140mm x 114mm


Product Code	2 mega		3 mega		5 mega	
	DS 2CD853F E	DS 2CD753F E	DS 2CD854F E	DS 2CD754F E	DS 2CD883F E	DS 2CD783F E
						
Chipset:	CMOS 1/3" Progressive Scan		CMOS 1/2.5" Progressive Scan		CMOS 1/2.5" Progressive Scan	
Col/B&W:	Yes (ICR)	Colour	Yes (ICR)	Colour	Yes (ICR)	Colour
Resolution:	1600 x 1200		2048 x 1536		2560 x 1920	
Sensitivity (colour):	0,5 lux @ F1,2				0,6 lux @ F1,2	
Sensitivity (B&W):	0,05 lux @ F1,2		0,08 lux @ F1,2		0,08 lux @ F1,2	
Mount:	C/CS with adaptor		C/CS with adaptor		C/CS with adaptor	
Focal:	-		-		-	
Viewing Angle (H):	2,7 ~ 9mm @ F1,2		4,5 ~ 10mm @ F1,6		4,5 ~ 10mm @ F1,6	
	101° ~ 30,4°		71,5° ~ 33,5°		71,5° ~ 33,5°	
Max Distance for identification:	< 10 meters		< 12 meters		< 15 meters	
Iris	Auto Iris, DC or manual					
Backlight						
Privacy zones	4 zones, rectangles					
Shutter speed	1/25s~1/100 000s		1/25s~1/20 000s			
Camera ID	203 characters					
Video Output	1 x BNC					
Audio In / Out	1 jack 3,5mm / 1 jack 3,5mm					
Alarm In / Out	1 / 1	2 / 2	1 / 1	2 / 2	1 / 1	2 / 2
Web Browser:	MS Explorer internet 6.0 (or later)					
OS Systems	Win 2000 / XP / VISTA					
Video Compression	H.264, MJPEG, dual stream					
Audio Compression	G.711					
Network Protocols	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP/RTSP, PPPoE, SMTP, NTP (SNMP, HTTPS, SIP, FTP, SRTP, 802.1x, IPv6, ONVIF and PSIA optional)					
Frame Per Second	1600x1200@12,5 im/s,		2048x1536@12,5im/s,		2560x1920@6im/s, 2048x1536@12,5im/s,	
	1280x960@25 im/s,		1920x1080@25im/s,		1920x1080@25im/s,	
	1280x720@25 im/s		1600x1200@25im/s		1600x1200@25im/s, 1280x720@25im/s	
Alarm events:	Dry contact, VMD, Calendar: FTP, Email, Local recording on SD card, Alarm Output					
Micro SD/SDHC card slot:	Support SD SDHC up to 32Gb					
Control	RS-485 (2-pin), contrôle PTZ					
<b>Mechanical / Electrical</b>						
Operating temperature:	-10°C ~ +60°C					
Operating Humidity:	Less than 90%					
Protection:	IK10		IK10		IK10	
Power	DC 12V / PoE					
Power Consumption	4,5 W		5,5 W		5,5 W	
Weight	0,5 kg		1,4 kg		0,5 kg	
Dimensions L*H*P:	68 x 57 x 144,8 mm		Ø140mm x 114mm		68 x 57 x 144,8 mm	
					Ø140mm x 114mm	



Mini dome		Mini camera	
Product Code	DS 2CD7133 E	DS 2CD7153 E	DS 2CD8133 E
			
Chipset:	CMOS 1/4" Progressive Scan	CMOS 1/3" Progressive Scan	CMOS 1/3" Progressive Scan
Col/B&W:		Yes (Electronic)	
Resolution:	640 x 480	1600 x 1200	640 x 480
Sensitivity (colour):	0,9 Lux @ F1,8	1,1 lux @ F1,8	0,9 lux @ F1,8
Sensitivity (B&W):			
Mount:	-		C/CS with adaptor
Focal:		4mm @ F1,8	
Viewing Angle (H):	48°	62°	48°
Max Distance for identification:	< 2 meters	< 4,2 meters	< 2 meters
			< 4,2 meters
Iris			
Backlight			
Privacy zones			4 zones, rectangles
Shutter speed		1/25s ~1/100,000s	1/25s ~1/100,000s
Camera ID			
Video Output	-	-	-
Audio In / Out	-	-	Built in: Microphone & Speaker
Alarm In / Out	-	-	-
Web Browser:	MS Explorer internet 6.0 (or later)		
OS Systems	Win 2000 / XP / VISTA		
Video Compression	H.264, MJPEG, dual stream		
Audio Compression	OggVorbis		
Network Protocols	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP/RTSP, PPPoE, SMTP, NTP		
Frame Per Second	640x480@25 im/s	1600x1200@12,5 im/s, 1280x960@25 im/s, 1280x720@25 im/s	1600x1200@12,5 im/s, 1280x960@25 im/s, 1280x720@25 im/s
Alarm events:			Dry contact, VMD, Calendar: FTP, Email, Local recording on SD card, Alarm Output
Micro SD/SDHC card slot:	-		Micro SD/SDHC
Control			
Operating temperature:	-10°C ~ +60°C		
Operating Humidity:	Less than 90%		
Protection:	IP66		
Power	DC 12V / PoE		
Power Consumption	4 W		
Weight	0,25 kg		
Dimensions L*H*P:	100 x 97,5 x 46,5 mm		110 x 70 x 33 mm

Product Code	1,3 mega				4CIF WDR				4CIF		VGA	
	SNB 5000P	SNO 5080R	SNV 5080P	SNV 5010P	SNB 3000P	SNV 3080P	SND 3080C	SNV 3120P	SNB 2000P			
												
Chipset:	CMOS 1/3" Progressive Scan				CCD Super HAD 1/3" Progressive Scan*				CCD Exview® HAD 1/4" Progressive Scan		CMOS 1/4" PS	
Col/B&W:	Yes (ICR)				Colour	Yes (ICR)				Yes Electronic	Colour	
Resolution:	1280 x 1024				704 x 576							
Sensitivity Colour (50IRE):	0,3 lux @ F1,2				1 lux @ F1,8		0,4 lux @ F1,2		0,7 lux @ F1,65		0,4 lux @ F1,2	
Sensitivity B&W (50IRE):	0,01 lux @ F1,2				0,01 lux @ F1,2		0,04 lux @ F1,2		0,07 lux @ F1,65		0,4 lux @ F1,2	
IR Range	50 meters				-		-		-		-	
S/N (signal Y):	50 dB				52 dB							
<b>Lens</b>												
Mount	C/CS with adaptor				-	C/CS with adaptor				-	C/CS with adaptor	
Focal:	-				2,8~ 10mm @ F1,2		-				3,69 ~ 44,32mm @ F1,65 ~ F2,01	
Viewing Angle (H)	-				94,6° ~ 28,8°		-				54,44° ~ 4,64°	
Distance d'identification:*	-				< 9,5 meters		-				< 30 meters	
<b>Features</b>												
Backlight:	BLC / HLC				BLC, WDR x160							
Privacy zones	12 zones, rectangles				12 zones, polygonales							
Shutter speed	1/30 ~ 1/30 000 sec				1/100 ~ 1/10 000 sec							
Camera ID	15 characters				54 characters							
DNR Filter	SSNRIII (noise filter 2D+3D)				SSNRIII (noise filter 2D+3D)							
Video output:	1 x BNC				Connector DIP		1 x BNC					
Audio Input / Output:	1 jack 3,5mm / 1 jack 3,5mm				-		1 jack 3,5mm / 1 jack 3,5mm					
Alarm Input / Output:	1 / 1				-		2 / 2		1 / 1		2 / 2	
<b>Network</b>												
Web Browser:	I.E. 6.0 +, Firefox, Safari, Chrome				I.E. 6.0 +				I.E. 6.0 +, Firefox, Safari, Chrome		I.E. 6.0 +, Firefox, Safari, Chrome	
Video Compression	G.711 u-law				Dual stream: H.264, MJPEG, MPEG-4							
Audio Compression	G.711 u-law				G.711 u-law							
Network Protocols:	IPV4, IPV6, TCP/IP, UDP, HTTP, DHCP, DNS, DDNS, RTP/RTSP, PPPoE, SMTP, NTP, SNMP, HTTPS, FTP, ONVIF, ARP, ICMP, IGMP				704 x 576@2x25im/s							
Frame Per Second	1280 x 1024@22im/s, 1280 x 720@30im/s				704 x 576@2x25im/s							
Alarm events	Virtual line, In/Out, Dry Contact, Scene change, VMD, Calendar: FTP, Email, Local recording on SD card, Alarm output				Dry Contact, VMD, Calendar: FTP, Email, Local recording on SD card, Alarm output				Alarm output			
Carte SD:	SD/SDHC				-				SD/SDHC			
<b>Mechanical / Electrical</b>												
Operating temperature:	-10°C ~ +50°C				-40°C ~ +50°C		-10°C ~ +50°C		-40°C ~ +50°C		0°C ~ +50°C	
Operating Humidity:	20% ~ 80% without condensation				20% ~ 80% without condensation							
Protection:	IP66				IP66, IK10		-		IP66, IK10		-	
Standard	FCC, UL, CE, RoHS				FCC, UL, CE, RoHS							
Power	DC 12V / AC 24V / PoE IEEE 802.3af				DC 12V / PoE IEEE 802.3af				DC 12V / AC 24V / PoE IEEE 802.3af			
Power Consumption	6 W		10 W		11 W		8 W		11 W		11 W	
Weight	0,3 kg		1,28 kg		1,28 kg		0,44 kg		1,28 kg		1,5 kg	
Dimensions L*H*P:	72 x 60 x138,6 mm		Ø 86 x 342,8 mm		Ø 133 x 134,5 mm		72 x 60 x138,6 mm		Ø 133 x 134,5 mm		Ø 133 x 134,5 mm	



Product code	12x	36x
	GCI C073SP	
		
Chipset:	CCD HAD Ex-view® 1/4"	
CoI&W:	Yes (ICR)	
Resolution:	720 x 576	
Sensitivity (colour):	0.1 lux	
Sensitivity (B&W):	0.01 lux	
S/N (signal V):	50 dB	

Zoom ratio:	12x (optical), 12x (num.)
Focal distance:	3.8 ~ 45.6 mm
Max Distance for identification:	< 32 meters
Max aperture:	F 1.6 (Large) ~ F 2.7 (Tele)
Pivoting/Inclination:	5° ~ 55.4°

Rotation	360° sans fin	
Rotation Speed	Manual: 1°/s ~ 80°/s	Manual: 0.5°/s ~ 90°/s
Range of inclination:	Preset: 400°/s	Preset: 400°/s
Presets	256	

Iris	DC and Auto Iris	
Backlight	WDR	
DNR	2D / 3D	
Video Motion Detection	On/ Off/ Sensitivity/ Zone setup	
Privacy zones	16 rectangles	
Shutter speed	1 s to 1/10 000 s	
Camera ID	20 characters	
White Balance	Auto, Manual, Internal, External, ATW	
Video Output	1 CVBS, 1 Vcc, BNC	
Alarm Input	4	
Alarm Output	1	

Web Browser:	MS® Internet Explorer 6.0 (or later), Firefox®, Safari®, Chrome®	
Video Compression:	Dual stream: H.264, MJPEG	
Audio Compression:	G.726 ADPCM, G.711	
Network Streaming	TCP, UDP (Unicast, Multicast)	




Network Protocols	IPv4, IPv6, TCP/IP, UDP, NTP, DNS, DDNS, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, 802.1X and SNMPv1/v2, ONVIF®	
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Frame Per Second	25 im/s (720 x 576)	
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Alarm events	Dry Contact, VMD, Calendar: FTP, Email, Local recording on SD card, Alarm output	
Micro SD/SDHC card slot:	Micro SD/SDHC	

Control	-	
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<b>Mechanical / Electrical</b>		
Power	24VAC	
Power Consumption	18W	65W
Operating temperature:	0°C ~ +40°C	
Dimensions L*H*P:	Ø 156 x 203 mm	Ø 190 x 302.5 mm
Weight:	1.2 kg	2.6 kg
Protection:	Dome cover IK07	
Standard:	CE, FCC, RoHS	

36x	26x	18x megapixels
DS 2DF1 518	DS 2F1 715B	DS 2DF1 572
		
CCD Super HAD 1/4"		
Yes (ICR)		
704 x 576		
0.2 lux @ F1.4		
0.02 lux @ F1.4		
0.01 lux @ F1.6		
0.01 lux (with IR)		
50 dB		

36x (optical), 16x (num.)	26x (optical), 12x (num.)	18x (optical), 12x (num.)
3.4 ~ 122.4 mm	3.5 ~ 91 mm	4.7 ~ 84.6 mm
< 78 meters	< 65 meters	< 73 meters
F 1.6 (Large) ~ F 4.5 (Tele)	F 1.4 (Large) ~ F 3.8 (Tele)	F 1.6 (Large) ~ F 2.8 (Tele)
1.7° ~ 57.8°	2.2° ~ 54.2°	3.2° ~ 55.2°

Manual: 0.1°/s ~ 300°/s	Manual: 0.1°/s ~ 160°/s	Manual: 0.2°/s ~ 75°/s
Presets: 540°/s	Presets: 240°/s	Presets: 75°/s
-5° ~ 185°, Autoflip	-10° ~ 190°, Autoflip	-5° ~ 185°, Autoflip
256		

BLC	DC and Auto Iris	
	WDR	
	BLC	
	On/ Off/ Sensitivity/ Zone setup	
	24 rectangles or 8 polygonales	
1/50 to 1/10 000s	203 characters	
	1/25 to 1/100 000s	
	Auto, ATW, Internal, External, Manual	
	1 CVBS, 1 Vcc, BNC	
7	7	1
2	2	1



MS® Internet Explorer 6.0 (ou supérieur), Firefox®, Safari®, Chrome®	Dual stream: H.264	
	OGGVorbis 16Kbps	
	TCP, UDP (Unicast, Multicast)	

TCP/IP, UDP, HTTP, DHCP, DNS, DDNS, RTP/RTSP, PPPoE, SMTP, NTP (SNMP, HTTPS, SIP, FTP, SRTP, 802.1x, IPv6, ONVIF® and PSIA® optional)		
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25 im/s (704 x 576)	12.5 im/s (1280x960), 25 im/s (1280x720)	
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Dry Contact, VMD, Calendar: FTP, Email, Local recording on SD card, Alarm output	Micro SD/SDHC
RS485, protocols: Hikvision®, Pelco®-P, Pelco®-D, auto-adaptative	

RS485; protocols: Hkvision <sup>®</sup> , Pelco <sup>®</sup> -P, Pelco <sup>®</sup> -D, auto-adaptive			
24VAC			
30W			
-30°C ~ +65°C			
Ø 220 x 299,2 mm	Ø 220,7 x 325,5 mm	Ø 220 x 299,2 mm	
5 kg	5,5 kg	5 kg	
		IP66	
CE, FCC, RoHS			

12x	43x
SNP 3120P	SNP 3120VHP
	
CCD 1/4" HAD, VPS	
Yes (ICR)	
704 x 576	
0.7 Lux (50IRE@F1.65)	
0.07 Lux (50IRE@F1.65)	
50 dB	
52 dB	

12x (optical), 16x (num.)	43x (optical), 16x (num.)
3.6 ~ 44.3mm (F1.65 ~ 2.0)	3.2 ~ 138.5 mm (F1.65 ~ 3.7)
< 30 meters	< 90 meters
F1.65 (Large) ~ F2.01 (Tele)	F 1.6 (Large) ~ F 3.7 (Tele)
4.62° ~ 54.44°	1.47° ~ 61.22°

Manual: 0.05°/s ~ 120°/s	360° endless
Presets: 650°/s	Manual: 0.05°/s ~ 200°/s
-5° ~ 185°, Autoflip	Presets: 360°/s
255	0° ~ 180°, Autoflip
255	

DC and Auto Iris	DC and Auto Iris	
WDR x160, XDR	WDR x160, XDR	
2D / 3D	2D / 3D	
	On/ Off/ Sensitivity/ Zone setup	
	12 polygonales	
12 characters	1/120 ~ 1/10 000s	32 characters
	ATW (In/Out)/Manual/AWC	
	1 CVBS, 1 Vcc, BNC	
2	2	8
2	2	4

MS® Internet Explorer 6.0 (ou supérieur), Firefox®, Safari®, Chrome®	Dual stream: H.264, MJPEG	
	G.711 u-law	
	TCP, UDP (Unicast, Multicast)	





IPv4, IPv6, TCP/IP, UDP, NTP, RTP, RTSP, HTTP, HTTPS, SSL, ICMP, IGMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, 802.1X and SNMPv1/v2/v3, ARP, ONVIF®		
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25 im/s (704 x 576)		
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Dry Contact, VMD, Calendar: FTP, Email, Local recording on SD card, Alarm output	SD/SDHC

Panasonic®		
Coaxial: COVC, RS 485: Samsung®-T/E, Pelco® D/P, Bosch®, Honeywell®, Vicon®		
15W	24VAC, HiPoE	50W (24VAC) / 24 (HiPoE)
-10°C ~ +50°C	-50°C ~ +50°C	
Ø174 x 168mm	Ø200 x 203mm	Ø259 x 290,5 mm
1,2 kg	2,4 kg	4,5 kg
-	IP66, IK10	
CE, FCC, RoHS		






		12x		25x		43x	
Product code		SCP 2120P		SCP 3120VHP		SCP 2250HP	
Video							
							
Chipset:		CCD PS HAD Ex-view® 1/4"		CCD PS HAD 1/4"		CCD PS HAD Ex-view® 1/4"	
Scan		2 : 1 Interlace/Progressive					
Synch.		Internal/Line Lock					
Resolution TVL (H)		Colour : 600 TVL / B&W : 700 TVL					
Col/B&W:		Auto (ICR) / Colour / N/B		Auto (ICR)/Colour/N/B/EXT			
Sensitivity Colour (50IRE):		0,7 Lux (50 IRE@F1,65), 0,001 Lux (Sens-up, 512x)		0,2 Lux (50 IRE@F1,65), 0,00004 Lux (Sens-up, 512x)		0,7 Lux (50IRE@F1,65), 0,001 Lux (Sens-up, 512x)	
Sensitivity B&W (50IRE):		0,007 Lux (50 IRE@F1,65)		0,002 Lux (50 IRE@F1,65)		0,07 Lux (50IRE@F1,65)	
S/N (signal Y):		50 dB				52 dB	
Video Output		CVBS : 1,0 Vp-p / 75Ω composite					
Lens							
Zoom ratio:		12x (optical), 16x (digital)		25x (optical), 16x (digital)		43x (optical), 16x (digital)	
Focal distance:		3,6 ~ 44,3mm (F1,65 ~ 2,0)		3,6 ~ 91 mm (F1,65 ~ 3,7)		3,2 ~ 138,5 mm (F1,65 ~ 3,7)	
Max aperture:		F1,65 (Large) ~ F3,7 (Tele)					
Min. Scene distance		100 cm					
Viewing Angle (H)		4,62° ~ 54,44°		2,25° ~ 55,32°		1,47° ~ 61,22°	
Max Distance for Identification:		< 30 meters				< 90 meters	
Focus		Auto/Manual/One-shot					
Piv./Inclin.							
Rotation		360° endless					
Speed Rotation		Manual : 0,05°/s ~ 120°/s; Presets : 650°/s					
Tilt Range:		-5° ~ 185°, Autoflip					
Presets		255					
Features							
On-Screen-Display		OSD Multi-language					
Camera ID		On/Off (Max. 54 each/2 lines)					
VMD		Off/Tracking/Detection					
Backlight		BLC / WDR x160		BLC		BLC / WDR x160	
Image Stabilizer		Yes					
Privacy ones		12 zones, polygons					
DNR Filter		2D+3D (A1)					
White Balance		ATW (In/Out)/Manual/AWC					
Shutter Speed		1/50 ~ 1/10 000 s					
Program:		Calendar Day / Hour					
Protocol:		Coaxial: CCVC; RS 485: Samsung®-T/E, Pelco®-D/P, Bosch®, Honeywell®, Vicon®, Panasonic®					
Alarm In/Out		2 / 2					
Mechanical / Electrical							
Operating temperature:		-10 °C ~ +50 °C		-50 °C ~ +50 °C		-50 °C ~ +50 °C	
Protection:		IP66		IP66		IP66	
Standard:		FCC, UL, CE, RoHS					
Power:		AC 24V					
Power Consumption		12W		Max. 45W		Max. 47W	
Weight:		1 kg		2,4 kg		3 kg	
Dimensions L*H*P:		Ø155 x 150 mm		Ø200 x 206 mm		Ø228 x 256 mm	





Product Code:		Cameras			Zoom x12	Zoom x43
Video		SCB 2000P	SCB 3000P	SCB 2001P	SCV 3120P	SCZ 2430P
						
Chipset:	CCD Super HAD 1/3"					
DSP:	WV	SV V				
Scan:	Interlace 2:1	Dual scan	Interlace 2:1	Dual scan	Interlace 2:1	Dual scan
Synch.			Internal/ Line Lock			
Col/B&W:	Colour	Yes (ICR)				
Resolution TVL (H)	Colour : 600 TVL	Colour : 600 TVL / B&W : 700 TVL				
Sensitivity Colour (50IRE):	0,05 lux @ F1,2	0,3 lux @ F1,2	0,5 lux @ F1,2	0,7 lux @ F1,65	0,2 lux @ F1,65	0,7 lux @ F1,65
Sensitivity B&W (50IRE):		0,01 lux @ F1,2	0,01 lux @ F1,2	0,007 lux @ F1,65	0,02 lux @ F1,65	0,007 lux @ F1,65
IR Range	-	-	-	-	-	-
S/N (signal Y):	52 dB					
Viewing Angle (H)	CVBS : 1.0 Vp-p / 75Ω composite					
Lens						
Mount	C/CS with adaptor					
Focal distance:	-	-	-	3,6 ~ 44,3mm (F1,65 ~ 2,0)	3,2 ~ 138,5 mm (F1,65 ~ 3,7)	
Viewing Angle (H)	-	-	-	54,44° ~ 4,62°	61,22° ~ 1,47°	
Focus	-	-	-	Auto/Manual/One-shot		
Max Distance for identification:	-	-	-	< 30 meters	< 90 meters	
Features						
On-Screen-Display	OSD Multi-languages					
Camera ID	15 characters	Detection, Fixe, moved, barrier (line, zone)		54 characters		
VMD	8 zones	Yes		Fixe, moved		
Backlight	BLC / HLC	BLC / HLC /SSDR / WDR x160	BLC / XDR	BLC / XDR / WDR x160	BLC / XDR	BLC / XDR / WDR x160
Image Stabilizer	oui					
Privacy ones	12 zones	12 zones, polygonales				
DNR Filter	SSNR III	3D + 2D				
White Balance	ATW/Ext./Int./Manual/AWC (1 700K° ~ 11 000K°)	ATW1/ATW2/AWC (Manual)/3200°K/5600°K				
Shutter Speed	1/50 ~ 1/120 000 s	1/50 ~ 1/200 000 s	1/50 ~ 1/10 000 s			
Program:	-	-	-	Calendar Day / Hour		
Protocol:	Pelco®-C coaxitron	Coaxial: Pelco®-C; RS 485: Samsung®-T/E, Pelco®-D/P, Bosch®, Honeywell®, Vicon®, Panasonic®	Coaxial: CCVC; RS 485: Samsung®-T/E, Pelco®-D/P, Bosch®, Honeywell®, Vicon®, Panasonic®			
Alarm:	-	- / 1				
Mechanical / Electrical						
Operating temperature:	-10 °C ~ +50 °C					
Protection:	-	-	-	IP66, IK10	-	-
Standard:	FCC, UL, CE, RoHS					
Power:	AC 230 V					
Power Consumption	4,2 W	4,1 W	6 W	3 W		
Weight:	0,51 kg	0,54 kg	0,395 kg	1,28 kg		
Dimensions L*H*P:	58 x 52 x 121 mm	66 x 61 x 115 mm	64 x 58 x 129,2 mm	Ø160 x 134,5 mm		
				59 x 59 x 154,2 mm		



# Analogue Cameras

# GRUNDIG



Product Code:	GCA B0323D	GCA B0325D	GCA B0326D
Video			
			
Chipset:			
DSP:			
Scan	Interface 2:1	Dual scan	
Synch.			
Col/B&W:	Yes (ICR)		
Resolution TVL (H)	Colour : 600 TVL / B&W : 640 TVL		
Sensitivity Colour (50IRE):			
Sensitivity B&W (50IRE):	0 lux (with IR)	0,04 lux @ F1,2	0 lux (with IR)
IR Range	15/25m	-	15/25m
S/N (signal Y):			
Video Output			
Lens			
Mount	-	-	-
Focal distance:	2,8 ~ 10,5 mm TAMRON®		
Viewing Angle (H)	93,7° ~ 28,3°		
Focus			
Max Distance for identification:	< 5,5 meters		
Features			
On-Screen-Display			
Camera ID			
VMD			
Backlight	BLC	BLC / WDR x160	
Image Stabilizer			
Privacy ones			
DNR Filter			
White Balance			
Shutter Speed			
Program:	-	-	-
Protocol:			
Alarm:			
Mechanical / Electrical			
Operating temperature:			
Protection:	-	-	-
Standard:			
Power:			
Power Consumption	7,5 W	5,5 W	7,5 W
Weight:	0,5 kg	0	0,55 kg
Dimensions L*H*P:			

Vandal Resistant Domes			
GCA B0322V	GCA B0323V	GCA B0325V	GCA B0326V
			
Super HAD CCD 1/3"			
A1			
Interface 2:1		Dual scan	
Internal/ Line Lock			
Yes Electronic			
Colour : 600 TVL			
0,4 lux @ F1,2			
0,4 lux @ F1,2	0 lux (with IR)	0,04 lux @ F1,2	0 lux (with IR)
-	15/25m	-	15/25m
52 dB			
BNC + Jack 3,5mm (test monitor)			
-	-	-	-
2,8 ~ 10,5 mm TAMRON®			
93,7° ~ 28,3°			
Manual			
< 5,5 meters			
OSD Multi-languages			
54 characters (2 lines)			
Tracking/Detection			
BLC	BLC / WDR x160		
oui			
8 zones, polygonales			
3D + 2D			
ATW-1/ATW-2/AWC/Manual			
1/50 ~ 1/10 000 s			
-	-	-	-
Coaxial: CCVC			
-/-			
-10°C ~ +50°C			
IP66, IK10			
CE, RoHS			
DC 12V / AC 24V			
5,5 W	7,5 W	5,5 W	7,5 W
1,12 kg			
Ø 152 x 126 mm			













# Bullet Cameras with Built-in IR LEDs



Bullets	
Product Code:	GCA B0323T
Video	
	
	
Chipset:	Super HAD CCD 1/3"
DSP:	A1
Scan	Interface 2:1
Synch.	Internal/ Line Lock
Col/B&W:	Yes (ICR)
Resolution TVL (H)	Colour : 600 TVL B&W : 640 TVL
Sensitivity Colour (50IRE):	0,4 lux @ F1,2
Sensitivity B&W (50IRE):	0 lux (with IR)
IR Range	30/45m
S/N (signal Y):	52 dB
Video Output	BNC + Jack 3,5mm (test mon.)
Lens	
Mount	-
Focal distance:	2,8 ~ 11 mm
Viewing Angle (H)	94° ~ 24,6°
Focus	Manual, external
Max Distance for identification:	< 6 meters
Features	
On-Screen-Display	OSD Multi-Languages
Camera ID	54 characters (2 lines)
VMD	Tracking/Detection
Backlight	BLC
Image Stabilizer	Yes
Privacy ones	8 zones, polygonales
DNR Filter	3D + 2D
White Balance	ATW-1/ATW-2/AWC/Manual
Shutter Speed	1/50 ~ 1/10 000 s
Program:	-
Protocol:	Coaxial: CCVC
Alarm:	-/-
Mechanical / Electrical	
Operating temperature:	-10°C ~ +50°C
Protection:	IP66
Standard:	CE, RoHS
Power:	DC 12V / AC 24V
Power Consumption	7,5 W
Weight:	1,14 kg
Dimensions L*H*P:	ø 80 x 178 mm



Product Code:	SRD 470D	SRD 850DC	SRD 870DC	SRD 1630D	SRD 1650DC	SRD 1670DC
						
Channel	4	8	8	16	16	16
Codec:	H.264 dual stream					
Standard HDD Storage	500 Gb	1 Tb		500 Gb	1 Tb	
Max HDD Storage	2 Tb	8 Tb: (4 x 2Tb)				
CIF Recording Speed	4x25im/s	8x25im/s	8x25im/s	12,5x25ims	16x25im/s	16x25im/s
4CIF Recording Speed	4x25im/s	8x6im/s	8x25im/s	16x3ims	16x6im/s	16x25im/s
Transmission:						
Video Input	BNC + looping					
Video Output	Multiscreen: 1 x VGA/BNC Spot: 1 x BNC	Multiscreen: 1 x HDMI/VGA/BNC Spot: 1 x BNC	Multiscreen: 1 x VGA/BNC Spot: 1 x BNC	Multiscreen: 1 x HDMI/VGA/BNC + 3 x BNC Spot: 1 x BNC		
Max Display Resolution	VGA: 1280x1024 / HDMI : 1920x1080 (without SRD 470D / SRD 1630D)					
Audio In/Out	4xRCA/1xRCA	4xRCA+D-Sub (option)/1xRCA	4xRCA	4xRCA/1xRCA	4xRCA+D-Sub (option)/1xRCA	
Alarm In/Out	4/4	8/4	16/4			
Telemetry	RS485	RS485, Coaxial	RS485	RS485, Coaxial		
Backup	CD/DVD±; USB					
Control	USB (mouse), HTML	USB (mouse), HTML, Smartview 3				




GDV B2208A	GDV A4416A	GDV C4416A	GDV B8832A	
				
8	16	16	32	
H.264 dual stream				
1 Tb				
6 Tb: (2 + 1 eSATA) x 2Tb				
8x25im/s	16x25im/s	16x25im/s	32x25im/s	
8x12im/s	16x6im/s	16x25im/s	32x12im/s	
BNC + looping				
Multiscreen: 1 x DVI/BNC Spot: 1 x BNC		Multiscreen: 2 x DVI/BNC Spot: 2 x BNC		
DVI: 1920x1080				
4xRCA+D-Sub (option)/1xRCA				
8/2	16/2	16/4	16/4	
RS485				
CD/DVD+; USB				
USB (mouse), HTML, CMS				

Power	100 ~ 240 VAC@50Hz		
Power Consumption (with 1 HDD):	35W	55 W	55 W
Weight:	4 kg	7,5 kg	
Dimension (LxHxP):	215 x 88 x 352 mm	440 x 88 x 430 mm	







100 ~ 240 VAC@50Hz	
75W	85 W
8,2 kg	8,9 kg
445 x 88 x 418 mm	





	Retail		
Product Code:	DS 7204ST 05D	DS 7308HIS 05D	DS 7316HIS 05D
			
Channel	4	8	16
Codec:	H.264 dual stream		
Standard HDD Storage	500 Gb		
Max HDD Storage	4 Tb (2 x 2 Tb)		
CIF Recording Speed	1 x 2 Tb 4x25im/s	8x25im/s	16x25im/s
4CIF Recording Speed	4x12im/s	3x12im/s	3x12im/s
Transmission:	Normal and QCIF@15im/s	Normal and QCIF@8im/s	
Video Input	BNC	BNC + DB15 looping	
Video Output	Multiscreen: 1 X VGA/BNC Spot: 1 xBNC		
Max Display Resolution	VGA: 1024 x 768		
Audio In/Out	4xRCA/1xBNC		
Alarm In/Out			
Telemetry			
Backup	CD/DVD±; USB		
Control	USB (mouse), HTML, IVMS4000, IVMS4500 (mobiles)		

Power	220 ~ 240 VAC@50Hz		
Power Consumption (with 1 HDD):	10 W	40 W	
Weight:	7,5 kg	8 kg	
Dimension (LxHxP):	440 x 70 x 390 mm		

8 Channels			16 Channels		
DS 8108HDIS 05D	DS 8108HFIS 10D	DS 9108HDIS 10D	DS 8116HDIS 10D	DS 8116HFIS 10D	DS 9116HDIS 10D
					
8	8	8	16	16	16
H.264 dual stream					
500 Gb	1 Tb				
8 Tb (4 x 2 Tb)			16x25im/s		
8x12im/s	8x25im/s	8x12im/s	16x12im/s	16x25im/s	16x12im/s
Normal and QCIF@8im/s		Normal and CIF@25im/s	Normal and QCIF@8im/s		Normal and CIF@25im/s
BNC					
Multiscreen: 1 x VGA/BNC Spot: 1 x BNC	Multiscreen: 1 x VGA/BNC + 1 x BNC Spot: 1 x BNC	Multiscreen: 1 x VGA/BNC Spot: 1 xBNC	Multiscreen: 1 x VGA/BNC + 1 x BNC Spot: 1 x BNC		
VGA: 1024 x 768	VGA: 1280 x 1024	VGA: 1024 x 768	VGA: 1280 x 1024		
8xBNC/1xBNC		16xBNC/1xBNC			
16/4					
RS485					
CD/DVD±; USB					
USB (mouse), HTML, IVMS4000, IVMS4500 (mobiles)					

Power	220 ~ 240 VAC@50Hz		
Power Consumption (with 1 HDD):	50 W	70 W	50 W
Weight:	8 kg		
Dimension (LxHxP):	450 x 95 x 450 mm		



## Glossary

**802.1 x** : Is an IEEE Standard for port-based Network Access Control (PNAC). It is part of the IEEE 802.1 group of networking protocols. It provides an authentication mechanism to devices wishing to attach to a LAN or WLAN.

**802.3 af / 802.3at** : See PoE or HiPoE.

**Alarm** : Refers to the ability of CCTV equipment to respond to an input signal, normally a simple switch closure (NO / NC). The response varies depending on equipment type; most common is for switcher to 'hold' on the camera corresponding to the alarm input and waiting for an acknowledgement.

**Analogue** : Is a signal in which any level is represented by a directly proportional voltage (not digital).

**Autofocus** : Optical system using a sensor, a control system and a motor to focus fully automatic or on a manually selected point or area.

**AVI** : Audio Video Interleave (Imbrication Audio Video). Files that can contain both audio and video data in a file container that allows synchronous audio with video playback.

**BLC** : Back Light Compensation (BLC): a feature of modern CCD cameras which electronically compensates for high background lighting to give detail which would normally be silhouetted.

**Black list** : Is a list or register of entities that, for one reason or another, are being denied a particular privilege, service, mobility, access or recognition.

**BNC** : Video connector type, the most commonly used in CCTV.

**CABAC** : (Context-adaptive binary arithmetic coding): Is a form of coding used in H.264/MPEG-4 AVC video encoding. It is known for providing much better compression than most other encoding algorithms used in video encoding, and is one of the primary advantages of the H.264/AVC encoding scheme.

**Cat 5, 6, and 7** : Is a twisted pair high signal integrity cable type. This type of cable is used in structured cabling for computer networks such as Ethernet and is also used to carry many other signals such as telephony and video. Cat 5 for Gigabit Ethernet and other network. Cat 7 cable standard for Ultra Fast Ethernet.

**CCD** (Charged Couple Device) : Is a device for the movement of electrical charge, usually from within the device to an area where the charge can be manipulated, for example conversion into a digital value.

**CIF** (Common Intermediate Format) : Is a format used to standardize the horizontal and vertical resolutions in pixels.

**CMOS Pixim** (Complementary metal-oxide-semiconductor) : Two important characteristics of CMOS devices are high noise immunity and low static power consumption. This chipset is often used where strong backlight is an issue.

**Coaxial** : Is an electrical cable with an inner conductor surrounded by a flexible, tubular insulating layer, surrounded by a tubular conducting shield.

**Codec** : Is a device or computer program capable of encoding and/or decoding a digital data stream or signal.

**Contrast** : Is the difference in colour and light between parts of an image.

**DHCP** (Dynamic Host Configuration Protocol) : Is an automatic configuration protocol used on IP networks.

**DNR** (Digital Noise Reduction) : Is the process of removing noise from a signal.

**DNS** (Domain Name System) : Translates domain names into the numerical identifiers associated with networking equipment for the purpose of locating and addressing these devices worldwide.

**DSP** (Digital Signal Processor) : Is a specialized microprocessor designed specifically for digital signal processing.

**Dual codec** : Means that the device accepts two different codec types. Ex: MPEG4, MJPEG.

**DynDNS** (Dynamic Network Services) : Allows users to have a sub domain that point to a computer while regularly changing IP addresses, such as those served by many consumer-level Internet service providers.

**Encoding** : Is the result of transferring information in a coded form.

**Ethernet** : Is a family of frame-based computer networking technologies for local area networks (LAN).

**Ethernet 10/100 Base T** : Is a collective term for a number of Ethernet standards that carry traffic at the nominal rate of 10 Mbit/s. The segment length for a 100BASE-T cable is limited to 80-100 metres (328 ft) (as with 10BASE-T and gigabit Ethernet).

**Exview** : Is a sensitivity-enhancement technology developed by SONY to improve light sensitivity of its CCD by a factor of two for visible light and a factor of four for near-infrared wavelengths.

**Filter** : is an open source software package that provides firewall services and network address translation.

# Glossary

**FTP** (File Transfer Protocol) : Is a standard network protocol used to copy a file from one host to another over a TCP-based network, such as the Internet.

**H.264/MPEG-4 Part 10** : Is a standard for video compression. H.264 provides good video quality at substantially lower bit rates than previous standards (i.e. half or less the bit rate of MPEG-2, H.263, or MPEG-4 Part 2).

**HiPoE technology** : Describes a system passing electrical power safely, along with data, on Ethernet cabling. PoE+ or PoE plus, provides up to 25.5W of power.

**HotSwap** : Possibility to remove and replace HDDs of a DVR/NVR while the unit is receiving power and operating.

**HTTPS** (Hypertext Transfer Protocol Secure) : Is a combination of the Hypertext Transfer Protocol with the SSL/TLS protocol to provide encrypted communication and secure identification of a network web server.

**IDE** (Integrated Drive Electronics) : Refers to the connector and interface definition, but also to the fact that the drive controller is integrated into the drive, as opposed to a separate controller on or connected to the motherboard.

**IP** (Internet Protocol) : The most commonly-used set of rules for dispatching data across a large computer network.

**Image Freeze** : Stops the live display in a still image.

**Image resolution** : Describes the detail an image holds.

**Interlaced video** : Is a technique of doubling the perceived frame rate of a video signal without consuming extra bandwidth.

**IP camera** : Is a type of digital video camera commonly employed for surveillance, and which unlike analogue closed circuit television (CCTV) cameras can send and receive data via a computer network and the Internet.

**IP Fixed address** : Can be input in any device that has a network card.

**IP66** : Is a protection classification offered by an enclosure shown by the letter IP (Ingress Protection) and two digits. The higher the second digit is, the more water resistant it is.

**IPS** : Represents the Image per Second displayed or recorded.

**IPv4** : Static IP address based on 4 groups of 3 digits (000 to 255). For example: 192.168.095.100.

**IPv6** : Evolution of IPv4 in order to provide alternative IP addresses.

**Iris** : Is a mechanism commonly found in optical shutters (diaphragms), and also in various kinds of valves.

**Jog shuttle** : Is a type of knob, ring, wheel, or dial which allows the user to shuttle or jog through audio or video media.

**Joystick** : Is an input device consisting of a stick that pivots on a base and reports its angle or direction to the device it is controlling.

**Local Area Network** (LAN) : Is a computer network that connects computers and devices in a limited geographical area such as home, school, computer laboratory or office building.

**Liquid Crystal Display** (LCD) : Is a thin, flat electronic visual display that uses the light modulating properties of liquid crystals (LCs). LCs do not emit light directly.

**Light Emitting Diode** (LED) : Is a semiconductor light source.

**Lux** : Is the unit of luminance and luminous emission measuring luminous power per area. It is used in photometry as a measure of the intensity, as perceived by the human eye, of light that hits or passes through a surface.

**Media Access Control address** (MAC address) : Is a unique identifier assigned to network interfaces for communications on the physical network segment.

**Megapixel** : Is a term used not only for the number of pixels in an image, but also to express the number of image sensor elements of digital cameras or the number of display elements of digital displays.

**Motion JPEG** (M-JPEG) : Is an informal name for a class of video formats where each video frame or interlaced field of a digital video sequence is separately compressed as a JPEG image.

**Moving Picture Experts Group** (MPEG-4) : Is a method of defining compression of audio and visual (AV) digital data.

**Network Attached Storage** (NAS) : Is file level computer data storage connected to a computer network providing data access to heterogeneous clients.

## Glossary

**Network switch** (or switching hub) : Is a computer networking device that connects network segments.

**Network Time Protocol (NTP)** : Is a protocol for synchronizing the clocks of computer systems over packet switched, variable-latency data networks.

**OSD** (menu) : On Screen Display for Menu setup.

**Pin hole** : Is a simple camera without a lens and with a single small aperture — effectively a light-proof box with a small hole in one side.

**PIP** : One program (channel) is displayed on the full TV screen, at the same time as one or more other programs are displayed in inset windows.

**Pixel** (picture element) : Is a single point in a raster image, or the smallest addressable screen element in a display device.

**PoE** (Power over Ethernet) : Technology describes a system to pass electrical power safely, along with data, on Ethernet cabling.

**Privacy Zones** : Is a masked area in a CCTV image. Cameras with OSD start to propose multiple privacy zones.

**Protocol** : Is a formal description of digital message formats and the rules for exchanging those messages in or between computing systems and in telecommunications.

**PTZ** (Pan Tilt Zoom) : Is a closed-circuit television camera with remote directional and zoom control.

**Rack 19"** : Is a standardized frame or enclosure for mounting multiple equipment modules.

**Raid 0** (also known as a stripe set or striped volume) : Splits data evenly across two or more disks (striped) with no parity information for redundancy.

**Raid 1** : Creates an exact copy (or mirror) of a set of data on two or more disks.

**Raid 5** : Uses block-level striping with parity data distributed across all member disks. RAID 5 has achieved popularity because of its low cost of redundancy.

**Response Time** : Is the time a system or functional unit takes to react to a given input.

**RJ45** : Is a type of registered jack. As a registered jack, telephone RJ45 specifies the physical male and female connectors as well as the pin assignments of the wires in a telephone cable.

**Router** : Is a device that forwards data packets across computer networks. Routers perform the data «traffic directing» functions on the Internet.

**RS-232** (Recommended Standard 232) : Is the traditional name for a series of standards for serial binary single-ended data and control signals connecting between a DTE (Data Terminal Equipment) and a DCE (Data Circuit-terminating Equipment). It is commonly used in computer serial ports.

**RS-485** : Is a standard defining the electrical characteristics of drivers and receivers for use in balanced digital multipoint systems. RS485 enables the configuration of inexpensive local networks and multi drop communications links. It offers data transmission speeds of 35 Mbit/s up to 10m and 100 kbit/s at 1200m. Since it uses a differential balanced line over twisted pair (like RS-422), it can span relatively large distances (up to 4000 feet or just over 1200 meters).

**RTP/RTSP/RTCP** : Defines a standardized packet format for delivering audio and video over IP networks. RTCP is used to monitor transmission statistics and quality of service (QoS) and aids synchronization of multiple streams. When both protocols are used in conjunction, RTP is originated and received on even port numbers and the associated RTCP communication uses the next higher odd port number. RTSP is a network control protocol designed for use in entertainment and communications systems to control streaming media servers.

**Storage Area Network (SAN)** : Is a dedicated storage network that provides access to consolidated, block level storage.

**Saturation of a colour** : Is determined by a combination of light intensity and how much it is distributed across the spectrum of different wavelengths.

**Spectral sensitivity** : Is the relative efficiency of detection, of light or other signal, as a function of the frequency or wavelength of the signal.

**Smart Search** : Is a function allowing easy search of a video motion detection event recording. An image selection must be selected in order to find the event.

**SMTP** (Simple Mail Transfer Protocol) : Is an Internet standard for electronic mail (e-mail) transmission across Internet Protocol (IP) networks.

**Simple Network Management Protocol (SNMP)** : Is an «Internet-standard protocol for managing devices on IP networks. Devices that typically support SNMP include routers, switches, servers, workstations, printers, modem racks, and more.

**Subnet mask** : Is a logic visible subdivision of an IP network.

**TLS** (Transport Layer Security) and its predecessor, SSL (Secure Sockets Layer) are cryptographic protocols that provide communications security over the Internet. TLS and SSL encrypt the segments of network connections above the Transport Layer, using symmetric cryptography for privacy and a keyed message authentication code for message reliability.

**Telemetry** : Is a technology that allows remote measurement and reporting of information. Systems that need external instructions and data to operate require the counterpart of telemetry tools like a remote control or keyboard.

## Glossary

**UTP** (Unshielded Twisted Pair) cabling is a type of wiring in which two conductors (the forward and return conductors of a single circuit) are twisted together for the purposes of cancelling out electromagnetic interference (EMI) from external sources; for instance, electromagnetic radiation from unshielded twisted pair (UTP) cables, and crosstalk between neighbouring pairs.

**Varifocal lens** : Is a camera lens with variable focal length in which focus changes as focal length changes, as compared to parfocal zoom lens, which remains in focus as the lens zooms.

**VBR** (Variable bitrates) : Is a term used in telecommunications and computing that relates to the bitrates used in sound or video encoding.

**VGA** (Video Graphics Array) : Refers specifically to the display hardware and has also become an analogue computer display standard. Resolution is 640×480 with 16 colours.

**Video Sensor** : Describes a technique of digital image analysis. A video sensor is an intelligent feature interpreting images. Video sensors are used to evaluate scenes recorded by a video camera. Objects and their characteristics (size and speed for example) are verified and compared to the pre-set examples or templates.

**Viewing angle** : This is what alters (not the focal length) when you use a lens designed for one format on another format.

**VPN** (Virtual Private Network) : Is a secure way of connecting to a private Local Area Network at a remote location, using the Internet or any insecure public network to transport the network data packets privately, using encryption.

**Wide Area Network** (WAN) : Is a computer network that covers a broad area (i.e. any network whose communications links cross metropolitan, regional, or national boundaries).

**White list** : Is a list or register of entities that are being provided a particular privilege, service, mobility, access or recognition.

**WLAN** (Wireless Local Area Network) : Links two or more devices using some wireless distribution method (typically spread-spectrum or OFDM radio), and usually providing a connection through an access point to the wider internet.



# Credit Account Application Form

## CREDIT ACCOUNT APPLICATION FORM

Full Name (trading): .....

Registered Name (if different): .....

Address: .....

.....

Delivery address (if different): .....

.....

Registered address (if different): .....

Telephone No: .....

Fax No: .....

Company Reg. No. (if a Ltd Co): .....

Vat Reg. No: .....

No. of Employees: .....

Annual Turnover: .....

How Long Established: .....

Nature of business: .....

Names of Directors: .....

If a firm or partnership, please attach the names & addresses of the principals or partners .....

.....

Amount of credit required: .....

Name of person to contact regarding payment of account: .....

Address to which invoices/statements should be sent: .....

.....

Telephone No. .... Fax No. ....

### Bank Details

Account in the name of: .....

Address: .....

Account No: ..... Sort Code: .....

Trade Reference 1: (Name, Address & Tel. No.) .....

.....

Trade Reference 2: (Name, Address & Tel. No.) .....

.....

### DECLARATION

I/We, in making this application for credit, agree to abide by the terms and conditions laid down by Aasset Security (UK) Ltd  
I/We agree to pay invoices within 30 days of invoice date.

Signature:

Position :  
(Director/Principal/Partner)

Name:

Date:

PLEASE ENCLOSE A COPY OF YOUR LETTERHEAD.



Return Fax n°: 0845 230 9330

# AASSET SECURITY (UK) Limited General Terms and Conditions Of Sale

## 1.0 Definitions:

1.1) Buyer' shall be construed as meaning the person, firm or company named in the order form or the person, firm or company who issues an order to the Seller for the supply of goods or services, and all references to 'him' or 'her' hereafter shall be construed accordingly

1.2) Seller' shall be construed as meaning 'Aasset Security (UK) Limited' which accepts an order for the supply of goods.

1.3) Goods' shall be construed as meaning any item, article or thing supplied by the Seller to the Buyer, whether the same bears the logo of the Seller or Samsung Electronics or otherwise

1.4) Price' shall be construed as meaning the price for the Goods, excluding VAT and any carriage, packing and insurance costs.

1.5) Conditions' will be construed as meaning the terms and conditions of sale in this document and any special terms and conditions agreed in writing by the Seller

## 2.0 Conditions:

2.1 The Buyer warrants and hereby acknowledges that he contracts on his own behalf and not on behalf of or as agent for any other person, firm or company, unless such agency has been communicated to and acknowledged by the Seller in writing.

2.2 The Buyer acknowledges that before entering into a contract for the purchase of any Goods from the Seller, he has expressly represented and warranted that he is not insolvent and has not committed any act of bankruptcy.

2.3 Unless otherwise expressly agreed in writing by the Seller, no Goods shall be supplied by the Seller to the Buyer except in accordance with these Conditions, which supersede any earlier Conditions that may have been issued by the Seller.

2.4 Any representation or warranty written or orally made or given prior to this contract is hereby expressly excluded and all brochures, specifications, drawings, catalogues, particulars, descriptions and illustrations, price lists and other advertising materials are intended to present a general idea of the goods described therein.

2.5 Any waiver by the Seller of any one or more of these Conditions does not constitute the permanent waiver of any Condition so waived, nor a general waiver of these Conditions as a whole, and nor does the same in any way prejudice the exercise of the Seller's rights hereunder.

2.6 Any time or date given by the Seller for the delivery of any Goods is given as a forecast in the light of prevailing conditions and is given and intended as an estimate only

2.7 If notwithstanding the Seller's best endeavours, the Seller fails to despatch or deliver the Goods by such time or date, such failure shall not constitute a breach of this contract and the Seller shall not be liable to the Buyer to make good any damage or loss whatsoever whether arising directly or indirectly out of any delay in delivery.

2.8 In the event that for any reason the Seller is unable to supply any Goods on or at the time or date given for delivery, such time or date shall be postponed for a reasonable period. Time of delivery shall not be of the essence of the contract.

2.9 In the event that by any circumstances or reason beyond its reasonable control, the Seller is unable to supply any Goods within a reasonable period after the date given for delivery, the Seller and the Buyer shall be entitled to cancel or withdraw from the contract in respect of any Goods then not delivered, but the Seller shall not be liable for any damage or loss whatsoever whether arising directly or indirectly out of such cancellation or withdrawal or out of any non-delivery of any Goods.

2.10 Delivery shall be taken by the Buyer no later than the date given for delivery, or if no date is given, at the date when the Seller is ready to despatch or deliver the Good

2.11 In the event that for any reason the Buyer fails to accept delivery of the Goods at the due date aforesaid, then:

i) the Seller reserves the right immediately or at any time thereafter to cancel the Buyer's order, such cancellation entitling the Seller to dispose of the Goods and obtain from the Buyer compensation for loss of profit in addition to any other sum due to the Seller under these Conditions

ii) the Seller shall be entitled at its discretion to store the Goods until the actual delivery or other disposal thereof and the Buyer shall be liable to the Seller for the reasonable cost of so doing (including insurance)

iii) upon any subsequent acceptance of delivery by the Buyer, the Seller shall be entitled to add to the Price charged for the Goods a sum representing any increase in the cost of delivery of the Goods accruing between the delivery date given and the date of actual delivery

iv) upon any subsequent acceptance of delivery by the Buyer, the Price payable by the Buyer in respect of the Goods shall be increased to the Seller's Price for the Goods that prevails at the date of such delivery

2.12 These provisions shall be in addition to and not in substitution of any other payment or charges for which the Buyer may become liable in respect of his failure to take delivery at the appropriate date.

2.13 Unless otherwise stipulated by the Seller, the Price quoted by the Seller is exclusive of carriage and VAT which will be added at the current rate and tax point. However, carriage will be free of charge provided the Goods are delivered on the standard 48 hour delivery service within England and Wales. Delivery will be made by the Seller's nominated transport method, subject to transport being available and at the discretion of the Seller. If the Goods are to be delivered to the Buyer's order to an address outside England and Wales, the Seller shall be entitled to add to the invoice price a reasonable sum in respect of carriage charges. There is a minimum order value of £40 exclusive of VAT and in the event of delivery being required, the minimum charge will be £50+VAT

2.14 The Buyer shall inspect and test the Goods immediately upon delivery to him and shall within 3 days of such inspection give notice in writing to the Seller of any matter, thing or defect by reason on which he alleges that the Goods are not in accordance with the contract

2.15 In the event of any Goods being subject to defects not discoverable upon reasonable inspection or testing at the time of delivery, then within 14 days of the actual discovery of such alleged defect, and in any event within two (2) months of delivery of the Goods to the Buyer, the Buyer shall give notice in writing to the Seller thereof. No claims will be considered after this period has lapsed

2.16 The company will at its discretion either refund the cost or replace or repair free of charge any products proved to have been lost or damaged in transit up to the time of delivery provided that the Buyer notifies both the Seller and the carrier in writing of the nature and extent of loss or damage within three (3) days of receipt of the Goods. The company accepts no liability for delay in transit. Unless the Goods are checked on receipt, the carrier's documentation should be endorsed 'unexamined'

2.17 The seller will, at its sole discretion, refund the cost replace or repair at its own cost any Goods of its own manufacture in which defects arising solely from faulty materials or workmanship appear within the period of twelve (12) months from date of invoice to the Buyer, provided that:

i) in no event will the Seller's liability hereunder exceed the invoice value (exclusive of VAT) of such defective Goods

ii) the Buyer shall have complied with all his obligations (including payment for the Goods) under this contract

iii) the Buyer has at his own cost returned the allegedly defective Goods to the Seller for inspection

2.18 The Seller shall not hereunder be liable in any event:

i) in respect of any defect in Goods of which notice pursuant to Clauses 2.14 to 2.16 hereof has not been given with the period therein specified

ii) in respect of any Goods supplied which are not of the Seller's manufacture although in such event the Seller shall endeavour to enforce at the expense of the Buyer any manufacturer's guarantee for the benefit of the Buyer

iii) in respect of any damage which has been sustained to the Goods in transit unless the Seller and the carrier have been notified in writing within three (3) days of delivery of the Goods to the Buyer (inclusive of the day of delivery)

iv) in respect of any defect in Goods which have been improperly or incorrectly stored or installed or which have been used for any purpose other than that for which the Goods were intended or which have not been used or maintained in accordance with the manufacturer's instructions

v) in respect of any defect in Goods which have been cut, misused, permitted to fall into a poor state of condition or repair or which have not been serviced in accordance with the manufacturer's instructions

vi) for any expenditure, loss of profit or consequential loss of any kind howsoever caused

2.19 The Seller's liability under Clause 2.17 and 2.18 hereof shall be in lieu of any warranties or

conditions whether express or implied by statute, common law or otherwise howsoever, which warranties and conditions are hereby expressly excluded

2.20 The Seller's obligations contained in this clause shall apply only to the Buyer

2.21 The Buyer accepts as reasonable that the Seller's total liability for any Goods that are defective shall be set out in these Conditions. In fixing the limit the Seller has had regard to the contract Price of the Goods, the use which they will receive and the resources available to each party including servicing facilities and insurance cover to meet any liability

2.22 If the Buyer shall at any time cancel this contract or refuse to accept delivery of the Goods, the Buyer shall be liable to the Seller for the total contract Price in respect thereof (less any sum that the Seller may realise in selling or otherwise disposing of the Goods elsewhere)

2.23 The time within which the Buyer is to pay for the Goods shall be of the essence of this contract and in the event that the Buyer shall fail to make payment by the due date, all sums due to the Seller from the Buyer under this or any other contract for the supply of Goods shall forthwith become due and payable to the Seller

2.24 All accounts are payable on demand. In the absence of demand, payment in full for Goods supplied shall be made by the Buyer to the Seller on or before the last day of the month next succeeding the month in which the Seller's invoice is dated. In the event of payment being made by cheque such payment shall not be deemed to have been made until such cheque is honoured

2.25 The Seller shall be entitled to charge interest at a rate of 8% above the Bank of England Base rate per annum on all overdue balances. The Seller shall also be entitled to charge such reasonable costs as it may incur in recovering any overdue balances

2.26 The Seller shall be entitled to charge interest at a rate of 8% above the Bank of England Base rate per annum on the price of any Goods of which the Buyer has failed to take delivery from the date on which delivery was due until the date of actual delivery or other disposal of the Goods by the Seller

2.27 The buyer shall not be entitled to withhold, suspend or set off payment for Goods delivered for any reason whatsoever

2.28 There will be a reasonable charge made on each occasion for any cheque rendered in payment where the cheque has to be re-presented or is initially refused

2.29 The Seller shall be entitled to charge such reasonable costs as it may incur in recovering any overdue balances from the Buyer and such costs shall be added to the Buyer's existing overdue balances

2.30 The Seller shall be entitled to suspend or cancel any or further deliveries of Goods due to the Buyer under this or any other contract between the Buyer and the Seller if:

i) any payments due from the Buyer to the Seller under this or any other contract between the Buyer and the Seller is overdue

ii) the Buyer fails to take delivery of any Goods ordered under this or any other contract between the Buyer and the Seller

iii) the Price of the Goods to be delivered by the Seller to the Buyer will cause the Buyer's credit limit, which he may have from time to time by notification or otherwise afforded to him by the Seller, to be exceeded

iv) any proceedings have been threatened or commenced against the Buyer in which the Buyer's solvency or credit worthiness is at stake or if at any time the Seller is advised of circumstances casting doubt upon the Buyer's credit worthiness and satisfactory security is not given by the Buyer upon request made by the Seller

2.31 The risk in respect of all the Goods sold under this contract shall pass to the Buyer on receipt of the Goods by the Buyer at the Buyer's premises, notwithstanding agreement by the Seller to bear the cost of delivery or to deliver the Goods itself. In any event the property in the Goods shall not pass to the Buyer except as provided in Clause 2.33 hereof

2.32 In the case of export related contracts, the International Chamber of Commerce Incoterm 1990 shall apply

2.33 Until the Price of the Goods comprised in this or any other contract between the Buyer and the Seller shall have been paid in full (if by cheque, then only on clearance);

i) the sole and absolute property in the Goods comprised in this contract shall remain vested in the Seller as legal and equitable owner notwithstanding the delivery of the same and the passing of the risk therein;

ii) the Buyer acknowledges that he is in possession of the Goods solely as bailee for the Seller;

iii) the Buyer shall store the Goods in such a way that they can be readily identified as the Seller's property;

iv) the Buyer shall on request inform the Seller of the precise location of each item of the Goods identified where applicable by a serial number by supplying the Seller at the Buyer's expense within seven (7) days of the Seller's request with a written schedule of the said location;

v) the Buyer shall be at liberty to sell or agree to sell the Goods in the course of the Buyer's business subject to the express conditions appearing in Clause 2.34 hereof

2.34 The express conditions attaching to the Buyer's liberty to sell the Goods are:

i) that such sale or agreement to sell shall take place as agent and bailee for the Seller

ii) that the entire proceeds of such sale are held by the Buyer on trust for the Seller and are not mingled with other monies or paid into an overdrawn banking account and shall at all times be identifiable as the Seller's monies

iii) that in the event of such sale the Buyer shall account to the Seller on demand with the proceeds of such sale

iv) that if the Buyer has not received the proceeds of such sale, he will if called on to do so by the Seller within seven (7) days thereof assign to the Seller all rights against the person or persons to whom he has supplied the Goods or any product or chattel made from or with the Goods

v) that the Seller may at any time revoke the Buyer's power of sale in the event of any breach by the Buyer of the terms of Clauses 2.10 or 2.23 of these conditions and that the Buyer's right to sell shall automatically determine in any of the circumstances set out in Clause 2.40 hereof.

2.35 Upon determination of the Buyer's power of sale, the Seller shall be entitled by itself, its servants or agents to enter upon any of the Buyer's premises for the purpose of removing and repossessing such Goods or their proceeds of sale and the Seller shall be entitled to claim from the Buyer the costs and expenses incurred by the Seller in the process of such removal and repossession

2.36 Until title on the Goods has passed to the buyer, the seller shall purport to be the owner of the Goods and shall show such Goods as stock in its accounts

2.37 The Buyer shall insure the Goods against theft or damage howsoever caused until their Price has been paid or until sale, whichever occurs first, and the Seller shall be entitled to call for the details of such insurance

2.38 Nothing in these conditions shall entitle the Buyer to return the Goods or to delay payment thereof or constitute or be deemed to have constituted the Buyer as the Seller's agent otherwise than for the purpose of this clause or render the Seller liable to any third party for any unauthorised representation or warranty made or given by the Buyer to such third party in relation to the Goods or prevent the Seller from maintaining an action for the price notwithstanding that the property in the Goods may not have been passed to the Buyer

2.39 The Seller retains a general lien on any of the Buyer's equipment or other goods in the Seller's possession for any unpaid balance the Buyer may owe to the Seller

2.40 In the event of any breach of these conditions not being remedied by the Buyer within 30 days of the Seller's written notice requesting such remedy or upon the Buyer entering into any composition or arrangement with his creditors or committing any act of bankruptcy or being adjudged bankrupt or upon the Buyer, being a company, entering into any composition or arrangement with its creditors or passing a resolution for winding up or entering into liquidation (whether voluntary or compulsory) or any similar arrangement or if a receiver is appointed of the Buyer's assets, the Seller shall be entitled without prejudice to its other rights hereunder to suspend all further deliveries and/or determine this contract or any unfulfilled part thereof and the Buyer shall be responsible for any resulting loss to the Seller

2.41 This contract shall be governed by English Law and the parties hereto shall submit to the sole jurisdiction of the English courts

2.42 In the case of overseas Buyer's, all disputes arising in connection with the present contract shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules.



Distributed by :



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