



## SNC-DM160

### Megapixel Network Mini-dome Camera



The SNC-DM160 is a ruggedized network mini-dome camera that incorporates a 1/3-type progressive scan CCD with ExWavePRO technology and 1.3 Megapixel resolution.

Sony megapixel cameras provide you with clear, detailed, and amazingly bright images for surveillance and security. This new generation of cameras introduces a new Ex-wavePro CCD giving you enhanced clarity and practical intelligence for any security or surveillance operation. From airports, stadiums and shopping malls, to corporate, banking car parks and public spaces, the Megapixel range will extend your capability to protect people, property, products and services.

Indoor, or outdoor, the Sony range of Megapixel Network Cameras has been designed to meet the needs of your security operations.

### Features

#### Progressive Scan CCD With ExWavePRO Technology

The SNC-DM160 incorporates advanced progressive scan CCDs with ExWavePRO technology. The camera inherits the technical advantages of Sony ExwaveHAD technology, while incorporating progressive scanning and complementary colour filters to provide extremely high

sensitivity levels and clear, crisp images in both daytime and night time environments. Complementary colour filters are well suited in cameras used for security applications because the luminance signal-to-noise ratio is higher than when using primary colour filters. The camera, with ExWavePRO technology, provide bright images in low light conditions even when the camera has a resolution greater than 1,000,000 pixels. The minimum illumination is 0.8 lx in colour at F1.3.

#### Megapixel - High Resolution

The SNC-DM160 has a resolution of 1.3 megapixels, which can reproduce clear and detailed images even at wide viewing angles. The camera is ideal for use at building entrances and parking lots, where detailed images, such as those of people's faces and car license plates, are required.

#### Light Funnel Function for High Sensitivity

Unlike systems that use slow shutter speeds to provide bright images, the 'Light Funnel' mechanism is such that image data for every two pixels are combined vertically and horizontally providing extremely bright images even when monitoring moving objects at dusk. This function can be activated automatically in response to surrounding light conditions or on a pre-specified time schedule.

#### JPEG Picture Quality Settings With Constant Bitrate Algorithm

Users can preset the JPEG picture quality for the camera from a choice of ten levels. In addition, because the camera incorporates a constant bit rate algorithm, it can limit the data bitrate while still maintaining high-quality images. This is useful for calculating the required storage capacity and bandwidth during installation.

#### Variable Gamma Settings

Users can choose from six preset gamma curves. By selecting a gamma curve that is appropriate for a given

scene, captured images can be reproduced clearly and sharply.

### Wall or Ceiling-mountable

For installation flexibility, the camera can be mounted easily on either a wall or ceiling using the supplied bracket.

### Easy Viewing Angle Adjustment

An analogue composite output (RCA jack) is provided on the front of the camera so a monitor can be connected. This allows installers to monitor images during installation for quick and accurate adjustment of the viewing angle.

### Powerful Vari-focal Zoom Lens/Wide Viewing Angle

These cameras come equipped with a powerful vari-focal zoom lens. The SNC-DM160 incorporates a 3.6x zoom lens. In addition, the camera has an extremely wide viewing angle of over 100 degrees.

### Quick Focus Adjustment

The iris on the camera can be fully opened at the touch of a button for quick focus settings. In addition, a focus bar is displayed on the monitor, enabling accurate and easy adjustments.

### Ball-Joint Lens Mount Technology

With the Sony patented Ball-Joint Lens Mount mechanism incorporated into the vari-focal lens of the camera, the lens can be rotated freely in any direction. Unlike conventional camera, it takes only one action to adjust the pan and tilt angles, allowing for quick and easy adjustment of the camera's viewing angle.

### Compact, Ruggedized Design

The vandal-resistant SNC-DM160 camera is housed in a heavy-duty, aluminium die-cast enclosure with an impact-resistant polycarbonate dome. It complies with the IP66\* standard for protection against water and dust. In addition, with a built-in heater, the camera can be used in severe temperatures as low as -30 Â°C (-22 Â°F). Also, because of its compact size of only 166 (f) x 119 (H) mm (6 5/8 x 4 3/4 inches), the camera can be easily installed in places where space is limited.

### Selectable JPEG and MPEG-4 Compression Formats

The camera supports two compression formats: JPEG and MPEG-4. The industry-standard JPEG compression format is the best choice for high-quality still images. And the MPEG-4 format provides clear moving images efficiently over networks when bandwidth is limited.

### Dual-encoding Capability

With a dual-encoding capability, the camera can generate both JPEG and MPEG-4 images simultaneously at 30 fps when the image size is set to VGA\*. This capability is useful for transferring MPEG-4 images over a WAN or an Internet VPN where network bandwidth is limited, while also storing high-resolution JPEG images on a LAN-based server.

### Day/Night Function

The SNC-DM160 can switch from day mode (colour) to night mode (B/W) by replacing their infrared-cut filter with a clear filter. Based on user presets, the camera can toggle between day mode and night mode using an external sensor or automatically in response to surrounding light conditions. The camera can simultaneously switch to night mode and provide a trigger for near-IR illuminators via its external control port, allowing it to operate even in zero lx\* conditions.

## Benefits

### Bi-directional Audio

Users can connect an external microphone or an audio amp to the camera using the mic/line input (switchable). In addition, the camera is also equipped with an active speaker output, enabling users to sound an alert or make an announcement from the camera unit via a remote location. This significantly expands the possibilities of monitoring applications.

### Voice Alert

The Voice Alert function allows users to upload up to three pre-recorded audio files to the camera. These can then be played out via a locally connected speaker upon an alarm trigger.

### The DEPA Platform - Intelligent Video Analytics

The SNC-DM160 offers intelligent video analytics, based on the Sony DEPA platform. DEPA is a combined function of the intelligence built in to the camera and rules/filters that determine which images should be recorded or when an alarm should be triggered. Using the network camera Intelligent Motion Detection (IMD) function, 'tagged' objects and their associated metadata, including object position, are sent either to the NSR Series recorder or the IMZ-RS400 Series software. These products then use the metadata, together with filters, to analyze object movement and to perform a predefined action, such as image recording or alarm triggering. This method of distributed processing minimizes server workload, network bandwidth, and storage requirements.

### Intelligent Motion Detection

The built-in IMD function can trigger a variety of actions, such as the storage and transfer of images or the activation of an external device through its output relays. False alarms caused by noise and repeated motion patterns are minimized thanks to an advanced Sony algorithm. Plus, when used in conjunction with DEPA-enabled recorders or software, a multitude of filter functions are available. These allow you to initiate alarms based on more specific movements, such as passing a virtual borderline.

### Sensor IN/Alarm OUT Ports

Equipped with a sensor input, the camera can receive triggers from an external sensor. Also, two alarm relay outputs can be used to trigger external devices to perform a variety of actions.

### IEEE802.1X Compliant

The camera supports IEEE802.1X port-based network access control. This means it can be integrated to a network environment that uses the IEEE802.1X client-authorization protocol for security purposes.

### SolidPTZ/Cropping Functions

To minimize data size when network bandwidth is limited, SolidPTZ and Cropping are useful features. The SolidPTZ function allows users to select a specified area within the camera's field of view at a lower resolution such as VGA. By doing so, users can electronically pan, tilt, and zoom within the image. In addition, the Solid PTZ function can be used in conjunction with motion detection, allowing users to monitor only areas where there is movement and to automatically track moving objects within the camera's field of view. The cropping function allows users to freely

crop portions of the full-resolution megapixel image to accentuate a monitoring area or to remove areas that do not need to be monitored.

### Date/Time Superimposition

The date and time of images recorded by the camera can be superimposed on the video while it is being monitored and recorded. This makes it easy to identify the exact date and time of an event during playback. Also, because the information becomes part of the video image, it is a useful feature when providing video evidence to authorities. In addition, up to 20 characters on a single line can be used to display further information such as the monitoring location and the camera name.

### Privacy Zone Masking

The camera can mask up to seven unwanted or prohibited areas within an image for privacy protection.

### Analogue Composite Video Output

An analogue composite video signal can be output via the BNC connector. This feature is ideal for storing images to a local recorder.

### 24 V AC, 12 V DC, or PoE Operation

The camera offers a choice of three types of power: 24 V AC, 12 V DC, or PoE (Power-over-Ethernet, IEEE 802.3af). They automatically adapt to whichever power source is used, making installation fast and effective.

### Simultaneous Access for up to 10 Users

### Multicasting Capability

## Technical Specifications

### --Camera--

Image device	1/3-type Progressive Scan CCD with ExwavePRO Technology
Number of total pixels	Approx. 1,320,000
Number of effective pixels (H x V)	Approx. 1,250,000 (1296 x 966)
Electronic shutter	1 to 1/10,000 s
Automatic gain control (AGC)	On/Off (0 dB to +36 dB)
Exposure control	Auto, Backlight compensation, Gamma settings
White balance modes	ATW, ATW Pro
Lens type	Vari-focal lens
Zoom ratio	3.6x optical zoom (2x digital zoom)
Horizontal viewing angle	100.8 to 27.0°
Focal length	f=2.8 to 10.0 mm
F-number	F1.3 (wide), F3.0 (tele)
Minimum object distance	300 mm

### --Image--

Image size (H x V)	JPEG 1280 x 960, 960 x 720, 768 x 576, 640 x 480, 384 x 288, 320 x 240 MPEG-4 640 x 480, 384 x 288, 320 x 240
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Maximum frame rate	30 fps (640 x 480), 15 fps (1280 x 960, 768 x 576)
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**--Audio--**

Audio compression	G.711/G.726 (40, 32, 24, 16 Kb/s)
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**--Network--**

Protocols	TCP/IP, HTTP, ARP, ICMP, FTP, SMTP, DHCP, SNMP, DNS, NTP, RTP/RTCP, UDP
Number of clients	10
Authentication	IEEE802.1X

**--Interface--**

Ethernet	10Base-T/100Base-TX (RJ-45)
Analog video output	BNC x1, 1.0 Vp-p, 75 Ω, RCA x 1
I/O port	Sensor in x 1, Alarm out x 2
External microphone input/Line input	Mini-jack x1 (Mic in: monaural, 2.2 kΩ, DC 2.5 V plug-in power, Line in: monaural)
Audio line output	Mini-jack (monaural), max output level: 1 Vrms

**--Analog video output--**

Horizontal resolution	600 TV lines
S/N ratio	more than 50 dB
Minimum illumination	Color: 0.8 lx (50IRE, F1.3, AGC 30dB) B/W: 0.15 lx (50IRE, F1.3, AGC 30dB)

**--General--**

Mass	approx. 1.4 kg (3 lb 1 oz)
Dimensions (f x H)	approx. 166 x 119 mm (6 5/8 x 4 3/4 inches)
Power requirements	PoE (IEEE-802.3af)/AC 24 V/DC 12 V
Power consumption	15 W max.
Operating temperature	-30 to 50 °C (-22 to 122 °F)
Storage temperature	-20 to 60 °C (-4 to 140 °F)

**--System requirements--**

Operating system	Microsoft Windows VISTA or Microsoft Windows XP
Processor	Intel Pentium IV, 3 GHz or higher, Intel Core2 Duo, 2 GHz or higher
Memory	RAM: 1 GB or more
Web browser	Microsoft Internet Explorer Ver. 7.0/6.0