Panasonic

Closed Circuit Video Equipment

Super Dynamic II Colour Surveillance Cameras Product Line-Up

See the Difference Super Dynamic Ⅱ

The next generation in CCVE is now the Standard from Panasonic.

New Surveillance Cameras from Panasonic: Changing Perceptions of Surveillance with a Lineup of 4 Cameras Created for Varied Applications.

Making minimum illumination of 0.06 lx at B/W a reality. 24-hour single-camera surveillance.

Ideal for these types of applications:
- Amusement parks
- Hotels
- Outdoor parking lots
- Banks

Super Dynamic Ⅱ Colour Dome Cameras
with Low-Light B/W Mode

WV-CS850A Series

Day/Night function (except WV-CP160)

24-hour Surveillance

The Easy to Install, Vandal Proof, Weatherproof, Camera Solution.

Ideal for these types of applications:
- ATMs/Banks
- Campus
- Jewelry Shops
- Shopping mall

Vandal Proof Super Dynamic Ⅱ Colour Camera
with Low-Light B/W Mode

WV-CW474F

Even stronger contrast in backlight

Dynamic Range 80 times

Built-in motion detector function to automatically detect movement.

Ideal for these types of applications:
- Banks
- Buildings, factories
- Underground parking lots

Super Dynamic Ⅱ Colour Surveillance Cameras
with Low-Light B/W Mode

WV-CP470 Series

Low-light conditions

High sensitivity

Connecting to Camera Drive Unit only by using a single coaxial cable.

Ideal for these types of applications:
- Supermarkets
- Event halls

Super Dynamic Ⅱ Colour Single-wire VP Camera

WV-CP160

The new 21st century security standard.

SDII
Super Dynamic

Innovative Super Dynamic Ⅱ Technology.

A Dynamic Range 80 times more powerful than conventional cameras.

In 1997 Panasonic developed its new technology "Super Dynamic". This revolutionary technology combines long and short image signals, which provides an output capable of natural reproduction of images even in varying lighting conditions. Now, Panasonic has a newly developed DSP. With image signals at two different speeds, the DSP creates gray-scale image correction that provides optimum images. The newly released Super Dynamic Ⅱ provides a dynamic range 80 times greater than a conventional video camera by using Double-speed CCD and DSP. The 1/2,000 of a second short image signal of the former Super Dynamic camera has been reduced by half to 1/4,000 of a second.

Easily handles light differential.
Moving a step closer to the human eye.

Set the lens aperture to the bright section, and the dark section is invisible.

Set the lens aperture to the dark section, and the bright section is invisible.

Digital signal technology allows images with high contrast to be seen on screen.

Improvements in Image Quality.

As the picture quality of a high contrast image becomes degraded, due to changes in the exposure-time ratio, improvements have now been made to insure the picture quality of the image.

Long/short independent AGC Circuit.

The Double-speed CCD alternately outputs long and short signals at 1/50 of a second (long) and 1/4,000 of a second (short). The single AGC circuit in the original Super Dynamic camera was the major cause of limited S/N ratio. Super Dynamic Ⅱ now provides two independent AGC circuits, providing the most suitable gains for both long and short signals, effectively improving S/N ratio.

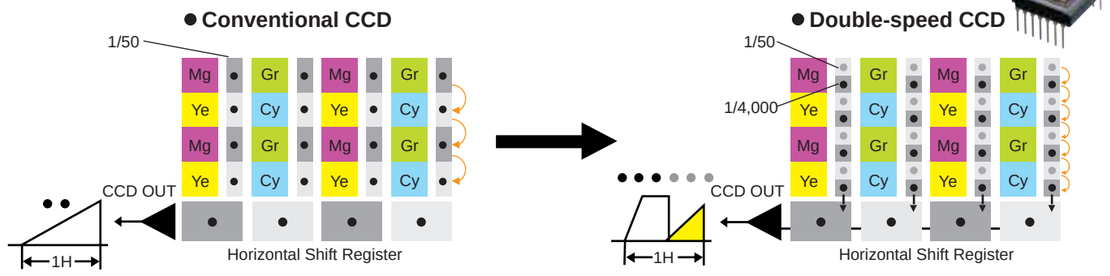
Improvements of contrast collection circuits.

Contrast correction improvements have been made in both long and short signals. This was done in order to secure the display device's dynamic range and also to improve contrast appearance. When changing the bottom-step contrast gain of Super Dynamic Ⅱ, the OB (standard black level) fluctuates, resulting in having to fix the gain by 100%, causing the picture to “float”. In order to solve this problem, the new Super Dynamic Ⅱ provides an adjustable bottom-step gain.

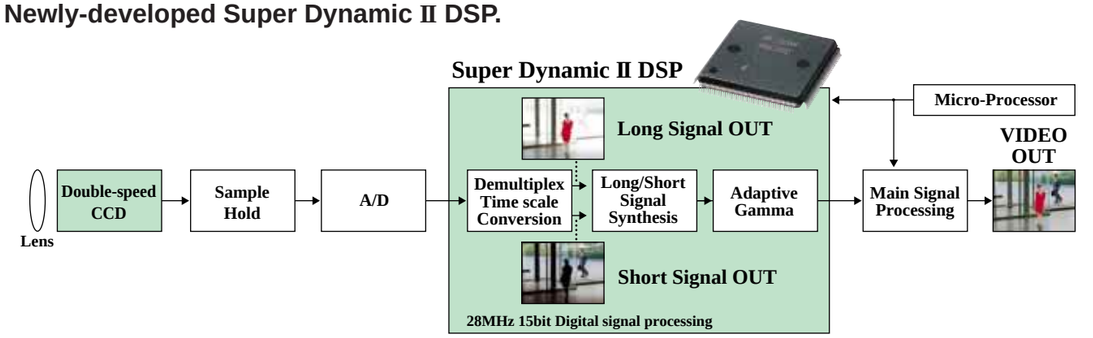
Even better sensitivity.

Super Dynamic Ⅱ has achieved dramatic improvements in sensitivity. This is the most important specification when it comes to surveillance cameras. The sensitivity has been increased 12dB first by increasing the gain by 7dB. This is achieved by averaging the image signals with digital noise reduction. Another 5dB is added by a newly designed circuit. As in comparison with conventional cameras, natural imaging is possible, even in low-light conditions.

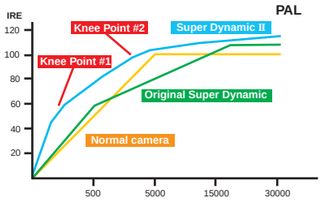
Higher Shutter Speed.



Newly-developed Super Dynamic Ⅱ DSP.



Independent AGC and Knee Point.



Independent AGC and Knee Point for both 1/50 and 1/4,000 signal can reproduce natural and smooth contrast of picture.

Optimization of Pedestal Level.

Optimized compensation of pedestal level can reproduce natural and smooth contrast picture in monitor screen.

Dynamic Range Comparison.

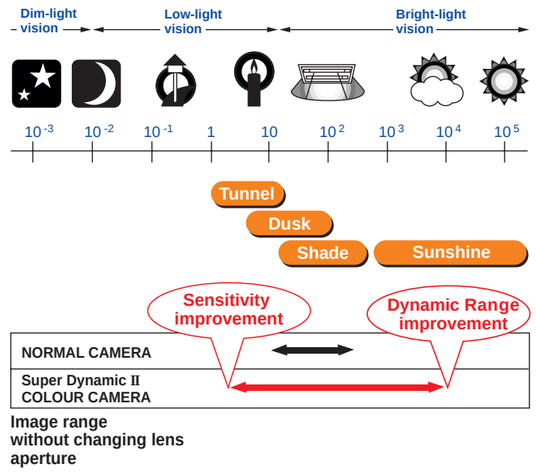


Image range without changing lens aperture

Super Dynamic II
Colour Dome Cameras
with Low-Light B/W Mode

WV-CS850A Series

Loaded with High-Performance Features. Ideal for Single-Camera, 24-hour Surveillance.

24-hour monitoring by switching between colour and B/W modes.

In order to keep producing images in low-light, the WV-CS850A Series sense a drop in light levels and switch to B/W mode automatically. The units provide 570 lines of horizontal resolution in B/W mode and 480 lines in colour mode; allowing for clear, sharp images. Manual switching from colour mode to B/W mode is also possible.

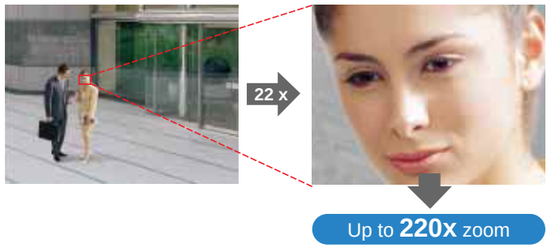
[When light levels become low, the WV-CS850A Series automatically switch to black and white mode. Monitoring an object for 24 hours with a minimum of 0.06 lx illumination is possible.]

Day (Colour mode) **Night (B/W mode) at low-light condition**

220x zoom is possible.

(22x optical zoom and 10x linear electronic zoom)

The units feature a 22x zoom lens and 10x electronic zoom function. Hold down the zoom button on the controller and the electronic zoom will be activated, allowing you to zoom in up to 220x. The panning unit can turn as slowly as 0.1˚ per second, or the rotation can be speed up by zoom ratio. Easy control under close-up zoom conditions by proportioned zoom speed.



Up to 64 preset positions

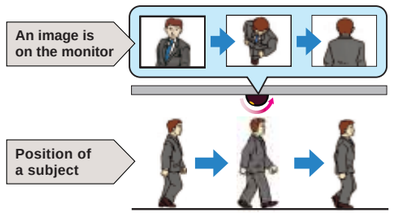
Up to 64 camera positions can be preset. These cameras can be set to any position simply by pressing the key on the controller.

360˚ monitoring, image hold function

Speed of movement between camera positions is 300˚ per second; the camera rotation unit within the dome can revolve 360˚ horizontally continuously, and 180˚ vertically in one motion. This allows monitoring of any and all directions. The new image hold function lessens picture distortions during fast motion transitions.

The Digital flip function catches images on screen smoothly even while someone is walking directly under the camera.

When the camera in the dome rotates 120˚ vertically, the image on screen is turned upside down instantaneously through digital processing. The camera will continue to rotate 180˚, allowing it to smoothly capture a person walking directly below.



Privacy zone masking protects private area, such as house windows and entrance/exits.

In case windows or doorways of private residences encroach on an area of monitoring, these cameras can mask those specific areas. Outdoor monitoring doesn't need to invade personal privacy.

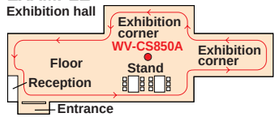
*Mask up to 8 places (max. 4 places per screen).

Four (4) Privacy Zones can be masked

The above photographs were taken for the purpose of this explanation; actual images may differ.

Patrol learn function memorizes manual operations.

This function allows the camera to memorize operations done by hand, such as pan zoom (up to 30 seconds). These operations can be repeated by simply pushing a button. This makes monitoring of a specific area very simple.



Motion detector function.

This function allows the camera to detect movement inside the monitoring area, and then sets the alarm signal automatically. Also, the video signal of the camera is able to record the scene onto VTR.

Drip-proof design allows the WV-CS850A Series to be placed under eaves.

These units feature the IP52 Drip-proof Environment Structure. This allows the units to be installed under eaves for outdoor monitoring.

External device control, alarm function.

Up to four alarms can be set with the main camera units: each alarm is set to a particular preset position. These cameras are also, able to control external devices, such as turning on lights.

Environment friendly packing materials.

In general, incombustible materials such as styrofoam are usually used to protect products from vibration and impact due to dropping during the shipment. Panasonic has devised a new technology that securely stabilizes products with only corrugated cardboard and minimized polyurethane films. Panasonic's philosophy is to "Be Friendly to the Earth".

Carton box for WV-CS850A Series

SPECIFICATIONS PAL CCIR

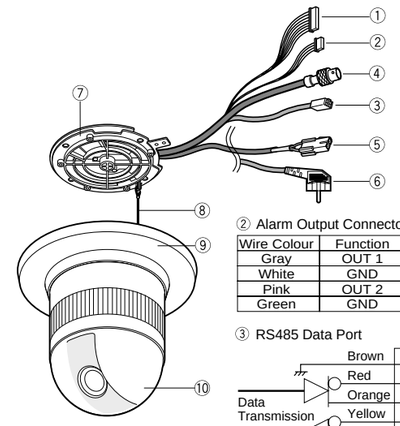
Model No	WV-CS850A	WV-CS854A
Effective Pixels	737 (H) x 575 (V) pixels, Interline Transfer CCD	
Scanning Area	1/4-type Super Dynamic II CCD	
Synchronization	Internal / Line-lock / Multiplexed Vertical Drive (VD2)	
Horizontal Scanning Frequency	15.625 kHz	
Vertical Scanning Frequency	50 Hz	
Video Output	1.0 V [p-p] PAL/CCIR composite / 75 Ω	
H. Resolution	more than 570-line at B/W, or 480-line at colour imaging	
Signal-to-noise Ratio	50 dB (AGC off, weight on)	
Super Dynamic II	80 times (selectable on/off)	
Minimum Illumination	0.06 lx at B/W, 1 lx at colour imaging (at sensitivity 2x up)	
Zoom Ratio	Optical 22x (3.79 ~ 83.4 mm) plus 10x electronic zoom	
Iris Range	F1.6 ~ 22, Close	
Zoom Speed	Approx. 2.1 s (TELE / WIDE) in sequence / Approx. 4 s in manual Mode	
Focus Speed	Approx. 2 s (FAR / NEAR) in sequence / Approx. 6 s in manual Mode	
Iris	Automatic (Open / Close is possible) / manual	
Maximum Aperture Ratio	1:1.6 (Wide) ~ 3.0 (Tele)	
Focal Length	3.79 ~ 83.4 mm	
Angular Field of View H	2.6˚ ~ 51.7˚	
Angular Field of View V	2.0˚ ~ 39.9˚	
Electronic Shutter	1/50 (off), 1/120, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 s	
Electronic Sensitivity Up	Max. 32x (Auto / Fix)	
Panning Range	360˚ endless	
Panning Angle Setting	Possible	
Panning Speed	Manual: Approx. 0.1˚/s ~ 120.2˚/s. 8/64 steps Preset: Maximum approx. 300˚/s	
Tilting Range	0 ~ 90˚(Digital Flip off), 0 ~ 180˚(Digital Flip on)	
Tilting Speed	Manual: Approx. 0.1˚/s ~ 120.2˚/s. 8/64 steps Preset: Maximum approx. 300˚/s	
Pan/Tilt	Manual / Sequential position / Sort position / Auto Pan	
Image Hold Setting	On/Off (by menu)	
Controls	Pan/Tilt, Lens, 64 Preset Positions, Home Position	
Titles (ID)	Preset ID, Camera ID, Area Title: up to 16 characters	
Power Source	220V ~ 240V AC, 50Hz	24V AC, 50Hz
Power Consumption	18W	14W
Controller Interface	Multiplex-coaxial / RS-485	
Ambient Operating Temperature	–10˚C ~ +50˚C	
Dimensions	ø120 (D) x 191 (H) mm (ø110mm diameter dome size)	
Weight (approx.)	2 kg	

OPTIONAL ACCESSORIES

Smoke Covers
WV-CS2S
WV-CS2SH

Mirror Cover
WV-CS2M

MAJOR OPERATING CONTROLS



② Alarm Output Connector

Wire Colour	Function
Gray	OUT 1
White	GND
Pink	OUT 2
Green	GND

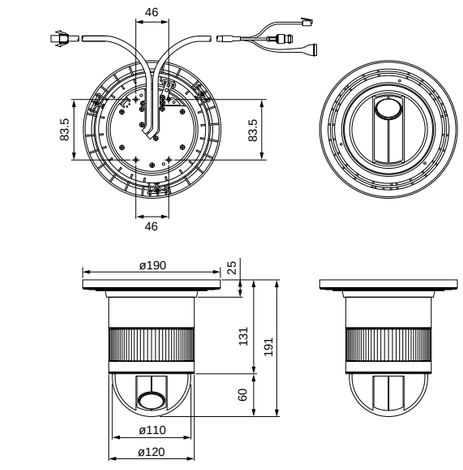
③ RS485 Data Port

① Alarm Input Connector

Wire Colour	Function
Black	IN 1
Brown	GND
Red	IN 2
Orange	GND
Yellow	IN 3
Sky Blue	GND
Blue	IN 4
Purple	GND

④ Video Output Connector
⑤ Power Cable Connector (WV-CS854A)
⑥ Power Cable Connector (WV-CS850A)
⑦ Camera Mounting Plate
⑧ Fall Prevention Wire
⑨ Decoration Cover
⑩ Dome Cover

DIMENSIONS



Unit : mm