

WideLux[®]

600TVL

WDR

Low Light Performance

Viewing your world with clarity!



WideLux represents 600TVL, Low Light Performance & WDR viewing your world with clarity.

3 Core Video Technologies, namely Super High Resolution, Extremely Low Light Performance & WDR, have been achieved in our own brand new chip solution named as WideLux, viewing your world with clarity. WideLux offers much more vertical resolution as much as horizontal resolution as well as Contrast WDR solution with a normal CCD so that customers can enjoy the highest technology with a very affordable pricing.

- High Resolution of 600TVL(Color) / 650TVL(B/W)
- Remarkable WDR Performance
- Super Low Light Performance with Single Scan CCD
- 2D/3D Noise Reduction
- DIS(Digital Image Stabilizer)
- Anti-Color Rolling
- Intelligent IR image Compensation

Technology for Intelligent IR Control

Overview of IR camera technology

The lifespan of IR LEDs for CCTV cameras is the most critical point to care about. Generally the lifespan of IR LEDs is about 2 years (MTBF) but the conditions are significantly changed when they are enclosed in a CCTV camera case.

In order to maximize the brightness of LED, manufacturers try to put as many LEDs as possible in a small airtight case. This makes the temperature inside the camera heated up highly and causes the lifespan to be dropped seriously.

In order to maximize the lifespan of IR LED, Firstly, the power load to the LED should be minimized by lowering the power input to the IR Board. Even though it causes the IR LEDs looks less bright, it is effective to maintain the same brightness level much longer period. Accordingly, when selecting IR camera, important point to know is that the camera with maximized load on the IR LEDs may display more bright or longer IR distance at the first time but correlatively the lifespan of IR LEDs is destined to go dead much more quickly.

For an instance, there are two cameras with 50 pieces of IR LEDs built-in. The first one illuminates the distance in 50 Meters with maximum power load on the IR LEDs and the other does the distance in 30 Meters with IR protection supported. The former, 50M distance at the beginning, illuminates shorter and shorter and eventually be burned out, say after 2-3 months later. But on the other hand, the latter can maintain the first performance of 30 M distance even after long time passed. Therefore, at the time of buying IR CCTV Camera with a built-in IR illumination, it is essential to find carefully whether there is a proper safety device for the protection of the lifespan of LEDs.

Secondly, the camera should be equipped with a proper mechanism for absorbing heat emitted from IR LEDs. IR LEDs, a light emitting bulb, produce very high heat. The more quantities of IR LEDs & the more density of LEDs intervals within a limited space, the higher temperature gets. Furthermore, most of IR cameras are enclosed in outdoor weatherproof cases causing its inside temperature be accelerated higher. Visionhitech's IR cameras are designed with perfect heat diffusing mechanism so that the camera board and IR LEDs receive no stress out of overheating problem. Without this mechanism, the performance and lifespan of cameras declines conspicuously. In addition, Visionhitech developed its own IR protection circuit to protect IR LEDs from external over power input and applied it to all IR cameras.

Core technologies to create a clear image quality from IR cameras

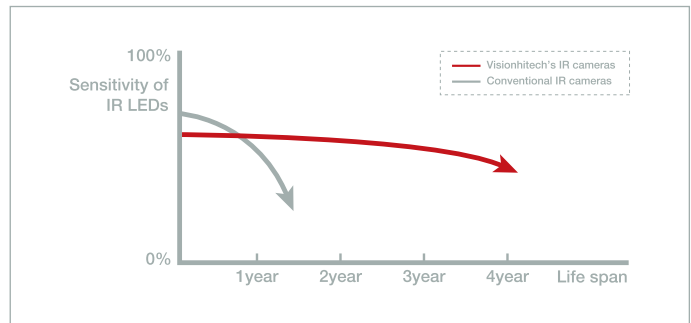
A. Extended IR LEDs' life cycle and sensitivity

Our special IR life protection technology extends the life cycle of IR LEDs at its maximum period of life span.

Conventional IR cameras tend to produce a bright IR image at the beginning but the LEDs'

performance is reduced day by day and finally burned to dead in short time period after the installation.

Consequently the night vision performance of conventional cameras is seriously reduced within after several months of operation.



B. Powerful night sensitivity

This new night vision camera includes high impact infra-red LEDs, capturing a clear and very bright image at pitch black "0" Lux darkness.

C. Focus Shift compensation

Focus shift Focal distance between the Sunlight responded condition and Infra-red responded condition is different. When a normal lens is used for IR camera, the picture becomes out of focus at night by this reason. So the lens for the IR Camera should have a dual focus capability, with all glassed aspherical mechanism and with deep depth of field.



Focus Shifted



Focus Corrected

D. Intelligent IR response against IR saturation

When the objects come closer to the IR light shooting area, the objects become all WHITE, making the image totally unrecognizable in conventional IR cameras.

Visionhitech developed a special technology that analyzes the strength of light reflection of the objects and automatically adjusts the image quality clearly recognizable even when the objects get close to the IR shooting area.

It is a very important function in that the camera can identify the objects against a strong IR light reflection.



Conventional



Intelligent

WideLux[®] Product line-up

WDR Super Night Vision Outdoor Camera

DSP 120-108



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- 5-50mm VF DC Iris lens
- DIS (Digital Image Stabilizer)
- Powerful Night Sensitivity up to 70M
- 12VDC

Options

- 4-9mm/9-22mm
- 12VDC/24VAC dual

DSP 120-107



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- 5-50mm VF DC Iris lens
- Powerful Night Sensitivity up to 50M
- 12VDC

Options

- 2.8-12mm/4-9mm/9-22mm
- 12VDC/24VAC dual

WDR SuperDome Camera

DSP 120-107



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- 2.8-12mm VF DC Iris lens
- IR Day/Night Filter System
- Motion Detection
- IP66
- 12VDC/24VAC

Options

- 7.5-50mm VF DC Iris lens (VDA110S-VFAL50DN)

DSP 120-109



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- 2.8-12mm VF DC Iris lens
- Night Sensitivity up to 30M
- IR Day/Night Filter System
- Highlight Eclipse
- IP66
- 12VDC/24VAC

WDR True DN Vandalproof Dome Camera

DSP 120-110



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- 3.3-12mm VF DC Iris lens
- Night Sensitivity up to 20M
- True Day & Night(ICR)
- IP66
- 12VDC/24VAC

WDR Ultra-Slim Dome Camera

DSP 120-106



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- 3.3-12mm VF DC Iris lens
- True Day & Night(ICR)
- Ultra Slim & One-touch installation
- 12VDC/24VAC

VD101S-HQVFA



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- 2.8-12mm VF DC Iris lens
- Motion Detection
- 3-Axis
- 12VDC

Options

- VD101-HQVFAL 24VAC

VD101S-VFAIR



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- 2.8-12mm VF DC Iris lens
- Night Sensitivity up to 30M
- True Day & Night(ICR)
- 12VDC

Options

-

DSP 120-104



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- Surface Mount
- 2.9mm
- White housing
- Eye ball structure
- 12VDC

Options

- 3.6mm/4.3mm/6mm
- Flush Mount

WDR Box Camera

DSP 120-202



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- True Day & Night(ICR)
- Motion Detection
- DIS(Digital Image Stabilizer)
- 12VDC/24VAC

Options

- 12VDC (VC58S-12)
- 230VAC (VC58S-230)

WDR Bullet Camera

DSP 120-001



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- 3.5-16mm VF lens
- IP67
- DIS(Digital Image Stabilizer)
- 12VDC

WDR Miniature Camera

DSP 120-302



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- DIS(Digital Image Stabilizer)
- IP67 Weatherproof
- Motion Detection
- 3.6mm lens
- 12VDC

Options

- Indoor use
- 2.5/2.9/3.6/4.3/6/8/12/16mm Board lens
- 2.8/3.7/5.0mm Pinhole lens
- 2.6-6/2.8-12/3.3-12/4-9/9-22mm VF lens

WDR Board Camera



Key Features

- 1/3" Sony Super HAD CCDII
- 600TVL(Day)/650TVL(Night)
- 2D/3DNR(Noise Reduction)
- Motion Detection
- DIS(Digital Image Stabilizer)
- Various lens interchangeable
- IR Day/Night Filter System
- RS-485 (Pelco-D)
- 12VDC

Options

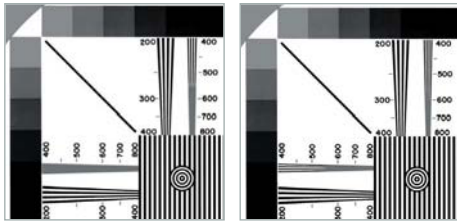
- 42x42mm (VM42S)
- 38x38mm (VM38S)
- 32x32mm (VM32S)

WideLux[®] WDR technology

Visionhitech WideLux WDR technology provides a number of significant imaging benefits as compared with a current alternative WDR solution available in the market. It achieves these benefits due to the unique built-in Timing Generator unit complemented by the special dedicated units for advanced signal processing.

A. New concept of upgraded Resolution of TV Line(≥ 600 TVL)solely unique in WideLux

WideLux Technology has come up with an innovated way of increasing cubic resolution to more than 30% higher than those of conventional of 600TVL cameras. In WideLux system, It upgrades horizontal resolution to 600TVL and the vertical resolution to 540TVL at the same time so that the cubic resolution becomes 324KTVL while conventional cameras provide only 240KTVL.

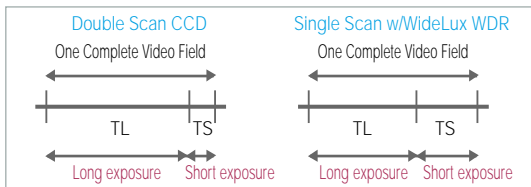


Conventional WDR

WideLux WDR

B. Unbeatable WDR Performance

WideLux WDR provides a very unique and far superior image scanning capability of defining the details of differently contrasted areas compared with any of conventional WDR camera. With current WDR technologies, defining images in shaded areas are typically not clear enough with over-exposed picture quality. WideLux WDR provides a special solution to intelligently analyze the exposure ratio and to optimize it into an unbeatably clear image quality.



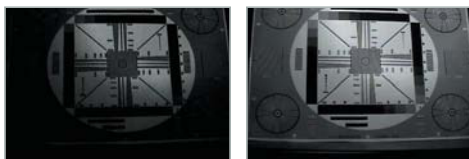
Conventional WDR



WideLux WDR

C. Super Low Light sensitivity

WideLux system specifies itself as the best solution in the market that overcomes the limitation of compromising light sensitivity from conventional WDR cameras. With its special technology, it provides remarkable Low light sensitivity of 0.1 Lux/F2.0 ~ 0.0001 Lux w/sens-up added which is at least 3 times better than any of conventional WDR cameras.



Conventional WDR
w/Double Scan CCD

WideLux WDR
w/Single Scan CCD

D. 2D/3D Noise Reduction

2D/3DNR achievement is another reference in WideLux WDR technology. It reproduces noiseless images with 2D/3D filtering Noise Reduction Technology so that users can save the volume of storage media and HDD capacity in DVR. 2DNR helps preserved edges in the picture.

When the object moves under low light conditions, the image is inevitably blurred because of using the camera memory. But, 3DNR Technology realizes clear images with no ghost effect.



Conventional



3DNR

E. DIS (Digital Image Stabilizer)

This technology reduces blurring associated with the motion of the subject by using pixels outside the border of the visible frame to provide a buffer for the motion. Increasing the exposure time without blurring the image makes the moving subject stabilized digitally.



Conventional



DIS

F. Anti-Color Rolling

When operating a wide dynamic range camera in an environment with a fluorescent lighting, an effect that is called "color rolling" usually happens due to the lack of the synchronization between the camera and the neon light.

WideLux WDR technology tracks the light changes relative to the camera and adapts its own timing to the periodicity of fluorescent illumination to the sample light at a constant phase, virtually eliminating the color rolling effect.



Conventional



WideLux WDR

G. Intelligent IR Image Compensation

When the objects come closer to the IR light shooting area, the objects become all WHITE, making the image totally unrecognizable in conventional IR cameras. WideLux Technology achieved a special technology that analyzes the strength of light reflection of the objects and automatically adjusts the image quality clearly recognizable when the objects get closer to the IR shooting area.



Conventional



WideLux WDR

One Place Has Them All

15 Years of Innovation and Quality

Founded in 1997, Visionhitech Co., Ltd. has been focused itself for the development of video surveillance technology all the way through today. It has been achieved a lot of monumental technical breakthrough and innovative solutions with more than 50 patented core technologies released so far. 150 members of employee with 50 staff of high-rank technical brains are all heavily armed with quality oriented mentality and actual in-house activities under the strict Quality Management System, ISO9001 & ISO T/S 16949. So, it has more confidence of its capability to bring the higher quality of service to customers than any others. Based on its continuous dedication for new technologies, it has been born again as a total solution provider for a vast range of security equipment covering analog cameras, IP cameras, DVRs, NVRs, Central monitoring systems and services.

Zero Defects

Much more advanced Technology and greater processing performance are under the control by Zero Defects. Our Quality Goal is to achieve 100% Customer Satisfaction, 0% Defect Rate and On-Time Delivery and we are ready to make customers succeed with our valuable service.

Going IP/HD in endless efforts

Our great achievement in Video Surveillance Technology is extended to IP Network era and we are about to integrate IP/HD technology into our existing and new products. We bet, through our history, Visionhitech Co., Ltd. will guarantee a great success with you in IP Network era as well.



Specifications are subject to change without prior notice for improvement

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