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# LTC 0510 Series DinionXF Monochrome Cameras



- ▶ **15-bit DSP technology**
- ▶ **XF-Dynamic**
- ▶ **Bilinx communication**
- ▶ **Default shutter**
- ▶ **Lens wizard**
- ▶ **Auto black**
- ▶ **Video motion detection**
- ▶ **Exceptional IR sensitivity**

The LTC 0510 Series of High Performance 1/2-inch Digital CCD Monochrome Cameras create the best possible image, even under the most difficult light and scene conditions. Based on unique 15-bit digital video processing technology and employing XF-Dynamic, these cameras provide the ultimate sensitivity with extended dynamic range. By employing the best 1/2-inch CCD available, advanced front end processing, combined with the outstanding Dinion DSP, the cameras achieve an astonishing sensitivity, providing better images in low light situations and sharper daytime images.

All Dinion cameras are supplied ready to operate. Simply attach and focus the lens, and connect power to provide optimal pictures under virtually all scene conditions. No tools are required for back focus and power connection. For extra challenging situations where fine tuning or special settings are required, the camera parameters can be individually set using the control buttons on the side of the camera and On-screen Display (OSD). Also, to aid installation, the camera automatically detects the lens type, and using the Lens Wizard ensures accurate (back) focusing for perfectly sharp pictures at all times.

## Functions

### XF-Dynamic

Extended dynamic range is brought to a new level on the LTC 0510 Series Camera by XF-Dynamic technology. XF-Dynamic automatically processes the highly accurate 15-bit digital signal to optimally capture the detail in both the highlight and lowlight areas of the scene simultaneously, to maximize the information visible in the picture.

### Bilinx Technology

The LTC 0510 series cameras incorporate Bilinx. Bilinx is a bidirectional communication capability embedded in the video signal of all Bosch Dinion cameras. With Bilinx technicians can check status, change camera settings and even update firmware from virtually anywhere along the video cable. Bilinx reduces service and installation time, provides for more accurate setup and adjustment, and improves overall performance. In addition, Bilinx uses the standard video cable to transmit alarm and status messages, providing superior performance without additional installation steps.

**Video Motion Detection**

The built-in video motion detector allows you to select up to four fully programmable areas with individual thresholds. The global scene change detector minimizes false alarms caused by sudden lighting condition changes, such as switching on or off the indoor or security lighting. When motion is detected alarms may be displayed in the video signal, the output relay can be closed in addition to alarm message transmission on Bilinx.

**Auto Black**

The automatic black level feature, enhances contrast by removing veiling glare from the picture or when contrast is reduced by fog or mist.

**Default Shutter**

When viewing moving objects a fast shutter speed is required. When using a fast shutter speed the lens opening or gain control needs to be increased to maintain the video signal. The camera sensitivity is limited by the fast shutter speed. The default shutter setting of the LTC 0510 offers the best of all worlds, fast shutter speed as long as there is sufficient light, however as the light level falls, when other adjustments have been exhausted, the shutter reverts to the standard setting maintaining the cameras excellent sensitivity.

**Back Light Compensation (BLC)**

Offering a fully programmable BLC area of interest, and a variable BLC level, the camera can be easily set up for even the most challenging entrance applications.

**Lens Wizard**

The LTC 0510 series automatically detects the type of lens installed. The Lens Wizard will focus the lens at the maximum lens opening, to ensure that focus is maintained throughout the entire 24-hour day/night cycle. No special tools or filters are required.

**Programmable Modes**

The camera supports 3 independent operating modes. The 3 modes are preprogrammed for typical applications, but are fully programmable for individual situations. Switching between modes is easy via Bilinx or the external alarm input.

**SensUp**

By increasing the integration time on the CCD up to 10 times, the effective sensitivity is dramatically enhanced, especially useful where there is no artificial lighting and you rely on the moon, stars and scattered radiation.

**Certifications and Approvals**

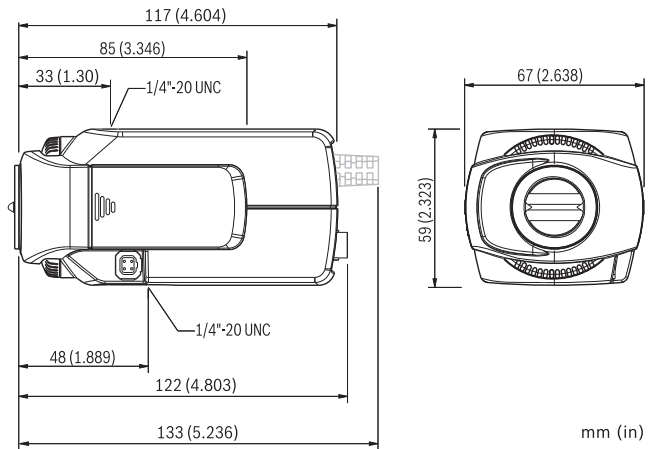
**Electromagnetic Compatibility**

Emission	EN55022 class B, FCC class B part 15
Immunity	EN50130-4 Alarm Systems, Part 4
Vibration	Camera with 500 gr (1.1 lbs) lens according to IEC60068-2-27

**Safety**

EN60065 (/10 and /50 models)
UL6500, cUL CAN/CSA E60065-00 (/20 and /60 models)

**Installation/Configuration Notes**



Dimensions in mm

**Parts Included**

**Quantity Component**

1	LTC 0510 Series Dinion <sup>XF</sup> Monochrome Camera
1	Spare male 4-pin lens connector
	Lens not included

**Technical Specifications**

**Electrical**

Model No.	Voltage Range		System
LTC 0510/10	12 – 28 VAC 11 – 39 VDC	45 – 65 Hz	CCIR
LTC 0510/20	12 – 28 VAC 11 – 39 VDC	45 – 65 Hz	EIA
LTC 0510/50	85 – 265 VAC	45 – 65 Hz	CCIR
LTC 0510/60	85 – 265 VAC	45 – 65 Hz	EIA
Power Consumption	4 W		
Imager	Interline transfer CCD, 1/2-inch image format		

**Active Pixels**

CCIR Models: 752 H x 582 V

EIA Models: 768 H x 492 V

**Sensitivity (3200 k)**Sensitivity (Full video)<sup>1)</sup> 0.16 lux (0.016 fc)Sensitivity 50 IRE<sup>1)</sup> 0.032 lux (0.0032 fc)Minimum Illumination<sup>1)</sup> 0.021 lux (0.0021 fc)

Minimum Illumination with Sense Up 0.0021 lux (0.00021 fc)

Horizontal Resolution 570 TVL

Signal-to-Noise-Ratio &gt; 50 dB

Video Output 1 Vpp, 75 ohm

Synchronization Internal, line lock or genlock selectable

Electronic Shutter Auto (1/60 (1/50) to 1/500000), fixed, flickerless, default

Sensitivity Up Off, automatic continuous up to 10x

Auto Black On, off selectable

Range 32x dynamic range enhancement

Dynamic Noise Reduction Auto, off selectable

Contour Sharpness enhancement level selectable

BLC Off, area and level selectable

Gain Auto (maximum level selectable to 28 dB) or fixed level selectable

VMD 4 area, sensitivity selectable

Alarm Output VMD or Bilinx

Alarm Input(TTL) Profile switching, +5 V nominal, +40 VDC max

Alarm Output Relay max. 30 VAC or +40 VDC, max. 0.5 A continuous, 10 VA

External Synchronal Input 75 ohm or High Impedance selectable

Cable Compensation Up to 1000 m (3000 ft) coax without external amplifiers (automatic set-up in combination with coaxial communication)

Camera ID 16 character editable string, position selectable

Lens Types Manual, DC- and Video-Iris auto-detect with override.

DC-iris drive: max 50 mA continuous

Video-iris: 11.5 ± 0.5 VDC, max. 50 mA continuous

Remote Control Bi-directional coaxial communication

<sup>1)</sup> F/1.2, 89% reflection, SenseUp off**Mechanical**

Dimensions (H x W x L) 59 x 67 x 122 mm (2.28 x 2.6 x 4.8 inch) without lens

Weight 450 g (0.99 lbs) without lens

TripodMount Bottom (isolated) and top 1/4-inch 20 UNC

LensMount C and CS

Controls OSD with softkey operation

**Environmental**

OperatingTemperature -20°C to +50°C (-4°F to +122°F)

StorageTemperature -25°C to +70°C (-13°F to +158°F)

OperatingHumidity 20% to 93% RH

StorageHumidity up to 98% RH

**Ordering Information****LTC 0510/10 DinionXF Monochrome Camera** **LTC0510/10**

1/2-inch B/W high performance CCIR, 570 TVL, 12-28 VAC/11-39 VDC, 50 Hz

**LTC 0510/20 DinionXF Monochrome Camera** **LTC0510/20**

1/2-inch B/W high performance EIA, 570 TVL, 12-28 VAC/11-39 VDC, 60 Hz

**LTC 0510/50 DinionXF Monochrome Camera** **LTC0510/50**

1/2-inch B/W high performance CCIR, 570 TVL, 85-265 VAC, 50 Hz

**LTC 0510/60 DinionXF Monochrome Camera** **LTC0510/60**

1/2-inch B/W high performance EIA, 570 TVL, 85-265 VAC, 60 Hz

**Accessories****LTC 3274/41 Varifocal Lens** **LTC3274/41**

1/2-inch, 7.5 – 75 mm, DC-iris, C-mount, F1.7-360, 4-pin

**LTC 3264/30 Varifocal Lens** **LTC3264/30**

1/2-inch, 4.5 – 10 mm, DC-iris, CS-mount F1.6-360, 4-pin

**LTC 3283/20 Zoom Lens** **LTC3283/20**

1/2-inch, 8.0 – 48 mm, Video-iris, CS-mount F1.4-360, 4-pin

**TC120PS Power Supply Unit** **TC120PS**

110-120 VAC/15 VDC, 50/60 Hz, 300 mA

**TC220PS Power Supply Unit** **TC220PS**

230 VAC/12 VDC, 50 Hz, 10 VA

**TC220PSX-24 Power Supply Unit** **TC220PSX-24**

230 VAC/20 VAC, 50 Hz, 20 VA

**TC1334 Power Supply Unit** **TC1334**

120 VAC/24 VAC, 60 Hz, 30 VA

## Ordering Information

### Software Options

**VP-CFGSFT Configuration Software**  
for cameras using Bilinx, includes VP-USB  
Adaptor

**VP-CFGSFT**

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