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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

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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.
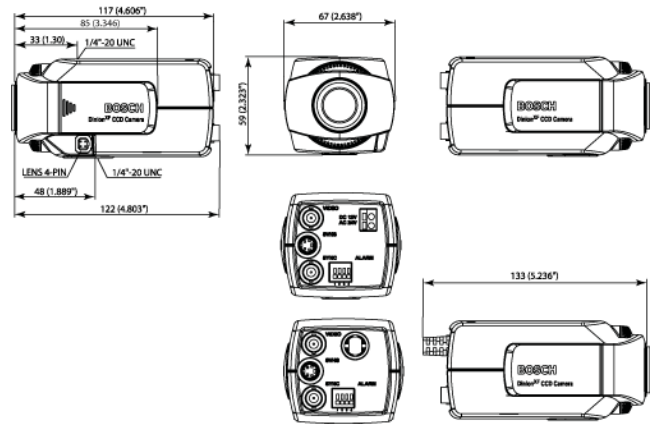
Certifications and Approvals

Electromagnetic Compatibility

Emission	EN55022 class B, FCC class B part 15
Immunity	EN50130-4 Alarm Systems, Part 4

Electromagnetic Compatibility

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^{XF} 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)[1]	0.16 lux (0.016 fc)
Sensitivity 50 IRE[1]	0.032 lux (0.0032 fc)
Minimum Illumination[1]	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	> 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

Model No.	Voltage Range	System
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	

1) 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℃ to +50℃ (-4℉ to +122℉)
StorageTemperature	-25℃ to +70℃ (-13℉ to +158℉)
OperatingHumidity	20% to 93% RH
StorageHumidity	up to 98% RH

Ordering Information

LTC 0510/10 DinionXF Monochrome Camera 1/2-inch B/W high performance CCIR, 570 TVL, 12-28 VAC/11-39 VDC, 50 Hz	LTC0510/10
LTC 0510/20 DinionXF Monochrome Camera 1/2-inch B/W high performance EIA, 570 TVL, 12-28 VAC/11-39 VDC, 60 Hz	LTC051020
LTC 0510/50 DinionXF Monochrome Camera 1/2-inch B/W high performance CCIR, 570 TVL, 85-265 VAC, 50 Hz	LTC0510/50
LTC 0510/60 DinionXF Monochrome Camera 1/2-inch B/W high performance EIA, 570 TVL, 85-265 VAC, 60 Hz	LTC0510/60

Accessories

LTC 3264/30 Varifocal Lens 1/2-inch, 4.5 – 10 mm, DC-iris, CS-mount F1.6-360, 4-pin	LTC3264/30
LTC 3274/41 Varifocal Lens 1/2-inch, 7.5 – 75 mm, DC-iris, C-mount, F1.7-360, 4-pin	LTC3274/41
LTC 3283/20 Zoom Lens 1/2-inch, 8.0 – 48 mm, Video-iris, CS-mount F1.4-360, 4-pin	LTC3283/20
TC 120PS Power Supply Unit 110-120 VAC/15 VDC, 50/60 Hz, 300mA	TC120PS
TC 220PS Power Supply Unit 230 VAC/12 VDC, 50 Hz, 10 VA	TC220PS
TC 220PSX-24 Power Supply Unit 230 VAC/20 VAC, 50 Hz, 20 VA	TC220PSX-24

Ordering Information

TC 1334 Power Supply Unit 120 VAC/24 VAC, 60 Hz, 30 VA	TC1334

Software Options

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