

Bullet 1.3 Mega Pixel IR Camera

CBIH116IR



- High resolution H.264 / MJPEG dual encoding and transmission
- 30 images per second at 1.3 mega pixel resolution
- Versatile 3.6-16mm auto Iris mega pixel lens
- Advanced 1/3" progressive scan MOS technology
- 50 high performance IR LED's for zero lux viewing up to 100 feet
- Extremely low light performance true Day/Night with mechanical IR cut filter
- Integrated 3 axis mount bracket included
- Includes integrated sun shield
- iNEX compatible
- OnVIF and PSIA integration
- Vandal resistant aluminum construction
- Weatherproof IP66 rating for extreme conditions
- DC12V



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CBIH116IR User's Manual

(Product Guide)

Version 4.12(Rev.E)

September 30, 2011

Class A Digital Device (industrial & commercial environment)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to CE and FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CBIH116IR User's Manual

Document Version: 4.12 (Rev.E)

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About This Document

This document is prepared for users of CBIH116IR supplied by Costar Video Systems, LLC. It is assumed that the users are familiar with Microsoft Windows operating systems and Web browsers such as Internet Explorer. It is also assumed that the users are well aware of how to install and use the network equipment such as LAN, Hub, router, and having basic knowledge of network terminologies. If you have any questions regarding network installations, please contact your network equipment vendor or network administrator or Internet service providers.

For updated contents, detailed features and other applications from Costar Video, please refer to the user's manual in CD-ROM provided with the product you purchased, or visit Costar Video's website at www.costarvideo.com.

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1. Product Overview

1.1. CBIH116IR

Costar Video® CBIH116IR is a stand-alone device transmitting video from built-in megapixel camera over IP(Internet Protocol) network.

It can transmit up to 30fps@1.3M over the existing network. You can monitor video of CBIH116IR through web browser(ie. MS Internet Explorer), if CBIH116IR is connected to network. CBIH116IR supports video compression both Motion-JPEG and H.264 simultaneously so that user can choose appropriate video compression for the purpose. For both Motion-JPEG and H.264, CBIH116IR provides 6 levels of video quality. CBIH116IR also supports both ONVIF and PSIA.



Picture 1 : CBIH116IR

1.2. Key Features

- Standalone device with a built-in web server
- 10M/100M Auto-Sensing Ethernet
- Configuring and controlling through Web browser
- Max 30 fps transmission speed on TCP/IP network
- Effective Bandwidth & Bit-rate Control (VBR/CBR) by H.264
- Supports Dual Streaming in Motion JPEG and H.264
- Support Dynamic IP network by IPCCTVDNS Server
- Support Transparent Mode
- Encryption function by user authentication
- Image transmission function via FTP and Email
- Support both ONVIF/PSIA

1.3. Technical Specification

	CBIH116IR
Hardware	32bit Embedded CPU NAND Flash 128Mbytes / DDR2: 128Mbytes Linux version 2.6.xx operating system Battery backed up real-time clock
Image sensor	1/3" progressive scan MOS Active pixels 1280H x 1024V, 1.31M Effective pixels 1376H x 1070V, 1.47M Pixel size: 3.75 (H) μm \times 3.75 (V) μm Color filter Bayer arrangement of primary colors: R, G, B Bit number of internal ADC: 12 bits Parallel output: 54 MHz, 12 bits Output frame rate per second: 30fps Full scan mode: 1.3 mega pixel output
Lens	Auto IRIS & Vari-focal 3.6 - 16.0 mm F1.2
IR Illuminator	50pcs 850nm Infrared LEDs 30° IR Range, maximum 30m IR distance
Minimum illumination	Color: 0.1 Lux (F1.0) B/W: 0.01 Lux (F1.0) (TDN) 0.02 Lux (F1.0) (without TDN)
Video related special functions	Day & Night (ON/OFF) AGC, AWB Lense (MANUAL/DC) Shutter (MANUAL/AUTO) Vertical/Horizontal Flip Frequency Control (50/60) Brightness/Contrast/Sharpness Control
Video compression	Motion JPEG H.264
Video standards	ONVIF PSIA
Resolution	1.3M(1280x1024), HD(1280x720), VGA(640x352), CIF(320x176), QCIF(160x96)
Frame rate (each channel)	Motion JPEG: Up to 30 fps @ 1280H x 1024V (Other Stream at QCIF) H.264: Up to 30 fps @ 1280H x 1024V (Other Stream at QCIF)
Video Streaming	Motion JPEG and H.264 Dual Streaming (Simultaneously) Controllable frame rate and bandwidth
Image setting	Compression levels: 6 (Motion-JPEG, H.264) Color: color, black & white
LAN interface	10/100BaseT Ethernet auto sensing IEEE 802.3af Built-in POE (optional) IEEE 802.11b/g Built-in wireless (optional)
Security features	Multi user level protection for amera access
Advanced Service	Up to 5.6M memory for Pre/Post alarm buffer E-Mail, FTP, IP notification, Alarm Notification to e-mail CGI Call by event or schedule

Built-in Motion detections	Accuracy: 12x12=144 blocks Motion Sensitivity : -100 ~ 100 : 100 is hypersensitive
Management	Configurable by serial, web or telnet Remote system update via telnet, FTP OR web browser
Developer support	Provides HTTP CGI API ActiveX control development kit
PWR Supply	SMPS Input: 100~240VAC, AC 50/60Hz, 1.2A Output : DC 12 Volt, 3A
PWR Consumption	DC 12Volt Max 900mA at night
Operating Environment	Temperature : 32° ~ 122°F (0° ~ 50°C) Humidity : 20 ~ 80% RH(non-condensing)
Miscellaneous	Freely downloadable NDVR Software Work with FW-Manager(NDVR S/W) Dynamic IP support through IPCCTVDNS
Simultaneous users	Live-cast for up to 16 clients
Installation, management and maintenance	Installation CD and web-based configuration Firmware upgrades over HTTP or FTP , firmware available at www.Costar Video.com
Video access from Web browser	Video access from Web browser
Minimum Web browsing requirements	Pentium 4, 2 GHz, 2GB(RAM) or higher Video Card: 256MB RAM, 1024x768 resolution or higher 100Mbps Network Adaptor or faster Windows XP Pro or later Internet Explorer 6.x or later
System integration support	Powerful API for software integration available at http://www.Costar Video.com , including Simple Viewer API, Costar Video Control SDK, event trigger data in video stream, embedded scripting and access to serial port peripherals over HTTP/TCP User can be installed user program daemon for event notification or sending image Embedded operating system: Linux 2.6
Supported protocols	HTTP, RTP/RTSP, TCP/IP, FTP, Telnet, RARP, PPPoE, PAP, CHAP, DHCP, SMTP client(e- mail), NTP
Applications (not included)	Costar Video Manager 16/32/128/256
Included Accessories	Power supply 12 V DC / Power cord CD (User's Manual, installation wizard and etc)
Approvals	MIC FCC : Class A CE : Class A RoHS
Dimensions (HxWxD) and weight (1lbs = 454g)	92.8Ø x 235.8(L) x 125.8(H) (in mm) About 1.1kg without power supply

** All specifications are subject to change without prior notice.*

Table 1 : CBIH116IR Data Sheet

1.4. CBIH116IR Packing List




CBIH116IR-MS	1ea	
Power Supply Unit (Power Cable & SMPS DC12V 1.0A Adapter)	1ea	
CD (User's Manual, installation wizard and etc)	1ea	

Table 2 : CBIH116IR Packing List

Note: Please check all the listed items are included in your package. For any missing items, please contact your local distributor.

2. Hardware Description

2.1. Main Body View



Picture 2 : Front View

	Name	Description
A	IR LED	50pcs 850nm Infrared LEDs.
B	Lens	Lens for board mount
C	Sunshield	Top covering Sunshield

Table 3 : CBIH116IR Main Body View

2.1. Full View



Picture 3 : CBIH116IR Full View

	Name	Description
A	Main body	Mainbody
B	Mounting Bracket	Mounting bracket
C	LAN	LAN Connector.
D	Power Conn.	Power Connector.

Table 4 : CBIH116IR Full View

3. CBIH116IR Installation and Basic Setup

3.1. Before Installation

- Read carefully User's Manual.
- Check User's Network (IP Address, Network Mask and default gateway)
- Secure IP address for CBIH116IR.

3.2. Factory Default Settings

The following table shows the factory default condition. Please refer to this when you need to change the values on admin menu.

	Factory Default
Admin ID	root
Admin password	root
IP address	10.20.30.40
Network mask	255.255.255.0
Gateway	10.20.30.1
Wireless LAN (Option)	Disabled

Table 5 : Factory Default

Note: Factory default Admin ID and Password are all lower case letters. You can change the password with Capital letters.

3.3. Installing CBIH116IR

Following steps are the physical installation process for CBIH116IR.

1. Fix the CBIH116IR in place
2. Connect the CBIH116IR to the Internet cable through the LAN port.
3. Connect the power supply of CBIH116IR.

After that, you need to follow the steps below.

- Network Configuration: Refer to "IP Installer User's Manual"
- Camera Configuration: Refer to "Costar Video Admin Menu User's Manual"
- Service Configuration: Refer to "Costar Video Admin Menu User's Manual"