

### RLC-BH 1431

- Excellent picture quality in Approx 1.4 Megapixel ,
- 1.2 Megapixel (1280 x 960) maximum resolution ,
- Three codecs (H.264, MPEG-4, MJPEG) with dual streaming Capability ,
- ICR Day/Night function,
- Maple Series.

HD ONVIF



#### ■ ONVIF

The Open Network Video Interface Forum (ONVIF) is a global and open industry forum which its goal is to facilitate the development and use of a global open standard for the interface of physical IP-based security products. RedLeaf is a member of ONVIF.

#### ■ Power over Ethernet (PoE)

With PoE a single cable to provide both data connection and electrical power to electronic devices. PoE allows for great reductions in installation costs as there is no need to install separate power cables for the camera.

#### ■ The Best Possible Image

It is always important to produce the best possible image considering the environmental conditions.

Our expertise is to process the input light by means of a high quality lens, a sensitive image sensor and a powerful

DSP processor to produce a crystal clear output image which is superior to any other solution currently available in the market.

#### ■ Analog Video Output

This old fashioned analog video output helps the installers to quickly and easily apply the required first-run settings to the camera.

#### ■ Vivid Pictures in Darkness

A high percentage of unwanted events happen at night or in low-light conditions. This puts the priority of having a high performance security solution in low light conditions to a very high level. RedLeaf cameras have an unprecedented image quality independent of the lighting conditions, and provide a lucid image at very low lux levels.

## ■ Higher Resolution Doesn't Mean Higher Quality

A high pixel count doesn't necessarily mean that the captured image has a high quality. So there may be a high resolution image advertised as HD, full HD, etc. but the quality of the picture won't be that much remarkable to your eyes.

The low quality of the output image of a camera despite the high resolution settings has two main causes.

First is the high compression levels applied to the camera for bandwidth saving and second is the low quality image sensors utilized inside the camera as well as basic image processing techniques.

For having "real" high quality image it is necessary to use more advanced technologies instead of basic WDR and noise reduction techniques.

RedLeaf uses new technologies named

SDNR and WDR+ to provide a high resolution image with a high quality.

## ■ SDNR (Smart Dynamic Noise Reduction)

One of the vital features of an IP camera is its ability to reduce the noise in the image under low light conditions. RedLeaf uses a complex method that performs signal processing on the fixed and moving parts of each frame separately. This smart technology combines the results of 2D and 3D NR signal processing which results in a crisp and high quality image output.

## ■ WDR+

The wide dynamic range (WDR) function of RedLeaf cameras provides clear images even under strong back light conditions, namely when there exist very bright and very dark areas simultaneously in the field of view of the camera. WDR enables the capture

and display of both bright and dark areas in the same frame, in a way that no important detail is lost in the shadows or highlights.

Full-fledged technology of WDR broadens the dynamic range of the RedLeaf cameras by using two distinct methods:

### - Multi-frame imaging:

the camera captures more than one frame of the scene with different exposure parameters and then combines them to produce a vivid and full detail output picture.

### - Non-linear sensors:

the sensitivity of the sensor is different at different illumination levels so the details of dark and bright areas of the scene are fully captured.

## ■ SMART IR

Our eyes are designed to detect visible light waves, although this is only a small portion of the electromagnetic spectrum.

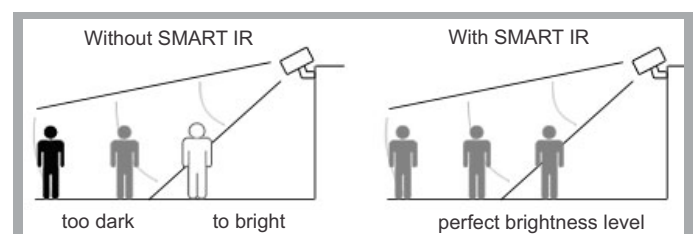
Infrared (IR) light is electromagnetic radiation with longer wavelengths than those of visible light, extending from the nominal red edge of the visible spectrum at 700 nanometers (nm) to 1 mm. Infrared radiation of an object is a measure of the heat which it emits in the space.

Almost every object emits some level of energy in form of IR radiation, even if it is small. In low light conditions a combination of hardware and software procedures allow RedLeaf cameras to capture the IR radiation projected by an object.

This technology is called Smart IR and one of its unique characteristics is that it can vary the intensity of the IR illuminators depending on the distance of the object to the camera. This results in a clear image even in total darkness.

The IR LEDs used in RedLeaf cameras provide a life time of roughly ten times more than that of the regular LEDs.

Also, the low amount of heat which radiates from this kind of LEDs minimizes the damage resulting from the IR radiation to the inner camera parts. The LEDs of RedLeaf cameras can be replaced easily if any accidental damage happens, without the need to replace the whole kit.



## Technical Specifications

### RLC-BH 1431

#### Camera

|                            |  |
|----------------------------|--|
| Image device               | 1/3- type CMOS   |
| Number of effective pixels | Approx 1.4 Megapixel   |
| Minimum illumination       | Color: 0.01 lx , 0 lx IR ON                                      |
| Electronic shutter speed   | 1/1 to 1/10,000 s  |
| Gain control               | Auto/Manual  |
| Focal length               | 2.7 ~ 9 mm   |
| Exposure control           | Full auto, Shutter priority, Iris priority, Manual               |
| White balance mode         | Auto, ATW, Indoor, Outdoor, One-push, manual, Sodium vapour lamp |
| F-number                   | F1.6 to F3.5   |

#### Camera features

|                 |                     |
|-----------------|---------------------|
| Day/Night       | Yes (IR-cut Filter) |
| WDR+            | Yes (90 dB)         |
| Noise reduction | Yes (SDNR)          |

#### Image

|                            |  |
|----------------------------|--|
| Codec image size(HxV)      | 1.2 M (1280x960) / HD (1280x720)<br>D1 (704x576) / CIF (352x288) |
| Video compression format   | H.264, MPEG-4,MJPEG  |
| Codec streaming capability | Dual streaming   |
| Maximum frame rate         | 30 fps (H.264) / 30 fps(MPEG-4) / 30 fps (MJPEG)                 |

#### Audio

|                   |               |
|-------------------|---------------|
| Audio compression | G.711 / G.726 |
|-------------------|---------------|

#### Network

|                   |   |
|-------------------|---|
| Protocols         | IPv4,IPv6,TGP,UDP,ARP,ICMP,IGMP,HTTP,HTTPS,FTP (client/server), SMTP, DHCP, DNS,NTP, RTP/RTCP,RTSP,SNMP (MIB-2) |
| ONVIF software    | Yes (Ver. 2.0)  |
| Number of clinets | 20  |
| Authentication    | IEEE802.1x  |

#### Interface

|                           |  |
|---------------------------|--|
| Local recording           | SD memory card x1(compatible with the SD/SDHC standards, max 32GB) |
| Ethernet                  | 10BASE - T/ 100BASE-TX (RJ-45)                                     |
| Sensor input              | 2  |
| Alarm output              | 1  |
| External microphone input | mini-jack (mono)   |
| Audio line output         | mini-jack (mono), max output level:1Vrms                           |
| Analog video output       | Yes 1*BNC (75Ω)  |

#### General

|                       |   |
|-----------------------|---|
| Weight                | 1.2 KG  |
| Dimension(ØxHmm)      | 105 x 307 mm  |
| Power requirements    | PoE, DC12V, AC24V   |
| Outdoor               | Yes (IP66,IK10)   |
| Operating temperature | -15°C~60°C  |
| Safety regulation     | UI2044, FCC 158 Class A, IC Class A,IEC60950-1,<br>EN55022(A)+EN55024+EN50130-4, VCCI Class A, C-Tick class A |

#### System Requirements

|                  |   |
|------------------|---|
| Operating system | Windows XP™ - Professional Edition<br>Windows Vista™ (32/64bit) - Ultimate, Business Edition<br>Windows 7 (32/64bit) - Ultimate, Professional Edition<br>Windows 8 (32/64bit) – Pro Edition   |
| Processor        | Intel Core2 Duo 2.33 GHz Or higher  |
| Memory           | 2GB or more   |
| Web browser      | Microsoft Internet Explorer® Ver. 6.0 and higher<br>Google Chrome® Ver.4.0 and higher (Plug-in free viewer only)<br>Firefox® Ver.3.5 and higher (Plug-in free viewer only)<br>Safari® Ver.4.0 and higher (Plug-in free viewer only) |

## Dimensions

