HBD2FR

equIP® SERIES 1080p MFZ LENS TRUE DAY/NIGHT H.264 IR RUGGED INDOOR/OUTDOOR BULLET IP CAMERA

Honeywell's new line of HBD2FR cameras offers outstanding picture clarity and definition with 1080p resolution at full frame rate, true day/night capability, and a 1/2.7-inch CMOS progressive scan imager. Digital Noise Reduction (DNR) technology optimizes motion detection performance and provides improved compression efficiencies on DVRs, resulting in significant storage savings without sacrificing image quality in low light. When used in conjunction with the HBD2FR's 48 integrated IR LEDs, using a dual window IR cut and IR pass filter, DNR captures clean, sharp images, enhancing the integrity of the recorded video.

The HBD2FR supports dual video streams (H.264 and H.264/MJPEG) and multiple compression formats with rates up to 30 frames per second (25 fps for PAL systems). The digital compression parameters for the two video streams are independently configurable. A third analog stream is available for backup, local viewing, or for retrofitting the camera onto an existing analog input DVR or encoder.

The HBD2FR integrates a camera and lens in a compact, single-piece, vandal-resistant unit for fast, easy installation to a wall, ceiling, or 4S electrical box. Built-in Power over Ethernet (PoE) lets you supply power to the camera using standard network cabling, eliminating the need for a separate power supply and associated wiring. A multidirectional bracket simplifies camera positioning and the motorized focus and zoom (MFZ) lens with joystick control offers remote or local zoom and focus adjustment. The HBD2FR's rugged housing includes an adjustable sunshield and a built-in breather vent to prevent condensation buildup.

The HBD2FR conforms to the ONVIF (Profile S) specification for interoperability between network video products and comes with a powerful and intuitive web client for fine-tuning camera settings.

Market Opportunities

The HBD2FR is perfect for installations that require excellent picture quality at minimal bandwidth. At three times the resolution of standard analog cameras, yet with similar bandwidth requirements, the HBD2FR can be retrofitted on many existing DVR/NVR installations without requiring additional storage. Equipped with a rugged vandal and weather-resistant housing, the HBD2FR is suitable for both indoor and outdoor applications.
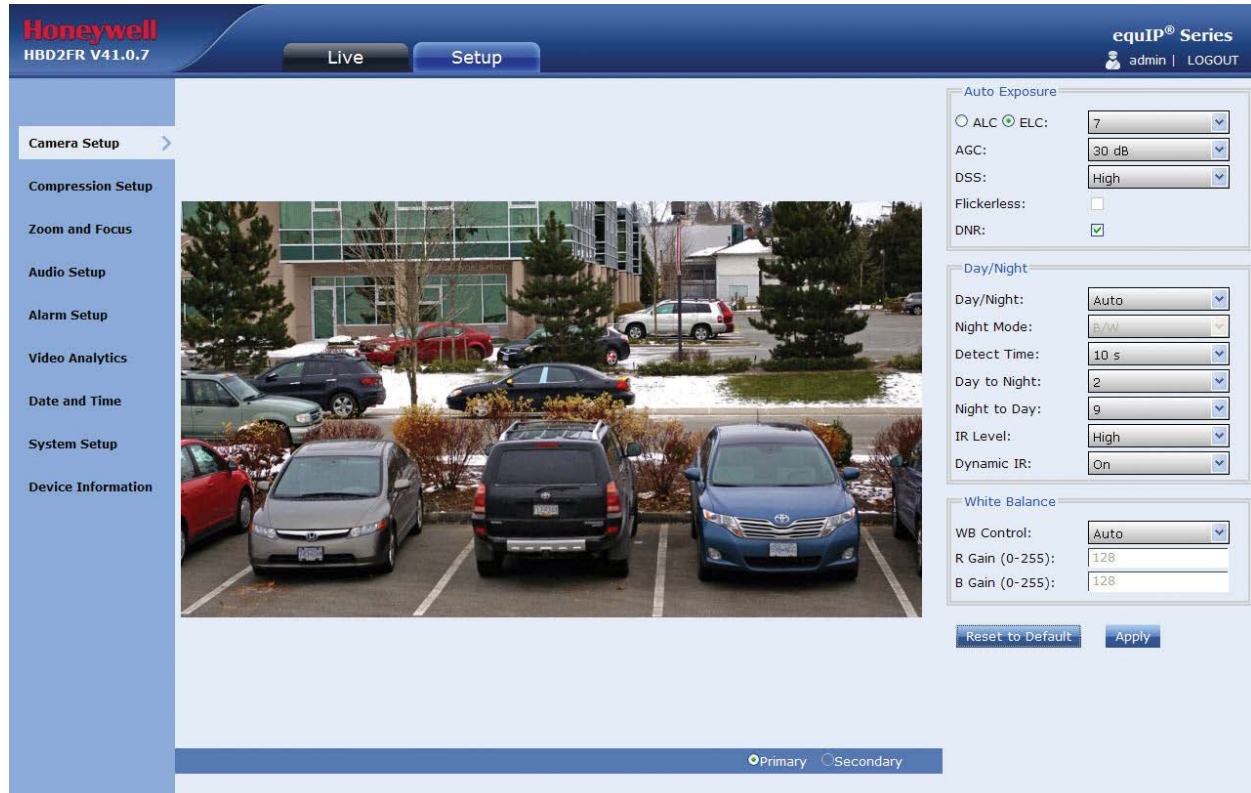
Features

- Outstanding image quality, 1080p (1920 × 1080) resolution
- 30 fps (25 fps PAL) progressive scan
- 3–9 mm (HBD2FR1) or 10–23 mm (HBD2FR2) MFZ lens with removable IR cut filter
- 48 LEDs provide up to 100 ft (30 m) of illumination (HBD2FR1) or up to 150 ft (45 m) of illumination (HBD2FR2), depending on scene reflectance
- Camera tamper detection and video motion detection
- NTP time synchronization support
- ONVIF support (Profile S)
- Programmable daylight threshold settings to deliver color or black-and-white images

- Dual digital video streams, independently configurable, H.264 and/or H.264/MJPEG
- Date and time stamp embedded in video stream
- Advanced IP Utility software for easy system setup and remote firmware update
- Embedded web server for remote camera setup
- PoE IEEE 802.3af power input
- Input and output alarm contacts
- Bi-directional audio communication
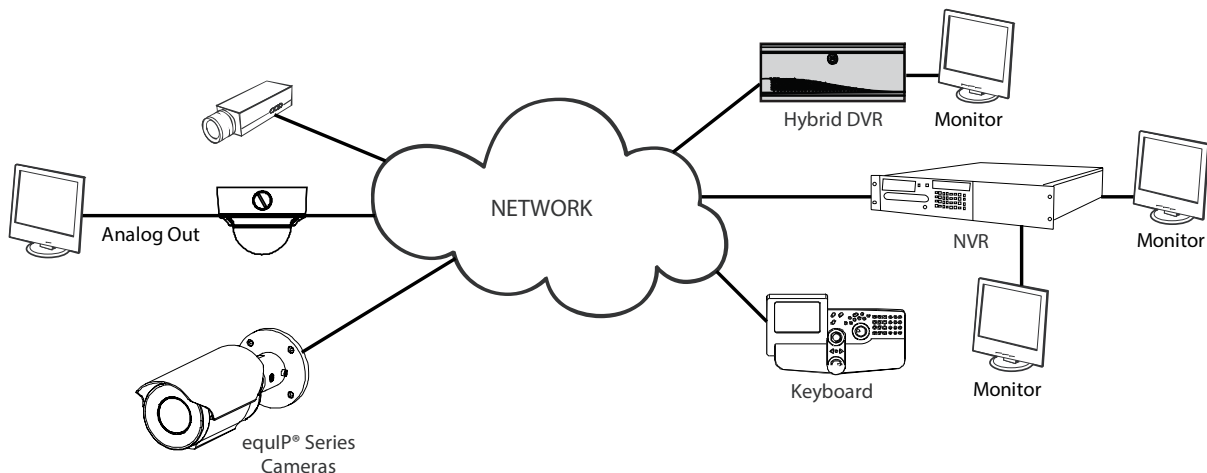- Built-in breather vent

HBD2FR

SPECIFICATIONS

Like all cameras in the equIP® Series of IP-based products, the HBD2FR network camera uses Honeywell technology for camera video motion detection, tamper detection, remote firmware updating, and for secure storage of all camera settings. Video motion detection recognizes object motion within the field of view; then a simple on-screen notification alerts the user. Camera tamper detection notifies the user when a camera's field of view is altered, blinded, or blurred. This ensures the video's integrity and alerts the customer to either a live event or a system problem that is causing disruption to the video stream. Honeywell's technology also allows users to remotely upload firmware to the camera. Setup is quick and easy and can be customized through a local joystick or web client, or from an NVR/DVR. The built-in web server provides password-protected access to the camera's video and network setup.
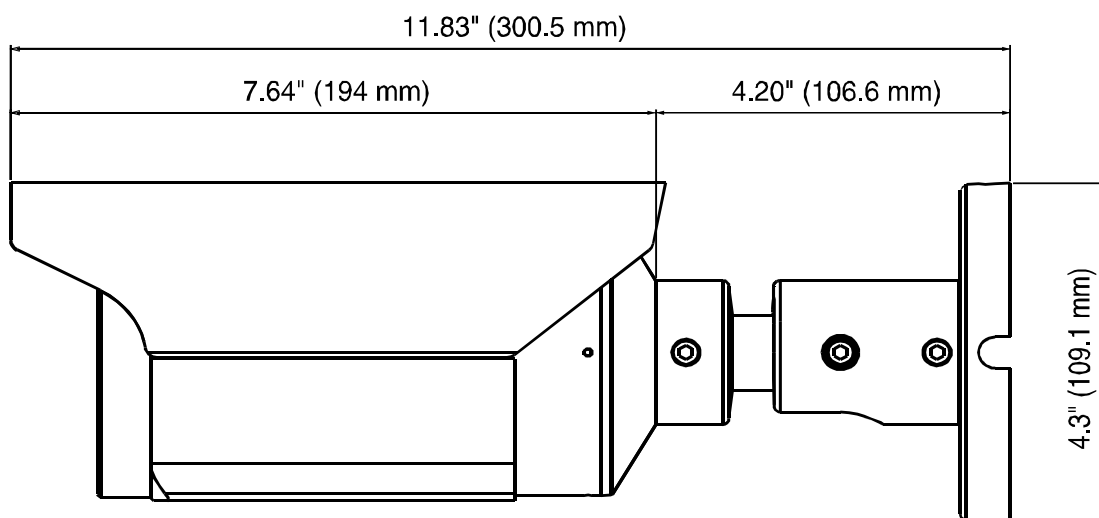

System Diagram

HBD2FR

SPECIFICATIONS

Camera	
Video Standard	NTSC/PAL
Scanning System	Progressive scan
Image Sensor	1/2.7" CMOS
Number of Pixels (H × V)	1920 × 1080 (1080p)
Minimum Illumination	HBD2FR1(X): 0.18 lux color/0.15 lux BW @ 50 IRE, F1.2; 0.11 lux color/0.09 lux BW @ 30 IRE, F1.2; 0 lux with IR LEDs on HBD2FR2(X): 0.14 lux color @ 50 IRE, F1.6; 0 lux with IR LEDs on
Video Output (AUX)	1.0 Vp-p @ 75 ohms
S/N Ratio	50 dB or more (AGC off)
Auto Gain Control	Off/On, selectable
Automatic Electronic Shutter	1/30 – 1/130,000 s (NTSC) 1/30 – 1/130,000 s (PAL)
Lens Type	HBD2FR1(X): 3–9 mm MFZ, DC drive, F1.2 HBD2FR2(X): 10–23 mm MFZ, DC drive, F1.6
IR LEDs	850 nm, 48 LEDs
IR Illumination Distance	HBD2FR1(X): Up to 100 ft (30 m), depending on scene reflectance HBD2FR2(X): Up to 150 ft (45 m), depending on scene reflectance
White Balance	AWC, AWC Push, Manual
Audio/Two Way	Line input

Electrical	
Input Voltage	PoE IEEE 802.3af, Class 3
Power Consumption	PD Type 1, Class 3, 12.5 W (max)

Mechanical	
Dimensions (W × H)	11.83" × 4.3" (300.5 mm × 109.1 mm)
Weight	3.92 lb (1.78 kg)
Construction	Housing: Die-cast aluminum Finish: Cool gray powder coat
Connector	Video output (AUX): 2-pin connector Power input: RJ45 connector Network: RJ45 connector

Environmental	
Temperature	Operating: –4°F to 122°F (–20°C to 50°C) Storage: –40°F to 158°F (-40°C to 70°C)
Relative Humidity	10% to 85%, non-condensing
Rating	IP66

IP Specifications			
Video Compression	Dual stream H.264 and/or H.264/MJPEG		
Resolutions	H.264 Bitrate (Typical*)	Frame Rate	Storage/Day (GB)
1920 × 1080	3 Mbps	30/25	31.64
1280 × 720	1.4 Mbps	30/25	14.77
800 × 450	0.75 Mbps	30/25	7.91
640 × 360	0.4 Mbps	30/25	4.22
320 × 180	0.2 Mbps	30/25	2.11
Frame Rate (NTSC/PAL)	Up to 30/25 fps video in all resolutions		
Video Streaming	Dual streaming: H.264 and H.264/MJPEG Controllable frame rate and bandwidth Constant or variable bit rate		
Security	Multiple user access levels with password protection		
Video Access from Web Browser	Full control of all camera settings available to administrator		
System Requirements	Pentium® 4 CPU 3.1 GHz or faster, 1 GB RAM (32-bit) or 2 GB RAM (64-bit), Windows® 7 (32/64-bit), Windows Server® 2008 R2 (64-bit), Windows Vista® SP1, Windows Server® 2003 R2 (32-bit), or Windows® XP Professional SP3, Internet Explorer® 8 or 9, Google Chrome™, or Mozilla® Firefox®		
Installation and Management Maintenance	Honeywell IP Utility software identifies IP address, checks status of device, upgrades firmware over HTTP		
Supported Protocols	HTTP, TCP, RTSP, RTP, UDP, ARP, NTP, RTCP, ICMP, DHCP, Bonjour, IGMP, SSH		
Standards	ONVIF (Profile S)		

Regulatory	
Emissions	FCC Part 15B, CE (EN 55022)
Immunity	CE (EN 50130-4)
Safety	EU: EN 60950-1 North America ETL listed to UL/CSA 60950-1

* Actual bitrate is scene and motion dependent with H.264 stream

HBD2FR

ORDERING

System Compatibility		Honeywell Device Integration	
Open IP Integration		MAXPRO® NVR SE (Standard Edition)	32 Channel Network Video Recorder
ONVIF support and open API for real interoperability between Honeywell and other manufacturers' IP-enabled security devices. Refer to the Honeywell Open Technology Alliance (http://www.security.honeywell.com/hota) to learn more about our open and integrated solutions.		MAXPRO® NVR PE (Professional Edition)	32 Channel Network Video Recorder

11.83" (300.5 mm)

7.64" (194 mm)   4.20" (106.6 mm)

4.3" (109.1 mm)

Ordering	
HBD2FR1	Network, Day/Night, Rugged, Indoor/Outdoor, Bullet Camera, 1/2.7" Progressive Scan CMOS, 1080p Resolution, 3–9 mm MFZ, 48 LEDs, PoE IEEE 802.3af Class 3, H.264, NTSC
HBD2FR1X	Network, Day/Night, Rugged, Indoor/Outdoor, Bullet Camera, 1/2.7" Progressive Scan CMOS, 1080p Resolution, 3–9 mm MFZ, 48 LEDs, PoE IEEE 802.3af Class 3, H.264, PAL
HBD2FR2	Network, Day/Night, Rugged, Indoor/Outdoor, Bullet Camera, 1/2.7" Progressive Scan CMOS, 1080p Resolution, 10–23 mm MFZ, 48 LEDs, PoE IEEE 802.3af Class 3, H.264, NTSC
HBD2FR2X	Network, Day/Night, Rugged, Indoor/Outdoor, Bullet Camera, 1/2.7" Progressive Scan CMOS, 1080p Resolution, 10–23 mm MFZ, 48 LEDs, PoE IEEE 802.3af Class 3, H.264, PAL

NOTE: 'ONVIF' and ⃝ΠVIF are trademarks of ONVIF Inc.

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