Hemispheric Camera Q24

The HiRes Video Company

MOBOTIX

Q24 Hemispheric

Q24M Hemispheric: 3.1 Megapixels (2048 x 1536)

The combination of a high-resolution 3 megapixel color sensor, an extremely wide-angle lens and an internal storage memory (32 GB MicroSD card)* offers you the ability to monitor an entire room (10 m x 10 m) using only a single Q24 and then save the collected data as a high-resolution video sequence.

Image data can be corrected for perspective either in real time or in subsequent research allowing it to be displayed in an especially user-friendly manner, thanks to the camera's integrated distortion correction feature. While the viewer is able to freely navigate through the entire distortion-corrected image (also in surround or panorama view) using the virtual PTZ function to closely analyze specific image areas, the camera will continue to monitor the entire room in the background.

The Q24 contains no moving parts and can be discreetly integrated into any environment by way of its elegant design, compact size and wide range of mounting accessories. The Q24's waterproof housing makes it suitable for outdoor use at temperatures ranging from -30°C to +60°C.

Highlights

- 3 Megapixel Hemispheric FixDome (IP65)
- Hemispheric Technology: 360° recording
- In-camera distortion correction
- Digital pan/tilt/zoom
- Integrated video motion recognition
- User-definable exposure fields
- In-camera recording to MicroSD
- IP telephony with video stream (H.263)
- Integrated microphone + loudspeaker
- Camera-controlled recording on Windows/ Linux/Mac systems
- Power supply via Ethernet cable

Camera system high-resolution

- Full-color digital CMOS (2048 x 1536 pixels)
- 11 mm hemispheric lens (360° view)
- 22 mm super wide-angle lens (90° x 67°) also available)

Exposure software-controlled

- Minimal and maximum exposure time can be set
- between 0.125 ms und 1 s - no aperture
- User-definable exposure window for optimal calibration based on area of interest
- Backlight compensation, automatic contrast control, night vision enhancement, white balance, sharpness

Image format individually customizable

- Color image scalable from 2048 x 1536 to 160 x 120
- In-camera distortion correction
- Factory-preset view modes: Normal, Surround,
- Panorama, Panorama Focus, Double Panorama (with panorama correction)
- User selection of image formats (e.g., 1000 x 200 for skyline)
- Time-controlled masking of image areas

Image memory included

- Internal 64 MB image memory - card capacities for approx. 300 3MEGA, 600 MEGA, 2,500 VGA, 4,000 CIF images
- MircoSD slot for memory expansion to 32 GB*
- Event and/or time controlled recording
- Adjustable number of pre-alarm & post-alarm images

Recording camera-controlled

- Distributed system concept means fewer peripheral components and lower costs when recording
- Camera-controlled recording on Windows/ Linux/Mac systems
- Camera manages ring buffer with up to 1 million alarms on the server (with no additional software!)
- Adjustable ring buffer size and storage time
- MxPEG: optimized codec for network video
- Event/permanent recording (MxPEG/M-JPEG)
- Event-controlled frame rate from 0.2 to 30 Hz

Video management browser-based

- Video streaming/administration via web browser
- Up to 30 cameras as MultiView in web browser
- 4 simultaneous web browser operating modes:
- HTML/JavaScript with M-JPEG, streaming (Java), ActiveX (MxPEG), PDA-optimized pages
- PDA interface with HTML only (Pocket PC)
- Event search by time, date, event type
- Software installation on PC not necessary
- Optional: Free video management
    - MxControlCenter 2.1 (Windows)
    - MxEasy (Windows/Mac)

Administration via web interface

- Convenient administration via web browser
- User-definable FTP/e-mail/VoIP profiles
- User/group management
- User-definable access levels
- IP address filter, IEEE 802.1x, intrusion detection
- Secure access via HTTPS/SSL

Event logic in-camera

- Event triggered by
    - motion in definable video sensor areas
    - temperature
    - exposure situation
    - IO contacts (via ExtIO expansion module)
    - audio level (via ExtIO expansion module)
    - network message (IP Notify)
    - definable time functions
- Logical linking of events
- Time-dependent event and standby control

Alarm signaling included

- Visual/audio alarm notification
- Voice output via internal/external audio
- Custom voice messages can be recorded
- Notification via e-mail/FTP
- VoIP calling with Video SIP (also in browser)
- TCP/IP message on IP port

High-quality audio onboard

- Integrated 4 W loudspeaker with microphone
- IP telephony (SIP), cellular network via gateway
- IP voice announcement with DHCP
- Lip-synchronous audio recording (MxPEG)

Housing robust & maintenance free

- Fiberglass-reinf. and shock-resistant PBT, white
- Freely combinable with D22/D24 accessories: in-ceiling set, on-wall set, wall mount
- Vandalism housing available in two designs
- Dimensions: (Diameter x Height) 160 mm x 50 mm
- Weight: approx. 450 g

Power supply PoE

- Power supply via Ethernet cable
- Power input 4.5 W
- No heater/motors, low UPS costs
- Variable PoE class based on operating mode: Depending on configuration: PoE class 1, 2 or 3

Characteristics

- CMOS image sensor
  2048x1536 pixels (color)
- Color sensor sensitivity (22 mm/F2.0)
  1 lux (1/60 s)–0.05 lux (1/1 s)
- Frame/data rate (MxPEG, medium quality)

30 fps	VGA (640x480)	1.5 Mbps
30 fps	TV PAL (704x576)	2.0 Mbps
30 fps	Mega (1280x960)	2.5 Mbps
20 fps	3MEGA (2048x1536)	3 Mbps

- Audio codec
  64 KBit SIP (IP telephony)
- Temperature, weather protection
  -30°C to +60°C, IP65

*4 GB MicroSD card is included in delivery

1

The World's Number 1 in Megapixels - Made in Germany

MOBOTIX AG, listed on the German stock exchange, is not just a powerful innovator in the field of network camera technology. Its distributed concept is making high-resolution video systems affordable for the first time ever.

MOBOTIX AG • 67722 Langmeil, Germany • Tel.: (+49-6302) 981-60 • Fax: (+49-6302) 981-6190 • info@mobotix.com

Hemispheric Camera Q24

Technische Daten Q24 Hemispheric

Models	Basic, Sec	**Virtual PTZ**	Digital Pan/Tilt/Zoom, continuous 8x zoom
Lenses	L11 (hemispherical), L22 (90° x 67°)	**Alarm/Events**	Triggering of events by integrated multiple-window motion detection, temperature sensor, notification over email, FTP, IP-Telephony (VoIP, SIP), visual/acoustic alarm, Pre- and post-alarm images
Sensitivity	Color: 1 lux (t=1/60 sec), 0,05 lux (t=1/1 sec)		
Sensor	1/2" CMOS, progressive scan		
Max. image resolution	Color: 2048 x 1536 (3MEGA)	**Audio**	Integrated microphone and speaker, lip-synchronous audio, two-way speaker, audio recording
Image format	Free image format selection (from 160x120 to 2048x1536) PTZ view, Quad view, panorama broad view image, double panorama view, panorama focus with 3 views	**Interfaces**	Ethernet 10/100, USB
		Video phone	VoIP, SIP, two-way speaker, remote control via DTMF signaling, event notification
Max frame rate (M-JPEG) (Live/Recording)	VGA: 22 fps, TV-PAL: 18 fps, Mega: 8 fps, 3MEGA: 4 fps	**Security**	User-/Group management, HTTPS/SSL, IP address filter, IEEE 802.1x, intrusion detection, digital image signature
Video stream (MxPEG) (Live/Recording/Audio)	VGA: 30 fps, TV-PAL: 30 fps, Mega: 30 fps, 3MEGA: 20 fps	**Certificates**	BGV C 9; EMC: DIN EN 61000, DIN EN 50155 (shock, vibration, temperature), FCC part 15B; CE
Image compression	MxPEG, M-JPEG, JPG, H.263 (Video-VoIP-Telephony)	**Power supply**	Power over Ethernet (IEEE 802.3af): PoE class variable depending on operating mode; power consumption; typ. 4.5 W; with PoE switch/MOBOTIX PoE - Adapter
Internal DVR	MicroSD slot (camera-internal video recording up to 32GB)		
External storage	Directly on NAS and PC/Server without additional recording software	**Operating conditions**	IP65 (DIN EN 60529), -30° to +60 °C (-22°F to +140°F)
		Dimensions	Ø x H: 16 x 5 cm, Weight: ca. 450 g
Software (inclusive)	Video management software MxEasy, Control room software MxControlCenter 2.1	**Standard delivery**	Housing (high-resistance composites - PBT-PC), white, shock proof polycarbonate dome (transparent), incl. 360° lens, mounting parts, allen wrench, patch cable S/FTP yellow 8-wire 50 cm (double-shielded), manual, software, 4 GB MicroSD
Image processing	Backlight compensation, automatic white balance, image distortion correction (panorama image correction included), video sensor (motion detection)		

Technical information subject to change without notice!

Q24 Hemispheric   Available Accessories for the Q24 Hemispheric

Standard Housing MX-Q24M-Sec	Vandalism Set MX-Q24M-Sec-Vandal-ESMA	In-Ceiling Set MX-OPT-IC	ExtIO Function Expansion MX-ExtIO
• Hemispheric 360° view • Suitable for wall or ceiling mounting • Robust and low maintenance with no moving parts	• Anti-vandalism stainless steel housing with lens protection • Polished, matt	• Installation set with mounting accessories • Simple installation from the front • 150 mm diameter • Also available with a stainless steel ring	• Microphone/Speaker • Infrared motion detector, temperature sensor • 2 signal inputs, 2 signal outputs, 2 illuminated keys

Quad view (ceiling-mounted)	Broadband image (wall-mounted)	3 simultaneous views

High-resolution 180° panorama

Hemispheric Camera Q24

Q24 **Basic**

Ø 160 mm

- **Hemispheric FixDome (IP54)**
- Optional: 22 mm lens (90° x 67°)
- For use indoors or in protected outdoor areas
- Complete room monitoring with only one camera
- PoE power supply according to IEEE 802.3af
- Max. image resolution up to VGA 640 x 480, 16 fps VGA (*MxPEG*)

Q24 **Sec**

Ø 160 mm

- **Outdoor Hemispheric FixDome (IP65)**
- Optional: 22 mm lens (90° x 67°)
- Integrated loudspeaker and microphone: Specifically suited as intercom system based on VoIP and SIP telephony
- Status LEDs on front
- PoE power supply according to IEEE 802.3af
- Sec: Max. resolution 2048 x 1536, 20 fps 3MEGA (MxPEG)

Q24 **Sec + Vandalism Set**

- **Vandalism Set for Q22/Q24 Sec Models**
- Composed of
  - stainless steel cover (polished or matt)
  - safety screws
  - lens protector (3 mm polycarbonate)
- Designed for use under extremely harsh conditions
- Temperatures ranging from -30°C to +60°C, IP65

Q24 **Sec + On-Wall Set**

Ø 160 x 37 mm

- **On-Wall Set for Q22/Q24 Sec Camera Models**
- Consists of on-wall mount and mounting supplies
- Conforms to U.S. installation standards
- Reliably protects the cabling and allows the placement of additional modules in the on-wall mount
- Temperatures ranging from -30°C to +60°C, IP65

Q24 **Sec + Outdoor Wall Mount**

- **Outdoor Wall Mount for Q22/Q24 Sec Camera Models**
- Consists of outdoor wall mount and mounting accessories
- Covers RJ45 wall outlets
- Space for expansion modules (battery, 3G, Wi-Fi, etc.)
- Easily mounted to poles using pole mount

Q24 **Sec + In-Ceiling Set**

- **In-Ceiling Set for Q22/Q24 Sec Camera Models**
- Discreet installation in ceiling
- Convenient mounting
- Extremely flat design

The World's Number 1 in Megapixels - Made in Germany

MOBOTIX AG, listed on the German stock exchange, is not just a powerful innovator in the field of network camera technology. Its distributed concept is making high-resolution video systems affordable for the first time ever.

MOBOTIX AG • 67722 Langmeil, Germany • Tel.: (+49-6302) 981-60 • Fax: (+49-6302) 981-6190 • info@mobotix.com

Hemispheric Camera Q24

Q24 Standard, diam. 160 mm

50 mm

**Q24 Standard, diam. 160 mm Q24
Vandalism, diam. 160 mm**

Q24M-360° in use: compact, mobile, easy installation, professional image post-processing

Compact Design

The Q24-360° is the perfect choice for monitoring interior rooms in a discreet manner, thanks to its compact design. Complete room monitoring with only one camera!

Mobile Monitoring

Busses or train cars can be monitored with only one camera. If an alarm is triggered, the camera will inform the driver or train conductor and the control center. Efficient and safe!

Simple Installation

The camera is delivered pre-assembled and is available for immediate use after installation.

Be sure to remove the outer housing ring after you take the camera out of its packaging and hold it in your hand.

Use the black mounting ring to attach the camera to a wall or ceiling.

After mounting the camera, screw the outer housing ring back onto the camera or mounting ring so that the camera is completely enclosed.

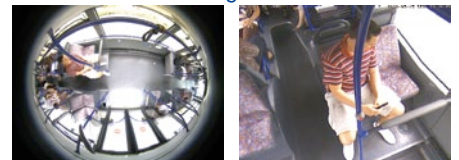### Professional Image Post-Processing

The surveillance images from the Q24 can be postprocessed either in real time or as recorded images. These tasks (distortion correction, PTZ) are performed by the camera's software or MxControlCenter (free).

Automatic rotation mode:

Virtual PTZ in saved image:

Download MxControlCenter for free at www.mobotix.com.

The World's Number 1 in Megapixels - Made in Germany

MOBOTIX AG, listed on the German stock exchange, is not just a powerful innovator in the field of network camera technology. Its distributed concept is making high-resolution video systems affordable for the first time ever.

MOBOTIX AG • 67722 Langmeil, Germany • Tel.: (+49-6302) 981-60 • Fax: (+49-6302) 981-6190 • info@mobotix.com