

# M22M-Outdoor Technical Specifications

## High-Performance Megapixel IP Camera



... the new face of IP video



### M22M-Outdoor: 1.3 Megapixel IP Camera System With Audio

The M22M-Outdoor represents the latest camera generation by MOBOTIX. It features an array of lenses and a computing power to display and record 30 VGA frames per second, yet it comes with an incredibly low price tag. The new wall mount provides concealed cabling and fully covers the standard RJ45 wall outlets. The M22M is fully weatherproof, comes with integrated microphone and speaker, supports bidirectional audio, records realtime sound and can send alarm messages to the recipient using its IP telephony features. To supply power, simply attach the camera to a standard PoE switch or use the cost-efficient MOBOTIX power supply to inject power into the network cabling. The M22M-Night variant of the camera has one B/W camera module with IR-sensitive lens.

Digital zoom, digital panning, video motion detection, event-controlled frame rates and freely selectable image sections reduce the storage requirements of the M22M to a minimum. The camera software features integrated alarm management including pre- and post-alarm images, FTP, e-mail, external ring buffer storage on Windows, Linux and Mac OS X computers as well as playback and MultiView functions for up to 30 cameras in the browser. Since the camera does not require additional heating, power can be injected into the network cabling, even under extreme conditions.

### Highlights

- Outdoor camera (IP65) with wall mount and concealed cabling
- Integrated microphone and speaker
- Bidirectional IP telephony
- Audio transmission to the browser
- Definable exposure zones
- Integrated video motion detection
- NightVision with up to 1 sec. exp. time
- Digital zoom and panning
- Video/audio recording and playback
- Software DVR for Windows/Linux/OS X
- Alarm management with pre- & post-alarm images
- 2 Mbps data rate (640x480, 30 F/s)

### Camera System 1.3 Megapixels

- Fully digital color CMOS image sensor with 1280x960 pixels and backlight correction
- Optional B/W CMOS image sensor with 1280x960 pixels and eight times higher sensitivity
- 22 mm standard lens: 5-element glass lens 1:2.0, 90° horiz.

### Automatic Exposure Without Iris

- Auto exposure times from 0.1 msec. to 1 sec.
- Configurable min./max. shutter speeds
- Freely definable exposure windows
- Purely software-based control with exposure windows, white balance, automatic contrast, sharpness filter and backlight correction
- MOBOTIX TrueColor software

### Image Formats and Frame Rates

- Color image 1280x960, 768x576, 640x480, 320x240, 160x120; high image quality thanks to optimized MOBOTIX software scaling
- Free image formats with zoom and panning (e.g. 1000x200 for skyline format)
- Image formats: JPEG, Motion JPEG, MxPEG, BMP
- MxPEG frame rate (CIF 320x240): 30 fps
- MxPEG frame rate (VGA 640x480): 30 fps
- MxPEG frame rate (Mega 1280x960): 10 fps

- Image size (320x240 JPEG): 6 to 20 KB
- Scheduled obscuring of image areas

### Image Storage Included

- Internal image storage (up to 600 Mega, 2,500 VGA, 4,000 CIF images or 6 min. video)
- Event and time-controlled image storage
- Adj. number of pre- and post-alarm images
- Browser playback with event search features

### Recording Included

- Integrated ring buffer recording by the camera on Windows or Linux file servers
- Event-controlled Snap Shot image recording with pre- and post-alarm images
- Event-controlled MxPEG recording (video and audio) with 2.4 Mbps at 640x480 pixels
- Event-controlled frame rate (0.2 to 30 F/s)

### Video Management Included

- Ring buffer with up to 1 million alarms on the PC/server (no software installation or FTP!!!)
- Adjustable ring buffer size and delete time
- Image management with time/date search
- Definable MultiView for up to 30 cameras
- Freely definable function buttons
- MxCC Windows client with Layout Editor

### Event/Alarm Control Included

- Freely definable time functions/repeats
- Signal input using Cam-IO box
- Temperature, illumination, microphone volume
- Motion detection in definable video motion fields
- TCP/IP messages on IP ports

### Alarm Signalling Included

- Signal output and sounds on camera speaker
- E-Mail and FTP via network
- TCP/IP messages on IP ports
- Phone call (list & PIN test), with voice message

### Audio SIP Telephony

- Integrated microphone and speaker
- IP telephony (SIP); mobile network via gateway
- Voice-over-IP to/from Windows PC
- Custom voice messages easily recorded
- DHCP-assigned IP address on speaker
- Touchtone remote control using phone keys
- Realtime audio recording (MxPEG)

### Software Everything Included

- No software installation required
- Live images and admin. using web browser
- Complete video management software and recording integrated in camera software
- 4 simultaneous browser operating modes: HTML/JavaScript with M-JPEG, streaming (Java), ActiveX (MxPEG), PDA-optimized pages
- PDA interface with HTML-only pages (Pocket PC compatible)
- Website image update via FTP
- Several cameras in one browser window
- Freely definable user groups and access rights

### Power Supply 3 Watts

- Power injection into network cabling using standard PoE equipment or Mx30V power supp.
- 3W consumption, no heating required
- Optional 6-12V power backup connection

### Mechanics Maintenance-Free

- Fiberglass-reinf. and shock-resistant PBT, white
- Integrated wall/ceiling mount with fully concealed cabling
- Weight (incl. wall mount): approx. 1.3 lb
- Dimensions: 135 x 200 x 130 mm (w x d x h)

### Characteristics

- Hardware resolution:  
1280x960 CMOS, one color, one B/W  
Free software format with zoom/pan
- Frame/data rates for MxPEG video streaming (50% JPEG):
 

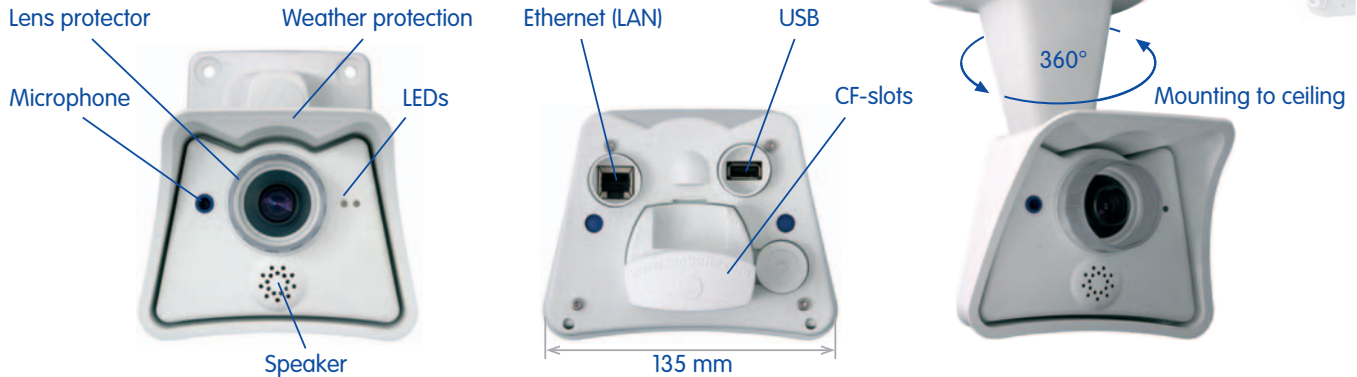
30 F/s	CIF (320x240)	1.2 Mbps
30 F/s	VGA (640x480)	2.4 Mbps
10 F/s	Mega (1280x960)	2.5 Mbps
- Color lens sensitivity (L22/2.0)  
1 Lux at 1/60 sec., 0.05 Lux at 1 sec.
- B/W lens sensitivity (L22/2.0)  
0.1 Lux at 1/60 sec., 0.005 Lux at 1 sec.
- Audio codec  
64 Kbps SIP (IP telephony)
- Temperature: -22°F ... +140°F, IP65

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### Outdoor wall mount with space for RJ45 wall outlet



#### Super Wide Angle 90°

#### L32 Wide Angle

#### L43 Wide Angle

#### L65 Tele

#### L135 Tele

MOBOTIX Lenses



90° hor. x 67° vert.  
in 10 yd: 20.0 x 13.3 yd



60° hor. x 45° vert.  
in 10 yd: 11.5 x 8.2 yd



45° hor. x 34° vert.  
in 10 yd: 8.2 x 6.1 yd



31° hor. x 23° vert.  
in 10 yd: 5.5 x 4.0 yd



15° hor. x 11° vert.  
in 10 yd: 2.6 x 1.9 yd

### M22 Standard Models (see price list for details)

- M22M-IT: Indoor/outdoor camera for mounting to ceiling or wall, VGA (640x480), L22 lens, ring buffer storage on PCs
- M22M-Sec: Indoor/outdoor camera for mounting to ceiling or wall, **MEGA** (1280x960), L22 lens, ring buffer storage on PCs
- M22M-Night: Indoor/outdoor camera for mounting to ceiling or wall, **MEGA** (1280x960), with **B/W** sensor and L22 lens
- M22M-Sec-CS: Indoor/outdoor camera for mounting to ceiling or wall, **MEGA** (1280x960), **V24-54 Vario CS**, ring buffer on PCs
- M22M-Night-CS: Indoor/outdoor camera for mounting to ceiling or wall, **MEGA** (1280x960), with **B/W** sensor, **V24-54 Vario CS**

### Standard Delivery Includes

- M22M Camera
  - Camera with color sensor and L22 lens
  - Lens protector (shock-resistant Polycarbonate)
  - Ethernet cable 20 inches
  - Allen wrench
- Outdoor wall mount
  - Wall mount made of 30% fiber-reinforced and shock-resistant PBT
  - Dowels (8 mm) and stainless steel screws