

# Mobile HDR Forward Facing Camera



The March Networks® **Mobile HDR Forward Facing Camera** delivers high-quality video in the most challenging lighting conditions, including near darkness and bright sunlight, for rugged bus and rail deployments. The camera's powerful combination of High Dynamic Range (HDR), plus 3 megapixel resolution (3MP), renders it the perfect solution for transit agencies requiring a ruggedized forward facing camera that captures exceptionally clear images and delivers flexible mounting options.



## CLEAR IMAGES IN ANY LIGHTING CONDITION

The Mobile HDR Forward Facing Camera allows you to discern details in extremely low-light situations, such as routes with tunnels or overpasses, or at night. The camera's HDR technology overcomes the severe backlight issues often present in windshield applications by merging together multiple images of the same scene to combine the most focused, well-lit, and colorful parts of that scene.

## VIDEO STREAMING

The camera's support for H.264 compression technology results in up to 20 times the efficiency of comparable JPEG-based IP cameras. This allows for archiving of higher-quality video for longer periods of time, while significantly reducing bandwidth and storage costs.

## ENVIRONMENTAL PROTECTION

The Forward Facing camera is safely concealed inside a vandal-resistant, IP67 aluminum housing with a transparent polycarbonate cover. Its steel mounting bracket with tamper-resistant screws and hidden cabling enables the camera to withstand the tough environmental conditions

found on bus and rail vehicles. In addition, the camera provides dust and humidity ingress protection and complies with industry standard EN50155 for shock and vibration in rugged vehicle applications. An anti-glare cone affixes to the end of the camera to minimize windshield glare and reflection.

## ECONOMICAL AND FLEXIBLE

Power over Ethernet (PoE) eliminates the need for additional cables for power, making the camera quick and easy to install. The combination ceiling/dash mount is available with three different extender brackets to meet a wide variety of mounting applications.

## ADVANCED, INTEGRATED SOLUTION

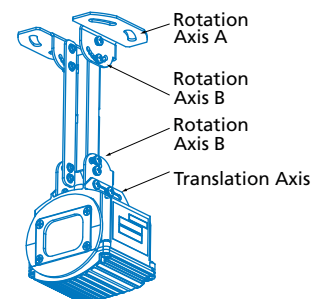
The Mobile HDR Forward Facing Camera is supported by March Networks' Mobile recorders and Mobile Software for comprehensive video monitoring, recording and playback. The camera settings can be configured and monitored remotely over a wireless network or LAN/WAN for added convenience and operational efficiency. A camera tampering alarm will alert maintenance staff in the event of obscured, spray painted or covered cameras.

## FEATURES

- HD 3MP video for high resolution color and clarity
- High Dynamic Range (HDR) blends the best parts of multiple exposures into a single image
- Progressive Scan CMOS sensor
- 4mm or 6mm fixed lens
- Shock and vibration hardened (SAE J1455 and EN50155)
- Dust and humidity protection (IP67)
- Vandal-resistant (IK10)
- Wide temperature ranges
- Power over Ethernet (PoE)
- Ceiling and dash mount
- Includes anti-glare cone and choice of three mounting bracket extensions
- Local recording with optional microSDXC card

## PART NUMBERS

- 32049 – Camera with 4mm lens
- 32111 – Camera with 6mm lens
- 32605 – Extender Brackets (2.4 in / 61.25 mm) in packs of 10
- 32606 – Extender Brackets (3.4 in / 86.62 mm) in packs of 10



HD images captured with the Mobile HDR Forward Facing Camera

# Mobile HDR Forward Facing Camera

## MODELS

32049	4mm lens
32111	6mm lens

## CAMERA

Image Sensor	1/2.8" CMOS 3MP
Dynamic Range	Multi-exposure High Dynamic Range
Lens	4mm or 6mm, F1.6 fixed lens
Angle of View	4mm: 76° horizontal; 6mm: 51° horizontal
Day/Night	Street light color mode
Minimum Illumination	Color: 0.12 Lux @ F1.6
Shutter Time	Up to 30ms

## VIDEO

Video Compression	H.264 (MPEG-4 Part 10/AVC)
Resolution	3MP 2048 x 1536 to 352 x 288
Optional Resolution Major Stream	2048 x 1536, 1920 x 1080, 1280 x 720, 720 x 576, 352 x 288
Minor Stream	720 x 576, 352 x 288, D1
Frame Rate	Up to 25 fps (50/60 Hz) in all resolutions
Video Streaming	Dual-stream H.264 (full resolution on stream 1; maximum D1 on stream 2) Controllable frame rate and bandwidth CBR/VBR Up to two simultaneous streams with any combination of resolution and frame rate
Image Settings	Brightness, sharpness, contrast, saturation, hue, exposure control, white balance control, digital zoom, dynamic range control, 3D noise reduction, mirroring of images

## March Networks GURU Smartphone App

Available as a free download from the App Store and Google Play, this industry-first smartphone app enables partners to initiate an RMA for the camera, check the camera's warranty status, and access training and diagnostic information (including installation manuals, set-up guides, etc.).

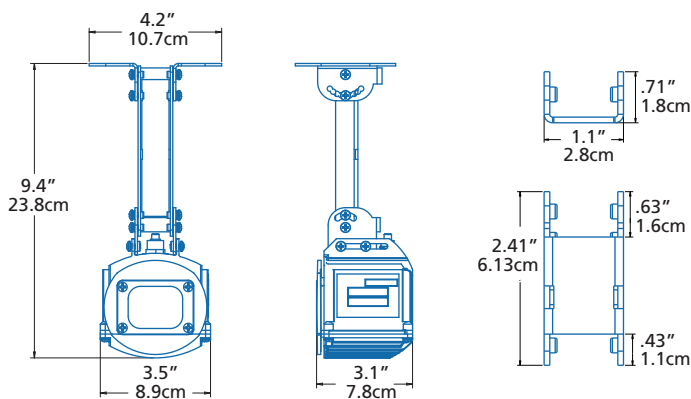


### Helping you save time and money

- ✓ Check warranty status
- ✓ Initiate an express RMA
- ✓ Get in-field diagnostics support

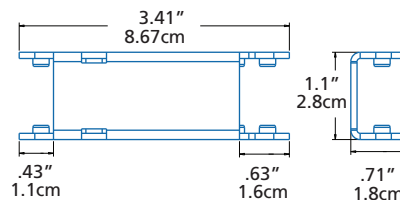
## GENERAL

Construction Camera	Polycarbonate transparent cover Black powder-coated aluminum housing IP67
Mounting Brackets	Black powder-coated steel
Power	Power over Ethernet IEEE 802.3af Class 3
Power Consumption	3.5 W (heaters off); 12 W (heaters on)
Connectors	T/100BASE-TX PoE 4mm lens camera (32049): RJ45 6mm lens camera (32111): M12 4-pin
Operating Conditions	-13° to 131°F / -25° to 55°C Humidity 8 – 90% RH, non-condensing
Regulatory Approvals	EN55022, FCC Part 15 Subpart B; ICES-003; EN50130-4; EN 50121-3-2; SAE J1113; RoHS Directive 2011/65/EU, IK10
Shock/Vibration	SAE J1455, EN50155 (IEC 61373)
Camera Weight (with Mount and Long Extender Bracket)	1.86 lbs (0.84 Kg)
Included Accessories	Anti-glare cone, mount, long extender bracket, Allen key, mounting screws
Optional Accessories	Medium extender brackets (3.4 in / 86.62 mm) and short extender brackets (2.4 in / 61.25 mm) – each in packages of 10



Camera shown with 9.4" extender bracket (ships with camera)

2.4" extender bracket (reduces over length from 9.4in/23.8cm to 6.4in/16.2cm)



3.4" extender bracket (reduces over length from 9.4in/23.8cm to 7.4in/18.7cm)