

## Mobile Cameras

**Mobile Cameras** from March Networks® cover every conceivable imaging requirement for video surveillance in bus and rail deployments. The combination of forward, side and dome cameras ensures full video coverage for internal and external vehicle views, and offers transit authorities exceptional video of passengers, pedestrians and vehicular traffic.

### IMAGE QUALITY

Our mobile cameras are designed to record high-quality video in the most challenging lighting conditions, including near darkness and bright sunlight. Models with True Day/Night (TDN) design and an optional IR illuminator enable video to be recorded in complete darkness. Models with Wide Dynamic Range (WDR) provide clear images of subjects even when they are backlit by bright sunlight from windows.

### INDUSTRIAL DESIGN

The mobile dome cameras feature vandal-proof aluminum housings with polycarbonate domes built to withstand the tough environmental conditions found on bus and rail vehicles, including exposure to dust and humidity. The MicroDome Camera is extremely compact and designed for flush or surface mount configurations, while the exterior Color Side Camera includes a tempered-glass window for protection from harsh environmental and physical conditions outside of the bus. The Color Forward View Camera's installation bracket with rubber cup allows the camera to be mounted

against a windshield in a manner that minimizes glare or reflection caused by the glass. All the mobile cameras are vandal resistant, offer ingress protection and comply with the industry standard J1455 for shock and vibration.

### ADVANCED, INTEGRATED SOLUTION

The cameras are supported by March Networks' Mobile DVRs and VideoSphere Mobile Software for comprehensive video monitoring, recording and playback. Their settings can be configured and monitored remotely over the wireless network or LAN/WAN. Health analytics software includes camera tampering alarms, which alert maintenance staff to obscured, covered or spray-painted cameras. Rapid visual checks of camera alignment and focus are provided through the auto-downloading of thumbnail images at specified intervals. A camera synchronization alarm is registered immediately upon disconnection of either the video or power cables. Conditioned 12 VDC camera power supplied by our Mobile DVRs ensures a reliable, uninterrupted power supply, as well as the ability to continue recording for a specified time following vehicle shutdown.

### FEATURES

- Wide Dynamic Range
- True Day/Night camera and IR Corrected lens
- Shock and vibration hardened
- Dust and humidity protection
- Wide temperature ranges
- Vandal-resistant housing
- Auto white balance
- Focal length options
- Superior image quality and color reproduction
- Low power consumption
- Microdome, dome, side and forward view designs
- Dome housings with multiple lens options



*March Networks' Mobile Cameras portfolio provides transportation authorities with complete bus coverage and exception video quality.*

# Mobile Cameras

## Technical Specifications



Model	MicroDome	WDR Dome
<b>Sensor type</b>	1/3" CMOS WDR, progressive scan	1/3" CMOS WDR, progressive scan
<b>Fixed tilt angle</b>	70° from center line	70° from center line
<b>Lens</b>	Manual iris; 2.9, 3.6, 4.3 or 6 mm	Manual iris; 2.9, 3.6, 4.3 or 6 mm
<b>Light sensitivity - color</b>	0.6 lux	0.6 lux
<b>Light sensitivity – True Day/Night mode (slow shutter mode)</b>	< 0.08 lux b/w	0.1 lux
<b>Wide dynamic range</b>	102 dB typ; 120 dB max	102 dB typ; 120 dB max
<b>Signal-to-noise ratio</b>	> 48 dB	> 50 dB
<b>White balance</b>	Auto tracking, manual, preset	Auto tracking, manual, preset
<b>Backlight compensation</b>	Yes	Yes
<b>AGC, auto iris</b>	Yes	Yes
<b>Video output</b>	NTSC/PAL selectable (1V p-p; 75 Ω)	NTSC/PAL selectable (1V p-p; 75 Ω)
<b>Video connector</b>	BNC	BNC
<b>Maximum resolution</b>	480 TVL (color); 520 TVL (b/w)	480 TVL (color); 520 TVL (b/w)
<b>Power supply</b>	12 VDC (10-16 VDC)	12 VDC (10-14 VDC)
<b>Power consumption</b>	< 1.5 W	2.0 W
<b>Power connector</b>	Molex 2-pin	Molex 2-pin
<b>Operating temperature</b>	14 to 131°F / -10 to 55°C	14 to 131°F / -10 to 55°C
<b>Relative humidity</b>	< 90% non-condensing	< 90% non-condensing
<b>Weight</b>	0.6 lbs / 0.255 kg 0.65 lbs / 0.26 kg	2.55 lbs / 1.1 kg (surface)
<b>Dimensions (HxD)</b>	1.7 x 3.15 in / 4.25 x 8 cm (flush mount) 2.34 x 3.15 in / 5.85 x 8 cm (surface mount)	3.72 x 5.5 in / 10 x 14 cm (surface mount)
<b>Mechanical</b>	Aluminum housing, polycarbonate dome	Aluminum housing, polycarbonate dome
<b>Mounting options</b>	Flush, surface with adaptor included	Surface mount
<b>Environment</b>	Interior	Interior
<b>Certifications</b>		
<b>Safety</b>	CE/UL	CE/UL
<b>EMC</b>	EN55022, 55024, 55025	EN55022, 55024, 55025
<b>Shock &amp; vibration</b>	J1455	J1455
<b>Ingress protection</b>	IP66	IP66
<b>Vandal resistance</b>	IEC 62262	IEC 62262



### Model

### Color Side View

### Color Forward View

<b>Sensor type</b>	1/3" CCD, progressive scan	1/3" CCD, progressive scan
<b>Fixed tilt angle</b>	30° from base plate	80 – 100° from post
<b>Lens</b>	Manual iris; 2.4 mm	Auto iris; 4 – 9 mm varifocal
<b>Light sensitivity</b>	0.3 lux	0.3 lux
<b>Signal-to-noise ratio</b>	> 50 dB	> 48 dB
<b>White balance</b>	Auto	N/A
<b>AGC, auto iris</b>	N/A	Level control adjustment
<b>Video output</b>	NTSC/PAL selectable (1V p-p; 75 Ω)	NTSC/PAL selectable (1V p-p; 75 Ω)
<b>Video connector</b>	BNC	BNC
<b>Maximum resolution NTSC/PAL</b>	525 TVL	570 TVL
<b>Power supply</b>	12 VDC	12 VDC
<b>Power consumption</b>	1.4 W (120 mA)	2.4 W (200 mA)
<b>Power connector</b>	Molex 2-pin	Molex 2-pin
<b>Operating temperature</b>	-22 to 176°F / -30 to 80°C	-4 to 158°F / -20 to 70°C
<b>Relative humidity</b>	10% – 95%	10% – 95%
<b>Weight</b>	1.1 lbs / 0.5 kg	2.0 lbs / 0.91 kg
<b>Dimensions (WxHxD)</b>	3.5 x 2.63 x 6 in / 9 x 7 x 15.3 cm	3.39 x 8.44 x 6.36 in / 8.6 x 21.5 x 16.2 cm
<b>Mechanical</b>	Aluminum housing	Aluminum housing
<b>Mounting options</b>	Surface mount	Ceiling mount
<b>Environment</b>	Exterior	Interior
<b>Certifications</b>		
<b>Safety</b>	CE/UL	CE/UL
<b>EMC</b>	EN52022, 55024, 55025	EN52022, 55024, 55025
<b>Shock and vibration</b>	J1455	J1455
<b>Ingress protection</b>	IP66; NEMA 4	IP66; NEMA 4
<b>Vandal resistance</b>	IEC 62262	IEC 62262

## Dome Infra-Red Illuminators

The IR illuminator enhances camera performance in low-light conditions and is typically deployed with our TDN cameras. Mounted inside an aluminum housing with a polycarbonate dome, these units are most often used to illuminate the front door camera view.

### Technical Specifications

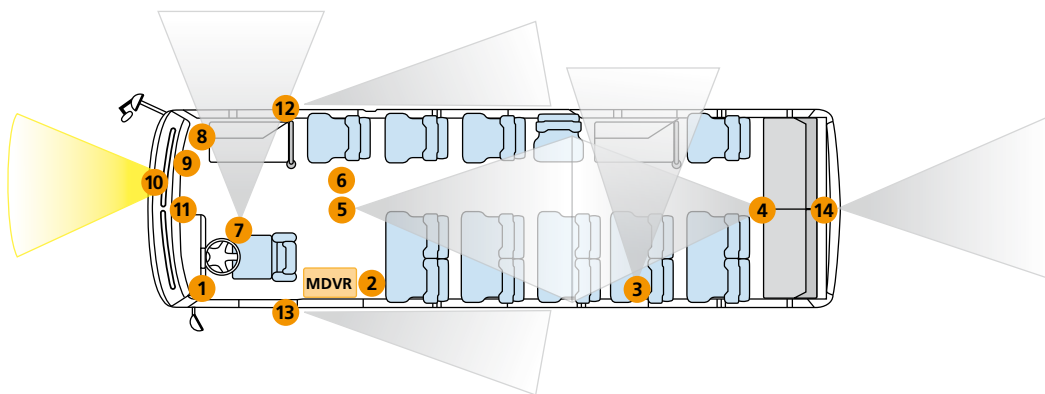
- Power: 1.8 W (120 mA)
- Range: 25 m
- Tilt angle: 70° from center
- Surface and flush mount units
- Weight: 1.2 lbs / 0.5 kg
- Dimensions (HxD): 5.5 x 3.7 in / 14.0 x 9.4 cm
- Wavelength: 850nm



## Typical Camera Deployment

A typical, eight-camera bus configuration, providing exterior forward and rear-facing coverage, and curbside and roadside views, as well as interior views of passengers and front and rear doors. The typical locations of vehicle peripherals<sup>1</sup> are also shown.

- |  |                    |
|--|--------------------|
| 1 Status LED and tag module                | 8 GPS antenna      |
| 2 System interface                         | 9 Wireless antenna |
| 3 Rear door camera                         | 10 Forward camera  |
| 4 Rear to front camera                     | 11 Microphone      |
| 5 Front to rear camera                     | 12 Curbside camera |
| 6 Video monitor and in-vehicle advertising | 13 Roadside camera |
| 7 Front door camera                        | 14 Rear camera     |



NOTE: <sup>1</sup> Refer to March Networks Mobile Peripheral Devices datasheet.

PN 060-3068-A4-A

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