Low Power, 5MP Outdoor Covert Cellular Smart μPTZ Pole Camera System

Provides the Freedom to use anywhere there’s cell service, without AC power. Small, very low power, ultra low bandwidth, high definition, outdoor covert cellular true-PTZ camera system for use at 25 to 150 yards, slashes battery and solar power needs.

Benefits

• Turnkey, set up covert outdoor high def digital video surveillance in minutes via cellular network and Internet for both live and recorded video
• Much smaller, less conspicuous, lower bandwidth, lower power, and more capable than an IP PTZ camera and cell modem in a covert housing
• Very low power dissipation for battery and solar, typ. only 4 W³ with active 4G cell connection; Super Power Saver mode reduces to 2.5 W
• 5 MP, ¼” CMOS color image sensor with back-side illumination for better low light performance
• IR-cut filter is automatically removed in low light
• Records video internally, avoiding distant network video recorder and constant network traffic, recording better video than could be sent to it, reducing cellular traffic by 250+ GB/month
• Unique concealed Forward Pivot™ micro-PTZ camera with four-point suspension is small and rugged yet provides remotely controlled mechanical pan and +/- tilt, and optical zoom, with small clear window that avoids light loss in low light
• 12-33 mm optical zoom at 1920x1080, +/-22.5° mechanical pan and tilt, with focal lengths for long range use (license plate at 150 yards⁵)
• Dual-stream optimization: monitoring stream is live and internally recorded 24/7 at 960 x 540 @ 10 fps, PLUS sharper, evidentiary stream: 1920 x 1080 @ 10 fps is also internally recorded 24/7
• Rapid access video file system greatly reduces time to view and download video segments
• 250 GB (3 wk⁴) internal video storage, opt. up to 2 TB for approx 26 weeks⁶ of continuous storage
• View natively in Chrome browser⁶ on most devices, view live natively on most mobile devices
• Patented Rapid Review™ (opt) for reviewing hour’s recorded video over the air in 30 seconds
• Patented Stranger Detector™ locating system detects patterns of presence of persons whose identities are unknown, using WiFi signals broadcast by mobile devices or WiFi tags, within 50 yd (longer with opt. dir. antenna)
• 12 VDC nominal, wide range input (11.5 to 15V) with low voltage shut down
• “Smart” battery monitoring with estimated run time remaining
• Internal battery-free shutdown UPS bridges brief power failures and provides clean shutdowns
• 14+ days 24/7 run time on ext., 12V 120AH LiFePO4 lithium battery (not incl.), longer with Super Power Saver mode (modem on schedule) active
• Timestamps on 1920x1080 video as soft subtitles
• Industrial grade 4G cell modem¹,² (svc. not incl.)
• Totally sealed avoids ingress of dust & moisture
• Uses Cloud-based Portal for software updates and VPN host for Cyber security and mobile use
• Very easy to use, one-page quick-start guide
• Custom built and fully configured, ready to use

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Low Power, 5MP Outdoor Covert Cellular Smart µPTZ Pole Camera System

Small, inconspicuous, low power, ultra low bandwidth, high definition, custom-preconfigured, outdoor covert cellular system is plug-and-play and intended for use at 50 to 150 yards.

Vehicle license plate can be read at a distance of approx. 150 yards in daylight at max. zoom.

Vehicles approx. 200 yards from camera at night at maximum optical zoom.
Optional **Rapid Review™** / **Integrated Time-lapse** enables reviewing an hour’s or day’s recorded video in 30 seconds over the air.

**Status:** Playing delayed live video  
**Date:** 5/27/16, 09:44:51  
**Data rate:** low  
**View/Refresh live video | Copy time to time selector**

**Year:** 2016  
**Month:** May  
**Day:** 27  
**H(24):** 09  
**M:** 44  
**S:** 15  
**View recorded video | Data rate:** low  
**Speed:** 1x  
**Type:** Normal  
**Download files | Duration:** 1 minute  
**Data rate:** low  
**Type:** Normal


Initial view from page, showing delayed live video.

**Status:** Playing recorded video  
**Date:** 5/27/16, 06:44:17  
**Data rate:** low  
**View/Refresh live video | Copy time to time selector**

**Year:** 2016  
**Month:** May  
**Day:** 27  
**H(24):** 06  
**M:** 44  
**S:** 15  
**View recorded video | Data rate:** low  
**Speed:** 1x  
**Type:** Normal  
**Download files | Duration:** 1 minute  
**Data rate:** low  
**Type:** Normal


View from page showing Normal recorded video being viewed over the air.

**View from page showing optional, time-lapse recorded video,** being viewed over the air, speeding up the reviewing of recorded video **120X** when you don’t know when something happened. Click over to Normal recorded video for more details once you know when something occurred.
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Stranger Detector™ Sortable Table User Interface

Many sorting functions
Choose one or more hours (previous menu selects starting time)
Color-coded groups of MAC addresses help spot patterns of presence

<table>
<thead>
<tr>
<th>Select</th>
<th>Group Select</th>
<th>Found</th>
<th>Date/Time</th>
<th>Vendor</th>
<th>MAC Address</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jan 23 2015 07:42:00:940</td>
<td>Sercomm</td>
<td>00:0e:82:3a:90:e1</td>
<td>-91</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jan 23 2015 07:47:44:065</td>
<td></td>
<td>ea:36:7a:06:a1:0c</td>
<td>-85</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jan 23 2015 07:50:28:436</td>
<td></td>
<td>a6:0c:04:19:3a:e9</td>
<td>-71</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jan 23 2015 07:54:38:421</td>
<td></td>
<td>a6:0c:04:19:3a:e9</td>
<td>-79</td>
</tr>
</tbody>
</table>
To: M-1.alerts@BoundlessSecurity.com
Subject: M-1 10:40:f3:56:a5:00 on Watch List detected

Smartphone on Watch List with WiFi Signature 10:40:f3:56:a5:00 Detected

Click any view link for live video. To view recorded video: (1) click the view link for the desired probe and wait for live video, (2) click REC and wait for recent recorded video, and then (3) click SET_TS to see recorded video starting 15 seconds before the probe was received.

The less negative the signal strength, the stronger the signal and the closer the smartphone or other WiFi-enabled mobile device was to the camera. Signals are received in all directions, not just where the camera views.

Probe received at Sep 6 2012 08:19:55 with signal strength -85 dBm view
Probe received at Sep 6 2012 08:19:55 with signal strength -84 dBm view
Probe received at Sep 20 2012 16:39:08 with signal strength -87 dBm view
Probe received at Sep 20 2012 16:39:14 with signal strength -86 dBm view
Probe received at Sep 21 2012 17:01:44 with signal strength -87 dBm view
Probe received at Sep 27 2012 16:23:28 with signal strength -78 dBm view
Probe received at Sep 28 2012 14:10:44 with signal strength -84 dBm view

Notes:
1. Able to use more-secure, mobile-originated, 4G LTE cellular data network for chosen cell carrier. Tunnels through cellular network used by smartphones to REQUIRED Boundless’ Cloud-based Portal, from which users access the covert system.
2. Cellular networks are not intended for continuous viewing. Live and recorded video should be viewed only as needed.
3. Power dissipation and run time on a battery charge depend on many factors. Figures are not guaranteed.
4. Storage duration depends on many factors and is not guaranteed.
5. Distance for reading a license plate from the best quality, recorded video at maximum zoom is typical but not guaranteed.
6. Chrome is the recommended browser for all kinds of viewing devices. FireFox may also be used on a PC.