



# AV8360 Network Camera

## Architect & Engineer Specification- v1.2

[WWW.MegapixelVideo.com](http://WWW.MegapixelVideo.com)

### **1.0 Description**

The AV8360 is a state-of-the-art 8 Megapixel resolution IP addressable camera, designed to deliver High Definition (HD) digital video with on-camera multi-zone motion detection across local area networks. The camera uses four separate 2 Megapixel CMOS sensors, each capturing images at a maximum of 90 degree angle, resulting in a 360 degree field of view image. The AV8360 camera is capable of delivering a rate of over 45 million pixels per second (45 Mpixels/sec). The AV8360 is an industrial grade camera delivering HDTV at progressive scan video and it is fully compliant with IEEE 802.3a.f., Power-Over-Ethernet (PoE). The camera is built with Arecont Vision's proprietary massively-parallel Mega Video® technology. AV8360 has the ability to output images of varying size and resolution, allowing simultaneous viewing of several areas of interest and full field of view image.

### **2.0 Bid Specification**

The camera shall utilize four high sensitivity 2MegaPixel CMOS sensors with 1/2" optical format. The camera shall use a four 3mm F2.0 fixed 1200x1200 90x90 degree per lens. Our other lens suggestions are as follows:

- 4.0mm F2.0 manual 90x74 degree per lens

The camera shall output at a maximum resolution of 1600(H) x 1200(V) pixels per each of the four sensors, at a frame rate of 22 frames per second (FPS), and approximately 5 ½ frames per second per sensor. It shall be possible to program the camera to output a variety of lower resolution images. Example 800(H) x 600(V) pixels at 88 FPS, per each of four sensors. The camera is equipped with LAN connector and can deliver image data at a maximum data rate of up to 55 Mega bits per second (55 Mbps). Images shall be sent over the network in a compressed Motion JPEG format using either TFTP or HTTP protocols. The camera shall provide 21 levels of compression quality for optimal archiving. The camera supports (as a minimum) Ping, ARP, TFTP and HTTP network protocols. Using a 100 Mbps network switch or router is recommended. Simple hubs do not provide collision management and are not suitable for multi-camera AV system. We can provide a list of suggested switches and routers. The camera features automatic exposure, automatic multi-matrix white balance, shutter speed control, 50/60Hz flicker compensation, programmable brightness, saturation, gamma, sharpness, windowing and decimation, simultaneous delivery of full-field view and zoomed images at video frame rate, instantaneous electronic zoom, pan and tilt, and electronic image rotation by 180 degrees.

The camera shall incorporate necessary algorithms and circuits to allow 22 frames per second (22 FPS) video capture in illumination as low as 0.5 Lux. This feature shall allow the camera to capture motion at low lights with clarity.

AV8360 camera shall be powered from 9V to 12V DC power source providing at least 6.5W per camera.

Alternatively, the camera can be powered over Ethernet with IEEE 802.3af complaint power supply. A UL-approved isolated supply is required for use in the US. In the European Community the power supply must meet the requirements of the Low Voltage Directive and be CE marked. The power can be supplied as follows:

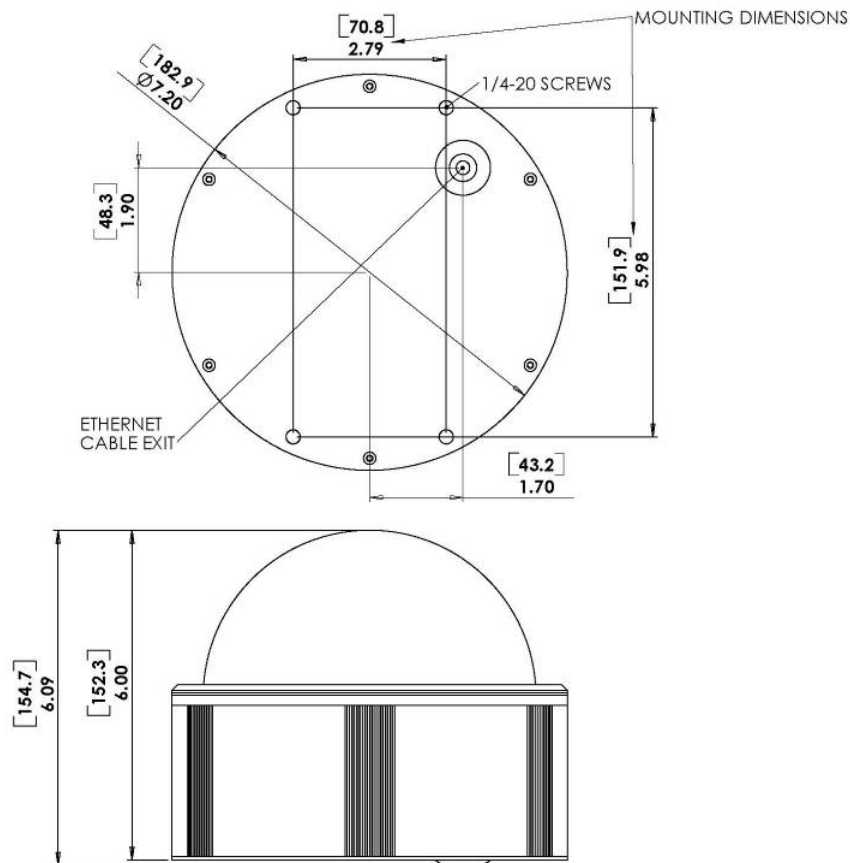
- Via DC jack, 9V-12V. A UL-certified, isolated power supply must be used. The center contact in the power connector is positive
- Via LAN connector using IEEE 802.3af PoE over spare wires or over data pairs. The polarity is arbitrary. A list of recommended PoE switches can be provided.

This camera shall feature a durable aluminum housing that minimizes fire hazards. The housing is not hermetically sealed. The camera is not to be used outdoors without appropriate protective enclosures.

The mounting means should be adequate for mounting a 5 lb camera plus the weight of the lens. The camera shall be installed according to the applicable code. For the network, Category 5 cabling or better is recommended. All network cabling must be installed according to applicable codes and regulations by a licensed network cabling professional.

The camera is intended for indoor use only. If used outdoors the installation requires an appropriate enclosure to protect the camera. Operating ambient temperature is 0°C to 50°C. The camera has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

The camera's dimensions are: 7.2" in diameter by 6.1" in height, weighing 5lbs without lens.



## 2.1 Related Documentation

1. AV Developer's Guide
2. AV Software Developer Kit Manual
3. AV1300, AV 2100, AV3100, AV5100 and AV3130 Network Camera Specification
4. AV Video Software Reference Manual
5. AV Video Software Installation Guide

### 3.0 Minimum Performance Specification

<b>Specification for AV2100 IP Camera</b>	
<b>Imaging</b>	4X2 Megapixel CMOS Image Sensor
	1600(H) x 1200(V) pixel array, per sensor
	1/2" optical format
	4.2 $\mu$ m pixel pitch
	Bayer mosaic RGB filter
	Sensitivity: 0.5 lux @ F1.4
	Dynamic Range: 60 dB
<b>Data Transmission</b>	Maximum SNR: 45 dB
	Data Rate up to 55Mbps
	Video Frame Rate up to 22 fps @ 1600 x1200
	Motion JPEG or JPEG with 21 levels of quality
	TFTP and HTTP Transmission Protocols
	100Base - TX Ethernet Network Interface
<b>Programmability</b>	Auto Exposure (AE) and Gain Control (AGC) >120dB
	Auto Backlight Compensation
	Auto Multi-Matrix White Balance
	50/60Hz selectable Flicker Control
	Electronic Zoom, Pan & Tilt (PTZ)
	Electronic Image Rotation – up-side down image turn (mirror)
	Resolution windowing down to 32x32 pixels window
	Programmable Motion Blurring Control for Low-Light Mode
	Programmable Resolution, Brightness, Saturation, Gamma, Sharpness, Tint
	Picture-in-Picture: Simultaneous delivery of full field of view and zoomed images and on board motion detection with 64 detection zones
<b>Electrical</b>	Power over Ethernet (POE) or DC Input
	Compatible with IEEE 802.3af POE equipment
	9V - 12VDC (2.1mm x 5.5mm, center positive)
	Power Consumption: 6.5 Watts maximum
<b>Regulatory Approvals</b>	FCC Part 15, Class B
	CE compliant
<b>Mechanical</b>	7.2"Diameter x 6.1"H x 5"D (includes dome)
	1lb or 450 grams (w/o lens)
	C/CS Lens Mount
<b>Environmental</b>	Operating Temperature 0°C to +50°C
	Storage Temperature -20°C to +60°C
	Humidity 0% to 90% (non condensing)