Arecont Vision

AV1355 **(1.3 Megapixel Color Camera with Integrated 4.5-10mm Lens)**
AV1355DN **(1.3 Megapixel Day/Night Camera with Integrated 4.5-10mm Lens)**
AV1355-16 **(1.3 Megapixel Color Camera with Integrated 8-16mm Lens)**
AV1355DN-16 **(1.3 Megapixel Day/Night Camera with Integrated 8-16mm Lens)**

Architect & Engineering Specifications

Version 083010

Arecont Vision
425 East Colorado Street
7th Floor
Glendale, CA 91205

1.818.937.0700
http://www.arecontvision.com/

PART 1 - NOT USED

PART 2 - PRODUCTS

2.01 Megapixel camera

A. Functional Description

1. The AV1355 MegaDome™ series network camera is part of Arecont Vision's full line of H.264 megapixel cameras. This fully compliant implementation of H.264 (MPEG 4, Part 10) provides full 1280 x 1024 megapixel resolution at full video frame rates of 32fps. The MegaDome™ camera line provides an all-in-one solution with integrated megapixel camera, varifocal lens, and vandal resistant dome enclosure. Using MegaVideo® technology, these cameras offer bandwidth and storage efficiency of up to 10X on average over traditional megapixel counterparts.

   The AV1355 is a high sensitivity, PoE (IEEE 802.3af) compliant camera with color and Day/Night configurations. Built with Arecont Vision's proprietary massively-parallel MegaVideo® technology, the AV1355 has the ability to output multiple image formats allowing the simultaneous viewing of the full resolution field of view and regions of interest for high definition forensic zooming. This camera offers over four times the resolution of standard resolution IP cameras with the ability to output full real time frame rates.

B. Detailed Specifications

1. The camera shall be 1.3 megapixels utilizing a 1/2" CMOS sensor

2. The camera shall have and integrated 4.5-10mm megapixel IR corrected varifocal lens with 1/2" optical format, F1.8. (AV1355 and AV1355DN only)

3. The camera shall have and integrated 8-16mm megapixel IR corrected varifocal lens with 1/2" optical format, F1.8. (AV1355-16 and AV1355DN-16 only)

4. The camera shall have a dome enclosure complying with IP66 weatherproofing standards

5. The camera dome chassis shall be vandal resistant constructed of aluminum with a 4" polycarbonate dome bubble

6. The camera shall have a 3-axis gimbal with 360˚ pan 90˚ tilt and 180˚ Z-rotation for easy and accurate positioning

7. The camera shall be surface mount with optional pendant mount or wall mount

8. The camera shall be H.264 (MPEG4, Part 10) compliant

9. The camera shall have dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats

10. The camera shall have multi-streaming support of up to 8 non-identical concurrent streams (different frame rate, bit rate, resolution, quality and compression format)

11. The camera's bit rate control shall be selectable from 100 Kbps to 10 Mbps for each independent stream

12. The camera shall have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as Windows Media Player, Apple QuickTime, VLC Player and others

13. The cameras H.264 implementation shall maintain full real time video frame rates

14. The camera shall output at a maximum resolution of 1280(H) x 1024(V) pixels at a maximum frame rate of 32 frames per second (FPS)

15. It shall be possible to program the camera to output a variety of lower resolution images. i.e. 1280(H) x 720(V) pixels

16. The camera shall feature streaming of the full field of view (FOV) and simultaneous multiple regions of interest (ROI) for forensic zooming

17. The camera shall be equipped with a 100 Mbps LAN connector and can deliver image data at an unthrottled maximum data rate of up to 55 Megabits per second (55 Mbps)

18. The camera shall provide 21 levels of compression quality for optimal viewing and archiving

19. The camera shall support a minimum TFTP, HTTP, RTSP, RTP over TCP and RTP over UDP network protocols

20. The cameras shall feature precision motion detection with a minimum of 64 detection zones

21. The camera shall feature automatic exposure, automatic multi-matrix white balance, shutter speed control, 50/60Hz selectable flicker control, 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

22. The camera shall incorporate necessary algorithms and circuits to detect motion in low light with clarity
23. The camera shall support a minimum illumination of 0.1 Lux @ F1.4 in color mode
24. The camera shall support an IR sensitive minimum illumination of 0 Lux in B/W mode (DN version only)
25. The camera's primary power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard
26. The camera shall have the alternative option to be powered from between a 12V DC up to 48V DC or 24V AC power source providing at least 5W of power.
27. The camera's operating ambient temperature shall be -30˚C (-22°F) to 50ºC (122ºF) for warm start conditions
28. The camera shall be FCC Part 15, Class A, CE and RoHS compliant
29. The camera shall have total unit dimensions of Ø5.5 x 4.9 H (in), Bubble only: Ø4.0 x 2.4 H (in)
30. The camera shall have a total unit weight of: 2.0 lbs (0.91 kg)

C. Technical Description

1. The Megapixel Camera shall meet the following minimum requirements:

Operational

Imaging	1.3 megapixel CMOS image sensor
	1280(H) x 1024(V) pixel array
	1/2” optical format
	Bayer mosaic RGB filter
Minimum illumination of	Color: 0.1 Lux @ F1.4
	Day/Night: 0 Lux, IR sensitive
Dynamic range	61 dB
Maximum SNR	50 dB

Full Field of View (FOV) Resolutions

1280(H)x1024(V) 1.3 megapixel
640(H)x512(V) 1/4 resolution

Cropped Field of View Resolutions

1280x720 HDTV-720p
1024x768 XGA
800x600 SVGA
704x570 PAL
704x480 NTSC
640x480 VGA
352x288 CIF
320x240 SIF

Data Transmission

Video frame rate up to	32fps @ 1280x1024
Compression type	H.264 (MPEG4, Part 10)
	Motion JPEG

21 levels of quality

TFTP, HTTP, RTSP, RTP over TCP, RTP over UDP image transmission protocols

100Base-T Ethernet Network Interface

Data rate bit rate control from 100 Kbps to 10 Mbps

unthrottled data rate up to 55 Mbps

Multi-streaming: 8 non-identical streams

Programmability

Auto Exposure (AE) and Gain Control (AGC) >120dB

On-camera real-time motion detection with 64 detection zones

Auto backlight compensation

Auto multi-matrix white balance

50/60Hz selectable flicker control

Electronic pan, tilt, zoom (PTZ)

Electronic image flip - 180 degree rotation

Resolution windowing down to 32x32 pixels window

Programmable shutter speed to help control motion blur

MoonLight™ mode - extended exposure for enhanced low light performance

Proprietary noise cancellation

Programmable resolution, brightness, saturation, gamma, sharpness, tint

Picture-in-Picture: simultaneous delivery of full field of view and zoomed images

Bandwidth & storage savings by running at 1/4 resolution

Electrical

General purpose opto-coupled input and output

Power over Ethernet (PoE): PoE 802.3af

DC input: auxiliary 12 V – 48 V DC

AC input: auxiliary 24 V AC

Power consumption 5 Watts maximum

Regulatory Approvals

FCC, Class A

CE and RoHS compliant

Environmental

IP66 weatherproofing standard

Operating temperature Warm Start: -30˚C (-22 °F) to +50˚C (122 °F)
Cold Start: 0˚C (32 °F) to +50˚C (122 °F)

Storage temperature -20˚C (-4 °F) to +60˚C (140 °F)

Humidity 0% to 90% (non condensing)

Mechanical

3-axis camera gimbal with 360˚ pan 90˚ tilt and 180˚ Z-rotation

Die-cast aluminum chassis with 4” polycarbonate dome bubble

Total unit dimensions: Ø5.5 x 4.9 H (in), Bubble only: Ø4.0 x 2.4 H (in)

Total unit dimensions: Ø140.3 x 124.6 H (mm), Bubble only: Ø102 x 61.8 H (mm)

2.0 lbs (0.91 kg)

Lens

Integrated 4.5-10mm megapixel IR corrected varifocal lens with 1/2" optical format, F1.8. (AV1355 and AV1355DN only)

Integrated 8-16mm megapixel IR corrected varifocal lens with 1/2" optical format, F1.8. (AV1355-16 and AV1355DN-16 only)

MegaDome™ Accessories

MD-WMT: Wall Mount

MD-PMT: Pendant Mount

MD-PMA: Pole Mount

MD-CRMA: Corner Mount

MD-FMA: Flush Mount

MD-EBA: Electrical Box Adapto

Related Documentation

a. AV User Manual

b. AV Software Developer Kit Manual

c. AV1355, AV2155, AV3155, AV5155 Network Camera Specification

D. Model Numbers

1. The camera shall be Arecont Vision model AV1355, 1.3 megapixel color camera integrated 4.5-10mm IR corrected varifocal lens
2. • The camera shall be Arecont Vision model AV1355DN, 1.3 megapixel Day/Night camera integrated 4.5-10mm IR corrected varifocal lens
3. • The camera shall be Arecont Vision model AV1355-16, 1.3 megapixel color camera integrated 8-16mm IR corrected varifocal lens
4. • The camera shall be Arecont Vision model AV1355DN-16, 1.3 megapixel Day/Night camera integrated 8-16mm IR corrected varifocal lens

E. Warranty

1. Minimum 1 Year parts and labor

Arecont Vision reserves the right to change products or specifications without notice.