Arecont Vision

AV5110 (5 Megapixel Color Camera)
AV5110DN (5 Megapixel Day/Night Camera)

Architect & Engineering Specifications

Version 062110

Arecont Vision

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 AV5110 Compact series camera is an MJPEG encoding, 5.0
               Megapixel resolution, IP addressable camera, designed to deliver full
               motion high definition progressive scan digital video across local area
               networks in a compact package. The AV5110 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 AV5110 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 sixteen 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 utilize a high sensitivity 5 Megapixel CMOS sensor with
               1/2.5" optical format.

          2.   The camera shall support MJPEG format.

          3.   The camera shall output at a maximum resolution of 2592(H) x 1944(V)
               pixels at a maximum frame rate of 9 frames per second (FPS).

          4.   It shall be possible to program the camera to output a variety of lower
               resolution images, i.e. 1280(H) x 1024(V) pixels at 32 FPS, or 1600(H) x
               1200(V) pixels at 24 FPS.

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

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

          7.   The camera shall use a wide variety of C/CS mount 1/2" lenses. (Note that
               some CS lenses and all C-mount lenses may require an adaptor ring.
               Megapixel quality lenses are the preferred choice for our entire camera
               line.).

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

9. The camera shall support a minimum TFTP and HTTP network protocols.

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

11. 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.

12. The camera shall incorporate necessary algorithms and circuits to detect motion in low light with clarity.

13. The camera shall support a minimum illumination of 0.3 Lux @ F1.4 in color mode.

14. The camera shall support an IR sensitive minimum illumination of 0 Lux in B/W mode (DN version only).

15. The camera's primary power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard.

16. This camera shall feature a durable aluminum housing that minimizes fire hazards. Camera should be mounted using a 1/4" x 20 threaded hole at the bottom of the housing.

17. The camera shall be utilized for indoor use but can be used in outdoor applications with an appropriate enclosure.

18. The camera's operating ambient temperature is 0ºC (32ºF) to 50ºC (122ºF).

19. The camera shall be FCC Part 15, Class B, CE and RoHS compliant

20. The camera shall have dimensions of: 3" (76mm) W x 2.5" (63.5mm) H x 1.25" (31.7mm) D weighing 5.8oz (164g) without lens.

C.   Technical Description

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

Operational

Imaging	5 megapixel CMOS image sensor
	1/2.5" optical format
	Bayer mosaic RGB filter
Active Pixel Count	2592(H) x 1944(V) pixel array
Minimum illumination	Color: 0.3 Lux @ F1.4
	Day/Night: 0 Lux, IR sensitive
Dynamic range	70.1 dB
Maximum SNR	44.1 dB

Full Field of View (FOV) Resolutions

2592x1944 (HxW) 5 megapixel

1296x968 (HxW) 1/4 resolution

Cropped Field of View Resolutions

2048x1536 3 MP

1920x1200 WUXGA

1920x1080 HDTV-1080p

1600x1200 2 MP

1280x1024 1.3 MP

1280x720 HDTV - 720p

1024x768 XGA

800x600 SVGA

704x570 PAL

704x480 NTSC

640x480 VGA

352x288 CIF

320x240 SIF

Data Transmission

Data rate up to   55Mbps

Video frame rate up to   9fps @ 2592x1944

                                             12fps @ 2560x1600

                                             15fps @ 2048x1536

                                             20fps @ 1920x1200

                                             22fps @ 1920x1080

                                             24fps @ 1600x1200

                                             32fps @ 1280x1024

Motion JPEG with 21 levels of quality

TFTP and HTTP image transmission protocols

100 Base-T Ethernet Network Interface

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 speeds to minimize motion blur

MoonLight™ mode - extended exposure and 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

Power consumption 3 Watts maximum

Mechanical

Dimensions(H x W x D)	3"W (76 mm) x 2.5"H (63.5 mm) x 1.25"D (31.7mm) (w/o lens)
Weight	5.8 oz (164 grams) (w/o lens)
Lens	C/CS lens mount

Environmental

Operating temperature 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)

Regulatory

FCC, Class B

CE and RoHS compliant

Related Documentation

a. AV User Manual

b. AV Software Developer Kit Manual

c. AV1310, AV2110, AV3110, AV5110 Network Camera Specification

D. Model Numbers

1. The camera shall be Arecont Vision model AV5110, five megapixel color camera

2. The camera shall be Arecont Vision model AV5110DN, five megapixel day/night camera

E. Warranty

1. Minimum 1 Year parts and labor

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