

**AV3556DN-F** 3MP MICRODOME® G2, WDR, TRUE DAY/NIGHT, 2048X1536, 21 FPS, MJPEG/H.264, REMOTE FOCUS, 2.8MM LENS, IN-CEILING FLUSH MOUNT, INDOOR, IK-10, MICROPHONE, POE, 3 AXIS GIMBAL

This A&E specification is written according to Construction Specifications Institute (CSI) 3-Part Format, based on MasterFormat™ (2009 Edition) and The Project Resource Manual – CSI Manual of Practice. [www.csinet.org/masterformat](http://www.csinet.org/masterformat).  
Manufacturer is responsible for the accuracy of the technical data included in this specification.

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**Division 28 – Electric Safety and Security**  
**Section 28.23.29 – Video Surveillance – Remote Devices and Sensors**

**Part 1 General**

**1.1 General Requirements**

The camera shall be of manufacturer's official product line, designed for continuous commercial or industrial use. The camera shall be based on standard parts and components and utilize proven technology using open and published protocols.

All camera installation, configuration, setup, programming and all related work shall be performed by electronic technicians thoroughly trained in the installation and service of the equipment provided and in complete compliance with all local codes and regulations.

All equipment provided shall be backed by a three-year manufacturer warranty.

**1.2 Certifications and Standards**

- a) European Community Directives:
  - 2004/108/EC (EMC Directive);
  - 2006/95/EC (Low Voltage Directive);
  - 2011/65/EU (RoHS Directive)
  - 1907/2006/EC (REACH Directive)
  - 2002/96/EC (WEEE Directive)
- b) European EMC Standards to which conformity is declared:
  - EN 55022:2010 Class A
  - EN 55024:2010
  - EN 61000-3-2:2006+A1:2009+A2:2009
  - EN61000-3-3: 2008
  - EN60950-1:2006+A11:2009+A1:2010+A12:2011



- c) FCC Standard Compliance:
  - Title 47, Part 15 (47 CFR 15) Subpart B Class A
- d) Video Compression Technology
  - H.264 MPEG-4, Part 10 ISO/IEC 14496-10 AVC
- e) Networking Standard:
  - IEEE 802.3af-2003 PoE Standard, Class 3
  - IPv4, IPv6

- f) Interoperability Standard  
ONVIF Profile S and PSIA compliant
- g) Country of Origin  
FTC "Made in USA" standard compliant
- l) UL Listing
  - a) CB Test Report (IEC 60950-1 (ed. 2) and IEC 60950-22 (ed.2))



## Part 2 Products

### 2.1 Manufacturer

**Arecont Vision, LLC**  
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### 2.2 General

The AV3556DN-F MicroDome® G2 3-megapixel WDR network camera is part of Arecont Vision's full line of H.264 MicroDome® G2 cameras. This fully-compliant implementation of H.264 (MPEG-4, Part 10) provides full 2048 x 1536 megapixel resolution at full video frame rates of 21 frames per second (fps). The AV3556DN-F camera provides an all-in-one indoor flush, in-ceiling mount solution with an integrated 3-megapixel WDR camera, remote focus module and a 2.8mm IR corrected lens. With the features of PSIA and ONVIF conformance, unlimited privacy masking, extended motion detection and flexible cropping, the AV3556DN-F is a high sensitive, PoE (IEEE 802.3af) compliant camera with a true day/night IR cut filter. Built with Arecont Vision® massively-parallel MegaVideo® processing technology, this camera offers more than 4-times the resolution of standard resolution IP cameras with the ability to output full real-time frame rates and deliver high-quality megapixel imaging.

### 2.3 Hardware

- The camera shall utilize a high sensitivity 3-megapixel CMOS sensor with 1/3.2" optical format, 2.2um x 2.2um pixel size, progressive scan and active Pixel Count: 2048(H) x 1536(V) pixel array
- The camera shall have an integrated 2.8mm M12 mount, megapixel, IR corrected, fixed focal lens with 1/2.5" optical format, F/2.0 and horizontal field-of-view of 89°.
- The camera's power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard and provide at least 5.59W of power.
- The camera shall have an integrated Remote Focus module.
- The camera shall be utilized for indoor use only.
- The camera shall have a 3-axis easily adjustable gimbal with 359° pan and 90° tilt for easy and accurate positioning.
- The camera shall have an IK-10 rated vandal resistant dome enclosure.

- The camera shall have an integrated microphone.
- Alarm Input/Output: General purpose opto-coupled, 1 Input/1 Output.

## 2.4 Imaging

- The camera shall have dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats.
- The camera shall be fully conformant with PSIA and ONVIF industry-standards and pass conformance tests.
- The camera shall have unlimited privacy masking, the ability to select multiple regions of an arbitrary shape to block the video.
- The camera shall have an extended motion detection grid, a higher-granularity grid of 1024 distinct motion detection. The user can select between 64-zone-based motion detection and extended motion detection to provide backward compatibility with the existing Video Management System (VMS) integration.
- The camera shall have a tamper-resistant housing of In-ceiling mount with die-cast aluminum cover and 2" polycarbonate dome bubble.
- The camera shall have multi-streaming support of up to 8 non-identical concurrent streams (different frame rate, bitrate, resolution, quality and compression format).
- The camera shall have Wide Dynamic Range up to 100dB and a maximum SNR of 49dB.
- The camera shall be able to be cropped to any resolution divisible by 2 and maintain H.264 compression. It shall be possible to crop the camera to output a variety of lower resolution images.
- The camera shall output at a maximum resolution of 2048(H) x 1536(V) pixels at a maximum frame rate of 21fps.
- The camera shall feature streaming of the full field-of-view (FOV) and simultaneous multiple regions of interest (ROI) for forensic zooming.
- The camera's shutter speed shall be 1ms - 500ms.
- The camera shall provide 21 levels of compression quality for optimal viewing and archiving.
- 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°.
- The camera shall incorporate necessary algorithms and circuits to detect motion in low-light with clarity.
- The camera shall auto adjustment between WDR and LDR modes.
- The camera shall have a dynamic range of up to 100db at full resolution.
- The camera shall support an IR sensitive minimum illumination of 0 Lux in black and white (B/W) mode with an additional IR light source.
- The camera has a Moonlight™ Mode which is extended exposure and proprietary noise cancellation.
- The camera shall have bandwidth and storage savings by running at ¼ resolutions.
- The Camera shall have CorridorView™ (90°, 180°, and 270° image rotation).

## 2.5 Video

Video frame rate (up to):

- 21FPS @ 2048x1536
- 30FPS @ 1920x1080
- 41FPS @ 1280x1024

Video frame rate in binning mode up to:

- 21FPS @ 1024x768
- 27FPS @ 800x600
- 31FPS @ 960x540
- 32FPS @ 640x512

## 2.6 Protocols

- The camera shall have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as Apple QuickTime®, VLC Player and others.
- The camera shall support at minimum RTSP, RTP over TCP, RTP over UDP (Unicast/Multicast), HTTP1.0, HTTP1.1, DHCP, TFTP, QoS, IPv4 and IPv6 network protocols.
- The camera shall support both unicast and multicast communication protocol.
- 100 Base-T Ethernet Network Interface.
- Multi-streaming: 8 non-identical streams.

## 2.7 Electrical

- General purpose opto-coupled 1 input and 1 output
- Power over Ethernet (PoE): PoE 802.3af for camera
- Power Consumption: PoE – Class 3
- AV3556DN-F: 5.59 Watts maximum PoE Class 3

## 2.8 Networking

- The camera shall be equipped with a 100Mbps LAN connector.

## 2.9 Environmental

- Operating temperature -5°C (23 °F) to +50°C (122 °F)
- Stable image 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)

## 2.10 Illumination

Color (Day Mode): 0.2 Lux

B/W (Night Mode): 0.02 Lux, IR Sensitive

Color (Binning): 0.1 Lux

## 2.11 Packaging

Total Unit Dimensions:

- $\phi$  2" (52mm) Bubble ( $\phi$  4" (100mm) Cover) x 1.5" (38mm) H Installed (3" H total)

Weight: 1.2lbs (0.58kg)

Packaged Dimensions: 5.6" W (142mm) x 5.6" L (142mm) x 3.5" H (90mm), Weight of 1.3lbs (0.6kg)

**2.12 Compatible Lenses**

|          |                                           |
|----------|-------------------------------------------|
| MPM2.1   | 2.1mm M12-mount, Fixed iris, IR corrected |
| MPM2.8A  | 2.8mm M12-mount, Fixed iris, IR corrected |
| MPM4.0A  | 4mm M12-mount; Fixed iris, IR corrected   |
| MPM6.0   | 6mm M12-mount; Fixed iris, IR corrected   |
| MPM8.0   | 8mm M12-mount; Fixed iris, IR corrected   |
| MPM12.0A | 12mm M12-mount, Fixed iris, IR corrected  |
| MPM16.0  | 16mm M12-mount; Fixed iris, IR corrected  |

**2.14 Related Documents**

MicroDome® G2 Datasheet

MicroDome® G2 Installation Manual

**2.15 Warranty**

Limited 3-Year Parts and Labor

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