**AV20585DN 20 MEGAPIXEL DAY/NIGHT H.264/MJPEG 180 DEG CAMERA, 10240X1920, 4 X 6.8MM MP LENS, SMALL FORM FACTOR, SURFACE MOUNT, INDOOR/OUTDOOR, IP66, IK-10, 18VDC/24VAC/POE, POE POWERED FAN**

**AV20565DN 20 MEGAPIXEL DAY/NIGHT H.264/MJPEG 360 DEG CAMERA, 10240X1920, 4 X 3.6MM MP LENS, SMALL FORM FACTOR, SURFACE MOUNT, INDOOR/OUTDOOR, IP66, IK-10, 18VDC/24VAC/POE, POE POWERED FAN**

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**

## 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.

## Certifications and Standards

1. European Community Directives:

2014/30/EU (EMC Directive);

2014/35/EU (Low Voltage Directive);

2011/65/EU (RoHS Directive)

1907/2006/EC (REACH Directive)

2012/19/EU (WEEE Directive)

1. 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

EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013



1. UL Listing

CB Test Report (IEC 60950-1(Ed.2), IEC 60950-1(Ed.2); Am.1) and (IEC 60950-1(Ed.2); Am.2, IEC 60950-22(Ed.1))



1. FCC Standard Compliance:

Title 47, Part 15 (47 CFR 15) Subpart B Class A

1. Mechanical Standards:

ANSI/IEC 60529-2004 - IP66 dust/water Ingress protection rating

EN62262:2002 – IK-10 impact rating

1. Video Compression Technology

H.264 MPEG-4, Part 10 ISO/IEC 14496-10 AVC

1. Networking Standard:

IEEE 802.3af-2003 PoE Standard, Class 3

IPv4 and IPv6

1. Interoperability Standard

PSIA compliant

1. Country of Origin

FTC “Made in USA” standard compliant

## Part 2 Products

**2.1 Manufacturer**

**Arecont Vision, LLC**

**425 E. Colorado St. #700**

**Glendale, CA 91205**

**Phone: 818-937-0700**

**877-226-3728**

**Fax: 818-937-0464**

[**www.arecontvision.com**](http://www.arecontvision.com)

**2.2 General**

The AV20585DN and AV20565DNSurroundVideo® series network camera is , dual encoder (H.264 & MJPEG), 20 Megapixel resolution, 180 degree or 360 degree panoramic Day/Night IP camera, designed to provide an all-in-one solution with four integrated 5-Megapixel sensors, IK-10 vandal resistant dome and housing, rated IP66 for water and dust protection, to use camera for indoor and outdoor applications.

The AV20585DN and AV20565DNare a PoE (IEEE 802.3af) compliant Day/Night camera, featuring PSIA compliance, privacy masking, extended motion detection and flexible cropping.

Built with Arecont Vision’s proprietary massively-parallel MegaVideo® technology, the AV20585DN and AV20565DN have the ability to output multiple image formats allowing simultaneous viewing of the full resolution field of view and regions of interest for high definition forensic zooming.

Binning technique improves low-light performance, increases sensitivity and produces better SNR by combining and averaging pixels. This camera offers over ten times the resolution of standard-resolution IP cameras with the ability to output full frame rates.

**2.3 Hardware**

* The camera shall utilize four high sensitivity 5-Megapixel CMOS sensors with 1/2.5” optical format, progressive scan and Active Pixel Count: 2560(H) x 1920(V) pixel array.
* The camera shall integrate four 6.7mm M12 megapixel IR corrected lenses, 1/2.5”, F2.0, Horizontal Field of View of 46.5°. (AV20585DN)
* The camera shall integrate four 3.6mm M12 megapixel IR corrected lenses, 1/2.5”, F2.0, Horizontal Field of View of 96°. (AV20565DN)
* The camera shall have die-cast aluminum cover and 4” polycarbonate dome bubble with IK-10 vandal resistance. Entire enclosure to be rated minimum IP66 for water and dust protection.
* The camera shall have a 2-axis easily adjustable gimbal with 360˚ pan and 90˚ tilt for easy and accurate positioning.

**2.4 Imaging**

* The camera shall combine four images for a 180 degree horizontal field of view. (AV20585DN)
* The camera shall have dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats.
* Each sensor of the camera shall feature automatic exposure, automatic multi-matrix white balance, shutter speed control to minimize motion blur, programmable resolution, brightness, saturation, gamma, tint and sharpness with a selectable enhancement level.
* The camera’s shutter speed shall be 1ms - 500ms.
* The camera shall feature selectable 50/60 Hz flicker control, windowing, 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 have +/-5˚ digital vertical alignment to adjust images. (AV20585DN)
* The camera shall have +/-7˚ mechanical tilt adjustment to locate each sensor angle. (AV20565DN)
* Both cameras shall have multi-streaming support of up to 8 non-identical concurrent streams (different frame rate, bit rate, resolution, quality, and compression format).
* Both cameras shall have a dynamic range up to 70.1 dB and a maximum SNR of 51 db.
* Both cameras shall have privacy masking, the ability to select multiple regions of an arbitrary shape to block the video. The camera shall have extended motion detection grid, a higher granularity grid of 1024 distinct motion detection zones. 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. This feature shall support RTP, HTTP and TFTP protocols, as well as the on-camera web interface.
* The camera shall feature streaming of the full field of view (FOV) and simultaneous multiple regions of interest (ROI) for forensic zooming.
* The camera shall provide 21 levels of compression quality for optimal viewing and archiving.
* It shall be possible to program the camera in binning mode to output lower resolution images: i.e. 5120(H) x 960(V) pixels (1/4 full resolution) at 24 FPS.
* The camera shall provide flexible cropping (Resolution windowing down to 1x1 pixels for JPEG and 2x2 pixels for H.264).
* The camera shall be able to save bandwidth & storage by running at 1/4 full resolution.
* The camera shall feature MoonLight™ mode - extended exposure and proprietary noise cancellation.
* The camera shall be able to support Picture-in-Picture: simultaneous delivery of full field of view and zoomed images.
* The camera shall have low light noise filter control, as well as bit rate and bandwidth limitation control.

**2.5 Video**

Video frame rate (up to):

7FPS @ 10240 x 1920

Video frame rate in ¼ Resolution (up to) :

10FPS @ 5120 x 960

Video frame rate in binning mode up to:

24 FPS @ 5120 x 960

**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 both unicast and multicast communication protocol.
* The camera shall support RTSP, RTP over TCP, RTP over UDP (Unicast/Multicast), HTTP1.0, HTTP1.1, TFTP and DHCP
* 100 Base-T Ethernet Network Interface
* Multi-streaming: 8 non-identical streams (2 active connections to each sensor)

**2.7 Electrical**

General purpose opto-coupled 1 input and 1 output

Power over Ethernet (PoE): PoE 802.3af Class 3

Auxiliary Power 18-48V DC, 24VAC

Power consumption: PoE – Class 3; auxiliary- 12.1W max DC Power

**2.8 Networking**

The camera shall be equipped with a 100 Mbps LAN connector

**2.9 Environmental**

Operating temperature -40˚C (-40 °F) to +50˚C (122 °F)

Stable image temperature 0˚C (32 °F) to +50˚C (122 °F)

Storage temperature -40˚C (-40 °F) to +60˚C (140 °F)

Humidity 0% to 90% (non-condensing)

**2.10 Illumination**

Color (non-binning): 0.3 Lux @ F2.0

Color (binning): 0.15 Lux @ F2.0

B/W: 0.03 Lux, IR sensitive (with additional IR light source)

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**2.11 Packaging**

Unit Dimensions (H x Dia) 5”H (128 mm) x 5.77” dia. (146 mm) Weight: 3 lbs (1.36kg)

Packaged Dimensions (H x W x L) 5.7” (145mm) x 6.7” (170mm) x 6.7” (170mm) Weight: 3.6 lbs (1.563kg)

**2.12 Compatible Accessories**

AV-CRMA – Corner Mount Adapter

AV-EBA – Electrical Box Adpater

AV-JBA – Junction Box Adapter

AV-PMA – Pole Mount Adapter

AV-PMJB – Pendant Mount with 1.5” NPT standard

AV-WMJB – Wall Mount with 1.5” NPT Standard

MD-CAP – Mounting cap for MegaDome Series and Surroundvideo G5 Mini

AV-FMA – Flush Mount Adapter

**2.13 Related Documents**

AV20585DN/AV20565DN Datasheet

AV20585DN/AV20565DN Installation Manual

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