OPENEYE OE-C1016T2-S A&E SPECIFICATIONS  
2MP Outdoor IP Turret  
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**DIVISION 28 – ELECTRONIC SAFETY AND SECURITY**

**28 20 00 Electronic Surveillance**

**28 23 00 Video Surveillance**

28 23 13 Video Surveillance Control and Management Systems

28 23 16 Video Surveillance Monitoring and Supervisory Interfaces

28 23 19 Digital Video Recorders and Analog Recording Devices

28 23 23 Video Surveillance Systems Infrastructure

28 23 26 Video Surveillance Remote Positioning Equipment

28 23 29 Video Surveillance Remote Devices and Sensors

**PART 1 GENERAL**

* 1. SUMMARY

1. This section includes the minimum requirements for Security Cameras as a Service platform comprised of, but not limited to, the following components:
   1. Network Camera Hardware
   2. Network Camera Firmware
   3. Network Video Management Software
   4. Online Web Services
2. References
   1. 28 23 00 Video Surveillance
   2. 28 23 13 Video Surveillance Control and Management Systems
   3. 28 23 19 Digital Video Recorders and Analog Recording Devices
   4. 28 23 23 Video Surveillance Systems Infrastructure
   5. 28 23 29 Video Surveillance Remote Devices and Sensors
   6. SUBMITTALS
3. Manufacturer’s data sheets in digital or printed form.
4. Manufacturer’s installation and operations manuals in digital or printed form.
   1. QUALIFICATIONS
5. Manufacturer
   1. Manufacturer shall have been in business for more than 10 years.
6. Installer
   1. All installation, configuration, setup and related work shall be performed by an authorized technician certified by the manufacturer.
   2. All installation shall be performed by a technician licensed to install and service video surveillance and security equipment as mandated by the authority having jurisdiction.
   3. WARRANTY & SUPPORT
7. The Network Video Camera shall come with a minimum 3-year manufacturer’s warranty with the 1st year including advance replacement service.
8. The Network Video Camera shall come with a heroic customer service support structure, including a 1-888 number for technical service, pre and post sales assistance, and full access to online technical support as well as online sales support.
9. Technical support shall be available for 24 hours per day 7 days per week to all integrators and dealers free of charge.
10. Firmware updates and patches shall be available free of charge.

- END OF SECTION -

SECTION 2 PRODUCTS

* 1. DOCUMENT SUMMARY

1. This document specifies the minimum criteria for the design and performance of the OE-C1016T2-S Network Video Camera.
   1. STANDARDS
2. The Network Video Camera meets or exceeds the following requirements of the following publications and organizations.
   1. Joint Photographic Experts Group (JPEG)
   2. Moving Picture Experts Group (MPEG) (H.264/MPEG-4 Part 10 AVC)
3. The Network Video Camera meets or exceeds the following mechanical standards:
   1. IP67 Ingress Protection
   2. SYSTEM DESCRIPTION
4. The Network Video Camera shall offer the latest in digital capture technology, product reliability, security, ease of use, and customer support structure.
5. The Network Video Camera shall be an outdoor camera. The Network Video Camera shall come equipped with an IR Cut Filter for day and night video.
   1. OPERATING SPECIFICATIONS
6. Environmental Conditions: the Network Video Camera shall be designed to operate under the following environmental specifications:
   1. Operating Temperature: -22°F ~ 140°F (-30°C ~ 60°C) non-condensing.
7. Power Requirements: Components shall have the following electrical specifications:
   1. Power Requirement: PoE (IEEE 802.3af) / 12vDC ±25%
   2. Max power: 5 Watts
   3. Class 2 PoE will power all available functions.
8. Product Label Requirements:
   1. The Network Video Camera shall have the FCC and UL certifications clearly marked on the product and box label.
      1. Dimensions:
         1. Package: 5.3” x 5.3” x 5.7” (135 x 135 x 145mm)
         2. Package Label: 2.5” x 1.9” (63 x 50mm)
         3. Product Label: 1” x 0.8” (26 x 20mm)
      2. Weight: .93lbs (0.42kg)
   2. OPERATIONAL REQUIREMENTS
9. NETWORK VIDEO CAMERA – The network video camera shall include, as a minimum, the following features/functions/specifications. The network video camera shall:
   1. Include a built-in memory card slot, available for microSD/SDHC/SDXC memory card, capacity up to 512GB.
   2. Include a high-quality Progressive CMOS image sensor.
   3. Include a varifocal 2.8 Fixed lens.
   4. Have a field of view of 106° (wide).
   5. Include wide dynamic range (WDR) function balancing situations with dark lighting conditions in some areas.
   6. Operate with a minimum illumination of 0.01 lux in day mode (F2.0, AGC ON) and 0 lux in night mode (IR on).
   7. Include integrated IR with a range of up to 98’.
   8. Have a white balance function that is adjustable through the camera’s web interface.
   9. Have a backlight compensation function that is adjustable through the camera’s web interface.
   10. Include a mechanical IR cut filter that is removed during low light conditions to improve low light imaging. This shall be referred to as a True Day/Night function.
   11. Have an auto gain control function that is adjustable through the camera’s web interface.
   12. Include 1 built-in microphone.
   13. Have a reset button on the camera to restore the device to default parameters.
10. TRANSMISSION CAPABILITIES – The network video camera shall provide the following characteristics/features/functions. The network video camera capabilities shall:
    1. Be capable of encoding video for network transmission across a LAN or WAN.
    2. Be capable of compressing and transmitting video data using MJPEG, H.264, and H.265 compression methods.
    3. Be compliant with the ONVIF standard for Network Video Transmitters (NVT).
    4. Have user authentication for secure video transmission and shall be capable of up to 32 user accounts.
    5. Be capable of providing up to two individually configured H.264 video streams.
    6. Be capable of providing video in MJPEG, H.264, and H.265 at resolutions as high as 1920 x 1080, or 2MP.
    7. Be capable of providing video at the following resolutions: 1920 x 1080, 1280 x 720, 704 x 576, 704 x 288, 640 x 360, 352 x 288.
    8. Provide 2MP video at a maximum rate of 30 Images per Second (IPS) when set to H.264 and H.265.
    9. Provide 2MP video at a maximum rate of 5 Images per Second (IPS) when set to MJPEG.
    10. Allow the user to set the Group of Pictures (GOP) rate for the H.264 and H.265 streams to fine tune the video transmission.
    11. Include framerate control that allows the user to enter any rate from 0-30 (dependent on resolution).
    12. Include a video compression setting that allows the user to set the video compression bit rate.
    13. Include the ability to switch from Variable Bit Rate (VBR) mode to Constant Bit Rate (CBR) mode.
    14. Include the ability to enable Smart Encoding to allow the user to dynamically reduce their throughput.
    15. Include Motion Detection function:
        * 1. The Motion Detection function must allow for 4 separate motion detection areas.
          2. The Motion Detection function must allow for configurable sensitivity and object detection size.
          3. The Motion Detection function must have configurable actions that occur when motion is detected, including sending a notification email with a JPG attachment, triggering the alarm output on the camera, recording the video stream for a pre-defined duration to an internal microSD card, saving pre-defined number of snapshot images to an internal microSD card.
    16. Be Analytics-enabled:
        1. Include Intrusion Detection function.
           1. The Intrusion Detection must be capable of classifying objects as people or vehicles.
           2. The Intrusion Detection function must allow for 4 separate motion detection areas.
           3. The Intrusion Detection function must allow for configurable sensitivity and object detection size.
           4. The Intrusion Detection function must have configurable actions that occur when motion is detected, including sending a notification email with a JPG attachment, triggering the alarm output on the camera, recording the video stream for a pre-defined duration to an internal microSD card, saving pre-defined number of snapshot images to an internal microSD card.
        2. Include a Line Crossing function.
           1. The Line Crossing function must allow for 4 separate motion detection areas.
           2. The Line Crossing function must allow for configurable sensitivity, object detection size, and trigger direction.
           3. The Line Crossing function must have configurable actions that occur when motion is detected, including sending a notification email with a JPG attachment, triggering the alarm output on the camera, recording the video stream for a pre-defined duration to an internal microSD card, saving pre-defined number of snapshot images to an internal microSD card.
    17. Have the ability to sync with an NTP server.
    18. Have the ability to be discovered over multiple sub-nets with the use of a Camera Discovery Tool.
    19. With the Camera Discovery tool have the ability to set IP fields, camera settings, and program firmware on multiple cameras at the same time.
11. KEY ACCESSORIES – The camera shall have the following accessories for mounting and controlling the camera in various settings:
    1. OE-CA10JB-01 - Round Junction box for all 10-Series cameras; includes ¾” conduit connection
    2. OE-CA10PC-01 - Pendant cap for all 10-Series cameras; fits 1 ½ inch threaded pipe.
    3. OE-CA10WM-01 - Wall Mount for all 10-Series cameras; (combine w/ OE-CA00JB-01 to add conduit connection.)
    4. OE-CA10AP-01 - Adapter Plate for all 10-Series camera models
12. LIST OF SUPPORTED MODELS
    1. The Network Video Camera shall be the following model or an approved equivalent:

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| OE-C1016T2-S | 2MP IP Turret Camera with 2.8 fixed lens |

**PART 3 EXECUTION**

* 1. INSTALLATION

1. Installer shall comply with all instructions and best practices specified by the hardware and software manufacturer.
2. Installer shall comply with all applicable state and local regulatory requirements.
   1. STORAGE
3. Equipment shall be stored in environmental conditions within the stated temperature and humidity ranges specified by the hardware manufacturer.
   1. COMISSIONING
4. The manufacturer shall offer the option for factory pre-configuration of all hardware and software purchased from the manufacturer as an additional paid service.
5. The manufacturer shall offer the option for remote or in person system commissioning as an additional paid service.

- END OF SECTION -

END OF DOCUMENT