

**Model: CDI55360IW**

Architectural and  
Engineering Specifications

Version 1.0

## **PART 2 - PRODCUTS**

### **Division 28 – Electric Safety and Security**

#### **Section 28.23.19 – Video Surveillance – Remote Devices and Sensors**

##### **2.1.0 Manufacturer**

1. Costar Video Systems  
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##### **2.2.0 General**

###### **2.2.1 Product Description**

CDI55360IW is a Network Camera (IP Camera) designed and manufactured by Costar. This camera provides 5MP (2560x2048) resolution at 30ips (images per second) with H.265/H.264/M-JPEG compression. This camera is equipped with Fixed-focal lens, IR LEDs, True Day/Night, PoE (IEEE 802.3af Class 3), Audio I/O + internal Mic, Alarm I/O, microSD/SDHC/SDXC card backup (Smart Failover up to 256GB).

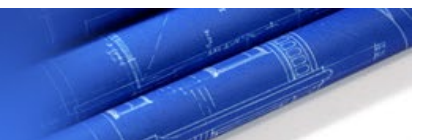
###### **2.2.2 General Specification**

1. The IP camera shall be equipped with 5 Megapixel 1/2" CMOS Sensor.
2. The IP camera shall be equipped with 1.5mm Fixed-focal lens, F1.8.
3. The IP camera shall be a true day/night camera with a mechanical filter for low light performance. The filter can be switched remotely, or automatically via a light level sensor or contact input (ICR).
4. The IP camera shall have wide dynamic range compensation (Digital WDR) for improved video quality in high-contrast situations (120dB).
5. The IP camera shall have 6 IR LEDs looming 15m.
6. The IP camera shall support fixed Iris.
7. The IP camera shall utilize configurable 2DNR/3DNR (Dynamic Noise Reduction) technology to reduce the bitrate and storage requirements by removing noise artifacts.
8. The IP camera shall be equipped with 10/100 Base-T, auto-sensing, half/full duplex, RJ-45 Ethernet connection.
9. The IP camera shall support industry standard Power over Ethernet (PoE) IEEE 802.3af, Class 3 to supply power to the camera over the network and 12VDC input.
10. The IP camera shall have video out feature (NTSC/PAL).

11. The IP camera shall have on board microSD/SDHC/SDXC card backup storage slot as a safeguard against data loss during network interruptions (Smart Failover up to 256GB).
12. Using Costar NLTsrec (Non-Linear Time Shifting recording) technology, the IP camera can store the recording data to the internal recording memory buffer (60MB) in camera if there is a delay in data transmission due to the instantaneous load of the recorder or network, and then transmits the stored data to Costar recorder safely.
13. The IP camera shall deliver maximum video resolution of 2560x2048 at rates up to 30ips (images per second).
14. The IP camera shall provide direct network connection using H.265, H.264 and M-JPEG\*\* compression. (\*\* iNEX protocol only)
15. The IP camera shall support quadruple streams in DirectNET protocol mode.
16. The IP camera shall support hextuple streams in iNEX protocol mode.
17. The IP camera shall conform to the ONVIF\*\* Profile S Ver.16.1.2 standard. (\*\* iNEX protocol only)
18. The IP camera shall be equipped with embedded web server (Webguard\*\*) which works independently using a Web Browser with ActiveX plug-in. (\*\* iNEX Protocol only)
19. The IP camera shall have IP filtering, HTTPS, SSL, IEEE 802.1X, and configurable user authority levels for greater security.
20. The IP camera shall have network bandwidth limitation and MAT features for more efficient use of network bandwidth.
21. The IP camera shall have Easy network access via UPnP (Universal Plug and Play) function and embedded mDNS (Multicast DNS) protocol.
22. The IP camera shall have Intelligent Video Analysis (VA): Video Motion Detection, Active Tampering Alarm, Trip Zone and Heatmap.

### **2.2.3 Protocol Specification: DirectNET and iNEX Protocol**

1. The IP camera shall have 2 protocol modes, DirectNET and iNEX Protocol, and DirectNET is set as main protocol by default.
2. The protocol modes shall be selectable between DirectNET and iNEX protocol mode to meet specific needs with iNIT Discovery tool.
  - DirectNET Protocol
    - A. DirectNET protocol shall provide easy connection to DirectNET NVR for automatic discovery and video streaming configuration.
    - B. DirectNET protocol shall provide Quadruple streams.
    - C. The bitrate shall be automatically adjusted by recording profile of DirectNET NVR.
    - D. DirectNET protocol shall support H.265 only as primary compression.
  - iNEX Protocol
    - A. iNEX protocol shall provide the compatibility with ONVIF for third-party software solutions.



- B. iNEX protocol shall provide Hextuple streams.
- C. iNEX protocol shall support H.265, H.264 and M-JPEG compression.

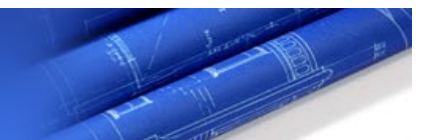
## 2.3.0 Technical Specification

### 2.3.1 Video Specification

1. Image Sensor: 1/2" CMOS
2. Maximum Resolution: 2560x2048
3. Scanning Mode: Progressive Scan
4. Lens Type: Fixed-focal (f=1.5mm, F1.8)
5. Iris Control: Fixed Iris
6. Angular Field of View (H: Horizontal, V: Vertical, D: Diagonal):
  - A. 180°(H), 180°(V), 180(D)
7. Minimum Illumination:
  - A. Color: 0.5 lux @ F1.8
  - B. B/W: 0 lux (IR LED ON)
8. S/N Ratio: 47.9dB
9. Maximum Frame Rate: 30ips @ 2560x2048
10. Video Resolution:
  - A. DirectNET Protocol Mode: 2560x2048, 640x512
  - B. iNEX protocol mode: 2560x2048, 1920x1536, 2560x1024, 1280x1024, 1280x512, 640x512
11. Video Compression: H.265, H.264 and M-JPEG\*\* (\*\* IDIS Protocol only)
12. Video Compression Level: Basic, Standard, High, Very High
13. Multi-Video Streaming:
  - A. DirectNET Protocol Mode: Quadruple streams
  - B. iNEX Protocol Mode: Hextuple streams
14. Dynamic Range: 120dB (True WDR)
15. True Day & Night: Yes (ICR)
16. IR Distance (The number of LEDs, IR wavelength): 15m (6ea)
17. Intelligent Video Analytic: Video Motion Detection, Active Tampering Alarm, Trip Zone and Heatmap

### 2.3.2 Audio Specification

1. Audio Compression Algorithm: ADPCM 16K, G.726 (16kHz), G.711 u-Law (8kHz)



2. Audio Input / Output: Line-in 1ea + Internal Mic 1ea / Line-out 1ea
3. Two-way Audio Communication: Yes
4. Pre-recorded Voice Alert: Yes

### **2.3.3 Network Specification**

1. Port: RJ-45 10/100 Base-T 1 port
2. Network Protocols:
  - A. DirectNET Protocol Mode
  - B. iNEX Protocol Mode: RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/UDP/RTSP/TCP, HTTP, HTTPS, FTP, SNTP, SMTP, FEN, mDNS, uPNP
3. Streaming Mode: Unicast

### **2.3.4 Security Specification**

1. DirectNET Protocol Mode: SSL Encryption
2. iNEX Protocol Mode: Multi-User Authority, IEEE 802.1x, IP Filtering, HTTPS, SSL Encryption
3. Maximum User Access:
  - A. DirectNET protocol mode: Direct camera access is unavailable.
  - B. iNEX protocol mode: 10 (Live), 1 (Recording), 1 (Search), 2 (Admin)

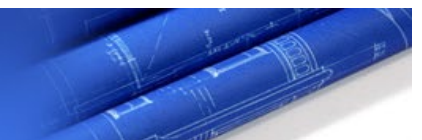
### **2.3.5 Alarm and Event Specification**

1. Alarm Input / Output: 1 / 1
  - A. Alarm Input: 1 TTL, NC/NO Programmable, 4.3V(NC) or 0.3V(NO) threshold, 5V DC
  - B. Mechanical or electrical switches can be wired to the Alarm-In and GND connectors. The maximum voltage should not exceed 5V.
  - C. Alarm Output: 2 TTL open collector, 30mA @ 5 VDC
2. Trigger Events: Motion Detection, Alarm in, Audio detection, Tampering and Trip Zone
3. Event Notification: Remote S/W, Email (with Image)
  - A. Encryption Type: SSL, TLS

## **2.4.0 Environmental Specification**

1. Operating Temperature: -10°C ~ +50°C (+14°F ~ +122°F)
2. Operating Humidity: 0% to 90% non-condensing

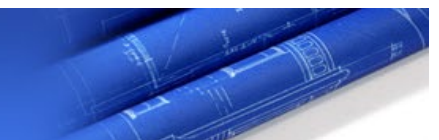
## **2.5.0 Electrical Specification**



1. Power Source: 12VDC, PoE (IEEE 802.3af class 3)
2. Power Consumption: 7.5W
3. Regulatory Approvals: FCC, CE, KC

## **2.6.0 Mechanical Specification**

1. Dimensions (Ø x H): Ø122.0mm x 35.8mm (Ø4.80" x 1.40")
2. Unit Weight: 285g (0.63lb)



## Version History

Version	Writer	Revision Date	Remarks
1.0	Tech Support	May. 09, 2019	Initial Release

