

Model: CDI5D13VIFWH

Architectural and
Engineering Specifications

Version 1.0

PART 1: PLEASE REFER TO ATTACHED DOCUMENTS - OVERVIEW & FORMAT SAMPLES

PART 2: PRODUCTS

Division 28 – Electric Safety and Security

Section 28 23 29 – Video Surveillance Remote Devices and Sensors

2.1.0 Manufacturer

1. Costar Video Systems
101 Wrangler Drive, Suite 201
Coppell, Texas 75019
Tel: 469-635-6800
Fax: 469-635-6822

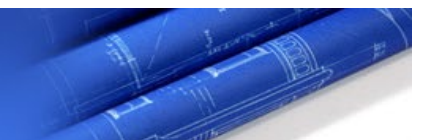
2.2.0 General

2.2.1 Product Description

CDI5D13VIFWH is an outdoor dome type IP Camera followed by NDAA Compliance designed and manufactured by Costar Video Systems. This camera provides 5MP (2592 x 1944) resolution at 30ips (images per second) with H.265, H.264, and M-JPEG compression. This camera is equipped with Motorized Focus/Zoom lens, IR LEDs, True Day/Night, PoE (IEEE 802.3af Class 3), Alarm I/O, Audio I/O, microSD/SDHC/SDXC card backup (up to 512GB), Vandal-proof dome enclosure design, IP67 rated and provides continuous operation in subzero temperature.

2.2.2 General Specification

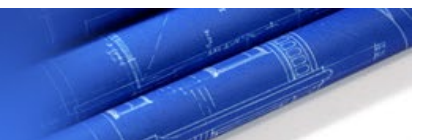
1. The IP camera shall be equipped with 5 Megapixel 1/2.8" CMOS Sensor.
2. The IP camera shall be equipped with 3.0mm – 13.5mm motorized vari-focal lens, F1.4 – F3.2.
3. The IP camera shall be a true day/night camera with a mechanical filter for low light performance. The filter can be switched remotely, or automatically via a light level sensor or contact input (ICR).
4. The IP camera shall have wide dynamic range compensation (True WDR) for improved video quality in high-contrast situations (120 dB).
5. The IP camera shall be equipped with 6ea Infrared LED with range up to 30m (98.4ft).
6. The IP camera shall support DC-Iris.
7. The IP camera shall be vandal proof and IP rating 67 complied dome enclosure design.
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 built-in heater for continued use in subzero temperature conditions and utilize 12 VDC input to provide power.
11. The IP camera shall have on board microSD/SDHC/SDXC card backup storage slot as a safeguard against data loss during network interruptions.
12. Using 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 Video recorder safely.
13. The IP camera shall deliver maximum video resolution of 2592x1944 at rates up to 30ips (images per second).
14. The IP camera shall provide network connection using H.265, H.264 and MJPEG** compression.
15. The IP camera shall support quadruple streams in DirectNET protocol mode.
16. The IP camera shall conform to the ONVIF Profile S.
17. The IP camera shall be equipped with embedded web server WebGuard which works independently using a Web Browser with ActiveX plug-in.
18. The IP camera shall have IP filtering, HTTPS, SSL Encryption, IEEE 802.1X, and configurable user authority levels for greater security.
19. The IP camera shall have network bandwidth limitation and MAT features for more efficient use of network bandwidth.
20. The IP camera shall have Easy network access via UPnP (Universal Plug and Play) function and embedded mDNS (Multicast DNS) protocol.
21. The IP camera shall have Intelligent Video Analysis (VA): Motion Detection, Alarm in, Tampering and Trip Zone.

2.2.3 Protocol Specification: DirectNET

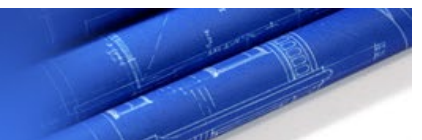
1. The IP camera shall have DirectNET mode.
2. DirectNET protocol shall provide easy connection to DirectNET NVR for automatic discovery and video streaming configuration.
3. DirectNET shall provide the compatibility with StarNET Pro VMS or ONVIF for third-party software solutions.
4. DirectNET shall support camera can be linked to Costar Video software solution such as StarNET and StarNET Pro, or 3rd party solution while it is being connected to a DirectNET NVR.
5. DirectNET camera shall be compatible with DirectNET 1.0 NVR as well as DirectNET 2.0 NVR.
6. DirectNET camera shall be unavailable for No-password login when connecting to DirectNET NVR and Costar Video Software Solutions.
7. DirectNET protocol shall provide Quadruple streams.
8. DirectNET protocol shall support H.264 and H.265 and MJPEG compression.



2.3.0 Technical Specification

2.3.1 Video Specification

1. Image Sensor: 1/2.8" CMOS
2. Maximum Resolution: 2592 x 1944
3. Scanning Mode: Progressive Scan
4. Lens Type: Motorized Vari-focal (f=3.0 – 13.5mm, F1.4 – 3.2)
5. Iris Control: DC-Iris
6. Angular Field of View (H: Horizontal, V: Vertical, D: Diagonal):
 - A. Wide: 91°(H) 66°(V) 120°(D)
 - B. Tele: 31°(H) 23°(V) 38°(D)
7. Pan/Tilt/Rotate Range: Pan: -175° ~ 175°, Tilt: 0° ~ 67°, Rotate: -177° ~ 177°
8. Minimum Illumination:
 - A. COLOR: 0.15 lux @ F1.4
 - B. B/W: 0 lux (IR LED ON)
9. S/N Ratio: More than 45 dB
10. Maximum Frame Rate:
 - A. 4:3 mode: 30fps: 2592 x 1944(WDR)
 - B. 16:9 mode: 30fps: 2592 x 1456(WDR)
11. Video Resolution:
 - A. 4:3: 2592x1944, 1920x1440, 1280x960x 640x480
 - B. 16:9: 2592x1456, 1920x1080, 1280x720, 640x360
12. Video Compression: H.265, H.264, MJPEG
13. Video Compression Level: 4 levels: Basic, Standard, High, Very High
14. Intelligent Codec is supported.
15. Multi-Video Streaming: Quadruple streams
16. Dynamic Range: 120dB
17. True Day & Night: Yes (ICR)
18. IR Distance (The number of LEDs, IR wavelength): 30m (98.4ft.) (6ea)
19. Intelligent Video Analytic: Motion Detection, Alarm in, Tampering and Trip Zone



2.3.2 Audio Specification

1. Audio Compression Algorithm: ADPCM 16K, G.726, G.711 u-Law, G.711 a-Law
2. Audio Input / Output: Line-in 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: DirectNET Protocol, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/UDP RTSP/TCP, HTTP, HTTPS, FTP, SNMP, SMTP, FEN, mDNS, uPNP
3. Streaming Mode: Quadruple Streaming

2.3.4 Security Specification

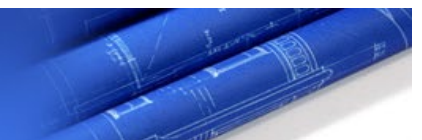
1. SSL Encryption, Multi-User Authority, IEEE 802.1x, IP Filtering, HTTPS

2.3.5 Alarm and Event Specification

1. Alarm Input / Output: 1 / 1
 - A. Alarm Input: 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: 1 TTL open collector, 30mA @ 5 VDC
2. Trigger Events: Motion Detection, Alarm in, Tampering and Trip Zone
3. Event Notification: Remote S/W, Email (with Image)
 - A. Encryption Type: SSL

2.4.0 Environmental Specification

1. Operating Temperature: -40°C ~ +55°C (-40°F ~ +131°F)
*Starting up at above -20°C (-4°F)
2. Operating Humidity: 0% to 90% non-condensing
3. Vandal-proof Enclosure: IK10
4. Outdoor Ready: IP67, Heater

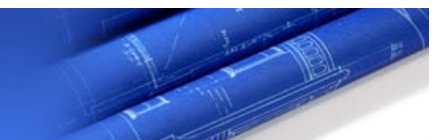


2.5.0 Electrical Specification

1. Power Source: PoE (IEEE 802.3af class 3), 12VDC
2. Power Consumption:
 - i. PoE, IEEE 802.3af Class 3, 11W
 - ii. 12V=, 1.1A, 13.2W
3. Regulatory Approvals: FCC, CE, KC

2.6.0 Mechanical Specification

1. Dimensions (Ø x H): Ø155 x 104.4mm
2. Unit Weight: 1Kg (2.20lb)



Version History

Version	Writer	Revision Date	Remarks
1.1	TS Team	Sep. 05, 2022	Spec Update
1.0	Tech support	Mar. 11, 2022	Initial Release

