COSTAR
VIDEO SYSTEMS

Model: CDI2512VIFWH

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

1   Manufacturer

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2   General

2.1   Product Description

CDI2512VIFWH is a Network Camera (IP Camera) designed and manufactured by Costar Video Systems. This camera provides Full HD (1920x1080) resolution at 30ips (images per second) with H.265/H.264/M-JPEG compression. This camera is equipped with Motorized Vari-focal Lens, True Day/Night, PoE (IEEE 802.3af Class 2), IR LED, WDR and microSD/SDHC/SDXC card backup.

2.2   General Specification

1. The IP camera shall be equipped with **2 Megapixel 1/3" CMOS Sensor**.

2. The IP camera shall be equipped with **a motorized vari-focal lens of f=2.8 - 12mm and F1.6 - F2.7**.

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 (**120dB**).

5. The IP camera shall be equipped with 6ea Infrared LEDs with range up to **30m** (**98.4ft**.).

6. The IP camera shall utilize configurable **2DNR/3DNR** (Dynamic Noise Reduction) technology to reduce the bitrate and storage requirements by removing noise artifacts.

7. The IP camera shall be equipped with 10/100 Base-T, auto-sensing, half/full duplex, RJ-45 Ethernet connection.

8. 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.

9. The IP camera shall have video out feature (NTSC/PAL).

10. The IP camera shall have on board microSD/SDHC/SDXC card backup storage slot as a safeguard against data loss during network interruptions.

11. Using Costar Video System 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.

12. The IP camera shall deliver maximum video resolution of 1920x1080 at rates up to 30ips (images per second).

13. The IP camera shall provide direct network connection using H.265, H.264 and M-JPEG** compression. (** iNEX protocol only)

14. The IP camera shall support quadruple streams in DirectNET protocol mode.

15. The IP camera shall support triple streams in iNEX protocol mode.

16. The IP camera shall conform to the ONVIF** Profile S Ver.2.4.0 standard. (** iNEX protocol only)

17. 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)

18. The IP camera shall have IP filtering, HTTPS, SSL, 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, Active Tampering Alarm and Trip Zone.

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 and H.264 only as primary compression.

   ● iNEX Protocol

      A. iNEX protocol shall provide the compatibility with StarNET VMS, iNEX VMS or ONVIF for third-party software solutions.

B. iNEX protocol shall provide triple streams.

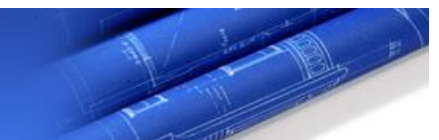C. iNEX protocol shall support H.265, H.264 and M-JPEG compression.

3 Technical Specification

3.1 Video Specification

1. Image Sensor: 1/3" CMOS

2. Maximum Resolution: 1920x1080

3. Scanning Mode: Progressive Scan

4. **Lens Type: Motorized Vari-Focal (f= 2.8 – 12mm, F1.6 - 2.7)**

5. **Iris Control: P-iris**

6. Angular Field of View (H: Horizontal, V: Vertical, D: Diagonal):

   A. **Wide: 98º(H), 52º(V), 116º(D)**

   B. **Tele: 33º(H), 18.5º(V), 37.9º(D)**

   C. **Pan: -176° ~ 176°, Tilt: 0° ~ 66°, Rotate: -90° ~ 90°**

7. Minimum Illumination:

   A. **COLOR: 0.1 lux @ F1.6**

   B. **B/W: 0 lux (IR LED ON)**

8. S/N Ratio: More than 45dB

9. Maximum Frame Rate: 30ips @1920x1080

10. Video Resolution:

    A. DirectNET Protocol Mode: 1920x1080, 1280x720, 704x480, 640x360, 352x240

    B. iNEX protocol mode: 1920x1080, 1280x720, 704x480, 640x360, 352x240

11. Video Compression: H.265, H.264, M-JPEG** (** iNEX 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: Triple streams

14. Dynamic Range: 120dB

15. True Day & Night: Yes (ICR)

16. **IR Distance (number of LEDs): 30 m / 98.4 ft (6 ea.)**

17. Intelligent Video Analytic: Video Motion Detection, Active Tampering Alarm, Trip Zone

18. Analog Video Output: 1 BNC (Accessory)

3.2 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, Multicast

3.3   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)

3.4   Alarm and Event Specification

1. Alarm Input / Output: N/A

2. Trigger Events: Motion Detection, Tampering, Trip Zone

3. Event Notification: Remote S/W, Email (with Image)

    A.   Encryption Type: SSL, TLS

4   Environmental Specification

1. Operating Temperature**: -40°C ~ +60°C** (-40°F ~ +140°F)

2. Operating Humidity: 0% ~ 90%

5   Electrical Specification

1. Power Source: PoE (IEEE 802.3af **class 3**)

2. Power Consumption: **11.7W**

3. Regulatory Approvals: FCC, CE, KC

6   Mechanical Specification

1. Dimensions (Ø x H): **Ø160mm x 116.5mm (Ø6.30" x 4.59")**

2. Unit Weight: **1.21 kg (2.66lb)**

Version History

Version	Writer	Revision Date	Remarks
1.0	Tech Support	June. 05, 2018	Initial Release