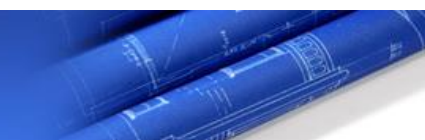


Model: CCI2100

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 System
101 Wrangler Drive, Suite 201
Coppell, Texas 75019
Tel: 469-635-6800
Fax: 469-635-6822

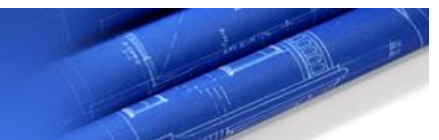
2.2.0 General

2.2.1 Product Description

CCI2100 is a Network Camera (IP Camera) designed and manufactured by IDIS. This camera provides Full HD (1920 x 1080) resolution at 30ips (images per second) with H.264/MJPEG compression. This camera is equipped with True Day/Night, PoE (IEEE 802.3af Class 2), Audio I/O, Alarm I/O and microSD/SDHC card backup.

2.2.2 General Specification

1. The IP camera shall be equipped with 2 Megapixel 1/2.7" CMOS Sensor.
2. The IP camera shall be equipped with an optional C/CS mount lens.
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 (more than 70dB).
5. The IP camera shall utilize configurable 2DNR (Dynamic Noise Reduction) technology to reduce the bitrate and storage requirements by removing noise artifacts.
6. The IP camera shall be equipped with 10/100 Base-T, auto-sensing, half/full duplex, RJ-45 Ethernet connection.
7. The IP camera shall support industry standard Power over Ethernet (PoE) IEEE 802.3af, Class 2 to supply power to the camera over the network and 12VDC input.
8. The IP camera shall have video out feature (NTSC/PAL).
9. The IP camera shall have on board microSD/SDHC card backup storage slot as a safeguard against data loss during network interruptions.
10. The IP camera shall be equipped with recording stream buffer memory (60MB) to counter

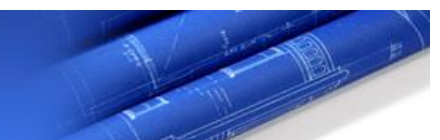


pre/post event buffering and network delays for improved network recording reliability.

11. The IP camera shall deliver maximum video resolution of 1920 x 1080 at rates up to 30ips (images per second).
12. The IP camera shall provide direct network connection using H.264 and MJPEG** compression. (** iNEX protocol only)
13. The IP camera shall support quadruple streams in DirectNET protocol mode.
14. The IP camera shall support triple streams in iNEX protocol mode.
15. The IP camera shall conform to the ONVIF** Profile S Ver.2.4.0 standard. (** iNEX protocol only)
16. 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)
17. The IP camera shall have IP filtering, HTTPS, SSL, IEEE 802.1X, and configurable user authority levels for greater security.
18. The IP camera shall have network bandwidth limitation and MAT features for more efficient use of network bandwidth.
19. The IP camera shall have Easy network access via UPnP (Universal Plug and Play) function and embedded mDNS (Multicast DNS) protocol.
20. The IP camera shall have Intelligent Video Analysis (VA): Motion Detection, Active Tampering Alarm and Trip Zone.

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.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.264 and MJPEG compression.



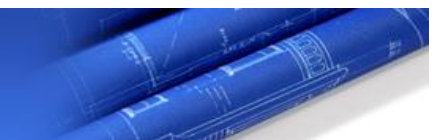
2.3.0 Technical Specification

2.3.1 Video Specification

1. Image Sensor: 1/2.7" CMOS
2. Maximum Resolution: 1920 x 1080
3. Scanning Mode: Progressive Scan
4. Lens Type: Optional (C/CS mount)
5. Iris Control: DC Auto Iris / Manual Iris
6. Minimum Illumination:
 - A. Color: 0.08 lux @ F1.2
 - B. B/W: 0.08 lux @ F1.2
7. S/N Ratio: more than 45dB
8. Maximum Frame Rate: 30ips @1920 x 1080
9. Video Resolution:
 - A. DirectNET Protocol Mode: 1920x1080, 1280x720, 704x480, 640x360, 352x240
 - B. iNEX protocol mode: 1920x1080, 1280x720, 704x480, 352x240
10. Video Compression: H.264, MJPEG** (** iNEX Protocol only)
11. Video Compression Level: 4 levels: Basic, Standard, High, Very High
12. Multi-Video Streaming:
 - A. DirectNET Protocol Mode: Quadruple streams
 - B. iNEX Protocol Mode: Triple streams
13. Dynamic Range: more than 70dB
14. True Day & Night: Yes (ICR)
15. Intelligent Video Analytic: Video Motion Detection, Audio Detection, Tampering, Trip Zone
16. Analog Video Output: 1 RCA

2.3.2 Audio Specification

1. Audio Compression Algorithm: 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

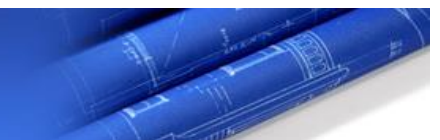
1. Port: RJ-45 10/100 Base-T 1 port
2. Network Protocols:
 - A. DirectNET Protocol Mode: DirectNET Protocol
 - B. iNEX Protocol Mode: RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/UDP RTSP/TCP, HTTP, HTTPS, FTP, SNMP, SMTP, FEN, mDNS, uPNP
3. Streaming Mode: Unicast, Multicast

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: 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, Audio detection, Tampering, TripZone
3. Event Notification: Remote S/W, Email (with Image)
 - A. Encryption Type: SSL, TLS



2.4.0 Environmental Specification

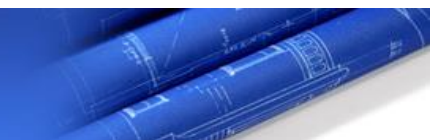
1. Operating Temperature: -10°C ~ +50°C (+14°F ~ +122°F), *Starting up at above 0°C (32°F)
2. Operating Humidity: 0% to 90% non-condensing

2.5.0 Electrical Specification

1. Power Source: 12VDC, PoE(IEEE 802.3af class 2)
2. Power Consumption: 4.8W
3. Regulatory Approvals: FCC, CE(50130-4), KC

2.6.0 Mechanical Specification

1. Dimensions (Ø x H): 75.6mm x 61mm x 129.3mm (2.98" x 2.4" x 5.09")
2. Unit Weight: 0.4 kg (0.89 lb)



Version History

Version	Writer	Revision Date	Remarks
1.0	Tech	Feb. 11, 2016	Initial Release

