CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

CC5MPX
Digital Camera

High-Quality Camera, High-Resolution Images

Weatherproof for outdoor observation and surveillance

Overview

The CC5MPX is a high-quality, high-resolution digital network video camera specifically designed for remote outdoor observation applications. The camera consumes low power, making it ideal for outdoor observation in remote locations using a solar-power battery. The camera can also operate with ac power where ac is available. It has a high-quality and very rugged environmental case that enables its outdoor use in extremes of temperature. It is compatible with Campbell Scientific data loggers. The camera's capture and retrieval modes are highly configurable; camera settings are adjusted through an easy-to-use web interface.

The camera can produce still images of up to 5 megapixels and video up to 720p. The camera's image and video capture trigger modes include two independent self timers, or external triggers such as data logger control, motion detection, and web page control, making it an ideal camera for a wide variety of outdoor observation and surveillance applications. An outdoor-rated SD memory card for image storage is available as an option.

The camera can send images and video directly to your desktop or publish them to the web via various communications options. Images and video taken by the camera can be delivered to you from remote locations via cellular modem, Ethernet 10/100, RS-232, RS-485, Satellite, and PakBus. You can configure the camera to act a a webcam that publishes images and video directly to a website using various communications devices.

The CC5MPX is suitable for the following outdoor observation and surveillance applications:

- Weather stations
- Water movement and level
- Weather forecasting and cloud monitoring
- Dam safety
- Construction sites and empty buildings
- Asset monitoring
- Flood forecasting
- Winter resort snow conditions
- Energy generation and distribution network
- Infrastructure
- Iceberg and glacier monitoring
- Avalanche monitoring
- Point of interest and learning centers
- Forest canopy monitoring
- Public places and special events
- Solar and wind farms
- Air quality
- Forest fire detection
- Seismic and vibration monitoring
- Snow monitoring

For comprehensive details, visit: **www.campbellsci.com/cc5mpx**

❯ Vegetation monitoring

❯ Animal observation

Benefits and Features

❯ High-quality; designed for outdoor observation in remote locations

❯ Low power consumption

❯ Operates with AC power or solar power battery if AC is unavailable

❯ Can be controlled by internal timer or by external controls: motion detector, web page, data logger

❯ Various communications options available; can publish images and video directly to the web or send images to your desktop

❯ Designed to work in harsh environments, this camera operates at temperatures as low as -40°C and as high as 60°C

❯ Type 3 anodization for improved performance in corrosive environments

Detailed Description

The CC5MPX camera is Campbell Scientific's first high-resolution digital network outdoor observation and surveillance camera with video capabilities. It produces JPG images with a resolution of up to 5 megapixels, and shoots videos with a resolution of up to 720P. The camera can function as a stand-alone camera or can be connected to a Campbell Scientific data logger or another PakBus® device. Several power-conserving modes allow the camera to be used outdoors in remote, solar power battery installations.

This outdoor observation camera is designed to operate in harsh environments; the camera operates at temperatures as low as -40°C and as high as 60°C. It has an integrated

environmentally sealed enclosure that protects the camera from moisture and high-humidity. The camera's high-quality, integrated outdoor-rated enclosure also eliminates the time required to install the camera in a separate enclosure.

The CC5MPX camera has several options for image and video acquisition and storage. You can take still images and videos based on an internal timer, motion detection, or a trigger from an external PakBus device (such as a data logger). The images and videos can then be stored on an SD card, saved in a data logger's memory, sent to a PC via email, or transmitted to an FTP server.

Specifications

Operating Power	9 to 30 Vdc		Video Frame Rate Options	30, 15, and 7.5 FPS (Frames Per Second)
Operating Temperature Range	-40° to +60°C		Communication Interfaces	RS-232 port, RS-485 port, Ethernet 10/100
Clock Accuracy	±2 minutes per year (-40° to +60°C)		Communications Protocols	PakBus, FTP, email, web page interface via web browser
Photo or Video Capture Triggers	Two independent self timers, external trigger, motion detection, web page control		Maximum Baud Rate	115.2 kbps (for RS-232 and RS-485 only)
Programmable Still Image Resolutions	❯ 640 x 480 (JPEG) ❯ 320 x 176 (JPEG) ❯ 320 x 240 (JPEG) ❯ 640 x 352 (JPEG) ❯ 1280 x 720 (JPEG) ❯ 1280 x 960 (JPEG) ❯ 2592 x 1944 (JPEG)		Window Defroster	No
			Wi-Fi Capable	No
			Low-Light Capability	Not designed for low-light conditions.
			NDVI Capability	No
Video	Capable of up to 720P for the following: ❯ 1280 x 720 (MPEG4) ❯ 640 x 480 (MJPEG) ❯ 320 x 240 (MPEG4)		Diameter	9.3 cm (3.7 in.)
			Length	22 cm (8.7 in.)
			Weight	1.06 kg (2.34 lb)

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Communication Switched Power Output

Maximum Output Current	750 mA

Current Drain

Maximum	250 mA (at 12 Vdc)
Quiescent	≤ 1 mA (off power mode)

Lens

Mount	C-type
IRIS	DC compatible
Standard Lens	4 to 12 mm, 27° to 80° FOV

External Input Signal

Logic Low Level	0.65 Vdc (-20 Vdc absolute minimum)
Logic High Level	> 2.0 Vdc (+20 Vdc absolute maximum)

Minimum Pulse Width	10 ms

Memory Card Interface

Type	Secure Digital (SD)
File System	FAT32
File Type	JPEG (image), AVI (video)
Size	16 GB or less

Photo Capture Time

-NOTE-	*Time is from wake-up to start of capture.*
Fully On	< 1 s (5 MP images take longer.)
Partially On	10 s
Deep Sleep	15 s
Off State	90 s