

# CC5MPX & CC5MPXWD

## High Resolution Digital Network Cameras



The CC5MPX and CC5MPXWD are high-resolution digital cameras with video capabilities. They produce JPG images with a resolution of up to 5 megapixels, and shoot videos with a resolution of up to 720P. Power conserving modes allow the cameras to be used in remote battery-powered installations.

The CC5MPX and CC5MPXWD have several options for image acquisition and storage. Still images or videos can be taken based on an internal timer, motion detection, or a trigger from a PakBus device (datalogger or MD485). The images or videos can then be stored on an SD card, saved in a datalogger's memory, sent to a PC via email, or transmitted to an FTP server.

Designed to work in harsh environments, the cameras can operate at temperatures as low as -40°C and as high as 60°C. They have an integrated environmentally sealed enclosure that protects them from moisture and high-humidity. Additionally, the CC5MPXWD includes an window defroster that prevents and removes light frost and icing\* from the camera's window.



The 18549 mounting bracket kit fastens the camera to a CM202, CM204, or CM206 crossarm. Curved notches in the bracket allow the camera to be aimed at the desired target.

### Connections

The CC5MPXCBL1 cable connects the camera to the power supply and is required to use the camera. This cable is also used to attach the camera to a datalogger COM port, MD485, or PC. Connection to the PC allows the camera to be configured via our Device Configuration utility (the DB9M-TERM interface that is shipped with the camera is also required).

An Ethernet cable is also required. Typically the CC5MPXCBL2 RJ45 Environmental Cable is used. The 13658 Ethernet cable can be used instead of the CC5MPXCBL2 for indoor connections or for temporary outdoor connections while the weather is good.



The connectors have metal caps that are chained to the camera.

The Ethernet cable connects the camera to a network router, cellular modem, or laptop. This connection allows access to a web interface used for camera configuration, targeting, and focusing. System status, date, time, and other information are also displayed on the web interface.



Above is a photograph taken by the CC5MPX camera. Campbell Scientific Canada installed the camera high above Edmonton's spectacular river valley on the University of Alberta's H.M. Tory Building. The camera records visual weather conditions every 15 minutes and transfers the image via FTP to a local server.

\*With extreme icing or riming conditions and low temperatures, the CC5MPXWD's window defroster may not be able to clear the window due to the power constraints of the defroster.

## Ordering Information

### Digital Cameras

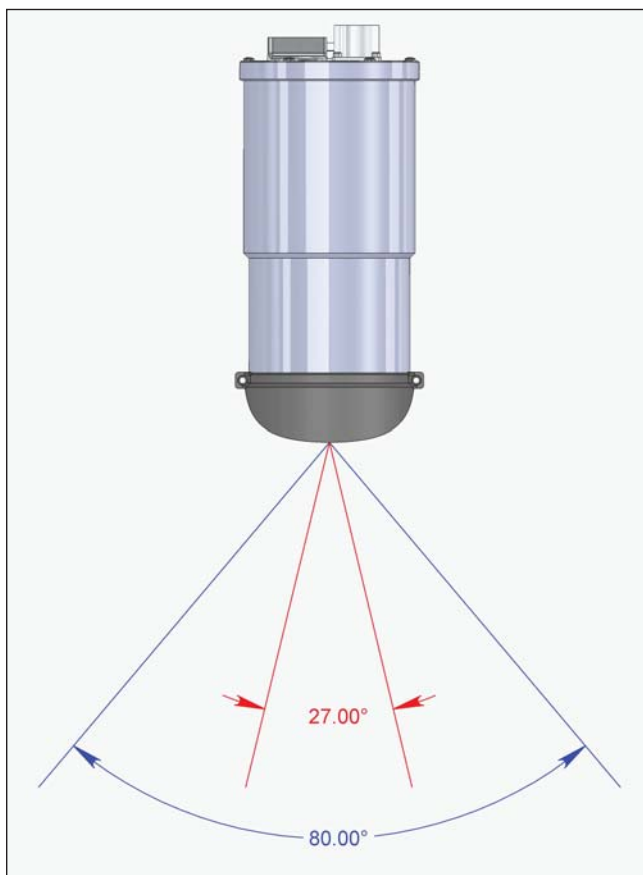
<b>CC5MPX</b>	CSC High Resolution Digital Network Camera (-40° to +60°C)
<b>CC5MPXWD</b>	CSC High Resolution Digital Network Camera with window defroster (-40° to +60°C)

### Memory Option (choose one)

<b>-NC</b>	No SD Memory Card
<b>-4G</b>	4 GB SD Memory Card
<b>-8G</b>	8 GB SD Memory Card

### Accessories

<b>18549</b>	CC5MPX Mounting Kit
<b>CC5MPXCBL1-L</b>	CC5MPX Power and I/O Cable. Enter cable length, in feet, after the -L. Maximum length is 100 ft.
<b>CC5MPXCBL2-L</b>	CC5MPX RJ45 Environmental Cable. Enter length, in feet, after the -L. Maximum length is 225 ft.
<b>13658</b>	10Base-T CAT5 Ethernet Cable with 7 ft length.
<b>28033</b>	Ethernet Surge Protector helps protect the device from surges through the Ethernet cable. A straight-through Ethernet cable is required to connect the 28033 to the camera. Another Ethernet cable connects the 28033 to the computer.



The standard 4 to 12 mm lens provides an approximate 27° horizontal field of view (fov) when fully zoomed in and an 80° horizontal fov when fully zoomed out.

## Specifications

<b>Operating Power</b>	
<b>CC5MPX:</b>	9 to 30 Vdc
<b>CC5MPXWD:</b>	9 to 16 Vdc
<b>Current Drain</b>	
<b>Operating (camera only):</b>	250 mA (maximum at 12 Vdc)
<b>Quiescent:</b>	≤1 mA (off power mode)
<b>CC5MPXWD defroster on:</b>	1.2 A (maximum at 16 Vdc); 1 A (typical at 12 Vdc)
<b>Operating Temperature:</b>	-40° to +60°C
<b>CC5MPXWD Heating Element Resistance:</b>	18 Ohm
<b>Clock Accuracy:</b>	±2 min./year (-40° to +60°C)
<b>Lens</b>	
<b>Mount:</b>	C-type
<b>IRIS:</b>	DC compatible
<b>Standard Lens:</b>	4 to 12 mm, 27° to 80° FOV
<b>Zoom Lens**:</b>	10 to 40 mm, 9° to 35° FOV
<b>Image or Video Capture Triggers:</b>	Two independent self timers; external trigger; motion detection; web page control
<b>Programmable Still Image Resolutions (JPEG):</b>	2592 x 1944; 1280 x 960; 1280 x 720; 640 x 480; 640 x 352; 320 x 240; 320 x 176
<b>Video:</b>	Capable of up to 720P for 1280 x 720 (MPEG4) 640 x 480 (MJPEG), 320 x 240 (MPEG4)
<b>External Input Signal</b>	
<b>Logic Low Level:</b>	0.65 Vdc (-20 Vdc absolute min.)
<b>Logic High Level:</b>	>2.0 Vdc (+20 Vdc absolute max.)
<b>Minimum Pulse Width:</b>	10 ms
<b>Communication Interfaces:</b>	RS-232 port; RS-485 port; Ethernet 10/100
<b>Communications Protocols:</b>	PAKBus; FTP; email; Web page interface via web browser
<b>Communication Switched Power Output</b>	
<b>Maximum Output Current:</b>	750 mA
<b>Maximum Baud Rate:</b>	115.2 kbps (RS-232, RS-485 only)
<b>Memory Card Interface</b>	
<b>Type:</b>	Secure Digital (SD)
<b>File System:</b>	FAT32
<b>File Type:</b>	JPEG (image), AVI (video)
<b>Size:</b>	Verified up to 16 GB
<b>Image Capture Time (from wakeup to start of capture)</b>	
<b>Fully On:</b>	<1 s (5 MP images take longer)
<b>Partially On:</b>	10 s
<b>Deep Sleep:</b>	15 s
<b>Off State:</b>	90 s
<b>Dimensions</b>	
<b>Diameter:</b>	9.3 cm (3.7 in.)
<b>Length:</b>	22 cm (8.7 in); 22.9 cm (9.0 in) with zoom lens
<b>Weight:</b>	2.34 lb (1.06 kg)

\*\*The zoom lens is ordered as a special; contact Campbell Scientific for more information.

