DATASHEET CM70-NDI

Avonic PTZ Camera 20x Zoom IP NDI® | HX

The CM70-NDI is a high-quality PTZ camera with concurrent HDMI, 3G-SDI, USB 2.0 and IP stream ethernet outputs. The CM70-NDI is equipped with NewTek's high-efficient IP technology called NDI® | HX. This all-in-one PTZ camera from Avonic allows the move to an all IP infrastructure even for mobile applications. With IP deployment on existing networks all cameras detected within your network become directly available for use without complex configuration. Video, audio, control and power all with PoE connecting your CM70-NDI camera to hundreds of systems, devices and applications that support NDI.

The CM70-NDI includes a rich feature set known from the CM70 series and has the ability to deliver outstanding quality even under low light conditions. The combination of a high-quality PTZ camera with a protocol that improves every live production give the CM70-NDI endless possibilities.

Features

Lens
High-quality glass lens, 20x optical zoom and 60.38° horizontal field of view.

Low light
High SNR CMOS combined with digital noise reduction for a clear picture under very low light conditions.

Full HD 1080p60
The camera has a Full HD resolution of 1920 x 1080p60 and achieves a pristine image quality.

IP-features
The camera can be powered using PoE (802.3af) and can be accessed by a WebGUI, controlled by VISCA over IP / Onvif for video streaming.

DUAL low latency IP-Stream with NDI® | HX support
H265, H264, optional SRT and MJPEG compression at a bitrate up to 40Mbit enabling Full HD video stream by ultra-low latency over RTSP, RTMP, UDP, Unicast, Multicast and NDI® | HX support

Outputs
3G-SDI, HDMI, USB 2.0 (1080p30) and IP.

Control
Control the camera with common protocols: VISCA , Pelco-D / P via RS232, RS485, IP (VISCA), Onvif or IR. Remote control included. Supports up to 255 presets with 0.1° accuracy and High-Speed Pan Tilt function.

Audio embedding
Balanced audio input with embedding into IP stream, SDI, HDMI outputs. Includes configurable audio offset.

Optional Prenium features
SRT streaming, Tally light, configurable Color Matrix. License AV-LC70-1 sold separately.

Applications

• Education	• Video Conferencing	• Broadcasting	• Live Events
• Churches	• Healthcare	• Courtroom	• And more

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SPECIFICATIONS CM70-NDI

Camera

Resolution	Up to 1080p60
Video Systems	1920x1080/ 1280x720 p60/ 50/ 30/ 25/ 59.94/ 29.97
Sensor	1/3'' CMOS, 2.12mp, 16:9
Shutter	Auto, Manual, 1/25 ~1/10000
Scanning mode	Progressive, Interlaced (not over IP)
Zoom/Aperture/Focal lenght	20x optical/ F1.8-F11/ 4.4-88.8 mm
Minimal Illumination	0.05 LUX
White Balance	Auto, Manual, OnePush, 2400K-7100K in steps of 100K
Backlight Compensation	supported
Digital Noise Reduction	2D & 3D DNR
Signal Noise Ratio	>55 dB
Horizontal FOV wide ~ tele	60.38° ~ 3.72°
Vertical FOV wide ~tele	35.80° ~ 2.14°
Horizontal rotation	-170° ~ +170°
Vertical rotation	-30° ~ +90°
Pan speed range	1.7 ~ 120°/s
Tilt speed range	1.7 ~ 70°/s
H&V image flip	supported
Number of presets	255
Preset accuracy	0.1

IP features

Video coding standard	H.265 / H.264 / MJPEG
H.265 Profiles	main
H.264 Profiles	main, base high
Main stream resolution	1920x1080 / 1280x720
Main stream max frame rate	60fps
Main stream bitrate	64 ~ 40960 Kbps
Sub stream resolution	320x180 / 320x240 / 640x360 / 1280x720 / 1920x1080
Sub stream max frame rate	30fps
Sub stream bitrate	64 ~ 40960 Kbps
Video bitrate type	Variable, Fixed
Support protocols	RTSP, RTMP,ONVIF, SRT, Multicast, Unicast
Audio standard	AAC / mp3 / G.711A
Audio bitrate	32, 64, 96, 128 Kbps
Audio sample rate	16, 32, 44.1, 48 Khz
Audio line in	balanced audio line in via 5-way Phoenix connector.

Input / Output Interface

HDMI output	1.4
SDI output	3G-SDI, SMPTE 425M level A, 10-bit YCbCr 4:2:2
USB Output	USB 2.0 (max. 1080p30)
Network interface	RJ45 100 Mbit
NDI® Standard	NDI®| HX
PTZ Control over NDI	Enable via WebGUI
Control	UVC, IR Remote, IP, Serial
Serial communication	RS232 mini DIN-8, RS485 2pin Phoenix
Serial control protocol	VISCA over Serial, PELCO-P, PELCO-D
IP control protocol	VISCA OVER IP, ONVIF, HTTP API

General Specifications

Input voltage	12V
PoE	PoE 12W (802.3af)
Power consumption	12W
Power supply	12V2A
Power connector	EIAJ-4 - Philmore 255 plug
Operating temperature	-5°C ~ 40°C
Storage temperature	-20°C ~ 60°C
Operating humidity	20% ~ 95% non-condensing
Bottom fastening screw thread	1/4'' 20 UNC
Color	Black, White
Dimensions product wxhxd	133 x 180 x 153 mm. excl. connectors
Weight product	1.6 kgs
Dimensions box	26 x 24 x 24 cm
Weight box	2.4 kg
Included	power adapter, remote control, RS232 cable, RS485 2-way Phoenix connector, Balanced Audio, Line-In 5-way Phoenix connector

Versions

Black	CM70-NDI-B
White	CM70-NDI-W

Compliance

Markings	CE, FCC, cULus (see pictures below)
Medical	EN-IEC 60601-1-2 (2015) certified (class A, home- and professional healthcare environment)

AVONIC
MODEL: **AV-CM70-NDI-W**
Product Name : PTZ NDI Camera 20x Zoom White
Package Quantity(unit):1
Serial & MAC ID: 9814D221B051

Back of the Camera