

Videotek® Compact Monitor Series

CMN-41 and CMN-91 Models

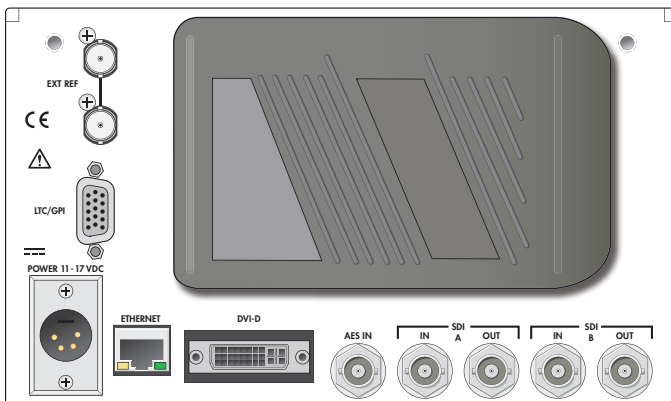


You'll be amazed by the new Videotek® Compact Monitor Series — the smallest solution on the market for efficient video and audio signal monitoring. Two models are available: the CMN-41 multiformat on-screen monitor and the CMN-91 multiformat signal analyzer with integral LCD. Each model has two SDI inputs, with versions covering SD through 3 Gb/s and selectable waveform, vector, gamut, timing, and picture full-screen display. With Videotek Compact Monitors you can meter all 16 channels of embedded audio or the one AES input. You can also view the waveform of the composite or tri-level external reference to verify signal integrity and customize the MLT display with independent size and position of waveform, vector and picture.

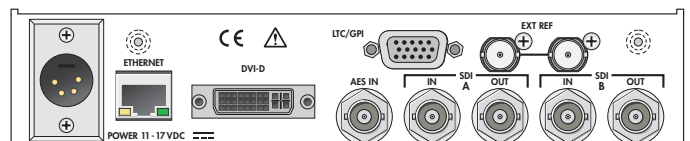
A standard 11-17 VDC power input and optional battery mount provide flexible powering for both fixed installations and field operation. Low power consumption allows the use of convection cooling for silent operation. Both the scope (CMN-91) and rasterizer (CMN-41) packages are extremely lightweight and are available as portable or "rackmountable" units. Each package provides a compact half-rack footprint less than seven inches deep, and the short mounting depth integrates easily with today's LCD monitors.

FEATURES

- Available in SD, HD/SD or 3 Gb/s/HD/SD versions
- SD can be upgraded to HD/SD or 3 Gb/s/HD/SD
- HD/SD can be upgraded to 3 Gb/s/HD/SD
- Metering of all 16 channels of embedded audio
- Two active looping SDI inputs
- One AES audio input
- Thumbnail picture with adjustable size and position
- DVI-D external display output
- Waveform display of external reference or LTC input
- MLT display with independent size and position of waveform, vector and picture
- Standard 4-pin XLR DC power input (AC adapter supplied)
- Anton-Bauer or IDX battery mount options
- Convection cooled, silent operation (no fan)
- Front-panel headphone jack
- Front-panel USB port for save/recall of presets, screen captures and SDI captures
- 99 presets
- Dual rackmount option available for both models
- Portable case with handle and tripod mount option



Rear view of CMN-91 signal analyzer



Rear view of CMN-41 on-screen monitor

Specifications

Specifications are subject to change without notice.

Inputs

Input type	2 active looping inputs
Input connector type	BNC female
Input impedance	75 ohms nominal
Signal source amplitude	800 mV nominal
Signal source DC offset	±0.5 V DC

SD-SDI Input Characteristics

Input return loss	≤ -25 dB, (5 to 270 MHz)
Cable EQ	≥ 300 M, Belden 8281

HD-SDI Input Characteristics

Input return loss	≤ -15 dB, (5 to 1.485 GHz)
Cable EQ	≥ 100 M, Belden 8281

3 Gb/s SDI Input Characteristics

Input return loss	≤ -10 dB, (1.485 to 2.97 GHz)
Cable EQ	≥ 80 M, Belden 1694A

External Reference Input Characteristics

Input connector type	BNC female
Input type	passive looping
Input impedance	75 ohms nominal
Blackburst input amplitude	NTSC: sync and burst 286 mV nominal PAL: sync and burst 300 mV nominal
Blackburst input amplitude tolerance	±6 dB
Tri-level sync amplitude	600 mV pk-pk
Tri-level sync amplitude tolerance	±3 dB
Return loss	≤ -40 dB

Digital Audio Input Characteristics

Audio formats	AES/EBU, embedded
AES input connector type	1 BNC female
AES input impedance	75 ohms nominal
AES input return loss	> 25dB, 0.1 to 6 MHz
AES input level	0.2 to 2.0 V
Input sample rate (internally sample rate converted to 48 kHz)	AES, 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz

Outputs

SDI Output Characteristics

Output connector type	BNC female
Output impedance	75 ohms
Output return loss	(5 MHz to 1.485 GHz) ≤ -15 dB
Output return loss	(1.485 GHz to 2.97 GHz) ≤ -10 dB
Output signal level	800 mV ±10%
Output DC offset	0.0 V ± 0.5 V

Analog Monitoring Output Characteristics (headphone)

Number/connector	One 1/8 in. (3.5mm) headphone jack
Load impedance	16 ohms nominal
Maximum output level	44 mW RMS
Total harmonic distortion + noise (THD+N)	≤ -65 dB
Level adjustment	From maximum output level to 0 mV with front-panel control
Source	Any audio input pair may be selected to appear on the headphone output

DVI Output Characteristics

Output connector	DVI-I connector, supporting DVI-D
Output resolution	1024 x 768 (XGA)
H-sync rate	48 363 Hz ± 1%
V-sync rate	60.004 Hz ± 1%

Communication Interfaces

1 Ethernet port	RJ-45 connector, 10/100Base-T
1 USB 2.0 host port	
1 LTC/GPIO connector	15 female pin D-sub
LTC	Nominal input amplitude = 2.0 volts peak to peak
4 General purpose inputs	Input impedance 10 K ohms returned to +3.3 V DC
1 General purpose output	Relay closure

Waveform/Vector Display Characteristics – SDI Inputs

Line Select	
Waveform formats	YCBCR, RGB, YRGB, YCBCR + Alpha, RGB + Alpha, SDI as composite
Sweep rates	1H, 2H, 1V, 2V
Sweep magnification	x1, x5, x10
Waveform/vector gain	Fixed: steps of 1x, 2.5x, 5x Variable: 0.5x to 15x in. 0.01 steps

Waveform Display Characteristics – External Reference and LTC

Waveform amplitude accuracy	±5%
Waveform frequency response	25 Hz to 4.5 MHz within ±5% of amplitude at 50 kHz

Ordering Information

BLK-1	Blank panel for DRC-1, DRC-2, DRC-2A, or DRC-3
BLK-4	Blank panel for left or right side of DRT-4
CMN-41	Compact Monitor Series compact multiformat on-screen monitor, HD/SD-SDI, 1RU, half rack, upgradeable to 3 Gb/s
CMN-41-3GB	Compact Monitor Series compact multiformat on-screen monitor, 3 Gb/s/HD/SD-SDI, 1RU, half rack
CMN-41-S	Compact Monitor Series compact multiformat on-screen monitor, SD-SDI, 1RU, half rack, upgradeable to HD and 3 Gb/s
CMN-91	Compact Monitor Series compact multiformat signal analyzer with integral LCD, HD/SD-SDI, 3RU, half rack, upgradeable to 3 Gb/s
CMN-91-3GB	Compact Monitor Series compact multiformat signal analyzer with integral LCD, 3 Gb/s/HD/SD-SDI, 3RU, half rack
CMN-91-S	Compact Monitor Series compact multiformat signal analyzer with integral LCD, SD-SDI, 3RU, half rack, upgradeable to HD and 3 Gb/s
CMN-AB	Battery mount for CMN-91, Anton-Bauer gold mount
CMN-AB-F	Battery mount for CMN-91, Anton-Bauer gold mount, field upgrade
CMN-H23GB-F	Upgrade CMN-41 or CMN-91 to support 3 Gb/s, field upgrade
CMN-IDX	Battery mount for CMN-91, IDX V-mount
CMN-IDX-F	Battery mount for CMN-91, IDX V-mount, field upgrade
CMN-IN-DRC2	Hardware kit to mount a CMN-91 in a DRC-2A rackmount
CMN-S23GB-F	Upgrade CMN-41-S or CMN-91-S to support HD and 3 Gb/s, field upgrade
CMN-S2H-F	Upgrade CMN-41-S or CMN-91-S to support HD, field upgrade
DRC-3	Double rackmount case for CMN-91, use BLK-1 to fill unused space if needed
DRT-4	Double rackmount tray for CMN-41, use BLK-4 to fill unused space if needed
PTC-3	Portable case with handle for CMN-91
PTC-3-CC	Padded carrying case for CMN-91 mounted in a PTC-3

For more information, please visit www.broadcast.harris.com/videotek.

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