


CRALTECH

Professional LCD Monitors & Multiviewers

High Performance Modular Multiviewer Systems

3G/HDMI/CVS Modular Multiviewers

Easy and friendly modular system with all signals you need!

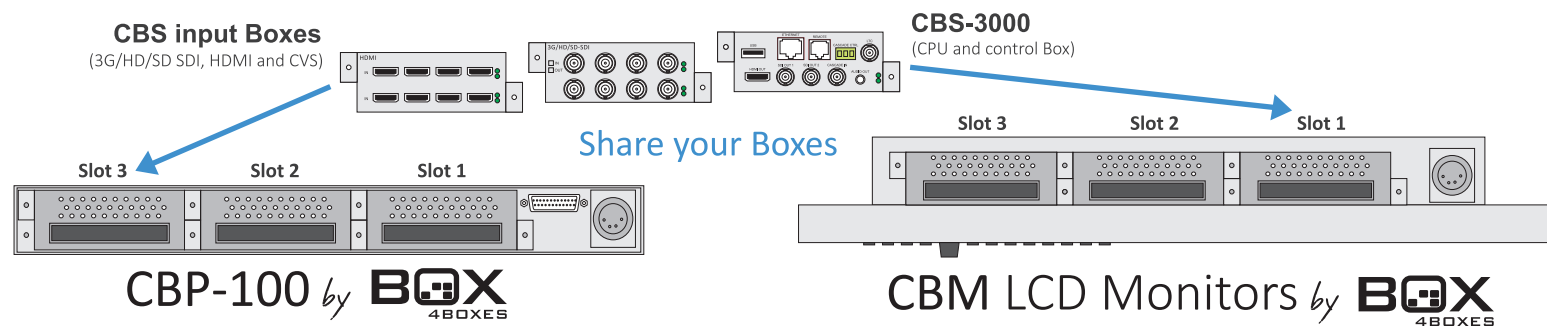


Create
Combine
Share
Replace

Hardware based (no PC inside)
Slot & Box system for easy integration
10 bit image processing
Low processing delay
Compact lightweight rugged design



Friendly & easy to integrate Box and slot system. Build your system!



LCD Monitors & Standalone Multiviewers

Box4Boxes is an easy to use line of modular Multiviewer systems, based on a unique and innovative slot and Boxes system. The slot system and combinable rugged and easy to integrate input Boxes allow to create and configure custom Multiviewer LCD Monitors and Standalone Multiviewer Processors, add new inputs in the future and make servicing easier.

All inputs can be displayed on-screen simultaneously in any size and position (custom layout) or using one of the multiple factory presets. Box4Boxes systems integrate all professional features as UMD & Tally, Markers, Real time colour Waveform and Vectorscope, 16 Channel Audio Level Meters, alarms, clocks,... Rugged, fanless and lightweight aluminium design means the system works silently in any environment.

High quality Hardware based systems

Purely based on hardware (no PC and no hard-drive) the Box4Boxes Series offers a minimum frame delay, and maximum reliability with a high quality 10 bit image processing engine.

All our Box4Boxes Multiviewer LCD Monitors and Video Processors must integrate a CBS-3000 control Box and can combine 3G/HD/SD-SDI, HDMI® and CVS input Boxes. CBS-3000 control Box integrates an Ethernet connector to control the Multiviewer remotely using our user friendly Control Software (SNMP compatible), and USB connector for upgrades. The CBS-3000 integrates a cascading capability to increase the number of sources to be displayed in your system.

Modular Multiviewer Monitors & Video Processors



CBP-100 by BOX 4BOXES

3G/HDMI/CVS Modular Multiviewer



Up to 16 inputs in 1 RU
and cascading capability to
increase your system
"Custom your system"

Hardware based (no PC inside)
Slot & Box system for easy integration
10 bit image processing
Low processing delay
Compact light weight rugged design



CBP-100 Box and Slot System

- Easy to use Modular Multiviewer system
- Hardware based (NO Pc, NO hard-drive)
- Up to 16 (3G/HD/SD-SDI, HDMI®, CVS) inputs in 1RU (3 Slots).
- Dual HDSDI and 1 HDMI outputs (CBS-3000 Control Box)
- Rugged and user friendly Boxes system for easy integration
- 10 bit image processing with low processing delay
- Quick control: Easy to use keyboard with 11 user configurable direct keys and encoder
- Aspect Ratio Selection (4:3, 16:9)
- Markers and safety areas
- ATC Time code(3G/HD/SD-SDI)
- No audio, Silence, No input and Black image on screen alarms

- Real time colour Waveform (Selectable RGB, R, G, B, YCbCr, Y, Cb, Cr) and Vectorscope per input
- 16 Channel Audio Level Meters (3G/HD/SD-SDI embedded audio) (Vertical or Horizontal)
- NTP and Local Clocks and Timers
- 16 characters UMD and video format information
- Tally and UMD, TSL 3.1 and 5.0 compatible
- Selectable Background, border and text colour
- Free user friendly drag and drop control software and firmware update by USB
- SNMP Compatible system
- Space-saving, fanless, energy-efficient and lightweight aluminium design

CBM LCD Monitors by BOX 4BOXES

18,5", 21,5", 23,8", 32" & 42" with Modular build-in Multiviewer

Up to 32 inputs
3G/HD/SD SDI, HDMI, CVBS

LED Backlight
Slot & Box system for easy integration
10 bit image processing
Low processing delay
Compact lightweight rugged design



When image quality and minimum delay are a must!

- 18,5", 24", 32" and 42" LCD Monitors Grade A panels
- LED Backlight (reduced power consumption)
- Hardware based (NO Pc, NO hard-drive)
- Easy to use modular Multiviewer system
- Up to 32 (3G/HD/SD-SDI, HDMI, CVS) inputs
- Rugged and user friendly Boxes system for easy integration
- Wide viewing angles
- 10 bit image processing engine with low processing delay
- Quick control: Easy to use keyboard with 11 user configurable direct keys and encoder
- Brightness, Contrast, Saturation adjustment
- Colour temperature adjustment (5600K, 6500K, 9300K and User (R, G, B Gain and Bias adjustment))
- Gamma correction
- Blue Only / Monochrome
- Aspect Ratio Selection (4:3, 16:9)
- Markers and safety areas

- ATC Time code(3G/HD/SD-SDI)
- No audio, Silence, No input and Black image on screen alarms
- Real time colour Waveform (Selectable RGB, R, G, B, YCbCr, Y, Cb, Cr) and Vectorscope per input
- 16 Channel Audio Level Meters (3G/HD/SD-SDI embedded audio) (Vertical or Horizontal)
- NTP and Local Clocks and Timers
- 16 characters UMD and video format information
- Tally and UMD, TSL 3.1 and 5.0 compatible
- Selectable Background, border and text colour
- Free user friendly drag and drop control software and firmware update by USB
- SNMP Compatible system
- Space-saving, fanless, energy-efficient and lightweight aluminium design

SPECIFICATIONS

	CBM-185P	CBM-185H	CBM-215H	CBM-238	CBM-320	CBM-420
Display Size	18,5" LED Backlight	18,5" LED Backlight	21,5" LED Backlight	23,8" LED Backlight	32" LED Backlight	42" LED Backlight
Resolution	1366 X 768 (16:9)	1920 X 1080 (16:9)	1920 X 1080 (16:9)	1920 X 1080	1920 X 1080	1920 X 1080
Viewing angle	178,178	178,178	178,178	178,178 (IPS)	178,178	178,178
Brightness	250 cd/m²	350 cd/m²	250 cd/m²	250 cd/m²	400 cd/m²	500 cd/m²
Contrast	1000:1	1000:1	1000:1	1000:1	4000:1	4000:1
Colour Depth	16.7 Million	16.7 Million	16.7 Million	16.7 Million	16.7 Million	1.7 Bil. (10 Bit)
Slots	3 (1 to connect CBS-3000 Box and 2 used for input Boxes)				5 (1 for CBS-3000, 4 used for input Boxes)	
Dimensions	446 x 263 x 91 mm(6U)	446 x 263 x 91 mm(6U)	TBD	550 x 352 x 91 mm	755 x 471 x 105 mm	975 x 590 x 107 mm
Power supply	TBD	24V	TBD	12V	24V	24V
Accessories	AC185PS: Stand AC17PR: 19" rack support	AC18PS: Stand AC18PR: 19" rack support	AC215S: Stand AC215R: 19" rack support	AC238S: Stand AC238R: 19" rack support	-	-

ROADMAP	AVAILABLE	March 2016	March 2016	AVAILABLE	AVAILABLE	AVAILABLE
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High Performance Modular Multiviewer Systems

CBS Boxes by **BOX**
4BOXES

3G/HD/SD SDI, HDMI, CVS and Control Boxes



CBS-3000 New Control Box
with cascading capability to increase
your system

“All signals you need”

CBS-3000 Control Box with dual output
3G/HD/SD, HDMI & CVS inputs
Combinable input Boxes
Slot system for easy integration
Compact lightweight rugged design



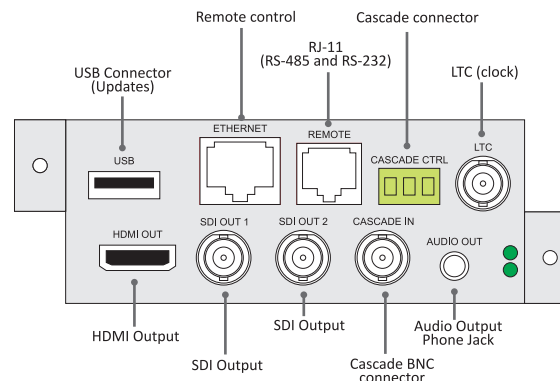
CBS-3000 Control Box

Dual HDSDI outputs & cascading capability. Increase your system!

All Box4Boxes systems must integrate a CBS-3000 control Box (CPU and connectors) and can integrate different input Boxes combining 3G/HD/SD-SDI, HDMI® and CVS signals

CBS-3000 control Box offers dual HD/SDI outputs and one HDMI output. CBS-3000 integrates an Ethernet connector to control the Multiviewer remotely using our user friendly drag and drop Control Software, and USB connector for upgrades.

The CBS-3000 integrates a cascading capability to increase the number of sources to be displayed in your system. Support 4K format working as a single display combined with a 4 x 3G/HD/SD-SDI input Box.

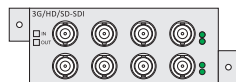


Dual HDSDI outputs

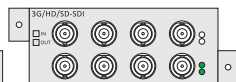
Multiviewer cascade

CBS Input Boxes

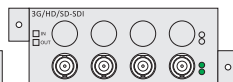
3G/HD/SD SDI, HDMI and CVS input Boxes



CBS-3G8
8 x 3G/HD/SD SDI Inputs



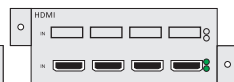
CBS-3G4L
4 x 3G/HD/SD SDI Inputs
with active loop through



CBS-3G4
4 x 3G/HD/SD SDI Inputs



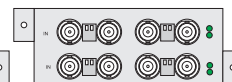
CBS-HD8
8 x HDMI Inputs



CBS-HD4
4 x HDMI Inputs



CBS-3G4HD4
4 x 3G/HD/SD-SDI and
4 x HDMI Inputs



CBS-CV8
8 x Composite Video Inputs

Control up to 128 inputs in 72 windows

Supported Resolutions:

3G/HD/SD-SD: 4K, 1080p (60/59.94/50/30/29.97/25/24/23.98/23.98/24.58/23.98sF), 1080i (60/59.94/50), 720p (60/59.94/50), 480i (59.94) 576i (50)
HDMI (Not HDCP support): 640x480 (60Hz), 800x600 (60Hz), 1024x768 (60Hz), 1366x768 (60Hz), 720p (50Hz), 1080i (50Hz)
Composite Video: 480i (59.94) 576i (50)

Modular Multiviewer Monitors & Video Processors



Waveform and vectorscope per input
Locate them inside the window, inside or outside the image

Videowall Capability
Locate windows between both outputs

2 Clocks and 6 Timers (NTP & Internal)
Locate them anywhere on the 4K canvas

Border & Background colour selection
Easy group sources

Video format information

Markers & Safety Areas

Tally
(Green, Red and Amber TSL 5.0)
(Red and Green TSL 3.1)
(Red using GPIO connector)

On Screen alarms

NO AUDIO SILENCE Audio
NO INPUT BLACK Image

UMD 16 character
(inside or outside the image)

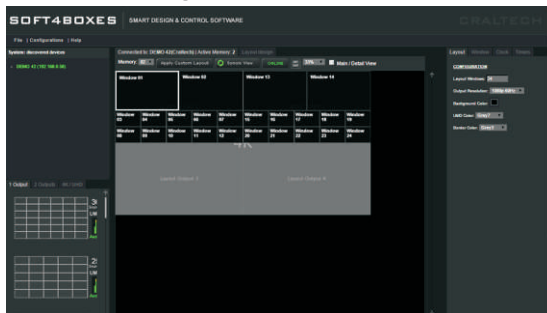
Up to 16 Channels Audio Level Meters

MONITOR 1 (OUTPUT 1)

MONITOR 2 (OUTPUT 2)

SOFT4BOXES

Design & control software



Work Online or Offline, store layouts in your Multiviewers,
2 View Modes to easy drag and drop elements, templates,...

Create your system

All inputs can be displayed on-screen simultaneously in any size and position. Control and customize your layout remotely using our user friendly Control Software (SNMP compatible).

Share your Boxes

Optimize and increase flexibility of your monitoring systems. Same Boxes can be used in our Box4Boxes LCD Monitors or Video Processors.

Combine your signals

Combine 3G/HD/SD-SDI, HDMI and Composite Video Signals, with different format and frame rate.

Replace your Boxes

The B4B Series Modular System offers the opportunity of adding new inputs when you need them, and make service easier.

User friendly Modular
Multiviewer Systems



Multiformat 3G professional LCD monitors

3G SDI / HDMI / CVBS / SFP Modules

SFX-SERIES
3G LED
 Backlight Waveform
 Vectorscope

1366 x 768
 LED Backlight
 12 bit video processing
 Wide viewing angles
 Light weight aluminium design

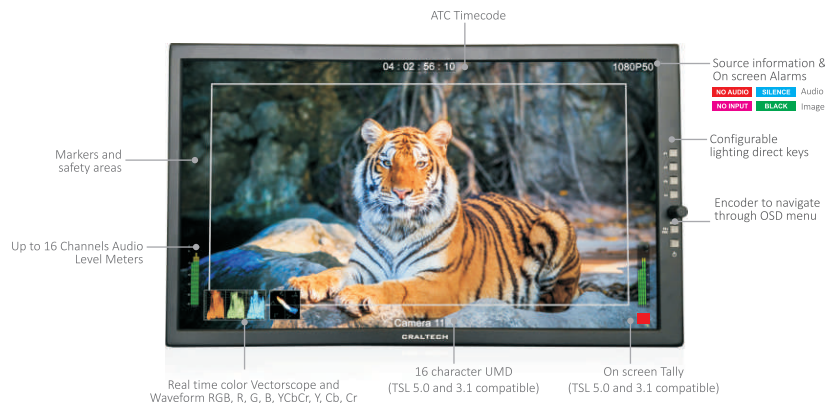


Full featured LCD Monitors. Markers, scopes, audio Level Meters...

- 2 x 3G/HD/SD-SDI Autosensing inputs, 1 x HDMI and 1 x CVS
- Optional optical fiber input (SFP module).
- LED Backlight (reduced power consumption)
- 12 bit video processing engine
- Wide viewing angle
- Quick control: Easy to use keyboard with user configurable direct keys and encoder to navigate through OSD menu
- Brightness, Contrast, Saturation adjustment
- Low processing delay
- Aspect Ratio Selection (4:3, 16:9)
- Gamma correction
- Backlight adjustment
- Color temperature adjustment (5600K, 6500K, 9300K and User (R, G, B Gain and Bias adjustment))
- Blue Only / Monochrome
- Markers
- 16 Channels Audio Level Meters
- Stereo Speakers Audio output
- UMD & on screen Tally
- Real time color Waveform and Vectorscope
- Selectable RGB, R, G, B, YCbCr, Y, Cb, Cr waveform
- Selectable transparency of all scopes and Audio Level Meters
- Rugged and lightweight aluminium design

Scopes and features

Audio Level Meters, Waveform, Vectorscope,... and more.



High image quality and all features you need!

SFX-Series is a line of professional LCD Monitors with 3G/HD/SD-SDI, HDMI, CVBS inputs and SFP Module slot for optional optical fiber or IP SMPTE-2022 compliant inputs. SFX-Series integrates our new superior quality 12 bit image processing engine and all the professional features you need.

The LED backlight displays and our energy-efficient board design grant low temperature while working. The rugged and lightweight aluminium design and wide viewing angles displays, makes them easy to integrate.

SPECIFICATIONS

	CM089SFX-3G	CM185SFX-3G	CM185HSFX-3G	CM215SFX-3G	CM238SFX-3G	CM320SFX-3G	CM420SFX-3G
Display Size	8,9" LED Backlight	18,5" LED Backlight	18,5" LED Backlight	21,5" LED Backlight	23,8" LED Backlight	32" LED Backlight	42" LED Backlight
Resolution	1920 X 1080 (16:9)	1366 X 768	1920 X 1080	1920 X 1080	1920 X 1080	1920 X 1080	1920 X 1080
Viewing angle	176,176	178,178 (IPS)	178,178	178,178 (IPS)	178,178 (IPS)	178,178	178,178
Brightness	400 cd/m ²	250 cd/m ²	350 cd/m ²	250 cd/m ²	250 cd/m ²	400 cd/m ²	500 cd/m ²
Contrast	TBD	1000:1	1000:1	1000:1	1000:1	4000:1	4000:1
Colour Depth	16.7 Million (8 Bit)	16.7 Million	16.7 Million	16.7 Million	16.7 Million	16.7 Million (8 Bit)	1.7 Bil. (10 Bit)
3G/HD/SD-SDI inputs	2 x BNC with active loop through of each input. Supported resolutions: 1080p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98 / 25sF / 24sF / 23.98sF), 1080i (60 / 59.94 / 50), 720p (60 / 59.94 / 50), 480i (59.94), 576i (50)						
HDMI input	1 HDMI						
CVS input	1xBNC						
Audio IN	Embedded Audio. 16 Channels Audio Level Meters						
Audio out	Analog Stereo (Phone Jack)						
UMD and Tally	On screen tally, and 16 characters UMD						
Remote control	Ethernet						
Chassis	Aluminium. Textured Black Powder Coat						
Dimensions	TBD	446 x 263 x 75 mm(6U)	446 x 263 x 75 mm(6U)	TBD	550 x 352 x 75 mm	755 x 471 x 105 mm	975 x 590 x 107 mm
Power supply	12V	24V	TBD	TBD	12V	24V	24V
Accessories	AC089FS: Stand AC089FR: 19" rack support	AC185PS: Stand AC185PR: 19" rack support	AC185PS: Stand AC185PR: 19" rack support	AC215S: Stand AC215R: 19" rack support	AC238S: Stand AC238R: 19" rack support	-	-

ROADMAP

May 2016	AVAILABLE	March 2016	March 2016	AVAILABLE	AVAILABLE	AVAILABLE
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Specifications are subject to change without prior notifications

Quad-Split 3G/HD/SD SDI LCD Monitors

Cost effective and easy to use compact solution

SFX-SERIES
3G | LED | Waveform
QUAD | Backlight | Vectorscope

LED Backlight
10 bit image processing
Low processing delay
Compact lightweight design



Full featured Quad-Split LCD Monitors

- LED Backlight LCD Monitors
- Wide Viewing angles
- Build-in Quad Split (4 x 3G/HD/SD-SDI inputs)
- Hardware based (NO Pc, NO hard-drive)
- 10 bit image processing engine with low processing delay
- Quick control: Easy to use keyboard with 11 user configurable direct keys and encoder
- Brightness, Contrast, Saturation adjustment
- Colour temperature adjustment (5600K, 6500K, 9300K and User (R, G, B Gain and Bias adjustment)
- Blue Only / Monochrome
- Aspect Ratio Selection (4:3, 16:9)
- Markers and safety areas
- ATC Time code (3G/HD/SD-SDI)
- No audio, Silence, No input and Black image on screen alarms
- Real time colour Waveform (Selectable RGB, R, G, B, YCbCr, Y, Cb, Cr) and Vectorscope
- 16 Channel Audio Level Meters (embedded audio)
- 16 characters UMD and video format information per input
- Tally and UMD, TSL 3.1 and 5.0 compatible
- Free user friendly drag and drop control software (SNMP compatible) and firmware update by USB
- Space-saving, fanless, energy-efficient and lightweight aluminium design

Scopes and features

Markers, alarms, UMD, scopes,... and more



Screen Configurations

Quad View
Display 4 x 3G/HD/SD SDI inputs on screen



Full Screen View
Display one input at full screen



Professional Broadcast Quad-Split LCD Monitors

SFX-Series 3G-Quad is a Cost-effective LCD Monitor line with build-in Quad-split (4 x 3G/HD/SD-SDI Autosensing inputs) and 4K Format support. With superior quality 10 bit image processing engine, these Quad-Split Monitors are a space-saving and energy-efficient hardware based (no PC and no hard-drive) solution with low processing delay.

SPECIFICATIONS

	CM185PSFX-3G4	CM185HSFX-3G4	CM215SFX-3G4	CM238SFX-3G4	CM320SFX-3G4	CM420SFX-3G4
Display Size	18,5" LED Backlight	18,5" LED Backlight	21,5" LED Backlight	23,8" LED Backlight	32" LED Backlight	42" LED Backlight
Resolution	1366 X 768	1920 X 1080	1920 X 1080	1920 X 1080	1920 X 1080	1920 X 1080
Viewing angle	178,178 (IPS)	178,178	178,178 (IPS)	178,178 (IPS)	178,178	178,178
Brightness	250 cd/m ²	350 cd/m ²	250 cd/m ²	250 cd/m ²	400 cd/m ²	500 cd/m ²
Contrast	1000:1	1000:1	1000:1	1000:1	4000:1	4000:1
Colour Depth	16.7 Million	16.7 Million	16.7 Million	16.7 Million	16.7 Million (8 Bit)	1.7 Bil. (10 Bit)
3G/HD/SD-SDI inputs	4 x BNC. Supported resolutions: 1080p (60 / 59.84 / 50 / 30 / 29.97 / 25 / 24 / 23.98 / 25sF / 24sF / 23.98sF), 1080i (60 / 59.94 / 50), 720p (60 / 59.94 / 50), 480i (59.94), 576i (50) Embedded Audio. 16 Channels Audio Level Meters					
Audio IN	Analog Stereo (Phone Jack)					
Audio out	On screen tally, and 16 characters UMD					
UMD and Tally	Ethernet					
Remote control	Aluminium. Textured Black Powder Coat					
Chassis	TBD					
Dimensions	446 x 263 x 75 mm(6U)	446 x 263 x 75 mm(6U)	TBD	550 x 352 x 75 mm	755 x 471 x 105 mm	975 x 590 x 107 mm
Power supply	24V	TBD	TBD	12V	24V	24V
	AC185PS: Stand AC185PR: 19" rack support	AC185PS: Stand AC185PR: 19" rack support	AC215S: Stand AC215R: 19" rack support	AC238S: Stand AC238R: 19" rack support	-	-

ROADMAP

AVAILABLE	March 2016	March 2016	AVAILABLE	AVAILABLE	AVAILABLE
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BOX
4BOXES

SF-SERIES
3G|LED | Waveform
Backlight | Vectorscope

SFX-SERIES
3G|LED | Waveform
QUAD | Backlight | Vectorscope

PRODUCT CATALOG 2016

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