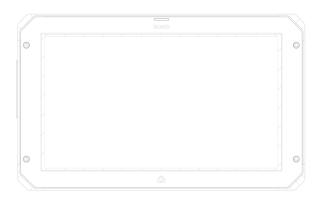


# **SUMO 19SE**

### 19" 1200nits 4K HDMI/SDI, Multi Channel HD Monitor, Recorder & Switcher









#### **Key Features**

- 1200 nit HDR touchscreen covering DCI-P3 color gamut
- · Record in Apple ProRes RAW via SDI up to 6Kp30
- 4 x HD ISO Switching & Recording + Program record via 3G SDI inputs (Level A only)
- · 10-bit 4:2:2 Apple ProRes or Avid DNxHR at 4Kp60.
- Power from A/C or use dedicated Battery XLR inputs
- · for continuous power from external batteries
- · BattWing included to mount your choice of V-Lock /
- · Gold mount batteries
- · 100 x 100 VESA mount, 3/8" and 1/4"-20 mount
- Same rugged and versatile design as the SUMO 19 (compatible with same accessories)

#### Proven. Reliable.

With a bright (1200nit) HDR Touchscreen covering the DCI-P3 (P3) Color Gamut, the ability to record Apple ProResRAW up to 6Kp30, and a rugged and versatile design, the SUMO 19SE is the perfect addition to an on-set video village. With four independent inputs it can also be be used to switch and record each ISO stream up to 1080p60 and has full-sized XLR connectors for professional audio workflows.

#### Record up to 6Kp30 ProRes RAW

Unlock the true potential of your SDI RAW cinema cameras with the Sumo 19SE. Preserve your sensor's pristine pixels in ProRes RAW at up to 6Kp30, 4Kp60 DCI/UHD, and 2Kp240 DCI/HD, or record in CinemaDNG at up to 4Kp30 DCI. Sumo 19SE is compatible with the Sony FS series cameras, Canon C300MKII/C500, Panasonic EVA-1/Varicam LT, and more.

#### 10-bit ProRes and DNx up to 4Kp60

Video from any camera or digital video source can be captured via SDI or HDMI. Record up to 10-bit 4:2:2 in Apple ProRes or Avid DNxHR codecs at 4Kp60. With support for multiple inputs via SDI the SUMO 19SE provides the ability to record up to  $4\,\mathrm{x}$  inputs and support for ProRes LT and DNxHD 36 for extended recording times.

#### **High-bright & HDR monitoring**

With 1200nit brightness, 19" 1920  $\times$  1080 and 10-bit processing all built into SUMO 19SE's rugged construction it's at home in any location. SDI and HDMI i/o supports a wide range of inputs and provides signal cross conversion with 4K>HD down conversion options.

#### Live Quad-channel HD Switching & Recording

Record up to four 1080p60 streams simultaneously (via 3G SDI Level A Only) as separate ISOs, as well as a fifth "program" channel of your switched feed, whilst cueing and switching in real-time. Display the resulting mixed output (via HDMI or SDI) live on set or use an HDMI to USB capture device to output the switched feed for live streaming. Switching is asynchronous, eliminating the need for expensive locked sources and allowing the use of more affordable cameras that do not support timecode/genlock inputs.

#### Two stereo balanced XLR inputs with 48V

The full-size XLR connectors with 48V Phantom power allow you to connect two external microphones with balanced analog audio recording and monitoring. The SUMO 19SE also has dedicated meters, gain controls, and adjustments for frame delay on each channel. Mic or line-level audio can be seamlessly synchronized with embedded audio from HDMI and SDI sources.

#### **Price**

US\$1995 | EU\$1995 ex. tax

SKU: ATOMCON003 | UPC: 814164022644

## **SUMO19 SE -** Technical specifications

Physical Specifications	
Weight (Monitor Only)	6.2kg / 13.7lb
Dimensions	504mm x 310mm x 63mm / 19.8" x 12.2" x 2.5"
Mount Points	Top: 4 x 1/4' 20, 2 x 3/8", Bottom: 6 x 1/4' 20, 3 x 3/8" Right: 4 x 1/4' 20, 2 x 3/8", Left: 2 x 1/4' 20, 1 x 3/8"
VESA Mounts	100 x 100
Environmental	
Ambient Temperature (C/F)	Up to 40 Degrees Celsius
Construction & Control	
Touch Screen	Yes
Body	Aluminium alloy chassis with ABS Polycarbonate back plate
Multi-function Button	Power / lock Screen
Cooling	Actively controlled fan and Heat Sink
Tally Light	Rear and front
Power	
Input voltage Range	DC 12-16.8V
Operating Power	75W
Compatible Batteries	V-Lock / Anton Bauer via XLR terminal, (optional mounting plates available), 95Wh+ recommended
Battery Voltage	14.4V nominal
Battery Run Time Record	Depends on Watt Hrs specified on battery used
Battery Run Time Monitor Only	Depends on Watt Hrs specified on battery used
Continuous Power	Dual Battery input via dedicated 4 pin XLR
DC in Connector	1 x 4 pin XLR (12-16.8V)
Display	
Touchscreen	SuperAtom IPS panel (capacitive touch)
Size	19"
Resolution	1920 x 1080
PPI	120
Bit depth	10Bit (8+2 FRC)
Backlight Type	
	Edge, Optically bonded quantum dot
Brightness (cdm2/Nits)	Edge, Optically bonded quantum dot 1200 (+/-10%)
Brightness (cdm2/Nits)	1200 (+/-10%)
Brightness (cdm2/Nits) Aspect Ratio	1200 (+/-10%) 16:9 Image Display
Brightness (cdm2/Nits) Aspect Ratio De-interlace Mode	1200 (+/-10%) 16:9 Image Display Yes
Brightness (cdm2/Nits) Aspect Ratio De-interlace Mode Color Gamut	1200 (+/-10%) 16:9 Image Display Yes DCI P3 Atomos Calibrator with Calibrite ColorChecker
Brightness (cdm2/Nits) Aspect Ratio De-interlace Mode Color Gamut Calibration Support	1200 (+/-10%) 16:9 Image Display Yes DCI P3 Atomos Calibrator with Calibrite ColorChecker
Brightness (cdm2/Nits) Aspect Ratio De-interlace Mode Color Gamut Calibration Support Color Pipeline	1200 (+/-10%)  16:9 Image Display  Yes  DCI P3  Atomos Calibrator with Calibrite ColorChecker Display Pro or ColorChecker Display Plus  Sony SLog / SLog2 / SLog3, Canon CLog / CLog2 / Clog3, Arri Log CEI160 / LogCEI200 / LogCEI250 / LogCEI320 / LogCEI400 / LogCEI500 / LogCEI640 / LogCEI600 / LogCEI000 / LogCEI1600, Panasonic V-log, JVC JLog1, Red LogFilm / Log3G10 / Log3G12, FujiFilm F log, PQ (HDR10),
Brightness (cdm2/Nits) Aspect Ratio De-interlace Mode Color Gamut Calibration Support Color Pipeline Gamma	1200 (+/-10%)  16:9 Image Display  Yes  DCI P3  Atomos Calibrator with Calibrite ColorChecker Display Pro or ColorChecker Display Plus  Sony SLog / SLog2 / SLog3, Canon CLog / CLog2 / Clog3, Arri Log CEI160 / LogCEI200 / LogCEI250 / LogCEI320 / LogCEI800 / LogCEI500 / LogCEI800 / LogCEI800 / LogCEI1800 / LogCEI1000 / LogCEI1280 / LogCEI1600, Panasonic V-log, JVC JLogI, Red LogFilm / Log3G10 / Log3G12, FujiFilm F log, PQ (HDR10), HLG, Nikon N-Log  BT2020, DCI P3, DCI P3+, DCI p3 65, Sony SGamut / SGamut3 / SGamut3.cine, Canon Cinema, Panasonic V Gamut, Arri Alexa Wide Gamut, Rec709, JVC LS300, F-Gamut, Red DragonColor / DragonColor2 / RedColor2 /
Brightness (cdm2/Nits) Aspect Ratio De-interlace Mode Color Gamut Calibration Support Color Pipeline Gamma	1200 (+/-10%)  16:9 Image Display  Yes  DCI P3  Atomos Calibrator with Calibrite ColorChecker Display Pro or ColorChecker Display Plus  Sony SLog / SLog2 / SLog3, Canon CLog / CLog2 / Clog3, Arri Log CEI160 / LogCEI200 / LogCEI250 / LogCEI320 / LogCEI400 / LogCEI500 / LogCEI320 / LogCEI600 / LogCEI000 / LogCEI000 / LogCEI1800 / LogSEII600, Panasonic V-log, JVC JLog1, Red LogFilm / Log3GI0 / Log3GI2, FujiFilm F log, PQ (HDR10), HLG, Nikon N-Log  BT2020, DCI P3, DCI P3+, DCI p3 65, Sony SGamut / SGamut3 / SGamut3.cine, Canon Cinema, Panasonic V Gamut, Arri Alexa Wide Gamut, Rec709, JVC LS300, F-Gamut, Red DragonColor / DragonColor2 / RedColor3 / RedColor4 / RedWideGamut
Brightness (cdm2/Nits) Aspect Ratio De-interlace Mode Color Gamut Calibration Support Color Pipeline  Gamma  Gamut  3D LUT Display	1200 (+/-10%)  16:9 Image Display  Yes  DCI P3  Atomos Calibrator with Calibrite ColorChecker Display Pro or ColorChecker Display Plus  Sony SLog / SLog2 / SLog3, Canon CLog / CLog2 / Clog3, Arri Log CEI160 / LogCEI200 / LogCEI250 / LogCEI320 / LogCEI800 / LogCEI500 / LogCEI800 / LogCEI800 / LogCEI800 / LogCEI900 / LogCEI900 / LogCEI900 / LogCEI900 / LogCEI900 / LogCEI900 / LogCEI1600, Panasonic V-log, JVC JLogI, Red LogFilm / Log3G10 / Log3G12, FujiFilm F log, PQ (HDR10), HLG, Nikon N-Log  BT2020, DCI P3, DCI P3+, DCI p3 65, Sony SGamut / SGamut3 / SGamut3.cine, Canon Cinema, Panasonic V Gamut, Arri Alexa Wide Gamut, Rec709, JVC LS300, F-Gamut, Red DragonColor / DragonColor2 / RedColor2 / RedColor3 / RedColor4 / RedWideGamut  .Cube format
Brightness (cdm2/Nits) Aspect Ratio De-interlace Mode Color Gamut Calibration Support Color Pipeline  Gamma  Gamut  3D LUT Display 3D LUT Output	1200 (+/-10%)  16:9 Image Display  Yes  DCI P3  Atomos Calibrator with Calibrite ColorChecker Display Pro or ColorChecker Display Plus  Sony SLog / SLog2 / SLog3, Canon CLog / CLog2 / Clog3, Arri Log CEI160 / LogCEI200 / LogCEI250 / LogCEI320 / LogCEI800 / LogCEI500 / LogCEI320 / LogCEI800 / LogCEI000 / LogCEI1800 / LogCEI1800 / LogSCI1000 / LogSCI1280 / LogSCI1600, Panasonic V-log, JVC JLog1, Red LogFilm / Log3G10 / Log3G12, FujiFilm F log, PQ (HDR10), HLG, Nikon N-Log  BT2020, DCI P3, DCI P3+, DCI p3 65, Sony SGamut / SGamut3 / SGamut3.cine, Canon Cinema, Panasonic V Gamut, Arri Alexa Wide Gamut, Rec709, JVC LS300, F-Gamut, Red DragonColor / DragonColor2 / RedColor2 / RedColor3 / RedColor4 / RedWideGamut  Loop out

Color Management	
Calibration	Atomos Calibrator with Calibrite ColorChecker Display Pro or ColorChecker Display Plus
Display Controls	Backlight, Lift, Gamma, Gain
AtomHDR	Built in Technical Log to HDR EOTF
3D Luts	Display, monitor and output, Record, Load via SSD
Legalize	Input
Video Input	
HDMI In	1 x HDMI (2.0) 4Kp60
HDMI RAW	No - HDMI Video only
SDI in	4 x 3G SDI, with 2 x 12G SDI backwards compatible, auto detection
SDI RAW	Apple ProRes RAW up to 6Kp30
HDR	Yes with HDMI Auto detection
Bit Depth	8/10Bit Video / RAW up to 12Bit
Video Chroma Subsampling	YCbCr 422
File Naming	
Standard	S/S/T & Rolling
Via SDI	RED, ARRI
Video Output	
HDMI Out	1 x HDMI (2.0) 4Kp60
SDI loop out	1 x 12G SDI Backwards compatible Auto detection level A and B selectable
SDI Play out	1 x 12G SDI Backwards compatible Auto detection level A and B selectable
Video Chroma Subsampling	422
Bit Depth	10Bit Video / 12Bit RAW
Audio In/Out	
Audio Quality	24-Bit / 48kHz
Audio Codec	РСМ
HDMI	8ch 24Bit, input dependent
SDI	12ch 24Bit, input dependent
Analogue Audio in	2 x XLR
Analogue Audio Out	2 x XLR
Speakers	2 x 5w
Headphone out	3.5mm 2ch.
Web Streaming	
USB UVC	Optional via Atomos HDMI to USB Stick
Video Signal Conversion	
HDMI to SDI	Yes
SDI to HDMI	Yes - Video and RAW
Timecode / Sync	
SDI Embedded	Embedded
HDMI Embedded	Embedded
Time of Day	Yes, Time and Date
LTC	LTC via BNC input in Record mode
Genlock	Genlock in Playback mode
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### **SUMO19 SE - Technical specifications**

Posalution & Frame Pates (Posard	Manitar 9 Blauback
Resolution & Frame Rates (Record	
6K RAW	up to 6Kp30 Via SDI
4K RAW	up to 4Kp60 via SDI
2K RAW	up to 2Kp240 via SDI
4K DCI	up to 4Kp60
4K UHD	up to 4Kp60
2K DCI 2048 x 1080	up to 2Kp60
FHD 1920 x 1080 Progressive	up to 1080p120
FHD 1920 x 1080 PsF	Pull down
FHD 1920 x 1080 Interlaced	1080i50 / 1080i60
1280 x 720	60p
Recording CODEC	
CDNG	For SDI RAW inputs only
Apple ProRes RAW	up to 12bit 6Kp30 / 4Kp60
Apple ProRes HQ / 422 / LT	up to 4Kp60
Avid DNxHD	up to 1080p60
Avid DNxHR	up to 4Kp60
Pre Roll	Yes (HD 8s, 4K 2s) - Not available in RAW
ISO Record	4 x ISO up to 1080p60 (3G SDI Level A ONLY)
Switched Program Record	Yes up to 1080p60
Timelapse	Yes
Playback	
Playlist	Yes, Create custom play lists from full or sub clips
Loop Playback	Yes, with user customisable in / out markers
Apple ProRes Raw	Yes, recorded clips with linear PCM
ProRes HQ / 422 / LT	Yes with linear PCM
Avid DNx HD	Yes with linear PCM
Avid DNx HR	Yes with linear PCM
CDNG	No
Monitoring	
SDR	Native, 709, LUT
HDR	HLG, PQ Rec2020
De-Interlace	Selectable mode
Multi Input / Switching	
SDI A/B toggle	Yes, supports up to 12G SDI per input
Input Switching	Yes
Dual Input display	Via Multi ISO input mode
Multiple SDI input	Up to 4 x 1080p60 (3G SDI Level A ONLY)
Multiview Display	Via Multi ISO input mode
Input Transitions	Auto or manual XML transition
Supported Media	
Interface	SATA 3 - MasterCaddy
Master Caddy I	No
Master Caddy II	Yes
Master Caddy III	Yes
SSDmini	Yes (AtomX SSDmini Handle required)
CFast II	No
File System	exFAT
	2

On Screen Tools	
Waveform	3 sizes
Rgb Parade	3 sizes
Vector Scope	2 size / Position
1 X Zoom	Yes. 1:1 Pixel mapping for 4K
2 X Zoom	Yes
Focus Peaking	Colour selected / threshold setting / colour/ Mono / edges only
Zebra	Yes, customisable
False Color	Yes, with IRE scale
Isolate Color Channel	Blue only
Cine Frame Guides	2.4:1, 2.35:1, 1.9:1, 1.85:1, 4:3
Social Frame guides	9:16, 1:1, 1.91:1, 4:5
Safe Areas	SMPTE frame size – Action and Safe
Grid Markers	9 grid
Anamorphic Desqueeze	Display 1.25x, 1.33x, 1.5x, 1.8x and 2x
Display Flip	Vertical
Onboard Signal Processing	
4K UHD Downscale for HD	Loop out - 4K UHD to FHD
DCI Crop	Loop out - 17:9 to 16:9 Crop
I > P	60i > 24p (3:2 pulldown)
PSF > P	24/25/30pSF > 24/25/30p (2:2 pulldown)
Remote Control	
HDMI	Auto HDMI Trigger, Supported Protocols - Canon, Sony, Atomos Open Standard
SDI	SDI trigger camera selectable
Serial 2.5mm Jack	LANC control and calibration via optional USB to serial cable
Supported Applications	
XML	Final Cut Pro
Apple ProRes RAW	Apple Final Cut Pro, Adobe Premiere, Avid Media Composer, Grass Valley Edius, ASSIMILATE SCRATCH
Apple ProRes	All Applications with support for Apple ProRes in .MOV wrapper
Avid DNx	All Applications with support for Avid DNX in .MOV wrapper
What's in the Box	
Accessories included	Sumo 19SE unit, 1x Master Caddy II, 1x BattWing mounting bracket with 4x screws, 2x Desktop Feet with 4x 1/4" Mounting screws, AC power supply
Warranty	g
Standard	1 Year
Extended	3 Years