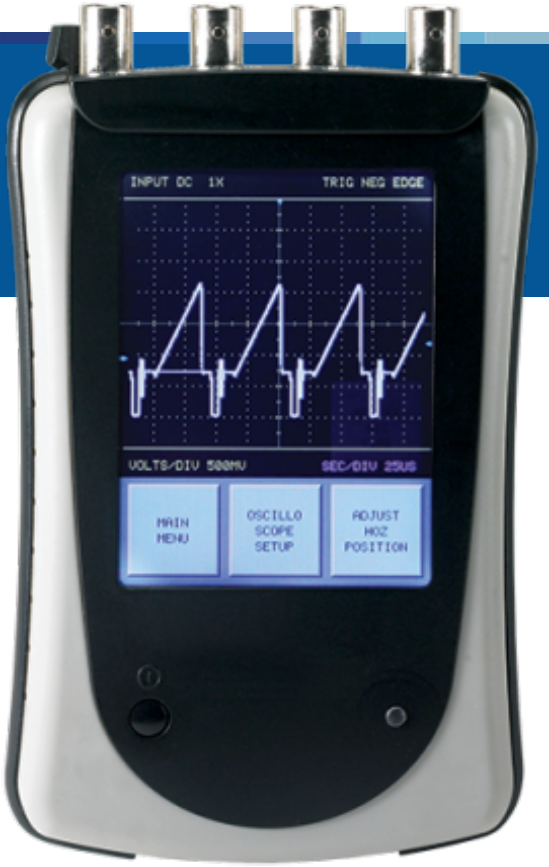
Videotek SD-STAR™

Handheld SD-SDI and Analog Composite Generator and Monitor



The new Videotek® SD-STAR™ is a handheld, battery-powered monitor and test generator for SD-SDI and analog composite video signals. The unit provides multiformat functionality and versatility, setting it apart from other handheld test products on the market.

With a powerful array of features and functions, including a video test signal generator, color monitor, waveform monitor, vectorscope, oscilloscope and audio analyzer/monitor, the lightweight SD-STAR is ideal for monitoring field production camera setup, equipment installations or troubleshooting signal path issues related to analog and standard-definition digital formats.

Features

- Multiple functionality
  - Video test signal generator
  - Color monitor
  - Waveform monitor
  - Vectorscope
  - Oscilloscope
  - Audio analyzer/monitor
  - Serial data analyzer
- Multiple formats
  - SD-SDI
  - Composite analog
  - Analog
- Portable, handheld
  - PDA-sized
  - Weighs under one pound
- Integrated 320x240 color LCD display
- Touchscreen operation

Details

This PDA-sized test monitor offers the convenience of portability without sacrificing function and performance. To enhance the user experience, the SD-STAR features an integrated 320x240 color LCD that utilizes touchscreen technology to control and configure each operation. Maintaining power in the field isn't a problem either — the SD-STAR runs on a rechargeable lithium ion battery pack that can deliver more than six hours of continuous operation (subject to functionality selected).

The SD-STAR includes two video inputs — one for monitoring composite analog NTSC and PAL video signals and one for monitoring SD-SDI signals formatted in SMPTE 259M-C with embedded audio. The analog input can be used with the oscilloscope function for a variety of analog signals. The test signal generator has individual outputs of composite analog video and SD-SDI. The stereo headphone output may be configured to monitor embedded audio from the SDI source or double as a monaural analog tone generator output.

Standard accessories include a sunshield, rechargeable lithium ion battery pack, AC power adapter, serial communications cable and a belt-style pouch.

Specifications

Specifications and designs are subject to change without notice

Clor TFT Touch Screen LCD	320x240 pixels 2.1 x 2.8 in. (54 x 72 mm) display

TEST SIGNAL GENERATOR	
Test Signals:	
Color Bars	Split bars: 75% and 100% (SMPTE) Full bars: 75% and 100% Luminance ramp and full ramp Sweep 10-step Sin X Window test signal Check field Multi burst Multi pulse Full field colors
Frequency Stability	5 ppm
Serial Digital Video Output	525/59.94, 625/50 EDH insertion Embed tone in any single audio group
Composite Video Output	NTSC or PAL
Audio Frequency and Amplitude Adjustable Color Picture Monitor	Pulse cross mode Horizontal and vertical offset

WAVEFORM MONITOR	
Composite Video Input	Composite NTSC or PAL
Serial Digital Video Input	RGB or Y, C_B, C_R
Color Display	
Digital Line Select	
Persistence Adjustable	
Vectorscope	75% and 100% display mode Digital line-select Persistence adjustable
Serial Digital Data Analyzer	SAV position SAV XYZ word EAV position EAV XYZ word ANC check sum EDH flags Active picture EDH Full field EDH

OSCILLOSCOPE	
Bandwidth	48 MHz
Flatness	±1% to 6 MHz
Scales (Time)	Sec/Div 250 ns, 500 ns, 1 us, 2.5 us, 5 us, 10 us, 25 us, 50 us, 100 us, 250 us, 500 us, 1 ms, 2.5 ms, 5 ms, 10 ms, 25 ms, 50 ms, 100 ms (accuracy <2% error)
Scales (Amplitude)	10X mode volts/div 100 mV, 200 mV, 500 mV, 1 V, 2 V and 5 V (accuracy <2% error) 1X mode volts/div 10 mV, 20 mV, 50 mV, 100 mV, 200 mV and 500 mV (accuracy <2% error)
Maximum input level	40 V pk-pk (only in x10 mode)
Input coupling	DC or AC
Input impedance	75 ohms or 1 M ohms selectable

VERTICAL AND HORIZONTAL POSITION CONTROLS	
Trigger level and polarity controls Persistence	Positive and negative trigger with level control H and V sync trigger mode Tri-level sync trigger mode
Embedded Serial Audio Monitor	AES/EBU 48 kHz audio data supported Analyze any 1 pair from 4 groups Stereo bar graph peak hold and VU audio meters Variable stereo headphone output (from embedded audio sources) with 16-bit DAC

AUDIO TONE GENERATOR	
THD	≤1%
Maximum Level	+4 dBu
Connector	Miniature TRS headphone jack
Audio Frequency Fixed Selections	400 Hz, 1 kHz, 10 kHz
Audio Frequency Variable Selections	10 Hz to 20 kHz in 10 Hz steps
Audio Amplitude Fixed Selections	+4, 0, -4, -8, -18, -20 dB
Audio Amplitude Variable Selections	+4 dB to -59 dB in 1 dB steps
Power Management	Auto shutdown of unused functions Up to 6-hour operation (full battery charge, function dependent)

SERIAL DIGITAL OUTPUT	
Return Loss	≤-15 db at 270 MHz
Output Data Rate	270 Mb/s
Output Jitter	≤0.2 UI
Composite Analog Output	10-bit DAC Interpolation 8:8:8 S/N ratio (ramp) >60 db RMS Serial digital input (SMPTE 259M-C) Composite analog input (NTSC - PAL)
Communications	RS-232 serial communications for firmware upgrade

ENVIRONMENTAL	
Operating	32° to 104° F (0° to 40° C)
Storage	-22° to 185° F (-30° to 85° C)
Mechanical	
Dimensions (H x W x D)	5.3 x 3.1 x 1.4 in. (136 x 80 x 35 mm)
Weight	14.5 oz (411 g)
Power	Li-Ion rechargeable battery pack and AC power adapter/charger with North American power cord included, optional power cords available

Ordering Information

SD-STAR	Handheld SD-SDI and analog monitor and generator — portable, battery-powered, handheld SD-SDI and analog video and audio monitor (picture, waveform and vector), data monitor (EDH SD-SDI only) and video generator with embedded audio

OPTIONS

EPC	European power cord for AC adapter
EPC-UK	United Kingdom power cord for AC adapter
EPC-AA	Australia power cord for AC adapter