

T-Drive SD100 Mobile Display Tester

Everything you need to drive your mobile display including the video interface (RGB or CPU), power, discretes, constant current LED sources, and SPI programming interface.

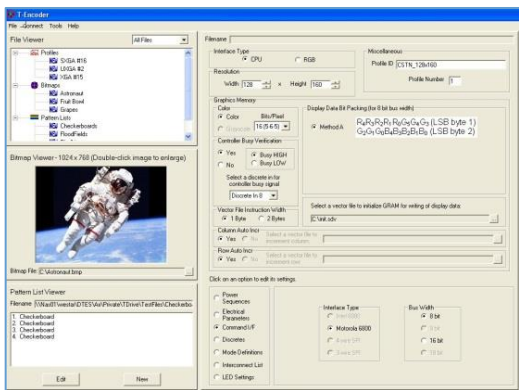


T-Drive™ SD100 LCD Tester

T-Drive™ SD100 is a popular tester for mobile displays with RGB, CPU, or SPI interfaces. T-Drive SD100 is used extensively in product R&D and manufacturing QA/QC.

Powerful Configuration Software

T-Encoder™ helps you to manage the timing profiles and pattern lists stored in your T-Drive SD100. T-Encoder includes an easy to use editor to create timing/electrical module profiles and pattern lists. Timing profiles and pattern lists are easily downloaded to the T-Drive SD100 via USB.



Enhanced Pattern Generation

T-Drive SD100 generates an extensive array of test patterns. You may control the color, intensity, and, in some cases, the position of these test patterns via the simple interface provided on the handheld keypad. You may also create a unique pattern list for your repair or test function.

Each T-Drive SD100 Includes

- T-Drive™ SD100
- SD100 output cards
- 256MB storage for images
- Handheld Keypad
- USB Cable
- T-Encoder™ Software with User's Manual

Features

T-Drive™ SD100 mobile display tester can drive most mobile displays on the market today such as cell phone display modules and tablet displays.

Standard Features

- Programmable RGB timing and configurable CPU interface
- Programmable display voltage and LED Backlight current
- Programmable electrical levels for signaling
- Power sequencing includes power rails, LED Current, discretes, and signaling (CPU, RGB, serial)
- Real-time adjustments of test patterns
- Control of display specific features
- Factory default pattern list, user-defined pattern lists and auto pattern sequencing
- Image download and display (including .bmp and .jpg files)

Generated Test Patterns

- Full Screen Color
- 1 Pixel Horizontal Line
- 2 Pixel Horizontal Line
- Static Rectangle
- 1 or 2 Pixel Checkerboard
- 4 Color Horizontal Wedge
- Horizontal Gray Scale
- Response Time Animation
- Border
- 1 Pixel Vertical Line
- 2 Pixel Vertical Line
- Moving Rectangle
- Movable Crosshair
- 4 Color Vertical Wedge
- Vertical Gray Scale
- Blink

Optional Features

- Other output cards to convert T-Drive™ SD100 to a standard T-Drive™ for larger displays (contact Westar for details)
- Additional storage for images
- Interconnect and profile setup for your displays
- Windows DLL for remote control

Applications

- LCD Screening and Repair
- Automated Optical Test
- R&D
- QA/QC

T-Drive SD100 Mobile Display Tester

Video Timing for RGB Interface ¹	Specification
Bits per Pixel	Up to 8 bits each RGB
Pixels per Clock	1
Clock Frequency	Up to 25 Mhz
Horizontal (clocks per line)	
Total	Up to 2047
Active	8 to 1024
Back Porch (HBP)	1 clk increment
Front Porch (HFP)	1 clk increment
Sync Pulse Width (HSPW)	1 clk increment
Vertical (lines per frame)	
Total	Up to 2047
Active	1 to 1024
Back Porch (VBP)	1 line increment
Front Porch (VFP)	1 line increment
Sync Pulse Width (VSPW)	1 line increment
CPU Interface ¹	Specification
CPU Type	Intel, Motorola
Bus Width	8, 9, 16, 18, 24
Graphics Memory	
Resolution	Up to 640 x 480
Color	Color or Mono
Gray Scale Depth	1 to 8
Bit Packing	Various bit packing options are available. Contact Westar for more information.
LED Interface	Specification
Types	Serial, Common anode/cathode
LED Current (6 channels)	0.0 to 35.0 mA
Compliance Voltage	Up to 25 VDC
Programming Resolution	3 µA
Accuracy	100 µA at 15mA
SPI Interface	Specification
Types	3-wire or 4-wire
Bus Width	8, 9, 16, 18, 24
Power Generation	Specification
P1 (VDD), P2, P3	1.4 to 3.6 VDC, up to 25 mA
Programming Resolution	1 mV
Programming Accuracy	10 mV
Signal Electrical Levels	Specification
RGB Interface Signals	Follows VDD
CPU Interface Signals	Follows VDD
Serial Interface Signals	Follows VDD
Discrete Outputs	Follows VDD

Additional Features	Specification
Trigger	Output signal for all patterns (TTL level) - Remote I/F only
PWM Frequency ²	Up to 3 MHz
Unique Display Commands	Via Vector Files
Discrete Inputs / Outputs	5 pairs (configurable in pairs)
LVDS and TTL outputs (optional) ³	Up to 170 Mp/sec
Test Patterns	Specification
Standard Test Patterns	<u>Test Patterns (RGB and CPU)</u>
	• Full Screen Color
	• 1 Pixel Horizontal or Vertical Line
	• 2 Pixel Horizontal or Vertical Line
	• Movable Crosshair
	• 4 Color Horizontal or Vertical Wedge
	• Horizontal or Vertical Gray Scale
	• Static Rectangle
	• 1 or 2 Pixel Checkerboard
	• Border
<u>Test Patterns (RGB only)</u>	
• Moving Rectangle	
• Response Time Animation	
• Blink	
Storage Capacity	Specification
Pattern List	16 lists of up to 32 patterns
Timing Profile	250
Bitmap	256MB: 40 images 512MB (Optional): 80 images
Vector File	50 files of up to 256 bytes
Power Sequencing	Specification
Enable / Disable	Voltages, Video, LED current
Set / Reset	Discretes
Switching Time	<1 msec (typical)
Power Sequence Delay	From 100 µsec to 1 sec, 100 µsec increment
System	Specification
Dimensions	Height: 5.75" (146.05 mm) Length: 12.75" (323.85 mm) Depth: 7.75" (196.85 mm)
Weight	6 Lbs. (2.6 Kg)
Power	88 to 132VAC or 176 to 264VAC, 150 W max, Auto Select Frequency from 47 to 63 Hz
System Support & Warranty	Specification
Warranty and Support	1 Year Limited Warranty
Technical Support	Phone and Email Support Available

Tooling Services Available

To get your LCD connected to T-Drive SD100 quickly and easily, ask about our tooling service.

Contact Us to Get Started

Call us for additional product information and pricing. We will work with you one-on-one to deliver an LCD tester that meets your unique requirements!

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Notes

¹ Output of RGB and CPU signals are not simultaneous.

² Duty cycle resolution in % = PWM freq / 24 MHz * 100

³ Contact Westar for details.