

# T-Drive II LCD Tester

Versatile LCD Tester with 10 bit color output, quad LVDS, eDP/DisplayPort, high pixel clock frequency, programmable power, and more.



## T-Drive™ II LCD Tester

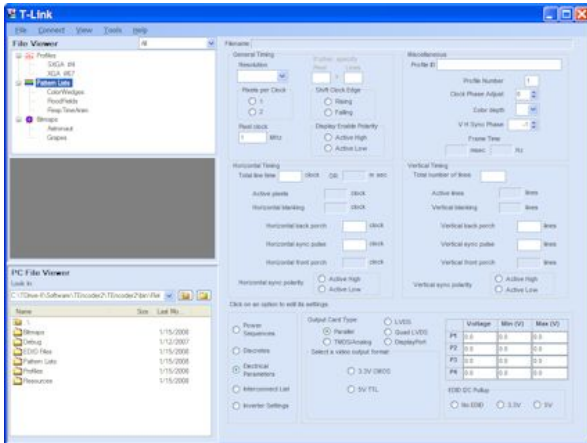
T-Drive™ II offers programmable timing, high pixel clock frequency, several video formats, and programmable power to drive many of the LCDs on the market today.

### Enhanced Pattern Generation

Based on Westar's flagship T-Drive™ LCD Tester, T-Drive II includes enhanced patterns with adjustments for color, intensity, and, where applicable, position and size. Custom patterns in the form of bitmaps may be downloaded and stored in T-Drive II for display on your LCD.

### Powerful Configuration Software

T-Link™ helps you to manage the files stored on your T-Drive II. T-Link includes an easy to use editor to create a timing/electrical panel profile and pattern list. T-Link also allows you to read, write, and compare EDIDs. The interface between the T-Drive II and T-Link is via USB 2.0.



## Each T-Drive II Includes

- T-Drive II
- Quad LVDS Output Card (leaving three spare slots for optional cards)
- Storage for 48 custom patterns
- Handheld Keypad
- USB Cable
- T-Link Software with User's Manual

## Features

### Standard Features

- Programmable raster timing and programmable power for LCD module and accompanying inverter, encapsulated in user-defined module profiles
- LVDS output up to WQXGA (2560x1600), 10 bit color depth
- EDID read/write/compare
- Power sequencing
- Real-time adjustments of test patterns
- Custom pattern download and display
- Power consumption measurements
- Inverter control
- Factory default pattern list, user-defined pattern lists and auto pattern sequencing

### Generated Test Patterns

- Full Screen Color
- Horizontal Line
- Static Rectangle
- Checkerboard
- 4 Color Horizontal Wedge
- Horizontal Gray Scale
- Tunnel
- Response Time Animation
- Blink
- Color Bar
- Vertical Line
- Moving Rectangle
- Border
- 4 Color Vertical Wedge
- Vertical Gray Scale
- Movable Crosshair
- Flicker

### Optional Features

- DisplayPort output card
- TMDS/Analog output card
- Digital parallel (TTL) output cards
- Negative power supply
- Windows DLL for remote control

## Applications

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

# T-Drive II LCD Tester

| Video Timing                        | Specification  |
|-------------------------------------|--|
| <b>Horizontal (clocks per line)</b> |  |
| Total                               | Up to 8190   |
| Active                              | 8 to 8182  |
| Back Porch (HBP)                    | 1 clk increment  |
| Front Porch (HFP)                   | 1 clk increment  |
| Sync Pulse Width (HSPW)             | 1 clk increment  |
| <b>Vertical (lines per frame)</b>   |  |
| Total                               | Up to 8191   |
| Active                              | 1 to 8190  |
| Back Porch (VBP)                    | 1 line increment   |
| Front Porch (VFP)                   | 1 line increment   |
| Sync Pulse Width (VSPW)             | 1 line increment   |
| <b>Video Output</b>                 |  |
| <b>Quad LVDS</b>                    |  |
| Bits per Pixel                      | 10 bits each RGB   |
| Pixels per Clock                    | 1, 2, or 4   |
| Clock Frequency                     | 8 to 135 MHz (effectively up to 270M pixels/sec for 2 or 4 pixels/clock) |
| <b>DisplayPort (optional)</b>       |  |
| Bits per Pixel                      | 10 bits each RGB   |
| Lanes                               | 1, 2, or 4   |
| Rate (per lane)                     | 1.6 or 2.7 Gbit/sec  |
| Clock Frequency                     | 20 to 270 MHz  |
| <b>TMDS (optional)</b>              |  |
| Bits per Pixel                      | 8 bits each RGB  |
| Pixels per Clock                    | 1  |
| Clock Frequency                     | 25 to 165 MHz  |
| <b>Analog (optional)</b>            |  |
| Bits per Pixel                      | 8 bits each RGB  |
| Pixels per Clock                    | 1  |
| Clock Frequency                     | 1 to 165 MHz   |
| <b>TTL (optional)</b>               |  |
| Bits per Pixel                      | 8 bits each RGB  |
| Pixels per Clock                    | 1 or 2   |
| Clock Frequency                     | 1 to 85 MHz (effectively up to 170M pixels/sec for 2 pixels/clock)       |

| Additional Features                                | Specification  |
|--|--|
| <b>Pattern Features</b>                            |  |
|  | <ul style="list-style-type: none"> <li>Movable crosshair overlay for all patterns</li> <li>Moving Bitmap</li> <li>Trigger out signal for all patterns (TTL level) - Remote I/F only</li> <li>Blinking rectangle overlay for all patterns - Remote I/F only</li> </ul>  |
| EDID   | EDID read/write/compare (EDID version 1.4)   |
| <b>Test Patterns</b>                               |  |
| <b>Standard Test Patterns</b>                      |  |
|  | <ul style="list-style-type: none"> <li>Full Screen Color</li> <li>Pixel Horizontal or Vertical Line</li> <li>Movable Crosshair</li> <li>4 Color Horizontal or Vertical Wedge</li> <li>Horizontal or Vertical Gray Scale</li> <li>Static or Moving Rectangle</li> <li>Checkerboard</li> <li>Border</li> <li>Response Time Animation</li> <li>Color Bars</li> <li>Tunnel</li> <li>Flicker</li> </ul> |
| <b>Storage Capacity</b>                            |  |
| Pattern List                                       | 16 lists of up to 32 patterns  |
| Timing Profile                                     | 500  |
| Bitmap   | 48 images up to WQXGA  |
| <b>Power Generation, Switching, and Sequencing</b> |  |
| Power Supplies 1 and 3                             | 2.5 to 24VDC, up to 3 Amp  |
| Power Supply 2                                     | 9.0 to 24VDC, up to 6 Amp  |
| Power Supply 4 (optional)                          | -24 to -2.5VDC, up to 0.5 Amp  |
| Power Supply Accuracy                              | greater of 150mV and +/- 3%  |
| Total Deliverable Power                            | Up to 150 Watts  |
| Switching Time                                     | <1 msec (typical)  |
| Power Sequence Delay                               | From 1 to 10000 msec, 1 msec increment   |
| Measurement Accuracy                               | +/-60mV, +/-60mA   |
| Measurement Precision                              | 0.01V, 0.01A   |
| Inverter Control                                   | Resistive, Voltage, I2C (Digital), PWM   |
| Discretes  | 8 In, 8 Out, 3.3VDC or 5 VDC TTL configurable by pairs   |
| <b>System</b>                                      |  |
| <b>Dimensions</b>                                  |  |
|  | Height: 5.75" (146.05 mm)<br>Length: 12.75" (323.85 mm)<br>Depth: 9.23" (234.32 mm)  |
| Weight   | 7.5 Lbs. (3.4 Kg)  |
| Power  | 88 to 132VAC or 176 to 254VAC, 240 W max, Auto Select Frequency from 47 to 63 Hz   |
| <b>System Support &amp; Warranty</b>               |  |
| Warranty   | 1 Year Limited Warranty  |
| Technical Support                                  | Phone and Email Support Available  |

## Tooling Services Available



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

## Contact Us to Get Started

Call or email 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!

**+1 (636) 300-5116**