**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.

<table>
<thead>
<tr>
<th>Each T-Drive II Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-Drive II</td>
</tr>
<tr>
<td>Quad LVDS Output Card</td>
</tr>
<tr>
<td>(leaving three spare slots for optional cards)</td>
</tr>
<tr>
<td>Storage for 48 custom patterns</td>
</tr>
<tr>
<td>Handheld Keypad</td>
</tr>
<tr>
<td>USB Cable</td>
</tr>
<tr>
<td>T-Link Software with User’s Manual</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Specification</th>
<th>Horizontal (clocks per line)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Up to 8190</td>
</tr>
<tr>
<td>Active</td>
<td>8 to 8182</td>
</tr>
<tr>
<td>Back Porch (HBP)</td>
<td>1 clk increment</td>
</tr>
<tr>
<td>Front Porch (HFP)</td>
<td>1 clk increment</td>
</tr>
<tr>
<td>Sync Pulse Width (HSPW)</td>
<td>1 clk increment</td>
</tr>
<tr>
<td>Vertical (lines per frame)</td>
<td>Up to 8191</td>
</tr>
<tr>
<td>Active</td>
<td>1 to 8190</td>
</tr>
<tr>
<td>Back Porch (VBP)</td>
<td>1 line increment</td>
</tr>
<tr>
<td>Front Porch (VFP)</td>
<td>1 line increment</td>
</tr>
<tr>
<td>Sync Pulse Width (VSPW)</td>
<td>1 line increment</td>
</tr>
</tbody>
</table>

### Video Output

<table>
<thead>
<tr>
<th>Specification</th>
<th>Quad LVDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bits per Pixel</td>
<td>10 bits each RGB</td>
</tr>
<tr>
<td>Pixels per Clock</td>
<td>1, 2, or 4</td>
</tr>
<tr>
<td>Clock Frequency</td>
<td>8 to 135 MHz (effectively up to 270M pixels/sec for 2 or 4 pixels/clock)</td>
</tr>
<tr>
<td>DisplayPort (optional)</td>
<td>Bits per Pixel 10 bits each RGB</td>
</tr>
<tr>
<td>Rate (per lane)</td>
<td>1.6 or 2.7 Gbit/sec</td>
</tr>
<tr>
<td>Clock Frequency</td>
<td>20 to 270 MHz</td>
</tr>
<tr>
<td>TMDS (optional)</td>
<td>Bits per Pixel 8 bits each RGB</td>
</tr>
<tr>
<td>Pixels per Clock</td>
<td>25 to 165 MHz</td>
</tr>
<tr>
<td>Clock Frequency</td>
<td>1 to 165 MHz</td>
</tr>
<tr>
<td>Analog (optional)</td>
<td>Bits per Pixel 8 bits each RGB</td>
</tr>
<tr>
<td>Pixels per Clock</td>
<td>1</td>
</tr>
<tr>
<td>Clock Frequency</td>
<td>1 to 165 MHz</td>
</tr>
<tr>
<td>TTL (optional)</td>
<td>Bits per Pixel 8 bits each RGB</td>
</tr>
<tr>
<td>Pixels per Clock</td>
<td>1 or 2</td>
</tr>
<tr>
<td>Clock Frequency</td>
<td>1 to 85 MHz (effectively up to 170M pixels/sec for 2 pixels/clock)</td>
</tr>
</tbody>
</table>

### Additional Features

**Pattern Features**

- Movable crosshair overlay for all patterns
- Moving Bitmap
- Trigger out signal for all patterns (TTL level) - Remote I/F only
- Blinking rectangle overlay for all patterns - Remote I/F only

**EDID**

EDID read/write/compare (EDID version 1.4)

**Test Patterns**

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

### Storage Capacity

- Pattern List: 16 lists of up to 32 patterns
- Timing Profile: 500
- Bitmap: 48 images up to WQXGA

### Power Generation, Switching, and Sequencing

- 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

### System

- Dimensions: Height: 5.75” (146.05 mm), Length: 12.75” (323.85 mm), 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

### System Support & Warranty

- 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