

T-Soak™

Affordable, flexible TFT burn-in



Baseline features

- ❖ Four channels of LVDS video
- ❖ Digital video up to UXGA
- ❖ Programmable VCC for each TFT
- ❖ Auto pattern sequencing
- ❖ Power measurements
- ❖ Repeatable power sequencing

Burn-in (soak) testing for

- ❖ No failure found
- ❖ Repeat repair
- ❖ Repair verification
- ❖ Production verification

Other applications

- ❖ Comparative analysis
- ❖ Automated TFT test

Optional features

- ❖ Image download and display
- ❖ TMDS/Analog output cards
- ❖ Single pixel TTL output cards
- ❖ Interconnect service
- ❖ Master control application for Windows
- ❖ Windows DLL for remote control

WDT's T-Soak™ is the affordable answer to your soak test problem. Here are some of the ways you benefit from T-Soak™:

- ❖ T-Soak™ gives you the flexibility of lighting a different TFT part number every 5th panel without swapping out hardware.
- ❖ The T-Soak™ solution is scalable...add another four channels of drive whenever needed.
- ❖ With T-Soak™, you get reliable, repeatable TFT power sequencing.
- ❖ Your T-Soak™ solution can grow with your business by simply adding more advanced features as you need them.
- ❖ T-Soak™ uses the same cables and setup files as the T-Drive™ used at your repair stations.

The accompanying software, T-Encoder™, helps you to manage the timing profiles and pattern lists stored in your T-Soak™. T-Encoder™'s easy graphical user interface is used to build your timing/electrical TFT profiles and pattern lists. Then you simply download this information to T-Soak™ using the supplied USB cable.

Each T-Soak™ system includes:

- ❖ T-Soak™,
- ❖ Four dual LVDS output cards,
- ❖ Handheld keypad,
- ❖ USB cable, and
- ❖ CD with T-Encoder™ and User's Manual

Display Technologies

WESTAR

QinetiQ North America

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Revision C

Video Timing

Horizontal (clocks per line)

Total	up to 2047
Active	8 to 2039
Back Porch (HBP)	Equ 1, 2
Front Porch (HFP)	
Sync Pulse Width (HSPW)	

Vertical (lines per frame)

Total	up to 2047
Active	1 to 2039
Back Porch (VBP)	Equ 3, 4
Front Porch (VFP)	
Sync Pulse Width (VSPW)	

Clock Frequency

LVDS 20 to 85 MHz

Pixels per clock 1 or 2

Effectively up to 170M pixels/sec for 2 pixels/clock

3.3/5 VDC TTL (optional)	1.5625 to 85 MHz
TMDS (optional)	25 to 165 MHz
Analog (optional)	1.5625 to 170 MHz

Bits per Pixel 8 bits each RGB

Test Patterns

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

Equations:

1. Horizontal Blanking (HB) = Total - Active
2. HFP = HB - HBP - HSPW
3. Vertical Blanking (VB) = Total - Active
4. VFP = VB - VBP - VSPW

*Accuracy specified @ 0A. Use the following equation to determine actual voltage out.

Voltage at output connector = Programmed voltage - (0.05 * current draw in amps)

Input Power

Voltage	88 to 132/176 to 264 VAC
	150 Watts (max)
Auto Select	
Frequency	47 to 63 Hz

Power Generation/Switching/Sequencing

Internally Generated

Panel VCC	2.5 to 18 VDC
	up to 2.0 Amp
	Accuracy* greater of 150mV and +/- 3%
Total deliverable power	up to 50 Watts

All supplies are internally protected

Switching Time	< 1 msec (Typical)
Power Sequence Delay	1 to 10000 msec range
	1 msec increment

Measurement Accuracy	+/-60mV, +/-60mA
Measurement Precision	0.1V, 0.01A

Discretes

In	8
Out	8
Electrical Level	3.3 or 5 VDC TTL

Pattern List Capacity 16 lists of up to 32 patterns

Timing Profile Capacity 250

Bitmap Capacity (optional) 256MB: 40 UXGA images
512MB: 80 UXGA images

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)

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