TELEDYNE TEST TOOLS
Everywhereyoulook™

T3PS16081P/T3PS30051P Data Sheet

Programmable Linear DC Power Supplies

Debug with Confidence

30 Volts, 8 Amps, 150 Watts



Tools for Improved Debugging

• Single high performance, high precision programmable output.	✓ Ideal for a wider range of bench power supply application coverage.
• Compact, modern, easy to use, reliable, low noise linear design ≤ 350 µVrms.	✓ Ideal for electronic components/systems, battery, IoT, digital, analog and audio applications.
• High resolution 2.8 inch TFT LCD Display with 240 × 320 pixels.	✓ Large, clear display aids setup and ease of use.
• Two output modes: standard 2-wire or 4-wire using remote sense capability.	✓ Delivers accurate, precision voltage directly to the DUT.
• Provides power up to 128/150 Watts.	✓ Ideal for low to medium power applications.
• Rear panel USB Device and LAN interface connectors.	✓ Support for the maximum control flexibility.
• 3 years warranty as standard.	✓ Reliable product gives piece of mind.

Models and Characteristics

T3PS16081P	0 V – 16 V	0–8 A	128 Watts	Programmable
T3PS30051P	0 V – 30 V	0–5 A	150 Watts	Programmable

T3PS16081P
T3PS30051P

T3PS30051P/T3PS16081P Programmable Linear DC Power Supply has a 2.8 inch TFT-LCD display, features remote computer control capability, and real time wave display, to deliver high performance and ease-of-use.

The T3PS16081P features a high precision programmable output capable of delivering up to 16 V, the T3PS30051P features a high precision programmable output capable of delivering up to 30 V and also includes a 4-wire sense function for more accurate voltage sourcing, especially for long leads or high resistance connections. There are additional output short and overload protect functions to assist in production and development applications.

Main Features

- Single path high-precision programmable voltage output:
  T3PS16081P: 16 V / 8 A, total power up to 128 W
  T3PS30051P: 30 V / 5 A, total power up to 150 W
- Stable, reliable, Low ripple and noise:
  ≤ 350 μVrms/3 mVpp; < 2 mArms
- Fast transient response time: < 50 μs
- 5 digit Voltage, 4 digit Current Display,
  Minimum Resolution: 1 mV / 1 mA
- Supports front panel timing output functions
- 2.8 inch true color TFT-LCD 240 × 320 pixels display
- 2 types of output modes:
  Two-wire output mode, 4-wire compensation output mode, Maximum compensation voltage 1 V.
- 100/120/220/230 V compatible design to meet the needs of different power grids
- Intelligent temperature-controlled fan reduces noise
- Clear graphical interface, with the waveform display function
- Internal 5 groups of system parameter save/recall
- Supports SCPI, LabView Driver available





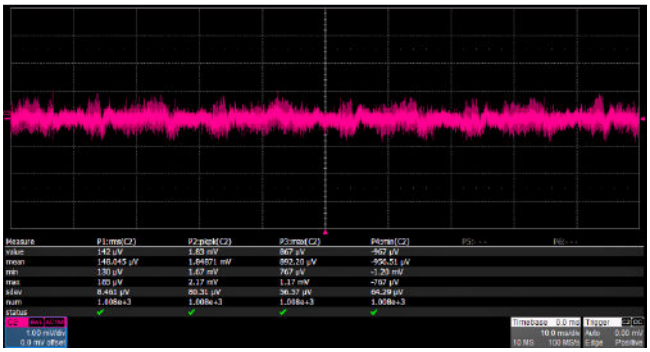
High-resolution and high-precision output

The T3PS30051P/T3PS16081P power supply features a high measurement resolution of 1 mV/1 mA. This ensures accurate output even with very small changes in voltage or current. This is impossible for a low resolution power supply.

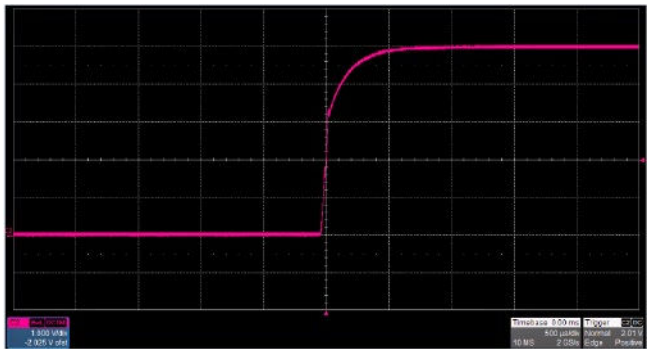
4-wire SENSE compensation mode function

In the 4-wire SENSE compensation output mode: By using a separate measurement circuit, the supply can more accurately compensate for any voltage drops due to high resistance connections or long cables. Maximum compensation voltage is 1 V.

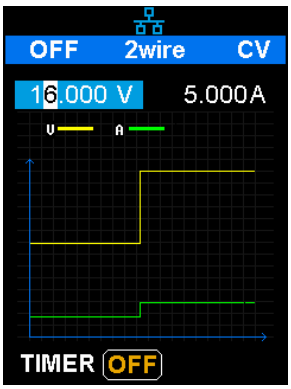
Low ripple and noise



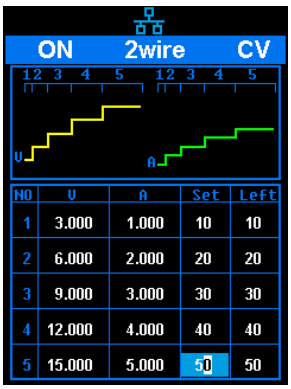
Low voltage overshoot



Panel displays the timing output

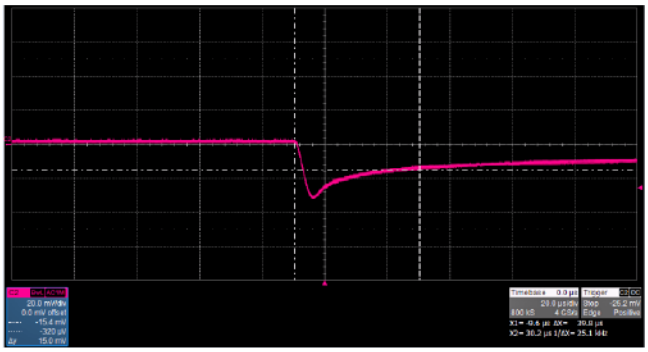


Real time wave display



Panel timing output

Fast transient response time

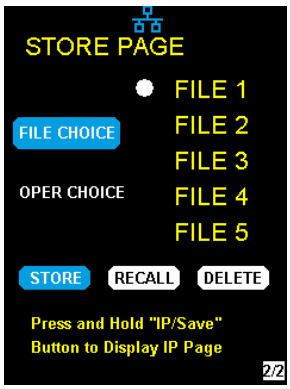


0.01 % Load Regulation & 0.2 % Line Regulation

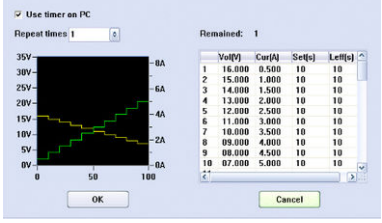


Save/Recall setting parameters

T3PS30051P / T3PS16081P programmable power supply can save or recall 5 groups of setting parameters in internal storage. You can easily recall the settings you need.



Internal Storage



PC Timer

SPECIFICATIONS

All the specifications are guaranteed when the instrument has been working for more than 30 minutes under the specified operating temperature. Unless otherwise noted, the specifications are applicable to all the channels of the specified model.

Model		T3PS16081P	T3PS30051P
DC Output (0 °C to 40 °C)		Output Voltage: 0 to 16 V	Output Voltage: 0 to 30 V
		Output Current: 0 to 8 A	Output Current: 0 to 5 A
Max Output Power		128 W	150 W
Display		2.8 inch true color TFT-LCD 5 digit voltage/4 digit current	
Resolution		1 mV / 1 mA	
Program Accuracy (25 ± 5 °C)		Voltage: ± (0.03 % of reading + 10 mV)	
		Current: ± (0.03 % of reading + 10 mA)	
Readback Accuracy (25 ± 5 °C)		Voltage: ± (0.03 % of reading + 10 mV)	
		Current: ± (0.03 % of reading + 10 mA)	
Temperature Coefficient per °C (Output Percentage + Offset)		Voltage: ± (0.01 % of reading + 3 mV)	
		Current: ± (0.01 % of reading + 3 mA)	
Constant Voltage Mode	Load Regulation	≤ 0.01 % + 2 mV	
	Ripple & Noise	≤ 350 μVrms / 3 mVpp (20 Hz to 20 MHz)	
	Recovery Time	< 50 μs (50 % load change, minimum load 0.5 A)	
Constant Current Mode	Line Regulation	≤ 0.2 % + 3 mA	
	Load Regulation	≤ 0.2 % + 3 mA	
	Ripple & Noise	≤ 2 mArms	
Locking Key		Yes	
Memory Save/Recall		5 Sets	
Power Source		AC 100/120/220/230 V ± 10 % 50/60 Hz	
Standard Configuration Interface		USB Device, LAN	
Insulation		Case to Terminal ≥ 20 MΩ (DC 500 V)	
		Case to AC line ≥ 30 MΩ (DC 500 V)	
Operating Environment		Outdoor Usage: Elevation: ≤ 2000 m Environment Temperature 0 to 40 °C Relative Humidity ≤ 80 % Installation Level: II Pollution Level: 2	
Storage Environment		Environment Temperature: – 10 to 70 °C Relative Humidity ≤ 70 %	
Dimension		154.6 (W) × 144.5 (H) × 280 (D) mm	
Weight		≈ 5.5 kg	

Ordering information

Product information	Product No
Single path independent output, min resolution 1 mV/1 mA, USB Device & LAN, 2.8 inch LCD display	T3PS16081P, T3PS30051P
Standard Accessories	
USB Cable – 1	
Quick Start – 1	
Power cord – 1	
Output Test Cord – 2 Sets	
Warranty	
Three-year warranty, excluding accessories.	

ABOUT TELEDYNE TEST TOOLS

TELEDYNE TEST TOOLS
Everywhereyoulook™

Company Profile

Teledyne LeCroy is a leading provider of oscilloscopes, protocol analyzers and related test and measurement solutions that enable companies across a wide range of industries to design and test electronic devices of all types. Since our founding in 1964, we have focused on creating products that improve productivity by helping engineers resolve design issues faster and more effectively. Oscilloscopes are tools used by designers and engineers to measure and analyze complex electronic signals in order to develop high-performance systems and to validate electronic designs in order to improve time to market.

The Teledyne Test Tools brand extends the Teledyne LeCroy product portfolio with a comprehensive range of test equipment solutions. This new range of products delivers a broad range of quality test solutions that enable engineers to rapidly validate product and design and reduce time-to-market. Designers, engineers and educators rely on Teledyne Test Tools solutions to meet their most challenging needs for testing, education and electronics validation.

Location and Facilities

Headquartered in Chestnut Ridge, New York, Teledyne Test Tools and Teledyne LeCroy has sales, service and development subsidiaries in the US and throughout Europe and Asia. Teledyne Test Tools and Teledyne LeCroy products are employed across a wide variety of industries, including semiconductor, computer, consumer electronics, education, military/aerospace, automotive/industrial, and telecommunications.

Distributed by:

Teledyne LeCroy (US Headquarters)

700 Chestnut Ridge Road
Chestnut Ridge, NY. USA 10977-6499

Phone:	800-553-2769 or 845-425-2000
Fax Sales:	845-578-5985
Phone Support:	1-800-553-2769
Email Sales:	contact.corp@teledynelecroy.com
Email Support:	support@teledynelecroy.com
Web Site:	http://teledynelecroy.com/

World wide support contacts can be found at:
https://teledynelecroy.com/support/contact

World wide instrument service can be found at:
https://teledynelecroy.com/support/service.aspx

RoHS and WEEE information can be found at:
https://teledynelecroy.com/support/rohs.aspx

Teledyne LeCroy (European Headquarters)

Teledyne GmbH
Im Breitspiel 11c
D-69126 Heidelberg, Germany

Phone:	+49 6221 82700
Fax:	+49 6221 834655
Phone Service:	+49 6221 8270 85
Phone Support:	+49 6221 8270 28
Email Sales:	contact.gmbh@teledynelecroy.com
Email Service:	service.gmbh@teledynelecroy.com
Email Support:	tlc.t3.appsupport.eu@teledyne.com
Web Site:	http://teledynelecroy.com/

© 2020 Teledyne Test Tools is a brand and trademark of Teledyne LeCroy Inc. All rights reserved. Specifications, prices, availability and delivery subject to change without notice. Product brand or brand names are trademarks or requested trademarks of their respective holders.

T3 stands for Teledyne Test Tools.

10dec20