

## Voltage Spike Pulse Simulator

## TPS-160S17

### Datasheet



#### In Compliance with

> RTCA DO-160 S17

#### Introduction

TPS-160S17 is designed according to RTCA DO-160 S17, capable of applying 5 Hz pulses with adjustable peak values onto ungrounded power supply lines of the EUT.

With 3ctest's third generation intelligent control platform, great human-machine interaction, easy test parameters setup, and automatic execution of tests with test sequencing and test scheduling have been achieved. It boasts high system integration degree, intelligent control, easy operation and time-saving operation.

#### Features

- > 5.7" color touch screen front panel;
- > Capable of generating 300 pulses with alternative polarity in one minute;
- > Spike voltage ranges from 0 V ~ 1200 V, test voltage can be adjusted in real-time during tests;
- > External coupling transformer;  
EUT current: Max 100 A; higher current can be customized;






#### Application Areas

- > Military
- > Ships

Technical Parameters	
Test Voltage	0 V ~ 1200 V (continuous, adjustable)
Calibration Voltage	50 V ~ 1200 V
Rise Time	≤ 2 μs
Pulse Width	10 μs ~ 20 μs
Impedance	50 Ω ± 10% (connected with external coupling transformer)
Output Polarity	+, -, alternative
Triggering Mode	External / automatic / manual
Pulse Frequency	Max 5 Hz
External Sync.	0° - 360°, power frequency 50 Hz ~ 1000 Hz 1° step, can be set as asynchronous
Coupling Mode	External coupling transformer, EUT current: 100 A Higher current can be customized
Output Port	Generator: 4 mm plug EUT connection ports of external coupling transformer: Square terminal
Calibration Resistor	50 Ω ± 1%, 4W, External

General Parameters	
Display	5.7" TFT touch screen
Operating Power	AC 220 V, 50 Hz
Fuse	6 A
Max Power	200 W
Dimension	19", 4 U;
Weight	Approx. 18 kg
Ambient Temp.	15 °C ~ 35 °C
Relative Humidity	45% ~ 75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories
User Manual, Test Report, Test Line, Power line, Fuses

Optional Accessories	
<p>1. 10 μs external coupling transformer TPT-1200-1</p> 	<p>EUT current: 100 A Higher current can be customized Dimension(L*W*D): 250 × 180 × 400 mm Weight: 15.5 kg</p>
<p>2. Calibration Resistor Module CRM 051</p> 	<p>Non-inductive Resistance: 50 Ω Dimension(L*W*H): 60 × 30 × 62 mm Weight: 0.1 kg</p>
<p>3. Feed-through Capacitor DCM 4050</p> 	<p>Voltage: AC 500 V; Current: 50 A; Capacitance: 10 μF; Dimension(L*W*H): 225 x 100 x 100 mm; Weight: 2.5 kg</p>
<p>4. Feed-through Capacitor DCM 40100</p> 	<p>Voltage: AC 500 V; Current: 100 A; Capacitance: 10 μF; Dimension(L*W*H): 225 x 100 x 100 mm; Weight: 2.5 kg</p>
<p>5. Line Impedance Stabilization Networks LISN J50</p> 	<p>Inductance: 50 μH; Current Carrying Capacity: 50 A; Dimension(L*W*H): 160 x 170 x 410 mm; Weight: 3 kg</p>



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