



Power Leads Spike Pulse Generator

TPS-CS106

- GJB151A-1997
- GJB152A-1997
- GJB151B-2013
- MIL-STD-461F

Features

- > 5.7" colorful touch screen operation;
- > Meet the test requirement of CS106 in MIL-STD-461F, GJB 151A, GJB 152A and GJB 151B;
- > Pulse repetition frequency up to 100 Hz;
- > Automatically identify multiple failures;
- > Built-in 0.15 μ s coupling transformer;
- > Max. EUT load current 300 A;

Introduction

The TPS-CS106 is designed for CS106 test requirements specified in MIL-STD-461F, GJB 151A, GJB 152A and GJB 151B. It can apply pulses with repetition frequency up to 100 Hz onto EUT input power leads (not including grounds). Test duration time is up to 30 minutes, and pulse voltage linear adjustment from 0 V to 1000 V can be realized. TPS-CS106 is designed on the 3rd generation intelligent control platform of our company with unique colorful touch screen interface and excellent human-machine function. It features easy operation, high system integration, intelligent control and saving test time, etc.

Application Areas



Technical Parameter

unit type	TPS-CS106	TPS-CS106(1000V)
Test voltage range	0 ~ 600 V (Continuously adjustable)	0.15 μ s : 0 ~ 600 V (Continuously adjustable)
		5 μ s/10 μ s : 0 ~ 1000 V (Continuously adjustable)
Calibration voltage	100 V ~ 600 V, $\pm 10\%$	0.15 μ s : 100 V ~ 600 V, $\pm 10\%$
		5 μ s/10 μ s : 100 V ~ 1000 V, $\pm 10\%$
GJB 151A-1997 GJB 152A-1997 Waveform parameters and impedance	0.15 μ s pulse (50% ~ 0%)	$\leq 0.15 \mu$ s (<5 ohm)
	5 μ s pulse (50% ~ 0%)	$\leq 5 \mu$ s (<2 ohm)
	10 μ s pulse (50% ~ 0%)	$\leq 10 \mu$ s (<1 ohm)
GJB 151B-2013 MIL-STD-461F Waveform parameters and impedance	Rise time	1.5 μ s $\pm$ 0.3 μ s
	Fall time	3.5 μ s $\pm$ 0.3 μ s
	Duration time	5.0 μ s ($\pm 10\%$)
	Sag or undershoot amplitude	$\leq 30\%$ Vp
	Sag or undershoot time	<20 μ s
	Source impedance	$\leq 2 \Omega$
Output Polarity	+/- (only positive for 0.15 μ s)	
Trigger	External, automatic and manual	
Pulse repetition frequency	Standard configuration 1~20 pps Customizable configuration: 1~50 pps (0.15 μ s) 1~100pps (5 μ s & 10 μ s)	
External Phase Sync	0°~360°, mains frequency 50 Hz~1000 Hz, available for async	
Parallel Connection	Built-in coupler	
Series Connection	5 μ s/10 μ s coupler external (32 A, 50 A, 100 A, 200 A, 300 A optional, higher current can be customized); 0.15 μ s coupler built-in (32 A, 50 A); 0.15 μ s coupler external (100 A, 200 A, 300 A optional, higher current can be customized)	
Output Ports	4 mm plugs	
Calibration Resistance	External	

General parameters

Display Screen	5.7" TFT touch screen
Power Supply	AC 220 V 50 Hz
Fuse	6 A
Max. Power Consumption	200 W
Dimension	19"/4U
Weight	Approx.20 kg
Ambient Temperature	15 °C~35 °C
Relative Humidity	45% - 75%
Atmospheric Pressure	86 kPa – 106 kPa

Standard accessories

User manual, Testing line, Power line, Earth line, Fuses, Calibration resistor CRM 050	
1. Calibration resistance module CRM 050 	Non-inductive resistance: 5 Ω Dimension: 60*65*30 mm (L*W*H) Weight: 0.1 kg

Optional accessories

600V System configuration:	
1. Microsecond pulse transformer TPT-600-5 	For coupling 5 μs, 10 μs waveform, Max Coupling pulse voltage: 600 V Max. secondary side current load: 300 A Dimension: 250*185*400 mm(W*H*D) Weight: 15.5 kg
2. 0.15 μs waveform module TPS-CS106-1 	For coupling 0.15 μs waveform, Max Coupling pulse voltage: 600 V Max. secondary side current load: 300 A Dimension: 250*185*400 mm(W*H*D) Weight: 6.5 kg
1000V System configuration:	
3. Microsecond pulse transformer TPT-1000-1 	For coupling 5 μs, 10 μs waveform, Max Coupling pulse voltage: 1000 V Max. secondary side current load: 300 A Dimension: 250*185*400 mm(W*H*D) Weight: 15.5 kg
4. 0.15 μs waveform module TPS-CS106-100 	For coupling 0.15 μs waveform, Max Coupling pulse voltage: 600 V Max. secondary side current load: 300 A Dimension: 250*185*400 mm(W*H*D) Weight: 6.5 kg

Optional accessories

5. Microsecond pulse transformer TPT-600-4 	For coupling 5 μs, 10 μs waveform, Max Coupling pulse voltage: 600 V Max. secondary side current load: 50 A Dimension: 185*140*45 mm(L*W*H) Weight: 5 kg
6. Feed-through capacitor DCM 4032 	Voltage: 500 V AC Current: 32 A Capacitor: 10 μF Dimension: 225 *100 *100 mm (L*W*H) Weight: 2.5 kg
7. Feed-through capacitor DCM 4050 	Voltage: 500 V AC Current: 50 A Capacitor: 10 μF Dimension: 225 *100 *100 mm(L*W*H) Weight: 2.5 kg
8. Feed-through capacitor DCM 40100 	Voltage: 500 V AC Current: 100 A Capacitor: 10 μF Dimension: 225 *100 *100 mm(L*W*H) Weight: 2.5 kg
9. Artificial mains network LISN J50 	Inductance: 50 μH; Through-current capability: 50 A Dimension: 160 *170 *410 mm(L*W*H) Weight: 3 kg

Figure 1: 5 μ s /10 μ s series test connection

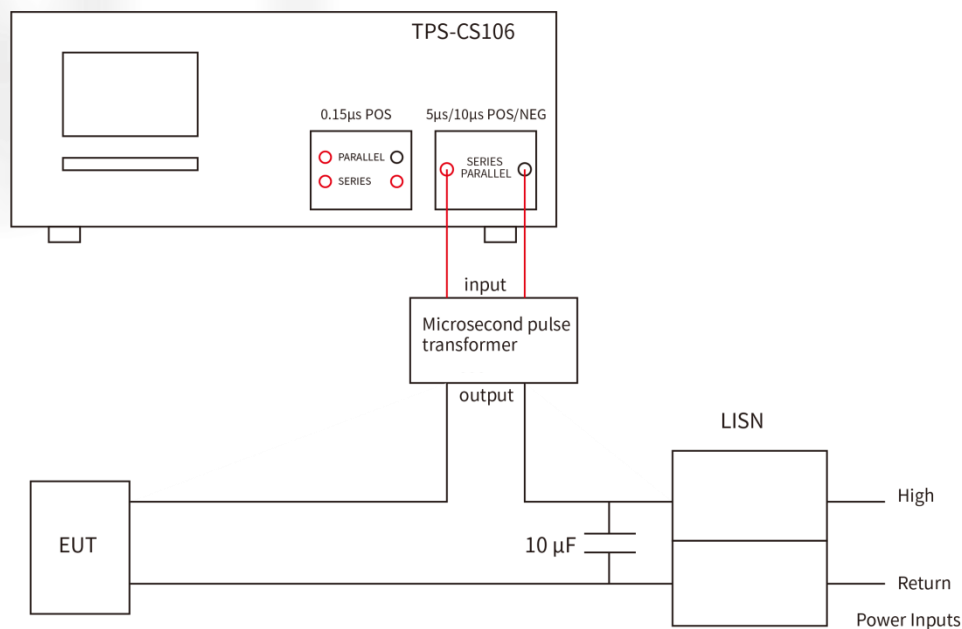


Figure 2: 0.15 μ s series test connection

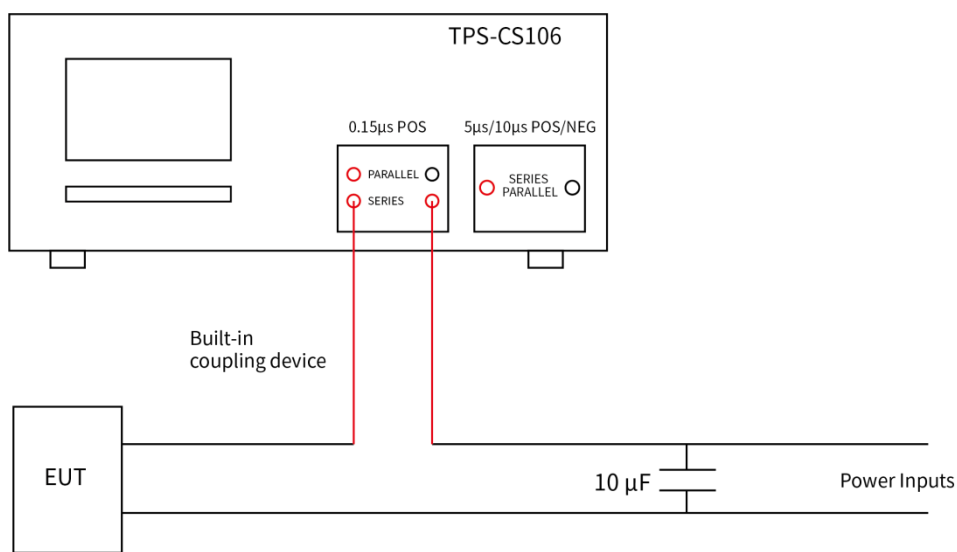
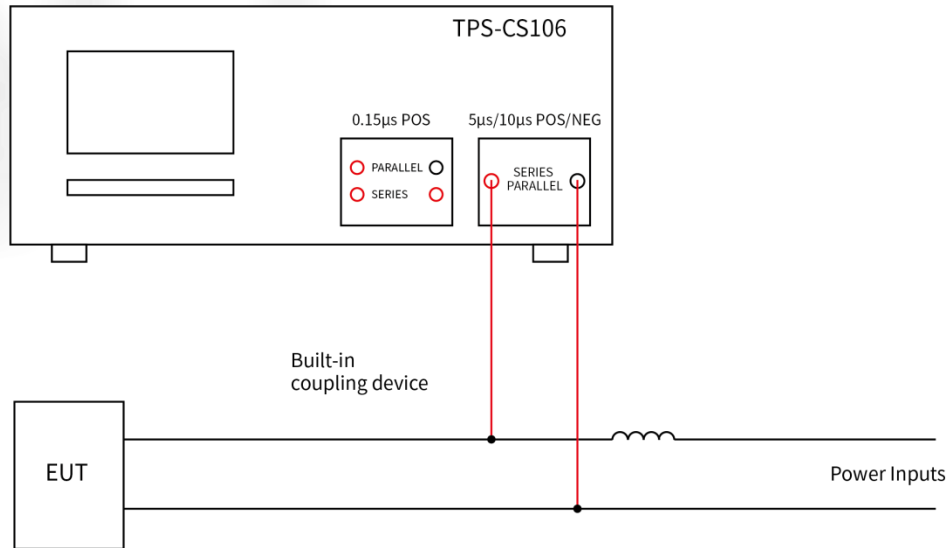
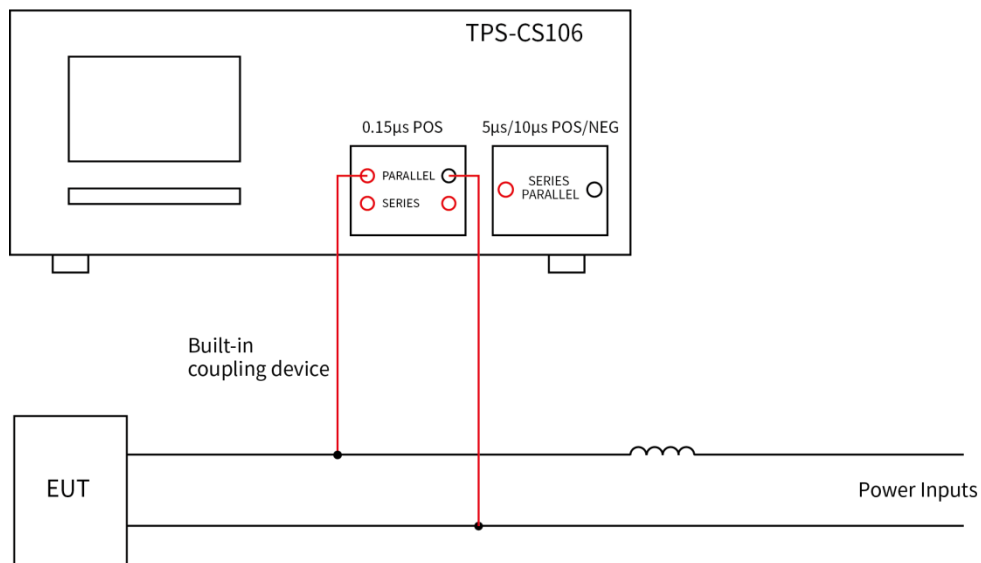


Figure 3: 5 μ s /10 μ s Parallel test connectionFigure 4: 0.15 μ s Parallel test

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