Vehicle Compact Transient Pulse Simulator TIS 100Cx Series

- ISO 7637-2
- ISO 7637-3
- VW 80000
- EN 301489-1
- EN 301489-17
- EN 301489-24
- EN 300329
- EN 300340
- EN 300342-1
- BMW-(Airbag ECU)
- BMW 600 13.0(Part 2)
- BMW GS 95002
- Cummins 14269
- DaimlerChrysler PF-10540
- Audi (Reference vehicles)
- Chrysler PF-9326
- Chrysler CS-11809
- Chrysler CS-11979
- Chrysler DC-11224 Rev.A
- Claas CN 05 0215
- DaimlerChrysler DC-10614
- Case New Holland ENS0310
- GB/T 21437.2

Features

> 5.7-inch color TFT touch screen
> Built-in CDN rated 80 V, 60 A/100 A
> Support power line test pulses P1/2a/3a/3b; P1b/P6 are supported when used with PC software
> Support fast and slow transient pulse tests on signal and data lines
> Support DUT voltage, current monitoring and overcurrent protection
> Built-in power switch
> Integrated coupling network, can be used as output port of LDS or APS series
> Ethernet RJ45 interfaces for PC remote control and test reports printing

Introduction

The TIS 100Cx Series Vehicle Compact Transient Pulse Simulator can perform pulses 1, 2a, 3a and 3b on power lines as per ISO 7637-2, and signal and data lines as per ISO 7637-3. When used with PC software, it can also perform Pulse 1b and Pulse 6 tests. The max. test voltage for pulses 3a and 3b is 1,000 V.

TIS 100Cx Series supports customization according to customer's requests. It has built-in coupling/decoupling networks rated 80 V, 60 A and 100 A. When worked with LDS 200 series and APS series, its output port can be used as the main output port of the entire system. All devices can be controlled by Autolab PC control software, which makes the test simple and convenient.

Application Areas

Technical Parameters

Pulse 1	
Test Voltage	3 V ~ 600 V
Polarity	-
Rise Time (T_r)	0.5 μs ~ 1 μs 1.5 μs ~ 3 μs (no load)
Duration Time (T_d)	50 μs ± 20% (no load) 12 μs ± 20% (2 Ω load) 1 ms ± 20% (no load) 1 ms ± 20% (50 Ω load) 2 ms ± 20% (no load) 1.5 ms ± 20% (10 Ω load) 0.2 ms ± 20% (no load) 0.3 ms ± 20% (no load) 0.5 ms ± 20% (no load)
Source Impedance	2 Ω, 4 Ω, 10 Ω, 20 Ω, 30 Ω, 50 Ω
Counter	1 ~ 9,999
DUT Voltage Monitoring	10:1
DUT Current Monitoring	40 A:1 V
Pulse Repetition Time	0.2 s ~ 999 s (Min. interval depends on output voltage)
Coupling Method	ICC, DCC (50 μs ± 20%, no load)
Pulse 1b (Used with AutoLab PC Software)	
Test Voltage	3 V ~ 600 V
Polarity	-
Rise Time (T_r)	<3 μs
Duration Time (T_d)	0.2 ms, 0.3 ms, 0.5 ms, 1 ms, 2 ms
Source Impedance	2 Ω, 4 Ω, 10 Ω, 20 Ω, 30 Ω, 50 Ω
Pulse 2a	
Test Voltage	3 V ~ 200 V
Polarity	+
Rise Time (T_r)	0.5 μs ~ 1 μs 1.5 μs ~ 3 μs (no load)
Duration Time (T_d)	50 μs ± 20% (no load) 12 μs ± 20% (2 Ω load) 1 ms ± 20% (no load) 1 ms ± 20% (50 Ω load) 2 ms ± 20% (no load) 1.5 ms ± 20% (10 Ω load) 0.2 ms ± 20% (no load) 0.3 ms ± 20% (no load) 0.5 ms ± 20% (no load)
Source Impedance	2 Ω, 4 Ω, 10 Ω, 20 Ω, 30 Ω, 50 Ω
Counter	1 ~ 9,999
DUT Voltage Monitoring	10:1

Technical Parameters

DUT Current Monitoring	40 A:1 V
Pulse Repetition Time	0.2 s ~ 999 s (Min. interval depends on output voltage)
Coupling Method	ICC, DCC
Pulse 3a/3b	
Test Voltage	18 V ~ 1,000 V
Polarity	+: Pulse 3b - : Pulse 3a
Rise Time (T_r)	5 ns ± 30% (50 Ω load) 5 ns ± 30% (1,000 Ω load)
Duration Time (T_d)	150 ns ± 45 ns (50 Ω load) 150 ns ± 45 ns (1,000 Ω load)
Source Impedance	50 Ω
Counter	1 ~ 200
Burst Repetition Time	50 ms ~ 999 ms
Pulse Frequency	0.1 kHz ~ 200 kHz
Test Duration	1 s ~ 50,000 s
Coupling Method	CCC, DCC
Pulse 6 (Used with AutoLab PC Software)	
Test Voltage	3 V ~ 600 V
Polarity	-
Rise Time (T_r)	60 µs
Duration Time (T_d)	0.2 ms, 0.3 ms, 0.5 ms, 1 ms, 2 ms
Source Impedance	2 Ω, 4 Ω, 10 Ω, 20 Ω, 30 Ω, 50 Ω

General Parameters

Built-in CDN	TIS 100C06: 80 V, 60 A TIS 100C10: 80 V, 100 A
Dimension	TIS 100C06: 4U rack, 450 (W)*190 (H)* 620 (D) mm TIS 100C10: 6U rack, 450 (W)*280 (H)* 620 (D) mm
Weight	TIS 100C06: 23 kg TIS 100C10: 30 kg
Working Power	AC 220 V, ± 10%,50 Hz / 60 Hz
Ambient Temperature	15°C ~ 35°C
Relative Humidity	35% RH ~ 85% RH (no condensation)
Trigger Mode	Automatic, manual and external trigger

Standard Accessories

Test Cable, User Manual, Grounding Wire, Power Cord, DUT Power Cord, RF Cable, Coaxial Cable, Calibration Adapter, Fuses

Optional Accessories

Calibration Accessories for ISO 7637-3			
1	Current Injection	Model: BCIP 7637-3 Frequency: 4 kHz ~ 100 MHz	
2	Calibration Fixture	Model: BCICF-400 Frequency: DC-400 MHz Characteristic Impedence: 50 Ω	
3	Direct Capacitive Coupling	Model: DCC-100 nF Capacitance: 100 nF Withstand Voltage: 200 V	
4	Direct Capacitive Coupling	Model: DCC-100 pF Capacitance: 100 pF Withstand Voltage: 200 V	
5	Direct Capacitive Coupling	Model: DCC-470 pF Capacitance: 470 pF Withstand Voltage: 200 V	
6	Capacitive Coupling Clamp	Model: V-EFTC Coupling Capacitor: 100 pF ~ 200 pF, DC 5 kV	
Calibration Accessories for ISO 7637-2			
7	Calibration Resistor	Model: Resistance PVK 05: 0.5 Ω PVK 1: 1 Ω PVK 2: 2 Ω PVK 4: 4 Ω PVK 10: 10 Ω PVK 20: 20 Ω PVK 30: 30 Ω PVK 50: 50 Ω	
8	Coaxial Attenuator	Model: AT2G-40dB-4G-B 40 dB, 50 Ω For calibration of pulse 3a / 3b	
9	Coaxial Attenuator	Model: TFB 1000 60 dB, 1000 Ω/50 Ω For calibration of pulse 3a / 3b	
Other accessories			
10	Remote Control Software	Model: AutoLab > Support Windows 7/8/10 /11 operating systems > Supports Ethernet > Supports scheduling and test sequence, easy for operation > Supports single test and sequence test reports printing, and user-defined templates > Supports emergency stop for safe test	

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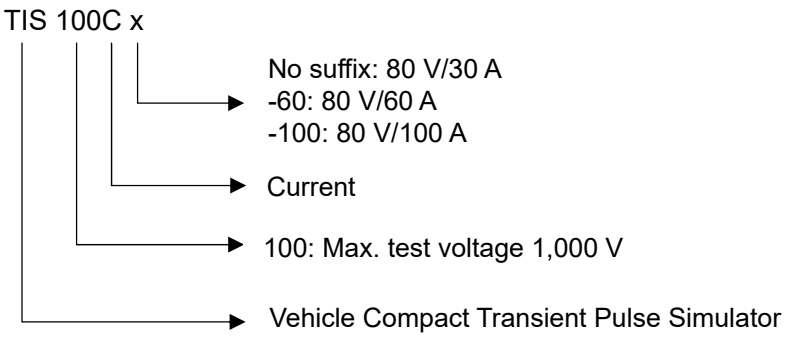
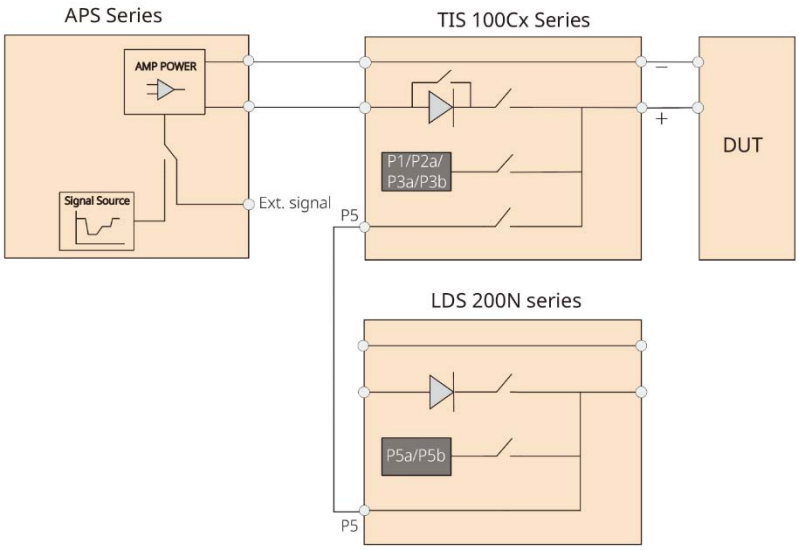
Naming Rules



Test Connection



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