

# Transient immunity simulator

# TIS 700



As per	
> EN 301489-1	> Case New Holland
> EN 301489-17	ENS0310
> EN 301489-24	> Cummins 14269
> EN 300329	(982022-026)
> EN 300340	> DaimlerChrysler
> ISO 7637-2	PF-10540
> BMW-(Airbag ECU)	> GJB 181A
> BMW 600 13.0(Part 2)	> Audi(Reference vehicles)
> BMW GS 95002(1999)	> Chrysler PF-9326
> BMW GS 95002(2001)	> Chrysler CS-11809(2009)
> BMW GS 95024-2-1	> Chrysler CS-11979
(2010-01)	> Chrysler DC-11224 Rev.A

## Description

The TIS700 series for automotive transient unifies the capabilities of an EFT/Burst simulator, a micro pulse simulator and the required coupling network into one box. The TIS700 series are equipped to meet all international and car manufacturer specifications. The current of built-in coupling network ranges up to 100A depending on the model. The built-in coupling network can be used and controlled by any unit of the LDS200 series, APG series and APS series. For tests beyond standard's requirements the waveform parameters of the micro pulse generator can be varied in a wide range by means of the freestyle mode.

## Features

- > 5.7 inch color touch screen front panel operation
- > internal EFT/burst module
- > internal micro-pulse module
- > as per ISO 7637 JASO SAE NISSAN standard;
- > internal 60V and 30A CDN (including load coupling), current up to 100A;
- > DUT voltage and current detection and over current protection function
- > Emergency stop function
- > internal mains switch
- > Ethernet, RJ45 port for remote control, print and documentation.

## Industries

- > automotive
- > communication
- > avionics
- > military

Technical parameters					
Micro-simulator module P1/2a			EFT/Burst simulator module P3a/3b		
Test voltage	30-600V		25-700V		
Polarity	+/-		+/-		
Rise time Tr	0.5us - 1us. 1.5us - 3us. No load		5ns $\pm$ 30% into 50 ohm load 5ns $\pm$ 30% into 1,000 ohm load		
Duration Td	50us $\pm$ 20% no load 12us $\pm$ 20% matching load 1ms $\pm$ 20% no load 1ms $\pm$ 20% 50 ohm matching load 2ms $\pm$ 20% no load 1.5ms $\pm$ 20% 10 ohm matching load 0.2ms $\pm$ 20% no load 0.3ms $\pm$ 20% no load 0.5ms $\pm$ 20% no load		150ns - 45/+45ns into 50 ohm load 150ns - 45/+45ns into 1,000 ohm load		
Source impedance	2 $\Omega$ , 4 $\Omega$ , 10 $\Omega$ , 30 $\Omega$ , 50 $\Omega$		50 $\Omega$		
Number of test	1-9999		Number of burst	1-200	
DUT voltage monitoring	10:1				
DUT current monitoring	10A:1V				
Pulse interval	0.2s-60s(shortest depends on output voltage)		Test and control (trigger circuit)		
Trigger circuit	automatic	Automatic release	Trigger burst	Automatic, manual and external	
	manual	Manual release single pulse	Burst interval	50ms-999ms	
	external	External release single pulse	Pulse frequency	0.1kHz-200kHz	
			Test duration	1s-50000s	
Battery switch trigger	Off time: 10-400ms		output	Direct output	By 50 $\Omega$ coaxial connector (for test connected to capacitance coupling clamp)
output	DUT supply	Output port		Coupling mode	To battery positive ( for supply line test)
	coupling	To battery positive		CRO trigger	To trigger 5V trigger signal of oscilloscope
	decoupling	By diode and battery supply switch	General data		
	Serial port	LAN Ethernet RJ45	Supply voltage	AC 110/220V, $\pm$ 10%, 45-65Hz	
External trigger	Normally open contact, close trigger, BNC connector	Humidity	35%-85%RH (no condensation)		
		Dimension	450 x600 x177mm(4U cabinet)		
		Weight	Approx. 20kg		
Basic equipments	network		Internal CDN 60V/30A current up to 100A		
Simulator, test report, warranty report, test cable, power cord, DUT power cord, ground wire, user test program (program	input		DUT supply	DC voltage from APS, APG or other DC source	

Technical parameters

freely), standard test program (ISO 7637-2:2011 standard level 1-4)			Pulse 5	DUT supply
Other accessories	Capacitance coupling clamp	Output	LDS200 input	Central DUT output port
	For load resistance of pulse calibration		Coaxial output port	To connect capacitance coupling clamp as per ISO7637-3:2007
Software (optional)	Control software AUTO Lab With PC installed WIN XP and WIN7, it can be easily operated to make the measurement, based on the customized test program. It can identify any device for AUTO Lab test with automatic configuration. It can easily generate test reports.			



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