



Automotive Immunity Test System (ISO7637)

Brochure

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Leader in Lighting & Electrical Test Instruments

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Automotive immunity test system

ISO-7637 Vehicle electronic Interference simulation test system meets the latest standard ISO7637-2 《Road vehicles—Electrical disturbances from conduction coupling —Part2 Electrical transient conduction along supply lines only》 which formulated by International Organization for Standardization(ISO). The whole system covers all the waveforms in the ISO-7637 standard, and meets the requirements of the standard of most vehicle factory to the vehicle electronic immunity test, and can be further expanded.

Technical characteristics:

1. The system covers all the waveforms in the ISO-7637-2:2011 standard, it can provide all seven kinds of waveforms.
2. Man-machine interface: big size LCD, color touch screen, master-slave module extension technology architecture, fully intelligent network control, easy to upgrade.
3. Full allocation of various types of host computer interface, it can be connected with the host computer to carry out waveform programming to achieve human-computer information exchange and control.
4. It can do vehicle test for 12V/24V system.



1. Master control unit Immunity test system Model: LIS-7600

LIS-7600 uses the unique EMC PUZZLE (cube) architecture by LISUN. It realizes power management, information management, logic control for up to ten functional modules. LIS-7600 has a complete PC interface, and it can control and manage the whole system via PC software AUTOPRO by the independent design of the LISUN. It uses full color touch screen control technology, which can realize independent operation of any module of the system out of the software and even complete complex waveform editing and program testing. Meanwhile, LIS-7600 can realize the real time monitoring of the actual working status of each functional module, and collect system information timely.



2. Pulse 1/2a generator Model: LIS-7610

Pulse 1: Simulating the transient disturbance caused by inductive load switching off when vehicle is in parallel with the tested product.

Pulse 2a: Simulating the transient disturbances in the on-line beam induced by the device are suddenly cut off when the device is in parallel with the measured object.



Item	Specifications (Pulse1)	Specifications (Pulse2a)
output voltage (Us)	0~ -700V	1~150V
Output resistance (Ri)	2Ω,4Ω,10Ω,30Ω,50Ω	2Ω,4Ω,10Ω,30Ω,50Ω
Pulse width (td)	50us,200us,300us,500us, 1ms,2ms	50us,200us,300us,500us, 1ms,2ms
Rise time (tr)	1us: 0.5~1μs, 3us: 1.5~3μs	1us: 0.5~1μs
Repetition period (t1)	0.2~99.99	
DUT power capacity	Build-in CDN,DC60V/30A	

3. Pulse 3a/3b generator Model: LIS-7630

Pulse 3: Simulating the transient interference caused by switching of analog inductive load.



Item	Specifications
output voltage (Us)	0V~ ±800V

Output resistance (Ri)	50Ω
Pulse width (td)	150ns±45ns
Pulse group width (t4)	10~100ms
Pulse group interval (t5)	0.01~60s
Rise time (tr)	5ns±1.5ns
Repetition period (t1)	10~2000us
DUT power capacity	Build-in CDN,DC60V/30A

4. Pulse 2b/4 generator Model: LIS-7620

Pulse 2b: Simulating the transient interference caused by the generator effect of the DC motor is cut off.

Pulse 4: Simulating the power supply voltage variation caused by starting the internal combustion engine starter-motor circuit



Item	Parameters	Specifications
Pulse 2b	UA、Us	13.5V, 27V
	Output resistance (Ri)	0Ω~0.05Ω
	Pulse width (td)	30~5000ms
	t12,tr,t6	0.5~10ms
Pulse4	UB	13.5V, 27V
	Us,Ua	0~ -UB
	Ri	0Ω~0.02Ω
	t7	1~1000ms
	t8	2~100ms
	t9	0.1~30s
	t10	5~10ms
	t11	1~1000ms
DUT power capacity	12V, 24V testing system; 30A	

Option is LIS-7640 which include P2b and P4 waveform generator to fully meet ISO7637-2 and ISO16750-2

5. Pulse 5a/5b generator Model: LIS-7650

6. Transient Conduction Emission (EMI) Test



Emission test measures the interference caused by the work of the test device (DUT). The vehicle mounted electronic transient conduction and emission measurement mainly refers to the interference caused by the test device in the start and stop of the test device.

TES200N automobile electronic conduction transient emission test system completely meets the ISO7637-2 standard on the transient emission measurement requirements. It contains complete control unit, artificial power network, mechanical switch simulation system, the electronic switch simulation system. It uses unique touch screen control method designed by LISUN and good test characteristics and professional & convenient test system for automobile electronics. TES200N is the certified products by transient emission measurement for automotive electronics.

Technical Parameter:

System		Electronic switch	
Battery Current	100A	Switching Time	300ns±20%
Battery Voltage	0-60VDC	Voltage Drop	<1V@25A
Bypass Resistance	10,20,40,120Ω, EXT	Transient Voltage Protection	>440V
Trigger mode	External, Internal, manual		
Battery off time	10ms-10s		
Battery power supply time	10ms-10s		
Relay Available Voltage	12V,24V,36V (42VApplication of power supply system)		
Mechanical Switch		Artificial Power Network	
Switching capacity	100A&25A	Inductance / Capacitance / Resistance	5uH/0.1uF/50Ω