Power Supply Voltage Change Simulator

APS xxxxDSR Series

- ISO 7637-2
- ISO 16750-2
- BMW 600 13.0(T1)
- BMW 600 13.0(T2)
- BMW GS 95002(2010)
- BMW GS 95003-2
- BWM GS 95024-2-1 2010
- GB 28046.2
- GMW 3172 July 2010
- GMW 3172 June 2015
- VW TL82066 2006-11
- VW 80000 2013-06
- Peugeot B21 7110 July 2008
- Peugeot B21 7110 July 2005
- Volvo STD 515-0003 2008
- SMTC 3800001 2014
- MBN 10284-4 2011
- MBN 10284-2 2008
- Mazda MES PW 67600
- JEELY J7110982A 2016
- QFPT2800001 2011
- FIAT 7-Z0441
- FIAT 7-Z0444 April 2008
- Ford EMC-CS-2009rev1
- Ford ES-XW7T-1A278-AC Oct 2003

Features

> Adjustable output impedance;

> Voltage drops automatic compensation function;

> The maximum test voltage can reach 80 V;

> The maximum test current can reach 100 A;

> Four quadrant bipolar amplifier;

> Can amplify the waveform of external analog input waveform;

> The maximum output frequency can reach a high bandwidth of 300 kHz or above;

> Built in signal generator, can edit any wave;

> Can simulate multiple power supply waveforms, such as superimposed noise, etc;

> Ethernet, RJ45 interface, used for PC remote control and printing test reports.

Introduction

The APS xxxxDSR series is equipped with a four quadrant bipolar amplifier, which can generate voltage drops, short-term interruptions, and various voltage changes. It simulates various voltage changes that can be measured on the wire harness, and the output internal resistance can be adjusted. It also has a built-in signal generator, which allows users to edit and output any blank wave through PC software. It can also be used as a battery powered simulation and DC voltage source. During laboratory testing, the APS xxxxDSR series can replace vehicle batteries. Pulse 2b、Pulse 4、 Sine wave noise and other complex voltage changes can be simulated and tested using the APS xxxxDSR series simulator. Very suitable for conducting transient tests in ISO 7637/16750. The APS xxxxDSR series has a variety of battery power supply waveforms that simulate international standards and numerous automotive manufacturer standards. As a powerful DC power source, it supplies power to the tested equipment in the transient pulse test of automobiles, and all four types of power supply voltages, 48 V, 42 V, 24 V, and 12 V, are met.

Application Areas

Technical Parameters

APS 40G30DSR	
Output Voltage	-40 V - +40 V
Output Current	Max 30 A，continuity
Peak Current	60 A, duration greater than 200 ms
Frequency Range	DC -300 kHz full frequency band signal
APS 80I100DSR	
Output Voltage	-80 V - +80 V
Output Current	Max 100 A，continuity
Peak Current	200 A, duration greater than 200 ms
Frequency Range	DC -300 kHz full frequency band signal

General Parameters

Analog Signal Input	BNC
Sense Signal Input	BNC
Source Impedance	10 mΩ~200 mΩ(10 mΩ step)/no internal resistance
Voltage Compensation Accuracy	± 0.1 V
Maximum Voltage Compensation Value	4 V
Voltage Offset	＞ 90%, recovery time ＜ 10 μs
Voltage Fluctuation	Ur＜0.2 Vpp， Minimum frequency 400 Hz
Boost Time	<3 μ s
Sinusoidal Signal Output	Frequency up to 300 kHz (depending on waveform Vpp and output current)
External Signal Input	0~± 10 V (maximum 0~± 10 V depending on actual instrument configuration)
Output	Test equipment power supply: high current connector
Serial Interface	LAN Ethernet and RJ45
External Signal Amplification Ratio	1:10
Power Supply Voltage	AC 220 V， ± 10%, 45-65 Hz
Ambient Temperature	15-35 ℃
Size	APS 40xxD: 19 inches/8U APS 80xxD:35U
Weight	Approximately 37 kg

Standard Accessories

Test wires, Power lines, Grounding Wires, Fuses (spare parts), Instructions, and Factory Reports.

Optional Accessories

1. PC control software AutoLab

Computer online control software AutoLab

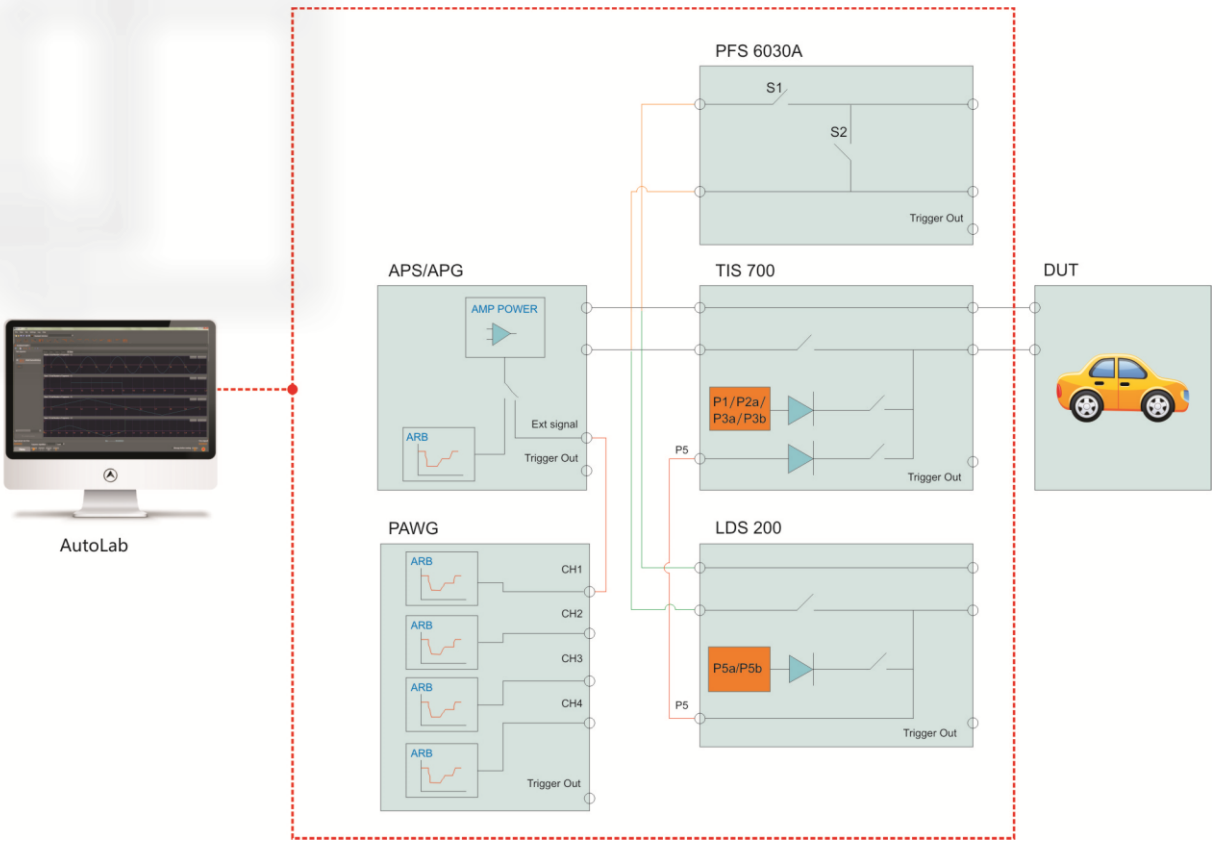
Supports Windows XP and Windows 7, which are convenient to use, have a beautiful and intuitive user interface, and have various operational functions and standard testing libraries, making it easy for users to complete custom testing programs;

Users can customize any waveform (outside the standard library);

It can automatically/manually identify the connected AutoLab testing equipment and perform automatic configuration;

The template-based reporting function can help users flexibly generate test reports.

2. Negative voltage levels can be customized except for D, E, F, G, H, and I.



The PAWG signal generator shown in the above figure has been embedded in the APS xxxxDSR series instruments, improving integration and facilitating the layout of the test site.

The naming convention for instruments is as follows, using APS 80I100DSR as an example:

APS: Power supply voltage change simulator;

80: Maximum voltage 80V; 40:40V, 60:60V;

I: The level representing negative voltage, D：0V、E：-15V、F：-20V、G：-40V、H：-60V、I：-80V；

100: Output current level, can be divided into 10A, 30A, 50A, 100A;

D: Four-quadrant, bipolar power supply (if D is not included in the model, it is a unipolar power supply);

S: Built in PAWG signal generator (without S in the model, there is no built-in signal generator);

R: The output impedance is adjustable (if there is no R in the model, the output impedance is not adjustable).

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