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MPG 200S21

MICROPULSE GENERATOR

FOR TESTS ACCORDING TO ...

› JASO D001-94

MPG 200S21 - AUTOMOTIVE MICROPULSE GENERATOR

Micropulses occur on the battery supply system when an inductive load is disconnected from the DC supply. Their polarity depends on whether the inductive load is of a passive (e.g. a heater) or an active type (e.g. a DC motor). These pulses are of a medium energy content having a rise time in the low microsecond range and duration of several tenths or hundreds/thousands of microseconds.
The MPG 200S21 has a built-in battery switch to interrupt the DC supply voltage and is specifically designed for JASO D001-94, test pulses E1 and E2.

HIGHLIGHTS

- **Standalone test generator**
- **Covers JASO D 001-94**
- **Test pulses E1, E2**
- **Built-in electronic battery switch**
- **Built-in CDN 60 V/50 A DC**
- **Front panel operation**
- **Standard Test routines**

APPLICATION AREAS

AUTOMOTIVE

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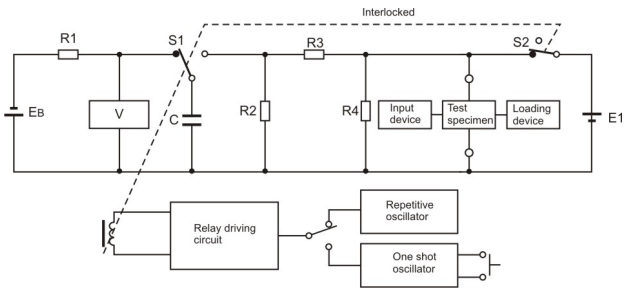
TECHNICAL DETAILS

BENEFITS

MPG 200S21 - STANDALONE MICROPULSE GENERATOR WITH BUILT-IN BATTERY SWITCH

The MPG 200S21 includes everything necessary to conduct fully compliant tests following JASO Specification D001-94 for pulses E1 and E2 for 24V system.
An electronic battery switch is built-in in order to interrupt the DC supply voltage as required by the standards. It is a standalone tester including a 60 V/50 A DC coupling/decoupling network but still it can be integrated easily into a complete test system.
Operation is both manual and by software via GPIB or USB. Fail inputs allow to control an ongoing test sequence based on the status of the DUT. A warning lamp control contact and a safety interlock is provided.
Pre-programmed Standard Test routines allow highest user convenience. Still the MPG 200S21 offers the Quick Start test routine where parameters can be changed on-line during the test to evaluate the susceptibility level of an individual DUT.



SOFTWARE

ISO.CONTROL SOFTWARE FOR CONTROL AND DOCUMENTATION

Outstanding user convenience, clearly structured windows and the EM TEST standards library along with the flexibility to generate user specific test sequences very easily are the main features of ISO.control software.

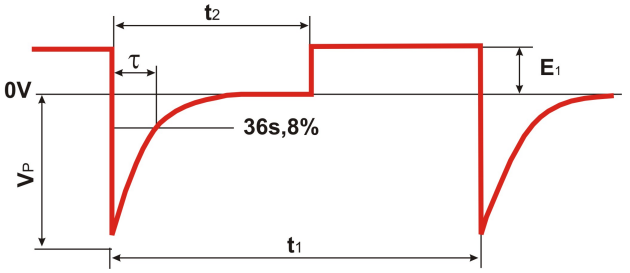
The software is automatically configured according to the connected EM TEST generators. ISO.control software covers international/national standards and most of the manufacturer standards and is continuously updated. Extensive reporting capabilities help the user to create test reports that meet international requirements.

The software iso.control is supported by Windows XP, Windows 7, Windows 8. Remote control is achieved either via USB or several supported GPIB boards from National Instruments.

WAVESHAPE

WAVESHAPE PARAMETER

Vp : Maximum transient voltage
t1 : Pulse repetition time
t2 : Battery switch off time
E1 : Battery supply voltage
tau: Decaying time constant RC. Time required until the voltage decays to 36.8% of the maximum value.



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TECHNICAL DETAILS

PULSE SPECIFICATION	
Open circuit voltage	Vp= 20 V - 500 V ± 10%
Polarity	Negative
Pulses of the MPG 200S21	Pulse E
Repetition Rate	1.0 s - 99.0 s 1 s ‹= 100 V 2 s ‹= 200 V 3 s ‹= 300 V 4 s ‹= 400 V 5 s › 400 V

PULSE E1 AS PER JASO D 001	
Capacitor voltage	Vc= -457 V
Capacitor	C= 1000 uF
Rise time	‹1 us (0% - 100%)
Pulse duration	tau (36.8%)= 26 ms ± 20%
R2 resistance	27 ohm ± 10%
R3 resistance	300 ohm ± 10%
Polarity	Negative

PULSE E2 AS PER JASO D 001	
Capacitor voltage	Vc= -320 V
Capacitor	C= 2000 uF
Rise time	‹1 us (0% - 100%)
Pulse duration	tau (36.8%)= 26 ms ± 20%
R2 resistance	13 ohm ± 10%
R3 resistance	210 ohm ± 10%
Polarity	Negative

TRIGGER	
Automatic	Automatic release of the pulses
Manual	Manual release of a single event
External	External release of a single event
Battery supply switch	Switch off time selectable t2 = 800 ms - 10.000 ms

OUTPUT	
+/- output	Safety laboratory plugs
Coupling	To the battery + line
Decoupling	By battery switch
DUT supply	Max. 60 V / 50 A

TEST ROUTINES	
Quick Start	Immediate start, all parameters can be changed on-line
User test routines	1. Customized test routines 2. Change voltage after n by dV
Service	Addresses, set-up and change standard routines

INTERFACE	
Serial interface	USB
Parallel interface	IEEE 488, adresses 1 - 30

GENERAL DATA	
Dimensions (LxWxH)	19"/3HU 394 mm x 484 mm x 154 mm
Weight	13.0 kg
Supply voltage	115/230 V +10/-15% (optional 100V) 50/60 Hz
Fuses	2x2 AT (115 V) or 2x1 AT (230 V)
Temperature	10 °C to 35 °C
Humidity	30 % to 70 %; non condensing
Atmospheric pressure	86 kPa (860 mbar) to 106 kPa (1.060 mbar)

OPTIONS

ACCESSORIES	
iso.control	Software to control the test, including standard library, test report facility.

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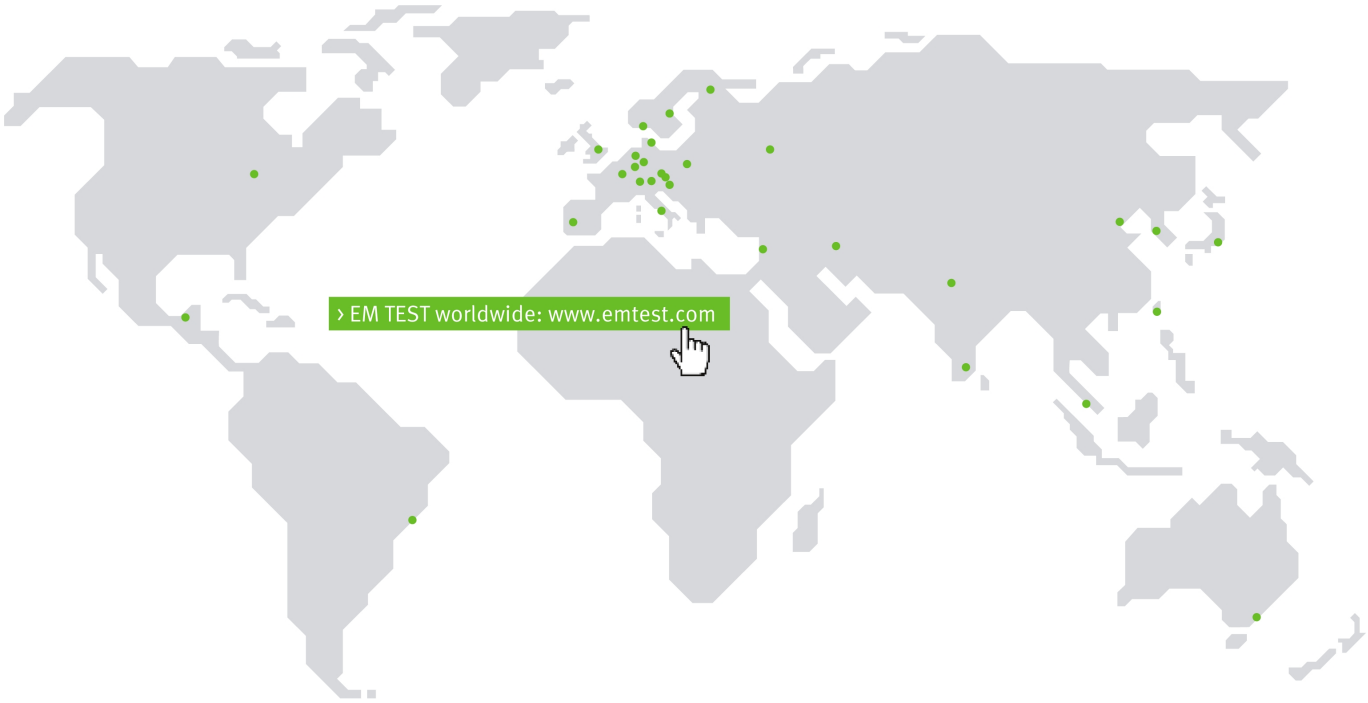
COMPETENCE WHEREVER YOU ARE



CONTACT EM TEST DIRECTLY

Switzerland
EM TEST (Switzerland) GmbH › Sternenhofstraße 15 › 4153 Reinach › Switzerland
Phone +41 (0)61/7179191 › Fax +41 (0)61/7179199
Internet: www.emtest.ch › E-mail: sales.emtest@ametek.com

Germany
AMETEK CTS Germany GmbH › Lünener Straße 211 › 59174 Kamen › Deutschland
Phone +49 (0)2307/26070-0 › Fax +49 (0)2307/17050
Internet: www.emtest.com › E-mail: info.cts@ametek.de

France
EM TEST FRANCE › Le Trident - Parc des Collines › Immeuble B1 - Etage 3 › 36, rue Paul Cézanne › 68200 Mulhouse › France
Phone +33 (0)389 31 23 50 › Fax +33 (0)389 31 23 55
Internet: www.emtest.fr › E-mail: info@emtest.fr

Poland
EM TEST Polska › ul. Ogrodowa 31/35, 00-893 Warszawa › Polska
Phone +48 (0)518 64 35 12
Internet: www.emtest.com/pl › E-mail: infopolska.emtest@ametek.com

USA / Canada
AMETEK Compliance Test Solutions › 52 Mayfield Ave. › Edison › NJ 08837
Phone +1 (732) 417-0501
Internet: www.emtest.com › E-mail: sales.emtest@ametek.com

P.R. China
E & S Test Technology Limited › Rm 913, Leftbank ›
No. 68 Bei Si Huan Xi Lu › Haidian District › Beijing 100080 › P.R. China
Phone +86 (0)10 82 67 60 27 › Fax +86 (0)10 82 67 62 38
Internet: www.emtest.com › E-mail: info@emtest.com.cn

Republic of Korea
EM TEST Korea Limited › #405 › WooYeon Plaza › #986-8 › YoungDeok-dong › Giheung-gu › Yongin-si › Gyeonggi-do › Korea
Phone +82 (31) 216 8616 › Fax +82 (31) 216 8616
Internet: www.emtest.co.kr › E-mail: sales@emtest.co.kr