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AUTOWAVE
GENERATES AND RECORDS AUTOMOTIVE WAVEFORMS

FOR TESTS ACCORDING TO ...

› Audi (Reference vehicles)
› BMW - (Airbag ECU)
› BMW 600 13.0 (Part 1)
› BMW GS 95003-2
› BMW GS 95024-2-1
› Case New Holland ENS0310
› Chrysler CS-11809 (2009)
› Chrysler CS-11979
› Chrysler PF-9326
› Cummins 14269 (982022-026)
› DaimlerChrysler DC-10615
› DaimlerChrysler PF-10541
› DO 160 Section 16
› FAW Diesel ECU MY06.0 (Rev.7)
› Fiat 9.90110
› Ford EMC-CS-2009.1
› Ford FMC1278
› Ford WDR 00.00EA
› GMW 3172
› Hyundai/Kia ES 95400-10, Rev. D
› Hyundai/Kia ES 96100-02 (2006)
› ...

AUTOWAVE - A NEW DIMENSION FOR BATTERY SUPPLY SIMULATION IN THE AUTOMOTIVE AREA

Battery simulation becomes more and more an issue in today´s automotive testing. Waveforms are getting more and more complex. Standardised single phenomena like cranking are still tested but real-life signals are of even higher interest for testing full vehicles or parts of it under real conditions. Common arbitrary generators often fail in testing these requirements especially if iteration of various test parameters within one test are required.
The AutoWave models unify an up to 4-channel arbitrary generator and a 2-channel transient wave recorder (only AutoWave-WR model) in a small and handy unit. The AutoWave-WR is best of generating and recording any kind of waveform in the automotive area.

HIGHLIGHTS

› **Dual-Processor-Technology, 500kS/s sample rate**
› **Up to 4-channel arbitrary generator**
› **2-channel transient recorder (AutoWave-WR)**
› **Simultaneous recording/generation (AutoWave-WR)**
› **Library of standard test routines**

APPLICATION AREAS

AUTOMOTIVE

AVIONICS

MILITARY

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TECHNICAL DETAILS

BENEFITS

AUTOWAVE - EASY TO USE FOR MOST COMPLEX WAVEFORM SIMULATION

Based on a Dual-Processor Technology, with an integrated high-performance PC, a digital signal processor (DSP) and equipped with a hard disk the AutoWave is capable to record and generate waveforms in realtime. Even most complex waveforms with waveform parameters being iterated within a full test cycle or pseudo-randomly selected waveform parameters can be programmed. No matter whether waveforms are programmed from segments or from single points (normally resulting in MBs of data) the AutoWave will do.

Recording data of up to 1GByte is easily possible. The input channels are designed for up to +/-100V with 16bit resolution. Long-term measurements for several hours or even days can be performed.

Interfaces like GPIB, Ethernet and USB (for data transfer by a memory stick) are standard features.

The AutoWave can be used in combination with AMETEK CTS VDS 200Qx models and RDS 200Nx models or any programmable DC source having a DC signal input of up to 10VDC.

SOFTWARE

AUTOWAVE.CONTROL - EDITING, DOCUMENTING AND MANAGING YOUR WAVEFORMS

autowave.control is the tool to easily and conveniently control the AutoWave.

By means of autowave.control the user can program any kind of waveform either composed from segments or points and download into the AutoWave. Enhanced graphic tools are at hand to adjust the waveform according to individual requirements. As a unique feature, compared to other arbitrary solutions, autowave.control supports programming of most complex waveforms as easy as can be where each parameter can be iterated within a single pattern. A random function is implemented to generate waveforms with e.g. pseudo-randomly selected still reproducible parameter settings such as required by the latest Jaguar/Land Rover test specification CI 265.

autowave.control provides a library of an extensive compilation of predefined segments as well as a large number of test routines as per various manufacturer specifications.

autowave.control is also handling any waveform recorded either by the WaveRecorder or by any other method (e.g. oscilloscope). All waveforms can be downloaded into the AutoWave.

autowave.control offers an enhanced reporting tool to generate test/measuring reports and can be used under Windows 7, Windows 8 (64Bit) and Windows 10.

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TECHNICAL DETAILS

AUTOWAVE (BASIC VERSION)

Output channels	2 channels
Output voltage	10V, unipolar or bipolar
Resolution	16 Bit
Frequency	DC - 50kHz
Options	ExtBoard to add 2 additional output channels
Remark	WaveRecorder cannot be fitted to this model.

AUTOWAVE-WR (EXTENDED VERSION)

Output channels	4 channels (ExtBoard built-in)
Output voltage	10V, unipolar or bipolar
Input channels	2 input channels (WaveRecorder built-in)
Input voltage	5V, 10V, 20V, 50V and 100V; unipolar or bipolar
Resolution	16 Bit
Frequency	DC - 50kHz
Memory	Min. 60GB on hard disk; File size max. 1GB
Options	None. Model is fully equipped.

WAVE FORMS

Segment types	DC voltage, Sine wave, Sine wave sweep, Square wave, Triangular wave, Sawtooth wave, Ramp up / Ramp down, Exponential wave
Segment duration	approx. 24h per segment
Number of segments	max. 50 per waveform

DISPLAY AND CONTROLS

Display	Text LCD 2 lines, 40 characters
LED indicators	Power On Active channel 6 (2 inputs, 4 outputs) Trigger Functional status hard disk
Operation	6 function keys

TRIGGER AND DUT MONITORING

Trigger	2 inputs, 2 outputs
DUT monitors	2 inputs, configurable

INTERFACES

GPIB Ethernet USB (only for data transfer by memory stick) Frame bus (internal system bus)

GENERAL DATA

Temperature	5°C - 40°C
Rel. humidity	10% - 90%, non-condensing
Power supply	AC: 90V - 250V, 47Hz - 63Hz
Fuses	1A slow blow
Power	Max. 40W
Dimension	100mm x 380mm x 390mm
Weight	6kg

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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.