

ARBITRARY SIGNAL GENERATOR

PAWG 100



As per

- | | |
|---|----------------------------|
| >BMW-(Airbag ECU) | >Ford ES-XW7T-1A278-AB |
| >BMW 600 13.0(Part 1) | > Audi(Reference vehicles) |
| >Case New Holland ENS0310 | >Fiat 9.90110 |
| >Cummins 14269(982022-026) | >Ford EMC-CS-2009.1 |
| >BMW GS 95003-2 | |
| >FAW Diesel ECU MY06.0(Rew.7) | |
| >BMW GS 95024-2-1(2010-01) | |
| >Chrysler CS-11809(2009) | |
| >DaimlerChrysler DC-10614 | |
| >Many automobile manufacturers test standards | |

Summary

The test waveforms in automotive become more and more complicated, and more attention are paid to vehicle or components. Normal waveform generator can't meet these requirements, especially, multiple waveforms superposition during one test is needed, PAWG 100 arbitrary signal generator is the best solution.

① Multiple sequence oscillator

- Signal output part is cordwood components, can be extended to max.4 channels.
- Can generate arbitrary waveforms: DC wave, ramps, sine, sweep frequency, exponential, frequency modulation/amplitude modulation sine wave, irregular and random arbitrary wave.
- Can generate variation waveform with voltage and time axis
- Can generate waveform timing sequence

② Software for generating arbitrary waveform

Using excellent GUI arbitrary waveform generation software, it can easily generate complex waveforms with repeated voltage, time scanning.

Feature

- > Meet the tests as per ISO16750 (corresponding individual manufacturer standard)
- > Every oscillation channel has waveform arithmetic circuitry to output waveform with high resolution and accuracy
- > By software control with Ethernet, represent kinds of variation phenomenon easily and really.
- > Ensure the synchronization deviation among channels to be less than 1μs
- > Waveform data (CSV) received from oscilloscope can be output with high accuracy.

Application

- > Automotive

Technical parameters	
Number of Channels	1ch~4ch, 2 or 4 optional
Synchronization accuracy among channels	The synchronization time among each channel can be adjusted with unit 0.1μs, adjusting range: 0.1μs~100μs. The synchronization accuracy among channels can be kept to be less than 1μs at output terminal.
Waveform type	DC wave, ramps, triangle wave, sine, square wave, sweep frequency, exponential, frequency modulation/amplitude modulation, Oscilloscope storage data waveform, user's self-defined waveform, irregular and random arbitrary wave
Parameters	Amplitude, duration, frequency, DC offset, rectification, duty cycle, phase angle, trigger, noise
Amplitude and offset ramping	Static, linear, exponential
Frequency ramping	Static, linear, exponential, log(base 10)
Start/End phase angle	0 ~ 360° in 1° step
Rectification	None, positive, negative, bridge rectification, programmable
Frequency range per channel	Operate mode: 500kHz max. sine, square, triangle wave, etc, which include sweep frequency, amplitude, offset, phase angle and synchronization change among channels. Direct internal storage mode: DC-500kHz arbitrary wave, 1MHz square wave
Waveform output rate	25MSPS per channel
Frequency resolution	0.001Hz
Rise/fall time	≤100ns @20Vpp
Waveform voltage amplitude	0~±10.00V
Drive capacity	≥ 1 kΩ
Short circuit	Yes

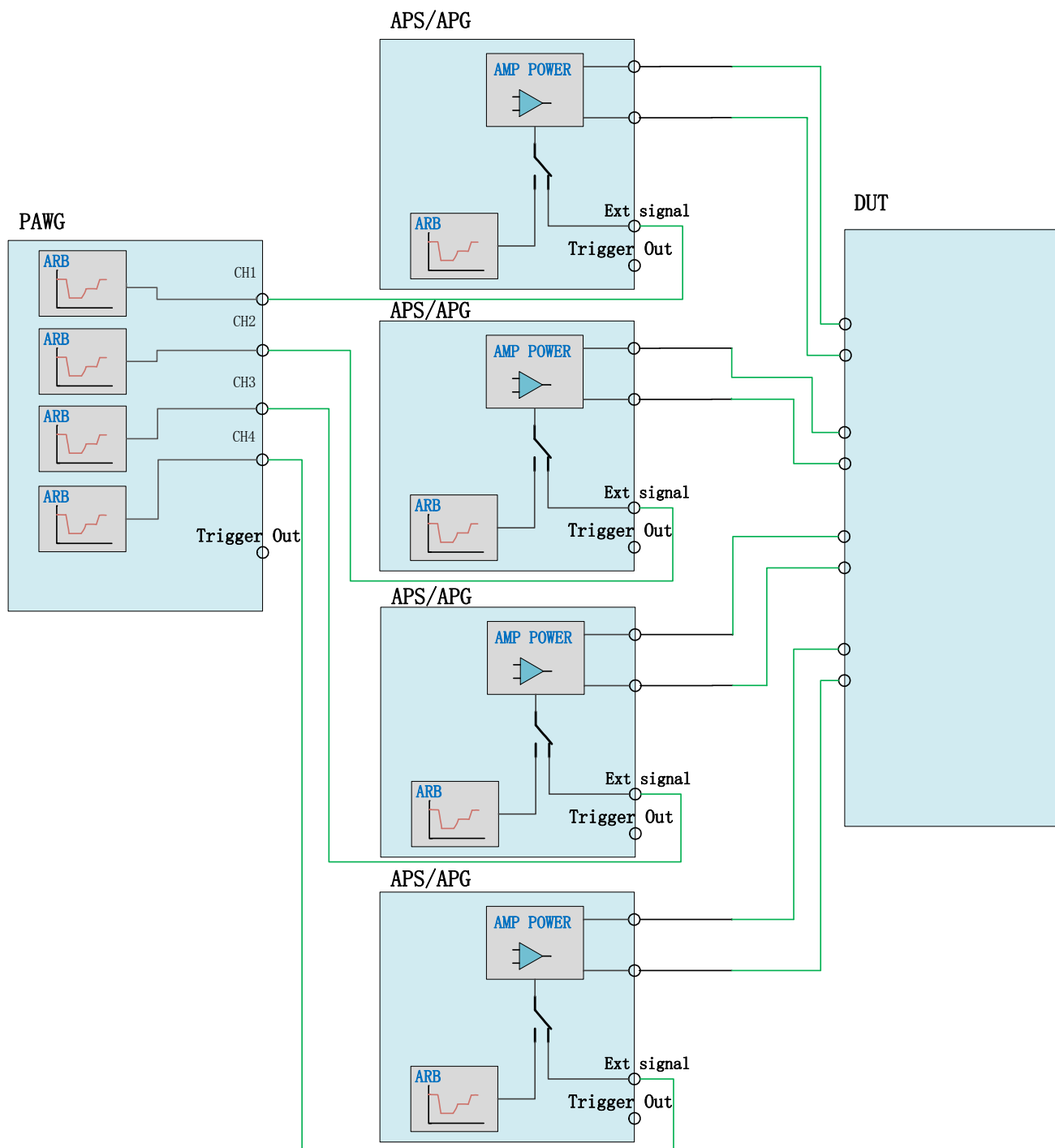
Technical parameters	
File type	CSV、EXCEL、TXT
File waveform points	16MB Max
Waveform data storage	Dynamic cache data storage: 1GB DDR3 NVDS: 32GB NAND FLASH
Segments of waveform	1000 segments per waveform, each segment is composed of several kinds of waveforms
Segment duration	100μs to 999hrs or infinite loop
Delay between segments	None
Test duration	1ms~9999hrs, 1 to 99999 count, or infinite loop
Trigger oscilloscope output	A BNC socket 0-5V, setting trigger point at the arbitrary point of waveform generation software, monitoring the generated waveform by oscilloscope external trigger function
External control input	One BNC socket 0-5V input, used for 1~4ch waveform external control
PC interface	Ethernet
Operating temperature range	15°C-35°C
Operating humidity range	45%-75%
Driving power supply	AC 90V-260V 50/60Hz 100VA
Dimension	19"/4u

protection									
Voltage setting resolution	1mV								
Output accuracy	<table border="0"> <tr> <td>$\pm (0.2\% + 10mV)$</td> <td>DC – 10 kHz</td> </tr> <tr> <td>$\pm 1\%$</td> <td>10 – 100 kHz</td> </tr> <tr> <td>$\pm 2\%$</td> <td>100 – 350 kHz</td> </tr> <tr> <td>$\pm 5\%$</td> <td>350 – 500 kHz</td> </tr> </table>	$\pm (0.2\% + 10mV)$	DC – 10 kHz	$\pm 1\%$	10 – 100 kHz	$\pm 2\%$	100 – 350 kHz	$\pm 5\%$	350 – 500 kHz
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AutoLab software

By self-developed AutoLab software, users can edit kinds of waveforms for waveform segment or test points. According to different requirement, users can regulate the waveform by advanced image tools, and recording waveforms by other way is also supported like oscilloscope capturing. All types of waveforms can be downloaded to PAWG 100.

PAWG 100, APS and APG series must be matched together.





CONNECT 3CTEST

SUZHOU3CTEST ELECTRONIC CO., LTD

Unit 2,Anda Industrial park,Jinshan Rd, SND,Suzhou, 215011,China
Tel: +86-512-68413700/3800/3900
Fax: +86-512-68079795
Web: www.3ctest.cn
Email: info@3ctest.cn

SHENZHEN OFFICE

Room 402, the 4th floor, Fuan Technology Building, No.13,
Nanshan Technology Park, 518053, Shenzhen, China
Tel: +86-755-86626625/ 86344313
Fax: +86-755-26966255



Contact person : Mr.Sungoh Woo
Email : woo@testek.co.kr
Tel : 070-4099-2072 / H.P : 010-6500-6648
Address : 601Ho, SungwoonKoa, 141 Hyeonam-ro, Suji-Gu, Yongin-Si,
Gyeonggi-Do, 448-808



Yvonne McGlinchey
ymcglinchey@ARWorld.US
+353 61 504300
Address: First Floor Ashling Building, National Technology
Park, Limerick, Ireland

BEIJING OFFICE

Room D206, D block, Keshi Building, No.28, Shangdixinxi
Road, Haidian District,Beijing
Tel: +86-10-82899948/ 82899984
Fax: +86-10-82899943

CHENGDU OFFICE

Room 1501,Unit 3, Ideal Centre,No.38 Tianyi Street, SND,
6100085,Chengdu,China
Tel: +86-28-85327800/85327600
Fax: +86-28-85311400



6F-5, No. 130, Ln. 235, Baoqiao Rd,
Xindian District, New Taipei City, 23145, Taiwan
Tel: +886-2-89121185 Fax : 886-2-89121812
Email : rich.tec@msa.hinet.net