Arbitrary Wave Generator   AWG 100X

In Compliance With

> ISO 7637-2	> Ford ES-XW7T-1A278-AB
> ISO 16750-2	> Ford ES-XW7T-1A278-AC
> LV 124	> Ford WDR 00.00EA
> VW 8000	> GMW 3172
> BMW GS 95003-2	> Hyundai/Kia ES 95400-10, Rev. D
> BMW GS 95024-2-1	
> BMW-（Airbag ECU）	> DO 160 Section 16
> BMW 600 13.0(Part 1)	> Case New Holland ENS0310
> Chrysler CS-11809	
> Chrysler PF-9326	> Audi（Reference vehicles）
> Cummins 14269 (982022-026)	> Fiat 9090110
	> DaimlerChrysler PF-10541
> DaimlerChrysler DC-10615	> Ford EMC-CS-2009.1

Introduction

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, AWG 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.

Features

> Tests that meet the IS0 16750 standard and some factory standards;

> 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 1 μs;

> Waveform data (CSV) received from oscilloscope can be output with high accuracy.
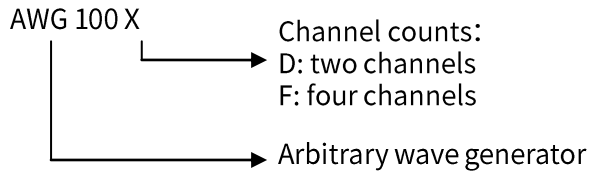
Application Areas

> Automotive

> Aviation

> Military

Technical Parameters

Number Of Channels	1 ch ～ 4 ch，2 or 4 optional
Synchronizati On Accuracy Among Channels	<1 µs
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: 500 kHz max. sine, square, triangle wave, etc, which include sweep frequency, amplitude, offset, phase angle and synchronization change among channels. Direct internal storage mode: DC-500 kHz arbitrary wave, 1 MHz square wave
Waveform Output Rate	25 MSPS per channel
Frequency Resolution	0.001 Hz
Rise/fall Time	≤100 ns @ 20 Vpp
Waveform Voltage Amplitude	0～±10.00 V
Drive Capacity	≥ 1 kΩ
Short Circuit Protection	Yes
Voltage Setting Resolution	1 mV
Output Accuracy	± (0.2% + 10 mV)　DC ±1%　　　　0.01 – 100 kHz ± 2%　　　　100 – 350 kHz ± 5%　　　　350 – 500 kHz

Technical Parameters

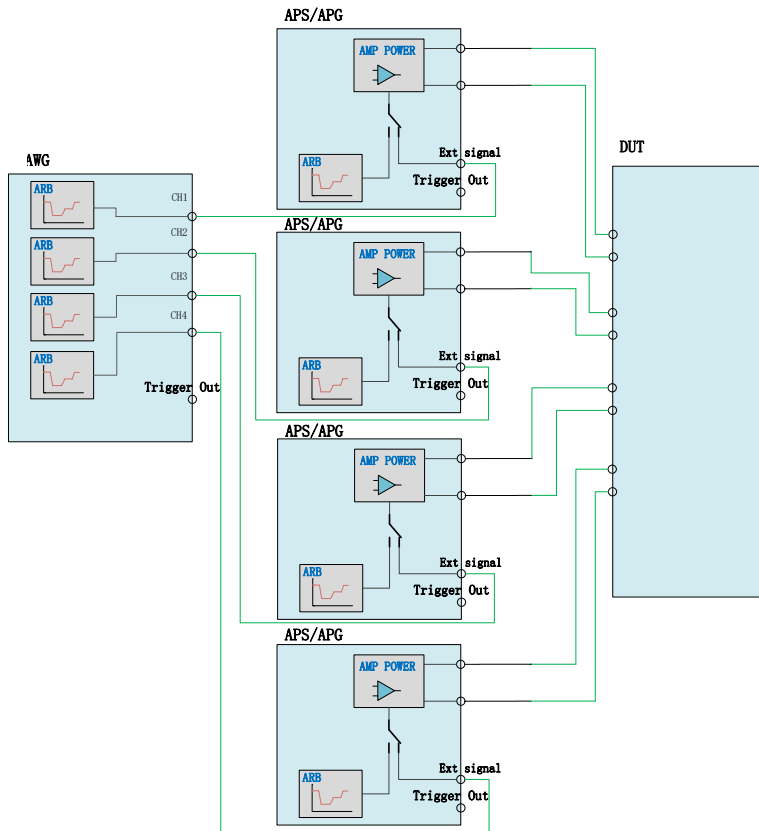|	
File Type	CSV
File Waveform Points	16 MB Max
Waveform Data Storage	Dynamic cache data storage: 1 GB DDR3 NVDS: 32 GB NAND FLASH
Segments of Waveform	1000 segments per waveform, each segment is composed of several kinds of waveforms
Segment Duration	10 µs to 999 hrs
Delay	None
Test Duration	1ms~9999 hrs, 1 to 9999 count
Trigger Oscillosco pe Output	A BNC socket 0-5 V, 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 - 5 V input, used for 1 ~ 4 ch waveform external control
PC Interface	Ethernet
Operating Temperatu re Range	15 ℃ - 35 ℃
Operating Humidity Range	45%-75%
Driving Power Supply	AC 90 V - 260 V　50/60 Hz　100 VA
Dimension	4U chassis
Weight	Approx.10 kg

Optional Accessories

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

Standard Accessories

User manual, Factory, Test Lines, Power Line, Generator

Naming rules：

AWG 100 X

Channel counts：
D: two channels
F: four channels

Arbitrary wave generator

Test Connection Diagram

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