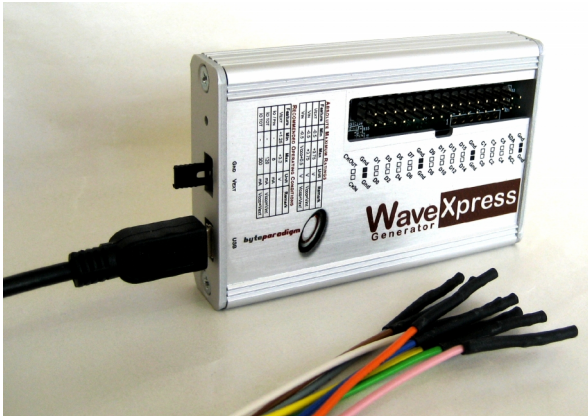


Wave Generator Xpress

Fact sheet



Overview

Wave Generator Xpress (Wave Gen Xpress, WG Xpress) is a Digital Pattern Generator. It allows the generation of arbitrary digital patterns on up to 16 bits at up to 100 MHz from a PC using a USB 2.0 high speed connection. It features a 8 MB memory to buffer digital pattern.

Wave Generator Xpress maximum total throughput is 200 MByte/s ('burst throughput') if the pattern depth does not exceed the embedded 8 MByte memory. The maximum data depth per run is 100 MByte if data is streamed directly from the PC over the USB link. In such case, the maximum sustainable throughput goes up to 11 MByte/s (informative figure- depends on PC).

Wave Gen Xpress is delivered with the **8PI Control Panel / ADWG mode of operation** control software. It includes: a graphical user interface (GUI), a TCL/tk scripting interface and a free access to a C/C++ API, enabling the control from custom applications and third party environments.

Wave Generator Xpress Package

The Wave Generator Xpress package contains:

- ▶ Wave Generator Xpress USB 2.0 device
- ▶ USB cable mini-B to USB type A (2m)
- ▶ 34 coloured flying lead wires
- ▶ License and upgrades for 8PI Control Panel software, ADWG mode of operation.

Applications

- ▶ ASIC, FPGA, DAC and digital board verification and characterisation
- ▶ Stimulus-and-response test of digital embedded system and chip.

- ▶ Automated stimulus generation
- ▶ Data source emulation
- ▶ Custom serial and parallel protocol exerciser

Features

- ▶ USB interface:
 - USB 2.0 High speed 480 Mbit/s
 - Maximum sustained data rate: 11 MByte/s¹
 - Up to 100 MByte data depth per run (with storage onto host PC)
- ▶ User interface connector:
 - 34 leads dual row 2.54mm pitch (0.1 inch) standard header
 - 16 data lines
 - 6 control lines for repetitive sequence generation and I/O clock signals.
 - Internal or external reference clock
- ▶ Operating frequency: 800 Hz to 100MHz
- ▶ Max. burst throughput: 200 MByte/s
- ▶ Up to 100 MByte data depth / run
- ▶ USB -powered
- ▶ Supports external voltage reference supply for I/O voltage from 1.25V to 3.3V
- ▶ 8PI Control Panel host software:
 - Supported OS: Windows® XP, Windows Vista, Windows 7 - 32 bit/64 bit
 - 3 user interfaces: GUI, , C/C++ API, TCL/tk
 - Use C/C++ function calls to control WG Xpress from Visual Basic, Python, LabView® and more.
 - Multiple formats for pattern entry (text file, binary text file, binary file) or generation from script (TCL/tk) / programming (C/C++) interface.
 - Multi-threaded software
- ▶ Anodised aluminium case (WxLxH: 55x80x16 mm)

Contact

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¹ Informative - depends on host PC.