

Overview

The **GP-22050** is a pattern generator, logic analyser and bidirectional protocol exerciser / analyser. It allows the stimulation and the analysis of digital interfaces, from one single serial line up to a 22 signals parallel bus interface. It offers lots of versatility to access electronic boards and perform common test, analysis and debug tasks. The GP-22050 USB 2.0 hardware accelerator device is delivered with a PC-based control software.

The USB device embeds a specialised high-performance real-time processor that enables the generation of virtually any serial or parallel protocol that fits in 16 address/data lines and 6 control lines. During operation, the hardware accelerators reduce the control flow to a minimum to reserve the bandwidth for data transfer. The device streams data over the USB link and sustains a continuous data rate of 11 MByte/s.

The **8PI Control Panel** host software graphical user interface (GUI) provides the user with a control over the USB device through specialised modes of operation. It offers intuitive access to the configuration of the hardware accelerators (clock ratio, pin mapping, accessed interface characteristics...). Moreover, all the applications offer a TCL scripting interface to automate tasks and build complex control sequences.

An Open Architecture C/C++ software API enables the users to embed the GP-22050 in their own application. Any programming language able to access a MS-Windows® DLL offers a true access to the whole system through simple function calls.

Applications¹

- Pattern Generator / ADWG (Arbitrary Digital Waveform Generator);
- Logic Analyser;
- JTAG (IEEE 1149.1) controller;
- SPI / SPI-like protocol master and analyser;
- I²C / SMBus protocol master
- SRAM, flash interface;
- Bus emulation;
- Prototype debug, test and analysis;
- IP prototyping and evaluation;
- Recorder / player;
- ADC / DAC test and control.

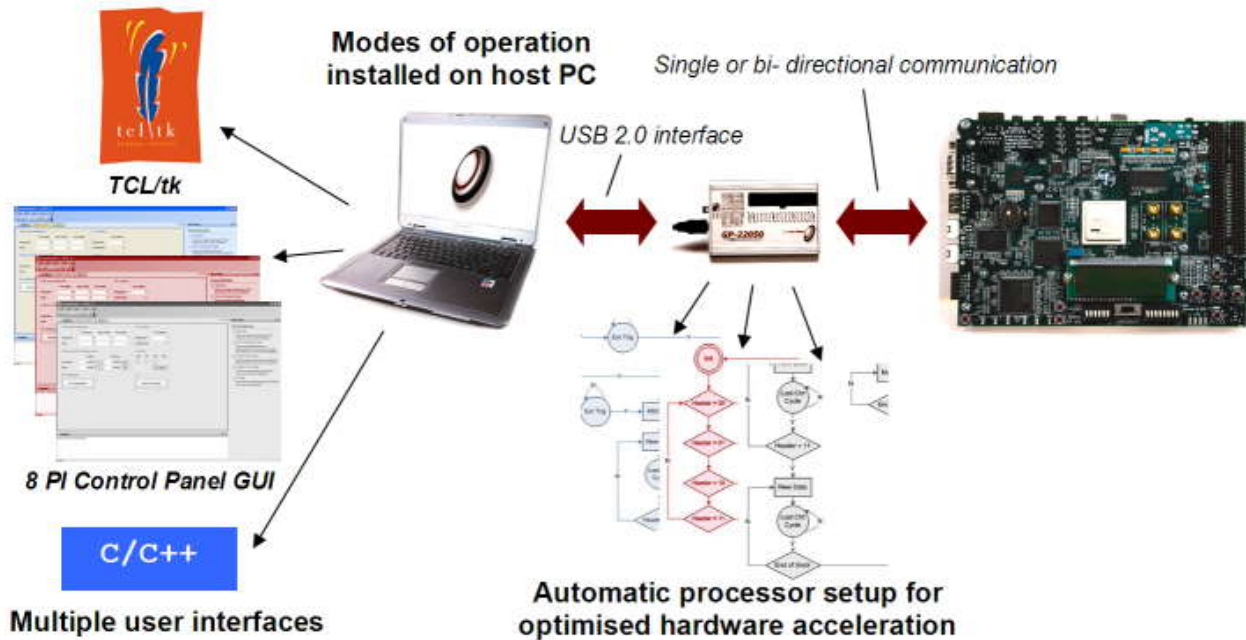
¹ Please contact info@byteparadigm.com for modes of operation roadmaps and availability.

Features

- USB interface:
 - USB 2.0 High speed 480 Mbit/s
 - Maximum sustained data rate: 11 MByte/s²
 - Continuous streaming over USB
 - Mini-B USB receptacle connector
- User interface connector:
 - 34 leads dual row 2.54mm pitch (0.1 inch) standard header
 - 16 bi-directional data signals
 - 6 bi-directional control signals
 - Internal or external reference clock
 - Operating frequency range: 800 Hz to 50MHz
 - Max. burst throughput: 100 MByte/s
- Up to 100 MByte data depth / run
- Autonomous (USB) or external power supply
- Programmable I/O voltage from 1.2V to 3.3V
- 5V-compatible with additional hardware plug-in
- Anodised aluminium case (WxLxH: 55x80x16 mm)
- 8PI Control Panel host software:
 - Operating system: Windows® 2000, Windows® XP
 - Multi-threaded software
 - 3 user interfaces for each mode of operation: GUI, TCL, API (C/C++)
 - Architecture extensible with additional modes of operation
 - Use C/C++ function calls to control the GP-22050 from VB, Python, LabView® and more
 - Flexible mode of operation licensing model



² Result of a test with the ADWG application with a Pentium 4 3 GHz host PC. The actual throughput depends on the host PC.



GP-22050 BASE Package

The GP-22050 BASE package contains:

- GP-22050 USB 2.0 device
- USB cable mini-B to USB type A (2m)
- 34 coloured flying lead wires
- CD-ROM with tools & documentation
- License for ADWG, Analyser and JTAG modes of operation.

Contact

For detailed information and pricing, contact:

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