## Digital Pattern Generation DigiPat Powered by Altera FPGAs



A PC based pattern generator, DigiPat (SPG2100) featured with 36 channels, 100 MHz, is designed for testing, debugging and characterizing any digital hardware by generating a variety of digital signals. The DigiPat hardware comes with the software that communicates via USB interface and has an intuitive and user friendly GUI for quickly editing/designing and generating digital patterns.

The DigiPat software supports windows. This allows for more organized waveform edit options (with color coded data and increased screen size), intuitive user interface, and data management (file saving, loading, printing).



| Specifications          |   |
|-------------------------|---|
| Feature                 | Description   |
| No. of Channels         | 36  |
| Max. Sampling frequency | 100 Msps  |
| Maximum Memory Depth    | 512K/Channel  |
| External Clock          | 100MHz max  |
| PC Interface            | USB   |
| Maximum Sample Rate     | 100 Msps  |
| Trigger Types/Mode      | Pattern (Synchronized, Multiple)<br>External (Single)<br>Manual (Triggered) |
| Available Sample Rates  | 5sps upto 100Msps   |
| Maximum Trigger Input   | 4 Internal, 1 External  |
| OS Supported            | Windows XP SP2, Windows 2K SP4  |
| Dimensions              | 4.5" x 5.2" x 1"  |



## **Features**

- Generates digital signals in bit, byte and word formats with high speed
- Programmable sample rate: 500 Hz 100 MHz
- Channel selection modes: 9, 18 and 36
- Programmable sample depth: 1 sample 512K samples
- Advanced waveform editing options like High, Low, Pulse, Clock, Arbitrary value, Counter etc
- Cursor support for timespan measurement
- Programmable modes of pattern generation: Continuous, Programmable no. of times
- Replicates the output patterns on maximum 18 channels
- Various bus related operations supported
- Supports advanced trigger options like Auto Manual, External Trigger and Pattern Trigger with trigger counter for starting and stopping pattern generation
- Support for viewing pattern in numeric form with timestamp in List view
- Support for saving and opening previously saved pattern files for reusability
- All types of zooming supported
- Import/Export CDLogic, VCD and ASCII (row data) file format
- Supports new XML based file format
- Command prompt and full screen mode support
- International language support (English, Chinese, French)
- Supports USB interface

## **Deliverables**

- DigiPat hardware
- USB cable
- 110V/240V power adapter 6V/1A
- Four sets of cable assembly
- CD ROM
  - DigiPat Software
  - Documents

## **Applications**

- Analysis, Verification and Debugging of digital circuits like:
  - Logic Gates, Flip-Flops, Digital Counters
  - Micro controllers, Micro processors
  - Systems On Chip (SOC) functions in FPGA, standard cell or ASIC

Download the software setup from http://www.slscorp.com/pages/demodownload.php