



## USB321G: PC-Based Logic Analyzer

- 1 GHz maximum sampling rate
  - 32 channels
  - More than 100 MHz input bandwidth
  - 1 Meg Samples/channel maximum
  - 8-bit pattern generator
  - 4 Independent variable thresholds
  - Digital logger
  - Versatile triggering options, including glitch capture
  - External clock input
  - Extended capture time function
  - Quality SMD grabber test clips
  - High speed USB2 connection to PC
  - No external power supply
- Runs on Windows 98/ME/2000/XP...



The USB321G is a small, but very capable PC Based Logic Analyzer. It is able to capture at 1GHz on its 32 Channels simultaneously. The software is mature and allows easy and intuitive interfacing to the instrument. The USB321G interfaces to the PC via the USB port.

### Capability at low cost

Now a high-performance logic analyzer is within reach of every electronics professional and enthusiast. You can leave that big expensive analyzer in the store... the USB321G will match the job.

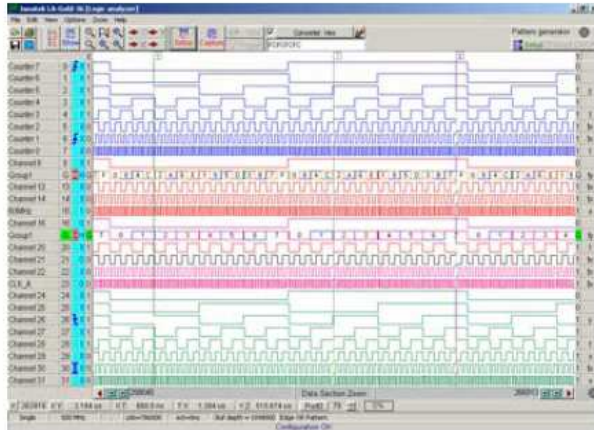
### Advanced capabilities - easy to use

The comprehensive software provides a friendly and easily manageable environment for the wide spectrum of features. You can start meaningful measurements almost immediately after installing the software for the first time. Setting a trigger condition, capturing and navigating through the data, is a pleasure. The data may be viewed, saved and printed in various useful formats. If the Unit Under Test (UUT) is controlled by a PC, you do not require a second PC to run the logic analyzer software. Simply run your USB321G and UUT software in different windows.

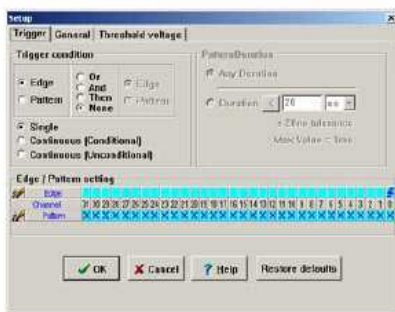
## Powerful software environment

The software for the LA-Gold-36 is mature and both the logic analyzer and pattern generator are controlled from a single, intuitive user interface.

The LA-Gold-36's integrated pattern generator can be used in conjunction with the logic analyzer. The user can set up the instrument to output data to the unit under test (UUT) with the pattern generator and then measure its response with the logic analyzer. This, and other flexible triggering options for both the logic analyzer and pattern generator functions, makes the LA-Gold-36 a cut above the rest.



## Capture the data you want



The flexible triggering options of the LA-Gold-36 make it possible to capture the exact data the user wants to view.

Edge triggering may be set to occur on a rising edge, falling edge or change-of-state on any one or combination of channels. Pattern (level) conditions are set by specifying a '1', '0' or 'X' (don't care) condition on all channels.

Combinations such as Edge OR Pattern, Edge AND Pattern, Edge THEN Pattern, Pattern THEN Edge, etc. may be set.

Pattern durations may be set to trigger when shorter (glitch capture), or longer than specified period.

A 'post trigger delay' function allows the final data capture to be postponed by an accurate time after trigger detection.

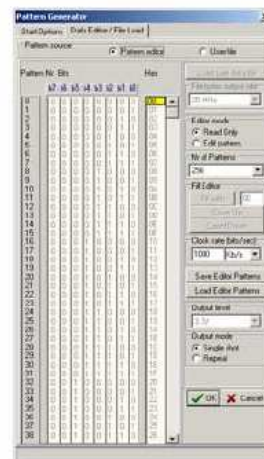
## Pattern Generator

The pattern generator, working in close combination with the logic analyzer, adds a new dimension to debugging possibilities.

The 8-channel pattern generator can output data at rates up to 50 MHz. The output pattern can be specified to come from a user file or from the 'Pattern Editor'.

It can be started on various conditions. It can, for example, start on a specific condition in the logic analyzer input signals, similar to a logic analyzer trigger condition.

The outputs of the pattern generator can act as inputs to the unit under test. The response from the unit under test can then be used to trigger the logic analyzer.



<b>Internal sampling rates</b>	1GHz down to 100Hz
<b>Digital inputs</b>	32 inputs, -60V to +60V, 1M $\Omega$ /5pF minimum input impedance, 100MHz input bandwidth
<b>Data buffer</b>	1Meg / 1048 000 (decimal) samples per channel up to 500MHz sampling rate 4k samples per channel for 1GHz sampling rate
<b>Pattern Generator</b>	
Pattern source	Pattern editor or user file
Nr of channels	8
Data to output clock	100MHz max
Minimum input impedance of load	4k7/100pF
Modes of Operation	Single/Continuous
<b>Connection to PC</b>	USB 2.0 High Speed Mode (USB 1.1 Full Speed compatible)
<b>Trigger conditions</b>	
Pattern :	'1', '0', and 'don't care' ("X") conditions selectable on all channels.
Edge :	On any one or combination of channels. Rising edge, falling edge or change of state
Edge/Pattern combinations	Edge and pattern triggering may be combined for single captures or for conditionally continuous capture:
Continuous	Pattern, rising edge, falling edge, Change of state  Pattern OR/AND/THEN rising/falling edge/Change of state. Rising edge/falling edge/Change of state OR/AND/THEN pattern  Pattern < duration (glitch capture)  Unconditionally: Display updates at regular intervals  Conditionally: Display updates on detecting a trigger condition
Mouse /Keyboard	A trigger may be forced
<b>Digital logger</b>	1 second to 1 hour sampling rates
<b>Threshold voltage</b>	-5V to 5V
<b>Extended capture time</b>	Dependant on the sampling rate. At 500MHz: 33ms max&1.25kHz: 1677s max
<b>Pre-/post-trigger buffer setting:</b>	The pre-/post-trigger buffer relation may be changed in 1000 samples steps.
<b>Software environment</b>	
Windows:	Windows 98, ME, 2000, XP or later compatible versions. Run the LA-Gold-36 and the Unit Under Test in different windows simultaneously
Ease of use	The software is very easy to use. Most functions are directly selectable via a button bar on the main screen.
<b>Display</b>	
No. of channels	Any number of channels may be displayed.
Channel/group names	User specified signal/group names
Display order / Colors	User specified
Zooming:	Zoom in/out/previous/all/between cursors
Single capture	Captures a single set of data
Continuous capture display:	Unconditionally: Continuously captures and displays data at a fixed update period.
Cursors :	Conditionally: Updates the display each time a specified edge or pattern trigger condition is met.
Time measurements :	Various for time measurements, indicating the trigger point, etc.  The time differences between any two cursor lines or trigger line may be displayed. Take measurement easily by clicking mouse on first edge and on second edge to get the time difference. The time difference may also be indicated as a frequency.

<b>Edge snapping</b>	Cursors (X, Y & Z) snap to signal edges for accurate time measurements.
<b>Pattern search</b>	Any channel conditions may be searched for. 1, 0 and don't care conditions specified. Search from start/cursors, repeated search
<b>Printed output</b>	The timing diagrams, bitmaps, binary and hex data, may be. Landscape and portrait.
<b>Power requirements:</b>	<p>2.5W Typical capturing data, without pattern generator.</p> <p>3W Typical with pattern generator</p> <p>The LA-Gold-36 will be fused with a 1.6A (or less)</p> <p>Resettable fuse</p>
<b>External clock</b>	Synchronized capturing into linear or ring buffer. 25MHz max
<b>Unit dimensions/weight</b>	150mm x 86mm x 26mm, 210 g