# Logic Technical Specifications

Geometry and Weight
- Length & Width: 1.7 in (43.2mm)
- Thickness: .365 in (9.3mm)
- Volume: 1 in3 (16.4 cm3)
- Weight: .9 oz (25.5 gm)

Inputs
- Input voltage range: -0.5V to 5.25V
- Input Low Voltage: -0.5V to 0.8V
- Input High Voltage: 2.0V to 5.25V
- Works with 5V, 3.3V, 2.5V, 2.0V systems. May work with 1.8V but not recommended.
- ESD protected per CE requirements
- Over-voltage protection to +/- 15V. Not meant for continuous operation outside -0.5V to 5.25V.
- Input Impedance: 1Mohm || 10pF (typical, approximate)
- Error/Accuracy: pulse-width measurement: +/- 42ns (at 24MHz).
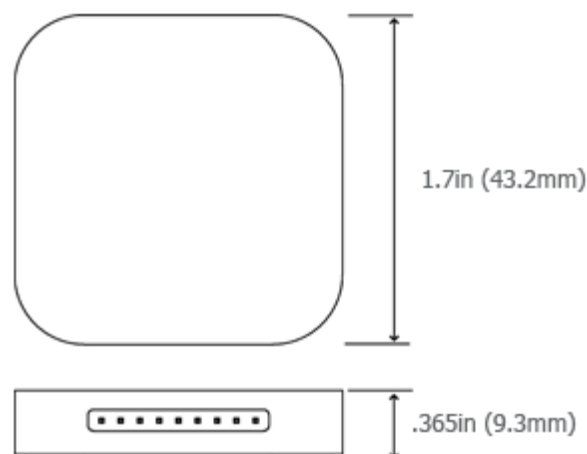
Sample Rate & Depth
- 24MHz. 16MHz, 12MHz, 8MHz, 4MHz, 2MHz, 1MHz, 500KHz, 250KHz, 200KHz, 100KHz, 50KHz, 25KHz; Note that achieving the highest sample rates requires low USB latency; this may not be achievable on all computers. Performance may improve with the removal of other USB devices, using a different USB host controller, or increasing the software's process priority.
- 10B samples. Absolute max depends on data compressibility, available RAM and operating system. 10B samples assumes reasonably high compressibility.

System Requirements
- Windows XP (32-bit)
- Windows Vista (32-bit or 64-bit)
- Windows 7 (32-bit or 64-bit)
- Mac OS X 10.4 Tiger or higher
- Linux: recent Ubuntu, Fedora, or openSUSE. Other distributions are likely to work but not specifically supported.
- USB 2.0

What's in the Box
- Logic (fully tested)
- 1x9 Ultra-Flexible Test Lead Set
- x9 Micro Hook Clips
- USB Cable (1.8M length, A to mini-B)
- Custom Carrying Case
- Software not included — download here

Construction
- Custom CNC machined aluminum enclosure
- 2-part elastomer injection molded bottom cover
- 4-layer PCB, professionally designed, laid out, and design reviewed

Connectors
- 1x9 male IDE .1 in pitch (aperture size: .110 in x .940 in; .030in radiused corners)
- USB Mini-B

Power
- 50 mA Idle (from USB, typical)
- 75 mA Sampling (from USB, typical)

Regulatory
- RoHS Compliant

- CE Certified

Available Accessories
- Extra 1x9 wire bundles
- Extra x9 pack of test clips
- 1x9 to 1x9 IDE cable
- 1x9 IDE to individual wires cable

Safely & Equipment Protection
- For more detail, please see the section Safety & Equipment Protection near the end if the User's Guide
- Logic may not be used with DUTs (devices under test) which are not electrically isolated from MAINS (i.e. wall power).
- DUTs which are battery powered, or USB powered (from the same computer as Logic) are acceptable.
- DUTs powered by AC adapters which have only 2 prongs, and do not have an earth ground connection (such as most "wall warts"), usually provide MAINS isolated power and are acceptable.
- When using USB powered DUTs, special care should be taken to avoid connecting USB sourced power to Logic's ground, as this provides a short-circuit return path. While both Logic16 and USB ports are designed to survive a short circuit event, care should be taken to minimize its likelihood.