

5 REASONS TEKTRONIX OSCILLOSCOPES ARE RELIABLE AND TRUSTED

TECHNICAL BRIEF



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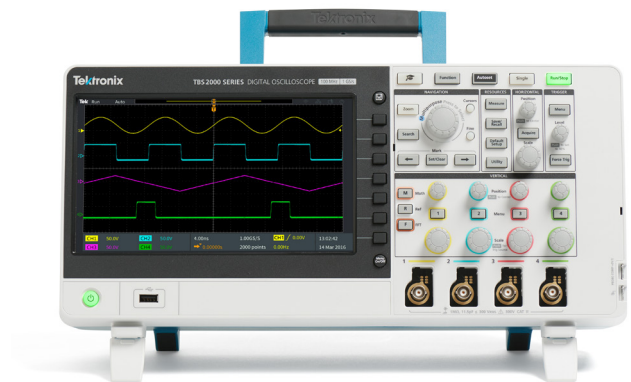
TECHNICAL BRIEF

The Tektronix TBS1000, TBS2000, and MSO/DPO2000 oscilloscopes, like all other Tektronix scopes, are backed by a 5-year warranty. We offer this warranty because we're confident in the unmatched reliability and quality of Tektronix scopes. Here are 5 reasons why our scopes are so dependable:



1 – Expertise and Quality Built-In

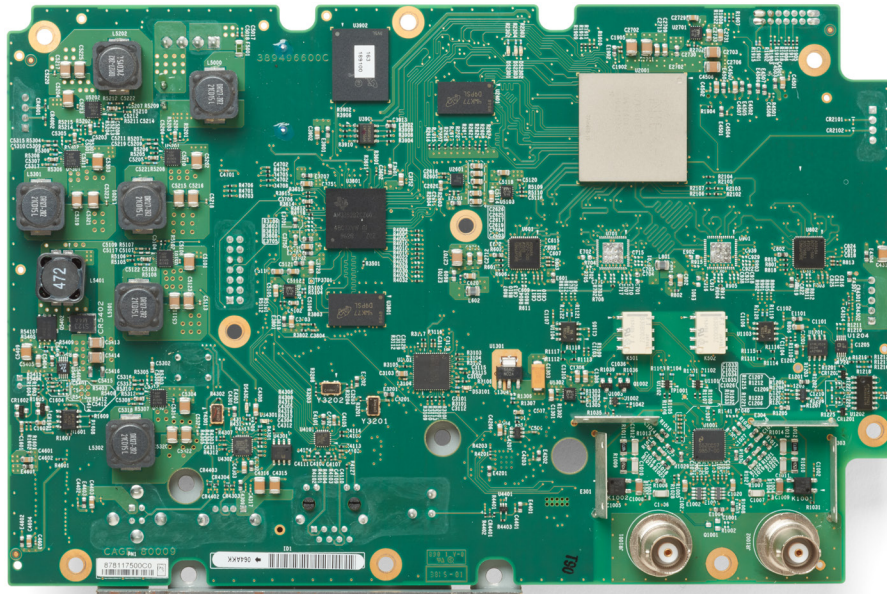
The same designers, control, manufacturing and quality processes are used across our entire range of scopes. So whether you're purchasing a scope for \$400 or \$400 000, you're getting world-leading design and quality control expertise.



2 – Proprietary ASICs & Top-Quality Parts

Tektronix scopes use proprietary ASICs, which benefit from years of scope chip design expertise. This keeps performance high, minimizes power consumption and heat, and reduces parts count. Tek scopes also use industrial grade liquid crystal displays, which offer increased brightness, better viewing characteristics, and longer life compared to the consumer-grade displays used in some entry-level oscilloscopes.

We only work with trusted and audited suppliers to ensure our scopes are built with top-quality parts. We employ strict policies and procedures to prevent counterfeit material entering our supply chain, so all components are guaranteed to be authentic.



3 – 100 Quality Checkpoints

Your Tektronix scope is proudly built by experienced technicians in our factory in Shanghai, China. Each scope is tested at over 100 checkpoints to make sure it meets guaranteed specs, with room to spare.

Quality testing begins in Tek's own labs, where specialized engineers rigorously test each design to ensure that it meets tough reliability standards and environmental specifications, as well as international norms.

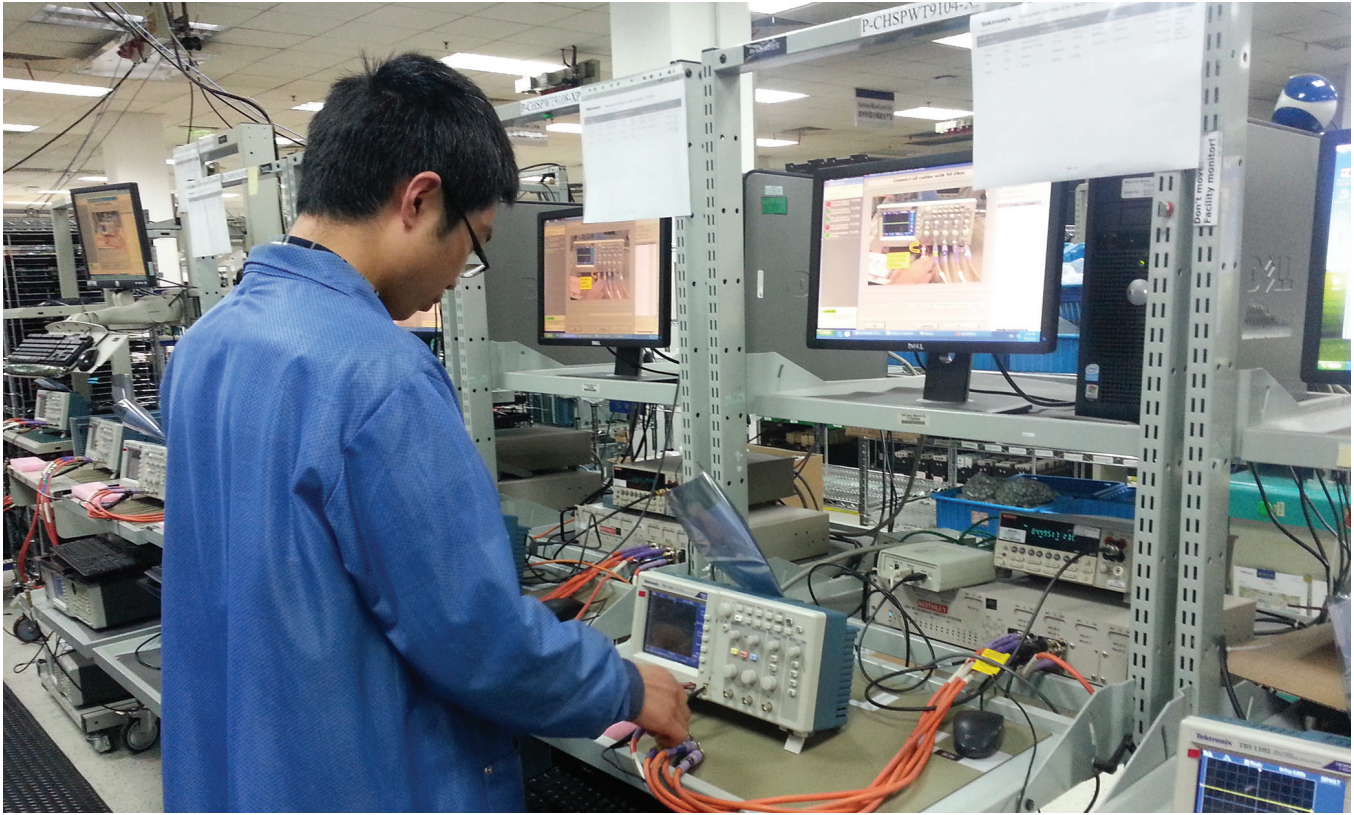
Prototypes are subjected to temperature, humidity, altitude, vibration, shock, and drop tests. In many cases, we test beyond the standard, and when in doubt, our engineers will always take the most conservative approach. Tests are even performed on things that aren't covered in the warranty (like user misuse) because we know things happen in the field.

Our manufacturing facility is climate controlled to ensure that calibrations take

place at room temperature and normal relative humidity. What's more, Tektronix basic scope manufacturing is ISO17025 accredited. This metrology standard applies to testing and calibration labs and encompasses management and technical requirements. It requires us to have a fully-documented and audited quality management system for testing and calibration.

Even our packaging is tested extensively, to make sure it protects the instruments within. Tek packaging can protect your scope from the punishment of extreme temperatures, haphazard stacking, and surly shipping company employees.

Once your scope has passed in-house testing, it is ready for certification by 3rd party agencies such as CSA to meet ISO61010 safety standards.



4 – Tek Scopes Meet International Standards for Safety, Electromagnetic Compatibility, and Environmental Compliance

Tek has engineers on staff who specialize in compliance with safety standards, electromagnetic compatibility standards, environmental compliance, and other regulations. Testing is done in one of our in-house safety labs, and designs are subjected to highly accelerated life testing to identify and eliminate failure modes during the design process.

Tek basic scopes are 3rd-party certified for North America, and evaluated to CE standards per IEC61010-1 for the EU. Our goal is to have our products certified to meet the most stringent standards, so any Tektronix product is authorized for worldwide sale. Our compliance engineers develop and maintain our 3rd party certifications and CE declarations.

Probes that are rated for use with hazardous voltages (such as the passive probes shipped with basic scopes, which are rated for 300V CAT II) are tested to comply with applicable IEC61010-2 standards. This testing involves pulling, abrading, and bending to simulate the conditions of usage.

Our environmental compliance engineers work with our design engineers and vendors to make sure our products don't contain any materials restricted by international standards. In the case of ROHS compliance, this means going through our scopes assembly-by-assembly, component-by-component, and wire-by-wire.



5 – Global Support and Service

Once it leaves our factory, your basic scope is backed by our global network of service centers. Customer problems reported through our call lines, sales, and website are instantly reported throughout the company, and any problems that go unresolved are escalated.

Any product that fails within a few days of the customer turning it on is investigated by a quality engineer. All field failures are analyzed by quality engineers every month to sniff out any recurring problems.

Sometimes your scope is working just fine, but you can't figure out how to make it do what you want. When you need support, we'll be there.

Even the best instrument needs to be checked every now and then. If your scope ever experiences any issues, we have service labs located around the world offering calibration and repair services for our full range of scopes.



Bonus Reason – Continuous Improvement

Even though the failure rates on our basic scopes are very low, we continuously work to reduce them even further. Everyone at Tek tracks quality metrics daily, from engineers to technicians to managers. As problems come up, they are analyzed in teams to get to the root cause, and countermeasures are put in place to improve our processes even more.

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