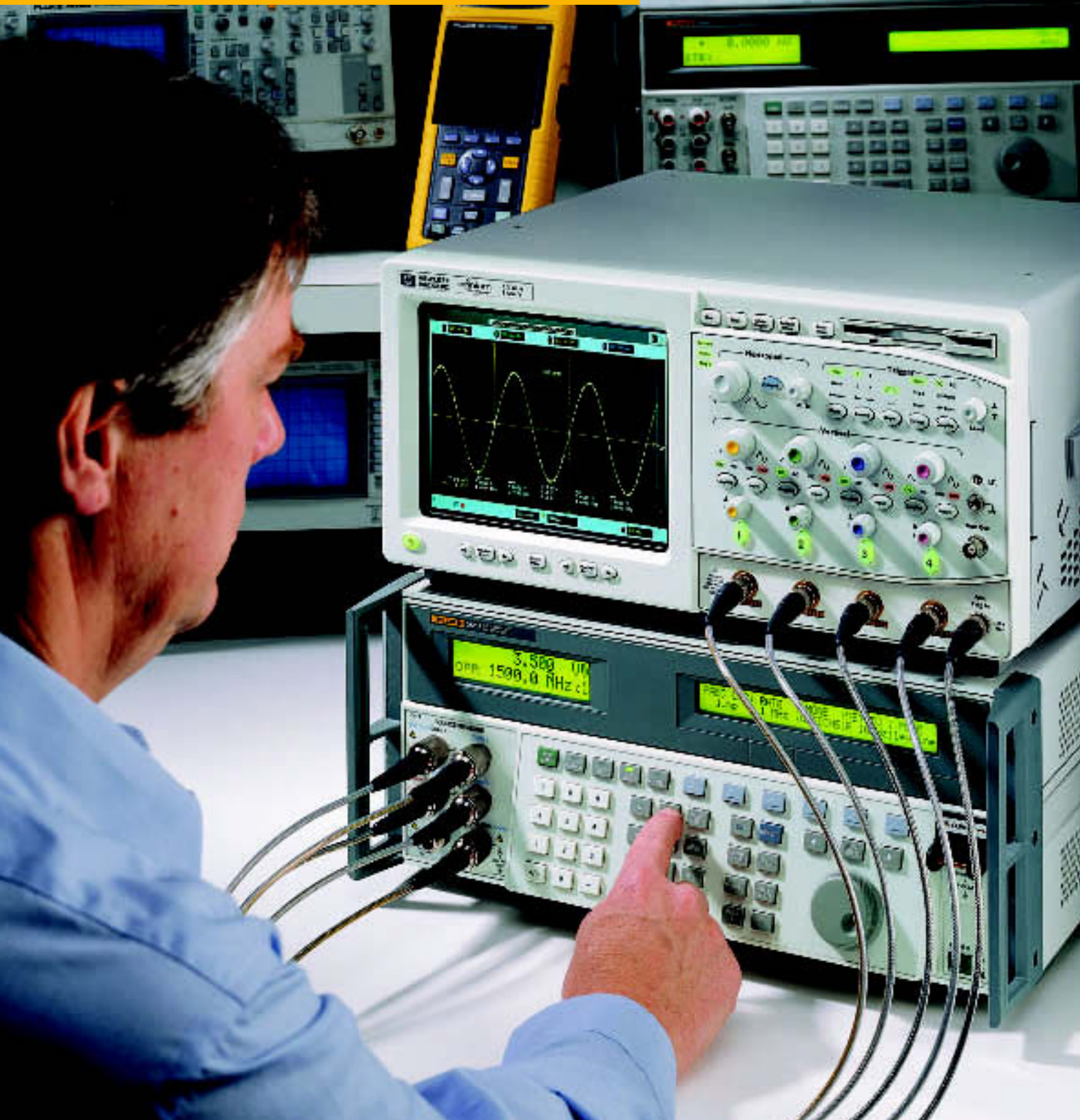


FLUKE®

Fluke Oscilloscope Calibration Solutions

Helping you measure up to
the highest standards



Fluke offers more ways to meet your oscilloscope calibration needs

If your organization is like most, you are competing in a global marketplace. To succeed, you must meet international quality standards such as ISO 9000, ISO Guide 25, ANSI Z540, as well as safety, nuclear regulatory, or environmental quality guidelines. These standards typically require you to calibrate instruments you use to measure and control the quality of your products. Often, oscilloscopes fall into that category, so you need to ensure they are precisely calibrated so that measurements are adequate and traceable to nationally recognized standards.

Since 1948, Fluke has been helping organizations like yours accomplish just that. We offer more ways to meet your oscilloscope calibration needs than any other source, with a comprehensive range of solutions that simply make good business sense.

The 5820A – dedicated oscilloscope calibration that grows with you

The powerful 5820A Oscilloscope Calibrator is a complete, yet flexible solution for oscilloscope calibration. It calibrates virtually all your digital and analog oscilloscopes quickly, easily and affordably. Even in its basic configuration, the 5820A provides tremendous versatility, allowing you to meet the manufacturer's calibration requirements for oscilloscopes up to 600 MHz.

With its high bandwidth option, the 5820A's performance can be extended still further, to oscilloscopes up to 2.1 GHz. And the 5820A's five-channel output option facilitates fast, hands-free automated calibrations. Best of all, either option can be purchased with a new 5820A, or added later as your needs change and grow.

The 5500A and 5520A – workhorses of wide workload coverage

The versatile Fluke 5500A and 5520A Multi-Product Calibrators are like entire calibration laboratories packaged in a single portable instrument. They can cover a very wide range of electrical calibration requirements—from meters up to 6½ digits, thermometers, recorders, data loggers, process calibrators and meter, watt meters, even pressure indicators, and more. Plus, they both offer two ways to add oscilloscope calibration capabilities, up to 300 MHz or 600 MHz with 300 ps fast edge, depending on your workload and budget.

Fluke – a complete calibration solution for more than 50 years

There's more to calibration than calibrators, and Fluke has the experience to help you there as well. Our full line of standards helps you to ensure that your measurements are traceable to national standards. And Fluke

calibration and asset management software—including literally *thousands* of automated calibration procedures—helps you make sure all aspects of your calibration quality program are properly controlled and documented.

You can call on Fluke for both application support and training for our instruments and software. And, if it makes better business sense to out-source your calibration activity, Fluke offers a wide range of services worldwide to help you keep your equipment calibrated, manage your metrology assets, as well as instrument repair and spare parts when you need them.

To compete in the world market, you need to have a partner to help you measure up to world standards. Only Fluke offers so many solutions, matching your calibration needs, workload, and budget with the best tools to do the job. Just what you'd expect from the world leader in calibration.

5500A/5520A
Multi-Product Calibrators:
unprecedented versatility,
including oscilloscope
calibration up to 600 MHz.





5520A Multi-Product Calibrator

5820A Oscilloscope Calibrator

Training and Support

Metrology training

Our five-day "Principles of Metrology Workshop" combines real-world applications with our expertise in the test and measurement field. You'll get hands-on experience in everything from how to use voltage dividers to calculating and evaluating measurement system uncertainties. A half-day course, "Getting Started in Electrical Calibration," and on-site training are also available.

Lab management training

Our five-day "Calibration Lab Management Workshop" takes you step by step through the process of setting up and operating a calibration lab from an entrepreneurial viewpoint.

MET/CAL Calibration Software training

Fluke offers a variety of courses designed to help you realize the full potential of Fluke MET/CAL applications. Topics covered include procedure writing, system setup and report creation.

Calibration: Philosophy In Practice, Second Edition

This well organized, easy-to-understand volume presents an in-depth look at all aspects of dc and low-frequency metrology, from the world leader in calibration.

Metrology support

MET/SUPPORT is a comprehensive range of services including on-line user information, user group seminars and meetings for sharing ideas, a 24-hour fax line and telephone hot-line.

Technical support

Expert Fluke technicians are available by phone worldwide to answer questions about installing and using Fluke calibration products and services. A dedicated fax line is available for inquiries 24 hours a day.

Calibration and repair service

Fluke offers extensive calibration support and service to maximize the value of your calibration investment. Our worldwide network of Calibration Centers offers traceability to national standards. And we offer fast, quality repair and calibration services including a module exchange program, comprehensive training, and full support in setting up your lab.

The 5820A Family: Dedicated oscilloscope calibration that's flexible, powerful and affordable

In many calibration and service applications, a dedicated tool is often the best match to your workload. It allows you to purchase exactly the functionality you need to do the job without having to buy capabilities you don't need.

The 5820A is designed for just that situation, where the bulk of your workload consists of oscilloscopes, either in-lab, or on-site. It's designed to calibrate all the ranges of functions of the vast majority of digital and analog oscilloscopes in use or being purchased today.

The 5820A is compact, portable and rugged. On the bench, its small footprint leaves you plenty of workspace. Outside the lab, it's easy to carry, without the need for extra accessories like pulse heads.

For automated applications, the five-channel option allows you to calibrate up to four oscilloscope channels, with trigger, simultaneously without changing cables. This allows you to perform fast, hands-free automated calibrations with documented procedures and results while freeing the operator to complete other work—a dramatic productivity improvement. Plus, the external trigger allows you to work with tough-to-capture signals like fast edges *simultaneously*.

The standard 5820A is designed to calibrate the bulk of your oscilloscope calibration workload—everything up to 600 MHz. Its bandwidth extension option lets you extend that capability still further—to oscilloscopes with bandwidths up to 2.1 GHz. The option can be purchased installed in a new 5820A. Or it can be added later as your workload demands it. Either way, you purchase exactly what you need today, with the flexibility to adapt as your needs change.

Additional features include an auxiliary feed-through channel that lets you work with external generators up to 2.4 GHz. And there's an external frequency reference input that allows you to enhance the 5820A's frequency accuracy by locking it to an external 10 MHz reference.

By eliminating the need for pulse heads, the 5820A is more portable, rugged and easy to maintain. Output uncertainties are specified at the end of the cable.

3.500 Vp
OPR 2100.0 MHz c1

Leveled sine wave source to 600 MHz, extendible to 2.1 GHz, for calibrating bandwidth.

Clear, simple, uncluttered front panel and prompts make the 5820A easy to learn and to use.



A five-channel output option supports automated calibration of multi-channel oscilloscopes without requiring connection changes.



By eliminating the need for pulse heads, the 5820A is more portable, rugged and easy to maintain. Output uncertainties are specified at the end of the cable.



External trigger output for time marks, fast edge, voltage and pulse modes supports calibrating any oscilloscope requiring external triggering, simultaneous with all channels.



Dedicated mode keys minimize keystrokes.

Interfaces for both RS-232 and IEEE-4888 make automation simple. The unique pass-through port allows you to control the 5820A and a unit under test with just a single PC serial interface.



A simple calculator-style keyboard makes it easy to enter values.



Use the auxiliary pass-through channel and the external generator you may already have to perform bandwidth checks up to 2.4 GHz.



Multiply and divide keys automatically step through output values in 1-2-5 or user-defined sequence.



A convenient edit knob makes it easy to calculate errors.

TDPULSE TRIG MODE
off c5 off edge

Fast edge rise time to 150 ps makes the 5820A well suited for oscilloscopes up to 2 GHz. A tunnel diode pulser drive mode makes it easy to work with even faster edges.

LINE MK FORMAT MODE
10 ODD pal video

TV triggering for NTSC, SECAM, PAL and PAL-M with line marker.

NO MEASURE MODE
OFFSET res 50n meas 2

Input resistance, capacitance and overload testing with automatic protection of the oscilloscope. Input resistance, capacitance and overload testing with automatic protection of the oscilloscope.

AMPL TRIG MODE
1.5V c5 off pulse

Built-in pulse and waveform generators for triggering, pulse response and horizontal deflection tests.

Full support for automation with Fluke MET/CAL Calibration Software. Fully approved procedures from many popular models of oscilloscopes are included with every 5820A, with thousands of additional procedures available.

Fluke Calibration: The total solution



Fluke offers a complete range of instruments, standards, software, training and support, to meet all your electrical metrology and traceability needs.

High Accuracy Calibrators

The 5700A and 5720A are the world standards in high performance meter calibration. Both are rugged, reliable and easy to use and support through Fluke's unique Artifact Calibration technology.

Working standards for ac voltage

The 5790A is a complete program-mable, automated ac measurement standard. It combines the accuracy of a thermal transfer standard with the ease-of-use of a digital multimeter.

Reference and transfer standards for direct voltage

The 734A is a four-cell reference standard with complete electrical and mechanical independence for each output. The 732B is a compact, rugged, solid-state portable direct voltage reference standard designed for reliable, convenience transfers. It features very predictable performance and long battery life and is ideal for supporting Artifact Calibration. And it is supported by the only accredited on-site measurement assurance program in the industry.

Working standards for resistance

The 742A series are rugged, high accuracy working standards delivering precision, on-site resistance calibration over a wide temperature range without the need for oil or air baths. They are ideal for supporting Artifact Calibration.

Primary standards for ac voltage

The 792A offers extraordinary transfer accuracy with accredited total uncertainties to ± 10 ppm traceable to national standards. Robust input protection and fast settling times enable measuring voltages from 2 mV to 1000V over frequencies from 10 Hz to 1 MHz — in just seconds.

MET/CAL® Calibration Software

This powerful environment for creating, editing, testing and documenting calibration procedures also performs automated calibrations. It supports a wide variety of standards and includes thousands of procedures.



5500/CAL Calibration Software

A subset of MET/CAL designed for the 5500A, 5520A, 5800A and 5820A, 5500/CAL provides documentation of procedures, adequacy and traceability as required by ISO 9000. It also collects and reports calibration results and helps consistently, quickly and efficiently calibrate a wide variety of instruments.

MET/TRACK® Metrology Property Management Software

Behind MET/CAL and 5500/CAL is this powerful data base engine, designed to help you document and report on all aspects of your measurement assets, including inventory, calibration history, results, location and maintenance. It features a robust, industry-standard SQL database for easy data access from a variety of applications and operating systems.



When you need the industry's most versatile calibration solution—the 5500A Series Multi-Product Calibrators.

Fluke invented the multi-product calibrator to cover the widest range of workload quickly, easily and affordably. Calibrate meters up to 6½ digits, watt meters, thermometers, data loggers, chart recorders, power harmonics analyzers, process calibrators, pressure indicators, current clamps, panel meters, and more.

These versatile workhorses of the cal lab also offer a choice of options to meet your oscilloscope calibration needs. The SC600 calibrates oscilloscopes up to 600 MHz. If your workload consists of lower frequency oscilloscopes, the SC300 is an affordable way to accommodate them up to 300 MHz. Fluke provides more ways to match the right oscilloscope calibration tools to your workload and budget. Call for a complete 5500A/5520A brochure and specifications.



5820A: flexible, affordable oscilloscope calibration coverage up to 2.1 GHz.



Ordering Information

Calibrators

5820A Oscilloscope Calibrator
5500A Multi-Product Calibrator
5520A High-Performance
Multi-Product Calibrator

Options

2.1 GHz Bandwidth Extension for
the 5820A
Five Channel Output for the 5820A
300 MHz Oscilloscope Calibration
Option for the 5500A or 5520A
600 MHz/300 ps Oscilloscope
Calibration Option for the 5500A
or 5520A

Upgrades

5800A-GHZK 2.1 GHz Bandwidth
Extension Upgrade for Existing
5800As
5820A-GHZK 2.1 GHz Bandwidth
Extension Upgrade for Existing
5820As

Accessories

5800A/TDP 125 ps Tunnel Diode
Pulser for the 5800A, 5820A and
5500A-SC600
5500A/COIL 50-Turn Current Coil
for the 5500A and 5520A
5500A/CASE Transit Case with
wheels for the 5500A, 5520A,
5800A and 5820A
5500A/HNDL Side handle for the
5500A, 5520A, 5800A and 5820A
Y5537 Rack mount kit for the 5500A,
5520A, 5800A and 5820A
5500A/LEADS Comprehensive test
lead kit for the 5500A and 5520A
5800A-7004K Oscilloscope Cal Cable
and Accessory Kit
5800A-7002K Two Piece
Replacement Output Cable Set
5800A-7003K Five Piece
Replacement Output Cable Set
PM9581/011 Feed through
Termination, 3W, 50 Ohm
PM9584/021 Feed through T-Piece
(matched power splitter), 50 Ohm
PM9061/001 Coupling, BNC
(2x Female)
PM9067/001 T-Piece, BNC
(1 x Male 2 x Female)
TC100 Test Cart

Software

MET/CAL-5 Automated Calibration
and Asset Management
5500/CAL-5 Automated Calibration
and Asset Management for the
5500 and 5800 Series Calibrators
MET/TRACK Metrology Asset
Management

Fluke. *Keeping your world
up and running.*

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