

# AM 5030

## AM 503S

### AM 503B

*State of the art simultaneous broadband AC/DC current measurements. Ideal for measuring currents in switching power supplies, motor controllers, disk drives.*

*AM 5030 automates evaluation, characterization or test system measurements. Ideal for multiple input, repetitive measurements.*

AM503S available through an Authorized Tektronix Distributor (see pages 590-595).

Product(s) available through your local Tektronix representative (listed in the back of this catalog) or call 1-800-426-2200.



Tektronix Measurement products are manufactured in ISO registered facilities.

#### AM 5030

- GPIB Programmable Current Probe Amplifier
- Plugs into TM 5000 Power Modules
- Operated with External Controller or Manually from Front Panel

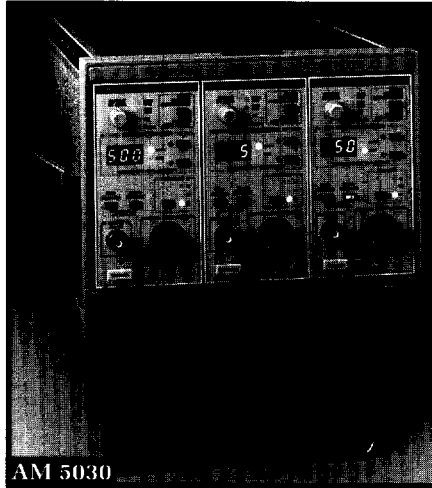
#### AM 503S

- AC/DC Measurements
- With A6302 Probe:
  - DC to 50 MHz
  - 20 A Continuous/50 A Peak
  - Split Core
  - Clips on to Conductors up to 0.15 in. Diameter
- With A6303 Probe:
  - DC to 15 MHz
  - 100 A Continuous/500 A Peak
  - Split Core
  - Clips on to Conductors up to 0.83 in. Diameter
- With A6304XL
  - DC to 2 MHz
  - 500 A Continuous/700 A Peak
  - Clips on to Conductors up to 0.83 in. Diameter

#### **New** AM 503B

- Manual Current Probe Amplifier
- Push Button Auto Balance/Degauss
- Bright LED Current/Division Display
- Microprocessor Controlled
- Eliminates Need to Calibrate Amplifier with Specific Probes
- Plugs into TM 500 or TM 5000 Power Modules

# Current Measurement Systems



Three AM 5030s in a TM 5003 mainframe. Six AM 5030s will plug into a TM 5006A. All current measurement parameters can be set using a GPIB controller.

## AM 503 Current Measurement Family

The AM 503 Current Measurement system family is the most sophisticated current measurement solution available. The split core probes incorporate both a transformer for AC and a Hall Effect Device for DC measurements to provide broadband current measurements from DC to 50 MHz. The AM 5030 Programmable Current Probe Amplifier automates time consuming manual measurements via a GPIB command set. The industry standard AM 503S Current Probe System provides a complete current measurement system in a single package.

The new XL Series of probes feature eight meter cables for convenient access to test points. The A6304XL enables measurements of 500 A at DC, 700 A Peak.

For more information about the AM 503 Current Measurement Family order Data Sheet 51W-7955-2.

## AM 5030 PROGRAMMABLE CURRENT PROBE AMPLIFIER

The AM 5030 Current Probe Amplifier with General Purpose Interface Bus (GPIB) adds programmability to the versatile AM 503B. The AM 5030 enables you to use automated techniques to make wide bandwidth AC/DC current measurements. The AM 5030 is a TM 5000 single-wide module that plugs into a 3-slot TM 5003 or 6-slot TM 5006A power module mainframe. The TM 5000 mainframes can be rackmounted. While the non-programmable AM 503B will operate in either a TM 500 or TM 5000 power module mainframe, the AM 5030 works only in a TM 5000 mainframe. The AM 5030 uses A6302, A6303 and the XL Series of current probes and connects to any scope or analyzer via a BNC cable.

Like the AM 503B, the AM 5030 does not have to be calibrated with specific current probes. This is a tremendous operational improvement over the older AM 503. The AM 5030 and AM 503B also provide several improvements over the AM 503A including a faster Degauss/self-calibration cycle and more responsive, reliable front-panel controls.

The AM 5030 uses the IEEE 488.1 bus standard. Using a simple command set, you can configure and confirm the settings of the amplifier or read the instrument's serial number. You can determine whether the current probe is open or closed, use bus commands to initiate a self-test or force a probe Degauss and DC balance operation. The AM 5030 bus address is set through the front panel and the address is retained when power is removed. The AM 5030 does not require an external controller to operate. It can be completely controlled using the front panel. However, when used with a controller, the front panel can be disabled to prevent manual operator adjustments.

For more information about the AM 5030, request the AM 5030 Programmable Current Probe Amplifier Data Sheet 51W-8941-0.

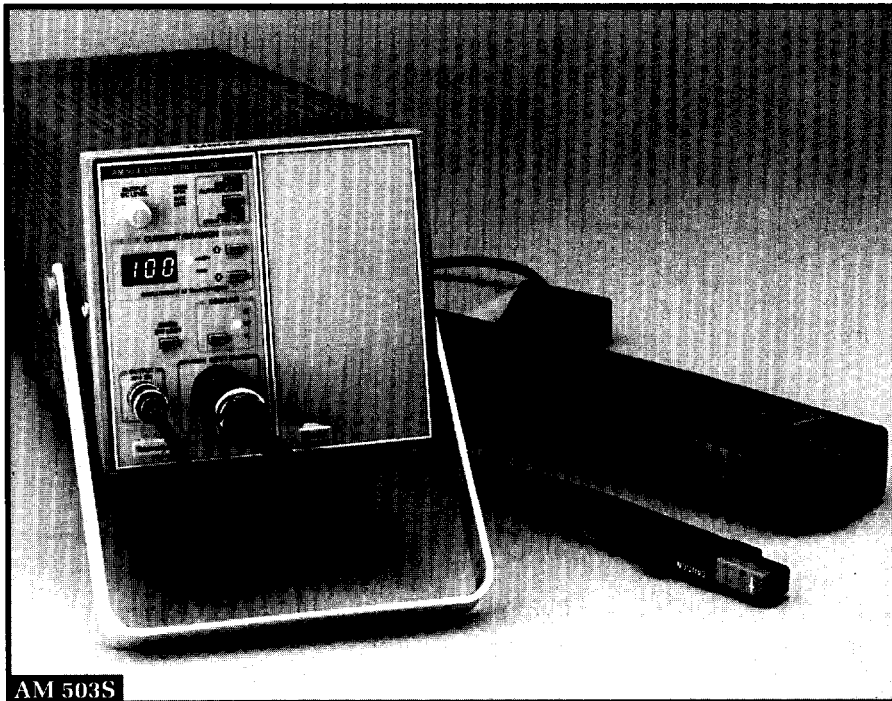
## APPLICATIONS

- Switching Power Supplies
- Motor Drives
- Disk Drives
- Inverters
- Electronic Ballasts
- All Mixed AC/DC Current Signals

# Current Measurement Systems

**AM 503S**  
**AM 503B**  
**AM 5030**

CURRENT PROBES



**AM 503S**

AM 503S with A6302 and A6303 probes.

## AM 503S CURRENT PROBE SYSTEM

The AM 503S Current Probe System is the most versatile current measurement system available. Since the probes incorporate both a transformer and a Hall Effect device, broad-band AC/DC current can be measured simultaneously. Depending on the probe used, current from DC to 50 MHz and up to 700 A can be measured by clipping the split-core probes around the conductor. The AM 503S is truly a system, consisting of an AM 503B

Current Probe Amplifier, a TM 502A two-wide Power Module, an A6302 Current Probe and a handy plug-in tool box. Options enable you to add or substitute an A6303 Current Probe. Any of the three eight meter XL Current Probes can also be added.

Order AM 503S Current Measurement System Data Sheet 51W-10226-0 for more information.

## NEW AM 503B CURRENT PROBE AMPLIFIER

The AM 503B Current Probe Amplifier is the heart of the AM 503S System. The AM 503B amplifies and sums the voltage outputs from the transformer and Hall Effect device and outputs it to the measurement instrument. It also provides the Hall Effect Device bias voltage and a reverse "bucking" current which resists saturation of the A6302/A6303 Current Probe core.

The AM 503B Current Probe Amplifier replaces the AM 503A. All functions are microprocessor controlled, providing a significant improvement in ease of use and functionality. The AM 503B uses bright, easy-to-read LEDs to display current/Division settings which are controlled with up/down push-buttons. A single push-button provides both Degauss and auto-balance functions. An additional significant improvement with the AM 503B is that individual A6302/A6303 probes no longer need to be calibrated with a specific amplifier but can be interchanged between AM 503Bs and AM 5030s. The AM 503B and the AM 5030 both support the new XL Series of current probes. The AM 503 and the AM 503A do *not* support the XL Series.

The AM 503B operates in any TM 500/ TM 5000 power module. The 50  $\Omega$  output of the AM 503B can be displayed on any oscilloscope or measurement instrument that has a sensitivity setting of 10 mV/Div. A 50  $\Omega$  output cable and termination is included with the AM 503B. The scope or measurement instrument requires at least a 200 MHz bandwidth to display the full bandwidth of the A6302 and 60 MHz for the A6303. You can select either AC only mode or a DC mode which allows you to display a combined AC/DC current signal.

## ORDERING INFORMATION

### AM 5030

Programmable Current Probe Amplifier .....\$1,995  
**Includes:** 50  $\Omega$  BNC Cable (012-0057-01); 50  $\Omega$  BNC Termination (011-0049-01); Instruction Manual (070-8766-01); Reference Card (070-8770-01).  
 The AM 5030 requires an A6302, A6303 or XL Series Current Probe and a TM 5003 or TM 5006A Power Module Mainframe. See page 514.

### AM 503B

Current Probe Amplifier .....\$1,745  
**Includes:** Same as AM 5030.  
 The AM 503B requires one of the TM 500/5000 Series Power Modules, and an A6302, A6303 or XL Series Current Probe. See page 514.

### AM 503S

Current Probe System .....\$2,745  
**Includes:** AM 503B Current Probe Amplifier; TM 502A Power Module; A6302 Current Probe; Plug-in Tool Box (016-0362-02); Instruction Manual (070-8766-01).  
**Opt. 01** - Adds A6303 Current Probe .....+\$1,395  
**Opt. 03** - Substitutes A6303 Current Probe .....+\$650

### INTERNATIONAL POWER PLUG OPTIONS

**Opt. A1** - Universal Euro 220 V, 50 Hz. ....NC  
**Opt. A2** - UK 240 V, 50 Hz. ....NC  
**Opt. A3** - Australian 240 V, 50 Hz. ....NC  
**Opt. A4** - North American 240 V, 60 Hz. ....NC  
**Opt. A5** - Switzerland 220 V, 50 Hz. ....NC  
 See Customer Information Section for additional description.

### SERVICE ASSURANCE OPTIONS

**Opt. R2** - Adds two years of post-warranty Repair Protection  
 AM 5030 .....+\$100  
 AM 503B .....+\$100  
 AM 503S .....+\$160  
**Opt. C5** - Adds five years of Calibration Services  
 AM 5030 .....+\$325  
 AM 503B .....+\$325  
 AM 503S .....+\$475

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