

# MAINFRAMES



# METAF

Electronic Solutions – since 1993

## TM 5006A Power Module

- Six Compartment Mainframe
- High Power Compartment
- Switching dc Power Supply
- Forced Air Cooling
- Rear Panel Interface Connections with Option 02
- Rackmounting Capability with Option 10
- IEEE 488.1-1987 Compatibility

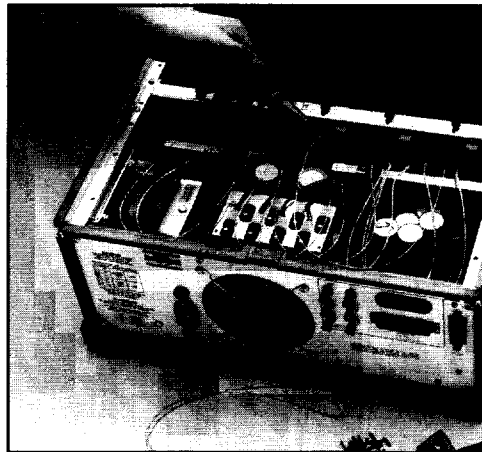


## TM 5003 Power Module

- Three Compartment Mainframe
- Switching dc Power Supply
- Forced-Air Cooling
- Interface Connections on Rear Panel Via Option 02
- IEEE Standard 488 Compatibility



\*The TM 5006A and TM5003 comply with IEEE Standard 488.1-1987



The mainframes can be interfaced in a variety of ways. A user can solder together the appropriate connector pins on a standard mainframe, or can order the mainframe with Option 02. Option 02 provides square-pin connectors at the rear interface between the mainframe and the plug-in instruments, plus a multi-pin connector and one or more BNC connectors mounted on the rear panel of the mainframe. To allow as much flexibility as possible, these connectors are not pre-wired. A wire kit consisting of specially prepared jumper wires and coax cables and pins is provided with the option. Then, interfacing between instruments within a mainframe and with external devices is simply a matter of connecting the appropriate terminals together.

The TM 515 Traveler Mainframe is available with the Option 05 interface which includes everything in the Option 02 except the rear panel multi-pin connector, the mating cable connector, and the BNC connector.

### Economy

TM 500 and TM 5000 mainframes represent a most economical approach in test and measurement instrumentation. Relatively fixed packaging costs for frames, covers, primary power circuits, unregulated secondary power circuits and other items are a significant portion of the cost of a typical instrument. Since these fixed costs associated with packaging are shared by many functional instruments in the TM 5000/TM 500 lines, the cost-per-function may be lower than comparable, one- or two-function monolithic instruments. Because of its modularity, expandability, and versatility,

the modular concept represented by TM 5000/TM 500 may provide the lowest cost-per-test/measurement when you are considering multifunction usage.

The ability to upgrade to a higher-performance system without replacing the entire investment is made possible by the compatibility between the TM 500 and TM 5000 lines. Reduced cabling costs made possible by the rear-interface capability, the requirement for fewer GPIB cables for an equal number of instruments in the TM 5000 line; and the reduced space requirements for a measurement system all contribute to unprecedented economy for test and measurement.

## MAINFRAME (ALL) CHARACTERISTICS

### POWER REQUIREMENTS

**Line Voltage Ranges** – 100, 110, 120, 200, 220, and 240 Vac (not to exceed 250 Vac on 240 Vac range); selectable via internal jumper or rear panel.

**Line Frequency Range** – See chart

**Power Consumption** – See chart for max. V, A.

(Actual power consumption depends on plug-in selection and operating modes).

### ENVIRONMENTAL

**Temperature Range** – Operating: 0°C to +50°C. Nonoperating: –55°C to +75°C.

### TM 5006A

The TM 5006A mainframe can accept and provide power for up to six single-width TM 500 and/or TM 5000 plug-ins. The right hand compartment is a high-power compartment. The mainframe features a switching dc power supply. All dc voltages are electronically regulated. Forced-air cooling is standard.

**Available options:** Option 02 Rear Interface, Option 10 Rackmount, Option 12 Combination of Options 02 and 10 and Option 15 which improves EMI compatibility.

Cabinet-to-rackmount conversion kit, equipped with slide out assembly, required to convert a TM 5006A to rackmount capability. Order 040-0982-00.

Rackmount-to-cabinet conversion kit, equipped to convert a TM 5006A with rackmount configuration to cabinet style. Order 040-0983-00.

### TM 5003

The TM 5003 can accept and provide power for up to three single-width TM 500 and/or TM 5000 plug-ins. It features a switching dc power supply. All dc voltages are electronically regulated. Forced-air cooling is standard.

**Available options:** Option 02 Rear Interface.

## CHARACTERISTICS

Dimensions	TM 5006A		TM 5003		TM 515		TM 506A		RTM 506		TM 504		TM 503B		TM 502A		TM 501A	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
Width	445	17.5	230	9	381	15	445	17.5	483	19	305	12	214	8.4	145	5.7	96.7	3.87
Height	194	7.6	194	7.6	173	6.8	194	7.6	152	6	152	6	140	5.5	140	5.5	156	6.25
Depth	488	19.2	488	19.2	508	20	488	19.2	508	20	508	20	452	17.8	407	16.6	416	16.6
<b>Weight =</b>	<b>kg</b>	<b>lb</b>	<b>kg</b>	<b>lb</b>	<b>kg</b>	<b>lb</b>	<b>kg</b>	<b>lb</b>	<b>kg</b>	<b>lb</b>	<b>kg</b>	<b>lb</b>	<b>kg</b>	<b>lb</b>	<b>kg</b>	<b>lb</b>	<b>kg</b>	<b>lb</b>
Net	14.5	32	8.6	19	10.2	22.5	14.5	32	8.4	18.5	8.4	18.5	4.7	10.3	4.0	8.75	239	5.4
Shipping	20.9	46	12	26.5	13.6	30	20.9	46	11.8	26	11.2	24.5	7.45	16.3	6.75	14.75	5.22	11.4
Line Frequency Hz	48 to 66		48 to 66		48 to 66		48 to 66		48 to 66		48 to 66		48 to 400		48 to 400		48 to 440	
Power Consumption VA maximum	≈650VA		≈300VA		≈500VA		≈650VA		≈650VA		≈460VA		≈250VA		≈120VA		≈120VA	

(Actual power consumption depends on plug-in selection and operating modes)



## TM 506A

The TM 506A mainframe accepts up to six different TM 500 plug-ins, providing a complete test station with one power cord. The right hand compartment is a high-power compartment. Forced air cooling is standard. Like most TM 500 mainframes, the TM 506A is available with the Option 02 which allows rear interfacing of different modules, reducing front panel clutter.

*Available options:* Option 02 Rear Interface.

Cabinet-to-rackmount conversion kit, equipped with slide out assemble, required to convert a TM 506A to rackmount capability. Order 040-0982-00.

Rackmount-to-cabinet conversion kit, equipped to convert a TM 506A with rackmount configuration to cabinet style. Order 040-0983-00.

## RTM 506

The RTM 506 is a 5 1/2 inch height rackmount mainframe compatible with TM 500 plug-ins. It adds front panel handles and rackmount rails for built-in, configurable test stations.

*Available options:* Option 02 Rear Interface.

## TM 515

The TM 515 Traveler Mainframe accepts up to five single width TM 500 plug-ins and is specially designed to protect them during transportation to and from the work site. Included with this rugged mainframe are pop-off front and back covers that protect the instruments and also store accessories. The Traveler Mainframe will slide easily under an airline seat when traveling and comes equipped with a heavy duty handle and tilt bail. A locking bar provides plug-in security.

*Available options:* Option 05 Rear Interface, Option 06 - 48 to 400 Hz Fan.

## TM 504

The TM 504 mainframe accepts up to four single width TM 500 plug-ins. Each TM 504 comes equipped with front panel switch, tilt bail, and a handle. The right hand compartment is a high-power compartment.

*Available options:* Option 02 Rear Interface.

## TM 503B

The TM 503B accepts up to three, single width TM 500 plug-ins. This light weight, portable, benchtop mainframe includes a tilt bail handle and rear panel power entry, switch, and line selector assembly.

*Available options:* Option 02 Rear Interface.

## TM 502A

The TM 502A accepts up to two single width TM 500 plug-ins. This lightweight, portable, benchtop mainframe includes a tilt bail handle and rear panel power entry, switch, and line selector assembly. An optional Toolbox plug-in (Option 13) is available.

*Available options:* Option 13 Includes Toolbox plug-in (016-0362-02).

## TM 501A

The TM 501A is designed for use with one single width TM 500 plug-in. TM 500 Series instruments are interchangeable in seconds, so you can use one type plug-in instrument for one test, then use another for a completely different application.

## TM 506A Power Module

- Six Compartments Mainframe
- High Power Compartment
- Forced Air Cooling
- Interface Connection on Rear Panel Via Option 02

## RTM 506 Power Module

- Six Compartment Mainframe
- Standard 19 inch Rackmounting
- High Power Compartment
- Forced Air Cooling
- Interface Connections on Rear Panel Via Option 02

## TM 515 Traveler Power Module

- Five Compartment Portable Mainframe
- Forced Air Cooling
- Interface Connections on Rear Panel Via Option 05
- Line Frequency to 400 Hz with Option 06

## TM 504 Power Module

- Four Compartment Mainframe
- High Power Compartment
- Interface Connections on Rear Panel with Option 02

## NEW TM 503B Power Module

- Three Compartment Mainframe
- Interface Connections on Rear Panel Via Option 02

## TM 502A Power Module

- Two Compartment Mainframe

## TM 501A Power Module

- Single Compartment Mainframe

### ORDERING INFORMATION

<b>TM 506A Power Module</b>	<b>\$1,195</b>	<b>TM 5003 Power Module Mainframe</b>	<b>\$995</b>
Mainframe Includes: Instruction manual (070-7614-00)		Includes: Instruction manual (070-2955-00).	
<b>Opt. 02 - Rear Interface.</b>	<b>+\$190</b>	<b>Opt. 02 - Rear Interface.</b>	<b>+\$100</b>
<b>Opt. 10 - Rackmount.</b>	<b>+\$100</b>	<b>A1-A5 Power Cord Options</b>	<b>NC</b>
Includes high-power fan.		<b>TM 503B Power Module Mainframe</b>	<b>\$495</b>
<b>Opt. 12 - Combination</b>		Includes: Instruction manual (070-7808-00).	
Opt. 02 and Opt. 10	<b>+\$290</b>	<b>Opt. 02 - Rear Interface.</b>	<b>+\$75</b>
<b>Opt. 15 - Electro Magnetic Compatibility</b>	<b>+\$300</b>	<b>A1-A5 Power Cord Options</b>	<b>NC</b>
<b>A1-A5 Power Cord Options</b>	<b>NC</b>	<b>TM 504 Power Module Mainframe</b>	<b>\$695</b>
<b>TM 506A Power Module Mainframe</b>	<b>\$795</b>	Includes: Instruction manual (070-1716-01).	
Includes: Instruction manual (070-6929-00).		<b>Opt. 02 - Rear Interface.</b>	<b>+\$120</b>
<b>Opt. 02 - Rear Interface.</b>	<b>+\$150</b>	<b>TM 502A Power Module Mainframe</b>	<b>\$395</b>
<b>Opt. 10 - Rackmount.</b> Includes high-power fan.	<b>+\$100</b>	Includes: Instruction manual (070-6502-00).	
<b>Opt. 12 - Combination Opt. 02 and Opt. 10.</b>	<b>+\$250</b>	<b>Opt. 13 - Includes Plug-in Toolbox.</b>	<b>+\$75</b>
<b>A1-A5 Power Cord Options</b>	<b>NC</b>	<b>A1-A5 Power Cord Options</b>	<b>NC</b>
<b>RTM 506 Rackmount Power Module Mainframe</b>	<b>\$1,495</b>	<b>TM 501A Power Module Mainframe</b>	<b>\$625</b>
Includes: Instruction manual (070-1786-02).		Includes: Instruction manual (070-7613-00).	
<b>Opt. 02 - Rear Interface.</b>	<b>+\$180</b>	<b>A1-A5 Power Cord Options</b>	<b>NC</b>
<b>TM 515 Power Module Mainframe</b>	<b>\$1,295</b>		
Includes: Instruction manual (070-2020-02).			
<b>Opt. 05 - Rear Interface.</b>	<b>+\$90</b>		
<b>Opt. 06 - 48 to 440 Hz Fan.</b>	<b>+\$170</b>		