

Mini-Test 488



A turn-key IEEE 488 test solution.....

The MT488A is a low cost and portable personal test controller. It's compact and weighs only 1.5 lb. It's built in IEEE 488 interface and digital peripherals make it capable of serious test and control solutions. The MT488A includes a fully integrated Windows(tm) based C environment for program development.

The IEEE 488 interface, also known as the General Purpose Interface Bus (GPIB) is the industry standard for connecting electronic instruments and peripherals to computers. The MT488A can control oscilloscopes, logic analyzers, power supplies, plotters and printers. Test applications are created quickly and easily by modifying sample applications. Drivers for the IEEE 488 interface, communication ports and peripherals are included with the developers kit.

Other products from Tidal Engineering.

Whether you are designing a new instrument with a GPIB interface or you use instruments with the interface, we probably have a solution for you.

We provide unique and innovative solutions to GPIB product development and product testing with our embedded Single Board Computers.

MT488A features:

- ◆ IEEE 488 (GPIB) interface using National Instruments NEC7210 Talker/Listener/Controller.
- ◆ IEEE 488 drivers are National Instruments compatible enabling rapid software conversion from a PC based system to the MT488A and vice versa.
- ◆ Serial RS-232 port: Programming/Debug port for program development.
- ◆ Real Time Clock.
- ◆ Powerful Z180 based processor module.
- ◆ 32 Bi-directional digital I/O.
- ◆ 2500 VAC Optical Isolation for Digital I/O.
- ◆ 128K bytes battery backed SRAM for program storage.
- ◆ EEPROM: 512 bytes for calibration and other constants.

Mini-Test 488 applications:

- ◆ **The MT488A saves money and bench space.** It is a smaller and lower cost replacement for a PC or workstation doing repetitive tests. A Microwave component manufacturer is using the MT488A to control their digital RF attenuator trim station in a production environment and saving precious bench space.
- ◆ **The MT488A can perform stand alone testing** It is small and light weight and can easily be carried in a briefcase to the field.
- ◆ **The MT488A is a remote control interface for IEEE 488 devices.** It can be programmed as a remote control interface for any IEEE 488 compatible device; adding features, customizing the operator interface for a particular task and improving operator productivity. A power supply manufacturer is using the MT488A as a remote control for a large, floor standing power supply.

Other Products:

- ◆ **The MT488-OEM.**
An automotive component manufacturer is using the MT488-OEM to perform testing on Oxygen sensors and reporting results to a PLC.
- ◆ **The SBC488(A) Single Board Computers**
Rapid development of test instruments incorporating GPIB and RS-232 interfaces.
- ◆ **The MT488A-RC Remote Controls**
Infrared Remote Control any GPIB instrument or add remote I/O for remote user input, emergency shut down, test pause/reset.

MT 488A-SPECIFICATIONS

Size	10.20" X 4.72" X 1.89" and 1.5 lb.
Processor	Zilog Z180 based processor Core w/ EPROM, SRAM, EEPROM and RTC.
Clock freq.	9.216 MHz or 18.432 MHz
Power	7-24VDC, 3 Watts max. (wall transformer incl.)
RS-232	Up to 9600 Baud
IEEE 488	NEC/National Instruments 7210 ASIC SH1, AH1, T5, TE5, L3, SR1, DC1, C1, -C5, E2
Digital I/O	32 Bit Bi-directional w/optional pull up resistors

IEEE 488 Interface

The IEEE 488 bus interface provides talker, listener and controller functions. The industry standard NEC 7210 type GPIB controller ASIC provides full functionality.

Serial Communications

The MT488A includes RS-232 capability and allows communication with any terminal or PC.

Digital I/O

The digital I/O capability is 32 bits and based on Phillips ²C bi-directional data ports. Sockets for SIP resistor pull-ups are provided to increase source current if necessary.

Battery Backup and Real-Time Clock (RTC)

The MT488A includes a 3 volt button cell for SRAM memory retention and RTC functions. The MT488A RTC provides accurate time keeping even without power.

Programming Interface

The C programming interface is built in to the MT488A. Software development can be made without the use of any hardware emulators or logic analyzers. Downloading programs, setting breakpoints, watching variables and single stepping are all supported. EPROM generation is automatic. Programs can be stored in SRAM or EPROM.

Keypad

The MT488A includes a 24 button membrane switch panel for user inputs during use. The graphic overlay artwork can be provided on disk so custom keypads can be created easily.

Display

The MT488A comes with a 20 character x 4 line display module. Both Vacuum Fluorescent (VFD) and Liquid Crystal (LCD) displays are available.

Technical Manual

A complete technical manual includes:

- ◆ Complete specifications.
- ◆ Functional descriptions.
- ◆ Operating instructions.
- ◆ Programming instructions including examples.
- ◆ Test and troubleshooting information.

Software

MT488A-Dev software package includes the following drivers, libraries and examples:

- ◆ IEEE 488 Talker/Listener and Controller functions.
- ◆ RS-232 Functions and I/O.
- ◆ Digital I/O commands.
- ◆ Full C library including formatting and printf string functions and floating point trig. functions.

Price List (prices effective until September 98)

Model	Description	EA.
MT488A-LCD	9.2 MHz, IEEE 488 & RS-232 Interfaces, RTC, 20X4 character LCD and Keypad.	\$795
MT488A-VFD	Same as above except with a Vacuum Fluorescent Display.	\$845
MT488A-Dev	MT488A Windows based C software development package, one per programmer.	\$375

The MT488A is available exclusively from:

ADI American Distributors Inc.

ADI is an ISO-9002 certified distributor of Electronic and Electro-Mechanical components and assemblies. Founded in 1983, ADI serves domestic and international customers in both commercial and military markets. ADI has introduced several high technology board level solutions in joint venture with Tidal Engineering. Tidal Engineering was founded in 1994 and is co-located with ADI. Tidal does contract engineering and product development in embedded software, digital, analog and power electronics.



ADI American Distributors Inc.
Distributors of Electronic and Electro-Mechanical Components
2 Emery Avenue • Randolph, NJ 07869
TEL (973)-328-1181 • FAX (973)-328-2302
Email tidaleng@gti.net
<http://www.tidaleng.com>

For more information contact Craig Borax