

# THE ATHENA I™ PORTABLE SOLUTION

The Athena I™ is unique among the portable computers available on the market. Full word processing is easy with the selectric style keyboard offering upper and lower case and a full 80 column display. Accounting applications, which require a large amount of disk accesses, will run three to ten times faster than most desk top computer systems, even those using 16 bit processors. Financial spreadsheet programs are easy to use and have fast response times.



As a portable computer, the Athena I™'s size and weight is less than a portable typewriter's. An internal battery will operate the system for up to two hours or will retain the mass memory for up to six hours.

## RELIABILITY AND PERFORMANCE

The Athena I™'s design eliminates the need for a floppy disk drive and a CRT display. This makes the Athena I™ one of the most reliable and rugged portables available today. Solid state disk memory and an LCD display provide safe and continued operation, even in the most abusive environments. This unique, no moving parts design allows the Athena I™ to come with a twelve month warranty.

Dual processors and 512K bytes of solid state disk memory (which is expandable to 1 Megabyte internally) make the Athena I™ three to ten times faster than most 8 or 16 bit portable or desk top computers using hard or floppy disk storage devices. The Athena I™ comes with a 5 1/4 inch external floppy disk drive for software loading and data back-up. The solid state disk memory appears to the user simply as a very fast disk drive. No software changes are required to use this feature.



## SYSTEM SOFTWARE

The Athena I™ features the popular CP/M® operating system to enable the selective use of software from thousands of programs available to meet any requirement. Included with each Athena I™ is:

JRT Pascal™ - A very popular Pascal with many advanced features

Profit Plan™ - An advanced spread sheet and financial planning pro-

Mini-V EDIT™ — An extremely flexible general purpose text editor.



## THE KEYBOARD

The Athena I™ uses a high quality, selectric style keyboard that is reliable and easy to use. Upper and lower case capability includes a CAP lock feature that changes the size of the cursor displayed. This allows for easy visual feedback as to the position of the CAP lock function. In addition to all the standard selectric keys, several special function keys are available such as those that allow for easy screen scrolling. It is also possible to have sixteen user definable function keys by making the proper software changes.

A unique feature of the Athena I™ is the use of dual processors: One is dedicated to computation (addresses 64K bytes of memory) and the other is dedicated to communication (addresses 4K bytes of memory).

This dual processor design increases the system's overall performance and permits advanced keyboard and display capabilities. One example is the buffering of the keyboard, printer and communications ports to increase overall system throughput.

Another important feature is the self diagnostic performed each time the system is turned on. Any system failure is shown as a message on the LCD display.

## THE DISPLAY

The 4 line by 80 character Liquid Crystal Display (LCD) is bright and easy to read. A full 24 lines by 80 characters of display information are held in memory, allowing the four line display to act as a window, scrollable by the user to any desired area. The display window will also automatically position itself to wherever new information is appearing within the 24 line area. This gives the four line display the appearance and flexibility of a full screen.



### **EXPANDABILITY**

The Athena I™ can be used as a powerful desk top computer by attaching a terminal, modem, plotter or other accessory to its serial ports. A printer can also be connected to a parallel port.

Accessories included:

A double density 5 1/4 inch floppy disk drive An AC power adapter/battery charger

A twelve volt power cable for operation from an automobile cigarette lighter receptacle

In addition, fifteen Athena I™'s can be connected together to create local office networks, allowing access to common databases and mass storage

devices. Each system in the network is able to read the memory of any other system.

A 30 Megabyte hard disk subsystem is available to allow all networked units to share common data files.

The system's modular design has room for an additional circuit board. This prevents obsolescence by providing for future processors and other system upgrades.

### **APPLICATIONS**

The Athena I™ is the perfect computer system for salesmen, active businessmen, executives, lab technicians and anyone requiring a compact, reliable, high performance portable computer.

See your local computer dealer for a complete hands-on demonstration of the Athena I™ Portable Solution or contact Athena Computer and Electronic Systems.



Athena I™ is a Trademark of Athena Computer & Electronic Systems CPIM® is a Registered Trademark of Digital Research JRT Pascal™ is a Trademark of JRT Systems Profit Plan™ is a Trademark of Chang Labs Mini-V Edit™ is a Trademark of CompuView Products

# Athena I™ Specifications

### **BUS STRUCTURE**

Internal ribbon cable bus supports 4 circuit boards:

- · Main processor
- · Communications processor
- · Solid state disk memory
- · Spare for future expansion

#### MICROPROCESSOR

Dual NSC-800's (low power version of Z80):

- One dedicated to computation (4Mhz)
- One dedicated to communication (2Mhz)

### I/O CHANNELS

- Two RS-232 ports
- · One parallel printer port

### SYSTEM MEMORY

68K bytes high speed RAM:

- · 64K bytes for computation
- · 4K bytes for communications

12K bytes ROM:

- . 6K bytes for the CP/M® operating system
- 4K bytes for the communication processor operating system
- · 2K bytes for system start up and self test

## SOLID STATE DISK MEMORY

Four models – 128K, 256K, 512K or 1024K bytes of fast dynamic RAM memory – are available. Each is internally expandable to 1 Megabyte and acts as drive A under CP/M®. This solid state disk is three to ten times faster than hard disk or floppy disk drives.

Solid state disk is on 64K byte plug-in RAM modules for easy field upgrade. The solid state disk can be expanded to 16 modules for a total of 1 Megabyte.

#### FLOPPY DISK BASE UNIT

An external, double density 5 1/4 inch floppy disk drive is included.

#### KEYBOARD

High quality, selectric style keyboard with additional special function keys is used. The keyboard is fully reprogrammable.

#### DISPLAY

The 4 line by 80 character LCD display acts as a window that automatically moves to the appropriate area of the 24 line screen memory.

#### NETWORKING

Fifteen (15) Athena I™'s can be connected as network masters. Up to 240 network slaves are supported.

### SYSTEM SOFTWARE

CP/M<sup>®</sup> 2.2 operating system with JRT Pascal™, Profit Plan™ and Mini-V EDIT™ application packages are included.

#### POWER REQUIREMENTS

Variable power from 10 to 35 VDC or VAC (45-500 Hz) is allowed.

An AC power adapter/charger and 12 volt power cable for a car cigarette lighter receptacle are included.

#### BATTERY

The built-in, long lasting lead acid battery uses a gel electrolyte for portability.

System operates up to 2 hours or retains memory up to 6 hours in standby mode.

Recharges in 8 hours.

#### DIMENSIONS

3 3/8 inches high, 11 7/8 inches wide and 14 1/2 inches deep.

#### WEIGHT

Less than 16 pounds.

## DOCUMENTATION

- · Complete Athena I™ users guide
- CP/M<sup>®</sup> users guide
- · Application manuals in a self standing binder.

#### WARRANTY

Twelve month parts and labor on entire system.





Authorized Dealer		