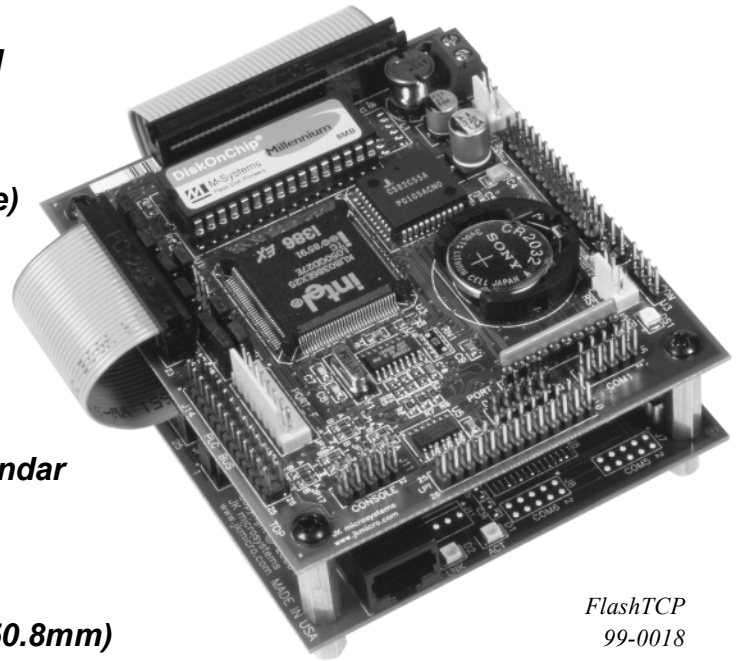# FlashTCP

- **TCP/IP & DOS with Flash File System**
- **386 Ex, 25 MHz / 512K Flash, 512K SRAM**
- **32 Pin Dip Socket to accept 512K SRAM, 512K Flash, or M-Systems DiskOnChip**
- **10BASE-T Ethernet (NE2000 Compatible)**
- **34 Digital I/O lines**
- **PC Compatible Serial Ports**
  3 - RS232
  1 - RS232 / RS485, Software Selectable
- **PC Compatible Printer Port**
- **Watchdog Timer & Hardware Clock/Calendar**
- **High-Efficiency Voltage Regulator**
- **Compact 2 board stack**
  4.2″ x 3.6" x 2.0" (106.7mm x 91.4mm x 50.8mm)

FlashTCP
99-0018

The *FlashTCP* single board computer system allows access to real-time process data, HTML documents and images from a browser on a TCP/IP LAN or the Internet. This system is an ideal platform for embedded designs requiring multiple serial ports and network connectivity for bridging existing equipment to the Web.

The *FlashTCP* is a 386Ex based design with 512K RAM and 512K flash memory, 4 PC compatible RS-232 serial ports, one parallel port, and 10BASE-T Ethernet. The *FlashTCP* server comes with DOS, TCP/IP stack, and HTTP server software pre-installed so that developers can get the system up and running in minutes.

Users can harness the power of the Web browser to display the status of networks, monitor and control remote systems, access RS-232 data, and more. HTML documents combined with scripts or applets handle complex display/interface tasks allowing engineers to focus on the embedded design, not on the GUI.

The powerful 386Ex processor, standard 10BASE-T Ethernet, and DOS operating system allow design and debugging in a familiar environment. PC compatible serial and parallel ports and plenty of bit I/O make interfacing to existing devices a snap. Source code for the TCP/IP stack, web server and sample programs are included within the development kits and can be compiled with our Borland C++ package.

Peripheral boards are available to add A/D, D/A, high current drivers, relays and isolated I/O for data acquisition and control applications.

The *FlashTCP Development Kit* (99-0016) includes a *FlashTCP* (which is a *Flashlite 386Ex* single board computer with a *Ethernet/Serial/Parallel* peripheral board), Programming Cable, Bus Cables, Ethernet cable, standoffs, 110V AC adapter, Setup Guide, Schematic and CD with Borland C++V4.52 Compiler, utilities, sample programs and documentation.(220Vin Development Kit 99-0017 available.)
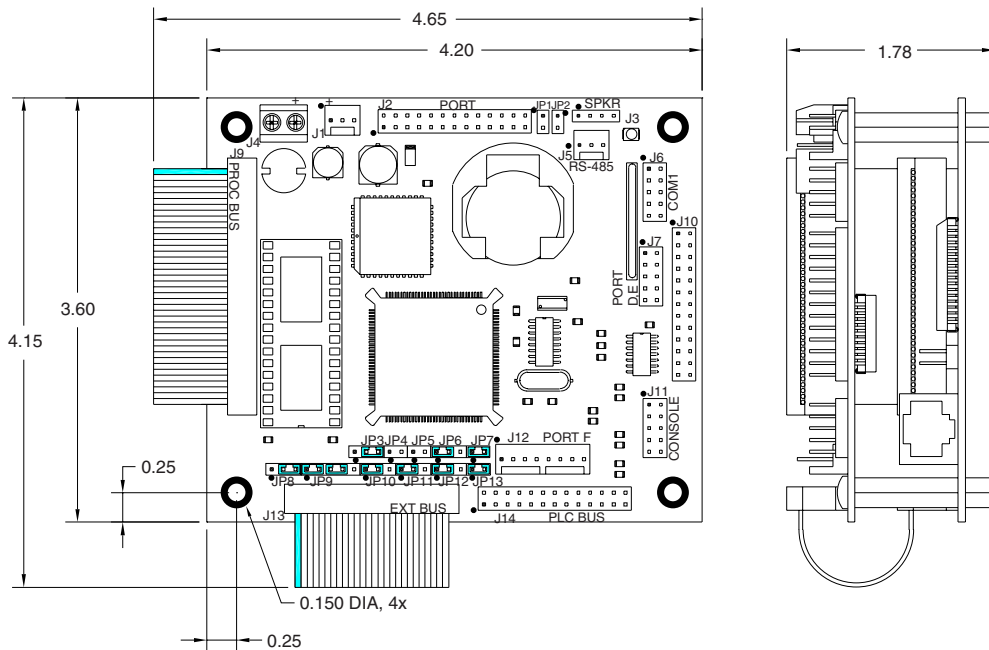
JK*microsystems, Inc.*

FlashTCP

Specifications

Processor	25Mhz Intel 386Ex
Operating System	XDOS
	(MS/PC DOS 3.3 compatible)
Memory	512K SRAM, 512K Flash
Ethernet	10BASE-T, with RJ-45 connector
	Link status and Activity LEDs
	4KB Rx and Tx buffers
Serial Port 1	RS-232 with 5 handshake lines
	COM1, address 0x3F8, IRQ 4
	115200 baud maximum
Serial Port 2	RS-232 no handshaking or
	RS-485 half duplex,
	COM2, address 0x2F8, IRQ 3
	115200 baud maximum
Serial Port 3	RS-232 with 5 handshake lines
	COM3, address 0x3E8, IRQ 5/6
	115200 baud maximum
	16 byte transmit and receive FIFOs
Serial Port 4	RS-232 no handshaking
	COM4, address 0x2E8, IRQ 5/6
	115200 baud maximum
	16 byte transmit and receive FIFOs
Parallel Port	Bi-directional,
	LPT1, address 0x378

Digital I/O	36 Bits
	Port A, 8bits, 82C55, port in or out
	Port B, 8bits, 82C55, port in or out
	Port C, 8bits, 82C55, nibble in or out
	Port D, 4bits, PLD, port in or out
	Port E, 4bits, PLD, port in or out
	Port F, 4bits, 386Ex, bit in or out
Expansion Bus	Address and Data lines, Decoded IO read/write and Memory read/write, reset and control lines
Speaker	PC compatible, with driver (sink)
Clock/Calendar	Y2K complient, replacable lithium cell
Sync. Serial	Full duplex, Independent Rx and Tx clocks, Master or Slave operating mode
Supply Voltage	7-34V DC, 3Watts, typical
Supply Current	430mA with 7V input
	250mA with 12V input
	125mA with 24V input
Humidity	5 - 90 %, non-condensing
Temperature	-4 to +185 °F (-20 to +85 °C)
Weight	5.8 oz (165 gm)
Dimensions	4.20” x 3.60“ x 2.5"
	(106.7mm x 91.4mm x 63.5mm)

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