

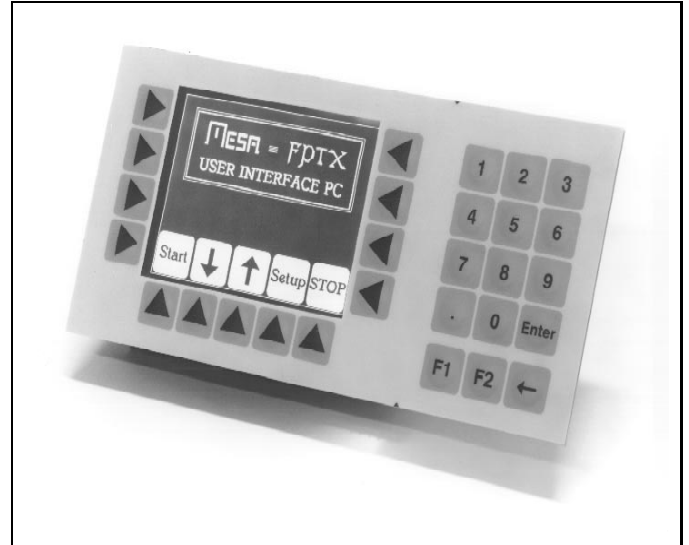


MESA ELECTRONICS

FPTX FLAT PANEL PC

FEATURES:

- Small user interface PC
- 1/4 VGA active matrix color
- 13 display-labeled soft-keys
- PC/104 expansion
- 40 MHz PC compatible CPU
- 4 or 8 meg system RAM
- Ethernet interface
- Up to 8M flash disk
- 2 serial + printer ports
- IDE and floppy interfaces



The FPTX is a small, low cost panel mount display computer for user interface applications. The overall dimensions of the FPTX are 4.6" H x 9.5"W x 2.75"D with the numeric keypad, and 4.6" H x 5.7"W x 2.75"D without.

The FPTX is a complete embedded system user interface CPU with display, keyboard, serial and parallel I/O, network interface, and solid state disk.

The FPTX has ROM-DOS pre-installed in its BIOS EPROM, and needs only your application program to make a complete user interface.

The FPTX display is a 320 by 240 resolution active matrix color LCD with variable brightness CCFL backlight. Display dot pitch is .33 mm. The particular display used with the FPTX has a wide (-30 to +85 C) temperature range making it suitable for vehicular and industrial applications.

The display controller is fully VGA compatible but displays the upper left 1/4 of a standard VGA screen. BIOS support is provided to scroll through the full VGA region.

FPTX backlight intensity can be adjusted via built-in software commands.

The keyswitch array surrounds the display area so that the keys can be labeled in the display. The keypad scanner can scan up to 96 keys for custom keypads.

The FPTX requires +5V @ 1.2 A max (CPU power) and 9-16V @ 1.0 A max (backlight power) for operation. An optional regulator allows operation on a single 9-16V supply.

The FPTX CPU is a 40 MHz 386SX PC compatible processor (ALI M6117) with 4 M bytes of RAM standard. Additional RAM can be added by the user up to a total of 8 M bytes. A numeric co-processor can be ordered as an option. EEPROM setup storage and watchdog timer improve system reliability.

The standard flash disk has a capacity of 2M bytes but the FPTX can be ordered with up to 8M bytes of flash disk. The flash disk uses NAND flash chips for high performance and long life. The flash filing system is built into the FPTX BIOS. Utilities for using the flash disk are provided with the FPTX.

On card I/O includes a battery backed clock/calendar, 10BaseT Ethernet interface, floppy interface, IDE interface, two 16C550 compatible serial ports, one of which can be ordered with a RS-485 interface, a bi-directional parallel printer port, 8 user I/O bits, a standard PC/AT keyboard port, and an 8 input, 12 bit A-D converter.

Additional I/O can be added via the 16 bit PC/104 expansion site on the back of the FPTX.

PROCESSOR: The FPTX uses a 40 MHz ALI M6117 processor. The M6117 is a high integration 386SX core + ATchipset part.

MEMORY: The standard system RAM is 4M bytes. Two sockets are provided to allow another 4M bytes to be added by the user.

DISPLAY: 320H by 240V pixel CCFL backlit active matrix TFD display. Wide viewing angle, high brightness, and high contrast (daylight readable), in combination with a wide operating temperature range make the FPTX suitable for vehicular applications. Fast response time for dynamic displays.

KEYBOARD: 13 key membrane switch surrounds display area, allowing display labeled keys. Optional numeric keypad adds 15 keys. BIOS scans keyboard and allows reassignment of keyboard generated characters. BIOS supports labeled key graphics. On card speaker provides audible feedback (key click). Also supports standard PC/AT keyboard.

DISK EMULATOR: 2 NAND flash chips for up to 8M byte of on card flash disk. Built in flash filing system with advanced statistical wear leveling. Emulated drive appears exactly as normal hard drive. All tools for using disk emulator provided.

FLOPPY INTERFACE: Built in support for two 1.44M floppy drives.

IDE INTERFACE : Built-in IDE interface with 44pin 2MM connector. Optional paddle board available for ATA drive connection.

ETHERNET: Built-in high performance 16 bit 10BaseT (twisted pair) Ethernet interface.

POWER SUPPLY: The FPTX requires 4.5 to 5.5 VDC for CPU power and 9-16 VDC for backlight power. An optional switching regulator is available for single +9 to +16V operation. When the optional regulator is used, the FPTX can be powered directly from battery power. Maximum +5V current is 1.2 amps, maximum backlight current is 1 amp (full brightness).

SERIAL PORTS: The FPTX has two RS-232 serial ports. These ports use 16C550 compatible FIFO'ed UARTS. One of the serial port can be factory configured for RS-485 interface. RS-485 mode has driver disable capability for multi-drop applications.

PC/104 EXPANSION SITE: Full 16 bit PC/104 expansion site connector for user supplied I/O cards. Includes PC/104 mounting hardware.

PARALLEL PRINTER PORT: Standard PC printer port. Supports bi-directional and ECP modes.

I/O BITS: 8 uncommitted I/O bits (port A of a 82C55). Can be programmed for 8 outputs or 8 inputs.

ANALOG IN: 8 input A-D converter with 12 bits of resolution. 3.75V full scale input. Reference voltage available from input connector for ratiometric applications. Capable of 20,000 conversions per second.

CLOCK CALENDAR: Lithium cell backed clock calendar. Minimum 4 year power off Lithium cell life.

WATCHDOG: Bulit-in hardware watchdog resets CPU if system malfunction occurs.

ORDERING INFORMATION:

FPTX-F2M	2M FLASH DISK
FPTX-F4M	4M FLASH DISK
FPTX-F8M	8M FLASH DISK

ADD -NK for numeric keypad

ADD -I for industrial temperature range