EUROTECH

Labels on the figure:
- Power Output
- Maintenance Port
- Microphone Input
- LEDs
- Line In (left & right)
- Line Out (left & right)
- CF Card Slot (bottom side)
- VGA Output
- SATA Drive Socket
- High-current USB Ports (3)
- DC Power Input
- USB Ports (2)
- Serial Port (EIA-232)
- Ethernet
- Switch
- GPS Antenna Jack

See CPDK4508 for a development kit with an LCD.

What's in the Box?

The development kit includes the following components:

- Catalyst FX carrier board with Catalyst Module XL
- Catalyst FX VGA Expansion Board
- Boot device loaded with Wind River Linux or Windows® Embedded Standard (WES)
- USB UTILIBOOT key
- 12 VDC adapter and regional AC power cord
- Null modem cable (6 foot, DB9FF)

Preparing the Development Kit

Your development kit has been designed to work out of the box. When handling the system, use a wrist strap and/or ESD mat. Follow these steps to prepare it for use:

1. Insert one of the following boot devices:
   - CompactFlash card into the CF slot
   - USB drive into any USB socket
2. Connect a VGA display to the VGA output socket. The display must be connected before power.
3. Connect a USB keyboard and USB mouse.
4. Connect the 12 VDC adapter to the DC power input and to AC power. The power LED lights green when the adapter is connected.

Operating System Details

Wind River Linux 3.0

- This release is based on Linux 2.6.27.35.
- By default, the grub menu is not presented. To change this configuration, edit /boot/grub/menu.lst.
- The kernel console is on tty1 (VGA display and keyboard). You can change the console to ttyUSB0 from the grub menu.
- You can login from tty1 or remotely using ssh. The root password is "root". To enable login on ttyUSB0, edit /etc/inittab.
- To facilitate remote login, this release presents the Ethernet configuration on ttyUSB0 during startup. The default serial port settings are 9600, 8 bits, no parity, and 1 stop bit. To stop these messages, move /sbin/ifup-local to /sbin/ifup-local.orig.
- To start an X Window session, run "startx".
- Shut down the system before disconnecting power. To shut down, enter "poweroff" at a shell prompt. Wait for the power LED to change to yellow before disconnecting power.
- This release supports VGA, LCD, CF, Ethernet, USB 2.0, serial ports, GPS, and RTC. It does not support audio, SATA, and SDIO.
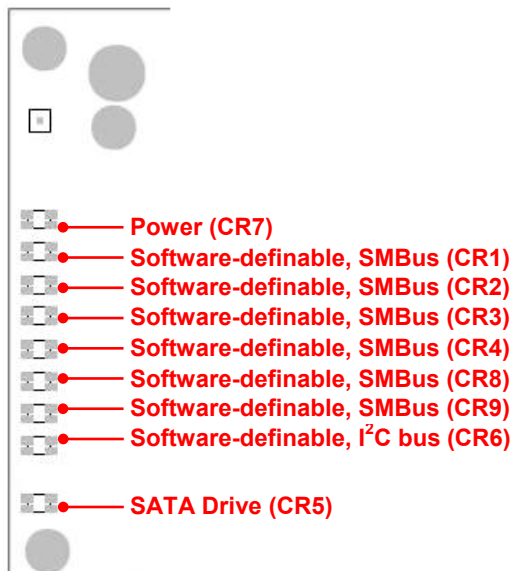
Windows Embedded Standard

- Several seconds after power is applied, WES boots and the login screen appears on the VGA display.
- Press CTRL+ALT+DELETE for the login screen.
- Log in with user name "Administrator" and no password.
- Shut down the system before disconnecting power. To shut down, click Start→Shut Down, then select Shut Down from the OS menu. Wait for the power LED to change to yellow before disconnecting power.

Features

Indicator LEDs

The Catalyst FX has nine red/green/yellow LEDs. Seven of the nine are software-definable using the SMBus or I^2C bus. The LEDs have the following assignments:

- Power (CR7)
- Software-definable, SMBus (CR1)
- Software-definable, SMBus (CR2)
- Software-definable, SMBus (CR3)
- Software-definable, SMBus (CR4)
- Software-definable, SMBus (CR8)
- Software-definable, SMBus (CR9)
- Software-definable, I^2C bus (CR6)
- SATA Drive (CR5)

USB Host Ports

The Catalyst FX provides five USB host ports. Two ports are general-purpose, while the remaining three ports are designed to support higher-current, plug-in USB modules. The three high-current ports use sockets with locking latches. Do not forcibly pull on the USB devices to disconnect. Raise the latch on the socket to remove the device.

Ethernet

Network settings are configured to operate with a DHCP server. To connect to your network, connect your network cable to the Ethernet socket.

Switch

The Catalyst FX includes a momentary push-button switch. This switch generates an interrupt to the processor and is software-definable.

Options

Optional Hardware

The Catalyst FX's flexible design supports several options, enabling many possible combinations to meet your system requirements. Your development kit may include one or more of the following optional functions:

- GPS receiver with external antenna connection
- Serial port configured for EIA-485
- Vehicle-rated power input

Mass Storage Options

Five types of memory provide mass storage and boot options for the Catalyst FX. Your development kit includes one or more of the following mass storage devices:

- CF card
- On-board PATA flash
- SATA drive
- USB disk drive
- SD card (future option)

Everyware™ Software Framework

The Catalyst FX is available with the Everyware Software Framework (ESF). Information about ESF is available at:

http://esf.eurotech.com/

Technical Support

The Eurotech support site includes errata reports, the latest releases of documents, and developer's forums. These resources are available to registered developers at:

http://support.eurotech-inc.com

Next Steps

For additional information about the Catalyst FX, download the following documents from the support site or contact your local sales representative.

Document

Catalyst FX User Manual	110124-3010
Catalyst FX VGA Expansion Board User Manual	110124-3200