EUROTECH
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UART4 & UART5 (J23)
UART2/Debug Port (J22)

User-controlled LEDs (D57 & D58)
Reset Switch (SW1)
Sleep Switch (SW2)
Button Switch (SW3)
SD2 (J30)
User-Controlled LED (D56)

Power/Sleep LED (D66)

Ethernet (J5)

DC Power Input (J27)

USB On-The-Go (J14)

What Is in the Development Kit?

The development kit includes the following components:

- CPU-301-16 module with carrier board
- micro SD card with adapter loaded with Windows® Embedded Compact v7.00 or Linux
- 10.4-inch SVGA TFT LCD with touch screen and backlight inverter
- Cables
  - USB A to USB Mini-B (for connection to development PC on J14)
  - RS232 serial port adapter (for connection to null modem on J22)
  - Dual RS232 serial port adapter (for connection to null modem on J23)
  - Ethernet cable (for network connection on J5)
- 12 VDC adapter with power connector and AC cord

How Do I Set Up the Development Kit?

Your kit has been designed to work out of the box. When handling the system, use a wrist strap and/or ESD mat.

Complete these steps to boot your development kit:

1. Ensure that the micro SD card with adapter is seated well in socket J30.
2. Connect the 12 VDC adapter to the DC power input (J27), and then connect the adapter to AC power.
3. Monitor the LEDs.
   LED D56 transitions through the following sequence:

Sequence	Flashing	Indicates
1	Red	Bootloader is running.
2	Orange	Operating system is loading.
3	Green	System boot is complete.

Note: To avoid corruption of the operating system, do not remove power while LED D56 is flashing red.

After the power adapter is connected and the system is operational, the Power/Sleep LED D66 lights green.

How Do I Use the Development Kit?
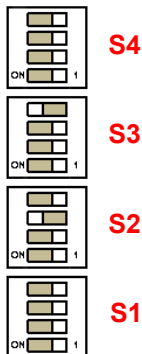
Windows Embedded Compact v7.00

- The system boots to the desktop.
- Connect your PC, USB mouse, and USB keyboard for application development.
- You do not have to perform a shutdown before you disconnect power; however, avoid doing so while files are being written to external memory.
- For the latest information, including a list of supported features, refer to the support site.

Linux

- (To Be Determined)

What Are the Boot Settings?

- By default, the module is configured for Internal Boot. In this mode, the carrier board's configuration switches S1-S4 select the specific boot device.
- The default switch settings, as shown, select the micro SD card installed in SD2 (J30).

- For a detailed explanation of Boot Mode Configuration, refer to the *CPU-301-16 Design-In Guide (#110127-4000)*.

What Are the Hardware Features?

Touchscreen

- The touchscreen is calibrated prior to shipment.

Carrier Board Switches

- The carrier board includes three switches.
- Reset switch (SW1) initiates a hardware reset. Press this button to restart the system without cycling power. LED D56 will transition through the same sequence as during power up.
- Sleep switch (SW2). Refer to Eurotech Technical Support for release information.
- Button (SW3) is a general-purpose switch that is connected to GPIO signals from the CPU-301-16 module. It is not used on the development kit.

User-controlled LEDs

- The CPU-301-16 module supports three bi-color user-controlled LEDs: D56, D57, and D58.
- LED D56 is controlled by GPIO signals from the CPU-301-16 module. The development kit uses this LED to indicate boot progress, as previously described.
- LEDs D57 and D58 are software-controlled using the I^2C bus and are not used on the development kit.

Ethernet

- Network settings are configured to operate with a DHCP network.
- To connect to your network, connect your network cable to the Ethernet socket (J5).

Backlight

- The CPU-301-16 module supports up to three backlights. However, only Backlight 0 (J40) is active on the development kit.

Secure Digital

- SD2 (J30) and SD4 (J31) can be used simultaneously. However, SD2 (J30) and the SD socket on the CPU-301-16 module are the same connection to the processor.

Eurotech Technical Support

The Eurotech support site includes errata reports, the latest versions of user 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 CPU-301-16 module, download the *CPU-301-16 Design-In Guide* from the support site or contact your local sales representative.

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