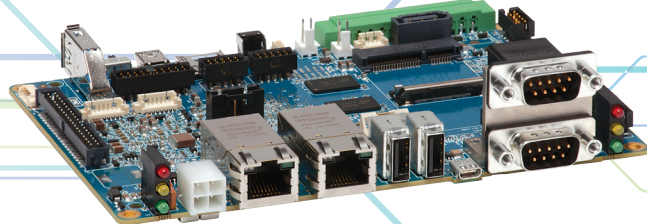# CPU-351-13

- **IoT and M2M Ready**
- **Multicore i.MX6, up to 1.2GHz**
- **Protected Wide Range Power In**
- **CANbus**
- **Camera Input**
- **On-board Accelerometer**
- **WiFi, Bluetooth, Zigbee**
- **Cellular and GPS Options**
- **Linux and WEC 7**
- **-40° to +85°C Operation**

EDC ESF

FEATURES

Low Power, up to 4 cores – Based on the highly integrated Freescale i.MX6 SOC, with 1 to 4 cores up to 1.2GHz

Connected – Global cellular options, WiFi, Zigbee, Bluetooth 4.0 (with LE), dual Gb Ethernet

Features for transportation – 50ch GPS, CANBus, 3-axis accelerometer, protected wide range power in

Graphic capabilities – Two video ports: LVDS and HDMI with integrated 4/5 wire resistive touch controller

Power management – Multi-chemistry battery charger, smart power monitor

Rugged – Extended operating temperature (-40° to +85°C)

IoT / M2M ready – Supports Eurotech's EDC, the end-to-end cloud solution that offers open M2M protocols, cloud-based databases, brokers, and easy to use REST APIs

The CPU-351-13 is an iMX.6 Single Board Computer board that delivers a large number of interfaces and peripherals while keeping the overall power consumption at a low 4W for typical applications.

Designed to be employed in a wide range of industral and transportation applications, the CPU-351-13 provides key features such as 6-36VDC protected power in, CANBus with optional J1939(CAN)/J1979(OBDII)/J1708 support and extended operating temperature.
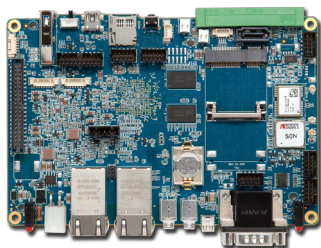
With an on-board multi-chemistry charger, the CPU-351-13 simplifies the design of battery powered applications; an additional benefit comes from the integrated Smart Power Monitor, which can be used to keep the board within a user-defined power profile.

Support for cellular communications is available both on board and through the external Eurotech ReliaCELL adapter family, which provides pre-certified, worldwide coverage.

The CPU-351-13 accelerates the development and deployment of IoT/M2M applications: it supports EDC, Eurotech's cloud for embedded devices. EDC is a complete offering consisting of open M2M protocols, cloud-based resources like databases and brokers, and REST APIs.

The CPU-351-13 also supports ESF, Eurotech's Java-based framework for embedded devices. With ESF it is possible to develop portable applications in a fraction of the time thanks to high level, industry specific APIs.

To kickstart your projects and accelerate time to market, contact the Eurotech sales team to order a development kit.

EUROTECH
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System Architecture

PROCESSOR	Freescale i.MX6, 1 to 4 cores, up to 1.2GHz
MEMORY	Support to 4GB DDR3 - soldered
STORAGE	Up to 64GB eMMC Flash (4GB standard)
	MicroSD expansion slot
	SATA interface for SDD/HDD (dual/quad core)
NETWORK	2x Gigabit Ethernet
SERIAL INTERFACES	2x RS232/485/422
	2x RS232 (optional)
	I²C
	SPI
PCI EXPRESS	MiniPCI express socket
WIRELESS	**GPS** - 50 channel receiver
	WIFI - 802.11 a/b/g/n- Access Point & Client (AP Linux only)
	802.15.4/ZIGBEE - yes
	BLUETOOTH - V4.0 (with Bluetooth Low Energy)
	CELLULAR - Internal option (contact factory)
	- ReliaCELL 10-20 (external adapter)
	Technology: 2G GSM, 2.5G CDMA, 3G GSM, 3G CDMA, 4G LTE
	Approvals: AT&T, Sprint, Verizon, T-Mobile, SKT, NttDocomo
CAN	1x CANBus
	J1939(CAN)/J1979(OBDII)/J1708 (contact factory)
USB	3x USB 2.0, type A, 1x USB 2.0 (internal header)
VIDEO	LVDS
	RGB
	HDMI (optional)
	Two indipendent video ports (dual/quad core)
	4/5 wire resistive touch controller
CAMERA INPUT	3x analog video inputs (contact factory)
AUDIO	Analog audio in/out
ANALOG INPUT	2x analog voltage in
DIGITAL I/O	8x isolated GPIO / 4x4 Key Pad
SENSORS	3 axis accelerometer
POWER	6 to 36VDC power in (5V optional)
	4W typical
	Multi chemistry battery charger
	Li-ion/Polymer, LiFePO4,
	Lead Acid (contact factory)
	Smart Power Monitor
TEMPERATURE	Operating: -40 to +85°C (800MHz)
	-20 to +85°C (1.2GHz)
HUMIDITY	95% relative at +45°C non-condensing
SOFTWARE	Linux (Yocto), WEC7
	Everyware Device Cloud ready
	Everyware Software Framework
PHYSICAL	Dimensions: 102 x 153mm

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