

# CYAN Embedded Processors and Evaluation Kits

 This product is RoHS compliant.



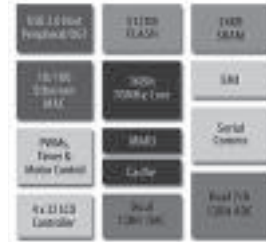
## EMBEDDED PROCESSORS

### eCOG1X Series

The eCOG1X product family is a range of low-power, feature rich microcontrollers based on a 16-bit Harvard with a 24-bit linear code address space (32Mbyte) and 16-bit linear data address space (128Kbytes), architecture. The devices are highly configurable, with options including combinations of USB 2.0 OTG interface, 10/100 Mbps Ethernet MAC and 12-bit analogue I/O. Each variant is available with 512Kbytes of Flash and 24Kbytes of SRAM. Products are available in a variety of packages - 68 and 100 pin QFN and 208 pin BGA, enabling the customer to balance the demands of cost and features. Includes CyanIDE 2.0 professional IDE free of charge.

#### Features:

- 0 to 70MHz 1.8V processor
- Built-in emulator (eICE)
- Low power operation
- Memory Management Unit
- Instruction cache
- Code security feature
- External Host Interface
- External Memory Interface
- 2 x DUARTs
- Enhanced SPI
- I2S digital audio
- Dual Smart Card Interface
- In Built 10/100 Mbps Ethernet MAC
- USB 2.0 480Mbit ULPI Interface
- On-chip USB 1.1 12Mbit PHY with support for OTG
- Dual 7 channel 12-bit ADCs
- Dual 12-bit DACs
- Flash: 512K
- Supply voltage sensor
- Power-on reset
- 4x32 segment LCD controller
- 5 multi-purpose timers
- 2 x counter/timers
- 2 x PWM timers
- Clock timer
- Capture timer with 6 inputs
- Watchdog Timer
- SRAM: 24KB
- Parallel I/O ports
- 8MHz and 32kHz crystal oscillators
- Low power relaxation oscillator
- Operating temperature range -40°C to +85°C
- 6 x PWM timers for motor control
- Long Interval Timer
- Temperature sensor
- DUSART / SPI / I2C / SCI / IR



For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	Cyan Part No.	Package	USB	Ethernet	Supply Voltage	ADC In	I/O Pins	Price Each			
								1	10	100	250
779-ECOG1X1A5	eCOG1X1A5	68QFN	No	No	3.3/1.8V	2ch x 2	36	10.53	9.48	8.10	7.29
779-ECOG1X5A5	eCOG1X5A5	68QFN	Yes	Yes	3.3/1.8V	2ch x 2	32	11.05	9.94	8.50	7.65
779-ECOG1X14B5	eCOG1X14B5	100QFN	Yes	Yes	3.3/1.8V	5/6ch x 2	56	12.42	11.18	9.56	8.60
779-ECOG1X14Z5	eCOG1X14Z5	208BGA	Yes	Yes	3.3/1.8V	7ch x 2	120	15.28	13.75	11.76	10.58

### eCOG1XE Series

The eCOG1XE01A6 is a low cost, entry level subset of the eCOG1X family. Offering smaller memory size and retaining just the most commonly used peripheral blocks, it targets price sensitive applications that still require a high level of capability in their microcontrollers. A major niche is in supporting slave node applications for RF-Solved based designs.

#### Features:

- 0 to 24MHz 1.8V CPU core
- Built in Emulator (eICE)
- Low power operation
- Instruction cache
- Memory Management Unit
- Code security feature
- Fast Vectored Interrupts
- 2 x DUARTs
- SPI
- Multi Purpose Timers
- Clock timer
- 2 x counter / timer
- 2 x PWM timer
- Capture timer with 2 inputs
- Watchdog Timer
- Dual 12-bit 200ks/s SAR ADC
- 2x2 channel analogue multiplexer
- Temperature Sensor
- 8MHz and 32kHz crystal oscillators
- 24MHz clock from watch crystal
- Internal relaxation oscillator
- 3.3V supply, 1.8V core
- 68 pin QFN package
- Operating temperature range -40°C to +85°C
- Power-On Reset
- I2C



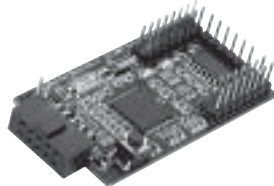
For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	Cyan Part No.	Package	Flash	SRAM	Supply Voltage	ADC In	I/O Pins	Price Each			
								1	10	100	250
779-ECOG1XE01A6	eCOG1XE01A6	68QFN	64K	8K	3.3/1.8V	2ch x 2	20	6.88	6.19	5.09	4.40

## EVAL KITS

#### Board Features:

- Four serial ports, two with optional EIA/TIA-562 transceiver
- Four 12-bit analogue inputs
- Two user/status LEDs
- Hardware reset push button
- Small form factor
- Free pads or pin headers for input and output port connections
- Powered from the eICE adaptor or from an external 5V d.c. power supply
- High and low frequency crystals or clock inputs
- Includes CyanIDE 2.0 professional IDE free of charge



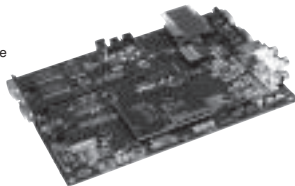
For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	Cyan Part No.	Description	Price Each
779-EVALKIT1X1A5	EVALKIT1X1A5	eCOG1X1A5 Eval Kit	99.00
779-EVALKIT1XE01A6	EVALKIT1XE01A6	eCOG1XE01A6 Eval Kit	99.00

## DEVELOPMENT KITS

#### Board Features:

- eCOG1X14Z5 MCU on daughterboard
- 1Mb external Flash, 1Mb external SRAM
- 16Mb SDRAM
- 10/100 Mbps Ethernet PHY
- USB2.0 Low/Full/High Speed OTG Interface
- Dual 12-bit DAC outputs with max 4 μsec conversion time
- Support for ISO7816 smart card including SIM card holder
- 4 RS232 serial ports
- Audio CODEC
- 4 x 7 segment LCD
- Fourteen 12-bit SAR ADC inputs with 10,8 or 6 bit modes
- Includes CyanIDE 2.0 professional IDE free



For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	Cyan Part No.	Description	Price Each
779-DEVKIT1XUSBETH	DEVKIT1X-USB/ETHERNET	USB/Ethernet - Solved Dev Kit	99.00
779-DEVKIT1X-14Z-UK	DEVKIT1X-14Z-UK	eCOG1X Dev Kit w/UK Adaptor	299.00
779-DEVKIT1X-14Z-EU	DEVKIT1X-14Z-EU	eCOG1X Dev Kit w/EU Adaptor	299.00
779-DEVKIT1X-14Z-US	DEVKIT1X-14Z-US	eCOG1X Dev Kit w/USA Adaptor	299.00
779-DEVKIT1X-14Z-AUS	DEVKIT1X-14Z-AUS	eCOG1X Dev Kit w/Australian Adaptor	299.00

## ADAPTOR

### e-ICE Series

#### Features:

- Onboard eCOG1X5A5 processor provides high-speed USB interface.
- Handles complete eICE transactions locally, providing significantly faster data transfers and lower response times.
- Connects to the host PC via a type A USB connector.
- Provides full interface between USB and the eICE port of the target eCOG microcontroller.
- Powered by the USB port of the PC, and can supply power to the target system from the USB 5V.
- Fully compatible with CyanIDE®.
- Simple 10-way header to allow easy connection to user's target system.



For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	Cyan Part No.	Description	Price Each
779-EICEUSB1X	eICEUSB1X	USB eICE Adaptor	25.00