

CYPRESS PRODUCT SELECTOR GUIDE

WIRELESS/RF

SEPTEMBER 2009

AUTOMOTIVE • CAPSense™ CAPACITIVE TOUCH SENSING • CLOCKS AND BUFFERS • LIGHTING AND POWER CONTROL • MEMORIES • OPTICAL AND IMAGE SENSING • PHYSICAL LAYER DEVICE • PSoC® PROGRAMMABLE SYSTEM-ON-CHIP • TRUETOUCH™ TOUCH SCREEN SOLUTIONS • USB SOLUTIONS • WEST BRIDGE® PERIPHERAL CONTROLLERS • WIRELESS/RF



WIRELESS/RF

WIRELESSUSB™

Designed for short-range desktop wireless connectivity in PC peripheral applications, the WirelessUSB system acts as a USB HID-class device.

Cypress also offers P_{RoC}™—a flash-based programmable radio system-on-chip. The P_{RoC} is the world's first low-cost, flash-programmable microcontroller with an integrated 2.4 GHz radio transceiver. The microcontroller core is the M8C 8-bit engine that supports a rich instruction set. It contains 256 bytes of data SRAM and 8 kilobytes code flash memory.

Key Applications: Wireless mouse, wireless USB bridge, wireless keyboard, wireless presenters, gaming

WirelessUSB/P_{RoC} LP Benefits

- World's most robust 2.4 GHz solution operates reliable in busy 2.4 GHz environments
- Ultra low power optimization for battery-powered devices
- Low cost implementation and BOM integration
- Easy-to-use reference design and tools for quick time to market

WirelessUSB LP

Part Number	Status	Voltage	Throughput	Modulation	Applications	Development Kit	Reference Design Kit	Temp Range	Package
CYRF6936	Active	1.8 to 3.6V	1 Mbps	GFSK and DSSS	PC Peripherals	CY3630	CY4672	0C to +70C	40 QFN

P_{RoC} LP

Part Number	Status	Voltage	Throughput	Modulation	Applications	Reference Design Kit	# I/O	Core	Max Speed	Core Memory Architecture	Code Memory Size	RAM Size	USB	Temp Range	Package
CYRF69103	Active	1.8 to 3.6V	1 Mbps	GFSK and DSSS	Wireless Mouse	CY4672	18	M8C	12 MHz	Flash	8KB	256B	N/A	0C to +70C	40 QFN
CYRF69213	Active	4.0 to 5.5V	1 Mbps	GFSK and DSSS	Wireless USB Bridge	CY4672	16	M8C	12 MHz	Flash	8KB	256B	Low-Speed	0C to +70C	40 QFN

RF COMPANION MICROCONTROLLERS

Cypress offers a line of low power, 8-bit microcontrollers that are ideal for wireless applications. The wireless enCoRe™ family consists of base parts targeting different applications. The devices feature the industry's smallest 8-bit RISC core with flash memory and a variety of internal peripheral functions.

- The enCoRe II LV provides a 2.7V, high I/O (CY7C601xx) solutions that are optimal for keyboards and a low-to-mid I/O (CY7C602xx) solution that is optimal for mice, presenter tools, and similar applications. They provide a competitive silicon cost coupled with a high level of integration for an overall system cost reduction.
- The enCoRe III LV (CY7C603xx) family provides a mid-I/O solution, from 1.0V to 3.6V, with internal analog capabilities and other configurable peripherals. These devices provide a feature-rich, low power solution suitable for gaming, mice, presenters and other applications.
- The enCoRe V LV (CY7C604xx) family provides a mid-to-high-I/O solution, from 1.71V to 3.6V, to enable true low power wireless microcontroller designs. These devices have an increased flash size up to 32K, providing additional code space for application features and multimedia functions that are ideal for next generation wireless HID products.

enCoRe Low Voltage Microcontrollers

Part Number	Status	Voltage	Applications	Development Kit	# I/O	Core	Max Speed	Core Memory Architecture	Code Memory Size	RAM Size	Programmer	Software Tools	Temp Range	Package
enCoRe II LV														
CY7C601xx	Active	2.7 to 3.6V	Wireless Keyboard	CY3655	48	M8C	12 MHz	Flash	8 KB	256B	PSoC Programmer	PSoC Designer	0C to +70C	48 SSOP
CY7C602xx	Active	2.7 to 3.6V	Wireless Mice/Presenters	CY3655	24	M8C	12 MHz	Flash	8 KB	256B	PSoC Programmer	PSoC Designer	0C to +70C	24 SOIC
enCoRe III LV														
CY7C60323	Active	2.4 to 3.6V	Keyboard/Mouse	CY3656	28	M8C	12 MHz	Flash	8 KB	512B	PSoC Programmer	PSoC Designer	0C to +70C	28 SSOP 32 QFN
CY7C60333	Active	2.4 to 3.6V	Wireless Mice/Presenters, Gaming	CY3656	26	M8C	12 MHz	Flash	8 KB	512B	PSoC Programmer	PSoC Designer	0C to +70C	32 QFN
enCoRe V LV														
CY7C60413	Active	1.7 to 3.6V	Wireless Mice/Remote Control	CY3660	13	M8C	12 MHz	Flash	8 KB	1 KB	PSoC Programmer	PSoC Designer	0C to +70C	16 QFN
CY7C60445	Active	1.7 to 3.6V	Wireless Mice/Presenters, Gaming	CY3660	28	M8C	12 MHz	Flash	16 KB	1 KB	PSoC Programmer	PSoC Designer	0C to +70C	32 QFN
CY7C60455	Active	1.7 to 3.6V	Wireless Keyboard/Presenters	CY3660	36	M8C	12 MHz	Flash	16 KB	1 KB	PSoC Programmer	PSoC Designer	0C to +70C	48 QFN
CY7C60456	Active	1.7 to 3.6V	Wireless Keyboard/Presenters	CY3660	36	M8C	12 MHz	Flash	32 KB	2 KB	PSoC Programmer	PSoC Designer	0C to +70C	48 QFN

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ABOUT CYPRESS

Cypress delivers high-performance, mixed-signal, programmable solutions that provide customers with rapid time-to-market and exceptional system value. Cypress offerings include the PSoC Programmable System-on-Chip, USB controllers, general-purpose programmable clocks, and memories. Cypress also offers wired and wireless connectivity solutions ranging from its CyFi Low-Power RF solution, to West Bridge and EZ-USB FX2LP controllers that enhance connectivity and performance in multimedia handsets. Cypress serves numerous markets, including consumer, computation, data communications, automotive and industrial. Cypress trades on the NYSE under the ticker symbol CY. Visit Cypress online at www.cypress.com.