CY7B923 HOTLink

The **CY7B923 HOTLink Transmitter and CY7B933 HOTLink Receiver** are point-to-point communications building blocks that transfer data over high-speed serial links (fiber, coax, and twisted pair). Standard HOTLink data rates range from 160-330 Mbits/second. Higher speed HOTLink is also available for high-speed applications (160-400 Mbits/second), as well as for those low-cost applications HOTLink-155 (150-160 Mbits/second operations).

Features:

• Fibre-Channel compliant • IBM ESCON compliant • DVB-ASI compliant • ATM compliant • B/10B coded or 10-bit unencoded • Standard HOTLink: 160–330Mbps • High-speed HOTLink 160–400 Mbps for high-speed applications • Low-speed HOTLink: 150–160Mbps for low-cost fiber

Applications:

• TTL synchronous I/O • No external phase-locked-loop (PLL) components • Triple PECL 100K serial outputs • Dual PECL 100K serial inputs • Low power: 350mW (Tx), 650mW (Rx) • Compatible with fiber optic modules, coaxial cable, and twisted pair media • Built-In Self-Test • Single +5V supply • 28-pin SOIC/PLCC/LCC • 0.8 BiCMOS

Description	Package	Digi-Key Part No.	Price Each 1	25	100	Cypress Part No.
Transmitter,	28-PLCC	428-1706-5-ND	56.20	44.96	37.94	CY7B923-JXC
Standard Speed	28-SOIC	428-1707-5-ND	56.20	44.96	37.94	CY7B923-SXC
Receiver,	28-PLCC	428-1708-5-ND	56.20	44.96	37.94	CY7B933-JXC
Standard Speed	28-SOIC	428-1709-5-ND	56.20	44.96	37.94	CY7B933-SXC

Developer Kits

CY3674

The development kits for the EZ-USB FX™ family provide complete hardware and software solutions for accelerating the firmware and device driver development for all the products in the family. The development kits use the actual silicon for the entire development. Software utilities and example of firmware allow the user to generate USB traffic in hours, not weeks! Includes an evaluation version of the 8051 Keil Software Tools in the Full Speed USB 2.0 development kit. The evaluation version of the C-Compiler lets the designer write 8051 microcontroller applications in C and still get the efficiency and speed of assembly language. Advanced features from Keil Tools include the ability to single step through code. This makes it easy to detect errors, handle source level debugging, and set breakpoints. With the ability to debug code one line at a time and to quickly compile and one-step download new code, developers have a more efficient means to complete firmware faster than using emulators. The supplied Keil Tools are fully functional, but are limited in object size to 4 kilobytes.

Devices Supported: CY7C64713-56LFXC, CY7C64713-100AXC, CY7C64713-128AXC

Kit Includes: • EZ-USB Development Board with CY7C64713-128AXC • Peripheral Board for prototyping • USB cable • RS-232 9-pin to 9-pin cable

428-1681-ND EZ-USB FX1 Development Kit **$490.00**

CY3684

The CY3684 development kit for the EZ-USB FX2LP™ family provides complete hardware and software solutions for accelerating the firmware and device driver development for all of the products in the family. The development kits use the actual silicon for the entire development. Software utilities and example firmware allow the user to generate USB traffic in hours, not weeks! Includes an evaluation version of the 8051 Keil Software Tools. The evaluation version of the C-Compiler lets the designer write 8051 microcontroller applications in C and still get the efficiency and speed of assembly language. The supplied Keil tools are fully functional, but are limited in object size to 4 kilobytes.

Kit includes: • EZ-USB development board • Peripheral board for prototyping • USB cable • RS232 9-pin to 9-pin cable

428-1677-ND Development Kit for EZ-USB FX2LP **$525.00**

CY3654

CY3654 Base-Board: Common base board for a variety of our M8 Series products. To emulate a specific USB device within a family, the appropriate personality board needs to be purchased (CY3654-Pxx). Each USB family will have a unique personality board. The base board will only work when supplemented by one of the family specific personality boards. CY3654 Development Kit includes a CY3654 Base board, a RS-232 Cable, and a Power Supply.

Personality Boards: Cypress offers a variety of Personality Boards that accompany the CY3654 Base Board for use in specific applications.

Kits Includes: • CY3654Px00 Personality Board • CY3654Dx00 Applications Board • Target µC Adapters • Target Flex Cable • Application Cables

The following is a list of current offerings:

CY3654 and CY3654-P02: Base Board and Personality Board is a development environment in support of a variety of applications such as keyboards and other low speed devices requiring more I/O. The CY3654 and CY3654-P02 is designed for use with CY7C634XX, CY7C635XX, and CY7C636XX M8 based parts.

CY3654 and CY3654-P03: Base Board and Personality Board is a development environment in support of a variety of applications such as full-speed peripherals, hubs, and hub plus integrated peripheral applications. The CY3654 and CY3654-P03 is designed for use with CY7C64x13 (full-speed), CY7C65x13 and CY7C66x13 (hubs) M8 based parts.

CY3654 and CY3654-P05: Base Board and Personality Board is a development environment in support of a variety of applications such as mice or other low speed USB peripherals. The CY3654 and CY3654-P05 is designed for use with CY7C632XXA, and CY7C637XX M8 based parts. Note: A Complete Development Kit consists of the Base Board plus a Personality Board. Other Personality Boards can be used with the same CY3654 Base Board. Please specify both the base-board CY3654, and Personality board CY3654-P02, when ordering this particular kit.

Description	Devices Supported	Digi-Key Part No.	Price Each	Cypress Part No.
Base Board	All USB Personality Boards CY series	428-1337-ND	868.75	CY3654
Personality Board	CY7C634XX, CY7C635XX and CY7C636XX	428-1338-ND	400.00	CY3654-P02
	CY7C64X13 (full-speed), CY7C65X13 and CY7C66X13	428-1339-ND	720.00	CY3654-P03
	CY7C632XXA and CY7C637XX	428-1340-ND	400.00	CY3654-P05

SL11R-DK

The SL11R from Cypress, is a low cost, full speed Universal Serial Bus (USB) RISC based Controller. The SL11R contains a 16-bit RISC processor with built-in BIOS ROM that greatly reduces firmware development time. This unique architecture provides the ability to upgrade products, in the field, without changing the peripheral hardware. The processor can execute code either from internal ROM/RAM or external DRAM, SRAM and ROM. Email support.

Kit Includes: • HW reference design for SL11R evaluation board • Assembler/Debugger and built in emulator • Application notes • BIOS ROM information • System Software demo program source code • Generic WDM mini-port driver for WIN98/2000-object code • 2 sample chips

Devices Supported: SL11R-IDE

428-1344-ND SL11 Development Tools **$495.00**

CY4636

WirelessUSB LP RDK (CY4636) provides an exemplary implementation of a 2:1, bidirectional Wireless desktop keyboard and mouse to single wireless receiver. The RDK will help jump-start your Keyboard and Mouse development using WirelessUSB LP (CYRF6936) Radio System on Chip. WirelessUSB LP is the next generation WirelessUSB device, with high data throughput and low power designed to operate in 2.4 GHz ISM band. WirelessUSB has many powerful features that allow users to create never before seen radio applications.

Kit Includes: • CYRF6936 WirelessUSB LS transceiver • Optical Sensor Mouse • WirelessUSB keyboard • Batteries • CD

428-1858-ND WirlessUSB REF Kit..... **$248.75**

CY3655

The enCoRe™ II development system, based on the highly refined PSoC™ (Programmable System-on-Chip™) tools, supplies the user with an incircuit emulator (ICE) that works in conjunction with actual silicon to provide an accurate and efficient development system. The PSoC Designer™ software consists of a graphical user interface, assembler, C-Compiler, linker and debugger for a highly integrated code development environment. A compliant USB "User Module" along with PS/2 and other peripheral User Modules simplifies the learning curve and speeds development time.

Kit Includes:

• Application Board enCoRe II Pod • Wireless enCoRe II Pod • PDIP feet • Modular Programmer Base Board • Programming Adapter Plug • USB Cable PS/2 Male to Male Cable • Software • Printed Documentation

428-1773-ND Development Kit for enCoRe II **$1166.00**
428-1774-ND Extension Kit for enCoRe II **$615.00**

TOSHIBA

8, 16, and 32-Bit Flash Microcontrollers

Toshiba 8-bit microcontrollers feature low-power consumption and low voltage operation.

The on-chip peripherals options include LCD, VFT and LED display drivers.

The 870/C series has a single register bank to increase C-Compiler efficiency.

Features:

• Minimum Instruction cycle time: 0.25µs at 16MHz

• Low-power modes including HALT, IDLE and clock gear and dual clocks

• Powerful instruction set with 731 instructions including multiply, divide, 16-bit operations, bit manipulations, etc.

• On-chip peripherals including A/D, PWM, UARTS and LCD

• Operating Temperature: -40° ~ 85°C

Kits Include:

Evaluation Board, C-Compiler (3000 lines per module), Assembler, Linker, RS-232 Cable, Batteries, Quick Start Guide, Datasheet, Manuals, CD with Tools

Memory Size EPROM	RAM	I/O	Supply Voltage	Package	Digi-Key Part No.	Price Each 1	25	100	Toshiba Part No.
512K	24KB	143	2.7 ~ 3.6	193-FBGA	TMP19A43FDXBG-ND◆	12.63	11.37	10.09	TMP19A43FDXBG
2MB	64KB	209	2.7 ~ 3.6	281-FBGA	TMP19A64F20AXBG-ND◆	41.65	37.50	33.25	TMP19A64F20AXBG
32K	2K	39	1.8 ~ 3.6	64-QFP	TMP86FM29FG-ND◆	5.60	4.48	3.49	TMP86FM29FG
32K	2K	39	1.8 ~ 3.6	64-LQFP	TMP86FM29UG-ND◆	5.60	4.48	3.49	TMP86FM29UG
32K	2K	56	1.8 ~ 3.6	64-QFP	TMP86FM48FG-ND◆	8.00	6.40	5.40	TMP86FM48FG
32K	2K	56	1.8 ~ 3.6	64-LQFP	TMP86FM48UG-ND◆	7.90	6.32	5.34	TMP86FM48UG
48K	2K	48	1.8 ~ 3.6	80-LQFP	TMP86FP24F-ND	6.28	5.03	4.24	TMP86FP24F
48K	2K	48	1.8 ~ 3.6	80-LQFP	TMP86FP24FG-ND◆	6.28	5.03	4.24	TMP86FP24FG
8K	256	22	2.7 ~ 5.5	30-SSOP	TMP86F807MGEY-ND◆	5.40	4.32	3.36	TMP86F807MG (EY)
8K	256	24	2.7 ~ 5.5	30-SSOP	TMP86F808DMGEY-ND◆	5.40	4.32	3.36	TMP86F808DMG (EY)
16K	512	26	4.5 ~ 5.5	32-SDIP	TMP86FH09NGZM-ND◆	2.54	2.04	1.59	TMP86FH09NG(ZM)
16K	512	24	2.7 ~ 5.5	30-SSOP	TMP86FH12MGZ-ND◆	3.60	2.88	2.24	TMP86FH12MG(Z)
16K	512	33	2.7 ~ 5.5	42-SDIP	TMP86FH46ANGZ-ND◆	5.00	4.00	3.38	TMP886FH46ANG(Z)
16K	512	35	2.7 ~ 5.5	44-LQFP	TMP86FH47UG-ND◆	2.88	2.31	1.95	TMP86FH47UG
60K	2K	48	2.7 ~ 5.5	64-LQFP	TMP86FS23UGJZ-ND◆	4.78	3.83	2.98	TMP86FS23UG(JZ)
60K	1K	55	2.7 ~ 5.5	80-LQFP	TMP86FS27FG-ND◆	9.48	7.59	6.40	TMP86FS27FG
60K	2K	62	2.7 ~ 5.5	80-LQFP	TMP86FS28DFGJZ-ND◆	5.06	4.05	3.42	TMP86FS28DFG(JZ)
60K	2K	62	2.7 ~ 5.5	80-QFP	TMP86FS28FGTZ-ND◆	5.06	4.05	3.42	TMP86FS28FG(TZ)
60K	2KB	56	2.7 ~ 5.5	60-QFP	TMP86FS49AFGZ-ND◆	5.20	4.16	3.51	TMP86FS49AFG (Z)
60K	2KB	56	2.7 ~ 5.5	60-LQFP	TMP86FS49AUGJZ-ND◆	5.20	4.16	3.51	TMP86FS49AUG (JZ)
60K	2KB	91	2.7 ~ 5.5	100-QFP	TMP86FS64FGTZ-ND◆	5.54	4.44	3.45	TMP86FS64FG(TZ)
16K	512	32	1.8 ~ 5.5	44-LQFP	TMP86PH22UGJZ-ND◆	4.39	3.51	2.73	TMP86PH22UG(JZ)
128K	4KB	61	2.4 ~ 3.6	100-LQFP	TMP91FW40FGJZ-ND◆	7.46	5.97	5.04	TMP91FW40FG(JZ)
256K	16KB	81	2.4 ~ 3.6	100-LQFP	TMP91FY42FGJZ-ND◆	10.21	9.20	8.16	TMP91FY42FG(JZ)
128K	8KB	81	2.4 ~ 3.6	100-QFP	TMP91FW60DFGTZ-ND◆	7.46	5.97	5.04	TMP91FW60DFG(TZ)
128K	8KB	83	2.4 ~ 3.6	100-LQFP	TMP91FW60FGBJZ-ND◆	7.46	5.97	5.04	TMP91FW60FG(B,JZ)
8K	288KB	136	2.4 ~ 3.6	228-FBGA	TMP92CZ26AXBG-ND◆	10.00	9.00	7.98	TMP92CZ26AXBG
86FH47 Starter Kit					BMSKTOPASFM47AND-ND	98.95	—	—	BMSKTOPASFM47(AND)
86FM29 Starter Kit					BMSKTOPASFMA-ND	98.95	—	—	BMSKTOPASFM29(AND)
86FM29 Starter Kit					BMSKTOPASFM48AND-ND	98.95	—	—	BMSKTOPASFM48(AND)
TMP86FS49 Evaluation Kit					BMSKTOPAS86FS49A-ND◆	98.95	—	—	BMSKTOPAS86FS49 (A)
TMP91FY42FG Evaluation Kit					BMSKTOPAS91FY42A-ND	103.50	—	—	BMSKTOPAS91FY42(A)

◆ ***RoHS Compliant***

All Prices are in US Dollars! Toll-Free: 10800-1527031 (China Telecom - 中国电讯) — 10800-8527031 (CNCG - 中国网通)