C-MAX®
RF Technology Specialist

Universal Time Code (UTC) Receivers and Demo Boards

CME8000-BUS: The CME8000 is a BiCMOS integrated straight through receiver with very high sensitivity and a pre-decoding of the time signal transmitted from WWVB, DCF77, JJY40, JJY60, MSF and HBG. The receiver is prepared for multi-frequency and country reception by using an integrated logic. It is connected to an on-board micro-controller in the CME-BUS which is programmed with a pre-defined serial interface protocol. The module can then act as a tap into a inter-processor serial communications bus, and is able to communicate between two or more boards, micro controllers or other devices distributed among one or more platforms. From this module, any host can always obtain absolute proofed time information.

Features: • Automatic reception of long wave time signals world wide • Manual or automatic selection of radio control signal possible • Forced reception mode • Real time clock • Real signal quality indicator during reception • 24-hour system • Host-controllable reception settings (including time and duration of reception) • Low power consumption (< 2mA during reception active mode) • Very high long wave reception sensitivity (0.4µV) • Built in decoding for different signals • Automatic switch between dual band signals • User settable reception mode by host software control command • Wide operating range: 2.7 ~ 5.0V

CME8000-DB: General Description: • Local time in hours/minutes/seconds plus Time Zone Indicator • Alarm • Date Alert • Time zone display in three different ways • Stop watch functions in three different ways • Low battery indicator • Backlight

CME8000/CME6005: It is the world's first mixed signal Bi-CMOS integrated straight through receiver with very high sensitivity and a pre-decoding of the time signal transmitted from WWVB, DCF, JJY, MSF and HBG. The receiver is prepared for multi-country reception by incorporating integrated logic, integrated functions such as stand-by mode, integrated antenna switching (CME8000), integrated crystal switching (CME8000) and hold mode function features for universal RC applications. The power down mode increases the battery lifetime significantly to make this device suitable for all kinds of radio-controlled time pieces.

CME8000-EK: Evaluation kit includes: • TSG200 • CME8000-BUS module • 5 pieces of CME8000 samples • 6 pieces of crystal samples (two each: 40kHz, 60kHz, 77.5kHz) • 3 pieces of antenna samples (one each: 40kHz, 60kHz, 77.5kHz)

CMMR-6: The ferrite antenna and the receiver module with CME6005 form a complete receiver unit for single and dual band time signal reception. **Signal Out:** Analog **Features:** • Small size
• Ready-to-use receiver module for design and development work

Fig. 1

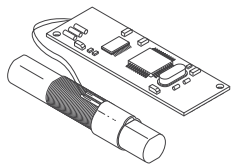

Fig. 2

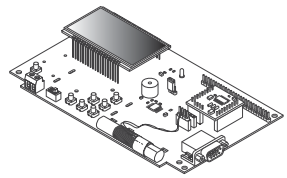

Fig.	Package	Digi-Key Part No.	Price Each	C-Max Part No.
1	—	561-1005-ND	29.93	CME8000-BUS-LP-01
2	—	561-1006-ND	200.00	CME8000-DB
	28-SSOP	561-1008-1-ND†◊	3.99	CME8000-TLPH
—	28-SSOP	561-1008-2-ND†§	1729.00/1,000	CME8000-TLPH
	28-SSOP	561-1007-5-ND†	3.86	CME8000-TLSH
—	—	561-1012-ND†	1275.00	CME8000-EK
—	16-SSOP	561-1013-1-ND†◊	2.61	CME6005-TCQH
—	16-SSOP	561-1013-2-ND†§	4524.00/4,000	CME6005-TCQH
—	—	561-1014-ND†	9.45	CMMR-6D-60

† ***RoHS Compliant*** ◊ Cut Tape § Tape and Reel

CYPRESS PERFORM

WirelessUSB™

The **CYWUSB6932/CYWUSB6934** Integrated Circuits (ICs) are highly integrated 2.4-GHz Direct Sequence Spread Spectrum (DSSS) Radio System-on-Chip (SoC) ICs. From the Serial Peripheral Interface (SPI) to the antenna, these ICs are single-chip 2.4GHz DSSS Gaussian Frequency Shift Keying (GFSK) baseband modems that connect directly to a USB controller or a standard microcontroller.

The **CYWUSB6935** transceiver is a single-chip 2.4GHz Direct Sequence Spread Spectrum (DSSS) Gaussian Frequency Shift Keying (GFSK) baseband modem radio that connects directly to a microcontroller.

Function	Range (meters)	Through-put (Kbps)	Package	Temperature Range	Digi-Key Part No.	Price Each 1	25	100	Cypress Part No.
Transmitter	10	62.5	28-SOIC	0°C ~ 70°C	428-1579-5-ND	7.63	4.70	3.82	CYWUSB6932-28SEC
Transceiver	10	62.5	28-SOIC	0°C ~ 70°C	428-1580-5-ND	10.10	6.80	5.49	CYWUSB6934-28SEC
Transceiver	10	62.5	48-QFN	0°C ~ 70°C	428-1624-ND†	8.40	5.40	4.38	CYWUSB6934-48LFXC
Transceiver	50	62.5	48-QFN	0°C ~ 70°C	428-1625-ND†	10.98	6.80	5.49	CYWUSB6935-48LFXC
Transceiver	50	62.5	48-QFN	-40°C ~ 85°C	428-1626-ND†	12.63	7.80	6.32	CYWUSB6935-48LFXI

† ***RoHS Compliant***

Development Kits for WirelessUSB™

CY4632 – WirelessUSB Keyboard to Mouse

The CY4632 provides all the necessary documentation, firmware source code, and hardware files to quickly "cut the cord" for PC human interface device (HID) applications including optical mice, keyboards, presenter tools, and PC remotes.

Key Features:

• 2.4-GHz unlicensed ISM band for worldwide deployment • Over 10-meter wireless operation • 62.5 Kbps bidirectional wireless connectivity • Over 4 months battery life under normal usage models • Interference avoidance technology for robust operation in close proximity of 2.4-GHz wireless technologies like Wi-Fi® and Bluetooth® • USB plug'n play no new software drivers required

Kit Includes:

• CYWUSB6934 WirelessUSB LS transceiver • ADNS-2030 optical sensor mouse CYWUSB6934 WirelessUSB LS 101 multimedia keyboard • Small form factor CYWUSB6934 transceiver plus CY7C63723 enCoRe™ bridge • Batteries • CD with Design Notes and Hardware files: Schematics, Gerber Files, and Bill of Materials

428-1649-ND Reference Design Kit **$228.20**

NEW! CYWM6934/CYWM6935 – WirelessUSB Radio Modules

The CYWM6934/CYWM6935 WirelessUSB Radio Modules offer a complete radio module solution for integration into existing or new 2.4-GHz products. These modules are tested for functional operation and are FCC/ETSI(EU)/Industry pre-certified. Modules are supplied with integrated PCB trace antennas. Available in small PCB design which allows the modules to be mounted horizontally to the device PCB via a 12-pin header.

Applications (CYWM6934): • Keyboards • Game Controllers • Console Keyboards • Presenter Tools • Remote Controls

Applications (CYWM6935): • Presenter Tools • Remote Controls • Automatic Meter Reading (AMR) • Lighting Control • Factory Automation • Alarm and Security

CYWM6934 Features:
• Range of up to 10 meters • Data Throughput up to 65 kbits/sec • Operating Voltage: 2.7 ~ 3.6V • Small PCB Design: .975" (24.38mm) x .65" (16.25mm) x .212" (5.3mm) (L x W x H) • FCC Approved

CYWM6935 Features:
• Range of up to 50 meters • Data Throughput up to 65 kbits/sec • Operating Voltage: 2.7 ~ 3.6V • Small PCB Design: .95" (23.75mm) x .95" (23.75mm) x .212" (5.3mm) (L x W x H) • FCC Approved

428-1945-ND CYWM6934 LS™ Module **$10.33**
428-1946-ND CYWM6935 LR™ Module **$9.75**

PRoC (Programmable Radio on Chip)

Memory Size	RAM (Bytes)	I²C	Range (maximum)	Throughput (maximum)	Package	Digi-Key Part No.	Price Each 1	25	100	Cypress Part No.
8Kb	512	Yes	50 meters	62.5Kbps	48-QFN	428-1771-ND	8.76	5.65	4.57	CYWUSB6953-48LFXC

Development Kit for PRoC

CY3653

The PRoC™ (Programmable-Radio-on-a-Chip™) Development Kit (CY3653) includes flexible development boards, PRoC modules, LCD modules, schematics, bills-of-materials, source code, and documentation for designers looking for a seamless transition from wired to wireless solutions.

Customers can use the kit to achieve faster time to market for single-chip applications like small form-factor wireless keyboards and mice, presenter tools, wireless thermostats including LCD displays, precision remote controls for RC toys and more. PRoC combines Cypress's WirelessUSB™ 2.4-GHz radio-on-a-chip and PSoC® Programmable System-on-Chip™ mixed signal array in an integrated product. It integrates Cypress's Direct Sequence Spread Spectrum (DSSS) interference immunity technology with the power and flexibility of the PSoC architecture, offering a complete wireless solution in a single chip.

Kit Includes: PSoC Evaluation Board, PRoC Modules for a fast plug-and-play solution, PRoC Programmer, LCD Module and a CD-ROM with kit documentation, hardware schematics, tutorial and firmware for application development.

428-1772-ND Development Kit for PRoC **$426.00**