

# CYPRESS CONTROLLERS, PHYs AND CPLDs



RoHS Compliant This product is RoHS compliant.

Cypress

## USB MICROCONTROLLERS (CONT.)

Cypress offers the industry's broadest line of USB microcontrollers, as well as a full set of development tools, supporting cost-driven applications such as keyboards and mice, as well as high-performance applications like printers, scanners, xDSL modems, and digital cameras. Cypress has a wide range of solutions for Low-Speed USB applications, Full-Speed USB applications and USB Hub applications.

• Temperature range: commercial (0°F ~ 70°F)

MOUSER STOCK NO.	Cypress Part No.	Package	Voltage (V)	USB App. Speed	I/O	Osc. Speed	RAM (bytes)	PROM Memory	For quantities greater than listed, call for quote.			
									Price Each			
									1	25	50	
<b>EZ-USB FX2LP™ High-Speed USB Peripheral Controllers (Cont.)</b>												
727-CYC68013A-128AXI	CY7C68013A-128AXI	TQFP-100	3.3	12/480Mbps	40	48MHz	16K	-	22.12	20.65	19.91	
727-CY7C68014A-56LTXC	CY7C68014A-56LTXC	QFN-56	3.3	12/480Mbps	26	24MHz Xtal	16K	-	15.00	12.50	11.20	
727-CY768014A-56PVXC	CY7C68014A-56PVXC	SSOP-56	3.3	12/480Mbps	24	24MHz Xtal	16K	-	16.58	9.95	9.61	
727-CY768014A-128AXC	CY7C68014A-128AXC	TQFP-128	3.3	12/480Mbps	40	24MHz Xtal	16K	-	18.70	16.10	15.30	
727-CY7C68015A-56LTXC	CY7C68015A-56LTXC	QFN-56	3.3	12/480Mbps	26	24MHz Xtal	16K	-	12.64	9.80	8.96	
727-CY7C68016A-56LTXC	CY7C68016A-56LTXC	QFN-56	3.3	12/480Mbps	26	24MHz Xtal	16K	-	14.54	11.27	10.33	
<b>EZ-USB HX2LP™ Low Power USB 2.0 Hub Controller</b>												
727-CY7C65620-56LTXC	CY7C65620-56LTXC	QFN-56	3.3	12/480Mbps	8	24MHz Xtal	-	-	9.88	8.53	8.30	
727-CY7C65630-56LFXA	CY7C65630-56LFXA	QFN-56	3.3	12/480Mbps	8	24MHz Xtal	-	-	13.97	13.23	12.13	
727-CY7C65630-56LTXC	CY7C65630-56LTXC	QFN-56	3.3	12/480Mbps	8	24MHz Xtal	-	-	12.87	11.11	10.82	
<b>EZ-OTG™ Programmable USB On-The-Go Controller</b>												
727-CYC6720048BAXI	CY7C6720048BAXI	FBGA-48	3.3	9.6-2Mbps	23	12MHz Xtal	-	-	14.85	12.82	12.48	
<b>EZ-USB SX2™ High Speed USB Interface</b>												
727-CY7C68001-56PVXC	CY7C68001-56PVXC	SSOP-56	3.3	12/480Mbps	-	24MHz	-	-	11.86	10.24	9.97	
<b>Full Speed USB Hub Controller</b>												
727-CY7C65113C-SXC	CY7C65113C-SXC	SOIC-28	5.0	12Mbps	11	6MHz Resonator	-	8K	6.27	5.04	4.81	
<b>TetraHub™ USB Hub Controller</b>												
727-CY7C65640A-LTXC	CY7C65640A-LTXC	QFN-56	3.3	-	8	24MHz Xtal	-	-	17.49	15.10	14.70	
727-CY7C65632-48AXC	CY7C65632-48AXC	TQFP48	3.3	-	-	12MHz	64	2K	3.12	-	-	
727-CY7C65634-48AXC	CY7C65634-48AXC	TQFP48	3.3	-	-	12MHz	64	2K	2.62	-	-	
727-CY7C65632-28LTXC	CY7C65632-28LTXC	QFN28	3.3	-	-	12MHz	64	2K	2.99	-	-	
727-CY7C65634-28LTXC	CY7C65634-28LTXC	QFN28	3.3	-	-	12MHz	64	2K	2.49	-	-	
727-CY7C65642-28LTXC	CY7C65642-28LTXC	QFN28	3.3	-	-	12MHz	64	2K	2.70	2.09	-	
727-CY7C65642-48AXC	CY7C65642-48AXC	TQFP48	3.3	-	-	12MHz	64	2K	2.80	-	-	
727-CY7C6563228LTXCT	CY7C65632-28LTXCT	QFN28	3.3	-	-	12MHz	64	2K	2.74	-	-	
727-CY7C65632-48AXCT	CY7C65632-48AXCT	TQFP48	3.3	-	-	12MHz	64	2K	2.85	-	-	
727-CY7C6563428LTXCT	CY7C65634-28LTXCT	QFN28	3.3	-	-	12MHz	64	2K	2.30	1.99	-	
727-CY7C65634-48AXCT	CY7C65634-48AXCT	TQFP48	3.3	-	-	12MHz	64	2K	2.41	2.09	-	
727-CY7C65642-48AXCT	CY7C65642-48AXCT	TQFP48	3.3	-	-	12MHz	64	2K	3.18	-	-	
<b>USB M8 Series Low-Speed USB Controllers</b>												
727-CY7C63413C-PVXC	CY7C63413C-PVXC	SSOP-48	5.0	1Mbps	32	6MHz Resonator	256	8K	5.04	4.05	3.87	

## CAPSENSE CONTROLLERS

CapSense is available in three families. CapSense Express solutions (CY8C201xx) support simple button/slider designs with up to 10 capacitive buttons and 1 slider. CapSense PLUS family (CY8C20x34) are a fully-programmable platform supporting up to 25 capacitive buttons and 5 sliders. In addition, 2-dimensional trackpad solutions are also supported. The CapSensePLUS family is the most full-featured family in the CapSense portfolio. It can support up to 44 capacitive buttons and 8 sliders. CapSensePLUS also provides support for advanced functionalities such as proximity detection, 2-dimensional trackpads and analog/digital design integration. The newest 8C20xx6 family adds 1.8V and best in class current consumption with up to 33 CS buttons.

### CapSense™ Express

MOUSER STOCK NO.	Cypress Part No.	Package	Supply Voltage	GPIO	Capacitive I/O	Buttons	PWMs	Slider	Slider Segments	Proximity Sensor	Communication Interface	For quantities greater than listed, call for quote.		
												Price Each		
												1	25	50
727-CY8C201140-LDX2I	CY8C201140-LDX2I	QFN-16	2.4-5.25	4	4	4	No	No	N/A	No	I2C	1.42	1.10	.984
727-CY8C20140-SX2I	CY8C20140-SX2I	SOIC-16	2.4-5.25	4	4	4	No	No	N/A	No	I2C	1.44	1.11	.994
727-CY8C20160-LDX2I	CY8C20160-LDX2I	QFN-16	2.4-5.25	6	6	6	No	No	N/A	No	I2C	1.50	1.16	1.03
727-CY8C20180-SX2I	CY8C20180-SX2I	SOIC-16	2.4-5.25	8	8	8	No	No	N/A	No	I2C	1.60	1.24	1.10
727-CY8C20110-LDX2I	CY8C20110-LDX2I	QFN-16	2.4-5.50	10	10	10	Yes	No	N/A	No	I2C	1.66	1.28	1.15
727-CY8C20110-SX2I	CY8C20110-SX2I	SOIC-16	2.4-5.50	10	10	10	Yes	No	N/A	No	I2C	1.70	1.34	1.17

### CapSense™

MOUSER STOCK NO.	Cypress Part No.	Package	Supply Voltage	GPIO	Capacitive I/O	Buttons	PWMs	Slider	Slider Segments	Proximity Sensor	Flash (Bytes)	RAM (Bytes)	For quantities greater than listed, call for quote.		
													Price Each		
													1	25	50
727-CY8C20234-12LXKI	CY8C20234-12LXKI	QFN-16	2.4-5.25	13	10	10	SW	2	Yes	No	16K	1K	2.92	1.78	1.66
727-CY8C20236A-24LXKI	CY8C20236A-24LXKI	QFN-16	1.71-5.5	13	10	10	SW	2	Yes	Yes	8K	1K	2.40	1.85	1.66
727-CY8C20336A-24LQXI	CY8C20336A-24LQXI	QFN-24	1.71-5.5	20	17	17	SW	3	Yes	Yes	8K	1K	2.76	2.14	1.92
727-CY8C20436A-24LQXI	CY8C20436A-24LQXI	QFN-24	1.71-5.5	28	25	25	SW	5	Yes	Yes	8K	1K	2.86	2.22	1.99
727-CY8C20534-12PVXI	CY8C20534-12PVXI	SSOP-28	2.4-5.25	24	21	21	SW	4	Yes	No	8K	512	3.08	2.66	2.46
727-CY8C20536A-24PVXI	CY8C20536A-24PVXI	SSOP-48	1.71-5.5	34	31	31	SW	6	Yes	Yes	8K	1K	2.84	2.20	1.97

### CapSense™ Controller Kit

CapSense™ Controller Kit	Description	Price Each
727-CY3280-BK1	CY3280-BK1 Kit designed for easy prototyping and debug of CapSense™ designs (for CY8C20x34 and CY8C21x34 devices)	95.19

### CapSense Plus™

MOUSER STOCK NO.	Cypress Part No.	Package	Supply Voltage	GPIO	Capacitive I/O	Buttons	PWMs	Slider	Slider Segments	Proximity Sensor	Flash (Bytes)	RAM (Bytes)	For quantities greater than listed, call for quote.		
													Price Each		
													1	25	50
727-CY8C20246A-24LXKI	CY8C20246A-24LXKI	QFN-16	1.71-5.5	13	10	10	SW	2	Yes	Yes	16K	2K	2.94	2.28	2.04
727-CY8C20346A-24LQXI	CY8C20346A-24LQXI	QFN-24	1.71-5.5	20	17	17	SW	3	Yes	Yes	16K	2K	3.38	2.62	2.35
727-CY8C20446A-24LQXI	CY8C20446A-24LQXI	QFN-24	1.71-5.5	28	25	25	SW	5	Yes	Yes	16K	2K	3.60	2.79	2.50
727-CY8C20466A-24LQXI	CY8C20466A-24LQXI	QFN-24	1.71-5.5	28	25	25	SW	5	Yes	Yes	32K	2K	5.50	4.26	3.82
727-CY8C20546A-24PVXI	CY8C20546A-24PVXI	SSOP-48	1.71-5.5	34	31	31	SW	6	Yes	Yes	16K	2K	3.88	3.01	2.70
727-CY8C20566A-24PVXI	CY8C20566A-24PVXI	SSOP-48	1.71-5.5	34	31	31	SW	6	Yes	Yes	32K	2K	4.16	3.22	2.89

### CapSense Plus™ Controller Kit

CapSense Plus™ Controller Kit	Description	Price Each
727-CY3280-20X66	CY3280-20X66 Kit designed for easy prototyping and debug of CapSense™ designs (CY8C20xx6A devices)	244.23

## TRUETOUCH™ TOUCHSCREEN SOLUTIONS

Cypress, the leader in capacitive touch sensing solutions, is revolutionizing the touchscreen market. Cypress' TrueTouch™ Touchscreen Solutions, powered by PSoC® Programmable-System-on-Chip technology, offer unmatched flexibility and the broadest portfolio available. The projected capacitive TrueTouch Solutions give designers a choice between different usage models, different touchscreen vendors and different LCD vendors. They also enable designers to accommodate last minute changes - something no other touchscreen product can deliver.

MOUSER STOCK NO.	Cypress Part No.	Package	Max. Sensor Inputs	Max Sensor Size (in.)	Avg. Scan Speed per Sensor (ms)	Min. Volt (V)	Flash (Bytes)	Ram (Bytes)	For quantities greater than listed, call for quote.		
									Price Each		
									1	25	50
<b>Single Touch</b>											
727-CY8CTST11032LTXI	CY8CTST110-32LTXI	QFN-32	24	3.3	0.5	2.7	8K	512	3.67	3.30	2.97

## HOTLINK® AND HOTLINKII™

Cypress provides a broad and portfolio of backplane physical layer (PHY) devices. These transceiver families cover data transmission rates of 50Mbps up to 1.5Gbps. These flexible devices are ideal for proprietary serial backplane applications.

MOUSER STOCK NO.	Cypress Part No.	Package	Speed (Mbps)		8B/10B ENDEC	Function	No. of Channels	Operating Voltage (V)		For quantities greater than listed, call for quote.		
			Min.	Max.				Min	Max.	1	25	50
<b>HOTLINK®</b>												
727-CY7C9689A-AXC	CY7C9689A-AXC	TQFP-100	50	200	No	Transceiver	N/A	4.5	5.5	69.23	67.97	66.08
727-CY7B923-JXC	CY7B923-JXC	PLCC-28	150	400	Yes	Transmitter	N/A	4.5	5.5	67.44	50.58	48.90
727-CY7B923-JXI	CY7B923-JXI	SOIC-28	150	400	Yes	Transmitter	N/A	4.5	5.5	64.80	63.18	61.08
727-CY7B933-JXC	CY7B933-JXC	PLCC-28	150	400	Yes	Receiver	N/A	4.5	5.5	65.58	59.02	58.31
727-CY7B933-JXI	CY7B933-JXI	SOIC-28	150	400	Yes	Receiver	N/A	4.5	5.5	64.80	63.18	61.08
<b>HOTLINKII™</b>												
727-CY15G0101DXBBBXC	CYP15G0101DXB-BBXC	BGA-100	195	1540	Yes	Transceiver	1	3.15	3.45	36.00	32.23	30.60
727-CY15G0101DXBBBXC	CYP15G0101DXB-BBXC	BGA-100	195	1500	Yes	Transceiver	1	3	3.6	54.00	45.36	39.15
727-CY15G0401DXBBGXC	CYP15G0401DXB-BGXC	BGA-256	200	1500	Yes	Transceiver	4	3.15	3.45	97.20	79.20	79.11
727-CY15G0104TRB-BGXC	CYV15G0104TRB-BGXC	BGA-256	195	1500	No	Serializer/Deserializer	1	3.15	3.45	42.60	41.49	40.10