

# FREESCALE Microcontrollers and Microprocessors



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## COLDFIRE® MCF5225X EXPANDED CONNECTIVITY MCUS

The MCF5225x family consists of highly integrated devices with on-chip USB, Ethernet, CAN and encryption functions, featuring the complete Freescale MQX RTOS software at no additional cost. This solution is ideal for factory automation, building control, and medical applications.

For quantities 250 and up, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Internal RAM (Byte)	Internal FLASH (Byte)	Serial Interface Type	MIPS	Bus Freq. (MHz) (Max)	ADC	I/O Pins	Timer Ch.	Price Each			
											1	25	50	100
841-MCF52252AF80	MCF52252AF80	LQFP 100	32	256	QSPI, UART, I2C, USB, Ethernet	76	80	12-bit / 8-ch	56	2,4	8.74	7.77	7.20	6.00
841-MCF52254AF80	MCF52254AF80	LQFP 100	64	512	QSPI, UART, I2C, USB, Ethernet	76	80	12-bit / 8-ch	56	2,4	10.05	8.93	8.27	6.89
841-MCF52252CAF66	MCF52252CAF66	LQFP 100	32	256	QSPI, UART, I2C, USB, Ethernet, CAN	63	66	12-bit / 8-ch	56	2,4	9.27	8.24	7.63	6.36
841-MCF52254CAF66	MCF52254CAF66	LQFP 100	64	512	QSPI, UART, I2C, USB, Ethernet, CAN	63	66	12-bit / 8-ch	56	2,4	10.59	9.41	8.72	7.26
841-MCF52255CAF80	MCF52255CAF80	LQFP 100	64	512	QSPI, UART, I2C, USB, Ethernet, CAN	76	80	12-bit / 8-ch	56	2,4	11.66	10.36	9.60	8.00
841-MCF52256AG80	MCF52256AG80	LQFP 144	32	256	QSPI, UART, I2C, USB, Ethernet	76	80	12-bit / 8-ch	96	2,4	9.45	7.90	7.88	7.09
841-MCF52258AG80	MCF52258AG80	LQFP 144	64	512	QSPI, UART, I2C, USB, Ethernet	76	80	12-bit / 8-ch	96	2,4	11.02	9.79	9.07	7.56
841-MCF52256CAG66	MCF52256CAG66	LQFP 144	64	256	QSPI, UART, I2C, USB, Ethernet, CAN	63	66	12-bit / 8-ch	96	2,4	10.14	9.01	8.35	6.96
841-MCF52259CAG80	MCF52259CAG80	LQFP 144	64	512	QSPI, UART, I2C, USB, Ethernet, CAN	76	80	12-bit / 8-ch	96	2,4	12.61	11.21	10.38	8.65
841-MCF52258CAG66	MCF52258CAG66	LQFP 144	64	512	QSPI, UART, I2C, USB, Ethernet, CAN	63	66	12-bit / 8-ch	96	2,4	11.54	10.26	9.50	7.92

## COLDFIRE® 32-BIT MICROCONTROLLERS

The ColdFire® product portfolio offers a wide mix of performance, price, integration and debugging capabilities for embedded designers. Its integration possibilities are limited only by imagination, and its 20-year history of 68K legacy is something no other competitor can offer. With these features to work with, the ColdFire® architecture is in a leadership position in the 32-bit embedded space.

For quantities 250 and up, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Internal RAM (Byte)	Internal FLASH (Byte)	Cache (kBytes)	Serial Interface Type	Bus Freq. (MHz) (Max)	ADC	I/O Pins	Timer Channels	Price Each		
											1	25	100
841-MCF5206EAB40	MCF5206EAB40	QFP 160	-	8000	4	UART	40	-----	8	-	21.93	20.64	14.34
841-MCF5206EAB54	MCF5206EAB54	QFP 160	-	8000	4	UART	54	-----	8	-	21.58	19.17	14.80
841-MCF5206ECAB40	MCF5206ECAB40	QFP 160	-	8000	4	UART	40	-----	8	-	21.58	19.17	14.80
841-MCF5211CAE66	MCF5211CAE66	LQFP 64	-	16000	-	-----	80	12-bit / 8-ch	56	-	13.71	12.18	8.02
841-MCF5211CEP66	MCF5211CEP66	QFN 64	-	-	-	-----	66	12-bit / 8-ch	-	-	12.36	10.98	8.48
841-MCF5212CAE66	MCF5212CAE66	LQFP 64	256k	32000	-	-----	665	12-bit / 8-ch	33	-	16.75	15.76	10.38
841-MCF5213CAF66	MCF5213CAF66	LQFP 100	256k	32000	-	-----	805	12-bit / 8-ch	56	-	15.55	13.82	10.66
841-MCF5213CAF80	MCF5213CAF80	LQFP 100	256k	32000	-	-----	805	12-bit / 8-ch	56	-	16.39	14.56	11.24
841-MCF5232CAB80	MCF5232CAB80	QFP 160	-	64000	16	-----	405	-----	61	-	27.39	25.78	17.91
841-MCF5249LAG120	MCF5249LAG120	LQFP 144	-	96000	8	UART, I2C, QSPI	120	10-bit / 8-ch	34	-	24.90	23.43	16.29
841-MCF5249LCAG120	MCF5249LCAG120	LQFP 144	-	96000	8	UART, I2C, QSPI	1205	-----	34	-	20.55	18.84	17.16
841-MCF5270AB100	MCF5270AB100	QFP 160	-	64000	16	-----	50	-----	39	-	15.94	14.16	10.93
841-MCF5271CAB100	MCF5271CAB100	QFP 160	-	64000	16	-----	505	-----	39	-	20.18	17.93	13.84
841-MCF5307AI66B	MCF5307AI66B	FQFP 208	-	4000	16	UART, I2C	66	-----	16	2	35.05	32.98	21.48
841-MCF5307AI90B	MCF5307AI90B	FQFP 208	-	4000	16	UART, I2C	90	-----	16	2	46.14	43.43	28.29
841-MCF5307CAI66B	MCF5307CAI66B	FQFP 208	-	4000	16	UART, I2C	66	-----	16	2	43.08	40.54	26.40
841-MCF5407AI162	MCF5407AI162	FQFP 208	-	4000	24	UART, I2C	162	-----	16	2	49.52	44.00	33.96
841-MCF5407AI220	MCF5407AI220	FQFP 208	-	4000	24	UART, I2C	220	-----	16	2	75.51	71.05	46.27
841-MCF5407CAI162	MCF5407CAI162	FQFP 208	-	4000	24	UART, I2C	162	-----	16	2	59.98	53.29	41.13
841-MCF5407CAI220	MCF5407CAI220	FQFP 208	-	4000	24	UART, I2C	220	-----	16	2	85.38	80.36	52.32
841-MCF5471VR200	MCF5471VR200	PBGA 388	-	32000	64	UART	200	-----	99	-	54.82	51.60	33.60
841-MCF5472VR200	MCF5472VR200	PBGA 388	-	32000	64	UART	200	-----	99	-	37.00	32.87	25.37
841-MCF5474VR200	MCF5474VR200	PBGA 388	-	32000	64	UART	200	-----	99	-	52.22	49.14	32.01
841-MCF5474VR266	MCF5474VR266	PBGA 388	-	32000	64	UART	200	-----	99	-	54.82	47.78	44.80
841-MCF5475VR266	MCF5475VR266	PBGA 388	-	32000	64	UART	266	-----	99	-	50.10	44.52	34.36
841-MCF5480CVR166	MCF5480CVR166	PBGA 388	-	32000	64	-----	166	-----	99	-	54.80	51.59	33.59
841-MCF5482CVR166	MCF5482CVR166	PBGA 388	-	32000	64	-----	166	-----	99	-	55.23	47.76	44.78
841-MCF5484CVR200	MCF5484CVR200	PBGA 388	-	32000	64	-----	200	-----	99	-	64.52	60.73	39.54
841-MCF5485CVR200	MCF5485CVR200	PBGA 388	-	32000	64	-----	200	-----	99	-	57.78	51.34	39.62

## MPC5125 - LOW POWER, HIGH PERFORMANCE MICROPROCESSOR

### Features:

- Robust high-performance Power Architecture™ display solution at a low-cost/power-efficient point with full OS and middleware support
- Dual 10/100BT Ethernet for bridging solutions
- Display interface supporting WXGA / 720p, 24-bit color
- Rich set of connectivity:
  - 10x Flexible PSC (SPI, UART, AC'97, I2S, Multi-Ch TDM)
  - 4x CAN2.0 AB, data rates in excess of 1Mbps
  - 2x High Speed USB 2.0 Host/Device/On-The-Go
  - 2x SDHC (MMC, SD, SDIO expansion)
- Cost-effective/low-power memory systems support

- Bootable NAND flash interface:
  - ECC corrects up to 32 errors (beyond MLC support)
  - Pipelined multi-access/correction/DMA operation
- Robust booting with X4 redundant boot image scheme
- DRAM interface (high-bandwidth, low-latency):
  - 32/16-bit DDR2 and 32-bit SDR support (low-cost)
  - 32/16-bit MobileDDR support (low-power)
- Low-Power:
  - Total system power is typically <1W @400MHz
  - Hibernation power down mode <25uW
  - 800 DMIPS @ 400 MHz

### Applications:

- Networking
- Control & Measurement
- POS/Digital Advertising
- Home Building Controls
- Home Networking
- Medical

For quantities 250 and up, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Internal RAM (Byte)	Serial Interface Type	Bus Freq. (MHz) (Max)	I/O Pins	Price Each			
							1	25	50	100
841-MPC5125YVNA400	MPC5125YVNA400	PBGA-324	32K	SPI, UART, I2C, USB	400	64	32.52	30.62	25.25	24.31

## POWERQUICC COMMUNICATIONS PROCESSORS - MPC8377E

The MPC8377E provides a high performance Power Architecture™ e300 core up to 800MHz with 32K I/D L1 cache, and integrated x2 SATA and x2 PCI Express controllers that help to reduce overall BOM cost. The System on a Chip (SoC) also includes two Gigabit Ethernet controllers for network connectivity and a security engine for encryption algorithm offload.

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Core Type	Core Operating Freq. Max.	Cache (bytes)	External Memory Supported	Ethernet	USB	Bus Frequency max. (MHz)	Price Each		
										1	25	50
841-MPC8377EVRJF	MPC8377EVRJF	PBGA-PGE 689	e300	533	32K	DDR1,DDR2,EPROM,FLASH	10/100/1000 BaseT	2.0	133	92.70	87.24	63.23
841-MPC8377EVRALG	MPC8377EVRALG	PBGA-PGE 689	e300	667	32K	DDR1,DDR2,EPROM,FLASH	10/100/1000 BaseT	2.0	133	105.20	94.04	91.36
841-MPC8377EVRJF	MPC8377EVRJF	PBGA-PGE 689	e300	533	32K	DDR1,DDR2,EPROM,FLASH	10/100/1000 BaseT	-	133	92.70	87.24	63.23
841-MPC8379EVRAGD	MPC8379EVRAGD	PBGA-PGE 689	e300	400	32K	DDR1,DDR2,EPROM,FLASH	10/100/1000 BaseT	-	133	101.12	95.18	71.64
841-MPC8379EVRANG	MPC8379EVRANG	PBGA-PGE 689	e300	800	32K	DDR1,DDR2,EPROM,FLASH	10/100/1000 BaseT	-	133	118.47	105.26	97.48