

FREESCALE Digital Signal Processors and Controllers



Products may be RoHS compliant.
Check mouser.com for RoHS status.

QORIQ DIGITAL SIGNAL PROCESSORS & CONTROLLERS

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Core Type	Data Bus Width (bit)	Clock Freq. Max. (GHz)	Program Memory (KB)	Interface	Operating Voltage (V)	Price Each		
									1	25	50
841-P4040NSN1MMB	P4040NSN1MMB	FCPBGA-1295	e500mc	32	1.2	128	Ethernet, I2C, DUART, USB	1 to 3.3	378.32	325.78	312.75

MC56F800x DIGITAL SIGNAL CONTROLLERS

The entry-level MC56F800/2 DSC provides the most cost-optimized solution for mathematically-intensive, power-sensitive real-time control applications. The MC56F800/2 series uses the 56800E core, which is based on a dual Harvard-style architecture consisting of three execution units operating in parallel. This allows as many as six operations per instruction cycle. The MCU-style programming model and optimized instruction set allow straightforward generation of efficient, compact DSP and control code.

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Performance	Internal Flash (Kbytes)	Internal RAM (Kbytes)	Serial Interface Type	I/O Pins	Core Operating Voltage (V)	ADC	Price Each			
										1	25	50	100
841-MC56F8002VWL	MC56F8002VWL	SOIC 28W	32MHz/32MMACS	12	2	LIN,I2C,SCI,SPI	9	1.8	12-bit/36 ch.	3.02	2.85	2.47	1.78
841-MC56F8006VLC	MC56F8006VLC	LQFP 32	32MHz/32MMACS	16	2	LIN,I2C,SCI,SPI	13	1.8	12-bit/36 ch.	3.23	2.33	2.28	1.90
841-MC56F8006VLF	MC56F8006VLF	LQFP 48	32MHz/32MMACS	16	2	LIN,I2C,SCI,SPI	26	1.8	12-bit/36 ch.	3.43	2.47	2.42	2.02
841-MC56F8006VWL	MC56F8006VWL	SOIC 28W	32MHz/32MMACS	16	2	LIN,I2C,SCI,SPI	13	1.8	12-bit/36 ch.	3.14	2.26	2.19	1.85

56F800 SERIES GENERAL PURPOSE 16-BIT FIXED POINT

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Performance	Program Flash / RAM	Off-chip Memory	Serial Interface Type	Core Operating Voltage (V)	A/D Converter	Price Each			
									1	25	50	100
841-DSP56F803BU80E	DSP56F803BU80E	LQFP 100	80MHz/40MIPS	64KB/1KB	Yes	SCI, SPI, CAN	3.3	8-Ch./12-bit	16.72	15.73	14.57	10.09
841-DSP56F805FV80E	DSP56F805FV80E	LQFP 144	80MHz/40MIPS	64KB/1KB	Yes	SCI, SPI, CAN	3.3	8-Ch./12-bit	18.56	17.46	16.17	10.92
841-DSP56F807PY80E	DSP56F807PY80E	LQFP 160	80MHz/40MIPS	120KB/4KB	Yes	SCI, SPI, CAN	3.3	16-Ch./12-bit	22.06	20.77	19.23	12.98

MC56F82X DIGITAL SIGNAL CONTROLLERS

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Performance	Internal Flash (Kbytes)	Internal RAM (Kbytes)	Serial Interface Type	Programmable I/Os	Operating Supply Voltage (V)	A/D Converter	Price Each			
										1	25	50	100
841-MC56F8245VLD	MC56F8245VLD	LQFP-44	60MHz/60MIPS	48	6	I2C/SMBus	35	3.3	12 bit, 4 channel	5.91	5.02	4.63	4.46
841-MC56F8246VLF	MC56F8246VLF	LQFP-48	60MHz/60MIPS	48	6	I2C/SMBus	39	3.3	12 bit, 5 channel	6.01	5.11	4.71	4.54
841-MC56F8247VLH	MC56F8247VLH	LQFP-64	60MHz/60MIPS	48	8	I2C/SMBus	54	3.3	12 bit, 8 channel	7.28	6.19	5.70	5.50
841-MC56F8255VLD	MC56F8255VLD	LQFP-44	60MHz/60MIPS	64	8	I2C/SMBus	35	3.3	12 bit, 4 channel	6.74	5.73	5.28	5.09
841-MC56F8256VLF	MC56F8256VLF	LQFP-48	60MHz/60MIPS	64	8	I2C/SMBus	39	3.3	12 bit, 5 channel	6.86	5.84	5.38	5.18
841-MC56F8257VLH	MC56F8257VLH	LQFP-64	60MHz/60MIPS	64	8	I2C/SMBus	54	3.3	12 bit, 8 channel	7.66	6.51	6.00	5.78

56F8300 SERIES GENERAL PURPOSE 16-BIT FIXED POINT

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Performance	Program Flash / RAM	Off-chip Memory	Serial Interface Type	Core Operating Voltage (V)	A/D Converter	Price Each			
									1	25	50	100
841-MC56F8322MFAE	MC56F8322MFAE	LQFP 48	40MHz/40MIPS	32KB/32 KB	No	SCI,SPI,CAN	3.0-3.6V	6-ch./12-bit	14.05	13.21	12.24	8.26
841-MC56F8322VFAE	MC56F8322VFAE	LQFP 48	40MHz/40MIPS	32KB/32 KB	No	SCI,SPI,CAN	3.0-3.6V	6-ch./12-bit	9.80	8.68	7.43	6.01
841-MC56F8323MFBFE	MC56F8323MFBFE	LQFP 64	60MHz/60MIPS	32KB/32 KB	No	SCI,SPI,CAN	3.0-3.6V	8-ch./12-bit	11.80	10.45	8.95	7.25
841-MC56F8323VFBFE	MC56F8323VFBFE	LQFP 64	60MHz/60MIPS	32KB/32 KB	No	SCI,SPI,CAN	3.0-3.6V	8-ch./12-bit	10.14	8.98	7.68	6.22
841-MC56F8335VFGE	MC56F8335VFGE	LQFP 128	60MHz/60MIPS	64KB/8KB	No	SCI,SPI,CAN	- - -	16-ch./12-bit	14.32	12.68	10.85	8.79
841-MC56F8345MFGFE	MC56F8345MFGFE	LQFP 128	60MHz/60MIPS	128KB/8KB	No	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	19.08	16.90	14.45	11.70
841-MC56F8345VFGE	MC56F8345VFGE	LQFP 128	60MHz/60MIPS	128KB/8KB	No	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	16.02	14.18	12.13	9.83
841-MC56F8346MFE	MC56F8346MFE	LQFP 144	60MHz/60MIPS	128KB/8KB	Yes	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	19.32	17.11	14.64	11.85
841-MC56F8346VFVE	MC56F8346VFVE	LQFP 144	60MHz/60MIPS	128KB/8KB	Yes	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	16.14	14.29	12.23	9.90
841-MC56F8347MPYE	MC56F8347MPYE	LQFP 160	64MHz/64MIPS	128/12	Yes	SCI, SPI, CAN	3.0-3.6V	12-bit/16-ch	20.90	18.54	15.83	12.81
841-MC56F8347VPYE	MC56F8347VPYE	LQFP 160	60MHz/60MIPS	128KB/8KB	Yes	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	17.14	15.18	12.99	10.52
841-MC56F8355MFGFE	MC56F8355MFGFE	LQFP 128	60MHz/60MIPS	256KB/16KB	No	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	24.64	21.82	18.67	15.12
841-MC56F8355VFGE	MC56F8355VFGE	LQFP 128	60MHz/60MIPS	256KB/16KB	No	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	21.20	19.43	15.84	13.00
841-MC56F8356MFE	MC56F8356MFE	LQFP 144	60MHz/60MIPS	256KB/16KB	No	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	24.96	22.10	18.91	15.31
841-MC56F8356VFVE	MC56F8356VFVE	LQFP 144	60MHz/60MIPS	256KB/16KB	No	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	26.11	24.57	19.41	15.35
841-MC56F8357MPYE	MC56F8357MPYE	LQFP 160	60MHz/60MIPS	256/20	Yes	SCI, SPI, CAN	3.0-3.6V	12-bit/16-ch	26.74	24.01	20.25	16.41
841-MC56F8357VPYE	MC56F8357VPYE	LQFP 160	60MHz/60MIPS	256KB/16KB	No	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	28.10	26.44	21.37	21.22
841-MC56F8366VFVE	MC56F8366VFVE	LQFP 144	60MHz/60MIPS	512KB/32KB	Yes	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	25.64	24.31	22.79	20.95
841-MC56F8367VPYE	MC56F8367VPYE	LQFP 160	60MHz/60MIPS	512KB/32KB	Yes	SCI,SPI,CAN	3.0-3.6V	16-ch./12-bit	32.77	30.84	23.10	19.28

56F8000 SERIES GENERAL PURPOSE 16-BIT FIXED POINT

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Performance	Program Flash / RAM	Off-chip Memory	Serial Interface Type	Core Operating Voltage (V)	A/D Converter	Price Each			
									1	25	50	100
841-MC56F8011VFAE	MC56F8011VFAE	LQFP 32	32MHz/32MIPS	12KB/2KB	No	SCI, SPI, I2C	3.0-3.6V	12-bit/6-ch	6.82	5.41	5.25	5.18
841-MC56F8013VFAE	MC56F8013VFAE	LQFP 32	32MHz/32MIPS	16KB/4KB	No	SCI, SPI, I2C	3.0-3.6V	6-ch./12-bit	5.78	5.44	4.42	3.40
841-MC56F8014VFAE	MC56F8014VFAE	LQFP 32	32MHz/32MIPS	16KB/4KB	No	SCI, SPI, I2C	3.0-3.6V	8-Ch./12-bit	5.78	4.16	4.07	3.40
841-MC56F8023VLC	MC56F8023VLC	LQFP 32	32MHz/32MIPS	32KB/4KB	No	SCI, SPI, I2C	3.0-3.6V	6-ch./2-bit	6.08	5.71	4.99	3.57
841-MC56F8025VLD	MC56F8025VLD	LQFP 44	32MHz/32MIPS	32KB/4KB	No	SCI, SPI, I2C	3.0-3.6V	8-Ch./12-bit	6.24	5.87	5.31	4.72
841-MC56F8036VLF	MC56F8036VLF	LQFP 48	32MHz/32MIPS	64KB/8KB	No	SCI, SPI, I2C	3.0-3.6V	10-Ch./12-bit	7.05	6.63	6.14	4.15
841-MC56F8037VLH	MC56F8037VLH	LQFP 64	32MHz/32MIPS	64KB/8KB	No	SCI, SPI, I2C	3.0-3.6V	16-ch./12-bit	7.54	7.10	5.81	4.44

56850 SERIES GENERAL PURPOSE 16-BIT FIXED POINT

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Performance	Program Flash / RAM	Off-chip Memory	Serial Interface Type	Core Operating Voltage (V)	A/D Converter	Price Each			
									1	25	50	100
841-DSP56853FGE	DSP56853FGE	LQFP 128	120MHz/120MIPS	12KB/4 KB	Yes	SCI, SPI	1.8-3.3V	No	11.27	10.18	8.72	7.06
841-DSP56857BUE	DSP56857BUE	LQFP 100	120MHz/120MIPS	40KB/24KB	No	ESSI, SCI, SPI	1.8-3.3V	No	15.07	14.18	13.95	8.87
841-DSP56858FVE	DSP56858FVE	LQFP 144	120MHz/120MIPS	40KB/24KB	Yes	ESSI, SCI, SPI	1.8-3.3V	No	15.88	14.94	12.14	9.34

SYMPHONY™ AUDIO DSP PRODUCTS

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Freescale Part No.	Package	Performance	Program Flash / RAM	Off-chip Memory	Serial Interface Type	Core Operating Voltage (V)	A/D Converter	Price Each			
									1	25	50	100
841-DSPB56362AG120	DSPB56362AG120	LQFP 144	120MHz/120MIPS	14000	Yes	SPI, I2C, ESAI, SHI	3.3V	No	14.96	13.19	12.77	12.36
841-DSPB56371AF180	DSPB56371AF180	LQFP 80	181MHz/181MIPS	-	No	ESIA, SHI	3.3V	No	15.74	14.42	14.18	13.85
841-DSPB56374AE	DSPB56374AE	LQFP 52	150MHz/150MIPS	54000	No	SIA, SHI	3.3V	No	13.83	12.40	12.00	11.61
841-DSPB56725AF	DSPB56725AF	LQFP-80	250MHz/250MIPS	-	No	SAI, SHI	3.3V	No	11.76	10.45	9.68	8.06



MCU / MPU / DSP

Freescale