

68HC05 MICROCONTROLLERS

All 68HC05 products have a standard operating voltage range from 3 V to 5.5 V unless noted in Comments.
All 68HC05 products have a standard operating temperature range from 0–70°C. Contact a Motorola Sales Office for availability of extended temperature versions.

Motorola Part Number	ROM (Bytes)	RAM (Bytes)	EEPROM (Bytes)	Timer	Serial	A/D	PWM	Display Drive	I/O	COP	Comments	Packages	Emulation Version	Documentation
MC68HC05B4	4K	176		16-bit: (2IC, 2OC)	SCI	8 ch (8-bit)	2 ch (8-bit)		24 i/o 8 i 2 o	✓		56 SDIP – B 52 PLCC – FN	705B5	MC68HC05B6/D MC68HC05B6AD/D AN431/D, ANE416/D
MC68HC05B6	6K	176	256	16-bit: (2IC, 2OC)	SCI	8 ch (8-bit)	2 ch (8-bit)		24 i/o 8 i 2 o	✓	On-Chip Charge Pump EEPROM Write Protect	56 SDIP – B 52 PLCC – FN 64 QFP – FU	705B16	MC68HC05B6/D MC68HC05B6AD/D AN1120/D, AN434/D
MC68HC05B8	7.25K	176	256	16-bit: (2IC, 2OC)	SCI	8 ch (8-bit)	2 ch (8-bit)		24 i/o 8 i 2 o	✓	On-Chip Charge Pump EEPROM Write Protect	56 SDIP – B 52 PLCC – FN	N/A	MC68HC05B6/D MC68HC05B6AD/D AN1058/D
XC68HC05B16	15K	352	256	16-bit: (2IC, 2OC)	SCI	8 ch (8-bit)	2 ch (8-bit)		24 i/o 8 i 2 o	✓	On-Chip Charge Pump KBI (8 pins) EEPROM Write Protect	52 PLCC – FN 64 QFP – FU	705B16	Contact Sales Office AN1058/D
MC68HC05C4	4K	176		16-bit: (1IC, 1OC)	SCI SPI				28 i/o 3 i		High Speed Option (HSC05C4) Low Power Option (HCL05C4)	40 DIP – P 44 PLCC – FN 44 QFP – FB 42 SDIP – B	705C8	MC68HC05C4/D MC68HC05C4AD/D MC68HC05CXRG/AD AN1011/D
MC68HC05C5	5K	176	128	16-bit: (1IC, 1OC)	SIOP				32 i/o	✓	8 High Current Pins (10 mA sink) LVP ¹ , On-Chip Charge Pump	40 DIP – P 44 PLCC – FN	705C5	BR767, AN1066/D BR767AD/D
MC68HC05C8	8K	176		16-bit: (1IC, 1OC)	SCI SPI				28 i/o 3 i		High Speed Option (HSC05C8) Low Power Option (HCL05C8)	40 DIP – P 44 PLCC – FN 44 QFP – FB 42 SDIP – B	705C8	MC68HC05C4/D MC68HC05C4AD/D
MC68HC05C9	16K	352		16-bit: (1IC, 1OC)	SCI SPI				31 i/o	✓	705C9 not available in QFP	40 DIP – P 44 PLCC – FN 44 QFP – FB 42 SDIP – B	705C9	MC68HC05C9/D
XC68HC05C9A	16K	352		16-bit: (1IC, 1OC)	SCI SPI				31 i/o 1 i	✓	1 High Current Pin (20 mA sink) Mask Option Pullups (8 pins) KBI (8 pins)	40 DIP – P 44 PLCC – FN 44 QFP – FB 42 SDIP – B		Contact Sales Office
MC68HC05C12	12K	176		16-bit: (1IC, 1OC)	SCI SPI				28 i/o 3 i	✓	1 High Current Pin (20 mA sink) KBI (8 pins) Mask Option Pullups (8 pins)	40 DIP – P 44 PLCC – FN 44 QFP – FB 42 SDIP – B	705C9	MC68HC05C12/D
XC68HC05CC1	16K	544		8-bit: Pulse Accum MFT	I ² C	1 ch (5-bit)	8 ch (6-bit)	OSD (127 Char ROM)	31 i/o		Closed Caption Television NTSC Data Slicer w/int Sync Sep 28 MHz PLL 8 Open Drain I/O Pins, 5 V Only	40 DIP – P 42 SDIP – B		Contact Sales Office AN1058/D
MC68HC05D9	16K	352		16-bit: (1IC, 1OC)	SCI		5 ch (6-bit)		32 i/o	✓	8 High Current Pins (25 mA sink) 30 kHz PWM	40 DIP – P 44 PLCC – FN	705D9	MC68HC05D9/D BR459/D
MC68HC05D24	24K	352		16-bit: (1IC, 1OC)	SCI		5 ch (6-bit)		31 i/o	✓	8 High Current Pins (24 mA sink) 30 kHz PWM	40 DIP – P 44 PLCC – FN 44 QFP – FB	N/A	MC68HC05D9/D
XC68HC05D32	32K	352		16-bit: (1IC, 1OC)	SCI		5 ch (6-bit)		31 i/o	✓	8 High Current Pins (24 mA sink) 30 kHz PWM	40 DIP – P 44 PLCC – FN		MC68HC05D9/D