
MSM66579 Family

OKI Original High Performance CMOS 16-Bit Microcontroller

GENERAL DESCRIPTION

The MSM66579 Family including MSM66576, MSM66577, MSM66578, MSM66579, MSM66Q577 (Flash ROM) and MSM66Q579 (Flash ROM) is OKI's original high-performance, CMOS 16-Bit single-chip microcontroller family. The MSM66579 Family is equipped with powerful serial ports which are capable of communication with various external devices:

- synchronous with 32 byte FIFO x 2
- synchronous / UART switchable x 2

Also the 12KByte RAM version of the MSM66579 Family (MSM66578, MSM66579 and MSM66Q579) offers many capabilities for various kinds of applications requiring large RAM size. A sub clock oscillator (32.768kHz) allows delicate power management. Bit programmable pull-up ports reduce external parts count, while the small and thin package saves system space. Therefore, the MSM66579 family is suitable for control tasks in portable systems. MSM66Q577 and MSM66Q579 Flash ROM versions of the MSM66579 Family can be programmed by a +2.7V single power supply. Therefore, MSM66Q577 and MSM66Q579 can be programmed on the application system board allowing for quick specification changes and upgrading.

TYPICAL APPLICATIONS

- PC Peripherals
- AV equipment
- Portable devices

ESSENTIAL FEATURES

DEVICE	MSM66576	MSM66577	MSM66578	MSM66579
Operation temperature	-30 to +70°C			
Supply voltage range/ Max. int. operating frequency	+4.5 to 5.5V / f=30MHz +2.4 to 5.5V / f=14MHz			
Min. instruction execution time	67ns @30MHz (+4.5 to 5.5V) 143ns @14MHz (+2.4 to 5.5V) 61μs @32.768kHz (+2.4 to 5.5V)			
Internal ROM size	64kByte	128kByte	64kByte	128kByte
Max. ext. ROM size	1MByte			
Internal RAM size	4kByte		12kByte	
Max. ext. RAM size	1MByte			
I/O Ports	74 I/Os with programmable pull-up, 8 input ports			
Timer	16-bit free-run timer x 1 compare output / capture input x 2			
	16-bit timer (auto-reload timer output) x 1 8-bit auto-reload timer x 2 (or 16-bit auto-reload timer x 1) 8-bit auto-reload timer x 1			
	8-bit auto-reload timer x 2 (shared with baud-rate generator for serial communication)			
	Watch dog timer (shared with 8-bit auto-reload timer)			
	Real-time clock x 1			
	8-bit PWM x 4ch (used as 16-bit PWM x 2ch)			
Serial port	Synchronous / UART x 2 Synchronous with 32 Byte FIIFO x 2			
A/D converter	10-bit x 8ch			
External interrupt	non-maskable x 1, maskable x 8, 3-level priority			
Others	Address data demultiplexed or multiplexed bus			
	Dual clock system			
	Bus release function			
Flash ROM version	MSM66Q577		MSM66Q579	
Package	100-pin TQFP (TQFP100-P-1414-0.50-K)			

100-Pin TQFP
TQFP100-P-1414-0.50-K

