

MN675567 / 47

Type	MN675567 / 47	
ROM (x8-bit)	72K / 56K	
RAM (x8-bit)	2048 / 1536	
Minimum Instruction Execution Time	With Main Clock operated	0.25μs (at 4.0 to 5.5V, 16MHz)
	With Sub-clock operated	122μs (at 2.7 to 5.5V, 32.768kHz)
Interrupts	• RESET • Runaway • External 0, 1, 2, 3 • Cylinder FG • Capstan FG • HSW • VSYNC • General-use Capture • Free Running Counter • CTL, JOG, AVBUS • Winding Reel FG • Feeding Reel FG • Timer 0 to 5 • Synchronous Output • Continuous Synchronous Output • DMA • Direction Detection • Serial 0, 1	
Timer Counter	Timer Counter 0 : 16-bit x 1 Clock Source System Clock, 1/32 of OSC Oscillation Clock Interrupt Source Overflow of Timer Counter 0 Timer Counter 1 : 16-bit x 1 (Event Count, Synchronous Serial Clock Generator) Clock Source System Clock, 1/32 of OSC Oscillation Clock, AFG Frequency Dividing Signal Interrupt Source Overflow of Timer Counter 1 Timer Counter 2 : 16-bit x 1 (Event Count, Input Capture, Synchronous Interrupt function) Clock Source System Clock, 1/12, 1/16 OSC Oscillation Clock Interrupt Source Overflow of Timer Counter 2, DCTL Signal Edge, Bit Counter Underflow of Shift Register, Coincidence of Compare Register and Shift Register Timer Counter 3 : 16-bit x 1 (Timer Output, Event Count, Serial Index Search) Clock Source System Clock, 1/32 of OSC Oscillation Clock, TC13 Input Interrupt Source Overflow of Timer Counter 3 Timer Counter 4 : 16-bit x 1 (Linear Time Count) Clock Source 1/32 of OSC Oscillation Clock, CTL Signal Interrupt Source Overflow of Timer Counter 4 Timer Counter 5 : 30-bit x 1 (Clock, Buzzer Output) Clock Source System Clock, XI Oscillation Clock 1/768, 1/256, 1/96, 1/32 of OSC Oscillation Clock Interrupt Source Overflow of Timer Counter (Interrupts for second, minutes, and hours are available) Watchdog Timer : 19-bit x 1 (Watchdog) Clock Source OSC Oscillation Clock, XI Oscillation Clock, Interrupt Source Watchdog Timer period 65 6ms (fosc=at 16MHz), 128ms (XI=at 32kHz)	
Serial Interface	Serial 0 8-bit x 1 (Synchronous Type) (Simple I²C function) Clock Source . . . 1/4, 1/32, 1/64 of System Clock, 1/2 of Timer Counter 1, <u>SBT0</u> Pin Input Serial 1 8-bit x 1 (Synchronous Type) (Simple I²C function) Clock Source 1/4, 1/32, 1/64 of System Clock, 1/2 of Timer Counter 1, <u>SBT1</u> Pin Input	

I/O Pins	I/O	67	• Common use 50
	Input	17	• Common use 9
	Output	10	
A/D Inputs 8-bit x 12ch (without S/H)			
D/A Inputs 13-bit x 2ch			
PWM 8-bit x 1ch (at Repetition Cycle 32 μ s, 16MHz), 14-bit x 1ch (at Repetition Cycle 1 024ms, 16MHz)			
ICR 18-bit x 4ch, 16-bit x 4ch			
OCR 16-bit x 3ch			
FGICR 11-bit x 3ch			
Simple Remote-control Reception Function General-use capture circuit (IRQ0 input)			
Special Ports Real Time Output [8 (with DMA function), 4 (4-state Synchronous Output), 8 (2-state Synchronous Output)], CTL Amp, FG Amp etc built-in, DMA, Reel FG Input			
Notes VISS/VASS Detector function			
Package QFP100-P-1818B			
Electrical Characteristics			

Supply Current

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating Supply Current	IDD1	fosc=16M, STBH (ANACNT, #A9)='01'		30	55	mA
Supply Current at STOP	IDD2	Oscillation halt, No load STBH (ANACNT, #A9)='00'			10	μ A
Supply Current at SLOW	IDD3	VDD=3V, XI=32kHz, STBH=0, No load			500	μ A
Supply Current at HALT	IDD4	VDD=3V, XI=32kHz, STBH=0, No load		5	10	μ A

(Ta=25°C, VDD=5.0V, VSS=0V)

A/D Converter Characteristics

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
A/D Conversion Absolute Error					± 3	LSB
A/D Conversion Relative Error					± 3	LSB
A/D Conversion Time		fosc=16MHz		13 0		μ s
Analog Input Voltage			0 5		4 5	V

(Ta=25°C, VDD=5.0V, VSS=0V)

See the next page for support tool and Pin assignment.

Support Tool

In-Circuit Emulator	Mr ICE / 1860 (made by Computex Co Ltd)										
Piggyback	Use EP67557 as piggy in QFP100-P-1818B package										
EPROM built-in Type	<table border="1"> <tr> <td>Type</td><td>MN67P5577 [ES (Engineering Sample) available]</td></tr> <tr> <td>ROM (x 8-bit)</td><td>80K</td></tr> <tr> <td>RAM (x 8-bit)</td><td>2K</td></tr> <tr> <td>Minimum Instruction Execution Time</td><td>0.25μs (at 4.0 to 5.5V, 16MHz) 122μs (at 2.7 to 5.5V, 32.768kHz)</td></tr> <tr> <td>Package</td><td>QFP100-P-1818B</td></tr> </table>	Type	MN67P5577 [ES (Engineering Sample) available]	ROM (x 8-bit)	80K	RAM (x 8-bit)	2K	Minimum Instruction Execution Time	0.25μs (at 4.0 to 5.5V, 16MHz) 122μs (at 2.7 to 5.5V, 32.768kHz)	Package	QFP100-P-1818B
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Pin Assignment

