

# □ MN152811

<b>Type</b>		<b>MN152811</b>	
<b>ROM (x8-bit)</b>		8K	
<b>RAM (x4-bit)</b>		256	
<b>Number of Instructions</b>		115	
<b>Minimum Instruction Execution Time</b>		2 $\mu$ s (at 4.5 to 5.5V, 6MHz)	
<b>Interrupts</b>		• RESET • SIRQ • Remote Control Input • Timer • Serial (Only when choosing Mask Option)	
<b>Timer Counter</b>		<b>Timer Counter : 8-bit x 1</b> (Timer Output, Event Count) Clock Source .....1/2, 1/8, 1/32, 1/128 of System Clock Interrupt Source .....Overflow of Timer Counter	
<b>Serial Interface</b>		<b>Serial : 8-bit x 1</b> Clock Source .....System Clock, SBT Pin Input	
<b>I/O Pins</b>	<b>I/O</b>	<b>5</b>	• Common use : 2 • Specified pull-up Resistor available (Mask Option) : 2 • Nch Open-drain available (Output) : 5
	<b>Input</b>	<b>4</b>	• Common use : 1 • Specified pull-up Resistor available (Mask Option) : 1 • Output selectable (Software Programmable) : 3
	<b>High Voltage Output</b>	<b>5</b>	• Nch Open-drain (Breakdown Voltage 12V) : 5 • Push-pull Output selectable (Mask Option) : 4
	<b>Output</b>	<b>3</b>	
<b>A/D Inputs</b>		5-bit x 4ch (Conversion by Software)	
<b>PWM</b>		7-bit x 6ch (Repetition Cycle 256 $\mu$ s, at 6MHz), 14-bit x 1ch (Repetition Cycle 32.8ms, at 6MHz)	
<b>Special Ports</b>		Tri-state Output (PTO), Remote Control Reception	
<b>CRTC</b>		5 x 7 dots, 16 characters, 2 lines, 7 colors, 56 patterns, Rounding function, Framing function	
<b>Notes</b>		Remote Control Data Detection Circuit built-in, For Voltage Synthesizer	
<b>Package</b>		SDIP042-P-0600	

**Electrical Characteristics**

**Supply Current**

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating Supply Current	IDD1	fosc=6MHz, VDD=5V Ta=25°C		5.0	10	mA
Supply Current at STOP	IDD3	fosc=0Hz, VDD=5V Ta=25°C			2.0	µA

(VDD=5.0V, VSS=0V)

**A/D, D/A Converter Characteristics**

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
A/D Conversion Absolute Error		VDD=5V, VSS=0V			±1	LSB
Analog Input Voltage			VSS		VDD	

(VDD=5.0V, VSS=0V, Ta=25, 80°C)

**Support Tool**

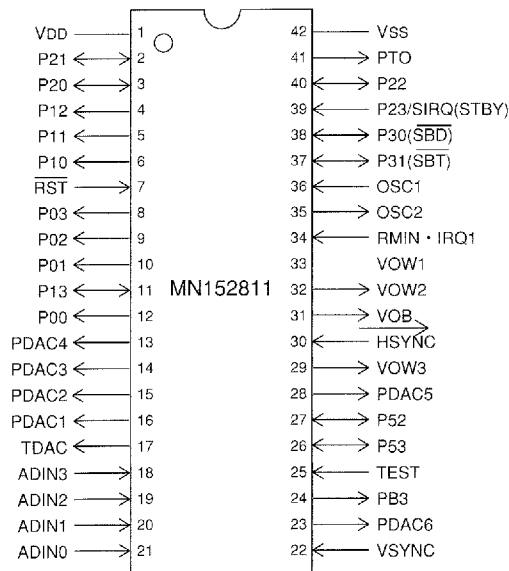
**In-Circuit Emulator**

PX-ICE1500 + PX-PRB152811

**Piggyback**

Use EP152811.

**Pin Assignment**



SDIP042-P-0600