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Forum: [8-bit PIC](#)

Topic: [使用ADC時配合FVR的問題](#)

Subject: Re: [使用ADC時配合FVR的問題](#)

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看了一下 datasheet <http://ww1.microchip.com/downloads/en/DeviceDoc/41364C.pdf>

在電氣特性(P379)提到使用 ADC 時，Vref 有範圍限制(1.8~VDD)

FVR 選 1.024V 應該太低，改用 2.048V 試看看

附加檔案：

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TABLE 28-8: PIC16F193X/LF193X A/D CONVERTER (ADC) CHARACTERISTICS:

Standard Operating Conditions (unless otherwise stated)							
Operating temperature $-40^{\circ}\text{C} \leq T_A \leq +125^{\circ}\text{C}$							
Param No.	Sym.	Characteristic	Min.	Typ†	Max.	Units	Conditions
AD01	NR	Resolution	—	—	10	bit	
AD02	EIL	Integral Error	—	—	± 1.7	LSb	VREF = 3.0V
AD03	EDL	Differential Error	—	—	± 1	LSb	No missing codes VREF = 3.0V
AD04	E _{OFF}	Offset Error	—	—	± 2	LSb	VREF = 3.0V
AD05	E _{GN}	Gain Error	—	—	± 1.5	LSb	VREF = 3.0V
AD06	VREF	Reference Voltage ⁽³⁾	1.8	—	VDD	V	
AD07	VAIN	Full-Scale Range	VSS	—	VREF	V	
AD08	ZAIN	Recommended Impedance of Analog Voltage Source	—	—	50	k Ω	Can go higher if external 0.01 μ F capacitor is present on input pin.