

# **PRELIMINARY**

12bit 2ch 750Ksps Analog to Digital Converter IC

# **MM3804A12RRE**

# Outline

The MM3804 is 12-bit successive approximation type analog-to-digital converte in which differential analog inputs are possible. Two-channel simultaneously sar are possible. The sampling rate of data corresponds to 750Ksps, and is controlled by an external clock. The communication is SPI serial interface.

# **Applications**

Industrinal Instrumentation Motor Control
Robot Control Medical equipment
Battery powered device Measuring equipment

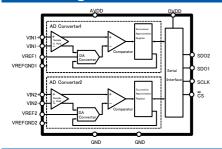
### **Features**

- ① Pseudo-Differential analog inputs
- ② Simultaneous-sampling two channels
- ③ Sampling rate: 750Ksps max.
- 4 Simple Serial interface
- ⑤ Small outline package (SQFN-16A)
- 6 Low input capacitance
- ② Low leak current
- Wide temparature range

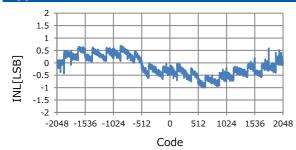
### **Specification**

Item	Specification	Unit
Operation temperature	-40~+125	${\mathbb C}$
Power supply	5 (Max. rating 7V)	V
Sampling rate	750 (Max.)	Ksps
Vref voltage	2.25~2.5	V
Analg input voltage	-Vref∼+Vref	V
INL	±2 (Max.)	LSB
DNL	-1~2	LSB
Offset	±4 (Max.)	LSB
Power dissipation	40 (at 750Ksps)	mW
	25 (at static)	
Input capacitance	15	pF
Communication IF	Compatible SPI	-

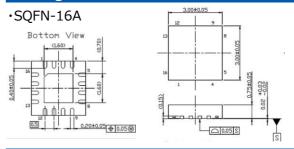
# **Block Diagram**



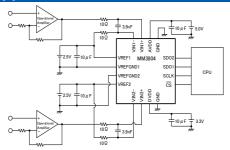
## **Typical Performance Characteristics**



### **Package**



## **Application circuit**



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