

Analog Front End IC

# MM3609

### **Outline**

This IC is analog front end IC which converts analog signal output from the sensor to digital signal, conducts digital signal processing and outputs to the host such as microcontroller etc. with digital transmission. It responds to a wide variety of sensors.

# **Applications**

Products that amplify and digitally convert minute output signals from various sensors.

- · Pressure sensor
- · Flow sensor
- · Strain gauge

#### **Features**

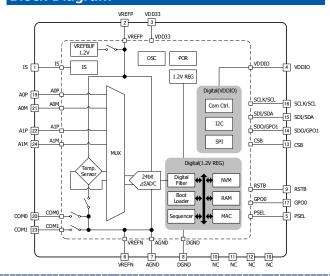
- ① It has a 24bit⊿ΣADC with a wide dynamic range.
- (2) The correction factor needed for correcting sensor can be stored in the non-volatile memory (NVM) inside IC.
- 3 The communication interface can be chosen from I2C or SPI.
- 4 It has a temperature sensor and is able to correct the temperature characteristics of the exterior sensor.
- (5) It has a built-in oscillator and no need external oscillator.
- 6 Posible to select effective resolution or data output rate suitable.
- (7) Two modes of sensor driving(constant current and constant voltage).
- (8) Standby electricity can be reduced significantly by ON/OFF switch for external sensor.

# **Specification**

ITEM	SPECIFICATION	Unit
Operation supply	VDD33: 1.71 to 3.6	V
voltage range	VDDIO: 1.14 to 3.6	
Operation temperature range	-40 to 85	°C
Consumption current	540	μA
	650(with Temp. Sensor)	
Shut down current	Typ. 0.1, Max. 1.0	μA
Integral non-linearity	Typ. ±30	ppm of FSR
Input conversion noise voltage	1.05 *1	μVrms
Data output rate	20 to 2,560	Hz

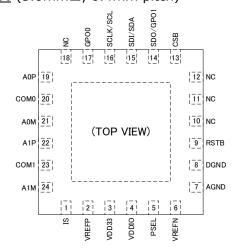
<sup>\*1</sup> Output rate=20Hz, VDD33=VREFP=3.3V, Ta=25℃

# **Block Diagram**



# **Package**

**PLP-24** (3.0mm□, 0.4mm pitch)







https://mtm-sec.mitsumi.co.ip/web/ic/

Mitsumi Electric CO.,LTD.

Semiconductor Business Division Strategy Engineering Department

tel:+81-46-230-3470

- All brand names, logos, product names, trade names and service names de
- Any products mentioned in this leaflet are subject to any modification in their appearance and others for impr
- The details listed here are not a guarantee of the individual products at the time of ordering. When using the products, you will be asked to check th