



**PRODUCT**

## **HX711 Purple Board (High Precision)**

HX711 is a 24 bit A / D converter chip specially designed for high-precision electronic scales. Compared with other chips of the same type, the chip integrates the peripheral circuits required by other chips of the same type, including regulated power supply, on-chip clock oscillator and so on. It has the advantages of high integration, fast response speed and strong anti-interference. The cost of the whole electronic scale is reduced, and the performance and reliability of the whole machine are improved. The interface and programming between the chip and the back-end MCU chip are very simple. All control signals are driven by pins without programming the internal registers of the chip. The input selection switch can arbitrarily select channel A or channel B, which is connected to its internal low-noise programmable amplifier. The programmable gain of channel A is 128 or 64, and the corresponding full scale differential input signal amplitude is  $\pm 20\text{mV}$  or  $\pm 40\text{mV}$  respectively. Channel B is a fixed 32 gain for system parameter detection. The regulated power supply provided in the chip can directly provide power to the external sensor and the A / D converter in the chip, and there is no need for another analog power supply on the system board. The clock oscillator in the chip does not need any external devices. The power on automatic reset function simplifies the initialization process of power on.

### **Two selectable differential inputs**

- On chip low noise programmable amplifier with optional gains of 64 and 128
- The on-chip voltage stabilizing circuit can directly supply power to external sensors and on-chip A / D converters
- The on-chip clock oscillator does not need any external devices, and the external crystal oscillator or clock can also be used when necessary
- Power on automatic reset circuit
- Simple digital control and serial communication: all controls are input by pins, and the on-chip registers do not need programming
- The output data rate of 10Hz or 80Hz can be selected
- Synchronous suppression of 50Hz and 60Hz power supply interference
- Power consumption (including regulated power supply circuit): typical working current:  $< 1.7\text{ma}$ , power-off current:  $< 1 \mu\text{A}$
- Operating voltage range: 2.6 ~ 5.5V
- Operating temperature range:  $- 20 \sim + 85 \text{ }^\circ\text{C}$
- Sop-16 package of 16 pins

