

## **VIBRATION SENSOR**

The VS vibration sensors can detect vibrations in a wide frequency range from 10 Hz up to 15 kHz, through the effective conversion of vibrations to electrical signal by utilizing proprietary optimized piezo ceramic material and original vibration amplifying design. As no amplifier is required, it makes it very easy to embed.

Its ability to detect even the faintest levels of vibration throughout a large sensing bandwidth makes it ideal for predictive maintenance and process control operations in industrial IoT, allowing for correction and data analysis flow to PLC, micro-computer or analyzers.



### **SPECIFICATION :**

- Power supply Voltage : 3.0 to 5.5 (3.3 V typical)
- Current Consumption (mA) Typical : 0.35
- Operating Temperature range : -25 °C to +75 °C
- Operating Humidity Range (%RH) : 10 to 90
- Integrated cable
- Ultra compact and ultra low-profile (8.4 x 11.4 x 2.9 mm)
- Easy to embed

## LoRaWAN IO CONTROLLER

The LT series I/O Modules are Long Range LoRa I/O Controller. It contains different I/O Interfaces such as: analog current Input, analog voltage input, relay output, digital input and digital output etc. The LT I/O Modules are designed to simplify the installation of I/O monitoring. The LT I/O Controllers allows the user to send data and reach extremely long ranges. It provides ultra-long range spread spectrum communication and high interference immunity whilst minimising current consumption.

### **SPECIFICATIONS :**

- STM32L072CZT6 MCU
- SX1276/78 LoRa Wireless Chip
- LoRaWAN Class A & Class C protocol
- Optional Customized LoRa Protocol
- Bands: CN470/EU433/KR920/US915
- EU868/AS923/AU915
- AT Commands to change parameters

