



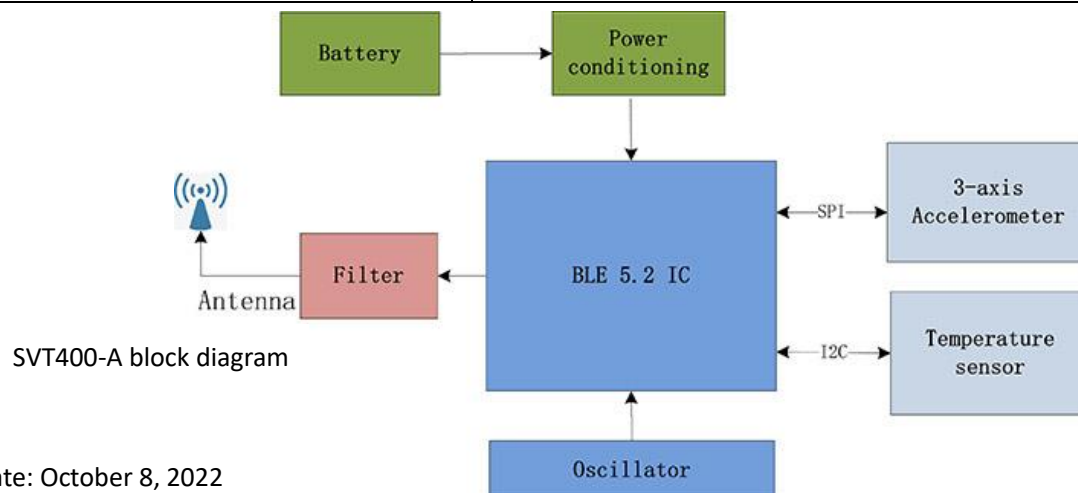
SVT400-A is an ultra-low power wireless vibration and temperature sensor with advanced features. The sensor is super compact, light-weight, easy to install and easy to use. SVT400-A can monitor machine condition in real time or by schedules, which is ideal for predictive maintenance. SVT400-A has adjustable sampling rate up to 25.6kHz with wide bandwidth. Its range is also adjustable. Multiple SVT400-As can be divided into different groups for multi-area monitoring.

Attention: SVT400-A requires to be used with Broadsens's wireless gateways (sold separately)



Wireless vibration & temperature sensor SVT400-A

Parameters	Description
Acceleration range	±8g, ±16g, ±32g, ±64g adjustable
Selectable sampling rates	50Hz, 100Hz, 200Hz, 400Hz, 800Hz, 1.6kHz, 3.2kHz, 6.4kHz, 12.8kHz, 25.6kHz adjustable
Resolution	16 bit. ±8g:0.24mg/bit; ±64g:1.95mg/bit
Non-linearity	<0.6% of full scale
Noise	1.9mg RMS; 300ug/√Hz density
Sampling modes	Real time, synchronized real time, batch mode & synchronized batch mode; single DAQ; synchronized single DAQ, multi DAQ
Temperature measurement range	-40 - 85 °C (-40 – 185 Fahrenheit)
Temperature measurement accuracy	-25 to 85°C: ±0.3 °C; -40 to -25°C: ±0.4 °C without calibration
Temperature measurement period	5s when active in real-time mode
Power consumption	idle:2.2uA; real-time sampling & transmission at 50Hz <200uA
Power supply	14250 replaceable battery, 1200mAh capacity. Can last up to 5 years (depending on the frequency of usage and environment)
Wireless protocol	2.4GHz proprietary
FCC/IC ID	X8WBC833M/4100A-BC833M
Wireless distance	Up to 300m (900 ft) in open space, line of sight
Size	Diameter:34mm (1.34 inch); height:31mm (1.22 inch)
Metal base material & total weight	Anodized aluminum alloy 6061: 53 g (1.87oz)
Installation	Epoxy; screw mount (M6); stud mount (M8 to M6); magnet mount
Environment	Working temperature: -40 - 85 °C; storage: -55 - 85 °C; water proof: IP68



SVT400-A block diagram

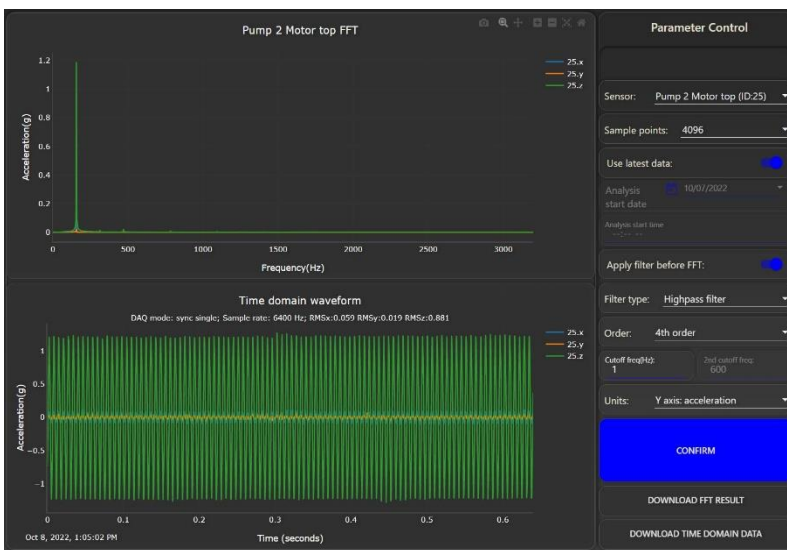
Advantages of SVT400-A

Thanks to its unique low-power design, SVT400-A can work for up to 5 years before replacing the battery (depending on the frequency of usage and environment). SVT400-A is easy to install and configure. SVT400-A can work under harsh environment. It has a secure boot loader for improved security. It supports OTA (Over the Air) firmware upgrade. SVT400-A has seven working modes: real time mode, synchronized real-time mode, batch mode, synchronized batch mode, single DAQ and synchronized single DAQ, multi DAQ.

- . Real-time mode: when sensor wakes up, it starts data acquisition and transmission immediately.
 - . Batch mode: When sensor wakes up, it takes a fixed amount of data at the given sample rate and transmit the data together to the gateway, and then repeat the process.
 - . Single DAQ: When sensor wakes up, it takes a fixed amount of data at the given sample rate and transmit the data to the gateway for one time only. The sampling rate is guaranteed and is ideal for frequency domain analysis.
 - . Synchronized mode: Synchronized mode can be combined with real-time mode, batch mode or single DAQ. After waking up, the sensors in the same group start taking data and transmission at the same time.
 - . Multi DAQ: Continuous run of single DAQ mode. Great for frequency domain analysis with no point or time limit.
- The compact size and light weight of SVT400-A improve the accuracy of vibration monitoring.

Monitoring Software

BroadVibra Vibration monitoring software at the gateway is based on open-source architecture. It can be accessed with all major web browsers. Database is also included



Software advantages

- . Real-time monitoring
- . Intuitive data visualization
- . Alarm & threshold setup
- . Scheduled data acquisition
- . Time-series database
- . Key parameters trend charts
- . FFT analysis
- . Advanced filtering
- . OTA firmware upgrade
- . Open source
- . Secure transmission

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