**Specification sheet detailing the tolerance ranges for the components used in the accident detection and calling system:**

Arduino Nano :

The tolerance of the Arduino Nano itself refers mainly to the precision of its components and the stability of its clock frequency.

Component Tolerance:

Resistors: ±5% to ±10%

Capacitors: ±5% to ±10%

Clock Frequency Stability: ±1%

GSM module (SIM800L):

The tolerance of the SIM800L GSM module typically includes parameters such as voltage input range, operating temperature range, and communication protocol compatibility.

Component Tolerance:

Input Voltage Tolerance: ±0.1V to ±0.5V

Operating Temperature Range: ±5°C to ±10°C

Communication Protocol Compatibility: GSM 850/900/1800/1900 MHz

SIM Card Compatibility: Standard SIM card

GPS module (NEO-6M):

The tolerance of the NEO-6M GPS module can include accuracy in position fixing, time synchronization, and signal acquisition

Component Tolerance:

Position Accuracy: ±2.5 meters (CEP)

Time Synchronization: 30 nanoseconds

Operating Voltage Tolerance: ±0.1V to ±0.5V

Operating Temperature Range: ±5°C to ±10°C

ADXL335 accelerometer:

The tolerance of the ADXL335 accelerometer refers to parameters such as sensitivity, zero-g offset, and frequency response.

Component Tolerance:

Sensitivity Tolerance: ±5% to ±10%

Zero-g Output Tolerance: ±0.5V

Operating Voltage Tolerance: ±0.1V to ±0.5V

Bandwidth Tolerance: ±5%

Sound sensor:

The tolerance of a sound sensor can include sensitivity to sound levels, frequency response, and signal-to-noise ratio.

Component Tolerance:

Sensitivity Tolerance: ±3dB to ±5dB

Frequency Response Tolerance: ±10%

Signal-to-Noise Ratio Tolerance: ±3dB

Operating Voltage Tolerance: ±0.1V to ±0.5V

Tilt sensor:

The tolerance of a tilt sensor depends on its construction and mechanism.

Component Tolerance:

Detection Angle Tolerance: ±10 degrees

Response Time Tolerance: ±1ms

Operating Voltage Tolerance: ±0.1V to ±0.5V

LM2596 step-down converter:

The tolerance of the LM2596 step-down converter includes parameters such as output voltage regulation, efficiency, and thermal performance.

Component Tolerance:

Output Voltage Regulation Tolerance: ±2%

Efficiency Tolerance: ±5%

Ripple Rejection Tolerance: ±3dB

Operating Temperature Range: ±10°C

Buzzer:

The tolerance of a buzzer typically refers to parameters such as operating voltage range, sound output level, and frequency response.

Component Tolerance:

Operating Voltage Tolerance: ±0.1V to ±0.5V

Sound Output Level Tolerance: ±3dB

Frequency Tolerance: ±5%

Operating Current Tolerance: ±5%

Button:

The tolerance of a button mainly refers to its mechanical durability and electrical contact reliability.

Component Tolerance:

Contact Rating Tolerane: ±5%

Operating Life Tolerance: ±10%

Dimensions: Variable depending on mode