



SHOCKLOG® CELLULAR

The ShockLog® Cellular Impact Recording and Tracking System combines advanced tri-axial piezoelectric accelerometer technology with sophisticated electronics and software to offer an advanced shock and vibration data logger with real-time tracking. When a programmed impact level is exceeded, a detailed event curve will be recorded, and the ShockLog Cellular module will send a real-time alert letting you know when and where a potentially damaging impact has occurred. Benefit from knowing where your asset is with location messages sent on a user programmable interval (1 hour to 24 hours).

This easy-to-use device utilises a proprietary piezoelectric accelerometer designed and manufactured by SpotSee that provides industry-leading impact analysis with the lowest noise floor on the market.

Get alerts in real-time when your shipment has experienced an out of tolerance impact, temperature, humidity, tilt, or roll condition. The information is accessible 24/7 via the user-friendly SpotSee Cloud from anywhere in the world.

The SpotSee connectivity infrastructure provides low-cost global connectivity without roaming charges.

ShockLog Cellular deliver 90+ days of battery life without reliance upon a solar energy source that could cause data interruptions.

Benefits

- Shock & vibration technology used by the best engineers in the world
- Low-cost global connectivity without roaming fees
- 90 + days of connectivity battery life
- 18 months of recorder battery life
- Real-time out-of-tolerance condition notifications
- 24/7 access to trip data from anywhere in the world
- No data interruptions from unreliable solar energy
- Robust impact analytics & recording
- No loss of data if battery dies & keeps recordings for 15 additional months

Product Features

- Real-time out-of-tolerance condition notifications
- 24/7 Access to Trip data from anywhere in the world
- Detailed impact analysis on the ShockLog software
- Global low-cost connectivity with no roaming fees
- Robust battery life for long journeys



SHOCKLOG[®] 298

Records date and time of up to 870 shock and vibration events, time slots and summary data.

SHOCKLOG IMPACT RECORDING DEVICE SPECIFICATIONS

System Specification:

Operating temperature range:	-40°C to +85°C
Dimensions:	123 mm x 78 mm x 55 mm
Weight:	515 grams
Batteries:	3.6V Lithium or 1.5V alkaline AA
Battery Life:	Up to 18 months
Case Material:	Aluminum
Case Rating:	IP67
Web Hosted Application:	Supported on Chrome, IE & Firefox
ShockLog Desktop Software:	Functions on Windows XP, Vista, 7, 8, 10
Communications/Interfaces:	Cellular USB 2 iButton
A-D Converter Resolution	12 bits
Flash Memory for Data	4096 kbytes

Data Collection:

Event Processor Wake-Up Delay:	0.25ms
Timeslot Interval:	600 to 3600 seconds
Samples per Channel per Event:	512 to 4096 (user defined)
Maximum Number of Events (detailed)	108 to 870 (user defined)
Event Duration:	1 to 128 seconds (user defined)

Accelerometers:

Low Frequency Cutoff (-3dB 10g-100g):	0.1 - 0.5 Hz
High Frequency Cutoff (-3dB):	250 – 300 Hz
Hardware Filters (Programmable):	10 Hz, 40 Hz, 50 Hz, 90 Hz, 120 Hz and 250 Hz
Resolution (% of full scale) 1% for Peaks:	0.1%
Scale Factor Accuracy at 5G (event record):	±2%
Additional Error Other Ranges:	±2%
Additional Error Peak Capture:	±5%
Change of Scale Factor over Temperature	±4%
Acceleration Ranges:	±1% to ±200 G
Wake-up Threshold (% of range)**	5 to 95%
Warning and Alarm Thresholds (% of range)**	7 to 95%

Humidity/Temperature Specifications:

Temperature Measuring Range:	-40 to 85°C
Temperature Accuracy:	±2°C
Temperature Resolution:	0.1°C
Humidity Measuring Range:	0-100%RH
Humidity Accuracy:	±3%RH
Humidity Resolution:	0.1% RH
Dew Point Measuring Range:	-40°C to 85°C 0 - 100% RH
Dew Point Relative Accuracy (-20 to 70°C, 25 to 75%RH)	±2° C
Dew Point Resolution	0.1°C

**Recommended 2% minimum difference between wake up and warning and between warning and alarm

Tilt & Roll Specifications:

Tilt Range Monitored:	±180°
Resolution:	0.1°
Transverse Sensitivity:	5%



SHOCKLOG CELLULAR RADIO

SHOCKLOG CELLULAR SPECIFICATIONS

System Specification:

Operating temperature range:	-40°C to +85°C
Dimensions:	17.78 cm x 13.335 cm x 3.5 cm
Weight:	590 grams with batteries / 500 grams without batteries
Battery Type*:	1.5V AA Batteries
Battery Life*:	Up to 190 days (1 message per day) Up to 75 days (1 message per hour)
Case Rating:	IP67
Connectivity:	Global 3G/2G cellular connectivity Internal SIM No roaming charges
Message Buffer (when no cellular network available):	30 messages
Bands:	UMTS 800/850/900/AWS/1900/2100 GSM 850/900/1800/1900
Global Approvals:	FCC, CE US, EU, Canada Please inquire for additional country certification status

*Lithium cells required for long battery life or low temperature operations