

SHOCKLOG 298



ShockWatch® ShockLog 298 monitors and records shock, vibration, and environmental conditions experienced by any type of structure or equipment, whether in use, in transit, or in storage. With the capacity to record data for **870 events and 262,000 time slots**, the device alerts you whenever damage may have occurred so you can respond promptly. Optional sensors extend the value of your ShockLog by providing more intelligence about your environmental journey.

ShockLog 298TR includes a record of tilt and roll data.

ShockLog 298GPS records GPS positioning for every event and summary interval.

ShockLog 298RF allows you to transmit and receive information to an RF Base Station module attached to your PC.



Use ShockLog 298 with:
Offshore oil platforms and equipment
Building structures and foundations
Warehouses and storage facilities
Packaging and vehicles in supply chain
Lasers, missiles, and satellites
Power transformers
Nuclear materials
Biomedical supplies
Wind turbines
...and much more

■ Benefits

- Decreases damage-related costs
- Deters improper handling and operation
- Helps identify opportunities for improvement through full-journey profiling
- Allows sender to respond to mishandling before customer delivery / installation
- Alerts recipients and operators to inspect goods and equipment for potential damage
- Helps determine when and where unacceptable conditions occur
- Ensures accountability throughout journey
- Allows for immediate corrective action
- Allows for range and frequency to be programmed for each journey, with total flexibility
- Provides more intelligence with operational sensors

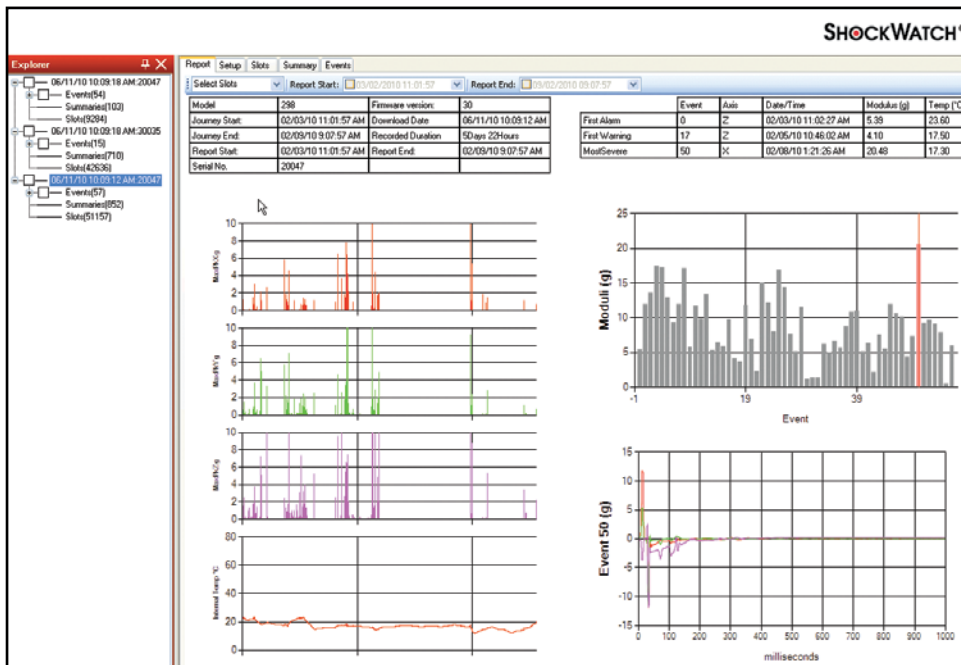
■ Features

- Records impact events; max peaks X, Y, and Z; gRMS; and internal temperature
- Sensors record direction, amplitude, and duration of impact force
- Option to build temperature/humidity sensor into unit, or add a temperature/pressure/humidity accessory sensor
- Field-proven triaxial piezoelectric accelerometer technology
- USB and iButton® data transfer options
- Self-contained unit design, free of cables and wires
- Programmable wake-up values for maximizing battery life
- User-definable warning and alarm levels
- LED lights for visual notification of alarms and warnings
- IP67-rated, RF-screened
- Up to 18 months of battery life
- Captures coordinates when event occurs at summary intervals with GPS (optional)
- GPS allows users, through hyperlinks, to pinpoint the exact location of an event and summary with the use of Google Maps (optional)

■ Services

- Online or on-site training classes are available to speed ROI
- Consulting services are available when a turnkey solution is desired

■ Software



Interface with your ShockLog device through a simple Windows®-based software program. Clear instructions allow for quick deployment and easy data analysis. The ShockLog Report View provides an overview of the entire journey. Zoom in for a closer view, or export data into programs such as Excel and MatLab for more detailed analysis.

■ Accessories



eTrak

The eTrak tracking module emails real-time event messages and prescheduled status updates. The companion software allows for analysis, reporting, and seamless viewing of message locations through Google Maps. eTrak is solar-powered with battery backup.



RF Base

Benefit from ShockLog data even when monitoring hard-to-reach locations. ShockLog RF Base allows users to transmit data from up to a mile away. Ideal for monitoring stationary structures or equipment.



HPT Environmental Sensor

The HPT Environmental Sensor measures temperature, humidity, and pressure. Data are recorded in time slots for easy analysis.

Specifications

Operating Temperature Range
-40°F/-40°C to 185°F/85°C

Size
4.8" / 123mm x 3.1" / 78mm x 2.2" / 55mm

Weight
1.1lbs / 515g (without battery)

Battery
2 x 3.6V lithium
2 x 1.5V alkaline size AA

Scale Factor Accuracy at 5G
+/- 2%

Additional Error Other Ranges
+/- 2%

Acceleration Range
+/- 1 to +/- 200G

Cut-off Frequency Options (Programmable)
10Hz, 40Hz, 50Hz, 90Hz, 120Hz,
and 250Hz

**Wake-up, Warning, and Alarm Threshold
(% of Range)**
5-95%

Wake-up Time
0.25mS

External Power Source Option
4.5V min / 30V max

Factory Fit Specifications

Humidity / Temperature

Temperature Measuring Range
-40°F/-40°C to 185°F/85°C

Temperature Accuracy
-2/2°C

Humidity Measuring Range
0-100% RH

Humidity Accuracy
-3/3% RH

Dew Point Measuring Range
-40°F/-40°C to 185°F/85°C
0-100% RH

Dew Point Accuracy
-2/2°C

RF

Operating Frequency
2.4GHz

Max Output Power
up to +10dBm

Receiver Sensitivity (PER 1%)
up to -100dBm

RF Data Rate
250,000bps

Packet Data Rate
up to 125kbaud

RF Base

Radio
ZigBee Module

Transmission Frequency
2.4GHz

Transmission Distance
Up to one mile

Power Levels
10mW (10dB)

Data Transmission Rates
115,200 baud

GPS

Sensitivity
157dBm re-acquisition
148dBm cold starting

Fast TTFF
1s / 29s (Hot/Cold start)

Channels
65

Hypothesis testing per second
8,000,000 time-frequency

High Accuracy Position
2.5m CEP
Velocity 0.1m/sec

Tilt & Roll (Internal)

Tilt Range Monitored
+/- 180°

Resolution
0.1°

Transverse Sensitivity
5%

Accessory Specifications

External Temperature, Humidity, and Pressure Sensor

Temperature Measuring Range
-40°F/-40°C to 185°F/85°C

Temperature Accuracy
-2/2°C (1 bar unit)
-4/4°C (2 bar unit)

Humidity Measuring Range
0-100% RH

Humidity Accuracy
-3/3% RH (1 bar unit)
-6/6% RH (2 bar unit)

Pressure Measuring Range
0-1.1 bar (standard)
0-2.1 bar (optional)

Pressure Accuracy
-10/10 Mbar (1 bar unit)
-60/60 Mbar (2 bar unit)

eTrak GPS Module

Operating Temperature Range
-40°C to 85°C

Size
6.3" / 160mm x 9.8" / 250mm x 1.6" / 40mm

Weight
1.53lbs / 696g

Regions
Global provided GSM network
coverage available

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SHOCKWATCH®

DAMAGE PREVENTION. WE'RE ON IT.

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