

SHOCK Trail



Web-based Global Asset Tracking & Monitoring for Shock & Environment. Real Time & On-Line. Road, Rail & Sea.



Glasgow
16:00 Hrs
13/11/16

Ok

00:00

08:00

16:00

Not Ok

London
19:23
14/11/16



Technology Summary



Managing shipments of high value goods has never been easier than with SHOCKTrail from Caption Data. SHOCKTrail is a battery powered system designed specifically to monitor for events which could cause damage to your product AND tell you when and where they are happening.



Featuring Global GSM connectivity, high speed vibration capture, temperature and humidity and wood moisture monitoring, all with alarm threshold settings, and alerts by SMS or email to unlimited recipients.



Intelligent, secure, cloud based operation All set up and management and reporting is via your own SmartHub portal. View data and manage your system from any smartphone, tablet or pc, via any browser, with no software to buy or load.



- **Ultra-low power consumption**
Monitor shipments for up to 1 year continuously



- **On board GSM modem with international roaming SIM card**
Provide information flow with no need to communicate to third party systems



- **Measures vibration events up to 200g in 3 Axis at high speed (50Hz)**
Understand in detail what exposure your shipment was exposed to in each of the three axis



- **Two moisture content inputs**
Detect and alert when there are any signs of moisture ingress in your wooden shipment crate. For example if the crate has been left in an outside location



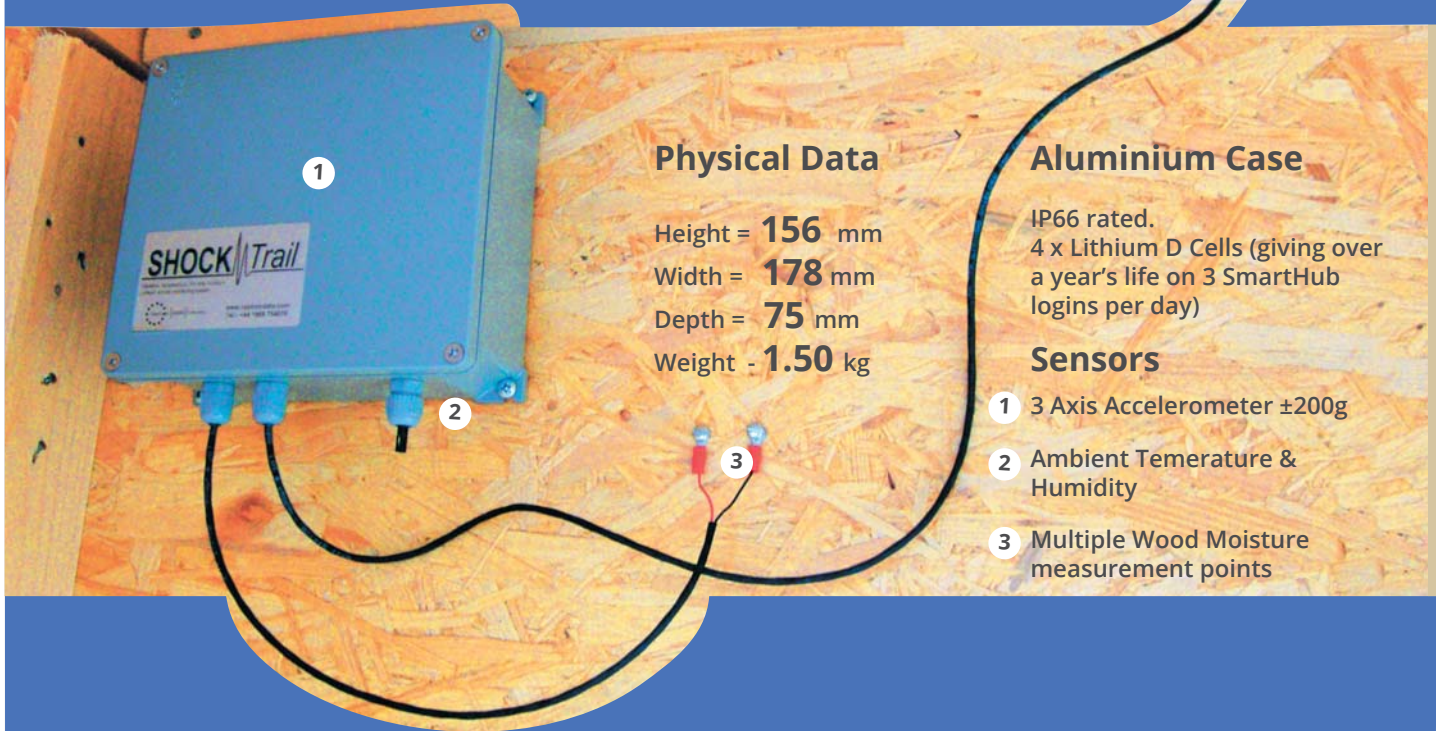
- **Combined temperature and RH probe**
Detect and alert when conditions within shipment crate fall outside acceptable levels



- **On Board SD data card**
The SD card "Black Box flight recorder" will capture data at a greater granularity than can be transmitted over GSM, and will operate when no GSM signal is available, eg when goods are at sea.

SHOCKTrail

SHOCKTrail mounted in a crate



Physical Data

Height = **156** mm
 Width = **178** mm
 Depth = **75** mm
 Weight - **1.50** kg

Aluminium Case

IP66 rated.
 4 x Lithium D Cells (giving over a year's life on 3 SmartHub logins per day)

Sensors

- 1 3 Axis Accelerometer $\pm 200g$
- 2 Ambient Temperature & Humidity
- 3 Multiple Wood Moisture measurement points

Sample SmartHub™ screens

Operational details of each unit, including selectable sample and report rates

View high speed data on 3 axis of a particular event

IMEI	356741050443750	# 10 Vibration Events						
Name	SmartHub 2400	Start Date	Max X	Max Y	Max Z	Max X'	Max Y'	Max Z'
Last Seen	2016-11-10 17:43:43 GMT	2016-11-10 00:00:00	0.00	0.00	0.00	0.00	0.00	0.00
Signal Quality	100%	2016-11-10 00:00:00	0.00	0.00	0.00	0.00	0.00	0.00
Quick Links	Viewing Location Track	2016-11-10 00:00:00	0.00	0.00	0.00	0.00	0.00	0.00
Company/Dept	CEA	2016-11-10 00:00:00	0.00	0.00	0.00	0.00	0.00	0.00
Unit Active	IP	2016-11-10 00:00:00	0.00	0.00	0.00	0.00	0.00	0.00
Sample Interval	1 minute	2016-11-10 00:00:00	0.00	0.00	0.00	0.00	0.00	0.00
Reporting Interval	30 minutes	2016-11-10 00:00:00	0.00	0.00	0.00	0.00	0.00	0.00

View all your vibration "Events"

See the "SHOCKTrail" of your asset and when and where "events" happened



System Indicators



GSM active LED
 SD card status LED
 General Status LED
 System triggered (e.g. vibration event)

System Measurements



Acceleration; 3 axis $\pm 200g$, 16 bit
 Temperature; $-5^{\circ}C$ to $+125^{\circ}C$ ($\pm 0.3^{\circ}C$)
 Relative Humidity; 0-100%RH ($\pm 2\%$)
 Wood Moisture Equivalent; 2 sensors each 6-100% WME
 Global Position; from GSM cell mast(s), GPS optional
 Battery Voltage;
 Tilt; derived from accelerometer
 SD card; % capacity availability



Configuration settings available on CDLSmartHub

Sample and report rates (background logging)
 System name:
 Allocation of system to a department/ Company
 High low alarms for:

- battery voltage, acceleration, temperature, humidity, moisture content inputs 1&2
- Unlimited alarm recipients with associated sms and email information
- Audit trail of events with quick links to graphing within the CDL SmartHub



Modem

850/900/1800/1900 MHz
 GPRS class 12 support
 Supplied with fully roaming, un steered managed SIM



Switches/Buttons

On/off switch
 Force report button



Antenna

Puck style antenna



Approvals

CE
 WEEE regulations apply