MADGETECH
WE BUILD DATA LOGGERS

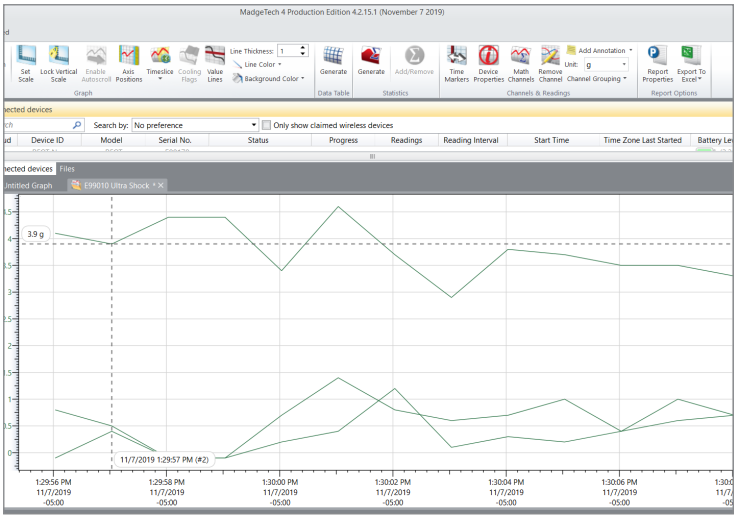
Shock300

Tri-Axial Shock Data Logger

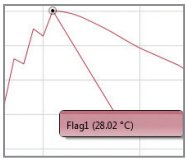
The Shock300 is a battery powered, stand alone 3-axis shock data logger. The Shock300 is specifically designed for documenting dynamic environments such as moving vehicles, trucks, containers, ships, etc. The device is also valuable in characterizing environments such as production and assembly lines of delicate electronics, IC fabrication, communications and computer components. This compact, portable, easy to use device will measure and record up to 4,192,254 measurements. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from your computer and its small size allows it to fit almost anywhere. The Shock300 makes data retrieval quick and easy. Simply plug it into an empty USB port and our user-friendly software does the rest.

The Shock300 provides simple ordering as one model which provides three acceleration ranges. The ranges are implemented on separate low-g and high-g accelerometers for excellent resolution and accuracy.

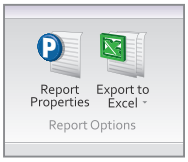
MadgeTech 4 Software Features



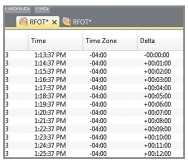
Graph View



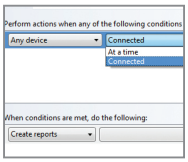
Cooling Flags



Export to Excel



Tabular Data View



Automation

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view

Features

- Compact size
- 3-axis shock
- Fully configurable measurements
- Long life rechargeable battery
- Large capacity event memory
- Programmable start time
- Real-time operation
- CE compliant
- Separate low-g and high-g accelerometers

Applications

- Complete environmental shipment monitoring
- Shipping live cargo
- Aircraft turbulence measurement
- Endurance testing
- Assembly line monitoring
- Brake testing
- Laboratory drop testing
- Machinery monitoring
- Railcar coupling impacts

SPECIFICATIONS

Specifications are subject to change without notice. Specific warranty remedy limitations apply.

SHOCK			
Accelerometer Type	MEMS Semiconductor		
Acceleration Range (g)	±15 g	±100 g	±300 g
Acceleration Resolution (g)	0.02 g	0.05 g	0.2 g
Calibrated Accuracy (g)	±0.3 g	±2.0 g	±6.0 g
Sampling Rate	1000 Hz		
Accelerometer Freq. Resp.	>1000 Hz (15 g) >500 Hz (100 g, 300 g)		
Reading Rate	1024 Hz to 5 minutes for shock, selectable in software		

GENERAL	
Start Modes	Software programmable immediate start or delay start, up to 6 months in advance
Real Time Recording	May be used with PC to monitor and record instantaneous measurements in real time
Memory	4,192,254 readings (1,397,418 per channel, all channels in use)
Password Protection	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out with the password.
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	Internal Lithium Ion pack, charger included
Battery Life	20-90 days dependent on user settings (reading rate, trigger level, peak or instantaneous)
Data Format	Date and time stamped gravities (g and mg), temperature (°C, °F, K, °R), humidity (%RH, mg/ml water vapor concentration), pressure (PSIA, inHg, mmHg, bar, atm, Torr, Pa, kPa, MPa)
IP Rating	IP64
Time Accuracy	10 seconds/month (at 0 °C to 50 °C)
Computer Interface	USB-C cable required (included); 1MBaud
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 4.2.15.0 or later Secure Software version 4.2.14.0 or later
Operating Environment	-20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing
Dimensions	3.4 in x 1.7 in x 1.3 in (86 mm x 43 mm x 33 mm)
Weight	8 oz (227 g)
Material	Anodized aluminum
Approvals	CE compliant EMC Directive 2014/30/EU RoHS Directive 2011/65/EU

BATTERY WARNING: FIRE, EXPLOSION AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CRUSH, PENETRATE, INCINERATE OR DISASSEMBLE. AVOID TEMPERATURES ABOVE THE MAXIMUM OPERATING TEMPERATURE OF THE PRODUCT. DISPOSE OF PROPERLY. CHARGE ONLY WITH THE PROVIDED MADGETECH CHARGER, OR FROM OTHER USB POWER SOURCE VIA THE MADGETECH PROVIDED CABLE.

Ordering Information

Shock300	PN 902167-00	±15 g / ±100 g / ±300 g Tri-Axial Shock Data Logger, Battery Charger and USB Type C Interface Cable

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WP WPLS
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