



## ETM Key Features

**Triggered Events and Continuous Monitoring simultaneously:**

Continuous monitoring is not interrupted by a triggered event.

**No Down Time:** Triggered event processing does not delay subsequent triggered events.

**Trigger on Vector Sum Threshold:** Also trigger on microphone (dBL) and/or individual elements.

**Remote Monitoring:** The optional on-board modem (GSM or Next G) with antenna provides remote monitor communication functions.

**Duty Timetables:** T-Link allows the user to create duty timetables, enabling the monitor to go into 'sleep' mode when monitoring is not required. This helps to conserve battery life between charges.

**Range Change:** Now available through T-Link software.

**Overpressure Peak Detect:** The ETM incorporates circuitry to detect peak overpressure, providing a 100  $\mu$ s detector onset time as required by many environmental authorities.

**Vibration Dose Value (VDV):** All event data is processed within the monitor and results comply with AS2670/BS6472 (or overseas equivalent).

**Vector sum result in continuous mode.**

**Retrieve while monitoring:** Results can be retrieved (either directly or remotely) without interrupting monitoring.

**SMS Notification:** The ETM (when equipped with a modem) can send SMS messages to a number of people when a specified trigger level has been exceeded. The SMS can be either a customised message or the event data (exceedance levels only).

**Standard 16 Mbyte onboard memory:** Allows thousands of waveforms and tens of thousands of events to be stored.

**Accessory Options:** Alarm Light, T-Sched, Modems, External Battery, Solar Panel, Wirebreak, Trigger Sync Box, Splitter Box.

**Sensor Options:** Standard triaxial geophone, low frequency, high range, microphone.

### COMPLIANCE MONITORS AND DATA MANAGEMENT



BLAST



GAS



WEATHER



NOISE



WATER



# ETM Technical Summary



### SENSORS

Input ranges can be configured by the user in T-Link.  
Resolution is 12 bits for all ranges.  
Trigger threshold can be set up to full range.  
The high-frequency roll-off of the sensors (unless otherwise specified) is at 30% of the sampling rate.

### WAVEFORMS

Record modes	Single shot (Threshold, Wirebreak, Trigger Sync, Auto), continuous logging
Sample rates	From 20 to 40000 samples per second (depending on number of channels, and results)
Record time	128 to 131072 points (0.128 to 131.072 seconds at 1000 sps)
Pre-trigger	0% – 100% in 5% steps
Memory	502 × 4s waveforms at 1000 samples per second, with 1093 summaries 65535 summaries in single shot mode (no waveforms) or continuous logging mode

### USER INTERFACE

Display	LCD 20 characters × 2 lines, with backlight Armed LED on Sensor Panel Wire Break Intact LED on Sensor Panel
Keypad	6 keys + power switch
Connectors – top panel	RS232/DB9 for PC communications Charger
Connectors – sensors	MS12-10 for triaxial geophone MS10-7 for microphone or other sensor
Connectors – other	MX-3 for External Battery and Charger/Solar Panel MX-2 for Trigger Sync MX-4 for Alarm and Button Screw Terminals for Wirebreak BNC for Antenna
Connectors – power	IEC320-C8 on international mains charger
Options	Wireless Modem Alarm Light Wirebreak Trigger Sync Box External Battery Auxiliary Battery (inside case) Solar Panel Weatherproof Mains Charger

### POWER SUPPLY

Batteries	Internal rechargeable NiMH 13 A·h @ 9.6 V Up to 720 hours continuous run time (depending on Settings)
Charger	International voltage (90 V to 260 V, 50 Hz to 60 Hz) IEC320-C8 cable
Recharge Time	Approx. 6 hours

### PHYSICAL

Temperature	Operating 0°C to 70°C (32°F to 158°F) Display 0°C to 50°C (32°F to 122°F)
Dimensions	490 mm × 430 mm × 230 mm
Weight	8.8 kg
Environmental	Sealed to IP65 when geophone and microphone connected, or caps in place
EMC	Emissions to CFR47 FCC Part 15B, Class B Verification Emissions to CISPR:2005, Class B

### CE Declaration of Conformity:

Texcel Pty Ltd declares that the ETM meets requirements of EMC Directive 2004/108/EC for Electromagnetic Compatibility and Low Voltage Directive 2006/95/EC for Product Safety.

### EMC DIRECTIVE

- EN 61326-1:2006
- EMC requirements for Electrical Equipment for Measurement, Control, and Laboratory use.

### Electromagnetic Emissions

- EN 55011/A2:2002, Radiated and Conducted emissions (Class A)
- EN 61000-3-2:2000 Harmonic Emissions (Class A)
- EN 61000-3-3/A1:2001 Voltage Fluctuations and Flicker Emissions

### Electromagnetic Immunity

- EN 61000-4-2/A2:2001 Electrostatic Discharge
- EN 61000-4-3:2002 Radiated Susceptibility
- EN 61000-4-4:2004 Burst
- EN 61000-4-5/A1:2001 Surges
- EN 61000-4-6/A1:2001 Conducted Susceptibility
- EN 61000-4-8/A1:2001 Power Frequency Magnetic Field
- EN 61000-4-11:2004 Voltage Dips and Short Interruptions

### COMPLIANCE MONITORS AND DATA MANAGEMENT

