



ABEM

by Guideline Geo

Technical Specification

ABEM Terraloc Pro 2

The rugged seismograph



The ABEM Terraloc Pro 2 is a versatile seismograph designed for a wide range of applications including geological mapping, determining depth to bedrock.

General

Power	Hot-swappable 2x 11.25 V, 6.4 Ah internal Li-Ion power pack 10-28 VDC external power
Power consumption	30/60 W (idle/acquisition)
Ambient temp	-20 °C to +55 °C (operating) -30 °C to +70 °C (storage)
Casing	Rugged aluminum alloy, meets IEC IP66
Weight	12 channels: 9.5 kg 24 channels: 10 kg 48 channels: 11 kg
Dimensions	39x21x32 cm (WxLxH)
Connectors	12 channels: 1x NK-27 24 channels: 2x NK-27 48 channels: 2x KPT 55



Receiver

Number of channels	12, 24 and 48 (Upgradeable)
Additional channels	Easily obtained by linking two or more units together
Reference channels	Yes, 2 additional independent
Sampling rate	100 Hz - 50 kHz (20 µs - 10 ms) (user selectable)
Record length	Up to 480 000 samples /ch. equivalent to: 5,1 ms - 80 min (user selectable)
Pre-trig record	0-100 % of record length (user selectable)
Delay time	Up to 2 minutes (user selectable)
Stacking	32 bits, up to 999 impacts (user selectable)
Unstack	Remove last shot from stack (user selectable)
Trigger inputs	Trigger coil, make/break, geophone and TTL
A/D converter resolution	24 bits
Dynamic range	(Theoretical/measured) 144 dB / >120 dB
Input voltage range	0.5 Vpp, 5 Vpp, 12.5 Vpp (selectable)
Input gain	0 dB, 12 dB, 24 dB, 36 dB, 48 dB (selectable)
Input impedance	3 kOhm, 20 kOhm, 20 MOhm (selectable)
Frequency range	DC to 20 kHz
Total harmonic distortion	0.0005 %
Crosstalk	-120 dB
Noise monitor	Amplitude
Anti-alias filters	Set automatically based on sampling rate

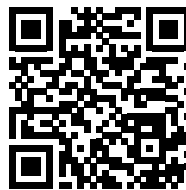
Post Recording Features

Digital filters	Band-pass, low-pass, high-pass, band-reject and DC offset removal
Spectrum analysis	Any single trace, FFT analysis
Velocity analysis	On-screen analysis of refractor velocity
First arrivals picking	Automatic or manual
	Times can be saved with record
Pre-stack correlation	Yes, cross-correlation with reference or any other channel

Integrated Field PC

Processor	Low power Intel Atom with 4 cores of 1.9 GHz
Operating system	Linux Ubuntu
Internal RAM	4 GB
Hard disk capacity	100 GB or greater
Display	8,4" Active TFT LCD, full colour, daylight visible, resolution of 800x600
I/O port	3xUSB 2.0 ports
Network interfaces	1x Gigabit Ethernet IEEE 802.11 a/b/g, built-in WLAN antenna Optional mobile modem
GPS	Yes, built-in

See also: Our dedicated [step-by-step guidance](#) for undertaking Vs30 measurements, including the ability to QA the data in the field, with our on-instrument dispersion curve generator.



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