

## Technical Specification

The ABEM Terraloc Pro 2 is a versatile seismograph designed for a wide range of applications including geological mapping, determining depth to bedrock, bedrock quality, soil stability and finding fractures and weak zones.

### General

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

### Receiver

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



## Post recording features

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

## Integrated Field PC

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



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