

SUMMIT X One

Unique flexibility for seismic experts

The SUMMIT X One is a distributed seismic system specially designed for high resolution 2D/3D seismic surveys. Its unique data telemetry with SNAP-On technology enables easy and most flexible field deployment even in rough terrain and with complex field layouts. The modular and scalable system ensures high field productivity for both smaller systems with less than 50 channels for near surface investigations as well as for larger field deployments with >3000 channels for 2D/3D seismic reflection surveys.

Application

- High resolution 2D/3D reflection surveys
- Refraction / LVL-surveys
- Seismic tomography surveys
- MASW and REMI
- Passive seismic applications

Key-Features

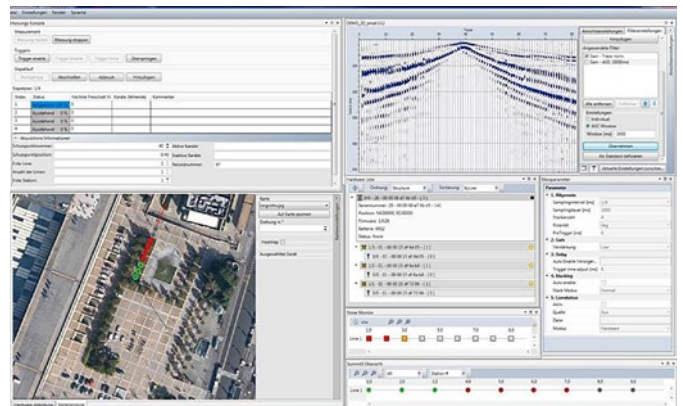
- Unique SNAP-On technology: connect Remote Units to telemetry line wherever needed
- Scalable system from just a few to >3000 channels
- Extremely lightweight: 175 g per Remote Unit
- Central power supply to Remote Units over telemetry cable
- 2-wire telemetry cable can be repaired easily in the field
- Option for continuous passive recording



SUMMIT X One Snap-On Connector



Field deployment for High-Resolution Vibro-Seis Survey



SUMMIT X One Acquisition Software

Technical specifications

Sample Interval	1/16, 1/8, 1/4, 1/2, 1, 2, 4, 8 ms
Record Length	Up to 120 K samples in active shot mode or continuous passive recording
Preamp Gain	0 dB, 20 dB or 40 dB
Sample resolution	32 Bit
Input Signal range	± 5 Volt 10 V peak to peak
Input Impedance	20 kOhm
Instantaneous Dynamic Range	≥ 132 dB @ 2 ms sampling interval
System Dynamic Range	≥ 145 dB
Equivalent Input Noise	Less than 0.2 µV RMS @ 2 ms sampling interval and 40 dB preamp gain
Total Harmonic Distortion	≤ 110 dB
Common Mode Rejection	≥ 100 dB
Gain Accuracy	Typical 1 % (between all channels)
Passband	DC (0 Hz) to 0.8 x Nyquist
Digital Anti-Alias Filter	3 dB @ 0.8 x Nyquist
Rejection at Nyquist Frequencies	-120 dB
Passband Ripple	+/- 0.05 dB
Analogue Anti-Alias Filter	7.2 kHz 6 dB/octave

System Status and in-field test functions

Status (Automatic update)	- Battery status - Sensor noise level
System Check (Report)	- Equivalent input noise - Total harmonic distortion - Instantaneous dynamic range - Common mode rejection
Geophone Check (Report)	- Connection Status - Impedance - Damping - Natural frequency

Mechanical Specifications

Power Supply	External 12 V or 24 V batteries Connected to Data Collector Units
Dimensions	RU: 16 x 7 x 4 cm DC: 30 x 30 x 13 cm
Weight	RU: 175 g DC: 5,3 kg

Environmental Specifications

Operation Temperature	-25°C to + 60°C
Humidity Range	0 – 95 %
Case	Solid waterproof housing deployable in any surface environment

System Requirements for controlling PC

Operating System	Windows 7 / 10
Communication	Ethernet LAN
Processor	Minimum i5 or equivalent ≥ 2 GHz
RAM	8 GB or more

Subject to technical changes

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Disposal information:

Our products are subject to the WEEE directive. DMT has committed itself to take back all electrical and electronic components sold and to dispose of them professionally. Please contact: products@dm-tgroup.com

WEEE Registration Number: **DE 25917380**

