

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

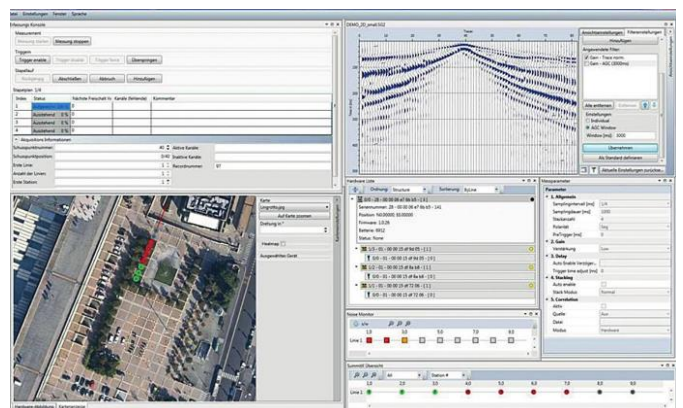
- Unique SNAP-On technology: connect Remote Units to telemetry line wherever needed
- Scalable system from just a few to >3000 channels
- Extremely lightweight: 175 g per Remote Unit
- Central power supply to Remote Units over telemetry cable
- 2-wire telemetry cable can be repaired easily in the field
- 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) | <ul style="list-style-type: none"> – Bitter status – Sensor noise level |
| System Check (Report) | <ul style="list-style-type: none"> – Equivalent input noise – Total harmonic distortion – Instantaneous dynamic range – Common mode rejection |
| Geophone Check (Report) | <ul style="list-style-type: none"> – 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 10 / 11 |
| Communication | Ethernet LAN |
| Processor | Minimum i5 or equivalent ≥ 2 GHz |
| RAM | 8 GB or more |

Subject to technical changes

DMT GmbH & Co. KG
Am TÜV 1
45307 Essen, Germany
T +49 201 172-1441
E products@dm-tgroup.com
summit-system.de

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**



DIN EN ISO 9001
DIN EN ISO 14001
DIN ISO 45001

