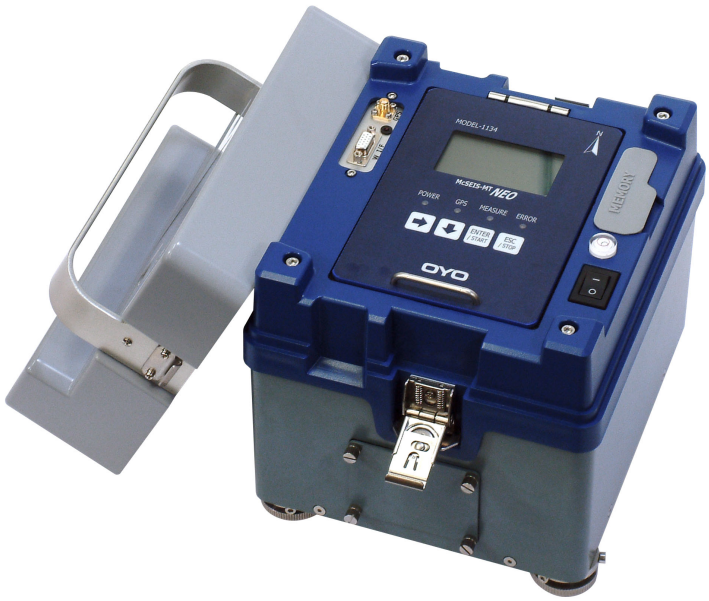
MODEL-1134

GEOLOGICAL, GEOPHYSICAL, GEOTECHNICAL SERVICES AND INSTRUMENTS

OYO

Microtremor (1 ch, 3 ch)

McSEIS-MT NEO



<Abstract>

McSIES-MT NEO is the data acquisition station for microtremor array measurement and vibration monitoring.
It is also used for the study of vibration characteristics of the ground and structures.
McSEIS-MT NEO does not require any artificial seismic source such as hammering or weight dropping but acquire vibration propagated in the surface of ground, that is surface wave, generated by traffic noises and industrial vibration, natural phenomena such as ocean waves at seashore and winds.
The investigation from several ten meters to several thousand meters is possible by the triangle microtremor array with four (4) McSEIS-MT NEO or more.
The Software SeisImager/MT NEO is available for analyzing its phase velocity to produce 1D S-wave velocity structure of the ground.

<Feature>

- McSEIS-MT NEO “All-in-one station which includes sensor and battery” allows Vs measurement with triangle array for a different depth.
- The measurement is possible without using artificial seismic source at noisy sites where the human activity is overcrowded.
- The Vs structural survey is possible for the depth of several ten meters to several thousand meters.
- Uploading of measurement parameters from the SD memory card makes it possible to start recording without any difficulties.
- GPS clock in each station allows synchronizing all recordings and makes it possible wireless system among stations.

＜Specification＞

■ System Components	Main station (All-in-one) + Application Software (Option). Main station is including 1ch/3ch Servo-Accelerometers, Function of data acquisition, GPS module, internal battery. Optional software: Application Software works in laptop PC for data processing, Interchange data format, setting file of the main station
■ Sensor : Servo-Accelerometer	
Resolution	: 1 μG
Sensitivity	: 2.0 V/G
Range	: +/- 4G
■ Data Acquisition	
Number of channels	: Selectable (Internal 1 ch <Vertical> / 3 ch <Vertical, Horizontal>) (External 1 ch <Vertical> / 3 ch <Vertical, Horizontal>)
Input Impedance	: 1 MΩ (Typical)
Maximum Input	: External +/- 2.5 Vp-p
Frequency Response	: 0.1 to 200 Hz
Dynamic Range	: 120 dB (Measured)
A/D Converter	: 32 bit (S/N ratio on 127 dB 500 sps)
Sample Time	: 2, 4, 10, 20, and 50 msec (LPF 206 Hz Fixed)
Data Recoding Mode	: Manual Mode, Auto Mode, and Timer Mode
Data Record Length	: Max. Continuous 15 hours (Without wireless module)
Data Media	: SD Memory Card 2 GB SDHC Memory Card 2GB, 4GB, 8GB, and 16GB
Data Format	: Binary Format
Setting	: Uploading a setting file in a SD memory card
Interface	: SD Memory Card Interface, Wireless Interface
■System Case	
Dimensions	: 220 (W) × 250 (H) x 245 (D) mm
Weight	: 7.5 kg (Main unit 5 kg, Internal battery 2.5 kg)
Case Protection	: Dustproof, Splash-proof (Equivalent to IP43)
Level Adjustment	: Bubble Level Adjustment by Level Adjustment Leg
■System	
Power	: Internal Battery DC 12 V, 7.2 Ah (AC adapter DC 19 V to 20 V)
Power Consumption	: 6 W (Without Wireless Module) 11 W (With Wireless Module)
Operating Temperature	: -20 to +55 ℃
Humidity	: 10 to 90 %

■Note

Application Software” SeisImager/MT NEO” and a unit of “Wireless LAN system” are option.
The wireless LAN communicating max. distance is approx. 80 m without any disturbance.

Please note specifications are subject to change without notice for the improvement.

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