

MULTI-CHANNEL DIGITAL RESISTIVITY METER

McOHM Profiler-4



<Abstract>

The McOHM Profiler-4 is the Multi-Channel Resistivity meter, for engineering purpose such as Land slide monitoring, liquefaction and environmental studies, underground water survey etc.

The system is incorporated with the electrode switching function for 32 electrodes, the 4 channel-receiver circuit with high resolution 24 bits Sigma-Delta A/D converter, the power supply circuit to inject 400V max. (800V peak-to-peak) /120mA. It's based on the Windows XP with color display, Flash Solid State Drive (SSD), USB2.0 ports with higher quality and reliable field performance. Furthermore, monitoring and displaying of both the current waveform and the potential waveform is effective to control the quality of data.

<Features>

- The electrode array of pole-pole, pole-dipole, dipole-dipole, Wenner-2D etc. for the measurement is available.
- 4-channel simultaneous measurement can shorten the data acquisition time at site.
- The system is expandable up to 288 electrodes with external scanners.
- Full-automatic measurement with the control program, automatic timed measurement by the internal clock.
- Plotting function of decay curve for pole-pole array is effective to control the quality of data at site.
- The measured data can be stored either in large capacity of internal hard disk, USB memory.
- Cost effective and downsized system with light in weight.

<Specifications>

McOHM Profiler-4 (Model-2140F)

● Transmitter

Maximum output current : 2, 20, 60 and 120mA (constant current)
Maximum output voltage : 400V (800V peak-to-peak)
Cycle : 0.5, 1, 2, 4 and 8 seconds

● Receiver

Number of input channels : 4 channels (independent)
Input impedance : 10MΩ
A/D resolution : 24 bits
Electrode array : any array
Measurement mode : automatic, timed and manual measurement
SP compensation : automatic compensation by D/A converter

● Scanner

Internal scanner : 32 electrodes
External scanner : Max. 256 electrodes every 64 channels, total 288 electrodes

● System control

CPU : ULV Intel Celeron Processor 600MHz
Internal SSD : 32GB
Interface : USB2.0 port ×3 (Front 2, Rear 1)
PS/2 keyboard port
Display : 10.4", XGA/TFT color LCD
Display parameters : injected current, 4ch potential waveform, measured values, decay curve
Power requirement : 10.5V to 13.5V DC
Power consumption : 2.0A (standby), 9.0A (max)
Dimensions : 330 x 270 x 270 mm

Scanner 64 (for expansion)

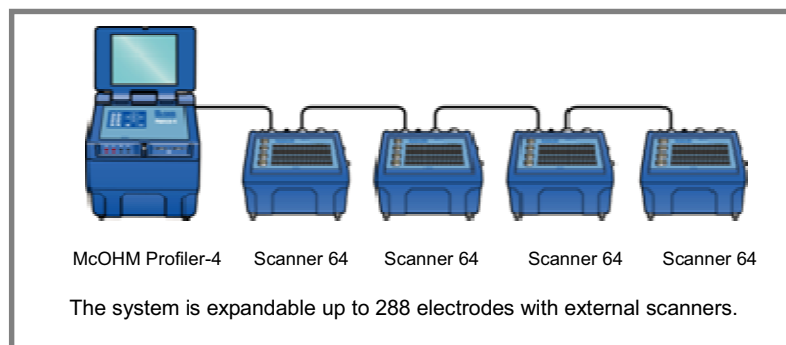
Number of electrodes : 64 electrodes
Communication interface : RS-485
Power requirement : 10.5V – 14VDC
Power consumption : 1A (standby), 2A (max)
Dimensions : 330 x 270 x 220 mm



<Applications>

- 1) Long term monitoring of leakage at garbage disposal areas
- 2) Investigation of soil contamination by waste oil
- 3) Judgment of effectiveness of grouting
- 4) Research and studies of liquefaction
- 5) Investigations for dams and tunnels
- 6) Landslide monitoring
- 7) Ground water exploration

<System diagram>



Please note specifications are subject to change without notice.

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