



The DoReMi seismograph is an innovative instrument which spread along the cable all the electronic needed to record a seismic signal.

This architecture has several benefits which in their sum bring the system to be very comfortable in use in any operative condition.

In this page is not possible to list all feature and practical way of its use so we invite you to visit our web site at the address [www.sara.pg.it](http://www.sara.pg.it) for further information.

### Simplicity

Each channel is itself a seismograph connect in this nano-network easy to transport in its cable wheeler.

### Flexibility

The system is fully modular, you can purchase exactly the channel you want from 1 to N.

### Energy

A rechargeable battery is embedded in the main interface. System go in standby as soon is not used so the battery are light and last for long term.

### Precision

With the a/d converter placed VERY near to the geophone the majority of the environmental noise that affect common instrumentation is eliminated. An exceptional low noise is accomplished with a sensitivity superior of the majority (if not all others) 24 bit competitor seismographs. Transmission is digital so no signal loss or crosstalk can happen along the string.

### Completeness

The system allow you to run a wide range of surveys from passive (ReMi) to active like MASW, Refraction and Reflection.

### User friendly

With channel completely modular you can add cable extension, overcome obstacles, replace channels without the need to change the cable.

### Reliability

Completely designed and produced inside our company we guarantee fast customer service, training, customization and consultants. In 3 years of heavy operation and hundreds of clients we still count faults on the hand's fingers.

### Software

Software available in English (and of course in Italian) is flexible and capable to drive all system features over some useful functions for first free field data check.

Several functions for easier life on field operation includes pre-shot noise monitor, downhole data rearrangement, SH shots inversion and overlapping, data interlacing and roll-along.

### Technical features

Class of instrument: geophysical multichannel digital seismograph  
 Topology: RS485 half-duplex multipoint  
 Max network length: 1200 metri without repeater (virtually unlimited with signal repeater)  
 Max ch.nr. per branch: 255  
 Element dimension: 80x55x18 mm  
 Weight: 250 g (with a 5 meter cable spacing)  
 Cable: 4 wires, 2 pairs, robust geophysical cable

### Sampling

Memory: 64 kBytes (30000 samples)  
 Sampling rates: from 200 a 20000 Hz (from 5 to 0.05 ms)  
 A/D converter: SAR 16 bit (96 dB nominal dynamic range)  
 P.G.Amplifier: ultra-low noise differential input  
 Filters: 3Hz high pass, 200Hz low-pass  
 Common mode rejection: >80dB  
 Crosstalk: not present the data transmission is digital

### System dynamic range

Resolution: 7.600  $\mu$ V @ 10x; 0.076  $\mu$ V @ 1000x  
 A/D dyn.range: 96dB (16 bit)  
 S/N ratio 0.5 - 30Hz: >90dB (RMS)  
 Full range @ 10x: 0.5V p-p  
 Resolution: 0.0000002V p-p @ 1000x 4000Hz (RMS)  
 Theor. total dyn.range: 155dB (A/D + PGA)

### Power supply

Power supply: internal battery operative from 10 to 15Vdc  
 Power consumption: Interface: 80 mA  
 per channel: 35 mA (when powered)  
 power consumption for 12 ch: 500mA

**NB: Technical feature can change without any prior notice!**

