



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

This architecture has several benefits which on the whole make the system very convenient to use in any operating conditions.

It is not possible to list all of its features and practical uses on this page, therefore we invite you to visit our web site at www.sara.pg.it for further information.

Simplicity & Flexibility

Each channel is in itself a seismograph that is linked to the other elements so as to create a nano-network that is easy to transport in its cable wheeler. The system is fully modular; you can purchase the exact number of channels you need, from 1 to N.

Energy

A rechargeable battery is embedded in the main interface. The system goes into standby as soon as it is not used, so the battery is lightweight and stays charged for a long time.

Precision

With the a/d converter placed VERY near to the geophone, most of the electro-magnetic environmental noise that affects common instrumentation is eliminated. 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 using either an artificial signal or using ambient noise.

User friendly

Since the channels are completely independent, you can add cable extensions, overcome obstacles, and replace channels without the need to change the entire cable.

Reliability

Entirely designed and produced inside our company, we guarantee fast customer service, training, customization and consultants. After 8 years of heavy operation and hundreds of clients worldwide the system has proven to be one of the most reliable and practical system in the market.

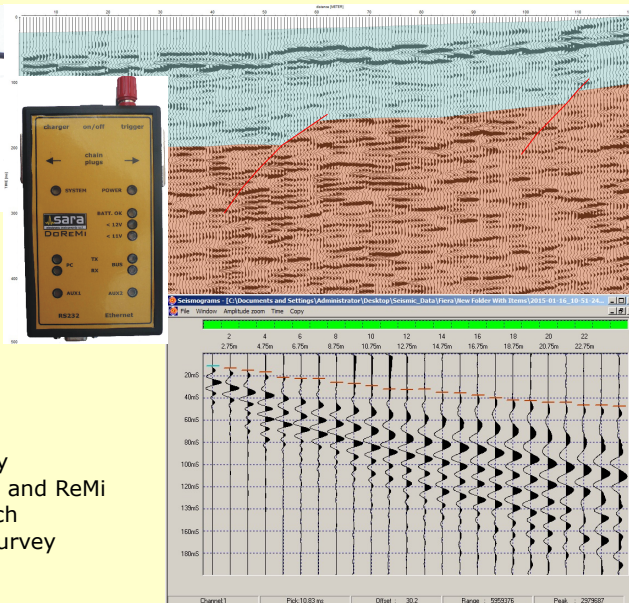
Software

The software available in English (and of course in Italian) is flexible and able to drive all system features as well as some tools for a first on-site data check.

Several functions for facilitating field operations include: pre-shot noise monitor, downhole data rearrangement, SH shots inversion and overlapping, data interlacing and roll-along.

Technical Features

No. of Bits	16	24
A/D Converter Type	SAR	SIGMA DELTA
Converter Input Span	5 V	5 V
S/N Ratio @ 500 SPS	96 dB (@ 27dB gain)	140 dB
S/N Ratio @ 5000 SPS	94 dB (@ 27dB gain)	130 dB
S/N Ratio @ 20000 SPS	92 dB (@ 27dB gain)	105 dB
Input Type	Unipolar Differential	Unipolar Differential
Input Impedance	> 100 kΩ	20 kΩ
Common Mode Rejection	> 80 dB	> 80 dB
Low Pass Filter:	200 Hz	400 Hz
High Pass Filter:	2 Hz	none
Max Sampling Lag Between Ch.:	<30 ppm	<30 ppm
Max Error Between Trigger Ch.:	< 1 ns	< 1 ns
Ch. Memory:	64000 bytes	128000 bytes
Maximum Samples:	30000	30000
Sampling Rates:	200 Hz to 20000 Hz	200 Hz to 20000 Hz
Maximum Connectable Channels:	255	255
Power Consumption:	≈ 0.3 W per Ch.	≈ 0.3 W per Ch.
Instrument Chain Max Length:	1000 m	1000 m
Recommended Geophones:	4.5 Hz High Gain 80 V/m/s	4.5 Hz High Gain 80 V/m/s
Diagnosis:	Memory Status (OK / Fault)	Memory Status (OK / Vdc)
Baud Rate:	115200 baud, N, 8,1	115200/230400, N, 8,1



Applications

Typically used for MASW surveys, it can be used for any other seismic surveys like:

- Refraction
- Reflection
- Tomography
- ESAC/SPAC and ReMi
- Water search
- Landslide survey
- Downhole
- Crosshole

Notice! SARA Electronic Instruments s.r.l. reserves the right to make changes to the product specifications at any time and without notice, including changes in price, content, description, terms, etc.

SARA electronic instruments s.r.l.

06129 – Perugia – Via Armando Mercuri, 4 – ITALY

Phone: +39 075 5051014 – Fax: +39 075 5006315 - www.sara.pg.it - info@sara.pg.it

Reg. Trib. Perugia N-5718 – C.C.I.A.A. 109864 - C.F. e P.iva 00380320549 - N.Reg.RAEE: IT08020000001128