ROVER BROADCAST

A STEP AHEAD IN DIGITAL TELEVISION

DVB T2/C2/S2

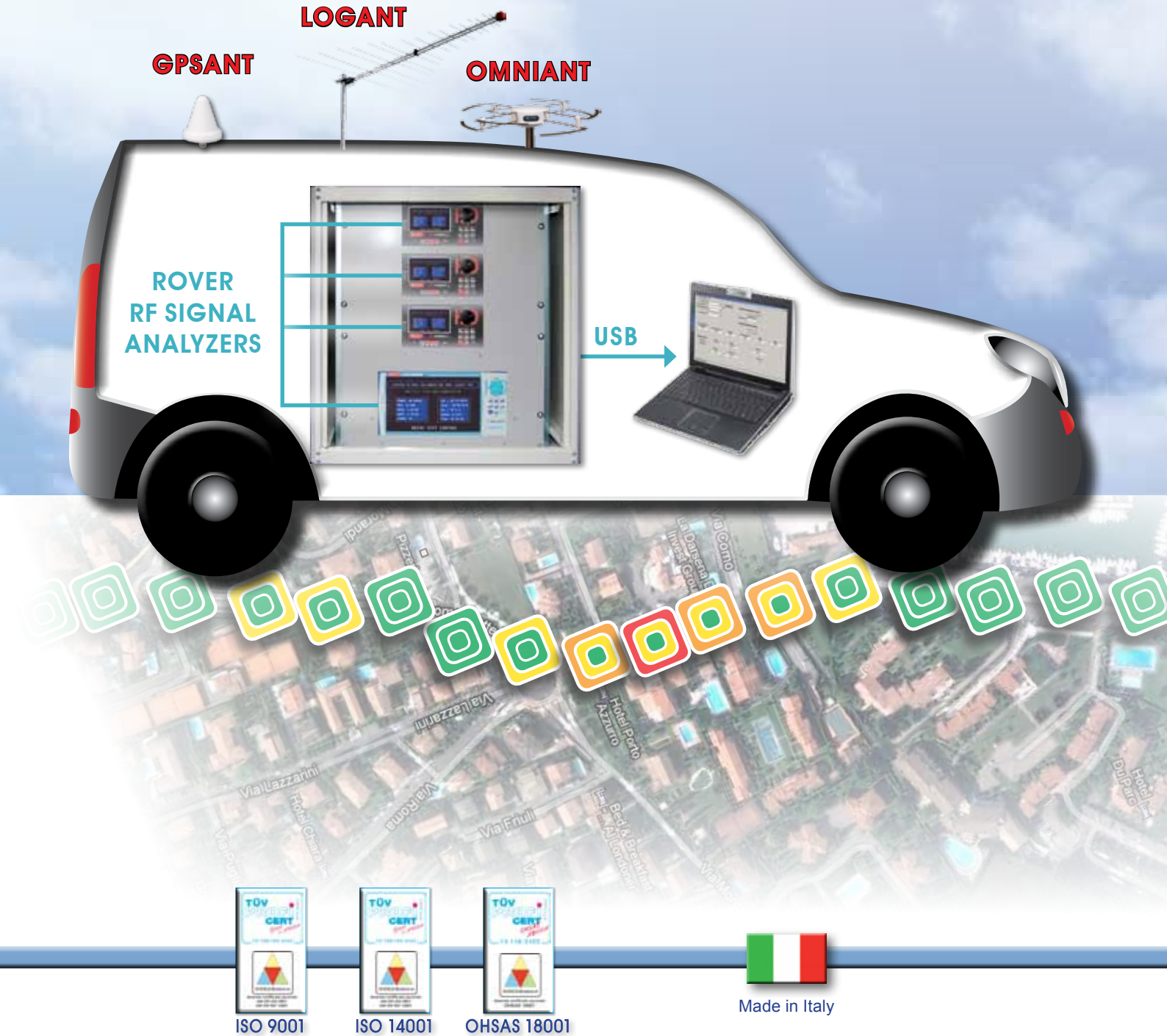
ISDB-T – ATSC – GB20600

V.1,2 4-12-2013

Rover "HD PRODRIVE TEST SW"

EFFICIENT BROADCAST DRIVE TEST SOLUTION FOR COST EFFECTIVE FAST & ACCURATE TERRESTRIAL BROADCAST NETWORKS COVERAGE ANALYSIS

DVB-T2 MOBILE & STATIONARY MEASUREMENTS



ISO 9001 ISO 14001 OHSAS 18001

Made in Italy

Rover "HD PRODRIVE TEST SW"

Efficient Broadcast DRIVE TEST solution for cost effective fast & accurate terrestrial broadcast network coverage analysis

When the Broadcaster Operator designs a Terrestrial broadcast network (especially for SFN or mobile) for a specific region or country, they use very complex simulation programs to predict the coverage for each planned transmitter site in the various areas; but, because of the complex characteristics of some urban areas or regions, not all can be reliably predicted.

For this reason, when the transmitter installations are completed, we must measure and record the real coverage situation in all the important areas of the region or country, and the Rover "HD PRODRIVE TEST SW", together with "HD PROTAB & COMPACT" Analyzers and an OMNI DIRECTIONAL ANTENNA "Rover" OMNIANT, operating from 47 to 880 MHz Band, is the best, cost effective and reliable solution for Terrestrial Broadcasting Coverage Analysis, with a single trip to the different areas.

DVB-T2 MOBILE & STATIONARY MEASUREMENTS SYSTEM OVERVIEW

The Rover "HD PRODRIVE SW", used in combination with a ROVER "HD PROTAB" analyzer with built in GPS Receiver, and one or more (up to 7) Cost Effective "HD COMPACT" Analyzers (total 8 Analyzers working in parallel with very fast measurement acquisition); it is possible to measure and record multiple Channel/Frequency Networks, for example: 4 networks (one channel for each analyzer) or 8 networks (two CHs for each analyzer), or 12 (with 3 CHs each) or 16 (with 4 CHs each) in a single journey.

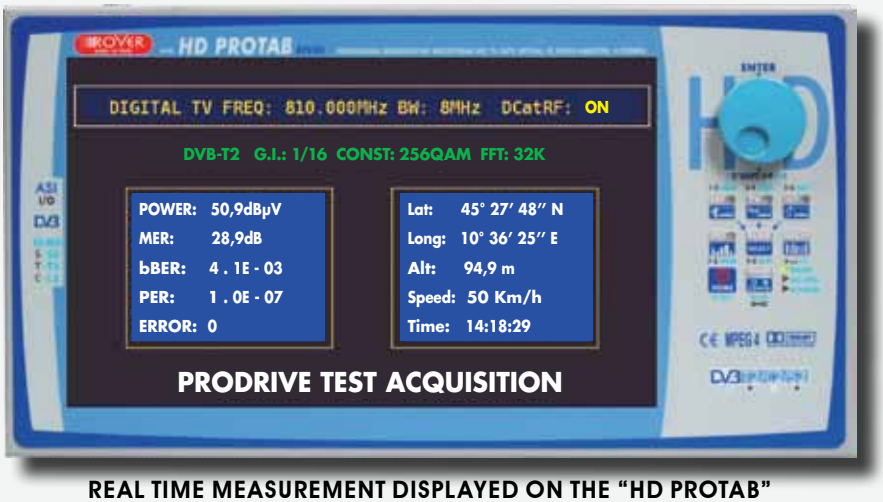
Using a standard PC with ROVER "HD PRODRIVE TEST SW", in combination with "HD PROTAB" and "HD COMPACT" Analyzers, it is possible to display a vast amount of Measured/ Recorded data in Google Earth Maps making it easy to recognize critical reception areas in a single journey.

Once you have discovered the critical areas, you can return only to those limited areas for further stationary measurements, using the ROVER "HD PROTAB" Analyzer and with K Factor Tested LOG PERIODIC ROVER cost effective Antenna "LOGANT", operating from 150 to 880 MHz Band and measure/ record the signal quality and relative geographic position.

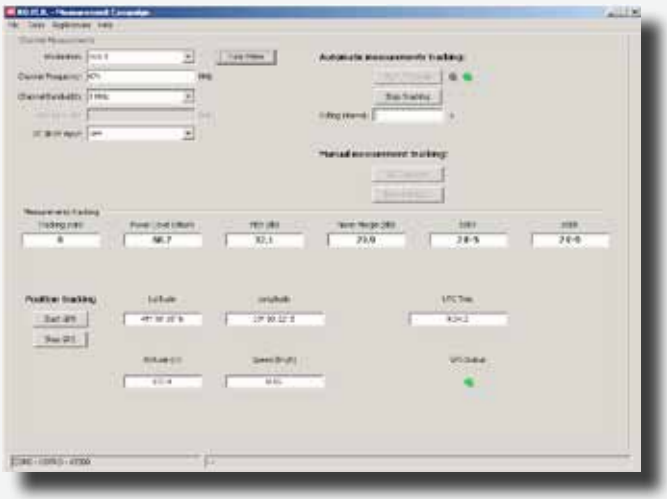
Rover "HD PRODRIVE TEST SW" - MAIN FEATURES

- Fast Multiple CH Measurement, from 1 to 8 Analyzers in parallel.
- Single CH or multiple CHs measurements acquisition for each Analyzer.
- Supported mobile measurements: Field strength/power, Mux lock, MER, PER/BER, ECHOES, (depending on speed and standard).
- Supported Stationary Measurements: Field strength/power, Mux lock, MER, PER/BER, ECHOES.
- Supported Standards: DVB-T, DVB-T2, Analog TV, FM Radio, DAB, ISDB-T 6/8 MHz, ATSC, GB20600.

Rover "HD PRODRIVE TEST SW" - MEASUREMENT EXAMPLES

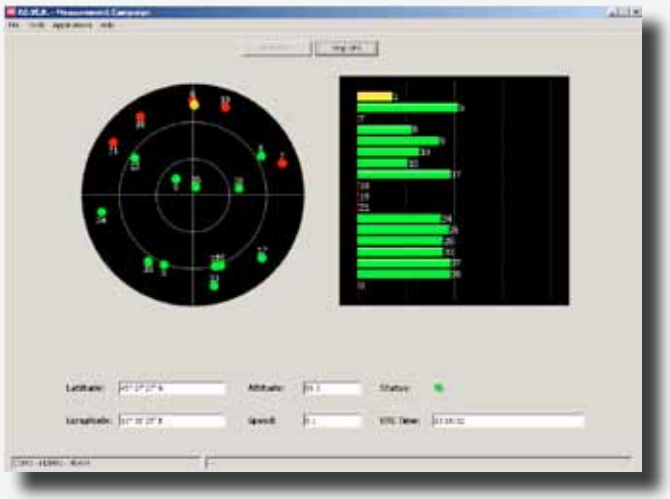


REAL TIME MEASUREMENT DISPLAYED ON THE "HD PROTAB"



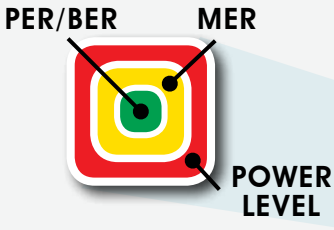
MEASUREMENT CAMPAIGN ON THE PC

On this screen it is possible to analyze the Power, MER, Noise Margin and PER/BER measurements of the selected channel. At the same time you can visualize the position, speed and altitude.



GPS ANALYSIS & POSITION TRACKING ON THE PC

On this screen you can see the number of "GPS" satellites available and analyze the SNR of each satellite. With the traffic-light color (green-yellow-red) it is easy to understand the signal quality of each satellite.



<30	Field Strength Power dBµV	>50
<15	MER dB	>25
>10-2	PER	<10-7

Color reference T2 measurements example.

PC FUNCTION FOR DISPLAYING MEASUREMENT RESULTS IN GOOGLE EARTH MAPS

The traffic light colors are used to show the correlation between different measured values for the same frequency, such as: the received field strength power, modulation error ratio and bit/packet error ratio.

"HD PRODRIVE" CABINET ASSEMBLY KIT N. 4 (with 4 Analyzers)

Q.ty	*Mod.*	*Content descriptions:*
N.1	**OMNIANT :**	Omnidirectional active antenna with tested antenna K factor, 47-880 MHz for Mobile measurements.
N.1	**LOGANT :**	Log Periodic antenna with tested antenna K factor, 150-880 MHz, 50 Ω "N" connector, for Stationary Meas.
N.1	**SO504DC :**	4 WAY RF splitter, external DC transit, 4-2250 MHz
N.1	**USBHUB4 :**	4 WAY USB PC HUB
N.1	**CAB14U :**	19" 14U Rack cabinet (with transportation Box)
N.4	**FRONTPAN :**	19" Front Panel Support up to 4 Rover Analyzers
N.1	**PSU12V10A6O :**	Multi output PSU, 12Vdc 10 A up to 4 Rover Analyzers
N.1	**CONTPAN :**	Control Panel and Antenna switch
N.1	**SLIDEPAN :**	19" 1U PC Slide pnnel to contain PC
N.1	**NOTEBOOK PC :**	Notebook PC for controlling up to 8 Rover Analyzers
N.4	**HD PRODRIVE TEST SW :**	ROVER SW for HD PROTAB Analyzer, already installed in the PC, for Fast and Accurate Terrestrial Broadcast Network Coverage Analysis
N.1	**HD PROTAB :**	Professional Broadcast Analyzer combined SAT, TV & CATV, 10.2" display TOUCH, complete with GPS Receiver and GPS Antenna
N.3	**HD COMPACT :**	Professional Compact Analyzer combined SAT, TV & CATV, 4.3" display TOUCH

NET PRICE without Analyzers ..... €

SHORT DESCRIPTION

"HD PROTAB STC" ROVER ANALYZER with GPS *(For more technical specifications see relative Catalog)*

Description:
Professional HD Broadcast Analyzer, Combined SAT/TV/CATV, 10.2" TOUCH Display, 6-hr Ion-Polimer Battery.
Supplied: GPS Receiver, DVB-S2 Multistream, DVB-T/T2 (or ATSC, or ISDB-T, or GB20600), DVB-C, Analog TV, ASI IN/OUT, LTE Analyzer, LCN, C.I. Slot, Dual commands Keys & Touch.
RF Connector Selection: "N" 50 Ω and possible optional OPTIC Input
"F" 75 Ω and possible optional OPTIC Input
"N+F" without Optical, LTE Filter, Minispectrum.
Optional: PRODRIVE TEST SW LICENSE, ETR 101-290 T.S. Analyzer, DVB-T Network Delay Measurement, LAN IPTV/ASI, OPTIC INPUT, TV Minispectrum, LTE filter, DAB+, DVB-C2, DVB-T2 LITE, MULTIMEASURES.

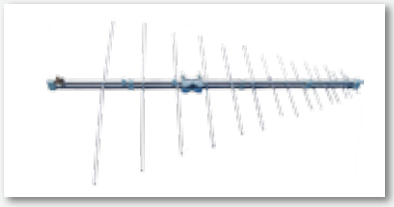
NET PRICE each ..... €

"HD COMPACT STC" ROVER ANALYZER *(For more technical specifications see relative Catalog)*

Description:
Compact HD analyzer, Combined SAT/TV/CATV with digital & analog TV pictures TFT 4,3", DVB-S2/T2/C (T2 LITE opt.)

NET PRICE each ..... €

"LOGANT"



Description:
Log Periodic antenna with tested antenna K factor, 175-870 MHz, 50 Ω "N" connector, for Stationary Meas; Partially dismountable with included transportation bag.

NET PRICE each ..... €

"OMNIANT"

Description:
Omnidirectional active antenna with tested antenna K factor, 47-880 MHz for Mobile measurements; Complete with carry bag, magnetic anchoring base and fixing belt.

NET PRICE each ..... €

"HD PRODRIVE" ASSEMBLY KIT N. 2 (with 2 Analyzers)

Q.ty	*Mod.*	*Contents descriptions:*
N.1	**OMNIANT :**	Omnidirectional active antenna with tested antenna K factor, 47-880 MHz for Mobile measurements.
N.1	**LOGANT :**	Log Periodic antenna with tested antenna K factor, 150-880 MHz, 50 Ω "N" connector, for Stationary Meas.
N.1	**SO504DC :**	2 WAY RF splitter, external DC transit, 4-2250 MHz
N.1	**USBHUB4 :**	2 WAY USB PC HUB
N.1	**CAB14U :**	19" 14U Rack cabinet (with transportation Box)
N.2	**FRONTPAN :**	19" Front Panel Support up to 2 Rover Analyzers
N.1	**PSU12V10A6O :**	Multi output PSU, 12Vdc 10 A up to 2 Rover Analyzers
N.1	**CONTPAN :**	Control Panel and Antenna switch
N.1	**SLIDEPAN :**	19" 1U PC Slide panel to contain PC
N.1	**NOTEBOOK PC :**	Notebook PC for controlling up to 8 Rover Analyzers
N.2	**HD PRODRIVE TEST SW :**	ROVER SW for HD PROTAB Analyzer, already installed in the PC, for Fast and Accurate Terrestrial Broadcast Network Coverage Analysis
N.1	**HD PROTAB :**	Professional Broadcast Analyzer combined SAT, TV & CATV, 10.2" display TOUCH, complete with GPS Receiver and GPS Antenna
N.1	**HD COMPACT :**	Professional Compact Analyzer combined SAT, TV & CATV, 4.3" display TOUCH

NET PRICE without Analyzers ..... €

SHORT DESCRIPTION

"HD PROTAB STC" ROVER ANALYZER with GPS *(For more technical specifications see relative Catalog)*

Description:
Professional HD Broadcast Analyzer, Combined SAT/TV/CATV, 10.2" TOUCH Display, 6-hr Ion-Polimer Battery.
Supplied: GPS Receiver, DVB-S2 Multistream, DVB-T/T2 (or ATSC, or ISDB-T, or GB20600), DVB-C, Analog TV, ASI IN/OUT, LTE Analyzer, LCN, C.I. Slot, Dual commands Keys & Touch.
RF Connector Selection: "N" 50 Ω and possible optional OPTIC Input
"F" 75 Ω and possible optional OPTIC Input
"N+F" without Optical, LTE Filter, Minispectrum.
Optional: PRODRIVE TEST SW LICENSE, ETR 101-290 T.S. Analyzer, DVB-T Network Delay Measurement, LAN IPTV/ASI, OPTIC INPUT, TV Minispectrum, LTE filter, DAB+, DVB-C2, DVB-T2 LITE, MULTIMEASURES.

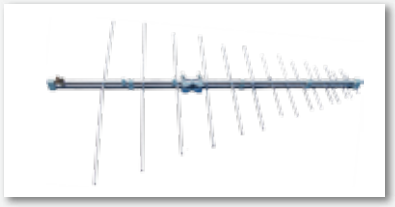
NET PRICE each ..... €

"HD COMPACT STC" ROVER ANALYZER *(For more technical specifications see relative Catalog)*

Description:
Compact HD analyzer, Combined SAT/TV/CATV with digital & analog TV pictures TFT 4.3", DVB-S2/T2/C (T2 LITE opt.)

NET PRICE each ..... €

"LOGANT"



Description:
Log Periodic antenna with tested antenna K factor, 175-870 MHz, 50 Ω "N" connector, for Stationary Meas; Partially dismountable with included transportation bag.

NET PRICE each ..... €

"OMNIANT"

Description:
Omnidirectional active antenna with tested antenna K factor, 47-880 MHz for Mobile measurements; Complete with carrying bag, magnetic anchoring base & fixing belt.

NET PRICE each ..... €

"HD PRODRIVE" ASSEMBLY KIT N. 1 (with 1 Analyzer)

Q.ty	*Mod.*	*Contents descriptions:*
N.1	**OMNIANT :**	Omnidirectional active antenna with tested antenna K factor, 47-880 MHz for Mobile measurements.
N.1	**LOGANT :**	Log Periodic antenna with tested antenna K factor, 150-880 MHz, 50 Ω "N" connector, for Stationary Meas.
N.1	**NOTEBOOK PC :**	Notebook PC for controlling up to 8 Rover Analyzers (not essential)
N.1	**HD PRODRIVE TEST SW :**	ROVER SW for HD PROTAB Analyzer, already installed in the PC, for Fast and Accurate Terrestrial Broadcast Network Coverage Analysis
N.1	**HD PROTAB :**	Professional Broadcast Analyzer combined SAT, TV & CATV, 10,2" display TOUCH, complete with GPS Receiver and GPS Antenna

NET PRICE without Analyzers ..... €

SHORT DESCRIPTION

"HD PROTAB STC" ROVER ANALYZER with GPS *(For more technical specifications see related Catalog)*

Description:
Professional HD Broadcast Analyzer, Combined SAT/TV/CATV, 10.2" TOUCH Display, 6-hr Ion-Polimer Battery.

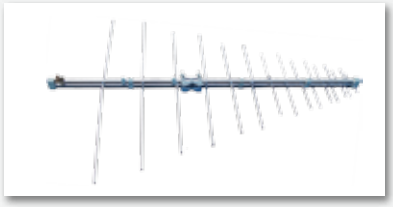
Supplied: GPS Receiver, DVB-S2 Multistream, DVB-T/T2 (or ATSC, or ISDB-T, or GB20600), DVB-C, Analog TV, ASI IN/OUT, LTE Analyzer, LCN, C.I. Slot, Dual commands Keys & Touch.

RF Connector Selection: "N" 50 Ω and possible optional OPTIC Input
"F" 75 Ω and possible optional OPTIC Input
"N+F" without Optical, LTE Filter, Minispectrum.

Optional: PRODRIVE TEST SW LICENSE, ETR 101-290 T.S. Analyzer, DVB-T Network Delay Measurement, LAN IPTV/ASI, OPTIC INPUT, TV Minispectrum, LTE filter, DAB+, DVB-C2, DVB-T2 LITE, MULTIMEASURES.

NET PRICE each ..... €

"LOGANT"



Description:
Log Periodic antenna with tested antenna K factor, 175-870 MHz, 50 Ω "N" connector, for Stationary Meas; Partially dismountable with included transportation bag.

NET PRICE each ..... €

"OMNIANT"

Description:
Omnidirectional active antenna with tested antenna K factor, 47-880 MHz for Mobile measurements; Complete of carry bag, magnetic anchoring base & fixing belt.

NET PRICE each ..... €

NOTES

HOW TO FIND US: in Sirmione, Lake Garda, Italy

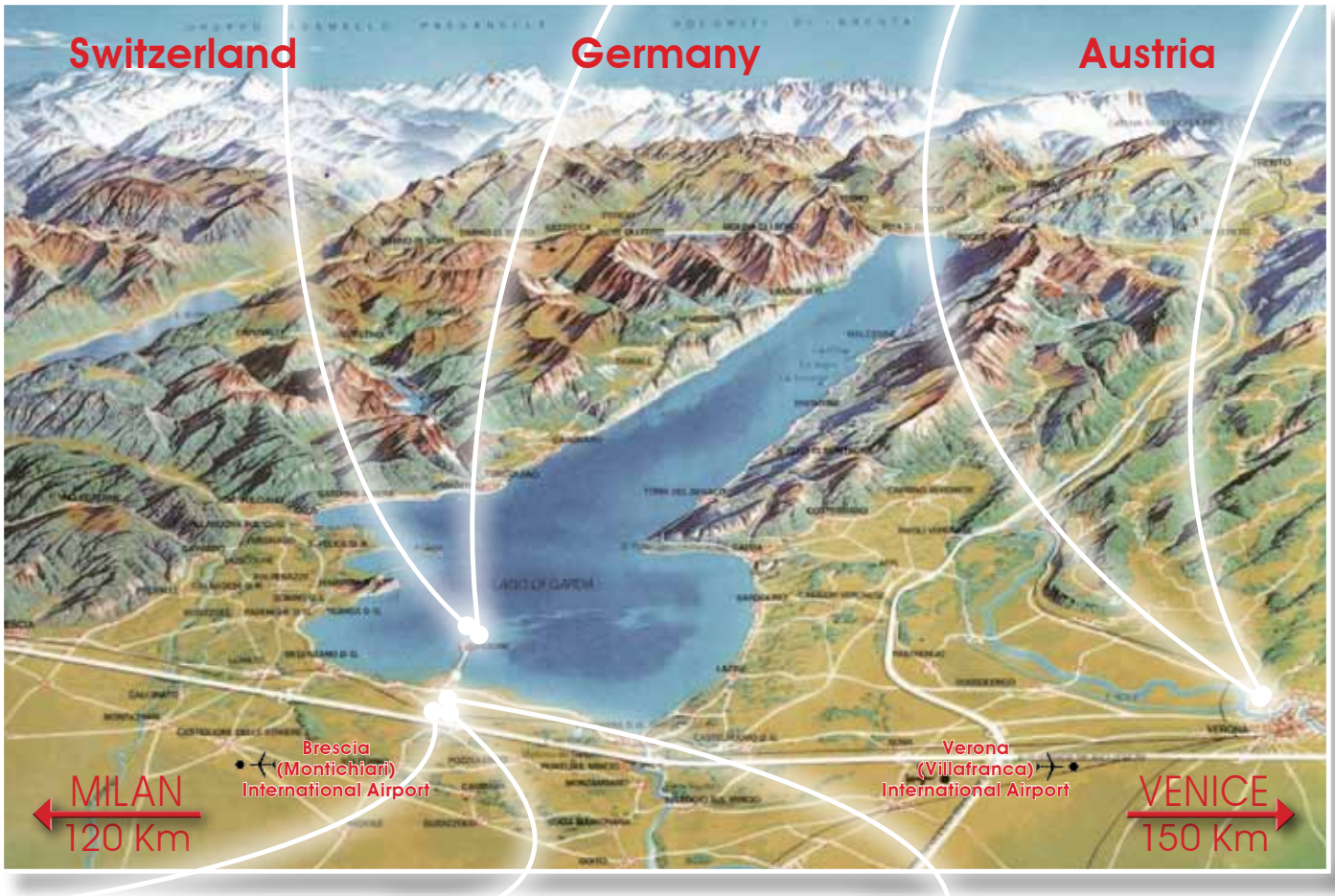
Lake Garda is in the north of Italy, near the borders of Austria, Switzerland and Germany and is in the foothills of the Alps. Lake Garda has a micro-climate, tropical in summer and temperate in winter, and where palms, olives, lemons, oranges, bouganville and even banana trees can grow. Exploited by the Romans as long ago as 350 a.C., it is now one of the most important lakeside, spa and tourist resorts in Europe. Please find below photographs of some of the most important tourist attractions in the area.

Sirmione Castle, 1500 a.C.

Catullus Roman ruins, 350 b.C.

Verona Roman Arena, 120 b.C.

Verona, Juliet's balcony



Laboratories and offices

Goods entrance and production

Entrance to the offices

Specifications and Prices are subject to change without notice

For more information visit our website: www.roverinstruments.com

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ROVER INSTRUMENTS
A STEP AHEAD IN DIGITAL TELEVISION

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