

# SA1002 EMC Analyser

SA1002

## Compliance EMC conducted and radiated measurements to 1GHz

- 10KHz—1GHz range to cover EN, FCC and international standards.
- Powerful PC software control and automation included.
- 200Hz RBW and Tracking Generator options.
- USB interface for very simple operation.
- Compact and simple to use whilst including all the necessary features for self testing your own products.



The Laplace SA1002 EMC analyser provides an exceptionally powerful and cost effective tool for manufacturers and others who wish to measure EMC emissions from their products. When used with the RF9xx range of pre-selectors, accurate measurements even with conducted broadband emissions are obtained.

Entirely controlled from an intuitive Windows software package, the analyser can enable a self-test and self-certification strategy to be adopted with confidence. The software is a true Windows program which means that results can be easily transferred to printer and disk and to other applications such as Word and Excel. A full range of compatible accessories is available, including compact test cells and antennas, all fully calibrated to 3GHz.

**Comprehensive** The SA1002 covers both conducted and radiated emissions testing from 10KHz to 1GHz. An optional 200Hz I.F. filter ensures fully compliant measurements covering ALL emissions including Band A (9KHz—150KHz).

**Powerful** This analyser and the associated software includes all the facilities required to perform accurate EMC measurements, even on non-compliant test sites

**Convenience** The SA1002 and associated ancillaries can eliminate the use of expensive and inconvenient test lab visits. The 'Self test and self certification' strategy avoids costly reworking of design and reduces 'time-to-market'.

**Simplicity** These systems are renowned for ease of operation. The software is outstanding in terms of flexibility and intuitive user interface.

LAPLACE INSTRUMENTS LTD



## SA1002 3GHz EMC analyser

### Hardware

The SA1002 is an exceptionally well featured EMC analyser designed to match the requirements of all common EMC standards and includes.....

- 10KHz—1GHz frequency range
- 200Hz (opt), 9KHz, 120KHz and 1MHz RBW
- Peak, Quasi-peak and Average detectors
- Precision frequency measurement at all points in any scan.
- Instant zoom capability to any point in a scan.
- Audio demodulator (FM and AM)
- USB interface, just plug and go!
- Optional pre-selector for conducted emissions.
- Optional tracking generator output.

### Software

Software is at the heart of any EMC test system. The Laplace RFemissions software is a fully integrated Windows compliant package. It not only directly controls all aspects of the analyser, it sets the test conditions such as input device, antenna correction and insertion loss. It also includes unique features which can cancel ambient signals, calibrate your radiated test site (in conjunction with an ERS) and provide instant zoom anywhere in the scan.

This software is specifically designed for ease of use by non-EMC expert staff, but retains many exceptionally advanced features.

Finally.....The Laplace range is fully supported worldwide. Helplines and lifetime software support are included for all our customers.

### Specification.... Hardware

Frequency range	10KHz—1GHz
Scan coverage	Continuous scan, no gaps on any range
Zoom settings	Infinitely variable.
Minimum zoom	<30MHz: 500KHz >30MHz: 10MHz Plus single frequency mode
Sensitivity:	2dBuV with pre-amplifier ON
Flatness	±3dB
Max RF input level	+3dBm
Compression warning	Detector at input.
Spurious responses	<5dB above baseline
Input protection	Diode clamped
RBW	200Hz (option), 9KHz, 120KHz
Input dynamic range	70dB
RF attenuator	0, 10, 20, 30dB
Audio demodulator	Slope demodulator (FM and AM). Variable volume control.
Detectors	Peak, Quasi-peak and Average.
Frequency accuracy	Better than 80ppm anywhere in scan.
Scanning Modes	Continuous scanning, single scan and single frequency mode,
Optional tracking generator	
Frequency range	10KHz—1GHz, locked to scan frequency
Output level	-20dBm (87dBuV) nominal
Control	Via USB interface
Control software	Windows software included
Connectors:	<1GHz, N type
Power	230V 50/60Hz 40W 115V factory set option
Physical	30.5 x 27 x 14.5cm Weight: 5kg

### .....Software

Compatibility	Any PC running Win98 or later o.s.
Functions	Total control of all aspects of SA3000 operation, results display, saving to disk, printer output, and all EMC data processing.
Graphical scale, Vertical Horizontal	dBuV, dBm, dBuV/m, dBuA KHz, MHz., Log or Linear mS or S (Single freq. Mode)
Single freq. mode	Simultaneous plot of Pk, QP and Ave values vs time.
Traces	Current, Stored, Difference, Archive and Limits
Pre-loaded Limits	EN55011/12/13/14/15/22/25 EN50081-1 and -2. FCC, As/NZ equivalents
Additional and User limits	Tabular entry field. Automatic interpolation
Antenna factor correction	Automatic
Additional correction data	Tabular entry field. Automatic interpolation against linear or log frequency axis.
Tabular listing	Up to 20 selected points. Real time display of Pk, QP and Ave values
Cursor readout.	All trace values and freq. readout at cursor location.
Expert system	TestDirector mode provides full details of common standards and associated test techniques.
Data storage	Full data set with setup and limits with title and notes saved to user selected file.
Data retrieval	Traces and setups can be recalled in any combination.
Printer	Direct output to any Windows printer.
Data Format	ASCII text, comma delimited

### Order codes:

SA1002	Standard analyser with PC software.
SA1002-A	As above, plus 200Hz RBW for Band A.
SA1002-TG	Includes tracking generator option.
SA1002-A-TG	Includes both options.

Available from

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