

## Compliance EMC conducted and radiated measurements to 1GHz

- ▼ 9KHz—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, LISN's and probes.

**COMPREHENSIVE** The SA1002 covers both conducted and radiated emissions testing from 9KHz 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.



# SA1002, 1GHz EMC analyser

## Hardware

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

- 9KHz—1GHz frequency range
- 200Hz (opt), 9KHz, and 120KHz
- 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	Software
<b>Frequency range</b>	9KHz—1GHz	<b>Compatibility</b> Any PC running Win98 or later o.s.
<b>Scan coverage</b>	Continuous scan, no gaps on any range	<b>Functions</b> Total control of all aspects of SA3000 operation, results display, saving to disk, printer output, and all EMC data processing.
<b>Zoom settings</b>	Infinitely variable.	<b>Graphical scale</b> , Vertical Horizontal dBuV, dBm, dBuV/m, dBuA KHz, MHz., Log or Linear mS or S (Single freq. Mode)
<b>Minimum zoom</b>	<30MHz: 500KHz >30MHz: 10MHz Plus single frequency mode	<b>Single freq. mode</b> Simultaneous plot of Pk, QP and Ave values vs time.
<b>Sensitivity:</b>	2dBuV with pre-amplifier ON	<b>Traces</b> Current, Stored, Difference, Archive and Limits
<b>Flatness</b>	±3dB	<b>Pre-loaded Limits</b> EN55011/12/13/14/15/22/25 EN50081-1 and -2. FCC, As/NZ equivalents
<b>Max RF input level</b>	+3dBm	<b>Additional and User limits</b> Tabular entry field. Automatic interpolation
<b>Compression warning</b>	Detector at input.	<b>Antenna factor correction</b> Automatic
<b>Spurious responses</b>	<5dB above baseline	<b>Additional correction data</b> Tabular entry field. Automatic interpolation against linear or log frequency axis.
<b>Input protection</b>	Diode clamped	<b>Tabular listing</b> Up to 20 selected points. Real time display of Pk, QP and Ave values
<b>RBW</b>	200Hz (option), 9KHz, 120KHz	<b>Cursor readout.</b> All trace values and freq. readout at cursor location.
<b>Input dynamic range</b>	70dB	<b>Expert system</b> TestDirector mode provides full details of common standards and associated test techniques.
<b>RF attenuator</b>	0, 10, 20, 30dB	<b>Data storage</b> Full data set with setup and limits with title and notes saved to user selected file.
<b>Audio demodulator</b>	Slope demodulator (FM and AM). Variable volume control.	<b>Data retrieval</b> Traces and setups can be recalled in any combination.
<b>Detectors</b>	Peak, Quasi-peak and Average.	<b>Printer</b> Direct output to any Windows printer.
<b>Frequency accuracy</b>	Better than 80ppm anywhere in scan.	<b>Data Format</b> ASCII text, comma delimited
<b>Scanning Modes</b>	Continuous scanning, single scan and single frequency mode,	<b>Order codes:</b>
<b>Optional tracking generator Frequency range Output level</b>	9KHz—1GHz, locked to scan frequency -30dBm (77dBuV) nominal	<b>SA1002</b> Standard analyser with PC software.
<b>Control</b>	Via USB interface	<b>SA1002-A</b> As above, plus 200Hz RBW for Band A.
<b>Control software</b>	Windows software included	<b>SA1002-TG</b> Includes tracking generator option.
<b>Connectors:</b>	<1GHz, N type	<b>SA1002-A-TG</b> Includes both options.
<b>Power</b>	115V - 230V 50/60Hz 40W	
<b>Physical</b>	30.5 x 27 x 14.5cm Weight: 5kg	

Available from:

Reliant EMC LLC  
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[www.reliantemc.com](http://www.reliantemc.com)

