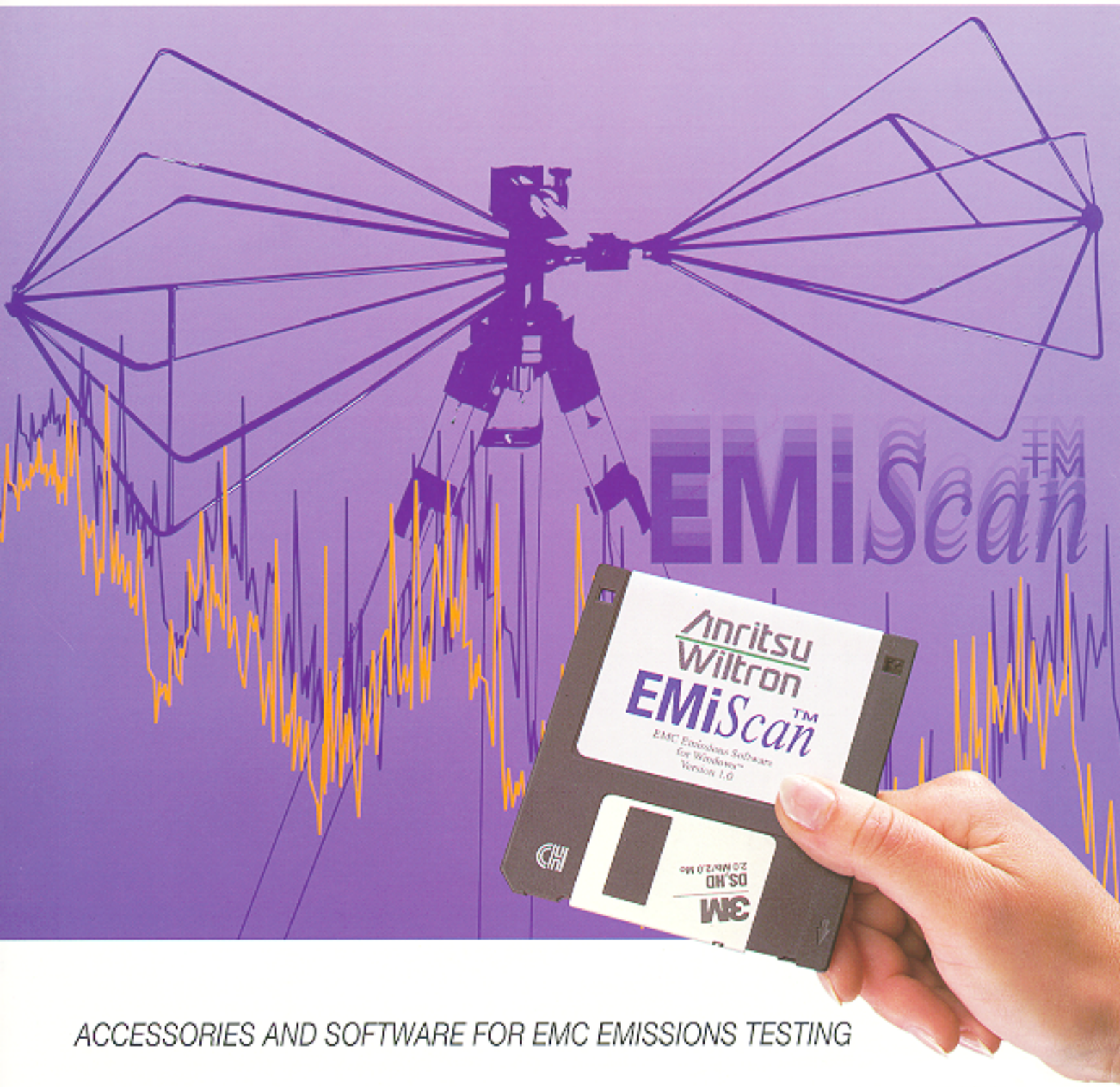
Anritsu Wiltron

Emiscan - Your route to the CE Mark



ACCESSORIES AND SOFTWARE FOR EMC EMISSIONS TESTING

Designed and written by

EMiSoft™

Email : support@emisoft.co.uk
Web : http://www.emisoft.co.uk

What is Emiscan?

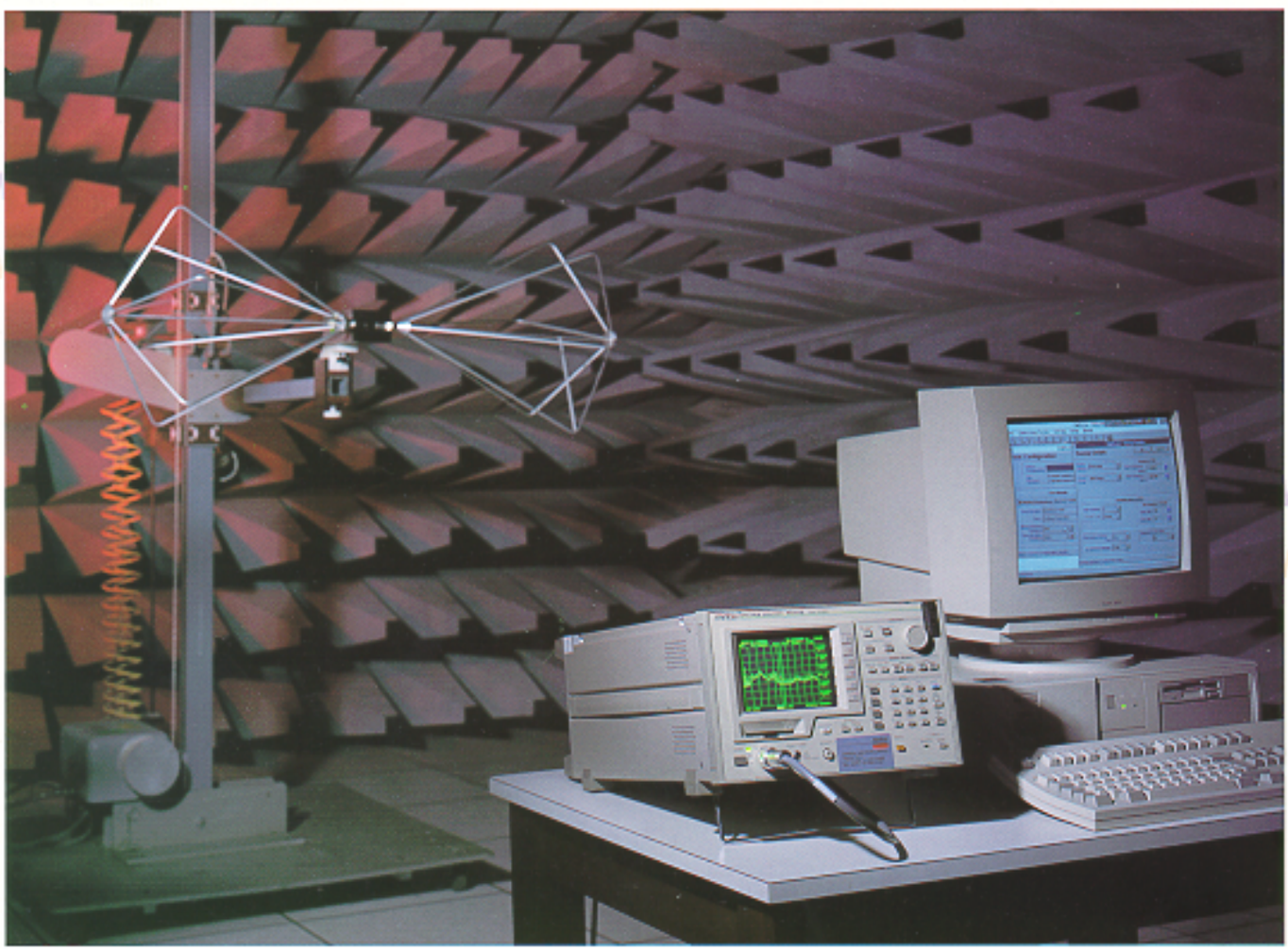
Emiscan is a comprehensive and economical EMC emissions measurement system. It combines the world-renowned test and measurement expertise of Anritsu Wiltron and Emisoft's many years' EMC consultancy and software experience. The result is an easy to use package for EMC pre-compliance testing at all stages of product development to ensure first time approval or self-certification.

The system is based around the tried and tested MS2601B Synthesised Spectrum Analyser from Anritsu Wiltron. The high performance specifications and proven reliability of this analyser ensure users a level of confidence in their results unsurpassed. It has all the hardware features essential for EMC emissions measurements.

But of course, the ease and convenience of using any automatic measurement system is dependent on the associated software; and this is the real strength of the Emiscan system. Born of years of frustration from using other software based systems, it incorporates many, easy to use facilities designed to speed your product to compliance. Its operation is intuitive allowing the user to make valued measurements from the moment of installation.

In addition to the spectrum analyser and software the Emiscan system incorporates all the accessories and documentation necessary to perform most EMC emissions measurements according to current legislation. They include a broad band, BiLog™ antenna, obviating the need to change antennas during a radiated emissions measurement; a Line Impedance Stabilisation Network (LISN) for power line conducted emissions and a near-field probe kit for identifying areas for remedial engineering work.

The Emiscan system contains everything you need to perform productive emissions testing from Day One. However, for more specialised tests, many optional accessories can be supplied. So, in short, there is no need to look further than Anritsu Wiltron to provide the solution for your EMC emissions measurement obligations and smooth your route to compliance.



Photography courtesy of GPT Ltd, Beeston

EMC Emissions Measurement Software

The Emiscan system software is supplied on a single 3½ in. floppy disk format and is a fully functional Windows™ application. It covers all emissions tests required by the European EMC Directive which is mandatory from 1 January 1996. Thereafter, nearly ALL electrical and electronic products sold onto the market must comply with the Directive's requirements and have the CE mark associated with it.

The software allows manufacturers, importers and test laboratories to complete the preliminary and formal requirements quickly, effectively and at a low cost. With built-in open area test site correction available, the software application can be developed to simulate this formal test, thus improving the integrity of the measurements and the user's confidence.

The software is extremely flexible allowing not only the use of standard test configurations including assessment against common standards such as EN50081-1, EN55011, EN55022, etc., but also user generated test scenarios. In this case the user can manipulate the specification limits, correction factors and measurement transducer factors. The new configuration can then be stored using a reference title and recalled simply from a list box.

Standard configuration selection for radiated emission testing against EN55022

The application software utilises all the advantages of the Windows™ environment. Measurements can be repeated quickly to show the effect of different equipment under test configurations and modifications, the number of open measurement windows being limited only by the amount of RAM in the computer. Rapid recall of previous test results and copying of data to other Windows™ applications can be performed enabling easy hard copy report generation, an essential function to be able to demonstrate compliance to the Directive.

Multiple open files allow fast data manipulation and comparison

After the preview measurement, the data is displayed graphically and a list of peaks automatically generated. The list can be edited to "filter" ambient signals or to select specific frequencies for analysis. A convenient "drag and drop" facility using the on-screen marker enables fast update of the peaks for subsequent formal testing. The list gives instant indication of pass/fail status with an appropriate margin against the selected specification or definable acceptance limit as well as space for comments.

"Drag and Drop" allowing fast update of peaks' list

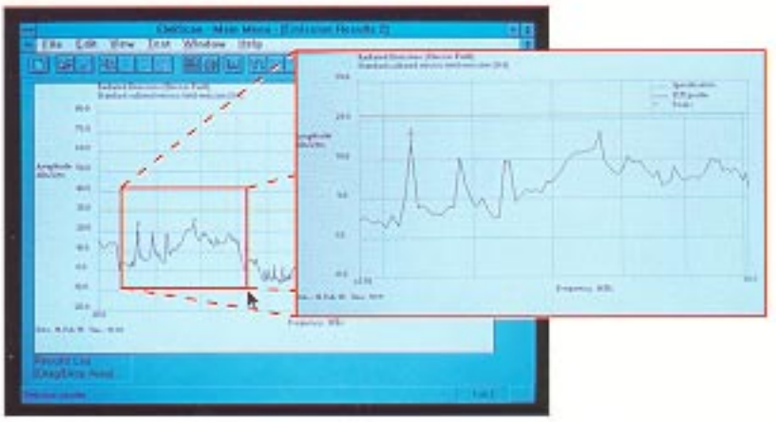
Designed and written by

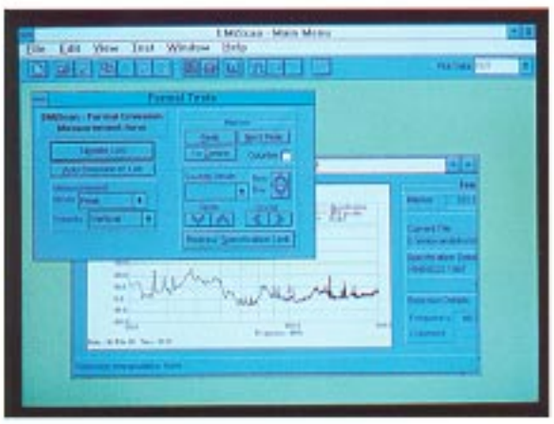
EMiSoft™

Email : support@emisoft.co.uk

Identification of closely spaced signals can be a problem sometimes, especially when the results need to be displayed logarithmically. To overcome this, the software allows the sweep range to be divided by up to 16 separate sweeps in linear of logarithmic steps allowing much more data to be captured. The zoom feature controlled by the cursor enables more in-depth assessment. A simple double click of the mouse in the display area returns the screen to normal.

Zoom enables more detailed assessment of results



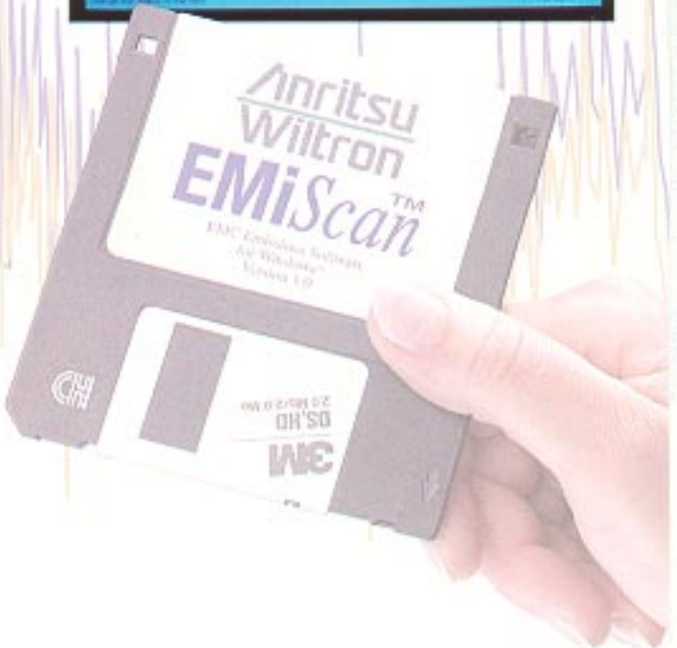


Selection of the cycle time of the equipment under test is a convenient and time saving feature ensuring an accurate emissions profile is captured. In addition , a "maximise mode" facilitates adjustment of the equipment under test while the spectrum analyser is capturing data. Once the worst case is found the measurement is continued. Control of the analyser for further detailed analysis can be done directly or by using the PC for those users less familar with conventional test equipment.

Control of analyser through the PC for consistent user interface

The flexibility of the Emiscan system software ensures ALL emission tests are covered in one package with a similar operation. Therefore, complete assessment of equipment can be performed with results and data represented in report format with full titling and documentation.

Full report details can be entered



Anritsu Wiltron can provide the solution for your EMC emissions measurement obligations and smooth your route to compliance.

Designed and written by

EMiSoft™

Email : support@emisoft.co.uk
Web : http://www.emisoft.co.uk

Measurement Hardware & Accessories

The heart of the Emiscan system is the fully synthesised MS2601B Spectrum Analyser offering superb frequency accuracy. The internal calibration routine, useable with no external connection, enables absolute level readings to within 1dB thus improving the reliability of measurements. It has all the features necessary to perform EMC emissions tests such as peak and quasi-peak detection, CISPR16 measurement bandwidths (including 200Hz for conducted emissions from 9kHz to 150kHz) and AM/FM demodulation with built-in speaker. In fact, as a stand alone instrument, it is an ideal tool during the design and diagnostic stages of product development.

The ANT1 BiLog™ broad band antenna covers the full measurement band for radiated emissions from 30MHz to 1GHz. It eliminates the need for the time consuming antenna changes during testing and reduces measurement errors caused by cable and connector matings. It comes complete with 10m cable, tripod and fixings together with individual calibration results.

For conducted emissions measurement, the model 4401 is a high sensitivity, fully flexible Line Impedance Stabilisation Network (LISN). It has the ability to add filters, attenuators and limiters without additional, external devices, thus improving the reliability of the whole system.

The ability to identify sources of emissions during design or during an emissions test is an essential process on the route to compliance. The MA8611A Probe Kit with the preamplifier (powered from the MS2601B Spectrum Analyser) enables the user to pinpoint sources down to individual components ensuring efficient and accurate remedial design work.

In addition to the standard set of equipment and accessories, Anritsu Wiltron can supply other items such as specialised antennas for magnetic radiation measurement (as required for EN55015, for example), single octave antennas, absorbing clamps, current probes, etc.

Ordering Information

Emiscan EMC Emissions Measurement System comprising:

- MS2601B Spectrum Analyser with AM/FM Demodulation Option
- ANT 1 BiLog™ 30MHz to 1GHz Broad Band Antenna with tripod, fixing and 10m cable
- Model 4401 Line Impedance Stabilisation Network
- MA8611A Probe Kit with Preamplifier
- GP-IB lead
- Measurement Software

The Emiscan System includes every item needed for most radiated and conducted emissions tests

Other Optional Accessories

MN1602A	Programmable Preselector
3109	20MHz to 300MHz Biconical Antenna
3146	200MHz to 1GHz Log Periodic Antenna
6502	10kHz to 30MHz Magnetic Loop Antenna
6012	Tripod for all antennas with 10m cable
MDS 21	Absorbing Clamp
91550-1	Current Probe 10kHz to 100MHz
94111-1	Current Probe1MHz to 1GHz

Minimum Computer Requirements

386DX 40MHz with 4MB RAM. Hard disk with at least 10MB available. Mouse and keyboard. Colour VGA monitor. MS DOS™ 3.3 or greater. Windows™ 3.1 or greater. IEEE 488 Card National Instruments PCIIA compatible. Printer

Anritsu Wiltron

YOUR GLOBAL PARTNER IN
COMMUNICATIONS TEST AND MEASUREMENT

Anritsu Wiltron Ltd. Capability Green, Luton, Beds. LU1 3LU, England. Tel: (01582) 416853. Fax: (01582) 31303.
Anritsu Wiltron GmbH. Grafenberger Allee 54-56, D-40237 Düsseldorf 1, Germany. Tel: (0211) 679760. Fax: (0211) 683353.
Anritsu Wiltron S.A. 9, avenue du Quebec Z.A. de Courtaboeuf 91951 LES ULIS CEDEX, France. Tel: (1) 64-46-65-46. Fax: (1) 64-46-10-65.
Anritsu Wiltron S.p.A. Vio Elio Vittorini, 129 00144 Roma, Italy. Tel: 06-502-26-66. Fax: 06-502-24-25.
Anritsu Wiltron AB. Box 247, Jägerhorns väg 19, S-127 25 Skärholmen, Sweden. Tel: 8 7405840. Fax: 8 7404800.