SPECTRUM ANALYZERS

The updated **SCOPE 4600**, is a portable spectrum analyzer that is ideal for field applications and the monitoring/testing of mobile systems. The **SCOPE 4600** will also find everyday applications in even fully equipped labs.

The portability and power of **SCOPE 4600** can be contrasted with much larger and heavier analyzers that require high capacity batteries, or smaller units that lack the power and performance of the **SCOPE 4600**. Weighing 1.05KG and measuring 22 x10x4cm, the **SCOPE 4600** is truly a unique instrument.

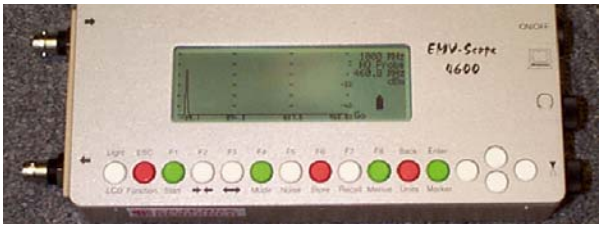
With selectable resolution bandwidths up to 1 GHz, the **SCOPE 4600** is ideal for broadband measurements. It has a lighted graphical LCD-display, built-in batteries and charger, a RS232PC interface, and a broadband signal source (noise generator). With the use of a PC and printer, the display resolution is further enhanced. By means of an automatic detection capability, the **SCOPE 4600** detects when an accessory, and which accessory is connected to it (i.e. antenna, attenuator, amplifier or probe) and automatically sets the appropriate display and units. A simple built-in FM receiver is also part of the system.

While the **SCOPE 4600** is a broadband RF spectrum analyzer, it is also suitable for measuring the VSWR of RF components such as filters and antennas. As a trouble-shooting tool, it will enable the detection of, and distance to, defective cables, connectors, and other devices used in a typical laboratory setup.

The **SCOPE 4600** can store up to 5 screen displays with date and time of the measurement. The saved information can then be transferred to a PC for permanent storage and/or data processing. Other **SCOPE 4600** storage modes include, peak hold (pixel by pixel) and fast storage.

For EMC testing, there is an extra storage capability to store and display limit lines of the various EMC standards. With a built-in clock and calendar, a running record of product testing can be recorded. The record may be over time for a particular production item or a running record of corrective actions taken during the products development phase.

The **SCOPE 4600** can be controlled remotely via a PC interface and thus serves as an active probe. Its firmware can be modified by using a PC when new measuring routines and/or equipment are available. The **SCOPE 4600** is the RF equivalent of the laboratory Volt/Ohm meter. Like the VOM, it can be kept near at hand and brought into play for quick assessments. It is also ideal for the development engineer in assessing the results of EMC-related design changes.



SCOPE 4600
WITH CURRENT MONITORING PROBE OPTION

FREQUENCY RANGE	100 kHz - GHz
FREQUENCY SPAN	1000/200/100/50/20/10/5/2 MHz
RESOLUTION BANDWIDTHS	(-6 dB)
ACCURACY	+/-5% of span, in addition +/-1% of measuring value.
MAX. INPUT LEVEL	+ 10 dBm
MIN. INPUT LEVEL	-80 dBm
DYNAMIC RANGE	70 dB
SWEEP TIME	50 msec / div.
DISPLAY	LCD-display, 64 x 240 pixels
SIGNAL SOURCES, BUILT-IN	Broadband noise source, -20 dBm +/-2 dB when RBW of +/-1.2 MHz is used. Quartz-oscillator 25 MHz for calibration, -40 dBm +/-1 dB
FM RECEIVER	Deviation +/-50 kHz, with AFC
POWER SUPPLY	12 VDC / 600 mA.
MECHANICAL DATA	22 x 10 x 4 cm, 1.050 Kg
RF CONNECTORS	BNC Female

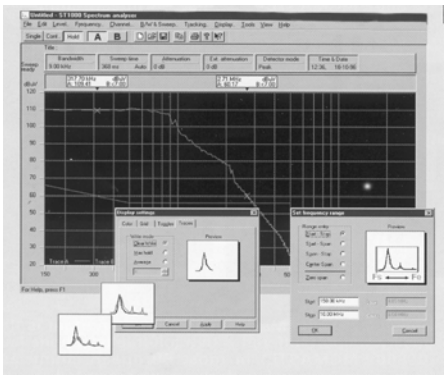
SPECTRUM ANALYZERS

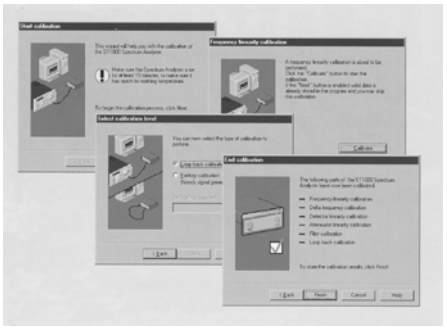
The EMC Master® Spectrum Analyzer/Tracking generator, **ST-1000**, offers exactly what EMC measurements require, from the right frequency range (150 kHz to 1050 MHz) to the required bandwidths (3 kHz, 9 kHz, 120 kHz, 240 kHz). Combined with the large dynamic range and accuracy, the **ST-1000** even competes with high-end traditional spectrum analyzers.
The frequency range, resolution bandwidths,

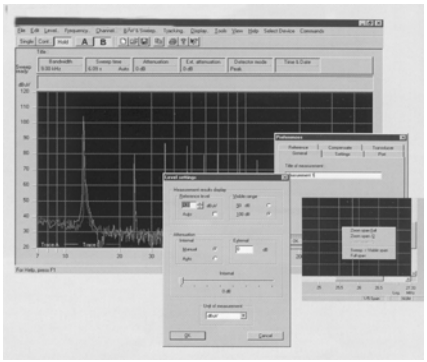
sensitivity, attenuation, sweep speed, frequency

zoom, detector type (peak, average) and tracking-

output are 100% software controlled.







SPECIFICATIONS

Spectrum Analyzer/Tracking generator ST-1000	
INPUT IMPEDANCE	50 Ω
INTERNAL ATTENUATORS	0, 10, 20, 30, 40, 50, 60, 70 dBm
MAX. ALLOWED INPUT LEVELS	+ 2 dBm (at 0 dB input attenuation)
	+ 12 dBm (at 10 dB input attenuation)
	+ 22 dBm (at other attenuation)
MAXIMUM DC INPUT VOLTAGE	± 25 V
FREQUENCY RANGE	150 kHz .. 1050 MHz
FREQUENCY ACCURACY	Better than ± 0.1% ± 60 kHz
STABILITY	< 150 kHz/hour
BANDWIDTHS	3 kHz, 9 kHz, 120 kHz, 240 kHz
AMPLITUDE ACCURACY	± 3 dB max., ± 2 dB typical
DYNAMIC RANGE	> 94 dB (BW 9 kHz)
SENSITIVITY	< -86 dBm, -88 dBm typ. (9 kHz BW)
SPURIOUS SIGNALS	< -75 dBm, -83 dBm typ.
NOISE FLOOR (AT 9 KHZ BW)	< -87 dBm max., -90 dBm typ. av.
	< -83 dBm max., -86 dBm typ. peak
TRACKING GENERATOR	
OUTPUT IMPEDANCE	50 Ω
FREQUENCY RANGE	500 kHz – 1050 MHz (150 kHz – typ.)
FREQUENCY OFFSET	± 3 kHz max., ± 2.5 kHz typ.
AMPLITUDE ACCURACY, FULL SPAN	± 5 dB max., ± 3 dB typical
DISTORTION	< -10 dBc
GENERAL	
POWER SUPPLY	115 or 230 V AC, 50 - 60 Hz
DIMENSIONS	200 x 250 x 80 mm (w x d x h)
PC INTERFACE	Parallel port: 25 pole sub-D Male
AC POWER CORD, PARALLEL – AND BNC CABLES INCLUDED	