

Spectrum Analyzer R3131, an allrounder for the small budget

Model R3131 from Advantest is a spectrum analyzer representing a new generation. This instrument, marketed by Rohde & Schwarz, offers versatile applications in manual operation as well as in system use and all that for unbeatable price/performance. With its clear-cut user interface, compact size, weight of only 12 kg and attractive price, R3131 is an obvious choice as a personal analyzer for every workplace in **design** and **service**, besides being an ideal, budget-priced tool for **training purposes**.

Its frequency range from 9 kHz to 3 GHz covers all main mobile radio standards and paging systems and makes R3131 the perfect match for a radiocommunication tester (photo) since it allows precise analysis of purely RF parameters. As a stand-alone and full-featured

spectrum analyzer it easily fits into other applications of course.

IEC/IEEE bus and RS-232-C are standard interfaces in R3131; a disk drive allows instrument settings and traces to be stored for integration into Windows applications. Measurement results can be documented via a standard parallel printer interface.

Thanks to the high-speed IEC/IEEE-bus interface, which, in conjunction with interface cards, ensures minimum data transmission times (reading a trace of 500 points takes just 1.2 s), R3131 is also suitable for use in **production** environments. Its performance data guarantee minimum throughput time of DUTs in automatic test systems, thus contributing to a considerable reduction of costs and time to amortize.

Operation of Spectrum Analyzer R3131 is extremely simple. Bandwidth, power or amplitude modulation depth, for instance, can be selected by a simple keystroke in the softkey menus. Further features include a built-in counter with 1 Hz resolution, eliminating the need for a separate frequency counter, a pass/fail comparator function for checking compliance with defined limit values, as well as an autotune function for centering the strongest signal on the screen at a keystroke and displaying it with spread frequency band. Noise measurements for determining oscillator signal purity or noise levels normalized to system bandwidth are further functions that can be activated with a single button.

Various **power measurement functions** are standard nowadays in every spectrum analyzer, for instance measurement of channel and adjacent-channel power, occupied bandwidth, average or total power in the selected frequency window. R3131 comprises in addition an AM/FM demodulator with headphones output and four selectable rectifiers with an extra quasi-peak detector for precompliance EMC diagnosis.

Peter Wollmann



An ideal match:
Spectrum Analyzer
R3131 adds versatile
measurement
functions to Radio-
communication
Tester CMD.
Photo 43 118

Reader service card 159/15