

Power Reflection Meter NAP

0.2 to 2000 MHz
1 mW to 1950 W



Photo 35 663-2

Brief description

Power Reflection Meter NAP is used to measure power and matching on radio equipment and systems. Its main fields of application are in service and production as well as in development and quality control.

Main features

- Measurement of average power (AVG)
- Optional measurement of peak envelope power (PEP), depending on sensor
- Simultaneous display of forward and reflected power – digital and analog
- Direct readout in W or dBm, SWR, reflection coefficient, mismatch and return loss
- Ten exchangeable, detached power sensors

Characteristics

The handy design of the NAP makes it ideal for mobile use, eg for measurements on transceivers in motor vehicles. For laboratory measurements, continuous transmitter monitoring or use in systems a model with AC supply connector and IEC/IEEE-bus interface is available.

The extremely low insertion loss of the power sensors allows measurements on transmitter systems under operational conditions without affecting the matching between transmitter and load. Fields of application include transceivers in conventional analog and in the new digital networks (eg GSM and DCS 1800), low-power TV transmitters, ATC and paging systems, medical engineering and industrial radio telecontrol.

Display unit and power sensors are RF-pickup-proof, permitting error-free measurements even in the vicinity of antennas.

Display of results

Two 3¹/₂-digit displays are provided for simultaneous indication of the forward and reflected functions. The measured value is also shown in quasi-analog form by a 56-segment bar-graph indicator provided below the digital display for trend indication.

Operation

The insertion unit connected between the signal source and the load measures the forward and reflected power – from which the basic unit computes the values of all the other measurement functions – so that no conversion tables are required.

The keys for selecting forward and reflected functions are combined in two groups and assigned to the related display. Routine measurement functions can be set by means of a single keystroke.

On power up the NAP performs a selftest for checking the essential functions of the display unit.

Analog output

An analog output for each the forward and the reflected power is provided on the rear panel. The DC voltages available at the outputs are proportional to the values displayed.

Peak Power Sensors NAP-Z7, -Z8, -Z10, -Z11

These sensors permit measurement of the peak envelope power (PEP) or of the average power (AVG) of modulated signals. Peak Power Sensors NAP-Z10 and -Z11 come in two versions. Model 02 is ideal for measuring the sync pulse power of low-power TV transmitters and for general applications with pulse widths from 2 μ s. Model 04 has been designed for the GSM network and measures the transmitter power within one time slot of mobile stations.