

# R&S®NPA701 COMPLIANCE TESTER



Universal power analyzer for AC/DC load and standby current characterization and compliance tester that delivers performance and compliance protocols in line with IEC 62301, EN 50564 and EN 61000-3-2

## Description

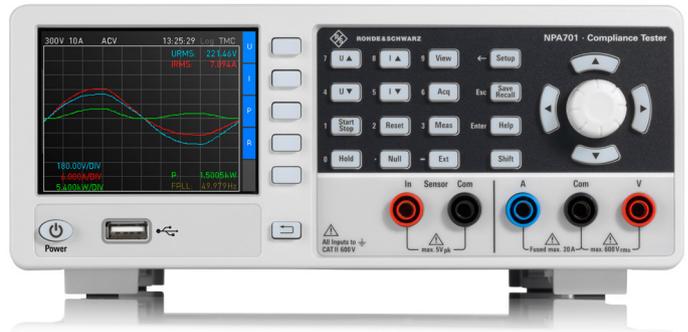
In harmonic analysis, the R&S®NPA701 compliance tester graphically displays up to the 50th harmonic with a logarithmic amplitude scale. The user-configurable, dual-channel trend chart function for U, I, P, S, Q and F is unique in this class of instruments.

The brilliant QVGA color display (320 × 240 pixel) simultaneously displays up to 10 user-configurable measurement results with a refresh rate of 10 measurements per second.

The instrument has a basic accuracy of 0.05%. Signals are acquired from DC to 100 kHz at a sampling rate of 500 ksample/s. Current and voltage are displayed with 16 bit resolution.

The logging function lets users store measured data with a timestamp in .CSV format for a nearly unlimited period of time. Screen content can also be saved to a USB flash drive anytime at the push of a button.

A PASS/FAIL function lets users monitor numerous measurement results.



The instrument has wizards for the IEC 62301 (standby), EN 50564 (extended standby) and EN 61000-3-2 (harmonic current for EMC, CE approval) standards, enabling autonomous measurements without a PC.

## Key facts

- ▶ Power measurement range: 50  $\mu$ W to 12 kW
- ▶ Analog bandwidth: DC to 100 kHz
- ▶ Sampling rate: 500 ksample/s
- ▶ 16 bit resolution for current and voltage
- ▶ Basic accuracy: 0.05%
- ▶ 26 different measurement and mathematical functions

Flyer  
Version 02.00

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# SPECIFICATIONS IN BRIEF

| Specifications in brief                      |  |  |
|--|--|--|
| Analog bandwidth                             |  | DC to 100 kHz  |
| Basic accuracy                               |  | 0.05% of reading   |
| Display resolution                           |  | 5 digits, 10 updates/s   |
| Input impedance                              |  | 2 M $\Omega$   |
| Basic measurement functions                  |  | active power, apparent power, reactive power, lambda power factor, phase shift, frequency, voltage (RMS and average), current (RMS and average), total harmonic distortion, energy, data logging |
| Advanced and graphical measurement functions |  | minimum and maximum voltage, current and power, limit testing, trend chart mode, inrush mode, harmonics mode, waveform mode  |
| Compliance evaluation functions              |  | IEC62301, EN 50564, EN61000-3-2  |
| Additional inputs/outputs                    |  | BNC, rear panel  |
| Analog input                                 |  | $\pm 10$ V (peak voltage)  |
| Analog input accuracy                        |  | 0.5% of reading  |
| Analog output                                |  | $\pm 5$ V (peak voltage)   |
| Digital input/output                         |  | yes  |
| Display and resolution                       |  | 8.9 cm (3.5") TFT (color), 320 x 240 pixel (QVGA)  |
| Mains nominal voltage                        |  | 100 V to 115 V/230 V at 50 Hz to 60 Hz   |
| Maximum power consumption                    |  | 35 W (meas.)   |
| Operating temperature range                  |  | +5°C to +40°C  |
| Storage temperature range                    |  | -25°C to +60°C   |
| Dimensions                                   |  | 222 mm x 97 mm x 291 mm<br>(8.74 in x 3.82 in x 11.46 in)  |
| Weight                                       |  | approx. 3.25 kg (7.16 lb)  |

All specifications refer to a sine reference signal, PF = 1, voltage to ground = 0 V, analog filter deactivated, digital filters activated and are valid for measurement values > 1% of measurement range.

# ORDERING INFORMATION

| Designation   | Type         | Order No.    |
|---|--------------|--------------|
| Compliance tester, DC to 100 kHz                                  | R&S®NPA701   | 3657.0562.04 |
| Compliance tester, DC to 100 kHz, incl. IEEE-488 (GPIB) interface | R&S®NPA701-G | 3657.0562.06 |

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