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

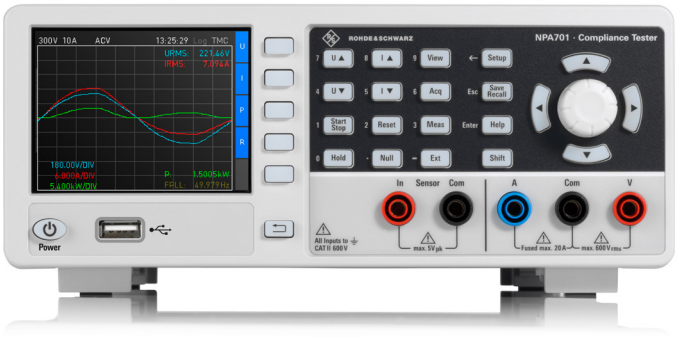
In harmonic analysis, the R&S®NPA701 compliance tester graphically displays up to the 50th harmonic with a logarithmic amplitude scale. The user-configurable, dual-channel trend chart function for U, I, P, S, Q and F is unique in this class of instruments.

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 µW 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

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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 MΩ
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		IEC 62301, EN 50564, EN 61000-3-2
Additional inputs/outputs		BNC, rear panel
Analog input		±10 V (peak voltage)
Analog input accuracy		0.5 % of reading
Analog output		±5 V (peak voltage)
Digital input/output		yes
Display and resolution		8.9 cm (3.5") TFT (color), 320 × 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 × 97 mm × 291 mm (8.74 in × 3.82 in × 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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R&S®NPA701 Compliance Tester
Data without tolerance limits is not binding | Subject to change

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