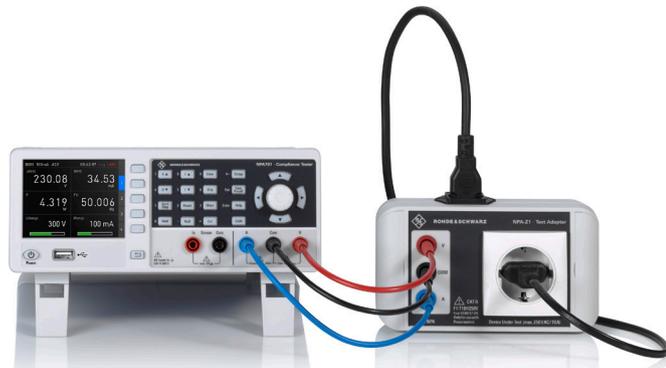


# MEASUREMENT OF STANDBY POWER CONSUMPTION IN LINE WITH IEC 62301 AND EN 50564

Today, nearly every electronic device has a standby mode. With power consumption guidelines becoming stricter around the world, standardized power measurements have never been more critical or relevant. The R&S®NPA701 compliance tester can accurately measure this electrical activity.



Typical test setup with the R&S®NPA701 compliance tester and the R&S®NPA-Z1 socket adapter

## Your task

State-of-the-art power supply circuits have different operating modes that adapt to actual load cases for very high efficiency. Current consumption is then highly distorted and irregular, which must be taken into account and correctly calculated.

The relevant standards (IEC 62301 and EN 50564) define execution and calculation methods, along with the required accuracy. The required methods are too complex and time-consuming to implement manually.

## Rohde & Schwarz solution

The R&S®NPA701 compliance tester provides seamless acquisition and real-time signal processing to accelerate measurements. Precise measurements can help determine standard compliance, even for critical designs.

The DUT plugs simply and safely into the R&S®NPA701 with the optional R&S®NPA-Zx mains adapter. The adapter comes with cables connected to the sockets on the front of the instrument. Various country-specific adapter models are available for connections.

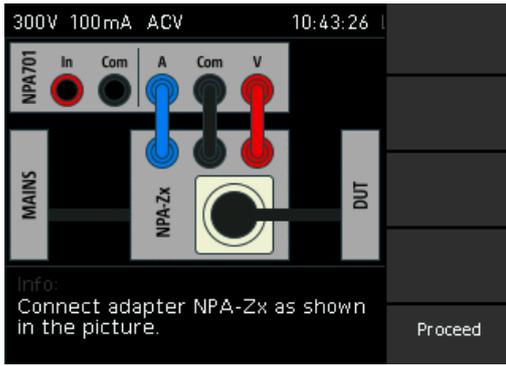
## The setup wizard eliminates guesswork

The setup wizard in the R&S®NPA701 guides users through the measurement and configures the instrument parameters. The wizard helps eliminate measurement errors and quickly displays results. The process is fully automatic. No prior knowledge of the standards is needed.

All environmental variables (supply voltage and mains quality) are constantly monitored and displayed during the measurement. Deviations are marked in color.

## The measurement steps

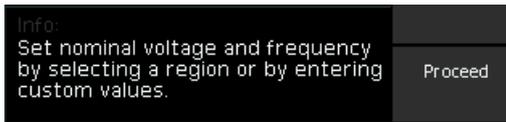
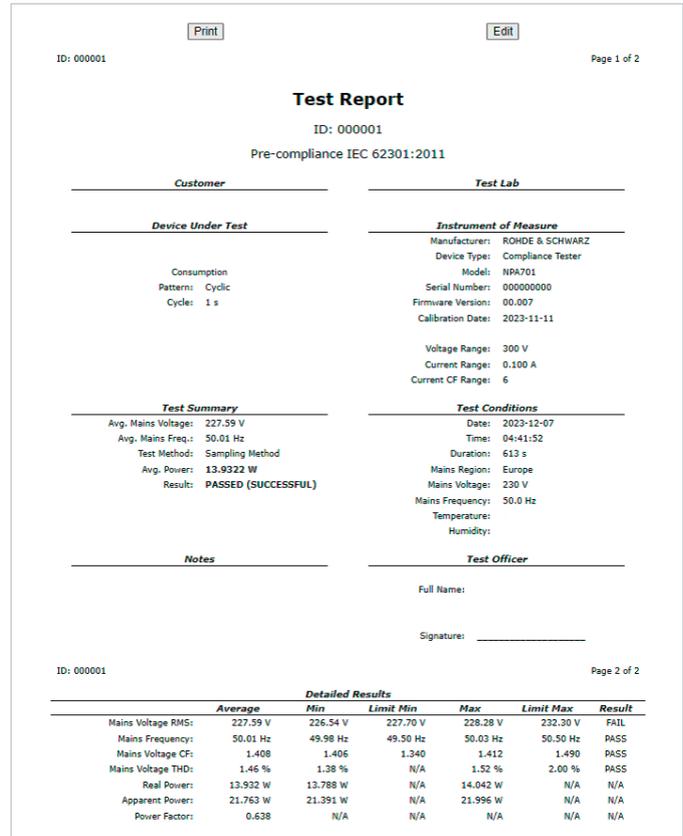
1. Connect the DUT according to the instructions from the wizard and switch to the desired operating mode.
2. The country library helps select the correct mains voltage and frequency. Values can also be set individually in special cases.
3. Set the current range and crest factor in line with the expected power consumption for the device.
4. If known, set the current consumption pattern (static, cyclic or variable) to speed up the measurement. If a setting is wrong, the R&S®NPA701 will detect the behavior deviation and will still be able to measure correctly.
5. The status is displayed, clearly showing all measurement values and their range of variation.



Step 1

## Test report

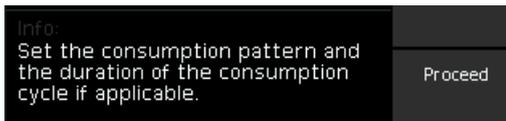
When finished with a measurement, the results can be saved to a USB flash drive. An interactive HTML form can be filled in with user data to tailor the test reports to your specific needs.



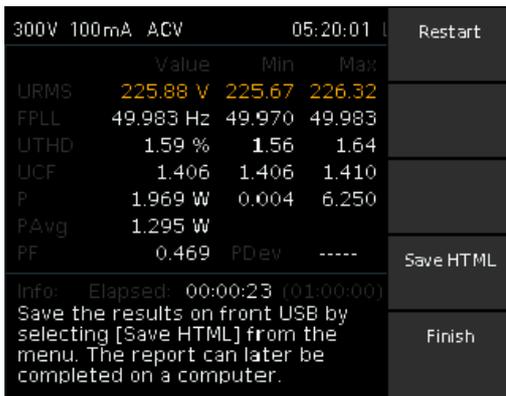
Step 2



Step 3



Step 4



Step 5

## Summary

The R&S®NPA701 compliance tester from Rohde & Schwarz complies with IEC 62301 and EN 50564 standards, for automated, real-time and precise testing. The tester has a user-friendly setup wizard and monitors different variables throughout the process. Measurement results can be saved to a USB flash drive for easy accessibility.

## See also

[www.rohde-schwarz.com/product/NPA](http://www.rohde-schwarz.com/product/NPA)

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
Mains adapter, EU version	R&S®NPA-Z1	3657.8911.02
Mains adapter, UK version	R&S®NPA-Z2	3657.8911.03
Mains adapter, US version	R&S®NPA-Z3	3657.8911.04
Mains adapter, CHN/AUS version	R&S®NPA-Z4	3657.8911.05

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Measurement of standby power consumption in line with IEC 62301 and EN 50564  
Data without tolerance limits is not binding | Subject to change  
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