

# Avance III

The Avance™ III is the ultimate NMR platform for life-sciences and materials research. Robust, automated and easy-to-use it is the ideal NMR analysis system for the pharmaceutical, biotech, and chemical industries, for metabonomics, materials science, molecular diagnostics, and much more. With the enhanced architecture of the AVANCE III, we introduce the fastest and most flexible, high-performance NMR spectrometer on the market.

The Avance III is the newest generation in the very successful Avance series, which has established Bruker as the clear technological and market leader in NMR and pre-clinical MRI worldwide. The Avance III spectrometer architecture is designed around an advanced digital concept which provides an optimized pathway for high-speed RF generation and data acquisition with highly modular and scalable transmitters and multiple receiver channels.

The Avance III platform provides 25 ns event timing (12.5 ns clock), and simultaneous phase, frequency and amplitude switching with capabilities that exceed the requirements of even the most demanding solid-state NMR experiments. The second-generation digital receiver technology delivers high dynamic range, high digital resolution and large-bandwidth digital filtering. The unique digital lock system provides the utmost in field/frequency stability.



Avance III 1000 MHz system

## Avance III Features

- Patented Direct Digital Synthesis
- One-chip RF generation
- Timing Resolution: 12.5 ns
- Minimum event time: 25 ns
- Phase resolution: 0.0055°
- Frequency resolution: 0.005 Hz
- Advanced ADC with an effective resolution of up to 22 bits