## FMR up to 60 GHz

NanOsc Instruments AB is extending the frequency range of its line of broadband ferromagnetic resonance (FMR) spectrometers to 60 GHz with the latest addition, the PhaseFMR-60 which covers 2 – 60 GHz.

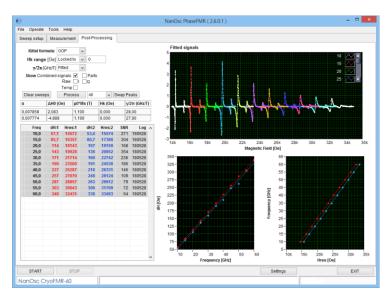
Broadband FMR spectroscopy allows for measurements continuously spanning several 10's of GHz. Measurements over a wide frequency range allow for significant improvements in accurately extracting a variety of material parameters not accessible by static measurement techniques.

Broadband FMR is particularly well-suited for studying magnetic thin films, which not only form the backbone of fundamental spintronics and magnonics research but are also constituents of current and future technologies focused on magnetic memories, sensors, logic, and microwave signal processing.

## **Key Features:**

- → Turn-key FMR spectrometer with easy to use software interface
- → Broadband FMR using a co-planar waveguide
- $\rightarrow$  Calculates the Effective magnetization ( $M_{eff}$ ), anisotropy (K), gyromagnetic ratio ( $\gamma$ ), damping ( $\alpha$ ), inhomogeneous broadening ( $\Delta H_{o}$ )
- → Enables the user to extract the exchange stiffness (A)









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