

The Adamas optically detected magnetic resonance (ODMR) System is a research-grade, modular, software-integrated turn-key platform to streamline your NV diamond quantum sensing research and applications. All essential NV spin experiments may be performed with minimal setup time and are controlled with provided software.

The instrument package is currently offered with two models: ODMR-BASE and ODMR-PULSE. These two tiers are differentiated by their supplied hardware and experimental capability.

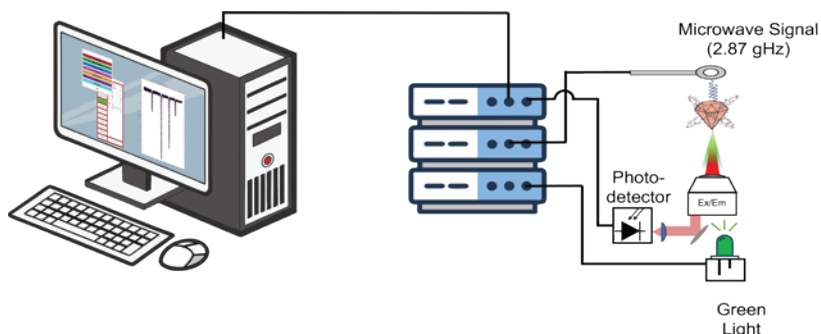
KEY FEATURES:

- FULL SUITE OF ODMR EXPERIMENTS WITH SEAMLESS SWITCHING BETWEEN MEASUREMENT MODES
- RUN EXPERIMENTS ON DAY 1
- NO HARDWARE SOURCING
- CUSTOM COMPONENTS
- RESEARCH-GRADE
- FULLY-INTEGRATED SOFTWARE

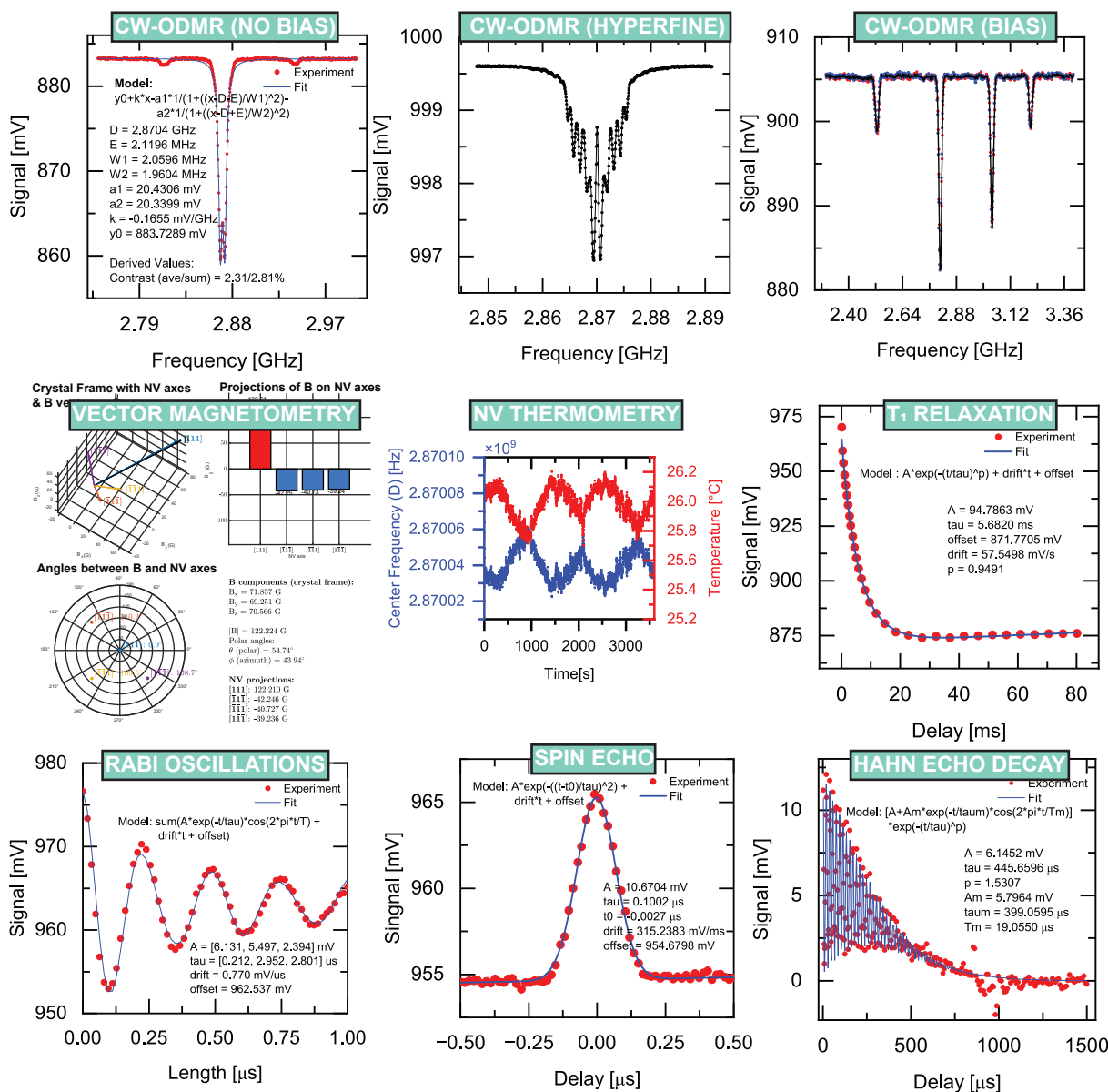
SCAN FOR MORE INFO
ON OUR WEBSITE:

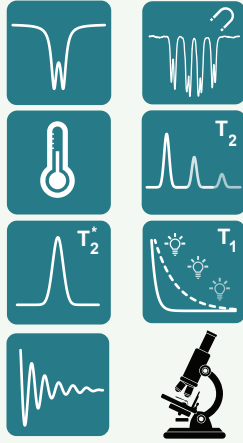


Adamas Nanotechnologies, Inc.
8100 Brownleigh Drive, Suite 120
Raleigh, NC 27617
www.adamasnano.com



FULL SUITE OF ODMR SPIN EXPERIMENTS



Model	Included Features and Hardware/Software	Operating Modes	Measurement Capability
ODMR-BASE 	Hardware: - Inverted fluorescence and brightfield microscope with 2 objectives - High speed data acquisition system - High performance microwave signal generator (20 dBm) 2W Microwave amplifier - CW ODMR microwave antenna - LED Light Source - High sensitivity avalanche photodiode (APD) 3D Printed Magnetic Goniometer 3D Printed microscope stage inserts for different microwave antennas and sample configurations - Cables - Diamond standard samples for reference measurements Software: Proprietary MATLAB® compiled software for system, experiment control, basic fitting capability, and seamless transitioning between experiments. Included experimental capability: CW ODMR, Temperature. Compatible with Windows 11 OS	- CW ODMR - Thermometry - Magnetometry	- ODMR Spectrum and parameters: D, E, linewidth, contrast. - Software integrated temperature measurement (Typical sensitivity limit: 50 mK) ¹³C and ¹⁴N nuclear hyperfine splitting - Magnetic field vector from analysis of ODMR spectrum
ODMR-PULSE 	Hardware: - ODMR-BASE + AWG and MW switch 16 W Microwave amplifier - High conversion Omega Ring PCB Microwave antenna with SMA port Software: Proprietary MATLAB® compiled software for system, experiment control, basic fitting capability, and seamless transitioning between experiments. Included experimental capability: CW ODMR, Temperature, T1 Relaxation, Rabi Oscillations, Spin Echo (T2*), Hahn Echo Decay (T2). Compatible with Windows 11 OS.	- CW ODMR - Thermometry - Magnetometry - T1 Relaxation - Rabi Oscillations - Single Spin Echo - Hahn Echo Sequence	- ODMR Spectrum and parameters: D, E, linewidth, contrast. - Software integrated thermometry (Typical sensitivity limit: 50 mK) - T1 relaxation: minimum time resolution >100 μs ¹³C and ¹⁴N nuclear hyperfine splitting - Magnetic field vector from analysis of ODMR spectrum

