

NMR Probe Specifications

Model	JEOL Resonance 3.2 mm High Resolution 400 MHz AutoMAS probe		
Applicable Instrument Description	ECZR 400 MHz NMR system.		
	Two-channel magic angle spinning (MAS) NMR probe With top-load auto-sample change. Magic angle spinning speeds up to 21 kHz with standard Zirconia rotors at room temperature with gas supply <60 psi. High frequency channel tuned to ¹ H at 400 MHz or ¹⁹ F at 376 MHz. Observe (X) channel tuning inserts supplied for ³¹ P, ⁷ Li, ¹¹ B, ²³ Na, ²⁷ Al, ¹³ C, ⁷⁹ Br, ²⁰⁷ Pb, ²⁹ Si, ⁶ Li, and ¹⁵ N. The probe is compatible with the JEOL Autotune accessory unit (NM-61160ATZ) within a selected frequency band. Requires ROTORCARRIER™ (NM-05710RC) and MAS controller (NM-62011MAS).		
Specifications	Signal-to-Noise		
		¹³ C sensitivity ≥120	8 scans HMB
	Pulse Widths		
	Standard Power Amplifiers:		
	¹ H π/2 pulse width	≤3.4 μs	At ≤50 W at 400 MHz
	¹³ C π/2 pulse width	≤2.8 μs	At ≤180 W at 106 MHz
	Middle Power Amplifiers:		
	¹ H π/2 pulse width	≤2.4 μs	At ≤100 W at 400 MHz
	¹³ C π/2 pulse width	≤2.2 μs	At ≤275 W at 106 MHz
	Resolution		
	¹³ C resolution ≤0.1 ppm	Adamantane (FWHM)	
Variable Temperature	Variable temperature range is -60°C to +150°C with VT system.		

Notes:

Pulse width specifications are measured at the magic angle with sufficient air flow, at ambient temperature. Cross Polarization (CP) at field strengths up to 80% of the observe pulse strength up to 10ms duration. The probe may have ^{19}F background signals for single pulse experiments.