

NMR Probe Specifications

Model	JEOL Resonance 3.2 mm High Resolution 500 MHz AutoMAS probe		
Applicable Instrument Description	ECZR 500 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 ^1H at 500 MHz or ^{19}F at 470 MHz. Observe (X) channel tuning inserts supplied for ^{31}P , ^7Li , ^{11}B , ^{23}Na , ^{27}Al , ^{13}C , ^{79}Br , ^{207}Pb , ^{29}Si , ^6Li , 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 ≥ 180	8 scans HMB
	Pulse Widths		
	Standard Power Amplifiers:		
	^1H $\pi/2$ pulse width	$\leq 3.8 \mu\text{s}$	At ≤ 50 W at 500 MHz
	^{13}C $\pi/2$ pulse width	$\leq 3.1 \mu\text{s}$	At ≤ 180 W at 126 MHz
	Middle Power Amplifiers:		
	^1H $\pi/2$ pulse width	$\leq 2.7 \mu\text{s}$	At ≤ 100 W at 500 MHz
	^{13}C $\pi/2$ pulse width	$\leq 2.5 \mu\text{s}$	At ≤ 275 W at 126 MHz
	Resolution	^{13}C resolution ≤ 0.1 ppm	Adamantane (FWHM)
	Variable Temperature	Variable temperature range is -60°C to $+150^\circ\text{C}$ 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.

Will only fit NM-04750SCMJJ or NM-04810SCMWS magnets, will not fit older magnets with longer field center.