

NMR Probe Specifications

Model **JEOL Resonance 3.2 mm High Resolution 500 MHz Extended VT MAS probe**

Applicable Instrument ECZR 500 MHz NMR system.
For other models, please contact JEOL USA for specifications.

Description Two-channel magic angle spinning (MAS) NMR probe. 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 .

Specifications Signal-to-Noise
 ^{13}C sensitivity ≥ 240 8 scans HMB

Pulse Widths

Standard Power Amplifiers:

^1H $\pi/2$ pulse width $\leq 3.2 \mu\text{s}$ At ≤ 50 W at 500 MHz

^{13}C $\pi/2$ pulse width $\leq 2.6 \mu\text{s}$ At ≤ 180 W at 126 MHz

Middle Power Amplifiers:

^1H $\pi/2$ pulse width $\leq 2.3 \mu\text{s}$ At ≤ 100 W at 500 MHz

^{13}C $\pi/2$ pulse width $\leq 2.1 \mu\text{s}$ At ≤ 275 W at 126 MHz

Resolution

^{13}C resolution ≤ 0.1 ppm Adamantane (FWHM)

Variable Temperature

Variable temperature range is -100°C to $+200^\circ\text{C}$ 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.