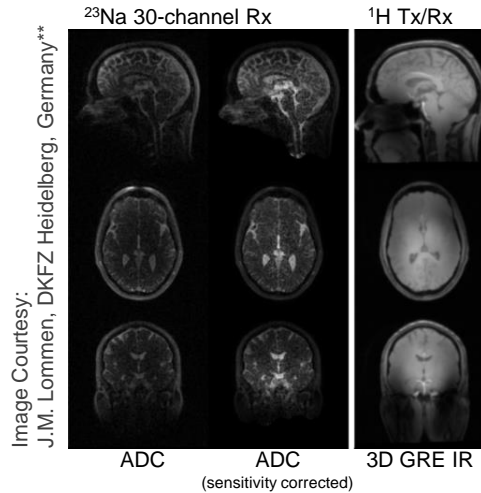


7 T 30-Channel Dual Tuned Head Coil *

MR Coils Made-to-Measure

Proton and non proton MRI/MRS is still challenging due to the low SNR of non proton images. The SNR can be increased both by increasing the field strength at 7 T and using novel dual tuned coils with receive array technology. In order to make this advantage available to the scientific community, RAPID Biomedical has developed an integrated 7 T dual tuned quadrature Tx/Rx resonator and a 30-channel non-proton Rx Array for detection.



- composed dual tuned volume resonator and 30 channel non-proton Rx-array for human head applications
- transmit / receive quadrature polarization for dual tuned volume resonator
- high SNR performance using 30 channel non-proton Rx-array
- sliding mounting mechanism for easy access
- open design for fMRI studies
- other nuclei combinations on demand
- individually adaptable to the most established 7 T MR scanners.

The current rules for medical devices prohibit a CE-approval for 7 T coils. To compensate for this, RAPID Biomedical runs a medical device compatible testing of 7 T coils.

** ²³Na MRI data from 30-channel array data reconstructed using ADC (1st column) and B₁-corrected ADC (2nd column). Anatomical details become clearly visible. The ¹H data displays good field homogeneity (3rd column).

Specifications

approvals	No medical device, limited to investigational use.
B ₀ -field strength	7 T
housing dimensions	dual tuned volume resonator: ID: 27 cm, OD: 36.5 cm 30 channel non-proton Rx-array: ID: 19.5 cm x 22x4 cm (oval), OD: 26.4 cm
weight	ca. 12.5 kg