MRI – Magnetic Resonance Imaging

Coils are compatible with Siemens MRI 3T Scanner MAGNETOM Prisma (P) or / and Cima.X Fit (C).

Siemens´s coils

Technical specifications:

Head / Neck (64 channels) (P, C)

- 64-channels design
- Anthropomorphic geometry with full head/neck coverage
- Extremely high SNR for high-resolution, large FoV imaging
- Extreme iPAT performance for ultra-fast imaging with minimal SNR loss
- With full coverage of the head and neck and seamless integration with the spine and body coils
- Open, patient-friendly design
- Accessible design to facilitate fMRI visual stimulation and eye tracking experiments
- Rear port for EEG cables for simultaneous EEG/MR imaging for up to 128 electrodes
- Dimensions: 435 mm × 395 mm × 350 mm

Dual Tuned Quadrature Head Coil 1H/31P (P)

- RAPID Biomedical
- Fixed tuned
- Open design
- Inner diameter 26,5cm; outer diameter 35cm
- Resonator length 24cm
- Suitable for 1H decoupling
- Siemens Tim / MNO (Multi Nucleus Option) coil interface 3T

31P:

- Transmit / receive
- Quadrature polarization
- Resonance frequency 49.9MHz

1H:

- Transmit / receive
- Quadrature polarization
- Resonance frequency 123.2MHz

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Tx/Rx CP Head Coil (P, C)

- CP Send/Receive head coil with integrated preamplifier
- Upper coil part removable
- Open patient-friendly design
- No coil tuning
- Cushions for patient comfort and stabilization of the head
- Applications: Head examinations; High resolution brain spectroscopy
- Dimensions: 315 mm × 475 mm × 360 mm (L×W×H)

Head-neck (20 channels) (P, C)

- 20-channel design with 20 integrated preamplifiers
- Spacious design
- Open patient-friendly design
- iPAT-compatible in all directions
- Tilting option - easy positioning of the person (C)

Spine Matrix Coil (P, C)

- 32-element design with 32 integrated preamplifiers
- Integrated into the patient table and streamlined with Head Matrix coil and Neck Matrix coil
- No coil tuning
- iPAT-compatible in all directions
- High resolution imaging of the whole spine
- Various applications in combination with additional

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BioMatrix Spine Coil (C)

- 72-element design with 72 integrated preamplifiers
- Integrated into the patient table and streamlined with Head Matrix coil and Neck Matrix coil
- No coil tuning
- iPAT-compatible in all directions
- High resolution imaging of the whole spine
- Various applications in combination with additional coils
- Coil with imbedded Respiratory sensors
- Easy positioning of the person

Body (18 channels) (P, C)

- 18-channel design with 18 integrated preamplifiers, with 3 rows of 6 elements each
- Operates in an integrated fashion with the Spine 32
- iPAT-compatible in all directions
- Dual-Density Signal Transfer enables ultra-high density coil design by integrating key RF components into the local coil
- Applications: Thorax; Heart; Abdomen; Pelvis; Hip; Vascular
- Dimensions: 385 mm × 590 mm × 65 mm (L×W×H)

Wrist (16 channels) (P, C)

- 16-channel coil with 16 integrated preamplifiers
- iPAT-compatible in all directions
- Hinged design of the upper part for quick and easy patient positioning with stabilization pads for comfort
- Holder allows off-centre positioning to ensure a comfortable position for the patient
- Dual-Density Signal Transfer enables ultra-high density coil designs by integrating key RF components into the local coil
- Applications: High resolution hand and wrist imaging
- Dimensions: 332 mm × 215 mm × 115 mm (L×W×H)

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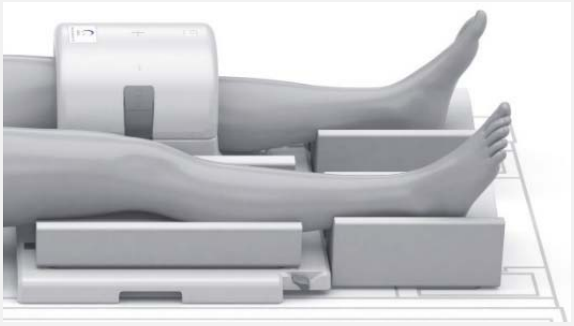
Knee (15 channels) Tx/Rx Knee 15 Flare Coil (P)

- Transmit / receive
- iPAT-compatible in all direction
- Flared opening, upper coil part removable
- Inner coil diameter (centre): 155mm
- Holder allows off-centre positioning



Knee (18 channels) Tx/Rx Knee 18 Flare Coil (C)

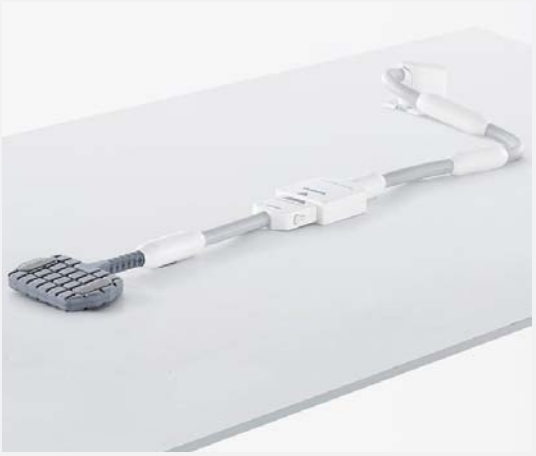
- Transmit / receive
- iPAT-compatible in all direction
- Flared opening, upper coil part removable
- Inner coil diameter (centre): 170mm
- Holder allows off-centre positioning

Foot/Ankle (10 channels) (C, P)

- 10-element coil with 10 integrated preamplifiers
- iPAT-compatible in all direction
- Boot-like coil design
- Stabilization pads for comfortable patient positioning

Special-Purpose (4 channels) (P, C)

- iPAT compatible
- No coil tuning
- Applications: Carotids; Examinations with small Field-of-Views; Small structures near the surface
- Dimensions: 477 mm × 143 mm × 35 mm (L×W×H)



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Middle loop (1 channel) [P, C]

- Examination of inner ear, structure of wrist and fingers, paediatrics examinations
- Diameter: 70 mm

Small loop (1 channel) [P, C]

- Examination of small structures near the surface (e.g. joints of fingers and toes, wrist, skin, temporo mandibular joints
- Diameter: 40 mm

Large Flexi (4 channels) [P, C], (18 channels) [C]

- 4 / 18 integrated low-noise preamplifiers
- Allows flexible coil positioning
- Only one interface necessary for all Flex coils
- Several Flex Coil Interfaces can be used simultaneously
- Wrap-around coil made from soft and flexible material
- 4 / 18 linear polarized elements
- iPAT-compatible
- No coil tuning
- Imaging of large regions such as medium to large shoulders, hip and knee
- Dimensions: 516 mm × 224 mm

Small Flexi (4 channels) [P, C], (18 channels) [C]

- 4 / 18 integrated low-noise preamplifiers
- Allows flexible coil positioning
- Only one interface necessary for all Flex coils
- Several Flex Coil Interfaces can be used simultaneously
- Wrap-around coil made from soft and flexible material
- 4 / 18 linear polarized elements
- iPAT-compatible
- No coil tuning
- Imaging of small regions such as small to medium shoulders, wrist, elbow and ankle
- Dimensions: 366 mm × 174 mm

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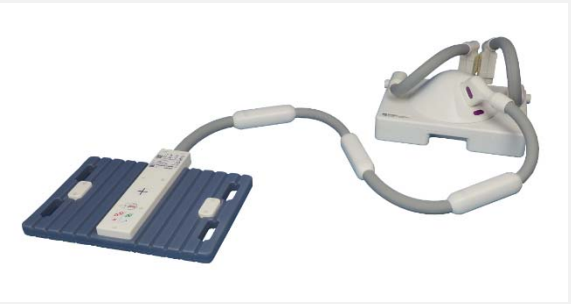
Dual Tuned Flex Surface Coil (P)

- RAPID Biomedical
- For 31P spectroscopy / imaging
- Multiple purpose application such as extremities and skeletal muscle
- Transmit/receive linear polarization for both nuclei
- Supports proton decoupled spectroscopy, if applicable
- Flexible housing provides maximum patient comfort



Producer's web:

https://www.siemens-healthineers.com/magnetic-resonance-imaging
https://www.rapidbiomed.de/product-category/human-coils/