

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid_2venc

TA: 1.8 s

Voxel size: 1.6x1.6x3.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_2venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-----------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L0.0 A16.9 F0.6 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 200 mm |
| FoV phase | 100.0 % |
| Slice thickness | 3.0 mm |
| TR | 35 ms |
| TE | 17 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|---------------------|------------------|
| MTC | Off |
| Flip angle | 20 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 10 |
| Pause after meas. 1 | 0.0 s |
| Pause after meas. 2 | 0.0 s |
| Pause after meas. 3 | 0.0 s |
| Pause after meas. 4 | 0.0 s |
| Pause after meas. 5 | 0.0 s |
| Pause after meas. 6 | 0.0 s |
| Pause after meas. 7 | 0.0 s |
| Pause after meas. 8 | 0.0 s |
| Pause after meas. 9 | 0.0 s |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |

Hamming

Off

Geometry

| | |
|------------------|-----------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Sat. region 1 | |
| Thickness | 3 mm |
| Position | L0.0 P0.0 H56.0 |
| Orientation | Transversal |
| Special sat. | None |

System

| | |
|--------------------------|-----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L0.0 A16.9 F0.6 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 200 mm |
| A >> P | 200 mm |
| F >> H | 3 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1396 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.84 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Encoding Off | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 100 |
| Undersampled | Off |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep2d_bold_OVS_flash_slide

TA: 0:27 PAT: Off Voxel size: 2.5x2.5x2.0 mm Rel. SNR: 1.00 USER: ep2d_bold_OVS_flash_slide

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-----------------|
| Slice group 1 | |
| Slices | 50 |
| Dist. factor | 0 % |
| Position | L0.0 A7.3 F21.8 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 200 mm |
| FoV phase | 100.0 % |
| Slice thickness | 2.00 mm |
| TR | 3000 ms |
| TE | 39 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-----------------|-----------|
| MTC | Off |
| Flip angle | 90 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 9 |
| Delay in TR | 0 ms |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 80 |
| Phase resolution | 100 % |
| Phase partial Fourier | 6/8 |
| Interpolation | Off |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | On |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Ascending |
| Sat. region 1 | |
| Thickness | 80 mm |

| | |
|---------------|-----------------|
| Position | L0.0 A86.0 H0.0 |
| Orientation | Coronal |
| Sat. region 2 | |
| Thickness | 80 mm |
| Position | L0.0 P64.2 H0.0 |
| Orientation | Coronal |
| Special sat. | None |

System

| | |
|--------------------------|-----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L0.0 A7.3 F21.8 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 200 mm |
| A >> P | 200 mm |
| F >> H | 100 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
|-----------------|------|

BOLD

| | |
|-------------------------|----------|
| GLM Statistics | Off |
| Dynamic t-maps | Off |
| Starting ignore meas | 0 |
| Ignore after transition | 0 |
| Model transition states | On |
| Temp. highpass filter | On |
| Threshold | 4.00 |
| Paradigm size | 20 |
| Meas[1] | Baseline |
| Meas[2] | Baseline |
| Meas[3] | Baseline |
| Meas[4] | Baseline |
| Meas[5] | Baseline |
| Meas[6] | Baseline |
| Meas[7] | Baseline |
| Meas[8] | Baseline |
| Meas[9] | Baseline |
| Meas[10] | Baseline |
| Meas[11] | Active |
| Meas[12] | Active |
| Meas[13] | Active |
| Meas[14] | Active |
| Meas[15] | Active |
| Meas[16] | Active |

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| | |
|-------------------|------------|
| Meas[17] | Active |
| Meas[18] | Active |
| Meas[19] | Active |
| Meas[20] | Active |
| Motion correction | On |
| Interpolation | 3D-K-space |
| Spatial filter | Off |

Sequence

| | |
|-------------------|-----------|
| Introduction | Off |
| Asymmetric echo | Off |
| Bandwidth | 754 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 1.45 ms |
| <hr/> | |
| EPI factor | 80 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| <hr/> | |
| RF90 duration | 5120 |
| MB Number | 3 |
| DummyScan Number | 2 |
| FOV Shift Number | 3 |
| SkewType(1ff) | 0 |
| OVS flash(1on) | 1 |
| SER Number | 1 |
| Spoil factor | 5 |
| Skew Direction | 0 |
| Sat RF90 duration | 5120 |
| Dual On(1) | 1 |
| Echo Distance | 1.00 |
| MB Measurements | 1 |
| Ramp On | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\localizer

TA: 0:13

PAT: Off

Voxel size: 1.1x1.0x7.0 mm

Rel. SNR: 1.00

SIEMENS: gre

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

| | |
|-----------------------|-----------|
| Phase resolution | 90 % |
| Phase partial Fourier | Off |
| Interpolation | On |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |
| Image Filter | Off |
| Distortion Corr. | Off |
| Unfiltered images | Off |
| Prescan Normalize | On |
| Normalize | Off |
| B1 filter | Off |
| Raw filter | Off |
| Elliptical filter | On |
| Mode | Inplane |

Routine

| | |
|--------------------|--------------------------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Slice group 2 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Slice group 3 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Coronal |
| Phase enc. dir. | R >> L |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 250 mm |
| FoV phase | 100.0 % |
| Slice thickness | 7.0 mm |
| TR | 8.6 ms |
| TE | 4.00 ms |
| Averages | 2 |
| Concatenations | 3 |
| Filter | Prescan Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Sequential |
| Series | Interleaved |
| Saturation mode | Standard |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Contrast

| | |
|-------------------|------------------|
| TD | 0 ms |
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 20 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Averaging mode | Short term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 1 |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|--------------------|-----|
| Subtract | Off |
| Liver registration | Off |
| Std-Dev-Sag | Off |

Resolution

| | |
|-----------------|-----|
| Base resolution | 256 |
|-----------------|-----|

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| | |
|----------------------|-----|
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |
| <hr/> | |
| Wash - In | Off |
| Wash - Out | Off |
| TTP | Off |
| PEI | Off |
| MIP - time | Off |

Sequence

| | |
|---------------------|------------|
| Introduction | On |
| Dimension | 2D |
| Phase stabilisation | Off |
| Asymmetric echo | Allowed |
| Contrasts | 1 |
| Bandwidth | 320 Hz/Px |
| Flow comp. | No |
| Allowed delay | 0 s |
| <hr/> | |
| RF pulse type | Normal |
| Gradient mode | Normal |
| Excitation | Slice-sel. |
| RF spoiling | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid_2venc_fast

TA: 2:20

Voxel size: 1.6x1.6x3.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_2venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-----------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L0.0 A18.5 F9.7 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 200 mm |
| FoV phase | 100.0 % |
| Slice thickness | 3.0 mm |
| TR | 35 ms |
| TE | 17 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|------------------|
| MTC | Off |
| Flip angle | 20 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|-----------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Sat. region 1 | |
| Thickness | 3 mm |
| Position | L0.0 P0.0 H33.1 |

Orientation
Special sat.

Transversal
None

System

| | |
|--------------------------|-----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L0.0 A18.5 F9.7 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 200 mm |
| A >> P | 200 mm |
| F >> H | 3 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1396 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.84 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Encoding Off | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 100 |
| Undersampled | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid33_venc50_art_centric

TA: 2:24

Voxel size: 1.4x1.4x4.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-----------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L0.0 A18.5 F9.7 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 36 ms |
| TE | 18 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Flip angle | 15 deg |
| Fat suppr. | None |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Special sat. | None |

System

| | |
|-------------------|----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|-----------------|
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L0.0 A18.5 F9.7 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1502 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.87 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Flow Compensation | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 1000 |
| Undersampled | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid33_venc5_csf_centric

TA: 2:24

Voxel size: 1.4x1.4x4.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L0.0 A18.5 H31.9 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 36 ms |
| TE | 18 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Flip angle | 15 deg |
| Fat suppr. | None |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Special sat. | None |

System

| | |
|-------------------|----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|------------------|
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L0.0 A18.5 H31.9 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1502 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.87 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Flow Compensation | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 100 |
| Undersampled | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep2d_venc5_fast_TP_SS_EPI

TA: 1:20:54 PAT: 2 Voxel size: 1.5x1.5x5.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------|
| Slice group 1 | |
| Slices | 3 |
| Dist. factor | 350 % |
| Position | L0.0 A20.7 H53.8 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 192 mm |
| FoV phase | 100.0 % |
| Slice thickness | 5.0 mm |
| TR | 5920 ms |
| TE | 38.0 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-----------------|-----------|
| MTC | Off |
| Flip angle | 25 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 820 |
| Delay in TR | 0 ms |
| Multiple series | Off |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | 6/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Separate |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Ascending |

Sat. region 1

| | |
|-------------|-------------------|
| Thickness | 50 mm |
| Position | L0.0 A89.6 H117.0 |
| Orientation | C > T-14.6 |

Sat. region 2

| | |
|--------------|-------------------|
| Thickness | 50 mm |
| Position | L0.0 P61.0 H156.2 |
| Orientation | C > T-14.6 |
| Special sat. | None |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L0.0 A20.7 H53.8 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 192 mm |
| A >> P | 192 mm |
| F >> H | 50 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
|-----------------|------|

Angio

| | |
|---------------|---------------|
| Flow mode | Single dir. |
| Encodings | 1 |
| Velocity enc. | 10 cm/s |
| Direction | Through plane |
| Magnitude sum | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Bandwidth | 1776 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.94 ms |
| EPI factor | 128 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| RF90 duration | 5120 |
| MB Number | 3 |
| DummyScan Number | 5 |
| FOV Shift Number | 3 |
| Shift K0 Center | 1 |
| Every Other Slice | 1 |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---|-----|
| SER Number | 1 |
| Venc Repetition | 800 |
| Spoil factor | 5 |
| Skew Direction | 1 |
| DualBand Sat | 0 |
| FOV Dir | 0 |
| Venc Type(0off,1+-,20+,3on,4 1 00++) | |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep2d_venc5_fast_sag_pos2

TA: 1:19:55 PAT: 2 Voxel size: 1.4x1.4x4.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 1000 % |
| Position | R0.7 A16.5 H29.0 |
| Orientation | S > C-0.9 > T-0.1 |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 5920 ms |
| TE | 38.0 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-----------------|-----------|
| MTC | Off |
| Flip angle | 25 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 820 |
| Delay in TR | 0 ms |
| Multiple series | Off |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | 6/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Separate |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Ascending |

Sat. region 1

| | |
|-------------|------------------|
| Thickness | 50 mm |
| Position | R2.5 A84.8 F84.7 |
| Orientation | C > T-5.4 > S0.9 |

Sat. region 2

| | |
|--------------|------------------|
| Thickness | 50 mm |
| Position | R1.9 P69.6 F64.1 |
| Orientation | C > T-5.4 > S0.9 |
| Special sat. | None |

System

| | |
|--------------------------|-------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | R0.7 A16.5 H29.0 |
| Orientation | S > C-0.9 > T-0.1 |
| Rotation | 0.00 deg |
| F >> H | 180 mm |
| A >> P | 180 mm |
| R >> L | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
|-----------------|------|

Angio

| | |
|---------------|-------------|
| Flow mode | Single dir. |
| Encodings | 1 |
| Velocity enc. | 10 cm/s |
| Direction | F >> H |
| Magnitude sum | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Bandwidth | 1628 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.96 ms |
| EPI factor | 128 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| RF90 duration | 5120 |
| MB Number | 1 |
| DummyScan Number | 5 |
| FOV Shift Number | 1 |
| Shift K0 Center | 1 |
| Every Other Slice | 1 |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---|-----|
| SER Number | 1 |
| Venc Repetition | 800 |
| Spoil factor | 5 |
| Skew Direction | 1 |
| DualBand Sat | 0 |
| FOV Dir | 0 |
| Venc Type(0off,1+-,20+,3on,4 1 00++) | |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\localizer

TA: 0:13

PAT: Off

Voxel size: 1.1x1.0x7.0 mm

Rel. SNR: 1.00

SIEMENS: gre

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

| | |
|-----------------------|-----------|
| Phase resolution | 90 % |
| Phase partial Fourier | Off |
| Interpolation | On |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |
| Image Filter | Off |
| Distortion Corr. | Off |
| Unfiltered images | Off |
| Prescan Normalize | On |
| Normalize | Off |
| B1 filter | Off |
| Raw filter | Off |
| Elliptical filter | On |
| Mode | Inplane |

Routine

| | |
|--------------------|--------------------------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Slice group 2 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Slice group 3 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Coronal |
| Phase enc. dir. | R >> L |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 250 mm |
| FoV phase | 100.0 % |
| Slice thickness | 7.0 mm |
| TR | 8.6 ms |
| TE | 4.00 ms |
| Averages | 2 |
| Concatenations | 3 |
| Filter | Prescan Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Sequential |
| Series | Interleaved |
| Saturation mode | Standard |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Contrast

| | |
|-------------------|------------------|
| TD | 0 ms |
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 20 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Averaging mode | Short term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 1 |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|--------------------|-----|
| Subtract | Off |
| Liver registration | Off |
| Std-Dev-Sag | Off |

Resolution

| | |
|-----------------|-----|
| Base resolution | 256 |
|-----------------|-----|

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|----------------------|-----|
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |
| <hr/> | |
| Wash - In | Off |
| Wash - Out | Off |
| TTP | Off |
| PEI | Off |
| MIP - time | Off |

Sequence

| | |
|---------------------|------------|
| Introduction | On |
| Dimension | 2D |
| Phase stabilisation | Off |
| Asymmetric echo | Allowed |
| Contrasts | 1 |
| Bandwidth | 320 Hz/Px |
| Flow comp. | No |
| Allowed delay | 0 s |
| <hr/> | |
| RF pulse type | Normal |
| Gradient mode | Normal |
| Excitation | Slice-sel. |
| RF spoiling | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\t2_haste_sag_p2

TA: 0:17 PAT: 2 Voxel size: 1.0x1.0x2.0 mm Rel. SNR: 1.00 SIEMENS: haste

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------------------|
| Slice group 1 | |
| Slices | 40 |
| Dist. factor | 0 % |
| Position | L2.5 A16.1 H42.7 |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 192 mm |
| FoV phase | 100.0 % |
| Slice thickness | 2.0 mm |
| TR | 395 ms |
| TE | 76 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|------------------|
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 110 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Restore magn. | Off |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 192 |
| Phase resolution | 100 % |
| Phase partial Fourier | 5/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Integrated |
| Image Filter | Off |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Normalize | On |
| B1 filter | Off |
| Raw filter | Off |

Elliptical filter
Mode

On
Inplane

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Single shot |
| Series | Interleaved |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|----------------------|-----|
| Subtract | Off |
| Std-Dev-Sag | Off |
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |

Sequence

| | |
|---------------|-----------|
| Introduction | On |
| Dimension | 2D |
| Contrasts | 1 |
| Bandwidth | 592 Hz/Px |
| Flow comp. | No |
| Allowed delay | 30 s |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---------------|---------|
| Echo spacing | 5.82 ms |
| Turbo factor | 192 |
| RF pulse type | Fast |
| Gradient mode | Fast |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyoung\20150727\ep2d_venc5_fast_sag_pos2

TA: 1:19:55 PAT: 2 Voxel size: 1.4x1.4x4.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 1000 % |
| Position | L1.7 A14.8 H47.6 |
| Orientation | S > C-0.9 > T-0.1 |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 5920 ms |
| TE | 38.0 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-----------------|-----------|
| MTC | Off |
| Flip angle | 25 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 820 |
| Delay in TR | 0 ms |
| Multiple series | Off |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | 6/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Separate |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Ascending |

Sat. region 1

| | |
|-------------|------------------|
| Thickness | 50 mm |
| Position | R0.1 A83.1 F66.1 |
| Orientation | C > T-5.4 > S0.9 |

Sat. region 2

| | |
|--------------|------------------|
| Thickness | 50 mm |
| Position | L0.5 P71.3 F45.5 |
| Orientation | C > T-5.4 > S0.9 |
| Special sat. | None |

System

| | |
|--------------------------|-------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L1.7 A14.8 H47.6 |
| Orientation | S > C-0.9 > T-0.1 |
| Rotation | 0.00 deg |
| F >> H | 180 mm |
| A >> P | 180 mm |
| R >> L | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
|-----------------|------|

Angio

| | |
|---------------|-------------|
| Flow mode | Single dir. |
| Encodings | 1 |
| Velocity enc. | 10 cm/s |
| Direction | F >> H |
| Magnitude sum | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Bandwidth | 1628 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.96 ms |
| EPI factor | 128 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| RF90 duration | 5120 |
| MB Number | 1 |
| DummyScan Number | 5 |
| FOV Shift Number | 1 |
| Shift K0 Center | 1 |
| Every Other Slice | 1 |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---|-----|
| SER Number | 1 |
| Venc Repetition | 800 |
| Spoil factor | 5 |
| Skew Direction | 1 |
| DualBand Sat | 0 |
| FOV Dir | 0 |
| Venc Type(0off,1+-,20+,3on,4 1 00++) | |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\t2_haste_tra_p2

TA: 0:17 PAT: 2 Voxel size: 1.0x1.0x4.0 mm Rel. SNR: 1.00 SIEMENS: haste

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------------------|
| Slice group 1 | |
| Slices | 40 |
| Dist. factor | 0 % |
| Position | L0.0 A13.4 H55.6 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 192 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 395 ms |
| TE | 76 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|------------------|
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 117 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Restore magn. | Off |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 192 |
| Phase resolution | 100 % |
| Phase partial Fourier | 5/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Integrated |
| Image Filter | Off |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Normalize | On |
| B1 filter | Off |
| Raw filter | Off |

Elliptical filter
Mode

On
Inplane

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Single shot |
| Series | Interleaved |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|----------------------|-----|
| Subtract | Off |
| Std-Dev-Sag | Off |
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |

Sequence

| | |
|---------------|-----------|
| Introduction | On |
| Dimension | 2D |
| Contrasts | 1 |
| Bandwidth | 592 Hz/Px |
| Flow comp. | No |
| Allowed delay | 30 s |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---------------|---------|
| Echo spacing | 4.78 ms |
| Turbo factor | 192 |
| RF pulse type | Fast |
| Gradient mode | Fast |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep2d_venc5_fast_axi_pos2

TA: 1:20:54 PAT: 2 Voxel size: 1.4x1.4x4.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------|
| Slice group 1 | |
| Slices | 3 |
| Dist. factor | 600 % |
| Position | L1.7 A19.4 H77.3 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 5920 ms |
| TE | 38.0 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-----------------|-----------|
| MTC | Off |
| Flip angle | 25 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 820 |
| Delay in TR | 0 ms |
| Multiple series | Off |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | 6/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Separate |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Ascending |

Sat. region 1

| | |
|-------------|------------------|
| Thickness | 50 mm |
| Position | R0.1 A87.8 F36.4 |
| Orientation | C > T-5.4 > S0.9 |

Sat. region 2

| | |
|--------------|------------------|
| Thickness | 50 mm |
| Position | L0.5 P66.7 F15.8 |
| Orientation | C > T-5.4 > S0.9 |
| Special sat. | None |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L1.7 A19.4 H77.3 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 60 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
|-----------------|------|

Angio

| | |
|---------------|-------------|
| Flow mode | Single dir. |
| Encodings | 1 |
| Velocity enc. | 10 cm/s |
| Direction | R >> L |
| Magnitude sum | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Bandwidth | 1628 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.96 ms |
| EPI factor | 128 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| RF90 duration | 5120 |
| MB Number | 3 |
| DummyScan Number | 5 |
| FOV Shift Number | 3 |
| Shift K0 Center | 1 |
| Every Other Slice | 1 |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---|-----|
| SER Number | 1 |
| Venc Repetition | 800 |
| Spoil factor | 5 |
| Skew Direction | 1 |
| DualBand Sat | 0 |
| FOV Dir | 0 |
| Venc Type(0off,1+-,20+,3on,4 1 00++) | |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid33_venc5_csf_centric

TA: 2:24

Voxel size: 1.4x1.4x4.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L1.7 A19.4 H77.3 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 36 ms |
| TE | 18 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Flip angle | 15 deg |
| Fat suppr. | None |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Special sat. | None |

System

| | |
|-------------------|----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|------------------|
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L1.7 A19.4 H77.3 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1502 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.87 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Flow Compensation | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 100 |
| Undersampled | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid33_venc50_art_centric

TA: 2:24

Voxel size: 1.4x1.4x4.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-----------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L0.0 A18.5 H1.0 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 36 ms |
| TE | 18 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Flip angle | 15 deg |
| Fat suppr. | None |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Special sat. | None |

System

| | |
|-------------------|----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|-----------------|
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L0.0 A18.5 H1.0 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1502 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.87 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Flow Compensation | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 1000 |
| Undersampled | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\localizer

TA: 0:13

PAT: Off

Voxel size: 1.1x1.0x7.0 mm

Rel. SNR: 1.00

SIEMENS: gre

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | Off |
| Wait for user to start | Off |
| Start measurements | single |

| | |
|-----------------------|-----------|
| Phase resolution | 90 % |
| Phase partial Fourier | Off |
| Interpolation | On |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |
| Image Filter | Off |
| Distortion Corr. | Off |
| Unfiltered images | Off |
| Prescan Normalize | On |
| Normalize | Off |
| B1 filter | Off |
| Raw filter | Off |
| Elliptical filter | On |
| Mode | Inplane |

Routine

| | |
|--------------------|--------------------------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Slice group 2 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Slice group 3 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Coronal |
| Phase enc. dir. | R >> L |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 250 mm |
| FoV phase | 100.0 % |
| Slice thickness | 7.0 mm |
| TR | 8.6 ms |
| TE | 4.00 ms |
| Averages | 2 |
| Concatenations | 3 |
| Filter | Prescan Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Sequential |
| Series | Interleaved |
| Saturation mode | Standard |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Contrast

| | |
|-------------------|------------------|
| TD | 0 ms |
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 20 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Averaging mode | Short term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------|-----|
| Base resolution | 256 |
|-----------------|-----|

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 1 |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|--------------------|-----|
| Subtract | Off |
| Liver registration | Off |
| Std-Dev-Sag | Off |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|----------------------|-----|
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |
| <hr/> | |
| Wash - In | Off |
| Wash - Out | Off |
| TTP | Off |
| PEI | Off |
| MIP - time | Off |

Sequence

| | |
|---------------------|------------|
| Introduction | On |
| Dimension | 2D |
| Phase stabilisation | Off |
| Asymmetric echo | Allowed |
| Contrasts | 1 |
| Bandwidth | 320 Hz/Px |
| Flow comp. | No |
| Allowed delay | 0 s |
| <hr/> | |
| RF pulse type | Normal |
| Gradient mode | Normal |
| Excitation | Slice-sel. |
| RF spoiling | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\t2_haste_sag_p2

TA: 0:17 PAT: 2 Voxel size: 1.0x1.0x2.0 mm Rel. SNR: 1.00 SIEMENS: haste

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------------------|
| Slice group 1 | |
| Slices | 40 |
| Dist. factor | 0 % |
| Position | L9.8 A12.5 H37.9 |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 192 mm |
| FoV phase | 100.0 % |
| Slice thickness | 2.0 mm |
| TR | 395 ms |
| TE | 76 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|------------------|
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 110 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Restore magn. | Off |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 192 |
| Phase resolution | 100 % |
| Phase partial Fourier | 5/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Integrated |
| Image Filter | Off |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Normalize | On |
| B1 filter | Off |
| Raw filter | Off |

Elliptical filter
Mode

On
Inplane

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Single shot |
| Series | Interleaved |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|----------------------|-----|
| Subtract | Off |
| Std-Dev-Sag | Off |
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |

Sequence

| | |
|---------------|-----------|
| Introduction | On |
| Dimension | 2D |
| Contrasts | 1 |
| Bandwidth | 592 Hz/Px |
| Flow comp. | No |
| Allowed delay | 30 s |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---------------|---------|
| Echo spacing | 5.82 ms |
| Turbo factor | 192 |
| RF pulse type | Fast |
| Gradient mode | Fast |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\gre_david

TA: 0:45

PAT: 2

Voxel size: 0.9x0.8x3.0 mm

Rel. SNR: 1.00

SIEMENS: gre

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|--------------------------------------|
| Slice group 1 | |
| Slices | 40 |
| Dist. factor | 20 % |
| Position | L11.5 A13.1 H33.3 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 200 mm |
| FoV phase | 100.0 % |
| Slice thickness | 3.0 mm |
| TR | 8.6 ms |
| TE | 4.00 ms |
| Averages | 1 |
| Concatenations | 40 |
| Filter | Prescan Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|------------------|
| TD | 0 ms |
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 20 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Averaging mode | Short term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 256 |
| Phase resolution | 90 % |
| Phase partial Fourier | Off |
| Interpolation | On |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Integrated |
| Image Filter | Off |
| Distortion Corr. | Off |
| Unfiltered images | Off |
| Prescan Normalize | On |
| Normalize | Off |

| | |
|-------------------|---------|
| B1 filter | Off |
| Raw filter | Off |
| Elliptical filter | On |
| Mode | Inplane |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Sequential |
| Series | Interleaved |
| Saturation mode | Standard |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 1 |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|----------------------|-----|
| Subtract | Off |
| Liver registration | Off |
| Std-Dev-Sag | Off |
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |
| Wash - In | Off |
| Wash - Out | Off |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|------------|-----|
| TTP | Off |
| PEI | Off |
| MIP - time | Off |

Sequence

| | |
|---------------------|------------|
| Introduction | On |
| Dimension | 2D |
| Phase stabilisation | Off |
| Asymmetric echo | Allowed |
| Contrasts | 1 |
| Bandwidth | 320 Hz/Px |
| Flow comp. | No |
| Allowed delay | 0 s |
| <hr/> | |
| RF pulse type | Normal |
| Gradient mode | Normal |
| Excitation | Slice-sel. |
| RF spoiling | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\t2_haste_tra_p2

TA: 0:17 PAT: 2 Voxel size: 1.0x1.0x4.0 mm Rel. SNR: 1.00 SIEMENS: haste

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------------------|
| Slice group 1 | |
| Slices | 40 |
| Dist. factor | 0 % |
| Position | L12.7 A11.2 H77.8 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 192 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 395 ms |
| TE | 76 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|------------------|
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 117 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Restore magn. | Off |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 192 |
| Phase resolution | 100 % |
| Phase partial Fourier | 5/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Integrated |
| Image Filter | Off |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Normalize | On |
| B1 filter | Off |
| Raw filter | Off |

Elliptical filter
Mode

On
Inplane

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Single shot |
| Series | Interleaved |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|----------------------|-----|
| Subtract | Off |
| Std-Dev-Sag | Off |
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |

Sequence

| | |
|---------------|-----------|
| Introduction | On |
| Dimension | 2D |
| Contrasts | 1 |
| Bandwidth | 592 Hz/Px |
| Flow comp. | No |
| Allowed delay | 30 s |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---------------|---------|
| Echo spacing | 4.78 ms |
| Turbo factor | 192 |
| RF pulse type | Fast |
| Gradient mode | Fast |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep2d_venc8_fast_sag_pos2

TA: 1:19:55 PAT: 2 Voxel size: 1.4x1.4x4.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 1000 % |
| Position | L9.5 A27.3 H54.7 |
| Orientation | S > C-0.9 > T-0.1 |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 5920 ms |
| TE | 38.0 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-----------------|-----------|
| MTC | Off |
| Flip angle | 25 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 820 |
| Delay in TR | 0 ms |
| Multiple series | Off |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | 6/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Separate |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Ascending |

Sat. region 1

| | |
|-------------|------------------|
| Thickness | 50 mm |
| Position | L7.7 A95.6 F59.0 |
| Orientation | C > T-5.4 > S0.9 |

Sat. region 2

| | |
|--------------|------------------|
| Thickness | 50 mm |
| Position | L8.3 P58.8 F38.4 |
| Orientation | C > T-5.4 > S0.9 |
| Special sat. | None |

System

| | |
|--------------------------|-------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L9.5 A27.3 H54.7 |
| Orientation | S > C-0.9 > T-0.1 |
| Rotation | 0.00 deg |
| F >> H | 180 mm |
| A >> P | 180 mm |
| R >> L | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
|-----------------|------|

Angio

| | |
|---------------|-------------|
| Flow mode | Single dir. |
| Encodings | 1 |
| Velocity enc. | 16 cm/s |
| Direction | F >> H |
| Magnitude sum | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Bandwidth | 1628 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.96 ms |
| EPI factor | 128 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| RF90 duration | 5120 |
| MB Number | 1 |
| DummyScan Number | 5 |
| FOV Shift Number | 1 |
| Shift K0 Center | 1 |
| Every Other Slice | 1 |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---|-----|
| SER Number | 1 |
| Venc Repetition | 800 |
| Spoil factor | 5 |
| Skew Direction | 1 |
| DualBand Sat | 0 |
| FOV Dir | 0 |
| Venc Type(0off,1+-,20+,3on,4 1 00++) | |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep2d_venc8_fast_TP_pos2

TA: 1:20:25 PAT: 2 Voxel size: 1.4x1.4x4.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-----------------|
| Slice group 1 | |
| Slices | 2 |
| Dist. factor | 1200 % |
| Position | L0.0 A6.5 H61.7 |
| Orientation | T > C7.3 |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 5920 ms |
| TE | 38.0 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-----------------|-----------|
| MTC | Off |
| Flip angle | 25 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 820 |
| Delay in TR | 0 ms |
| Multiple series | Off |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | 6/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Separate |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Ascending |

Sat. region 1

| | |
|-------------|------------------|
| Thickness | 50 mm |
| Position | L0.0 A86.6 H73.8 |
| Orientation | C > T-4.3 |

Sat. region 2

| | |
|--------------|-------------------|
| Thickness | 50 mm |
| Position | L0.0 P63.3 H141.2 |
| Orientation | C > T-7.3 |
| Special sat. | None |

System

| | |
|--------------------------|-----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L0.0 A6.5 H61.7 |
| Orientation | T > C7.3 |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 56 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
|-----------------|------|

Angio

| | |
|---------------|---------------|
| Flow mode | Single dir. |
| Encodings | 1 |
| Velocity enc. | 16 cm/s |
| Direction | Through plane |
| Magnitude sum | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Bandwidth | 1628 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.96 ms |
| EPI factor | 128 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| RF90 duration | 5120 |
| MB Number | 2 |
| DummyScan Number | 5 |
| FOV Shift Number | 3 |
| Shift K0 Center | 1 |
| Every Other Slice | 1 |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|---|-----|
| SER Number | 1 |
| Venc Repetition | 800 |
| Spoil factor | 5 |
| Skew Direction | 1 |
| DualBand Sat | 0 |
| FOV Dir | 0 |
| Venc Type(0off,1+-,20+,3on,4 1 00++) | |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid33_venc20_low

TA: 2:24

Voxel size: 1.4x1.4x4.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L8.7 A18.2 H39.3 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 36 ms |
| TE | 18 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Flip angle | 15 deg |
| Fat suppr. | None |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Special sat. | None |

System

| | |
|-------------------|----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|------------------|
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L8.7 A18.2 H39.3 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1502 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.87 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Flow Compensation | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 400 |
| Undersampled | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid33_venc50_low

TA: 2:24

Voxel size: 1.4x1.4x4.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L8.7 A18.2 H39.3 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 36 ms |
| TE | 18 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Flip angle | 15 deg |
| Fat suppr. | None |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Special sat. | None |

System

| | |
|-------------------|----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|------------------|
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L8.7 A18.2 H39.3 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1502 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.87 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Flow Compensation | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 1000 |
| Undersampled | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid33_venc30_high

TA: 3:00

Voxel size: 1.2x1.2x4.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L4.8 P13.1 H99.0 |
| Orientation | Transversal |
| Phase enc. dir. | R >> L |
| Rotation | 90.00 deg |
| Phase oversampling | 0 % |
| FoV read | 150 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 45 ms |
| TE | 22 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Flip angle | 15 deg |
| Fat suppr. | None |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Special sat. | None |

System

| | |
|-------------------|----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|------------------|
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L4.8 P13.1 H99.0 |
| Orientation | Transversal |
| Rotation | 90.00 deg |
| A >> P | 150 mm |
| R >> L | 150 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1002 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 1.14 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Flow Compensation | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 600 |
| Undersampled | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid33_venc5_yawn

TA: 2:24

Voxel size: 1.4x1.4x4.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-----------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L7.1 P6.8 H27.2 |
| Orientation | T > S8.3 |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 36 ms |
| TE | 18 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Flip angle | 15 deg |
| Fat suppr. | None |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Special sat. | None |

System

| | |
|-------------------|----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|-----------------|
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L7.1 P6.8 H27.2 |
| Orientation | T > S8.3 |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1502 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.87 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Flow Compensation | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 100 |
| Undersampled | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\localizer

TA: 0:13

PAT: Off

Voxel size: 1.1x1.0x7.0 mm

Rel. SNR: 1.00

SIEMENS: gre

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | Off |
| Wait for user to start | Off |
| Start measurements | single |

| | |
|-----------------------|-----------|
| Phase resolution | 90 % |
| Phase partial Fourier | Off |
| Interpolation | On |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |
| Image Filter | Off |
| Distortion Corr. | Off |
| Unfiltered images | Off |
| Prescan Normalize | On |
| Normalize | Off |
| B1 filter | Off |
| Raw filter | Off |
| Elliptical filter | On |
| Mode | Inplane |

Routine

| | |
|--------------------|--------------------------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Slice group 2 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Slice group 3 | |
| Slices | 1 |
| Dist. factor | 20 % |
| Position | Isocenter |
| Orientation | Coronal |
| Phase enc. dir. | R >> L |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 250 mm |
| FoV phase | 100.0 % |
| Slice thickness | 7.0 mm |
| TR | 8.6 ms |
| TE | 4.00 ms |
| Averages | 2 |
| Concatenations | 3 |
| Filter | Prescan Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Sequential |
| Series | Interleaved |
| Saturation mode | Standard |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | REF |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Contrast

| | |
|-------------------|------------------|
| TD | 0 ms |
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 20 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Averaging mode | Short term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------|-----|
| Base resolution | 256 |
|-----------------|-----|

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 1 |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|--------------------|-----|
| Subtract | Off |
| Liver registration | Off |
| Std-Dev-Sag | Off |

SIEMENS MAGNETOM TrioTim syngo MR B17

| | |
|----------------------|-----|
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |
| <hr/> | |
| Wash - In | Off |
| Wash - Out | Off |
| TTP | Off |
| PEI | Off |
| MIP - time | Off |

Sequence

| | |
|---------------------|------------|
| Introduction | On |
| Dimension | 2D |
| Phase stabilisation | Off |
| Asymmetric echo | Allowed |
| Contrasts | 1 |
| Bandwidth | 320 Hz/Px |
| Flow comp. | No |
| Allowed delay | 0 s |
| <hr/> | |
| RF pulse type | Normal |
| Gradient mode | Normal |
| Excitation | Slice-sel. |
| RF spoiling | On |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\t2_haste_sag_p2

TA: 0:13 PAT: 2 Voxel size: 1.0x1.0x2.0 mm Rel. SNR: 1.00 SIEMENS: haste

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------------------|
| Slice group 1 | |
| Slices | 30 |
| Dist. factor | 0 % |
| Position | R0.9 A16.5 H52.3 |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 192 mm |
| FoV phase | 100.0 % |
| Slice thickness | 2.0 mm |
| TR | 395 ms |
| TE | 76 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | Normalize, Elliptical filter |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|------------------|
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 110 deg |
| Fat suppr. | None |
| Water suppr. | None |
| Restore magn. | Off |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 192 |
| Phase resolution | 100 % |
| Phase partial Fourier | 5/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Integrated |
| Image Filter | Off |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Normalize | On |
| Intensity | Medium |
| Cut off | 20 |

| | |
|-------------------|---------|
| Width | 4 |
| Unfiltered images | Off |
| B1 filter | Off |
| Raw filter | Off |
| Elliptical filter | On |
| Mode | Inplane |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Single shot |
| Series | Interleaved |
| Special sat. | None |
| Tim CT mode | Off |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Dark blood | Off |
| Resp. control | Off |

Inline

| | |
|----------------------|-----|
| Subtract | Off |
| Std-Dev-Sag | Off |
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |

Sequence

| | |
|--------------|----|
| Introduction | On |
| Dimension | 2D |

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| | |
|---------------|-----------|
| Contrasts | 1 |
| Bandwidth | 592 Hz/Px |
| Flow comp. | No |
| Allowed delay | 30 s |
| Echo spacing | 5.82 ms |
| <hr/> | |
| Turbo factor | 192 |
| RF pulse type | Fast |
| Gradient mode | Fast |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep2d_venc8_fast_basal_venc8

TA: 1:19:55 PAT: 2 Voxel size: 1.4x1.4x4.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 1000 % |
| Position | L5.4 A15.4 H30.0 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 5920 ms |
| TE | 34.0 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-----------------|-----------|
| MTC | Off |
| Flip angle | 25 deg |
| Fat suppr. | Fat sat. |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 820 |
| Delay in TR | 0 ms |
| Multiple series | Off |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | 6/8 |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Separate |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Ascending |

Sat. region 1

| | |
|-------------|------------------|
| Thickness | 50 mm |
| Position | R1.1 A81.7 F99.5 |
| Orientation | C > T-5.4 > S0.9 |

Sat. region 2

| | |
|--------------|------------------|
| Thickness | 50 mm |
| Position | R0.5 P72.7 F78.8 |
| Orientation | C > T-5.4 > S0.9 |
| Special sat. | None |

System

| | |
|--------------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L5.4 A15.4 H30.0 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
|-----------------|------|

Angio

| | |
|---------------|-------------|
| Flow mode | Single dir. |
| Encodings | 1 |
| Velocity enc. | 16 cm/s |
| Direction | R >> L |
| Magnitude sum | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Bandwidth | 1628 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.96 ms |
| EPI factor | 128 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| RF90 duration | 5120 |
| MB Number | 1 |
| DummyScan Number | 5 |
| FOV Shift Number | 1 |
| Shift K0 Center | 1 |
| Every Other Slice | 1 |

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| | |
|---|-----|
| SER Number | 1 |
| Venc Repetition | 800 |
| Spoil factor | 5 |
| Skew Direction | 1 |
| DualBand Sat | 0 |
| FOV Dir | 0 |
| Venc Type(0off,1+-,20+,3on,4 1 00++) | |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\fl_fq_mb1f1p2_venc8_res256

TA: 1:54 PAT: 2 Voxel size: 0.8x0.8x4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 700 % |
| Position | L5.4 A15.4 H30.0 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 192 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 23.60 ms |
| TE | 8.02 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-----------------|------------------|
| Flip angle | 15 deg |
| Averaging mode | Short term |
| Reconstruction | Magnitude |
| Measurements | 1 |
| Multiple series | Each measurement |

Resolution

| | |
|-----------------------|---------------|
| Base resolution | 256 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| PAT mode | GRAPPA |
| Accel. factor PE | 2 |
| Ref. lines PE | 24 |
| Matrix Coil Mode | Auto (Triple) |
| Reference scan mode | Integrated |
| Image Filter | Off |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Normalize | Off |
| B1 filter | Off |
| Raw filter | Off |
| Elliptical filter | Off |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Sequential |
| Series | Interleaved |

Special sat.

None

System

| | |
|-------------------|------------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Coil Combine Mode | Adaptive Combine |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|-------------|
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 350 mm |
| A >> P | 263 mm |
| F >> H | 350 mm |

Physio

| | |
|--------------------|---------------|
| 1st Signal/Mode | Pulse/Trigger |
| Average cycle | No Signal ms |
| Captured cycle | -not set- |
| Acquisition window | 800 ms |
| Trigger pulse | 1 |
| Trigger delay | 0 ms |
| Segments | 1 |
| Phases | 33 |

Angio

| | |
|------------------|---------------|
| Flow mode | Single dir. |
| Encodings | 1 |
| Velocity enc. | 8 cm/s |
| Direction | Through plane |
| Rephased images | On |
| Magnitude images | On |
| Phase images | On |

| | |
|----------------------|-----|
| Subtract | Off |
| Std-Dev-Sag | Off |
| Std-Dev-Cor | Off |
| Std-Dev-Tra | Off |
| Std-Dev-Time | Off |
| MIP-Sag | Off |
| MIP-Cor | Off |
| MIP-Tra | Off |
| MIP-Time | Off |
| Save original images | On |

Sequence

| | |
|-----------------|-----------|
| Introduction | On |
| Asymmetric echo | Off |
| Contrasts | 1 |
| Bandwidth | 260 Hz/Px |

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| | |
|---------------|--------|
| Flow comp. | No |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| MB Number | 1 |
| FOV Shift | 1 |
| Distance22 | 32 |

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150727\ep_seg_fid33_venc8_4th_ventricle

TA: 2:24

Voxel size: 1.4x1.4x4.0 mm

Rel. SNR: 1.00

USER: ep_seg_fid_venc

Properties

| | |
|---|--------|
| Prio Recon | Off |
| Before measurement | |
| After measurement | |
| Load to viewer | On |
| Inline movie | Off |
| Auto store images | On |
| Load to stamp segments | Off |
| Load images to graphic segments | Off |
| Auto open inline display | Off |
| Start measurement without further preparation | On |
| Wait for user to start | Off |
| Start measurements | single |

Routine

| | |
|--------------------|-----------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 50 % |
| Position | L5.4 A9.8 H76.5 |
| Orientation | Transversal |
| Phase enc. dir. | A >> P |
| Rotation | 0.00 deg |
| Phase oversampling | 0 % |
| FoV read | 180 mm |
| FoV phase | 100.0 % |
| Slice thickness | 4.0 mm |
| TR | 36 ms |
| TE | 18 ms |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HEA;HEP |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Flip angle | 15 deg |
| Fat suppr. | None |
| Averaging mode | Long term |
| Reconstruction | Magnitude |
| Measurements | 800 |
| Pause after meas. | 0.0 s |
| Multiple series | Off |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 % |
| Phase partial Fourier | Off |
| Interpolation | Off |
| Matrix Coil Mode | Auto (CP) |
| Distortion Corr. | Off |
| Prescan Normalize | Off |
| Raw filter | Off |
| Elliptical filter | Off |
| Hamming | Off |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| Special sat. | None |

System

| | |
|-------------------|----------------|
| Body | Off |
| HEP | On |
| HEA | On |
| Positioning mode | FIX |
| Table position | H |
| Table position | 0 mm |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| Save uncombined | Off |
| Coil Combine Mode | Sum of Squares |
| AutoAlign | --- |
| Auto Coil Select | Default |

| | |
|--------------------------|-----------------|
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| ? Ref. amplitude 1H | 0.000 V |
| Adjustment Tolerance | Auto |
| Adjust volume | |
| Position | L5.4 A9.8 H76.5 |
| Orientation | Transversal |
| Rotation | 0.00 deg |
| R >> L | 180 mm |
| A >> P | 180 mm |
| F >> H | 4 mm |

Physio

| | |
|-----------------|------|
| 1st Signal/Mode | None |
| Segments | 4 |
| Resp. control | Off |

Sequence

| | |
|-------------------|------------|
| Introduction | Off |
| Dimension | 2D |
| Bandwidth | 1502 Hz/Px |
| Free echo spacing | Off |
| Echo spacing | 0.87 ms |
| EPI factor | 33 |
| RF pulse type | Normal |
| Gradient mode | Fast |
| RF spoiling | On |
| Flow Compensation | Off |
| Centric Reorder | On |
| Pat Ref Scan | On |
| VENC value | 160 |
| Undersampled | On |