

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\fmri\GENERIC\localizer

TA: 9.6 s    PAT: Off    Voxel size: 1.4x1.0x8.0 mm    Rel. SNR: 1.00    SIEMENS: gre

## Properties

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

Base resolution	256
Phase resolution	75 %
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	260 mm
FoV phase	100.0 %
Slice thickness	8.0 mm
TR	7.0 ms
TE	2.95 ms
Averages	2
Concatenations	3
Filter	Prescan Normalize, Elliptical filter
Coil elements	HE1-4

## Geometry

Multi-slice mode	Sequential
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off
-----	
Tim CT mode	Off

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
-----	
Positioning mode	REF
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
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None

## Resolution

# SIEMENS MAGNETOM Avanto syngo MR B17

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
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	290 Hz/Px
Flow comp.	No
RF pulse type	Fast
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\fmri\GENERIC\AAScout

TA: 0:49

Voxel size: 3.3x2.5x2.5 mm

Rel. SNR: 1.00

SIEMENS: AAScout

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	Off
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

## Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	320 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	2.6 ms
TE	1.23 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BC

## Contrast

Fat suppr.	None
Water suppr.	None
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	2
Pause after meas. 1	0.0 s
Multiple series	Off

## Resolution

Base resolution	128
Phase resolution	75 %
Slice resolution	75 %
Phase partial Fourier	Off
Slice partial Fourier	Off
-----	
Matrix Coil Mode	Auto (CP)
-----	
Prescan Normalize	Off
Normalize	Off

## Geometry

Multi-slice mode	Sequential
Series	Ascending
-----	
Special sat.	None
-----	
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm

## Inline Composing

Off

## System

Body	On
HE2	Off
HE4	Off
HE1	Off
HE3	Off
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Off
-----	
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

## Inline

## Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1090 Hz/Px
-----	
Segments	1
RF pulse type	Normal
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\fmri\GENERIC\T1\_MPRAGE\_sag

TA: 8:46    PAT: Off    Voxel size: 1.3x1.0x1.3 mm    Rel. SNR: 1.00    SIEMENS: tfl

## 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

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	R3.0 A12.0 F18.0
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	12.50 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	1.33 mm
TR	2730 ms
TE	3.39 ms
Averages	1
Concatenations	1
Filter	Prescan Normalize
Coil elements	HE1-4

## Contrast

Magn. preparation	Non-sel. IR
T1	1000 ms
Flip angle	7 deg
Fat suppr.	None
Water suppr.	None
-----	
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

## Resolution

Base resolution	256
Phase resolution	75 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
Matrix Coil Mode	Triple
-----	
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off

Raw filter	Off
Elliptical filter	Off

## Geometry

Multi-slice mode	Single shot
Series	Interleaved
-----	
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	Head > Brain Atlas
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	R3.0 A12.0 F18.0
Orientation	Sagittal
Rotation	12.50 deg
F >> H	256 mm
A >> P	256 mm
R >> L	171 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	3D
Elliptical scanning	Off
Asymmetric echo	Off

# SIEMENS MAGNETOM Avanto syngo MR B17

Bandwidth	190 Hz/Px
Flow comp.	No
Echo spacing	7.8 ms
-----	
RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\fmr\GENERIC\T1\_MPRAGE\_sag\_short

TA: 5:05    PAT: 2    Voxel size: 1.3x1.0x1.3 mm    Rel. SNR: 1.00    SIEMENS: tfl

## 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

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	R3.0 A12.0 F18.0
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	12.50 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	1.33 mm
TR	2730 ms
TE	3.39 ms
Averages	1
Concatenations	1
Filter	Prescan Normalize
Coil elements	HE1-4

## Contrast

Magn. preparation	Non-sel. IR
TI	1000 ms
Flip angle	7 deg
Fat suppr.	None
Water suppr.	None
-----	
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

## Resolution

Base resolution	256
Phase resolution	75 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Matrix Coil Mode	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	Off

## Geometry

Multi-slice mode	Single shot
Series	Interleaved
-----	
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	Head > Brain Atlas
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	R3.0 A12.0 F18.0
Orientation	Sagittal
Rotation	12.50 deg
F >> H	256 mm
A >> P	256 mm
R >> L	171 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

# SIEMENS MAGNETOM Avanto syngo MR B17

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Bandwidth	190 Hz/Px
Flow comp.	No
Echo spacing	7.8 ms

---

RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\fmr\GENERIC\T1\_MPRAGE\_iso

TA: 11:40    PAT: Off    Voxel size: 1.0x1.0x1.0 mm    Rel. SNR: 1.00    SIEMENS: tfl

## 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

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	R3.0 A12.0 F18.0
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	12.50 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	176
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	2730 ms
TE	3.45 ms
Averages	1
Concatenations	1
Filter	Prescan Normalize
Coil elements	HE1-4

## Contrast

Magn. preparation	Non-sel. IR
T1	1000 ms
Flip angle	7 deg
Fat suppr.	None
Water suppr.	None
-----	
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

## Resolution

Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
Matrix Coil Mode	Triple
-----	
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off

Raw filter	Off
Elliptical filter	Off

## Geometry

Multi-slice mode	Single shot
Series	Interleaved
-----	
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	Head > Brain Atlas
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	R3.0 A12.0 F18.0
Orientation	Sagittal
Rotation	12.50 deg
F >> H	256 mm
A >> P	256 mm
R >> L	176 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	3D
Elliptical scanning	Off
Asymmetric echo	Off



# SIEMENS MAGNETOM Avanto syngo MR B17

Bandwidth	190 Hz/Px
Flow comp.	No
Echo spacing	7.9 ms
-----	
RF pulse type	Fast
Gradient mode	Fast*
Excitation	Non-sel.
RF spoiling	On

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\MRI\GENERIC\T1\_MPRAGE\_iso\_short

TA: 6:32    PAT: 2    Voxel size: 1.0x1.0x1.0 mm    Rel. SNR: 1.00    SIEMENS: tfl

## 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

Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

## Geometry

Multi-slice mode	Single shot
Series	Interleaved
-----	
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

## Routine

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	R3.0 A12.0 F18.0
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	12.50 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	176
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	2730 ms
TE	3.44 ms
Averages	1
Concatenations	1
Filter	Prescan Normalize
Coil elements	HE1-4

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	Head > Brain Atlas
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	R3.0 A12.0 F18.0
Orientation	Sagittal
Rotation	12.50 deg
F >> H	256 mm
A >> P	256 mm
R >> L	176 mm

## Contrast

Magn. preparation	Non-sel. IR
T1	1000 ms
Flip angle	7 deg
Fat suppr.	None
Water suppr.	None
-----	
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

## Physio

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

## Resolution

Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Matrix Coil Mode	Triple
Reference scan mode	Integrated
-----	
Image Filter	Off
Distortion Corr.	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

# SIEMENS MAGNETOM Avanto syngo MR B17

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Bandwidth	190 Hz/Px
Flow comp.	No
Echo spacing	7.9 ms

---

RF pulse type	Fast
Gradient mode	Fast*
Excitation	Non-sel.
RF spoiling	On

SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\MRI\GENERIC\T2\_TSE\_Axial

TA: 1:32 PAT: 2 Voxel size: 0.8x0.8x5.0 mm Rel. SNR: 1.00 SIEMENS: tse

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	23
Dist. factor	20 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	4290 ms
TE	95 ms
Averages	2
Concatenations	1
Filter	Prescan Normalize, Elliptical filter
Coil elements	HE1-4

Contrast

MTC	Off
Magn. preparation	None
Flip angle	150 deg
Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Self-calibration
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	Interleaved
Series	Interleaved
Special sat.	None
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off
Tim CT mode	Off

System

Body	Off
NE2	Off
HE2	On
HE4	On
HE1	On
HE3	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	90.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	137 mm

Physio

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

Inline

Subtract	Off
----------	-----

# SIEMENS MAGNETOM Avanto syngo MR B17

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
Compensate T2 decay	Off
Reduce Motion Sens.	Off
Contrasts	1
Bandwidth	130 Hz/Px
Flow comp.	No
Allowed delay	10 s
Echo spacing	13.6 ms

---

Define	Turbo factor
Turbo factor	13
Echo trains per slice	10
RF pulse type	Low SAR
Gradient mode	Normal

SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\MRI\GENERIC\ep2d\_t1w

TA: 0:10 PAT: Off Voxel size: 3.1x3.1x5.0 mm Rel. SNR: 1.00 SIEMENS: ep2d\_se

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	26
Dist. factor	20 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5000 ms
TE	36 ms
Averages	1
Concatenations	2
Filter	None
Coil elements	HE1-4

Contrast

TD	0.0 ms
MTC	Off
Magn. preparation	Slice-sel. IR
TI	1200 ms
Fat suppr.	Water excit. normal
-----	
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	64
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
Matrix Coil Mode	Auto (CP)
-----	
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.	None
-----	
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On

-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	155 mm

Physio

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

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	Off
Bandwidth	2298 Hz/Px
Free echo spacing	Off
Echo spacing	0.5 ms
-----	
EPI factor	64
RF pulse type	Normal
Gradient mode	Fast

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\FMRI\GENERIC\field\_mapping

TA: 0:47

Voxel size: 3.1x3.1x5.0 mm

Rel. SNR: 1.00

SIEMENS: gre\_field\_mapping

## 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	26
Dist. factor	20 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	350 ms
TE 1	4.76 ms
TE 2	9.52 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HE1-4

## Contrast

MTC	Off
Flip angle	55 deg
Fat suppr.	None
-----	
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

## Resolution

Base resolution	64
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
-----	
Matrix Coil Mode	Auto (CP)
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

## Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Special sat.	None

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	155 mm

## Composing

## Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Bandwidth	200 Hz/Px
Flow comp.	Yes
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\MRI\GENERIC\ge\_functionals

TA: 4:24 PAT: Off Voxel size: 3.1x3.1x5.0 mm Rel. SNR: 1.00 USER: ep2d\_bold\_MGH

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	On
Start measurement without further preparation	On
Wait for user to start	On
Start measurements	repeated

Routine

Slice group 1	
Slices	26
Dist. factor	20 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
TR	2000 ms
TE	40 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HE1-4

Contrast

MTC	Off
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	128
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	64
Phase resolution	100 %
Phase partial Fourier	Off
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	Interleaved
Special sat.	None
Set-n-Go Protocol	Off

Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	155 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	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	2298 Hz/Px
Free echo spacing	Off
Echo spacing	0.5 ms
EPI factor	64
RF pulse type	Normal
Gradient mode	Fast
Dummy Scans	4
FFT Scale Factor	1.00



# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\MRI\GENERIC\ge\_functionals\_PACE

TA: 4:24    PAT: Off    Voxel size: 3.1x3.1x5.0 mm    Rel. SNR: 1.00    USER: ep2d\_pace\_MGH

## 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	On
Start measurement without further preparation	On
Wait for user to start	On
Start measurements	repeated

## Routine

Slice group 1	
Slices	26
Dist. factor	20 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
TR	2000 ms
TE	40 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HE1-4

## Contrast

MTC	Off
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	128
Delay in TR	0 ms
Multiple series	Off

## Resolution

Base resolution	64
Phase resolution	100 %
Phase partial Fourier	Off
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	Interleaved
Special sat.	None
Set-n-Go Protocol	Off

Table position	H
Table position	0 mm
Inline Composing	Off

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	155 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	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	On
Interpolation	3D-K-space
Spatial filter	Off

## Sequence

Introduction	Off
Bandwidth	2298 Hz/Px
Free echo spacing	Off
Echo spacing	0.5 ms
EPI factor	64
RF pulse type	Normal
Gradient mode	Fast
Dummy Scans	4
FFT Scale Factor	1.00

SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\fmri\GENERIC\ep2d\_t1w\_96

TA: 0:10 PAT: Off Voxel size: 3.0x3.0x3.0 mm Rel. SNR: 1.00 SIEMENS: ep2d\_se

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	25
Dist. factor	20 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	288 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	5000 ms
TE	53 ms
Averages	1
Concatenations	2
Filter	None
Coil elements	HE1-4

Contrast

TD	0.0 ms
MTC	Off
Magn. preparation	Slice-sel. IR
TI	1200 ms
Fat suppr.	Water excit. normal
-----	
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
Matrix Coil Mode	Auto (CP)
-----	
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.	None
-----	
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On

Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	288 mm
A >> P	288 mm
F >> H	90 mm

Physio

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

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	Off
Bandwidth	2264 Hz/Px
Free echo spacing	Off
Echo spacing	0.51 ms
-----	
EPI factor	96
RF pulse type	Normal
Gradient mode	Fast

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\fmr\GENERIC\field\_mapping\_96

TA: 1:09

Voxel size: 3.0x3.0x3.0 mm

Rel. SNR: 1.00

SIEMENS: gre\_field\_mapping

## 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	25
Dist. factor	20 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	288 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	350 ms
TE 1	4.76 ms
TE 2	9.52 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HE1-4

## Contrast

MTC	Off
Flip angle	55 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

## Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

## Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	288 mm
A >> P	288 mm
F >> H	90 mm

## Composing

## Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Bandwidth	200 Hz/Px
Flow comp.	Yes
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\fmri\GENERIC\ge\_functionals\_96

TA: 4:24    PAT: Off    Voxel size: 3.0x3.0x3.0 mm    Rel. SNR: 1.00    USER: ep2d\_bold\_MGH

### 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	On
Start measurement without further preparation	On
Wait for user to start	On
Start measurements	repeated

### Routine

Slice group 1	
Slices	25
Dist. factor	20 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	288 mm
FoV phase	75.0 %
Slice thickness	3.00 mm
TR	2000 ms
TE	40 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HE1-4

### Contrast

MTC	Off
Flip angle	90 deg
Fat suppr.	Fat sat.
-----	
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	128
Delay in TR	0 ms
Multiple series	Off

### Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
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	Interleaved
-----	
Special sat.	None
-----	
Set-n-Go Protocol	Off

Table position	H
Table position	0 mm
Inline Composing	Off

### System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	288 mm
A >> P	216 mm
F >> H	90 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	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off

### Sequence

Introduction	Off
Bandwidth	2264 Hz/Px
Free echo spacing	Off
Echo spacing	0.51 ms
-----	
EPI factor	72
RF pulse type	Normal
Gradient mode	Fast
-----	
Dummy Scans	4
FFT Scale Factor	1.00

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\MRI\GENERIC\ep2d\_t1w\_128

TA: 0:40    PAT: 2    Voxel size: 2.0x2.0x2.0 mm    Rel. SNR: 1.00    SIEMENS: ep2d\_se

## 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	23
Dist. factor	0 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	5000 ms
TE	42 ms
Averages	1
Concatenations	2
Filter	None
Coil elements	HE1-4

## Contrast

TD	0.0 ms
MTC	Off
Magn. preparation	Slice-sel. IR
TI	1200 ms
Fat suppr.	Water excit. normal
-----	
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

## Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
-----	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	46
Matrix Coil Mode	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	Interleaved
-----	
Special sat.	None
-----	
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	256 mm
A >> P	256 mm
F >> H	46 mm

## Physio

1st Signal/Mode	None
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## 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	Off
Bandwidth	1396 Hz/Px
Free echo spacing	Off
Echo spacing	0.8 ms
-----	
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

# SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\FMRI\GENERIC\field\_mapping\_128

TA: 1:32

Voxel size: 2.0x2.0x2.0 mm

Rel. SNR: 1.00

SIEMENS: gre\_field\_mapping

## 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	23
Dist. factor	0 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	350 ms
TE 1	4.76 ms
TE 2	9.52 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HE1-4

## Contrast

MTC	Off
Flip angle	55 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

## Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Triple
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

## Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

## System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	256 mm
A >> P	256 mm
F >> H	46 mm

## Composing

## Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Bandwidth	255 Hz/Px
Flow comp.	Yes
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Avanto syngo MR B17

\\USER\MGH\MRI\GENERIC\ge\_functionals\_128

TA: 4:22 PAT: 2 Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: ep2d\_bold\_MGH

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	On
Start measurement without further preparation	On
Wait for user to start	On
Start measurements	repeated

Routine

Slice group 1	
Slices	23
Dist. factor	0 %
Position	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	2000 ms
TE	40 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HE1-4

Contrast

MTC	Off
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	128
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	64
Matrix Coil Mode	Triple
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.	None
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	Off
HE2	On
HE4	On
HE1	On
HE3	On

Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	Head > Brain Atlas
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	R3.0 A3.0 H0.0
Orientation	T > C-12.5
Rotation	0.00 deg
R >> L	256 mm
A >> P	256 mm
F >> H	46 mm

Physio

1st Signal/Mode	None
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BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1396 Hz/Px
Free echo spacing	Off
Echo spacing	0.8 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast
Dummy Scans	0
FFT Scale Factor	0.01

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		fMRI	
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			localizer
			AAScout
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			T1_MPRAGE_sag_short
			T1_MPRAGE_iso
			T1_MPRAGE_iso_short
			T2_TSE_Axial
			[--- 64 matrix ---]
			ep2d_t1w
			field_mapping
			ge_functionals
			ge_functionals_PACE
			[--- 96 matrix ---]
			ep2d_t1w_96
			field_mapping_96
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			[--- 128 matrix ---]
			ep2d_t1w_128
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