

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\yacoub\dbs_protocols\Monkey_Protocols_CMRR\t1_mpr_tra_05iso_nt4

TA: 22:38 PAT: 2 Voxel size: 0.5×0.5×0.5 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	R3.7 A2.0 H11.0
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	256
FoV read	150 mm
FoV phase	81.3 %
Slice thickness	0.50 mm
TR	3000 ms
TE	3.58 ms
Averages	4
Concatenations	1
Filter	Distortion Corr.(3D)
Coil elements	R01-06;B01-16

Contrast

Magn. preparation	Non-sel. IR
TI	1500 ms
Flip angle	5 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr. Mode	On
	3D

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

Geometry

Multi-slice mode	Single shot
Series	Ascending
Table position	H
Table position	0 mm
Inline Composing	Off

System

B01	On
B02	On
B03	On
B04	On
B05	On
B06	On
B07	On
B08	On
B09	On
B10	On
B11	On
B12	On
B13	On
B14	On
B15	On
B16	On
R01	On
R02	On
R03	On
R04	On
R05	On
R06	On
R07	Off
R08	Off
Positioning mode	FIX
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	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	R9.6 A42.4 H4.6
! Orientation	T > C-7.6
! Rotation	0.13 deg
! R >> L	47 mm
! A >> P	26 mm
! F >> H	53 mm

Physio

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

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	Allowed
Bandwidth	180 Hz/Px
Flow comp.	No
Echo spacing	8.6 ms
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\yacoub\dbs_protocols\Monkey_Protocols_CMRR\ēja_ep2d_bold_1pt2mm_REST_fh

TA: 13:31 PAT: 2 Voxel size: 1.2×1.2×1.2 mm Rel. SNR: 1.00 USER:ēja_ep2d_bold

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	R9.9 A36.9 H8.6
Orientation	Coronal
Phase enc. dir.	F >> H
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	160 mm
FoV phase	65.7 %
Slice thickness	1.20 mm
TR	1000 ms
TE	18.8 ms
Multi-band accel. factor	2
Filter	None
Coil elements	R01-06;B01-16

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	134
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Segmented
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.

None

Table position	H
Table position	0 mm
Inline Composing	Off

System

B01	On
B02	On
B03	On
B04	On
B05	On
B06	On
B07	On
B08	On
B09	On
B10	On
B11	On
B12	On
B13	On
B14	On
B15	On
B16	On
R01	On
R02	On
R03	On
R04	On
R05	On
R06	On
R07	Off
R08	Off

Positioning mode	FIX
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	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	R9.6 A42.4 H4.6
! Orientation	T > C-7.6
! Rotation	0.13 deg
! R >> L	47 mm
! A >> P	26 mm
! F >> H	53 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	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	3

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Contrasts	1
Bandwidth	1554 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.77 ms
SIR accel. factor	1
EPI factor	88
Gradient mode	Fast*
RF spoiling	Off
Excite pulse duration	2560 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	1
MB knockout band	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.60
Send B1 shim trigger	Never
Physio recording	Off
Triggering scheme	Standard

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\yacoub\dbs_protocols\Monkey_Protocols_CMRR\reja_ep2d_bold_1pt2mm_REST_hf

TA: 13:31 PAT: 2 Voxel size: 1.2×1.2×1.2 mm Rel. SNR: 1.00 USER: reja_ep2d_bold

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	R9.9 A36.9 H8.6
Orientation	Coronal
Phase enc. dir.	F >> H
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	160 mm
FoV phase	65.7 %
Slice thickness	1.20 mm
TR	1000 ms
TE	18.8 ms
Multi-band accel. factor	2
Filter	None
Coil elements	R01-06;B01-16

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	134
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Segmented
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.

None

Table position	H
Table position	0 mm
Inline Composing	Off

System

B01	On
B02	On
B03	On
B04	On
B05	On
B06	On
B07	On
B08	On
B09	On
B10	On
B11	On
B12	On
B13	On
B14	On
B15	On
B16	On
R01	On
R02	On
R03	On
R04	On
R05	On
R06	On
R07	Off
R08	Off

Positioning mode	FIX
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	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	R9.6 A42.4 H4.6
! Orientation	T > C-7.6
! Rotation	0.13 deg
! R >> L	47 mm
! A >> P	26 mm
! F >> H	53 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	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	3

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Contrasts	1
Bandwidth	1554 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.77 ms
SIR accel. factor	1
EPI factor	88
Gradient mode	Fast*
RF spoiling	Off
Excite pulse duration	2560 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	1
MB knockout band	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	On
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.60
Send B1 shim trigger	Never
Physio recording	Off
Triggering scheme	Standard

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\yacoub\dbs_protocols\Monkey_Protocols_CMRR\tse_vfl_pt5mm

TA: 10:06 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 SIEMENS: tse_vfl

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
Position	R3.7 A2.0 H11.0
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	256
FoV read	150 mm
FoV phase	81.3 %
Slice thickness	0.50 mm
TR	2700 ms
TE	211 ms
Averages	1.0
Concatenations	1
Filter	None
Coil elements	R01-06;B01-16

Contrast

MTC	Off
Magn. preparation	None
Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Allowed
Slice partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
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

Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

B01	On
B02	On
B03	On
B04	On
B05	On
B06	On
B07	On
B08	On
B09	On
B10	On
B11	On
B12	On
B13	On
B14	On
B15	On
B16	On
R01	On
R02	On
R03	On
R04	On
R05	On
R06	On
R07	Off
R08	Off

Positioning mode	FIX
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	R9.6 A42.4 H4.6
! Orientation	T > C-7.6
! Rotation	0.13 deg
! R >> L	47 mm
! A >> P	26 mm
! F >> H	53 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
Bandwidth	781 Hz/Px
Flow comp.	No
Allowed delay	0 s
Echo spacing	4.06 ms
Adiabatic-mode	Off
Define	Echo trains
Turbo factor	147
Slice turbo factor	1
Echo trains per slice	1
Echo train duration	503
RF pulse type	Normal
Gradient mode	Fast*
Excitation	Non-sel.
Flip angle mode	T2 var

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\yacoub\dbs_protocols\Monkey_Protocols_CMRR\BOLD_FH_SE

TA: 0:54 PAT: 2 Voxel size: 1.2×1.2×1.2 mm Rel. SNR: 1.00 USER: hcp_v2_mbep2d_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	50
Dist. factor	0 %
Position	R9.9 A36.9 H8.6
Orientation	Coronal
Phase enc. dir.	F >> H
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	160 mm
FoV phase	65.7 %
Slice thickness	1.20 mm
TR	4500 ms
TE	39 ms
Multi-band accel. factor	2
Filter	None
Coil elements	R01-06;B01-16

Contrast

MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	134
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Segmented
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
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Series

Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

B01	On
B02	On
B03	On
B04	On
B05	On
B06	On
B07	On
B08	On
B09	On
B10	On
B11	On
B12	On
B13	On
B14	On
B15	On
B16	On
R01	On
R02	On
R03	On
R04	On
R05	On
R06	On
R07	Off
R08	Off

Positioning mode	FIX
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	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	R9.6 A42.4 H4.6
! Orientation	T > C-7.6
! Rotation	0.13 deg
! R >> L	47 mm
! A >> P	26 mm
! F >> H	53 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	On
Temp. highpass filter	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

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	1554 Hz/Px
Free echo spacing	Off
Echo spacing	0.77 ms
SIR accel. factor	1
EPI factor	88
Gradient mode	Fast
RF spoiling	Off
Excite pulse duration	4480 us
Refocus pulse duration	8320 us
Slice multiplier	1
Multi-band PE shift	3 1/FoV
zBlip scheme	0
MB kernel size	5
MB knockout band	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB LeakBlock kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
Online multi-band recon.	Online
FFT scale factor	0.50
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\yacoub\dbs_protocols\Monkey_Protocols_CMRR\BOLD_HF_SE

TA: 0:54 PAT: 2 Voxel size: 1.2×1.2×1.2 mm Rel. SNR: 1.00 USER: hcp_v2_mbep2d_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	50
Dist. factor	0 %
Position	R9.9 A36.9 H8.6
Orientation	Coronal
Phase enc. dir.	F >> H
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	160 mm
FoV phase	65.7 %
Slice thickness	1.20 mm
TR	4500 ms
TE	39 ms
Multi-band accel. factor	2
Filter	None
Coil elements	R01-06;B01-16

Contrast

MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	134
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Segmented
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
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Series

Interleaved

Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

B01	On
B02	On
B03	On
B04	On
B05	On
B06	On
B07	On
B08	On
B09	On
B10	On
B11	On
B12	On
B13	On
B14	On
B15	On
B16	On
R01	On
R02	On
R03	On
R04	On
R05	On
R06	On
R07	Off
R08	Off

Positioning mode	FIX
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	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	R9.6 A42.4 H4.6
! Orientation	T > C-7.6
! Rotation	0.13 deg
! R >> L	47 mm
! A >> P	26 mm
! F >> H	53 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	On
Temp. highpass filter	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

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	1554 Hz/Px
Free echo spacing	Off
Echo spacing	0.77 ms
SIR accel. factor	1
EPI factor	88
Gradient mode	Fast
RF spoiling	Off
Excite pulse duration	4480 us
Refocus pulse duration	8320 us
Slice multiplier	1
Multi-band PE shift	3 1/FoV
zBlip scheme	0
MB kernel size	5
MB knockout band	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB LeakBlock kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	On
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
Online multi-band recon.	Online
FFT scale factor	0.50
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\yacoub\dbs_protocols\Monkey_Protocols_CMRR\FieldMap_diffusion

TA: 1:20

Voxel size: 1.2×1.2×1.2 mm

Rel. SNR: 1.00

USER: gre_field_mapping

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	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	R9.9 A36.9 H8.6
Orientation	Coronal
Phase enc. dir.	F >> H
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	160 mm
FoV phase	61.2 %
Slice thickness	1.2 mm
TR	475.0 ms
TE 1	4.08 ms
TE 2	5.1 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	R01-06;B01-16

Contrast

MTC	Off
Flip angle	20 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	134
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
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
Table position	H

Table position

0 mm

Inline Composing

Off

System

B01	On
B02	On
B03	On
B04	On
B05	On
B06	On
B07	On
B08	On
B09	On
B10	On
B11	On
B12	On
B13	On
B14	On
B15	On
B16	On
R01	On
R02	On
R03	On
R04	On
R05	On
R06	On
R07	Off
R08	Off

Positioning mode

FIX

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

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 R9.6 A42.4 H4.6

! Orientation

T > C-7.6

! Rotation

0.13 deg

! R >> L

47 mm

! A >> P

26 mm

! F >> H

53 mm

Composing

Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Bandwidth	602 Hz/Px
Flow comp.	Yes
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\yacoub\dbs_protocols\Monkey_Protocols_CMRR\diff_1pt1iso_b15k_110dir_fh

TA: 8:58 PAT: 2 Voxel size: 1.2×1.2×1.2 mm Rel. SNR: 1.00 USER: eja_ep2d_diff

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	On
Start measurements	single

Routine

Slice group 1	
Slices	46
Dist. factor	0 %
Position	R9.9 A36.9 H8.6
Orientation	Coronal
Phase enc. dir.	F >> H
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	160 mm
FoV phase	65.7 %
Slice thickness	1.20 mm
TR	3810 ms
TE	54.6 ms
Averages	1
Multi-band accel. factor	1
Filter	None
Coil elements	R01-06;B01-16

Contrast

MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	134
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Segmented
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode

Series Interleaved

Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

B01	On
B02	On
B03	On
B04	On
B05	On
B06	On
B07	On
B08	On
B09	On
B10	On
B11	On
B12	On
B13	On
B14	On
B15	On
B16	On
R01	On
R02	On
R03	On
R04	On
R05	On
R06	On
R07	Off
R08	Off

Positioning mode	FIX
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	R9.6 A42.4 H4.6
! Orientation	T > C-7.6
! Rotation	0.13 deg
! R >> L	47 mm
! A >> P	26 mm
! F >> H	53 mm

Physio

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

Diff

Diffusion mode	Free
Diff. weightings	1
b-value	1500 s/mm ²
Diff. weighted images	On
Trace weighted images	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Average ADC maps	Off
Individual ADC maps	Off
FA maps	On
Mosaic	On
Tensor	Off
Noise level	40
Diff. directions	137

Sequence

Introduction	Off
Bandwidth	1554 Hz/Px
Free echo spacing	Off
Echo spacing	0.75 ms
SIR accel. factor	1
EPI factor	88
Gradient mode	Fast
RF spoiling	Off
Excite pulse duration	2560 us
Refocus pulse duration	7040 us
Slice multiplier	1
Fake MB factor for SB	1
RF pulse shape	2
EPI noise scans	0
EPI full reference scan	0
Diffusion Scheme	Monopolar
SENSE1 coil combine	On
Invert RO/PE polarity	Off
Readout slice trace	Off
Disable ramp sampling	Off
User defined diff. delta	Off
FFT scale factor	0.70
Diff. spoil factor	3.0
Send B1 shim trigger	Never
Physio recording	Off

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\yacoub\dbs_protocols\Monkey_Protocols_CMRR\diff_1pt1iso_b15k_110dir_hf

TA: 8:58 PAT: 2 Voxel size: 1.2×1.2×1.2 mm Rel. SNR: 1.00 USER: eja_ep2d_diff

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	On
Start measurements	single

Routine

Slice group 1	
Slices	46
Dist. factor	0 %
Position	R9.9 A36.9 H8.6
Orientation	Coronal
Phase enc. dir.	F >> H
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	160 mm
FoV phase	65.7 %
Slice thickness	1.20 mm
TR	3810 ms
TE	54.6 ms
Averages	1
Multi-band accel. factor	1
Filter	None
Coil elements	R01-06;B01-16

Contrast

MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	134
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Segmented
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode

Series Interleaved

Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

B01	On
B02	On
B03	On
B04	On
B05	On
B06	On
B07	On
B08	On
B09	On
B10	On
B11	On
B12	On
B13	On
B14	On
B15	On
B16	On
R01	On
R02	On
R03	On
R04	On
R05	On
R06	On
R07	Off
R08	Off

Positioning mode	FIX
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	R9.6 A42.4 H4.6
! Orientation	T > C-7.6
! Rotation	0.13 deg
! R >> L	47 mm
! A >> P	26 mm
! F >> H	53 mm

Physio

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

Diff

Diffusion mode	Free
Diff. weightings	1
b-value	1500 s/mm ²
Diff. weighted images	On
Trace weighted images	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Average ADC maps	Off
Individual ADC maps	Off
FA maps	On
Mosaic	On
Tensor	Off
Noise level	40
Diff. directions	137

Sequence

Introduction	Off
Bandwidth	1554 Hz/Px
Free echo spacing	Off
Echo spacing	0.75 ms
SIR accel. factor	1
EPI factor	88
Gradient mode	Fast
RF spoiling	Off
Excite pulse duration	2560 us
Refocus pulse duration	7040 us
Slice multiplier	1
Fake MB factor for SB	1
RF pulse shape	2
EPI noise scans	0
EPI full reference scan	0
Diffusion Scheme	Monopolar
SENSE1 coil combine	On
Invert RO/PE polarity	On
Readout slice trace	Off
Disable ramp sampling	Off
User defined diff. delta	Off
FFT scale factor	0.70
Diff. spoil factor	3.0
Send B1 shim trigger	Never
Physio recording	Off