

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\localizer

TA: 0:13 PAT: Off Voxel size: 1.0x1.0x5.0 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

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	On

PAT mode	None
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Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Routine

Slice group 1	
Slices	3
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	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	8.6 ms
TE	3.69 ms
Averages	1
Concatenations	5
Filter	Distortion Corr.(2D), Elliptical filter
Coil elements	C10-22;Ch1-9

Geometry

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

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On
Positioning mode	FIX
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	Off
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off

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	Each measurement

Resolution

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

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
Tagging	None
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	320 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\localizer_cor

TA: 0:15 PAT: Off Voxel size: 1.0x1.0x5.0 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	7
Dist. factor	10 %
Position	R7.8 A12.7 H6.6
Orientation	C > T-6.8
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	320 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	7.8 ms
TE	3.12 ms
Averages	1
Concatenations	7
Filter	Distortion Corr.(2D), Elliptical filter
Coil elements	C10-22;Ch1-9

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	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off

Elliptical filter
ModeOn
Inplane

Geometry

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

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On

Positioning mode

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

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Tagging	None
Dark blood	Off
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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
<hr/>	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
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MapIt	None
Contrasts	1

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	260 Hz/Px
Flow comp.	No
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RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.
RF spoiling	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\localizer_sag
TA: 0:11 PAT: Off Voxel size: 1.0x1.0x5.0 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	5
Dist. factor	100 %
Position	R6.5 A16.5 H16.2
Orientation	S > T1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	320 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	7.8 ms
TE	3.12 ms
Averages	1
Concatenations	5
Filter	Distortion Corr.(2D), Elliptical filter
Coil elements	C10-22;Ch1-9

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	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off

Elliptical filter
Mode

On
Inplane

Geometry

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

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On

Positioning mode

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

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Tagging	None
Dark blood	Off
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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
<hr/>	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
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MapIt	None
Contrasts	1

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	260 Hz/Px
Flow comp.	No
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RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.
RF spoiling	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\preSatTFL_sag_2p5mm_FOV320_RefV300V_sag

TA: 1:20 PAT: Off Voxel size: 2.5x2.5x2.5 mm Rel. SNR: 1.00 USER: tfl_WIP543_B1map

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	28
Dist. factor	100 %
Position	R6.5 A16.5 H16.2
Orientation	S > T1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	28
Dist. factor	100 %
Position	R4.0 A16.5 H16.2
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	320 mm
FoV phase	68.8 %
Slice thickness	2.5 mm
TR	20000 ms
TE	2.84 ms
Averages	1
Concatenations	2
Filter	None
Coil elements	C10-22;Ch1-9

Contrast

TD	0 ms
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
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
Table position	H
Table position	0 mm
Inline Composing	Off

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On
Positioning mode	FIX
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	300.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R6.6 A15.7 H4.2
! Orientation	Sagittal
! Rotation	-5.61 deg
! F >> H	142 mm
! A >> P	51 mm
! R >> L	45 mm

Physio

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

Inline

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

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
Dimension	2D
Reordering	Centric
Asymmetric echo	Allowed
Bandwidth	400 Hz/Px
Flow comp.	No
Echo spacing	5.7 ms
EPI factor	1
RF pulse type	Low SAR
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On
Prep Pulse	SINC
Sat Flip Angle	90 deg
Sat Thick	5.0 mm
RF Duration	2000 us
no ref scans	1 #
TX array B1 mapping	Off

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\preSatTFL_sag_2p5mm_FOV320_RefV450V_sag

TA: 1:20 PAT: Off Voxel size: 2.5x2.5x2.5 mm Rel. SNR: 1.00 USER: tfl_WIP543_B1map

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	28
Dist. factor	100 %
Position	R6.5 A16.5 H16.2
Orientation	S > T1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	28
Dist. factor	100 %
Position	R4.0 A16.5 H16.2
Orientation	S > T1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	320 mm
FoV phase	68.8 %
Slice thickness	2.5 mm
TR	20000 ms
TE	2.84 ms
Averages	1
Concatenations	2
Filter	None
Coil elements	C10-22;Ch1-9

Contrast

TD	0 ms
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
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
Table position	H
Table position	0 mm
Inline Composing	Off

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On
Positioning mode	FIX
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	450.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R6.6 A15.7 H4.2
! Orientation	Sagittal
! Rotation	-5.61 deg
! F >> H	142 mm
! A >> P	51 mm
! R >> L	45 mm

Physio

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

Inline

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

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
Dimension	2D
Reordering	Centric
Asymmetric echo	Allowed
Bandwidth	400 Hz/Px
Flow comp.	No
Echo spacing	5.7 ms
EPI factor	1
RF pulse type	Low SAR
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On
Prep Pulse	SINC
Sat Flip Angle	60 deg
Sat Thick	5.0 mm
RF Duration	2000 us
no ref scans	1 #
TX array B1 mapping	Off

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\b0map_gre_field_sag_1x1x2_7sl

TA: 1:19

Voxel size: 1.0x1.0x2.0 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	7
Dist. factor	10 %
Position	R6.5 A16.5 H16.2
Orientation	S > T1.7
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	200.0 ms
TE 1	3.06 ms
TE 2	4.08 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	C10-22;Ch1-9

Contrast

MTC	Off
Flip angle	32 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	192
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

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On

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

450.000 V

Adjustment Tolerance

Auto

Adjust volume

! Position

R6.6 A15.7 H4.2

! Orientation

Sagittal

! Rotation

-5.61 deg

! F >> H

142 mm

! A >> P

51 mm

! R >> L

45 mm

Composing

Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Bandwidth	965 Hz/Px
Flow comp.	No

RF pulse type

Normal

Gradient mode

Normal

RF spoiling

On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\t2_tse_sag_2D_5sl_p2_trig

TA: 2:20 PAT: 2 Voxel size: 0.6x0.6x2.2 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	3
Dist. factor	40 %
Position	R6.5 A16.5 H16.2
Orientation	S > T1.7
Phase enc. dir.	H >> F
Rotation	90.00 deg
Phase oversampling	60 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.2 mm
TR	4000 ms
TE	34 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D), B1 filter
Coil elements	C10-22;Ch1-9

Contrast

MTC	Off
Magn. preparation	None
Flip angle	120 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Water suppr.	None
Restore magn.	Off
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	320
Phase resolution	98 %
Phase partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	On
Intensity	Medium
Unfiltered images	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
Tim CT mode	Off

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On
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	450.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R6.6 A15.7 H4.2
! Orientation	Sagittal
! Rotation	-5.61 deg
! F >> H	142 mm
! A >> P	51 mm
! R >> L	45 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	Off
Dimension	2D
Compensate T2 decay	Off
Reduce Motion Sens.	On
Contrasts	1
Bandwidth	579 Hz/Px
Flow comp.	No
Allowed delay	0 s
Echo spacing	11.2 ms
Define	Turbo factor
Turbo factor	8
Echo trains per slice	33
RF pulse type	Normal
Gradient mode	Normal

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\t1_mp2rage_cor_nonSelHS1_0p7iso

TA: 8:37 PAT: 2 Voxel size: 0.7x0.7x0.7 mm Rel. SNR: 1.00 USER: tfl_wip944_b17stx

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

Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

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

Routine

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	R8.4 A16.4 H13.9
Orientation	C > T-6.7
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	192
FoV read	260 mm
FoV phase	65.2 %
Slice thickness	0.70 mm
TR	5000 ms
TE	2.12 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(3D)
Coil elements	C10-22;Ch1-9

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On

Contrast

Magn. preparation	Non-sel. IR
TI 1	700 ms
TI 2	2400 ms
Flip angle 1	4 deg
Flip angle 2	5 deg
Fat suppr.	None
Water suppr.	None
2nd Inversion Contrast	On
<hr/>	
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

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

Resolution

Base resolution	368
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
<hr/>	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	28
Accel. factor 3D	1
Reference scan mode	Integrated
<hr/>	
Image Filter	Off

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	450.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R6.6 A15.7 H4.2
! Orientation	Sagittal
! Rotation	-5.61 deg
! F >> H	142 mm
! A >> P	51 mm
! R >> L	45 mm

Physio

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

Composing

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	220 Hz/Px
Flow comp.	No
Echo spacing	6.3 ms
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
FFT Scale Factor	100 %
LIN/PAR Swap	Off
Ext. INV Pulse	On
Flip Angle	360
Uniform Image	On
Head Mask on UNI	Off
T1 Map	On
Complex Div. Image	Off
Denoise Weighting	100
FLAWS	Off

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\dti_ep2d511F_5s_LR_rev_b0

TA: 0:20 PAT: 2 Voxel size: 0.8x0.8x3.0 mm Rel. SNR: 1.00 USER: ep2d_advdiff_511F

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	10 %
Position	R0.8 A16.7 H60.5
Orientation	T > C-5.7 > S-1.7
Phase enc. dir.	L >> R
Rotation	-90.00 deg
Slice group 2	
Slices	1
Dist. factor	10 %
Position	R2.5 A17.2 H41.7
Orientation	T > C-3.6 > S-1.7
Phase enc. dir.	L >> R
Rotation	-90.00 deg
Slice group 3	
Slices	1
Dist. factor	10 %
Position	R5.5 A16.8 H23.2
Orientation	T > C2.8 > S-1.7
Phase enc. dir.	L >> R
Rotation	-90.00 deg
Slice group 4	
Slices	1
Dist. factor	10 %
Position	R6.8 A14.9 H5.5
Orientation	T > C5.0 > S-1.7
Phase enc. dir.	L >> R
Rotation	-90.00 deg
Slice group 5	
Slices	1
Dist. factor	10 %
Position	R7.4 A11.5 F14.1
Orientation	T > C6.7 > S-1.7
Phase enc. dir.	L >> R
Rotation	-90.00 deg
Phase oversampling	0 %
FoV read	105 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	650 ms
TE	57.2 ms
Averages	3
Concatenations	3
Filter	None
Coil elements	C10-22;Ch1-9

Contrast

MTC	Off
Magn. preparation	None
Fat suppr.	None
Extra Fat Suppr.	on
Saturation Mode	skewed

Averaging mode	Long term
Reconstruction	Magnitude
Delay in TR	0 ms

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference Scan Mode	multi-shot EPI
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Descending
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	450.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R3.7 A8.9 H23.3
! Orientation	S > T2.4 > C0.1
! Rotation	-6.13 deg
! F >> H	111 mm
! A >> P	45 mm
! R >> L	42 mm

Physio

1st Signal/Mode	Pulse/Trigger
Average cycle	731 ± 4 ms
Acquisition window	650 ms
Trigger pulse	1
Trigger delay	0 ms
Phases	1
PMU Recording	off
Resp. control	Off

Diff

Diffusion mode	3-Scan Trace
Diff. weightings	1
b-value	0 s/mm ²
Diff. weighted images	Off
Trace weighted images	On
Average ADC maps	Off
Individual ADC maps	Off
FA maps	Off
Mosaic	Off
Tensor	Off
Noise level	40
Diff. directions	3

Sequence

Introduction	Off
Bandwidth	1116 Hz/Px
Optimization	None
Free echo spacing	Off
Echo spacing	1.02 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast*
Add. FFT Scale Factor	1.0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\dti_ep2d511F_5s_RL_fwd

TA: 3:15 PAT: 2 Voxel size: 0.8x0.8x3.0 mm Rel. SNR: 1.00 USER: ep2d_advdiff_511F

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	10 %
Position	R0.8 A16.7 H60.5
Orientation	T > C-5.7 > S-1.7
Phase enc. dir.	R >> L
Rotation	90.00 deg
Slice group 2	
Slices	1
Dist. factor	10 %
Position	R2.5 A17.2 H41.7
Orientation	T > C-3.6 > S-1.7
Phase enc. dir.	R >> L
Rotation	90.00 deg
Slice group 3	
Slices	1
Dist. factor	10 %
Position	R5.5 A16.8 H23.2
Orientation	T > C2.8 > S-1.7
Phase enc. dir.	R >> L
Rotation	90.00 deg
Slice group 4	
Slices	1
Dist. factor	10 %
Position	R6.8 A14.9 H5.5
Orientation	T > C5.0 > S-1.7
Phase enc. dir.	R >> L
Rotation	90.00 deg
Slice group 5	
Slices	1
Dist. factor	10 %
Position	R7.4 A11.5 F14.1
Orientation	T > C6.7 > S-1.7
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	105 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	650 ms
TE	57.2 ms
Averages	3
Concatenations	3
Filter	None
Coil elements	C10-22;Ch1-9

Contrast

MTC	Off
Magn. preparation	None
Fat suppr.	None
Extra Fat Suppr.	on
Saturation Mode	skewed

Averaging mode	Long term
Reconstruction	Magnitude
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference Scan Mode	multi-shot EPI

Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Descending

Special sat.	None
--------------	------

Table position	H
Table position	0 mm
Inline Composing	Off

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On

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
<hr/>	
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	450.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R3.7 A8.9 H23.3
! Orientation	S > T2.4 > C0.1
! Rotation	-6.13 deg
! F >> H	111 mm
! A >> P	45 mm
! R >> L	42 mm

Physio

1st Signal/Mode	Pulse/Trigger
Average cycle	739 ± 5 ms
Acquisition window	650 ms
Trigger pulse	1
Trigger delay	0 ms
Phases	1
PMU Recording	off
<hr/>	
Resp. control	Off

Diff

Diffusion mode	MDDW
Diff. weightings	2
b-value 1	0 s/mm ²
b-value 2	800 s/mm ²
Diff. weighted images	On
Trace weighted images	Off
Average ADC maps	Off
Individual ADC maps	Off
FA maps	Off
Mosaic	Off
Tensor	Off
Noise level	40
Diff. directions	30
<hr/>	

Sequence

Introduction	Off
Bandwidth	1116 Hz/Px
Optimization	None
Free echo spacing	Off
Echo spacing	1.02 ms
<hr/>	
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast*
<hr/>	
Add. FFT Scale Factor	1.0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\b0map_gre_field_sag_1x1x2_7sl

TA: 1:19

Voxel size: 1.0x1.0x2.0 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	7
Dist. factor	10 %
Position	R6.5 A16.5 H16.2
Orientation	S > T1.7
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	200.0 ms
TE 1	3.06 ms
TE 2	4.08 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	C10-22;Ch1-9

Contrast

MTC	Off
Flip angle	32 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	192
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

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On
C22	On
Ch1	On
Ch2	On
Ch3	On
Ch4	On
Ch5	On
Ch6	On
Ch7	On
Ch8	On
Ch9	On
C10	On
C11	On
C12	On
C13	On
C14	On

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

R3.7 A8.9 H23.3

! Orientation

S > T2.4 > C0.1

! Rotation

-6.13 deg

! F >> H

111 mm

! A >> P

45 mm

! R >> L

42 mm

Composing

Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Bandwidth	965 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Normal
RF spoiling	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Alan\History\20230622_1000_Traveling_Spine_qMRI\t2s_gre_7lv7sl_0p4_4te_2mm_notrig_Pstab_Re

TA: 5:10 PAT: Off Voxel size: 0.3x0.3x3.0 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 enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	128 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	400 ms
TE 1	4.68 ms
TE 2	9.08 ms
TE 3	13.48 ms
TE 4	17.88 ms
TE 5	22.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	C10-22;Ch1-9

Routine

Slice group 1	
Slices	2
Dist. factor	100 %
Position	R0.8 A16.7 H60.5
Orientation	T > C-5.7 > S-1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	2
Dist. factor	100 %
Position	R2.5 A17.2 H41.7
Orientation	T > C-3.6 > S-1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	2
Dist. factor	100 %
Position	R5.5 A16.8 H23.2
Orientation	T > C2.8 > S-1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 4	
Slices	2
Dist. factor	100 %
Position	R6.8 A14.9 H5.5
Orientation	T > C5.0 > S-1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 5	
Slices	2
Dist. factor	100 %
Position	R7.4 A11.5 F14.1
Orientation	T > C6.7 > S-1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 6	
Slices	1
Dist. factor	100 %
Position	R8.0 A10.7 F32.9
Orientation	T > C8.9 > S-1.7
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 7	
Slices	1
Dist. factor	100 %
Position	R8.5 A5.9 F49.1
Orientation	T > C16.2 > S-1.6

Contrast

MTC	Off
Magn. preparation	None
Flip angle	53 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	2
Pause after meas. 1	0.0 s
Multiple series	Each measurement

Resolution

Base resolution	512
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	None
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
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off
Tim CT mode	Off

System

C15	On
C16	On
C17	On
C18	On
C19	On
C20	On
C21	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

C22	On	Sequence	Introduction	On
Ch1	On		Dimension	2D
Ch2	On		Phase stabilisation	On
Ch3	On		Asymmetric echo	Off
Ch4	On		Bandwidth 1	250 Hz/Px
Ch5	On		Bandwidth 2	250 Hz/Px
Ch6	On		Bandwidth 3	250 Hz/Px
Ch7	On		Bandwidth 4	250 Hz/Px
Ch8	On		Bandwidth 5	250 Hz/Px
Ch9	On		Flow comp. 1	No
C10	On		Flow comp. 2	No
C11	On		Flow comp. 3	No
C12	On		Flow comp. 4	No
C13	On		Flow comp. 5	No
C14	On		Readout mode	Bipolar
Positioning mode	FIX		RF pulse type	Normal
MSMA	S - C - T		Gradient mode	Fast
Sagittal	R >> L		Excitation	Slice-sel.
Coronal	A >> P		RF spoiling	On
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	450.000 V			
Adjustment Tolerance	Auto			
Adjust volume				
! Position	R4.1 A7.5 H9.9			
! Orientation	S > T2.4 > C0.1			
! Rotation	-6.13 deg			
! F >> H	138 mm			
! A >> P	45 mm			
! R >> L	42 mm			

Physio

1st Signal/Mode	None
Segments	1
Tagging	None
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	5

Table of contents

\\USER

Alan

History

20230622_1000_Traveling_Spine_qMRI

localizer

localizer_cor

localizer_sag

preSatTFL_sag_2p5mm_FOV320_RefV300V_satFA90

preSatTFL_sag_2p5mm_FOV320_RefV450V_satFA60

b0map_gre_field_sag_1x1x2_7sl

t2_tse_sag_2D_5sl_p2_trig

t1_mp2rage_cor_nonSelHS1_0p7iso

dti_ep2d511F_5s_LR_rev_b0

dti_ep2d511F_5s_RL_fwd

b0map_gre_field_sag_1x1x2_7sl

t2s_gre_7lvl7sl_0p4_4te_2mm_notrig_Pstab_RefV450V_FA53