\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\Localizer_bs_csc
TA: 0:52 PAT: 2 Voxel size: 1.2×1.2×5.0 mm Rel. SNR: 1.00 SIEMENS: gre

		Phase resolution	100 %
Properties	0"	——— Phase partial Fourier	Off
Prio Recon	Off	Interpolation	Off
Before measurement			004004
After measurement	0:-	PAT mode	GRAPPA
Load to viewer	On O"	Accel. factor PE	2
Inline movie	Off	Ref. lines PE	32
Auto store images	On O"	Reference scan mode	Integrated
Load to stamp segments	Off	Image Filter	Off
Load images to graphic	Off	Distortion Corr.	Off
segments	0"	Prescan Normalize	Off
Auto open inline display	Off	Normalize	Off
Start measurement without	On	B1 filter	Off
further preparation	0"	Raw filter	Off
Wait for user to start	Off	Elliptical filter	On
Start measurements	single	Mode	Inplane
Routine		——— Geometry	·
Slice group 1		Multi-slice mode	Sequential
Slices	9	Series	Interleaved
Dist. factor	100 %		inteneaveu
Position	Isocenter	Saturation mode	Standard
Orientation	Sagittal	Special sat.	None
Phase enc. dir.	A >> P		
Rotation	0.00 deg	Table position	Н
Slice group 2		Table position	0 mm
Slices	33	Inline Composing	Off
Dist. factor	100 %		
Position	Isocenter	Tim CT mode	Off
Orientation	Transversal	System	
Phase enc. dir.	A >> P	C15	On
Rotation	0.00 deg	C16	On
Slice group 3		C17	On
Slices	15	C18	On
Dist. factor	100 %	C19	On
Position	Isocenter	C20	On
Orientation	Coronal	C21	On
Phase enc. dir.	R >> L	C22	On
Rotation	0.00 deg	Ch1	On
Phase oversampling	0 %	Ch2	On
FoV read	300 mm	Ch3	On
FoV phase	100.0 %	Ch4	On
Slice thickness	5.0 mm	Ch5	On
TR	6.2 ms	Ch6	On
TE	2.67 ms	Ch7	On
Averages	1	Ch8	On
Concatenations	57	Ch9	On
Filter	Elliptical filter	C10	On
Coil elements	C10-22;Ch1-9	C11	On
Contrast		C12	On
TD	0 ms	—— C13	On
MTC	Off	C14	On
Magn. preparation	None		
Flip angle		Positioning mode	FIX
	10 deg None	MSMA	S - C - T
Fat suppr.	None	Sagittal	R >> L
Water suppr. SWI	Off	Coronal	A >> P
	OII	Transversal	F >> H
Averaging mode	Short term	Save uncombined	Off
Reconstruction	Magnitude	Coil Combine Mode	Adaptive Combine
Measurements	1	AutoAlign	
Multiple series	Each measurement	Auto Coil Select	Off
Resolution		Shim mode	Standard
Base resolution	256	Adjust with body coil	Off
1 2000 1000 1000		Confirm freq. adjustment	Off
		1/+	

Assume Silicone ? Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation F >> H A >> P R >> L	Off 0.000 V Auto Isocenter Sagittal 0.00 deg 325 mm 301 mm 301 mm
Physio	
1st Signal/Mode Segments	None 1
Tagging Dark blood	None Off
Resp. control	Off
Inline	
Subtract	Off
Liver registration Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off
Wash - In Wash - Out TTP	Off Off Off
PEI MIP - time	Off Off
MapIt Contrasts	None 1
Sequence	
Introduction Dimension Phase stabilisation Asymmetric echo Bandwidth Flow comp.	On 2D Off Allowed 320 Hz/Px No
RF pulse type Gradient mode Excitation	Normal Normal Slice-sel.

On

RF spoiling

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\preSatTFL_satFA90_sag_2p5mm_FOV3 TA: 1:20 PAT: Off Voxel size: 2.5×2.5×2.5 mm Rel. SNR: 1.00 USER: tfl_WIP543_B1map B1 filter Off Properties Raw filter Off Prio Recon Off Elliptical filter Off Before measurement After measurement Geometry Multi-slice mode Load to viewer On Interleaved Inline movie Off Series Interleaved Auto store images On Load to stamp segments Off Table position Load images to graphic Off Table position 0 mm segments Inline Composing Off Off Auto open inline display System Start measurement without On C15 On further preparation C16 On Off Wait for user to start C17 On Start measurements single C18 On Routine C19 On Slice group 1 C20 On Slices 28 C21 On Dist. factor 100 % C22 On Position L0.0 A32.0 H0.0 Ch1 On Orientation Sagittal Ch2 On Phase enc. dir. A >> P Ch3 On Rotation 0.00 deg Ch4 On Slice group 2 Ch₅ On Slices 28 Ch6 On Dist. factor 100 % Ch7 On Position L2.5 A32.0 H0.0 Ch8 On Sagittal Orientation Ch9 On A >> P Phase enc. dir. C10 On Rotation 0.00 deg C11 On Phase oversampling 0 % C12 On FoV read 320 mm C13 On FoV phase 68.8 % C14 On Slice thickness 2.5 mm Positioning mode FIX TR 20000 ms **MSMA** S-C-T TE 2.84 ms Sagittal R >> L **Averages** Coronal A >> P Concatenations 2 Transversal F >> H Filter None Save uncombined Off Coil elements C10-22;Ch1-9 Coil Combine Mode Sum of Squares Contrast AutoAlign TD 0 ms Auto Coil Select Default Magn. preparation None Shim mode Standard Flip angle 10 deg Adjust with body coil Off Fat suppr. None Confirm freq. adjustment Off Water suppr. None Assume Silicone Off Averaging mode Long term ! Ref. amplitude 1H 300.000 V Reconstruction Magnitude Adjustment Tolerance Auto Measurements Adjust volume Multiple series Each measurement Position L1.3 A32.0 H0.0 Orientation Sagittal Resolution Rotation 0.00 deg Base resolution 128 F >> H 320 mm Phase resolution 100 % A >> P 220 mm Phase partial Fourier Off R >> L 140 mm Interpolation Off Physio PAT mode None 1st Signal/Mode None Image Filter Off Off Dark blood Distortion Corr. Off Off Prescan Normalize Off Resp. control Off Normalize 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

1	
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

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\preSatTFL_satFA60_sag_2p5mm_FOV3

TA: 1:20 PAT: Off Voxel size: 2.5×2.5×2.5 mm Rel. SNR: 1.00 USER: tfl_WIP543_B1map B1 filter Off Properties Raw filter Off Prio Recon Off Elliptical filter Off Before measurement After measurement Geometry Multi-slice mode Load to viewer On Interleaved Inline movie Off Series Interleaved Auto store images On Load to stamp segments Off Table position Load images to graphic Off Table position 0 mm segments Inline Composing Off Off Auto open inline display System Start measurement without On C15 On further preparation C16 On Off Wait for user to start C17 On Start measurements single C18 On Routine C19 On Slice group 1 C20 On Slices 28 C21 On Dist. factor 100 % C22 On Position L0.0 A32.0 H0.0 Ch1 On Orientation Sagittal Ch2 On Phase enc. dir. A >> P Ch3 On Rotation 0.00 deg Ch4 On Slice group 2 Ch₅ On Slices 28 Ch6 On Dist. factor 100 % Ch7 On Position L2.5 A32.0 H0.0 Ch8 On Sagittal Orientation Ch9 On A >> P Phase enc. dir. C10 On Rotation 0.00 deg C11 On Phase oversampling 0 % C12 On FoV read 320 mm C13 On FoV phase 68.8 % C14 On Slice thickness 2.5 mm Positioning mode FIX TR 20000 ms **MSMA** S-C-T TE 2.84 ms Sagittal R >> L **Averages** Coronal A >> P Concatenations 2 Transversal F >> H Filter None Save uncombined Off Coil elements C10-22;Ch1-9 Coil Combine Mode Sum of Squares Contrast AutoAlign TD 0 ms Auto Coil Select Default Magn. preparation None Shim mode Standard Flip angle 10 deg Adjust with body coil Off Fat suppr. None Confirm freq. adjustment Off Water suppr. None Assume Silicone Off Averaging mode Long term ! Ref. amplitude 1H 450,000 V Reconstruction Magnitude Auto Adjustment Tolerance Measurements Adjust volume Multiple series Each measurement Position L1.3 A32.0 H0.0 Orientation Sagittal Resolution Rotation 0.00 deg Base resolution 128 F >> H 320 mm Phase resolution 100 % A >> P 220 mm Phase partial Fourier Off R >> L 140 mm Interpolation Off Physio PAT mode None 1st Signal/Mode None Image Filter Off Off Dark blood Distortion Corr. Off Off Prescan Normalize Off Resp. control Off Normalize 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

Ocquerioc	
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
1	

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\2DREAM_sag_FOV384_2p5mm_RefV4{ TA: 1:08 PAT: Off Voxel size: 2.5×2.5×2.5 mm Rel. SNR: 1.00 USER: 3Dream_2d

Properties		Inline Composing	Off
Prio Recon	Off	System	
Before measurement	Oli	C15	On
After measurement		C16	On
Load to viewer	On	C17	On
Inline movie	Off	C18	On
Auto store images	On	C19	On
Load to stamp segments	Off	C20	On
Load images to graphic	Off	C21	On
segments		C22	On
Auto open inline display	Off	Ch1	On
Start measurement without	On	Ch2	On
further preparation		Ch3	On
Wait for user to start	Off	Ch4	On
Start measurements	single	Ch5	On
Routine		Ch6	On
		Ch7	On
Slice group 1 Slices	11	Ch8	On
Dist. factor	11 0 %	Ch9	On
Position	L2.0 A20.0 H0.0	C10	On
Orientation	Sagittal	C11	On
Phase enc. dir.	A >> P	C12	On
Rotation	0.00 deg	C13	On
FoV read	384 mm	C14	On
FoV phase	47.4 %	Positioning mode	FIX
Slice thickness	2.5 mm	MSMA	S - C - T
TR	6000 ms	Sagittal	R >> L
TE 1	2.04 ms	Coronal	A >> P
TE 2	3.15 ms	Transversal	F >> H
Averages	1	Save uncombined	Off
Concatenations	11	Coil Combine Mode	Sum of Squares
Filter	Distortion Corr.(3D)	AutoAlign	
Coil elements	C10-22;Ch1-9	Auto Coil Select	Default
ı	- · · · ·, · · · · ·		
Contrast	FO dos	Shim mode	Standard
Flip angle 1	50 deg	Adjust with body coil	Off Off
Flip angle 2	6 deg	Confirm freq. adjustment Assume Silicone	Off Off
Averaging mode	Long term		_
Reconstruction	Magnitude	? Ref. amplitude 1H	0.000 V
Measurements	1	Adjustment Tolerance Adjust volume	Auto
Desclution		Position	L2.0 A20.0 H0.0
Resolution Base resolution	152	Orientation	Sagittal
Phase resolution	100 %	Rotation	0.00 deg
Phase partial Fourier	Off	F >> H	384 mm
Interpolation	Off	A >> P	182 mm
		R >> L	28 mm
PAT mode	None	···· Composing	
Image Filter	Off		
Distortion Corr.	On	Sequence	
Mode	3D	Introduction	On
Unfiltered images	On	Dimension	2D
Prescan Normalize	Off	Asymmetric echo	Off
Normalize	Off	Contrasts	2
B1 filter	Off	Bandwidth	910 Hz/Px
Raw filter	Off	Echo spacing	4.9 ms
Elliptical filter	Off	Turbo factor	72
Geometry		RF pulse type	Fast
Multi-slice mode	Sequential	Gradient mode	Fast
Series	Ascending	Excitation	Slice-sel.
		Flip angle mode	Constant
Table position	H	RF spoiling	On
Table position	0 mm		

Sample T1	2000 ms
Preparation Scans	2
Preparation Loops	0
RF-Duration	800 us
Prep RF-Duration	400 us
TimeBandwidthProduct	3.2
Timing Schme	STE*
Mixing Time	1000 us
Calculate FlipMap	On
Use IcePAT	Off
Var FA	Off
FFT Scale	10.0
dSpoilFactor	2.0
Scale risetime	1.20
TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\2DREAM_sag_FOV200_2p5mm_RefV3t TA: 1:08 PAT: Off Voxel size: 2.5×2.5×2.5 mm Rel. SNR: 1.00 USER: 3Dream_2d

Properties		Inline Composing	Off
Prio Recon	Off	System	
Before measurement	Oli	C15	On
After measurement		C15	On
Load to viewer	On	C17	On
Inline movie	Off	C18	On
Auto store images	On	C19	On
Load to stamp segments	Off	C20	On
Load images to graphic	Off	C21	On
segments		C22	On
Auto open inline display	Off	Ch1	On
Start measurement without	On	Ch2	On
further preparation		Ch3	On
Wait for user to start	Off	Ch4	On
Start measurements	single	Ch5	On
Routine		Ch6	On
Slice group 1	_	Ch7	On
Slices	11	Ch8	On
Dist. factor	0%	Ch9	On
Position	L2.0 A20.0 H0.0	C10	On
Orientation	Sagittal	C11	On
Phase enc. dir.	A >> P	C12	On
Rotation	0.00 deg	C13	On
FoV read	200 mm	C14	On
FoV phase	100.0 %	Positioning mode	FIX
Slice thickness	2.5 mm	MSMA	S - C - T
TR	6000 ms	Sagittal	R >> L
TE 1	2.04 ms	Coronal	A >> P
TE 2	3.05 ms	Transversal	F >> H
Averages	1	Save uncombined	Off
Concatenations	11	Coil Combine Mode	Sum of Squares
Filter	Distortion Corr.(3D)	AutoAlign	
Coil elements	C10-22;Ch1-9	Auto Coil Select	Default
Contrast		Shim mode	Standard
Flip angle 1	50 deg	Adjust with body coil	Off
Flip angle 2	6 deg	Confirm freq. adjustment	Off
		Assume Silicone	Off
Averaging mode	Long term	? Ref. amplitude 1H	0.000 V
Reconstruction	Magnitude	Adjustment Tolerance	Auto
Measurements	ı	Adjust volume	
Resolution		Position	L2.0 A20.0 H0.0
Base resolution	80	Orientation	Sagittal
Phase resolution	100 %	Rotation	0.00 deg
Phase partial Fourier	Off	F >> H	200 mm
Interpolation	Off	A >> P	200 mm
PAT mode	None	R >> L	28 mm
Image Filter	Off	Composing	
Distortion Corr.	On	Sequence	
Mode	3D	Introduction	On
Unfiltered images	On	Dimension	2D
Prescan Normalize	Off	Asymmetric echo	Off
Normalize	Off	Contrasts	2
B1 filter	Off	Bandwidth	1010 Hz/Px
Raw filter	Off	Echo spacing	4.8 ms
Elliptical filter	Off	Turbo factor	80
1		RF pulse type	Fast
Geometry Multi-slice mode	Sequential	Gradient mode	Fast
		Excitation	Slice-sel.
Series			
Series	Ascending		
Table position	Н	Flip angle mode	Constant On
			Constant

Sample T1	2000 ms
Preparation Scans	2
Preparation Loops	0
RF-Duration	800 us
Prep RF-Duration	400 us
TimeBandwidthProduct	3.2
Timing Schme	STE*
Mixing Time	1000 us
Calculate FlipMap	On
Use IcePAT	Off
Var FA	Off
FFT Scale	10.0
dSpoilFactor	2.0
Scale risetime	1.20
TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\CoilQA_sag_HF_FOV384_1p5x1p5x2p0
TA: 3:27 Voxel size: 1.5×1.5×2.0 mm Rel. SNR: 1.00 USER: NoiseMeasSensitivityMap

		Table position	Н
Properties		Table position	П 0 mm
Prio Recon	Off	Inline Composing	Off
Before measurement			
After measurement Load to viewer	On	System C15	On
Inline movie	Off	C16	On
Auto store images	On	C17	On
Load to stamp segments	Off	C18	On
Load images to graphic	Off	C19	On
segments		C20	On
Auto open inline display	Off	C21	On
Start measurement without	On	C22	On
further preparation		Ch1	On
Wait for user to start	Off	Ch2	On
Start measurements	single	Ch3	On
Routine		Ch4	On
Slice group 1		Ch5	On
Slices	13	Ch6 Ch7	On On
Dist. factor	20 %	Ch8	On On
Position	L2.0 A20.0 H0.0	Ch9	On
Orientation	Sagittal	C10	On
Phase enc. dir.	H >> F	C11	On
Rotation	90.00 deg	C12	On
Phase oversampling	0 %	C13	On
FoV read	384 mm	C14	On
FoV phase Slice thickness	100.0 % 2.0 mm	Desitioning mode	FIX
TR	30 ms	Positioning mode MSMA	S - C - T
TE	6.0 ms	Sagittal	R >> L
Averages	2	Coronal	A >> P
Concatenations	13	Transversal	F >> H
Filter	None	Save uncombined	Off
Coil elements	C10-22;Ch1-9	Coil Combine Mode	Adaptive Combine
Contrast	•	AutoAlign	'
TD	0 ms	Auto Coil Select	Default
MTC	Off	Shim mode	Standard
Flip angle	12 deg	Adjust with body coil	Off
Fat suppr.	None	Confirm freq. adjustment	Off
Water suppr.	None	Assume Silicone	Off
		? Ref. amplitude 1H	0.000 V
Averaging mode	Short term	Adjustment Tolerance	Auto
Reconstruction Measurements	Magnitude 1	Adjust volume	
Multiple series	Off	! Position	L2.0 A6.1 F20.8
		! Orientation	Sagittal
Resolution		! Rotation	78.79 deg
Base resolution	256	! A >> P	43 mm
Phase resolution	100 %	!F>> H !R>> L	194 mm 26 mm
Phase partial Fourier	Off		20 111111
Interpolation	Off	Physio	
Image Filter	Off	1st Signal/Mode	None
Distortion Corr.	Off	Inline	
Prescan Normalize	Off	Subtract	Off
Normalize	Off	Std-Dev-Sag	Off
B1 filter	Off	Std-Dev-Cor	Off
Raw filter	Off	Std-Dev-Tra	Off
Elliptical filter	Off	Std-Dev-Time	Off
Geometry		MIP-Sag	Off
Multi-slice mode	Sequential	MIP-Cor	Off
Series	Ascending	MIP-Tra	Off
Special sat.	None	MIP-Time	Off
		Save original images	On

Introduction Dimension Contrasts Bandwidth	Off 2D 1 200 Hz/Px
Gradient mode RF spoiling	Fast On
ICE program number of noise lines Optimal SNR GFactor Condition number Rx coil diode switching coil channel reordering	CoilArrayUtil 384 lines On On Off On Off
TX/RX Nucleus TX/RX delta frequency TX Nucleus TX delta frequency	1H 0 Hz None 0 Hz

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\CoilQA_sag_HF_FOV192_1p5x1p5x2p0
TA: 1:44 Voxel size: 1.5×1.5×2.0 mm Rel. SNR: 1.00 USER: NoiseMeasSensitivityMap

		Table position	Н
Properties		Table position Table position	Н 0 mm
Prio Recon	Off	Inline Composing	Off
Before measurement			
After measurement Load to viewer	On	System C15	On
Inline movie	Off	C15	On
Auto store images	On	C17	On
Load to stamp segments	Off	C18	On
Load images to graphic	Off	C19	On
segments	.	C20	On
Auto open inline display	Off	C21	On
Start measurement without	On	C22	On
further preparation		Ch1	On
Wait for user to start	Off	Ch2	On
Start measurements	single	Ch3	On
Routine		Ch4	On
Slice group 1	_	Ch5	On
Slices	13	Ch6	On
Dist. factor	20 %	Ch7	On
Position	L2.0 A20.0 H0.0	Ch8	On
Orientation	Sagittal	Ch9	On
Phase enc. dir.	H >> F	C10	On
Rotation	90.00 deg	C11 C12	On On
Phase oversampling	0 %	C12	On
FoV read	192 mm	C14	On
FoV phase	100.0 %		
Slice thickness	2.0 mm	Positioning mode	FIX
TR	30 ms	MSMA	S - C - T
TE	6.0 ms	Sagittal	R >> L
Averages	2	Coronal	A >> P
Concatenations	13	Transversal	F >> H
Filter	None	Save uncombined	Off
Coil elements	C10-22;Ch1-9	Coil Combine Mode	Adaptive Combine
Contrast		AutoAlign Auto Coil Select	Default
TD	0 ms		
MTC	Off	Shim mode	Standard
Flip angle	12 deg	Adjust with body coil	Off
Fat suppr.	None	Confirm freq. adjustment	Off
Water suppr.	None	Assume Silicone	Off
Averaging mode	Short term	? Ref. amplitude 1H	0.000 V
Reconstruction	Magnitude	Adjustment Tolerance Adjust volume	Auto
Measurements	1	! Position	L2.0 A6.1 F20.8
Multiple series	Off	! Orientation	Sagittal
Resolution		! Rotation	78.79 deg
Base resolution	128	! A >> P	43 mm
Phase resolution	100 %	! F >> H	194 mm
Phase partial Fourier	Off	! R >> L	26 mm
Interpolation	Off	Physio	
Image Filter	Off	1st Signal/Mode	None
Distortion Corr.	Off	-	. 10.10
Prescan Normalize	Off	Inline	
Normalize	Off	Subtract	Off
B1 filter	Off	Std-Dev-Sag	Off
Raw filter	Off	Std-Dev-Cor Std-Dev-Tra	Off
		- Stallov Iro	Off
Elliptical filter	Off	Std-Dev-Time	Off
Elliptical filter Geometry	Off	Std-Dev-Time MIP-Sag	Off Off
Elliptical filter Geometry Multi-slice mode	Off Sequential	Std-Dev-Time MIP-Sag MIP-Cor	Off Off Off
Elliptical filter Geometry	Off	Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra	Off Off Off Off
Elliptical filter Geometry Multi-slice mode Series Special sat.	Off Sequential	Std-Dev-Time MIP-Sag MIP-Cor	Off Off Off

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	200 Hz/Px
Gradient mode	Fast
RF spoiling	On
ICE program	CoilArrayUtil
number of noise lines	384 lines
Optimal SNR	On
GFactor	On
Condition number	Off
Rx coil diode switching	On
coil channel reordering	Off
	411
TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\CoilQA_axi_RL_FOV192_0p5x0p5x5p0 TA: 2:53 Voxel size: 0.5×0.5×5.0 mm Rel. SNR: 1.00 USER: NoiseMeasSensitivityMap

		Table position	Н
Properties		Table position	П 0 mm
Prio Recon	Off	Inline Composing	Off
Before measurement			
After measurement Load to viewer	On	System C15	On
Inline movie	Off	C15	On
Auto store images	On	C17	On
Load to stamp segments	Off	C18	On
Load images to graphic	Off	C19	On
segments		C20	On
Auto open inline display	Off	C21	On
Start measurement without	On	C22	On
further preparation		Ch1	On
Wait for user to start	Off	Ch2	On
Start measurements	single	Ch3	On
Routine		Ch4	On
Slice group 1		Ch5 Ch6	On On
Slices	7	Cho	On On
Dist. factor	300 %	Ch8	On On
Position	L2.0 A20.0 H0.0	Ch9	On
Orientation	Transversal	C10	On
Phase enc. dir.	R >> L	C11	On
Rotation	90.00 deg	C12	On
Phase oversampling	0 %	C13	On
FoV read	192 mm	C14	On
FoV phase Slice thickness	100.0 % 5.0 mm	Desitioning made	FIX
TR	30 ms	Positioning mode MSMA	S - C - T
TE	6.0 ms	Sagittal	R >> L
Averages	2	Coronal	A >> P
Concatenations	7	Transversal	F >> H
Filter	None	Save uncombined	Off
Coil elements	C10-22;Ch1-9	Coil Combine Mode	Adaptive Combine
Contrast	•	AutoAlign	· ·
TD	0 ms	Auto Coil Select	Default
MTC	Off	Shim mode	Standard
Flip angle	12 deg	Adjust with body coil	Off
Fat suppr.	None	Confirm freq. adjustment	Off
Water suppr.	None	Assume Silicone	Off
	Ch aut tauma	? Ref. amplitude 1H	0.000 V
Averaging mode Reconstruction	Short term	Adjustment Tolerance	Auto
Measurements	Magnitude 1	Adjust volume	
Multiple series	Off	! Position	L2.0 A6.1 F20.8
	<u> </u>	! Orientation	Sagittal
Resolution	004	! Rotation	78.79 deg
Base resolution	384	! A >> P ! F >> H	43 mm 194 mm
Phase resolution	100 %	! F >> H ! R >> L	194 mm 26 mm
Phase partial Fourier	Off Off		20 IIIII
Interpolation		Physio	
Image Filter	Off	1st Signal/Mode	None
Distortion Corr.	Off	Inline	
Prescan Normalize	Off	Subtract	Off
Normalize	Off	Std-Dev-Sag	Off
B1 filter	Off Off	Std-Dev-Cor	Off
Raw filter	Off Off	Std-Dev-Tra	Off
Elliptical filter	OII	Std-Dev-Time	Off
Geometry		MIP-Sag	Off
Multi-slice mode	Sequential	MIP-Cor	Off
Series	Ascending	MIP-Tra	Off
Special sat.	None	MIP-Time	Off
		Save original images	On
1			

Introduction Dimension Contrasts Bandwidth	Off 2D 1 200 Hz/Px
Gradient mode RF spoiling	Fast On
ICE program number of noise lines Optimal SNR GFactor Condition number Rx coil diode switching coil channel reordering	CoilArrayUtil 384 lines On On Off On Off
TX/RX Nucleus TX/RX delta frequency TX Nucleus TX delta frequency	1H 0 Hz None 0 Hz

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\gre_2D_2mmIso_RefV450_uncombined TA: 1:21 PAT: Off Voxel size: 2.0×2.0×2.0 mm Rel. SNR: 1.00 SIEMENS: gre

Droportino		Multi-slice mode	Interleaved
Properties Proper	Off	Series	Interleaved
Prio Recon Before measurement	Off	Saturation mode	Standard
After measurement		Special sat.	None
Load to viewer	On	opecial sat.	
Inline movie	Off	Table position	Н
Auto store images	On	Table position	0 mm
Load to stamp segments	Off	Inline Composing	Off
Load images to graphic	Off		
segments		Tim CT mode	Off
Auto open inline display	Off	System	
Start measurement without	On	C15	On
further preparation		C16	On
Wait for user to start	Off	C17	On
Start measurements	single	C18	On
Routine		C19	On
Slice group 1		C20	On
Slices	44	C21	On
Dist. factor	0 %	C22	On
Position	L2.0 A20.0 H0.0	Ch1	On
Orientation	Sagittal	Ch2	On
Phase enc. dir.	A >> P	Ch3	On
Rotation	0.00 deg	Ch4	On
Phase oversampling	0 %	Ch5	On
FoV read	384 mm	Ch6	On
FoV phase	75.0 %	Ch7	On
Slice thickness	2.0 mm	Ch8	On
TR	550 ms	Ch9	On
TE	3.87 ms	C10	On
Averages	1	C11	On
Concatenations	1	C12 C13	On On
Filter	Distortion Corr.(3D)	C13	On
Coil elements	C10-22;Ch1-9		OII
Contrast		Positioning mode	FIX
MTC	Off	MSMA	S - C - T
Magn. preparation	None	Sagittal	R >> L
Flip angle	30 deg	Coronal	A >> P
Fat suppr.	None	Transversal	F >> H
Water suppr.	None	Save uncombined	On
SWI	Off	Coil Combine Mode	Sum of Squares
Averaging mode	Short term	AutoAlign Auto Coil Select	Default
Reconstruction	Magn./Phase	Auto Coll Select	Default
Measurements	1	Shim mode	Standard
Multiple series	Each measurement	Adjust with body coil	Off
•	Lacii ilicacarollicii	Confirm freq. adjustment	Off
Resolution		Assume Silicone	Off
Base resolution	192	? Ref. amplitude 1H	0.000 V
Phase resolution	100 %	Adjustment Tolerance	Auto
Phase partial Fourier	Off	Adjust volume	100 100 5 115 5
Interpolation	Off	Position	L2.0 A20.0 H0.0
PAT mode	None	Orientation	Sagittal
Imaga Eilter	Off	Rotation	0.00 deg
Image Filter Distortion Corr.	Off	F >> H A >> P	384 mm 288 mm
Mode	On 3D	R >> L	288 mm 88 mm
Unfiltered images	טר On	N >> L	OO IIIIII
Prescan Normalize	Off	Physio	
Normalize	Off	1st Signal/Mode	None
B1 filter	Off	Segments	1
Raw filter	Off	Tagging	None
Elliptical filter	Off	Dark blood	Off
· ·			
Geometry		Resp. control	Off
		17/ _	

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
ļ	

Introduction	On
Dimension	2D
Phase stabilisation	On
Asymmetric echo	Off
Bandwidth	320 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\gre_2D_2mmIso_RefV450_uncombined_ TA: 1:21 PAT: Off Voxel size: 2.0×2.0×2.0 mm Rel. SNR: 1.00 SIEMENS: gre

Routine Slice group 1 Slices 44 Dist. factor 0 9 Position L2 Orientation Sa Phase enc. dir. A: Rotation 0.0 Phase oversampling 0 9 FoV read 38 FoV phase 75 Slice thickness 2.0 TR 55 TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 MTC Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. SWI Of Averaging mode Sh Reconstruction Magn. preparation Magn. SWI Of Averaging mode Sh Reconstruction Magn. Sh Reconstruction Magn. Magn. Sh Reconstruction Magn. Sh Resolution 19 Phase resolution 19 Phase resolution 19 Phase partial Fourier Of Interpolation Of	on off on off off off off off on off ogle 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg	Special sat. Table position Table position Inline Composing Tim CT mode System C15 C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7 Ch8	None H 0 mm Off Off On
After measurement Load to viewer Inline movie Auto store images Coad to stamp segments Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Slice group 1 Slices Position Orientation Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Slice thickness TR Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast MTC Magn. preparation Flip angle Fat suppr. Water suppr. SWI Of Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation Of PAT mode Image Filter Distortion Corr. Of Ingage Filter Distortion Corr.	off on off off off off off on off deple 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	Table position Inline Composing Tim CT mode System C15 C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	O mm Off Off On
Load to viewer Inline movie Of Auto store images Or Load to stamp segments Of Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements sin Slice group 1 Slice group 1 Slices 44 Dist. factor Position L2 Orientation Phase enc. dir. Rotation Phase oversampling FoV read 38 FoV phase 75 Slice thickness 75 Slice thickness 75 Slice thickness 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Magn. preparation No Flip angle Fat suppr. Water suppr. SWI Of Averaging mode Reconstruction Magn. preparation Magn. preparation Magn. preparation Magn. preparation Magn. Start Suppr. No SWI Of Magn. Phase resolution Magn. Phase partial Fourier Of Interpolation Of Phase P	off on off off off off off on off deple 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	Table position Inline Composing Tim CT mode System C15 C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	O mm Off Off On
Inline movie Auto store images Load to stamp segments Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices Dist. factor Position Orientation Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast MTC Magn. preparation Filp angle Fat suppr. Water suppr. SWI Averaging mode Reconstruction Measurements Magn. preparation Filp angle Fat suppr. Water suppr. SWI Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation Of PAT mode No Image Filter Distortion Corr. Of Image Filter Distortion Corr.	off on off off off off off on off deple 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	Inline Composing Tim CT mode System C15 C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	Off Off On
Auto store images Load to stamp segments Cod images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices Dist. factor Position Orientation Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast MTC Magn. preparation Filp angle Fat suppr. Water suppr. Water suppr. SWI Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation Of PAT mode Image Filter Distortion Corr. Of Interpolation Corr. Of Interpolation Corr. Of Interpolation Corr. Of Image Filter Distortion Corr. Of Interpolation Corr. Of Image Filter Distortion Corr. Of Interpolation Corr. Of In	on off off off off off on off angle 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	Tim CT mode System C15 C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	Off On
Load to stamp segments Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices Dist. factor Position Orientation Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast MTC Magn. preparation Flip angle Fat suppr. Water suppr. SWI Of Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation Of Magn Filter Of Interpolation Of PAT mode Image Filter Distortion Corr. Of Interpolation Corr. Of Interpolation Corr. Of Image Filter Distortion Corr.	off	System C15 C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On O
Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices 44 Dist. factor 05 Position L2 Orientation Sa Phase enc. dir. A: Rotation 0.0 Phase oversampling 0.5 FoV read 38 FoV phase 75 Slice thickness 75 Slice thickness 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. SWI Of Averaging mode Reconstruction Magn. greps Service Servic	off	System C15 C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On O
segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices Albist. factor Position Orientation Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Slice thickness TR Concatenations Filter Coil elements Contrast MTC Magn. preparation Flip angle Fat suppr. Water suppr. SWI Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation Of Mage Filter Distortion Corr. Of Image Filter Distortion Corr.	off on off fingle 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	C15 C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On O
Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices	on off ingle 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	C15 C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On O
Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices	on off ingle 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	C16 C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On O
Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices	off ngle 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	C17 C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On
further preparation Wait for user to start Start measurements Routine Slice group 1 Slices	off ngle 4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	C18 C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On
Wait for user to start Start measurements Routine Slice group 1 Slices	4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	C19 C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On
Start measurements Routine Slice group 1 Slices	4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	C20 C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On On On On On On On
Slice group 1 Slices 44 Dist. factor 0 9 Position L2 Orientation 5a Phase enc. dir. A 1 Rotation 0.0 Phase oversampling 0 9 FoV read 38 FoV phase 75 Slice thickness 2.0 TR 55 TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Sh Reconstruction Manual Filter No Geometric SwI Of Averaging mode Sh Reconstruction Manual Filter Swi Distortion Of Averaging mode No Sh Resolution 19 Phase resolution 19 Phase resolution 19 Phase partial Fourier Of Interpolation Of	4 % 2.0 A20.0 H0.0 agittal >> P .00 deg %	C21 C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On On On On On On
Slice group 1 Slices 44 Dist. factor 0° Position L2 Orientation Sa Phase enc. dir. A: Rotation 0.0 Phase oversampling 6° FoV read 38 FoV phase 75 Slice thickness 2.0 TR 55 TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Sh Reconstruction Ma Measurements 1 Multiple series Ea Resolution 19 Phase resolution 19 Phase resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of Image Filter Of Distortion Corr. Of	% 2.0 A20.0 H0.0 agittal >> P .00 deg %	C22 Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On On On On On
Slices Dist. factor Position Corientation Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR TE Averages Concatenations Filter Coil elements Toil elements Tat suppr. Water suppr. SWI Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation Cof Mage Filter Pof Image Filter Of Distortion Corr. Ore Ore Ore Ore Ore Ore Ore	% 2.0 A20.0 H0.0 agittal >> P .00 deg %	Ch1 Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On On On On
Slices Dist. factor Position Corientation Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR TE Averages Concatenations Filter Coil elements Toil pangle Fat suppr. Water suppr. SWI Averaging mode Reconstruction Measurements Multiple series Resolution Phase partial Fourier Image Filter Of Interpolation Corr. Of	% 2.0 A20.0 H0.0 agittal >> P .00 deg %	Ch2 Ch3 Ch4 Ch5 Ch6 Ch7	On On On
Position L2 Orientation Sa Phase enc. dir. Rotation 0.0 Phase oversampling 0.9 FoV read 38 FoV phase 75 Slice thickness 2.0 TR 55 TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Reconstruction Ma Measurements 1 Multiple series Earlesolution Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	2.0 A20.0 H0.0 agittal >> P .00 deg %	Ch3 Ch4 Ch5 Ch6 Ch7	On On
Position L2 Orientation Sa Phase enc. dir. Rotation 0.0 Phase oversampling 0.9 FoV read 38 FoV phase 75 Slice thickness 2.0 TR 55 TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Reconstruction Ma Measurements 1 Multiple series Earlesolution Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	2.0 A20.0 H0.0 agittal >> P .00 deg %	Ch4 Ch5 Ch6 Ch7	On
Orientation Sa Phase enc. dir. Rotation 0.0 Phase oversampling 0.9 FoV read 38 FoV phase 75 Slice thickness 2.0 TR 55 TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Sh Reconstruction Ma Measurements 1 Multiple series Ea Resolution Base resolution 19 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	agittal >> P .00 deg %	Ch5 Ch6 Ch7	
Phase enc. dir. Rotation O.0 Phase oversampling FoV read Solice thickness TR Solice thickness TE Averages Concatenations Filter Coil elements To Magn. preparation Flip angle Fat suppr. Water suppr. SWI Averaging mode Reconstruction Measurements Multiple series Resolution Phase partial Fourier Interpolation Of PAT mode Image Filter Of Distortion Corr. Averaging Of Rotation Phase partial Fourier Interpolation Of PAT mode Image Filter Distortion Corr.	>> P .00 deg %	Ch6 Ch7	On
Rotation Phase oversampling FoV read Solice thickness TR Solice thickness TE Averages Concatenations Filter Coil elements Contrast MTC Magn. preparation Flip angle Fat suppr. Water suppr. SWI Of Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation Of PAT mode Image Filter Distortion Corr. Og Og Og Og Og Og Og Og Og O	.00 deg %	Ch6 Ch7	
Phase oversampling FoV read Solice thickness FoV phase F	%	Ch7	On
FoV read 38 FoV phase 75 Slice thickness 2.6 TR 55 TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Reconstruction Masurements 1 Multiple series Ea Resolution Base resolution 19 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.			On
FoV phase 75 Slice thickness 2.0 TR 55 TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No SWI Of Averaging mode Shard Reconstruction Masurements 1 Multiple series Easeolution Base resolution 19 Phase partial Fourier Of Interpolation Of Image Filter Of Distortion Corr.	×4 mm	I Cn8	On
Slice thickness 2.0 TR 55 TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Share Reconstruction Masurements 1 Multiple series Earlesolution Base resolution 19 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.		Ch9	On
TR TE 3.8 Averages 1 Concatenations 1 Filter Coil elements Contrast MTC Magn. preparation Flip angle Fat suppr. Water suppr. SWI Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation Of Image Filter Distortion Corr. 5 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 4 4 5 6 6 6 7 7 8 7 8 7 8 7 8 7 8 8 7 8 8 8 8	5.0 %	C10	On
TE 3.8 Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Reconstruction Masurements 1 Multiple series Earlesolution 19 Phase resolution 19 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	.0 mm	C11	On
Averages 1 Concatenations 1 Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Sh Reconstruction Ma Measurements 1 Multiple series Ea Resolution Base resolution 19 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	50 ms		
Concatenations Filter Coil elements Contrast MTC Magn. preparation Flip angle Fat suppr. Water suppr. SWI Of Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Image Filter Distortion Corr. No	.87 ms	C12	On
Filter No Coil elements C1 Contrast MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Sh Reconstruction Ma Measurements 1 Multiple series Ea Resolution Base resolution 19 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.		C13	On
Coil elements Contrast MTC Magn. preparation Flip angle Fat suppr. Water suppr. SWI Of Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Image Filter Distortion Corr. Of		C14	On
MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Reconstruction Ma Measurements 1 Multiple series Earlesolution Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	one	Positioning mode	FIX
MTC Of Magn. preparation No Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Reconstruction Ma Measurements 1 Multiple series Earlesolution Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	10-22;Ch1-9	MSMA	S - C - T
MTC Magn. preparation Flip angle Fat suppr. Water suppr. SWI Averaging mode Reconstruction Magurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Image Filter Distortion Corr. Of Ogeon Averaging mode Shart Suppr. No Reconstruction Magurements 1 Multiple series 1 Multiple series Resolution Phase resolution Of PAT mode No Image Filter Of Distortion Corr.	,	Sagittal	R >> L
Magn. preparation Flip angle Stat suppr. Water suppr. No SWI Of Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase partial Fourier Interpolation Of PAT mode Image Filter Distortion Corr. No SWI Of No		Coronal	A >> P
Flip angle 30 Fat suppr. No Water suppr. No SWI Of Averaging mode Sr Reconstruction Ma Measurements 1 Multiple series Ea Resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.		Transversal	F >> H
Fat suppr. Water suppr. SWI Of Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Image Filter Distortion Corr.	one		
Water suppr. SWI Of Averaging mode Reconstruction Ma Measurements Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation Of PAT mode Image Filter Distortion Corr.	0 deg	Save uncombined	On (O
SWI Of Averaging mode Sh Reconstruction Ma Measurements 1 Multiple series Ea Resolution Base resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	one	Coil Combine Mode	Sum of Squares
SWI Of Averaging mode Sh Reconstruction Ma Measurements 1 Multiple series Ea Resolution Base resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	one	AutoAlign	
Averaging mode She Reconstruction Manage Filter Of Distortion Corp. Averaging mode She Reconstruction Manage Filter Of Reconstruction Manage Filter Not Reconstruction She Reconstruction Manage Filter Not Reconstruction She Reconstruction Manage Filter Of Distortion Corr.	eff	Auto Coil Select	Default
Reconstruction Ma Measurements 1 Multiple series Ea Resolution Base resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.		Shim mode	Standard
Measurements 1 Multiple series Ea Resolution Base resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr. Of	hort term	Adjust with body coil	Off
Multiple series Ea Resolution Base resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.	lagn./Phase		
Resolution Base resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr.		Confirm freq. adjustment	Off
Base resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr. Of	ach measurement	Assume Silicone	Off
Base resolution 19 Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr. Of		? Ref. amplitude 1H	0.000 V
Phase resolution 10 Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr. Of		Adjustment Tolerance	Auto
Phase partial Fourier Of Interpolation Of PAT mode No Image Filter Of Distortion Corr. Of		Adjust volume	
Interpolation Of PAT mode No Image Filter Of Distortion Corr. Of	20.0/	! Position	L2.0 A20.0 H0.0
PAT mode No Image Filter Of Distortion Corr. Of	00 %	! Orientation	Sagittal
Image Filter Of Distortion Corr. Of	off	! Rotation	0.00 deg
Image Filter Of Distortion Corr. Of	off	!F>> H	384 mm
Distortion Corr. Of	off off 	! A >> P	288 mm
Distortion Corr. Of	off	! R >> L	88 mm
	off one	1	
	off one ff		
Normalize Of	off one off	Physio	None
	off one off off	1st Signal/Mode	1
	off one off ff ff ff		
	off one off off ff ff off off	1st Signal/Mode Segments	
Elliptical filter Of	off one one off off off off off off	1st Signal/Mode Segments Tagging	None
Geometry	off one one off off off off off off	1st Signal/Mode Segments	None Off
-	off one one off off off off off off	1st Signal/Mode Segments Tagging Dark blood	Off
Series Int	off one one off off off off off off	1st Signal/Mode Segments Tagging	

	Subtract Liver registration Std-Dev-Sag	Off Off 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
S	Sequence	
	Introduction	On
	Dimension	2D
	Phase stabilisation	On
	Asymmetric echo	Off
	Bandwidth	320 Hz/Px
	Flow comp.	No
	Flow comp. RF pulse type	No Normal
	RF pulse type	Normal
	RF pulse type Gradient mode	Normal Fast

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\preSatTFL_satFA60_sag_2p5mm_FOV3 TA: 1:20 PAT: Off Voxel size: 2.5×2.5×2.5 mm Rel. SNR: 1.00 USER: tfl_WIP543_B1map B1 filter Off Properties Raw filter Off Prio Recon Off Elliptical filter Off Before measurement After measurement Geometry Multi-slice mode Load to viewer On Interleaved Inline movie Off Series Interleaved Auto store images On Load to stamp segments Off Table position Load images to graphic Off Table position 0 mm segments Inline Composing Off Off Auto open inline display System Start measurement without On C15 On further preparation C16 On Off Wait for user to start C17 On Start measurements single C18 On Routine C19 On Slice group 1 C20 On Slices 28 C21 On Dist. factor 100 % C22 On Position L0.0 A32.0 H0.0 Ch1 On Orientation Sagittal Ch2 On Phase enc. dir. A >> P Ch3 On Rotation 0.00 deg Ch4 On Slice group 2 Ch₅ On Slices 28 Ch6 On Dist. factor 100 % Ch7 On Position L2.5 A32.0 H0.0 Ch8 On Sagittal Orientation Ch9 On A >> P Phase enc. dir. C10 On Rotation 0.00 deg C11 On Phase oversampling 0 % C12 On FoV read 320 mm C13 On FoV phase 68.8 % C14 On Slice thickness 2.5 mm Positioning mode FIX TR 20000 ms **MSMA** S-C-T TE 2.84 ms Sagittal R >> L **Averages** Coronal A >> P Concatenations 2 Transversal F >> H Filter None Save uncombined Off Coil elements C10-22;Ch1-9 Coil Combine Mode Sum of Squares Contrast AutoAlign TD 0 ms Auto Coil Select Default Magn. preparation None Shim mode Standard Flip angle 10 deg Adjust with body coil Off Fat suppr. None Confirm freq. adjustment Off Water suppr. None Assume Silicone Off Averaging mode Long term ! Ref. amplitude 1H 450,000 V Reconstruction Magnitude Auto Adjustment Tolerance Measurements Adjust volume Multiple series Each measurement Position L1.3 A32.0 H0.0 Orientation Sagittal Resolution Rotation 0.00 deg Base resolution 128 F >> H 320 mm Phase resolution 100 % A >> P 220 mm Phase partial Fourier Off R >> L 140 mm Interpolation Off Physio PAT mode None 1st Signal/Mode None Image Filter Off Off Dark blood Distortion Corr. Off Off Prescan Normalize Off Resp. control Off Normalize

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

•	ocquence	
	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
1	in and brinapping	U

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\t1_mp2r_wip944_3D_cor_0p7iso_p2_Re

Properties	TA: 8:55 PAT: 2	2 Voxel size: 0.7×0.7×0.	7 mm Rel. SNR: 1.00 USER	R: tfl_wip944_b17stx
Prio Recon Def	Properties		Distortion Corr.	
Before measurement Load to viewer On Inline movie Off Auto store images On On Inline movie Off Raw filter Off Off Care Off Off Care Off Care Off		0"	Mode	3D
After measurement Load to viewer On Inline movie Off Ray filler Off		Oli	Unfiltered images	On
Load to viewer On Normalize Off B1 filler Off Raw filler Off Elliptical filler Off Raw filler Off			Prescan Normalize	Off
Inline movie		0:-	Normalize	Off
Auto store images Con			B1 filter	Off
Load to stamp segments			Raw filter	Off
Load integres to graphic segments Off Geometry			Elliptical filter	Off
Segments				
Auto open inline display		Off		
Start measurement without for turther preparation Valid for user to start Off Table position Off Table position Off Table position Off Table position Off O				
further preparation Table position H Start measurements single Table position 0 mm Routine System C15 On Slab group 1 C15 On C16 On Slab group 1 C16 On C16 On Position L2.0 A1.0 F3.9 C18 On On Position L2.0 A1.0 F3.9 C18 On On Phase enc. dir. A >> P C20 On On Phase enc. dir. A >> P C20 On On Rotation 0.00 deg C21 On On Phase enc. dir. A >> P C20 On On Slice sper slab 192 C22 On On Slice sper slab 192 Ch2 On On FoV read 260 mm Ch3 On On FoV phase 67.9 % Ch4 On On TE 2.12 ms Ch7	Auto open inline display	Off	Series	Ascending
Wait for user to start Start measurements Single Start measurements Single Start measurements Single Start measurements System	Start measurement without	On		
Routine			Table position	Н
Sata measurements	Wait for user to start	Off		0 mm
System	Start measurements	single		Off
Silab group 1 Silabs	Routine	-	1	
Slabs	Slab group 1			On
Dist factor		1		
Position				
Orientation Sagittal C19 On Phase enc. dir. A >> P C20 On Rotation 0.00 deg C21 On Slice oversampling 0.0% Ch1 On Slice oversampling 0.0% Ch1 On Slice oversampling 0.0% Ch1 On Slice oversampling 0.0% Ch2 On Slice oversampling 0.0% Ch1 On Slice oversampling 0.0% Ch2 On FoV read 250 mm Ch3 On FoV read 250 mm Ch3 On FoV read 250 mm Ch3 On FoV read 260 mm Ch3 On Ch4 On Ch4 On Slice thickness 0.70 mm Ch5 On TR 5000 ms Ch6 On TE 2.12 ms Ch7 On Averages 1 Ch8 On			=	
Phase enc. dir. A >> P C20 On Rotation 0.00 deg C21 On Phase oversampling 0.9 % C22 On Slices oversampling 0.0 % C22 On Slice some stab 192 Ch2 On FoV read 260 mm Ch3 On FoV phase 67.9 % Ch4 On Silce thickness 0.70 mm Ch5 On TR 5000 ms Ch6 On TE 2.12 ms Ch7 On Averages 1 Ch8 On Contactenations 1 Ch8 On Filter Distortion Corr.(3D) C10 On Coll elements C10-22;Ch1-9 C10 C10 On Coll elements C0				
Rotation				
Phase oversampling 0 % C22 On Slice oversampling 0.0 % Ch1 On Slice sper slab 192 Ch2 On FoV read 260 mm Ch3 On FoV phase 67.9 % Ch4 On Slice thickness 0.70 mm Ch5 On TR 5000 ms Ch6 On TR 5000 ms Ch6 On TE 2.12 ms Ch7 On Averages 1 Ch8 On Concatenations 1 Ch9 On Filter Distortion Corr.(3D) C10 On Coll elements C10-22;Ch1-9 C11 On Contrast C12 On C12 On Contrast C12 On C13 On Contrast C12 On C13 On T1 1 700 ms T1 C18 On Fip angle 1 4 deg				
Slice oversampling				
Silices per slab				
FoV read				
FoV phase				On
Slice thickness 0.70 mm Ch5 On			Ch3	On
TR 5000 ms Ch6 On TE 2.12 ms Ch7 On Averages 1 Ch8 On Concatenations 1 Ch9 On Filter Distortion Corr.(3D) C10 On Coil elements C10-22;Ch1-9 C11 On Contrast C12 On C12 Magn. preparation Non-sel. IR C13 On T1 1 700 ms C14 On T1 2 2400 ms Positioning mode FIX Flip angle 1 4 deg MSMA S - C - T Flip angle 2 5 deg Sagittal R > L Fat suppr. None Coronal A >> P Water suppr. None Transversal F >> H 2nd Inversion Contrast On Save uncombined Off Averaging mode Long term Auto Align Resolution Magnitude Auto Align Measurements <td< td=""><td></td><td>67.9 %</td><td>Ch4</td><td>On</td></td<>		67.9 %	Ch4	On
TE	Slice thickness	0.70 mm	Ch5	On
Averages 1 Ch8 On Concatenations 1 Ch9 On Filter Distortion Corr.(3D) C10 On Coil elements C10-22;Ch1-9 C11 On Contrast C12 On Magn. preparation Non-sel. IR C12 On T1 1 700 ms C14 On T1 2 2400 ms Positioning mode FIX Flip angle 1 4 deg MSMA S - C - T Flip angle 2 5 deg Sagittal R > L Fat suppr. None Coronal A >> P Vater suppr. None Transversal F >> H 2nd Inversion Contrast On Transversal F >> H Averaging mode Long term Coil Combine Mode Adaptive Combine Averaging mode Each measurement Shim mode Standard Resolution 100 % Inversion Coil Combine Mode Adaptive Combine Auto Coil Select Default Adijust with body	TR	5000 ms	Ch6	On
Averages	TE	2.12 ms		
Concatenations	Averages	1		On
Filter Distortion Corr.(3D) C10 -22;Ch1-9 C10 -22;Ch1-9 C11		1		
Coil elements C10-22;Ch1-9 C11 On Contrast Magn. preparation Non-sel. IR C12 On TI 1 700 ms C14 On TI 2 2400 ms Positioning mode FIX Flip angle 1 4 deg MSMA S - C - T Flip angle 2 5 deg Sagittal R >> L Fat suppr. None Coronal A >> P Water suppr. None Coronal A >> P 2nd Inversion Contrast On Save uncombined Off Averaging mode Long term AutoAdition Adaptive Combine Resconstruction Magnitude AutoAdition Measurements 1 Auto Coil Select Default Resolution 368 Default Auto Coil Select Default Resolution 100 % Silice resolution Off Adjust with body coil Off Slice partial Fourier 6/8 Adjust volume Position L2.0 A6.1 F20.8 PAT mod		Distortion Corr.(3D)		
Contrast C12 On Magn. preparation Non-sel. IR C13 On T1 1 700 ms C14 On T1 2 2400 ms Positioning mode FIX Flip angle 1 4 deg MSMA S - C - T Flip angle 2 5 deg Sagittal R >> L Fat suppr. None Coronal A >> P Water suppr. None Transversal F >> H 2nd Inversion Contrast On Save uncombined Off Averaging mode Long term Save uncombined Off Reconstruction Magnitude Auto Reduction Adaptive Combine Measurements 1 Auto Coil Select Default Resolution 368 Shim mode Standard Adjust with body coil Off Confirm freq. adjustment Off Assume Silicone Off Sasume Silicone Off PAT mode GRAPPA I. Ref. amplitude H Auto Adjust volume I Position L.2.	1 7			
Magn. preparation		0.0 ==,0 0		
Magn. preparation Non-Sel. IR Ti	Contrast			
Til 1	Magn. preparation	Non-sel. IR		
Flip angle 1		700 ms	014	On
Flip angle 1	TI 2	2400 ms	Positioning mode	FIX
Flip angle 2 5 deg Sagittal R >> L Fat suppr. None Coronal A >> P Water suppr. None Transversal F >> H 2nd Inversion Contrast On Save uncombined Off Averaging mode Long term Adaptive Combine Reconstruction Magnitude Auto Align Measurements 1 Auto Coil Select Default Resolution Shim mode Standard Resolution Adjust with body coil Off Phase resolution 100 % Adjust with body coil Off Slice resolution 100 % I Ref. amplitude 1H 450.000 V Phase partial Fourier 6/8 Adjust volume I Position L2.0 A6.1 F20.8 Slice partial Fourier Off I Rotation 78.79 deg PAT mode GRAPPA I Rotation 78.79 deg Ref. lines PE 2 I Rotation 78.79 deg Ref. lines PE 28 I Rotation 78.79 deg <td< td=""><td>Flip angle 1</td><td>4 deg</td><td></td><td>S - C - T</td></td<>	Flip angle 1	4 deg		S - C - T
Fat suppr. None Water suppr. None 2nd Inversion Contrast On Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Slice partial Fourier Slice partial Fourier Slice partial Fourier Accel. factor PE Ref. lines PE Accel. factor 3D Reference scan mode None Long term Auto Coil Save uncombined Coil Combine Mode Adaptive Combine AutoAlign Auto Coil Select Default Shim mode Adjust with body coil Confirm freq. adjustment Adjust with body coil Pf PS Ref. amplitude 1H Adjustment Tolerance Adjust volume P Position Positio				R >> L
Water suppr. 2nd Inversion Contrast On Averaging mode Reconstruction Magnitude Measurements Multiple series Resolution Base resolution Slice resolution Phase partial Fourier Slice partial Fourier Slice partial Fourier Accel. factor PE Ref. lines PE Accel. factor 3D Reference scan mode Nagnitude Augnitude Augnitude Auto Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone Pfe. Auto Adjust with Dody coil Confirm freq. adjustment Assume Silicone Pfe. Auto Adjust volume Position Porientation Porientation Position Po		_		A >> P
2nd Inversion ContrastOnSave uncombined Coil Combine Mode Adaptive CombineAveraging mode Reconstruction MeasurementsLong term Magnitude MeasurementsAdaptive Combine AutoAlignMultiple seriesEach measurementShim modeStandardResolution368 Phase resolution Slice resolution Phase partial Fourier Slice partial Fourier100 % 6/8 Slice partial FourierShim mode Adjust with body coil Confirm freq. adjustment Assume Silicone PAGIust with 100 % PRESOLUTION POSITION <b< td=""><td></td><td></td><td></td><td></td></b<>				
Averaging mode Reconstruction Magnitude Measurements Multiple series Each measurement Base resolution Slice resolution Phase partial Fourier Slice partial Fourier PAT mode Accel. factor PE Ref. ample Accel. factor 3D Reference scan mode Adaptive Combine Auto Coil Select Auto Coil Select Default Adjust with body coil Confirm freq. adjustment Off Assume Silicone Pf Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Porientation Sagittal Porientation Pat mode Accel. factor 3D Adaptive Combine Auto Adaptive Combine AutoAlign Auto Coil Select Default Auto Coil Select Default Auto Coil Select Adjust with body coil Confirm freq. adjustment Off Assume Silicone Pf Position Pf Position Plane Position Plane Prosition Plane Prosi				
Averaging mode Reconstruction Measurements Multiple series Each measurement Resolution Base resolution Phase resolution Slice resolution Phase partial Fourier Slice partial Fourier Off PAT mode Accel. factor PE Ref. lines PE Accel. factor 3D Reference scan mode AutoAlign Auto Coil Select Default Adjust with body coil Confirm freq. adjustment Off Assume Silicone Off PRef. amplitude 1H Adjustment Tolerance Adjust volume Position Position Position Sagittal Position Path mode Position Position Path Reference scan mode Path Reference Scan mode Integrated Auto Adjust volume Position Position Path Reference Scan mode Path Referenc				
ReconstructionMagnitudeAuto Coil SelectDefaultMeasurements1Shim modeStandardResolution368Adjust with body coilOffBase resolution100 %Assume SiliconeOffSlice resolution100 %Ref. amplitude 1H450.000 VPhase partial Fourier6/8Adjust wolumeAutoSlice partial FourierOffAdjust volumePAT modeGRAPPA! OrientationSagittalAccel. factor PE2! Rotation78.79 degRef. lines PE28! A >> P43 mmAccel. factor 3D1! F >> H194 mmReference scan modeIntegrated! R >> L32 mm	5 5			
Multiple series Each measurement Resolution Base resolution Base resolution Phase resolution Slice resolution Phase partial Fourier Slice partial Fourier Accel. factor PE Ref. lines PE Accel. factor 3D Resolution Multiple series Each measurement Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Position ! Rotation Pat mode ! Rotation Pat mode I Rotation	Reconstruction	Magnitude	•	
Resolution Base resolution 368 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off PAT mode GRAPPA Accel. factor PE 2 Ref. lines PE 28 Reference scan mode Integrated Adjust with body coil Confirm freq. adjustment Off Assume Silicone Off PRef. amplitude 1H 450.000 V Adjustment Tolerance Auto Adjust volume ! Position L2.0 A6.1 F20.8 ! Orientation Sagittal ? Rotation 78.79 deg ! A >> P 43 mm ! F >> H 194 mm ! Reference scan mode Integrated	Measurements	1	Auto Coil Select	Delauit
Resolution Base resolution 368 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off PAT mode GRAPPA Accel. factor PE 2 Ref. lines PE 28 Ref. lines PE 28 Reference scan mode Integrated Adjust with body coil Confirm freq. adjustment Off Assume Silicone Off PRef. amplitude 1H 450.000 V Adjustment Tolerance Auto Adjust volume ! Position L2.0 A6.1 F20.8 ! Orientation Sagittal PROTECTION 78.79 deg ! A >> P 43 mm I F >> H 194 mm I Reference scan mode Integrated Adjust with body coil Confirm freq. adjustment Off Confirm freq. adjustment Off Assume Silicone Off ! Ref. amplitude 1H 450.000 V Adjustment Tolerance Auto Adjust volume ! Position L2.0 A6.1 F20.8 ! Orientation Sagittal ! R >> P 43 mm I F >> H 194 mm I Seference scan mode Integrated	Multiple series	Each measurement	Shim mode	Standard
Base resolution 368 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off PAT mode GRAPPA Position 100 % Position L2.0 A6.1 F20.8 PAT mode GRAPPA Position Rotation	Decelution		Adjust with body coil	
Assume Silicone Off		200		
Ref. amplitude 1H 450.000 V Ref. amplitude 1H 450.000 V Ref. amplitude 1H 450.000 V Adjustment Tolerance Auto Adjust volume Position L2.0 A6.1 F20.8 PAT mode GRAPPA Position Sagittal Accel. factor PE 2 Postation Reference scan mode Passence Pa				
Phase partial Fourier 6/8 Adjustment Tolerance Auto Slice partial Fourier Off ! Position L2.0 A6.1 F20.8 PAT mode GRAPPA ! Orientation Sagittal Accel. factor PE 2 ! Rotation 78.79 deg Ref. lines PE 28 ! A >> P 43 mm Accel. factor 3D 1 ! F >> H 194 mm Reference scan mode Integrated ! R >> L 32 mm				_
Phase partial Fourier Off Adjust volume Slice partial Fourier 9 Position L2.0 A6.1 F20.8 PAT mode GRAPPA ! Orientation Sagittal Accel. factor PE 2 ! Rotation 78.79 deg Ref. lines PE 28 ! A >> P 43 mm Accel. factor 3D 1 ! F >> H 194 mm Reference scan mode Integrated ! R >> L 32 mm				
Position				, idio
PAT mode GRAPPA ! Orientation Sagittal Accel. factor PE 2 ! Rotation 78.79 deg Ref. lines PE 28 ! A >> P 43 mm Accel. factor 3D 1 ! F >> H 194 mm Reference scan mode Integrated ! R >> L 32 mm	Slice partial Fourier	Off		120461 520 9
Accel. factor PE 2 ! Rotation 78.79 deg Ref. lines PE 28 ! A >> P 43 mm Accel. factor 3D 1 ! F >> H 194 mm Reference scan mode Integrated ! R >> L 32 mm		CDADDA		
Ref. lines PE 28 ! A >> P 43 mm Accel. factor 3D 1 ! F >> H 194 mm Reference scan mode Integrated ! R >> L 32 mm				
Accel. factor 3D 1 ! F >> H 194 mm Reference scan mode Integrated ! R >> L 32 mm				· ·
Reference scan mode Integrated ! R >> L 32 mm				
		•		_
Image Filter Off Physio	Reference scan mode	Integrated	! R >> L	32 mm
, variable of the control of the con	Image Filter	Off	Physio	

1st Signal/Mode	None
Dark blood	Off
Resp. control	Off
Composing	
Sequence	
Introduction Dimension Elliptical scanning Asymmetric echo Contrasts Bandwidth Flow comp. Echo spacing	Off 3D Off Allowed 1 220 Hz/Px No 6.3 ms
RF pulse type Gradient mode Excitation RF spoiling	Normal Normal Non-sel. On
FFT Scale Factor LIN/PAR Swap Ext. INV Pulse Flip Angle Uniform Image Head Mask on UNI T1 Map Complex Div. Image Denoise Weighting FLAWS	100 % Off On 180 On Off On Off On Off On Off

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\ep2D_0p85_R2PF6_TE30_BW1132_Ref TA: 10:11 PAT: 2 Voxel size: 0.9×0.9×3.0 mm Rel. SNR: 1.00 USER: cmrr_mbep2d_bold

Properties		Series	Ascending
Prio Recon	Off	Special sat.	None
Before measurement			
After measurement		Table position	Н
Load to viewer	On	Table position	0 mm
Inline movie	Off	Inline Composing	Off
Auto store images	On	System	
Load to stamp segments	Off	C15	On
Load images to graphic	Off	C16	On
segments		C17	On
Auto open inline display	Off	C18	On
Start measurement without	On	C19	On
further preparation		C20	On
Wait for user to start	Off	C21	On
Start measurements	single	C22	On
Routine		Ch1	On
Slice group 1		Ch2	On
Slices	16	Ch3	On
Dist. factor	0 %	Ch4	On
Position	L0.9 A19.7 F16.4	Ch5	On
Orientation	T > C8.4	Ch6	On
Phase enc. dir.	A >> P	Ch7	On
Rotation	0.00 deg	Ch8	On
Phase oversampling	0 %	Ch9	On
FoV read	164 mm	C10	On
FoV phase	100.0 %	C11	On
Slice thickness	3.00 mm	C12	On
TR	1290 ms	C13	On
TE	30 ms	C14	On
Multi-band accel. factor	1	Positioning mode	FIX
Filter	Raw filter	MSMA	S - C - T
Coil elements	C10-22;Ch1-9	Sagittal	R >> L
Contrast		Coronal	A >> P
MTC	Off	Transversal	F >> H
Magn. preparation	None	Coil Combine Mode	Sum of Squares
Flip angle	85 deg	AutoAlign	
Fat suppr.	None	Auto Coil Select	Default
		Shim mode	Standard
Averaging mode	Long term	Adjust with body coil	Off
Reconstruction	Magnitude	Confirm freq. adjustment	Off
Measurements	466	Assume Silicone	Off
Delay in TR	0 ms	? Ref. amplitude 1H	0.000 V
Multiple series	Off	Adjustment Tolerance	Auto
Resolution		Adjust volume	
Base resolution	192	! Position	L0.9 A8.3 F14.7
Phase resolution	100 %	! Orientation	Sagittal
Phase partial Fourier	6/8	! Rotation	-8.40 deg
Interpolation	Off	! F >> H	60 mm
PAT mode	GRAPPA	! A >> P	40 mm
Accel. factor PE	GRAPPA 2	! R >> L	52 mm
Ref. lines PE	52	Physio	
Reference scan mode	GRE	1st Signal/Mode	None
		1	.10110
Distortion Corr.	Off	BOLD	
Prescan Normalize	Off	GLM Statistics	Off
Raw filter	On	Dynamic t-maps	Off
Intensity	Weak	Starting ignore meas	0
Slope	25	Ignore after transition	0
Elliptical filter	Off	Model transition states	Off
Hamming	Off	Temp. highpass filter	Off
Geometry		Threshold	4.00
Multi-slice mode	Interleaved	Paradigm size	20
1			

Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Ocquerioc	
Introduction	Off
Contrasts	1
Bandwidth	1132 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1 ms
EPI factor	192
Gradient mode	Fast
RF spoiling	Off
Excite pulse duration	3840 us
Slice multiplier	1
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Force equal slice timing	Off
Force equal slice timing FFT scale factor	Off 1.00
	- ··
FFT scale factor	1.00
FFT scale factor GRE iPAT ref. FA	1.00 12.0 deg

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\ep3D_0p85_R2x1_TE11p2_EPIfac16_B\

TA: 10:14 PAT: 2 Voxel size: 0.9×0.9×3.0 mm Rel. SNR: 1.00 USER: dzne_ep3d_fmri Prescan Normalize Off Properties Normalize Off Prio Recon Off B1 filter Off Before measurement Raw filter On After measurement Intensity Weak On Load to viewer Slope 25 Inline movie Off Elliptical filter Off Auto store images On Geometry Load to stamp segments Off Load images to graphic Off Multi-slice mode Interleaved segments Series Ascending Off Auto open inline display Saturation mode Standard Start measurement without On further preparation Table position Н Off Wait for user to start Table position 0 mm Start measurements single Inline Composing Off Routine System Slab group 1 On C15 Slabs C16 On Position L0.9 A19.7 F16.4 C17 On Orientation T > C8.4C18 On Phase enc. dir. A >> P C19 On Rotation 0.00 deg C20 On Slab Scale -10 % C21 On Slices per slab 16 C22 On FoV read 164 mm Ch1 On FoV phase 100.0 % Ch2 On Slice thickness 3.00 mm Ch3 On TR 2300 ms Ch4 On TE 1 11.2 ms Ch5 On **Averages** Ch6 On Multi-echo Shots Ch7 On Filter Raw filter Ch8 On Coil elements C10-22;Ch1-9 Ch9 On C10 On Contrast C11 On Multi-echo spacing 17.18 ms C12 On MTC Off C13 On None Magn. preparation C14 On 900 ms Flip angle 14 deg Positioning mode FIX Fat suppr. S - C - T None **MSMA** Sagittal R >> L Averaging mode Long term Coronal A >> P Reconstruction Magnitude Transversal F >> H Measurements 264 Save uncombined Off Pause after meas. 0.0 sCoil Combine Mode Sum of Squares Resolution AutoAlign 192 Base resolution Auto Coil Select Default 100 % Phase resolution Shim mode Standard Slice resolution 100 % Adjust with body coil Off Phase partial Fourier Off Freq. adjust Off Slice partial Fourier Off Assume Silicone Off Interpolation Off ? Ref. amplitude 1H 0.000 V PAT mode **GRAPPA** Adjustment Tolerance Auto Acc. factor PE Adjust volume 2 Ref. lines PE Position L0.9 A8.3 F14.7 52 Acc. factor 3D ! Orientation Sagittal 1 Ref. lines 3D ! Rotation -8.40 deg Reference Scan Mode GRE/separate !F>>H 60 mm ! A >> P 40 mm **EmptyIceProgram** Off !R >> L 52 mm Image Filter Off Off Composing Distortion Corr.

Introduction Dimension Elliptical scanning Reordering Asymmetric echo Contrasts Bandwidth Echo spacing	On 3D Off Linear Off 1 1240 Hz/Px 1.01 ms
EPI factor Segmentation RF pulse type Gradient mode Excitation RF spoiling	16 6 Normal Fast Slab-sel. On
PATRef FA RF duration RF BWT product Ernst T1 PATRef prep. shots Volume dummy shots Dummy Measurements Integrated PC Invert PE Water Exc. Phase Correction EPI rise time factor FFT scale factor Mosaic DICOMs	5 deg 2560 us 30 1300 ms 200 0 0 Off Off -none- per Blade 1.10 1.0

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\ep3D_0p85_R2x1_TE8p04_EPIfac10_B\ TA: 10:17 PAT: 2 Voxel size: 0.9×0.9×3.0 mm Rel. SNR: 1.00 USER: dzne_ep3d_fmri Prescan Normalize Off Properties Normalize Off Prio Recon Off B1 filter Off Before measurement Raw filter On After measurement Intensity Weak Load to viewer On Slope 25 Inline movie Off Elliptical filter Off Auto store images On Geometry Load to stamp segments Off Load images to graphic Off Multi-slice mode Interleaved segments Series Ascending Off Auto open inline display Saturation mode Standard Start measurement without On further preparation Table position Н Off Wait for user to start Table position 0 mm Start measurements single Inline Composing Off Routine System Slab group 1 On C15 Slabs C16 On Position L0.9 A19.7 F16.4 C17 On Orientation T > C8.4C18 On Phase enc. dir. A >> P C19 On Rotation 0.00 deg C20 On Slab Scale -10 % C21 On Slices per slab 16 C22 On FoV read 164 mm Ch1 On FoV phase 100.0 % Ch2 On Slice thickness 3.00 mm Ch3 On TR 2800 ms Ch4 On TE 1 8.04 ms Ch5 On Averages Ch6 On Multi-echo Shots Ch7 On Filter Raw filter Ch8 On Coil elements C10-22;Ch1-9 Ch9 On C10 On Contrast C11 On Multi-echo spacing 11.32 ms C12 On MTC Off C13 On Magn. preparation None C14 On 900 ms Flip angle 12 deg Positioning mode FIX Fat suppr. S - C - T None **MSMA** Sagittal R >> L Averaging mode Long term Coronal A >> P Reconstruction Magnitude Transversal F >> H Measurements 218 Save uncombined Off Pause after meas. 0.0 sCoil Combine Mode Sum of Squares Resolution AutoAlign 192 Base resolution Auto Coil Select Default 100 % Phase resolution Shim mode Standard Slice resolution 100 % Adjust with body coil Off Phase partial Fourier Off Freq. adjust Off Slice partial Fourier Off Assume Silicone Off Interpolation Off ? Ref. amplitude 1H 0.000 V PAT mode **GRAPPA** Adjustment Tolerance Auto Acc. factor PE Adjust volume 2 Ref. lines PE Position L0.9 A8.3 F14.7 52 Acc. factor 3D ! Orientation Sagittal 1 Ref. lines 3D ! Rotation -8.40 deg Reference Scan Mode GRE/separate !F>>H 60 mm ! A >> P 40 mm **EmptyIceProgram** Off !R >> L 52 mm Image Filter Off

Composing

Off

Distortion Corr.

`	oquonoo	
	Introduction	On
	Dimension	3D
	Elliptical scanning	Off
	Reordering	Linear
	Asymmetric echo	Off
	Contrasts	1
	Bandwidth	1302 Hz/Px
	Echo spacing	1.03 ms
-	EPI factor	10
	Segmentation	10
	RF pulse type	Normal
	Gradient mode	Fast
	Excitation	Slab-sel.
	RF spoiling	On
-	PATRef FA	5 deg
	RF duration	2560 us
	RF BWT product	30
	Ernst T1	1300 ms
	PATRef prep. shots	200
	Volume dummy shots	0
	Dummy Measurements	0
	Integrated PC	Off
	Invert PE	Off
	Water Exc.	-none-
	Phase Correction	per Blade
	EPI rise time factor	1.10
	FFT scale factor	1.0
	Mosaic DICOMs	On

\\USER\Alan\History\20230622_1300_Traveling_Spine_CoilQA_fMRI\gre_B0_sag
TA: 0:59 Voxel size: 1.1×1.1×2.0 mm Rel. SNR: 1.00 SIEMENS: gre_field_mapping

Properties	0#	Table position Inline Composing	0 mm Off
Prio Recon	Off	1	
Before measurement		System	0.5
After measurement		C15	On
Load to viewer	On O"	C16	On
Inline movie	Off	C17	On
Auto store images	On	C18	On
Load to stamp segments	Off	C19	On
Load images to graphic	Off	C20	On
segments		C21	On
Auto open inline display	Off	C22	On
Start measurement without	On	Ch1	On
further preparation		Ch2	On
Wait for user to start	Off	Ch3	On
Start measurements	single	Ch4	On
outine		Ch5	On
		Ch6	On
Slice group 1		Ch7	On
Slices	20	Ch8	On
Dist. factor	20 %	Ch9	On
Position	L2.0 A1.0 F3.9	C10	On
Orientation	Sagittal	C11	On
Phase enc. dir.	A >> P	C12	On
Rotation	0.00 deg	C13	On
Phase oversampling	0 %	C13	On
FoV read	200 mm	C14	On
FoV phase	100.0 %	Positioning mode	FIX
Slice thickness	2.0 mm	MSMA	S - C - T
TR	150.0 ms	Sagittal	R >> L
TE 1	3.06 ms	Coronal	A >> P
TE 2	4.08 ms	Transversal	F >> H
	1	Save uncombined	Off
Averages Concatenations			
	1	Coil Combine Mode	Sum of Squares
Filter	None	AutoAlign	 D (1)
Coil elements	C10-22;Ch1-9	Auto Coil Select	Default
Contrast		Shim mode	Standard
MTC	Off	Adjust with body coil	Off
Flip angle	19 deg	Confirm freq. adjustment	Off
Fat suppr.	None	Assume Silicone	Off
		? Ref. amplitude 1H	0.000 V
Averaging mode	Short term	Adjustment Tolerance	Auto
Reconstruction	Magn./Phase	Adjust volume	7 10.10
Measurements	1	! Position	L0.9 A8.3 F14.7
Multiple series	Off	! Orientation	Sagittal
·		! Rotation	-8.40 deg
esolution	400	! Rotation ! F >> H	
Base resolution	190		60 mm
Phase resolution	100 %	! A >> P	40 mm
Phase partial Fourier	Off	! R >> L	52 mm
Interpolation	Off	Composing	
Image Filter	Off	······	
Distortion Corr.	Off	Sequence	
Prescan Normalize	Off	Introduction	On
Normalize	Off	Dimension	2D
		Asymmetric echo	Off
B1 filter	Off	Contrasts	2
Raw filter	Off	Bandwidth	797 Hz/Px
Elliptical filter	Off	Flow comp.	No
Geometry			Name
Multi-slice mode	Interleaved	RF pulse type	Normal
Series	Interleaved	Gradient mode	Fast
		RF spoiling	On
Special sat.	None		

\\USER\	Alan\History\20230622_1300 _.	_Traveling_Spine	_CoilQA_fMRI\gre_B0_tra	
TA: 0:59	Voxel size: 1.1×1.1×3.0 mm	Rel. SNR: 1.00	SIEMENS: gre_field_mapping	

Properties		Table position Inline Composing	0 mm Off
Prio Recon	Off		
Before measurement		System C15	On
After measurement Load to viewer	On	C15	On
Inline movie	Off	C16	On
Auto store images	On	C17	On
Load to stamp segments	Off	C19	On
Load images to graphic	Off	C20	On
segments	Oli	C21	On
Auto open inline display	Off	C22	On
Start measurement without	On	Ch1	On
further preparation	Oli	Ch2	On
Wait for user to start	Off	Ch2 Ch3	On
Start measurements	single	Ch4	On
Start measurements	sirigle	Ch5	On
Routine		Ch6	On
Slice group 1		Cho Ch7	On
Slices	16	Ch8	On
Dist. factor	0 %	Ch6 Ch9	On
Position	L0.9 A19.7 F16.4		On On
Orientation	T > C8.4	C10	_
Phase enc. dir.	A >> P	C11	On On
Rotation	0.00 deg	C12	On
Phase oversampling	0 %	C13	On
FoV read	200 mm	C14	On
FoV phase	100.0 %	Positioning mode	FIX
Slice thickness	3.0 mm	MSMA	S - C - T
TR	150.0 ms	Sagittal	R >> L
TE 1	3.06 ms	Coronal	A >> P
TE 2	4.08 ms	Transversal	F >> H
Averages	1	Save uncombined	Off
Concatenations	1	Coil Combine Mode	Sum of Squares
Filter	None	AutoAlign	
Coil elements	C10-22;Ch1-9	Auto Coil Select	Default
1	0.10 22,011 0		
Contrast	0"	Shim mode	Standard
MTC	Off	Adjust with body coil	Off
Flip angle	19 deg	Confirm freq. adjustment	Off
Fat suppr.	None	Assume Silicone	Off
Averaging mode	Short term	? Ref. amplitude 1H	0.000 V
Reconstruction	Magn./Phase	Adjustment Tolerance	Auto
Measurements	1	Adjust volume	1000005445
Multiple series	Off	! Position	L0.9 A8.3 F14.7
1		! Orientation	Sagittal
Resolution		! Rotation	-8.40 deg
Base resolution	190	!F>> H	60 mm
Phase resolution	100 %	! A >> P	40 mm
Phase partial Fourier	Off	! R >> L	52 mm
Interpolation	Off	Composing	
Image Filter	Off		
Distortion Corr.	Off	Sequence	
Prescan Normalize	Off	Introduction	On
Normalize	Off	Dimension	2D
B1 filter	Off	Asymmetric echo	Off
Raw filter	Off	Contrasts	2
Elliptical filter	Off	Bandwidth	797 Hz/Px
1	Oil	Flow comp.	No
Geometry		RF pulse type	Normal
Multi-slice mode	Interleaved	Gradient mode	Fast
Series	Interleaved	RF spoiling	On
Special sat.	None		-
Table position	Н		

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Alan History 20230622 1300 Traveling Spine CoilQA fMRI Localizer_bs_csc preSatTFL_satFA90_sag_2p5mm_FOV320_RefV300V preSatTFL_satFA60_sag_2p5mm_FOV320_RefV450V 2DREAM_sag_FOV384_2p5mm_RefV450V 2DREAM_sag_FOV200_2p5mm_RefV350V CoilQA_sag_HF_FOV384_1p5x1p5x2p0 CoilQA_sag_HF_FOV192_1p5x1p5x2p0 CoilQA_axi_RL_FOV192_0p5x0p5x5p0 gre_2D_2mmlso_RefV450_uncombined gre_2D_2mmlso_RefV450_uncombined_noDC preSatTFL_satFA60_sag_2p5mm_FOV320_RefV450V t1_mp2r_wip944_3D_cor_0p7iso_p2_RefV450 ep2D_0p85_R2PF6_TE30_BW1132_RefV450_FA85 ep3D_0p85_R2x1_TE11p2_EPIfac16_BW1240_RefV450_FA17 ep3D_0p85_R2x1_TE8p04_EPIfac10_BW1302_RefV450_FA14 gre_B0_sag gre_B0_tra