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# 

# \\USER\FE\TravelingSpine\_Run\Phantom\_2023\_07\_10\localizer\_Spinoza6\_Berlin

TA: 0:18 PM: REF Voxel size: 0.5×0.5×5.0 mmPAT: Off Rel. SNR: 1.00 : qfl

#### **Properties**

Prio recon	On
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	On
Load images to graphic segments	On
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

#### Routine

Slice group	1
Slices	3
Dist. factor	50 %
Position	R2.9 A15.4 F49.8 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	3
Dist. factor	50 %
Position	R15.8 A13.6 F49.8 mm
Orientation	Coronal
Phase enc. dir.	F >> H
Slice group	3
Slices	3
Dist. factor	50 %
Position	R11.0 A7.5 F38.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	25 %
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	7.7 ms
TE	3.67 ms
Averages	1
Concatenations	9
Filter	Distortion Corr.(3D), Elliptical filter
Coil elements	A01-08;D09-16;E17-20;H21-

#### **Contrast - Common**

TR	7.7 ms
TE	3.67 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

# **Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

#### **Contrast - Dynamic**

Multiple series

Resolution - Common		
FoV read	280 mm	
FoV phase	100.0 %	
Slice thickness	5.0 mm	
Base resolution	256	
Phase resolution	75 %	
Phase partial Fourier	Off	
Interpolation	On	

Each measurement

#### **Resolution - iPAT**

PAT mode	Nlana
IPAT mode	None
1 / 11 111000	110110

# **Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	On
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	On	

# **Geometry - Common**

Slice group	1
Slices	3
Dist. factor	50 %
Position	R2.9 A15.4 F49.8 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	3
Dist. factor	50 %
Position	R15.8 A13.6 F49.8 mm
Orientation	Coronal
Phase enc. dir.	F >> H
Slice group	3
Slices	3
Dist. factor	50 %
Position	R11.0 A7.5 F38.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	7.7 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	9
<u> </u>	

# Geometry - AutoAlign

Slice group	1
Position	R2.9 A15.4 F49.8 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2

#### **Geometry - AutoAlign**

Position	R15.8 A13.6 F49.8 mm
Orientation	Coronal
Phase enc. dir.	F >> H
Slice group	3
Position	R11.0 A7.5 F38.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	R2.9 A15.4 F49.8
R	2.9 mm
A	15.4 mm
F	49.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

# **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None
Water suppr.	None
Special sat.	None

# **Geometry - Tim CT**

Tim CT mode	Off
Slices	3
Slice thickness	5.0 mm
Dist. factor	50 %
FoV read	280 mm
FoV phase	100.0 %
Segments	1

#### **System - Miscellaneous**

- 7	
Positioning mode	REF
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Off - AutoCoilSelect

# **System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

# **System - Adjust Volume**

! Position	L0.0 A25.1 F32.6 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	175 mm
! R >> L	201 mm
! F >> H	259 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1

#### System - Tx/Rx

Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

# Physio - Signal1

1st Signal/Mode	None
TR	7.7 ms
Concatenations	9
Segments	1

# Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	280 mm
FoV phase	100.0 %
Phase resolution	75 %

# **Physio - PACE**

Resp. control	Off
Concatenations	9

#### **Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

#### Inline - MIP

MIP-Sag MIP-Cor MIP-Tra MIP-Time	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

#### **Inline - Soft Tissue**

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

# Inline - Composing

Distortion Corr.	On
Mode	3D
Unfiltered images	On

# Sequence - Part 1

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Sequential
Bandwidth	320 Hz/Px

# Sequence - Part 2

Segments	1
Acoustic noise reduction	Active

# SIEMENS MAGNETOM Terra

# Sequence - Part 2

RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

# Sequence - Nuclei

TX/RX Nucleus	1H	Ì
TX/RX delta frequency	0 Hz	
TX Nucleus	None	
TX delta frequency	0 Hz	
Coil elements	A01-08;D09-16;E17-20;H	21-24

Mode	Off

# \\USER\FE\TravelingSpine\_Run\Phantom\_2023\_07\_10\tfl\_sag\_2p5mmISO\_largeFOV

TA: 1:10 PM: ISO Voxel size: 2.4×2.4×2.5 mmPAT: Off Rel. SNR: 1.00 : tfl

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

# Routine

1
28
100 %
R7.1 A46.8 F22.4 mm
Sagittal
A >> P
2
28
100 %
R9.6 A46.8 F22.4 mm
Sagittal
A >> P
0 %
340 mm
62.5 %
2.5 mm
34420.0 ms
2.31 ms
1
1
Distortion Corr.(3D)
A01-08;D09-16;E17-20;H

#### **Contrast - Common**

TR	34420.0 ms
TE	2.31 ms
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None

# **Contrast - Dynamic**

Averages	1
Reconstruction	Magnitude
1 to contain dollors	Magintado
Measurements	1
Micasurcinionis	
Multiple series	Each measurement
Multiple series	Each measurement

#### **Resolution - Common**

FoV read	340 mm
FoV phase	62.5 %
Slice thickness	2.5 mm
Base resolution	144
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None		
Resolution - Filter Image			
Image Filter	Off		
Distortion Corr.	On		
Mode	3D		
Unfiltered images	On		
Prescan Normalize	Off		
Normalize	Off		
B1 filter	Off		

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

# **Geometry - Common**

Slice group	1
Slices	28
Dist. factor	100 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	28
Dist. factor	100 %
Position	R9.6 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	340 mm
FoV phase	62.5 %
Slice thickness	2.5 mm
TR	34420.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

# <sup>-</sup> 21-24 Geometry - AutoAlign

Slice group	1
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	R9.6 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	R7.1 A46.8 F22.4
R	7.1 mm
A	46.8 mm
F	22.4 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

# **System - Miscellaneous**

-	
Positioning mode	ISO
Table position	F
Table position	22 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

# **System - Miscellaneous**

Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

# Sequence - Part 2

RF spoiling	On
Turbo factor	90

# **Sequence - Assistant**

Mode	Off	
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# **System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

# **System - Adjust Volume**

Position	R8.3 A46.8 F22.4 mm
Orientation	Sagittal
Rotation	0.00 deg
A >> P F >> H R >> L	213 mm
F >> H	341 mm
	140 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

# Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

# Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

# Inline - Composing

Distortion Corr.	On
Mode	3D
Unfiltered images	On

# Sequence - Part 1

Introduction	Off
Dimension	2D
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Interleaved
Echo spacing	5.1 ms
Bandwidth	400 Hz/Px

#### Sequence - Part 2

RF pulse type	Low SAR
Gradient mode	Normal
Excitation	Slice-sel.

# \\USER\FE\TravelingSpine\_Run\Phantom\_2023\_07\_10\tfl\_sag\_2p5mmISO\_largeFOV

TA: 1:10 PM: ISO Voxel size: 2.4×2.4×2.5 mmPAT: Off Rel. SNR: 1.00 : tfl

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further	Off
preparation	
Wait for user to start	Off
Start measurements	Single measurement

#### Routine

Slice group	1
Slices	28
Dist. factor	100 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	28
Dist. factor	100 %
Position	R9.6 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	0 %
FoV read	340 mm
FoV phase	62.5 %
Slice thickness	2.5 mm
TR	34420.0 ms
TE	2.31 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(3D)
Coil elements	A01-08;D09-16;E17-20;H

#### **Contrast - Common**

TR	34420.0 ms
TE	2.31 ms
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Magn. preparation Flip angle Fat suppr. Water suppr.	None

# **Contrast - Dynamic**

Averages	1
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

#### **Resolution - Common**

FoV read	340 mm
FoV phase	62.5 %
Slice thickness	2.5 mm
Base resolution	144
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None	
Resolution - Filter Imag	ge	
Image Filter	Off	
Distortion Corr.	On	
Mode	3D	
Unfiltered images	On	
Prescan Normalize	Off	
Normalize	Off	
B1 filter	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	

# **Geometry - Common**

Slice group	1
Slices	28
Dist. factor	100 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	28
Dist. factor	100 %
Position	R9.6 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	340 mm
FoV phase	62.5 %
Slice thickness	2.5 mm
TR	34420.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

# <sup>-</sup> 21-24 Geometry - AutoAlign

Goomony materia	··9··
Slice group	1
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	R9.6 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	R7.1 A46.8 F22.4
R	7.1 mm
Α	46.8 mm
F	22.4 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

# **System - Miscellaneous**

-	
Positioning mode	ISO
Table position	F
Table position	22 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

# **System - Miscellaneous**

Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

# Sequence - Part 2

RF spoiling	On	
Turbo factor	90	

# **Sequence - Assistant**

Mode	Off	
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# **System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

# **System - Adjust Volume**

Position	R8.3 A46.8 F22.4 mm
Orientation	Sagittal
Rotation	0.00 deg
A >> P F >> H R >> L	213 mm
F >> H	341 mm
	140 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	408.000 V

#### **Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

#### Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

# Inline - Composing

Distortion Corr.	On
Mode	3D
Unfiltered images	On

# Sequence - Part 1

Introduction	Off
Dimension	2D
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Interleaved
Echo spacing	5.1 ms
Bandwidth	400 Hz/Px

# Sequence - Part 2

RF pulse type	Low SAR
Gradient mode	Normal
Excitation	Slice-sel.

# \\USER\FE\TravelingSpine\_Run\Phantom\_2023\_07\_10\Dream2D\_sag\_2p5mmISO\_largeFOV

TA: 1:08 PM: FIX Voxel size: 2.5×2.5×2.5 mmPAT: Off Rel. SNR: 1.00 : 30e5ea5

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further	Off
preparation	
Wait for user to start	Off
Start measurements	Single measurement

# Routine

Slice group	1
Slices	11
Dist. factor	0 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
FoV read	384 mm
FoV phase	47.4 %
Slice thickness	2.5 mm
TR	6000 ms
TE 1	2.04 ms
TE 2	3.18 ms
Averages	1
Concatenations	11
Filter	Distortion Corr.(3D)
Coil elements	A01-08;D09-16;E17-20;H

#### **Contrast - Common**

TR	6000 ms	
TE 1	2.04 ms	
TE 2	3.18 ms	
Flip angle 1	50 deg	
Flip angle 2	6 deg	

# **Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1

#### **Resolution - Common**

FoV read	384 mm
FoV phase	47.4 %
Slice thickness	2.5 mm
Base resolution	152
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

# **Resolution - iPAT**

PAT mode	None
1 / 11 111000	140110

#### **Resolution - Filter Image**

Image Filter	Off	
Distortion Corr.	On	

#### **Resolution - Filter Image**

Mode	3D
Unfiltered images	On
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

#### Resolution - Filter Rawdata

Raw filter	Off	
Elliptical filter	Off	

# **Geometry - Common**

Slice group	1
Slices	11
Dist. factor	0 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	384 mm
FoV phase	47.4 %
Slice thickness	2.5 mm
TR	6000 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	11

#### **Geometry - AutoAlign**

	Slice group	1
	Position	R7.1 A46.8 F22.4 mm
	Orientation	Sagittal
,	Phase enc. dir.	A >> P
	AutoAlign	
	Initial Position	R7.1 A46.8 F0.4
	R	7.1 mm
	A	46.8 mm
	F	0.4 mm
	Initial Rotation	0.00 deg
	Initial Orientation	Sagittal

# **System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	22 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

# System - Adjust Volume

! Position	R6.4 A43.7 F20.9 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	184 mm
! R >> L	35 mm
! F >> H	396 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	408.000 V

# Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Multi-slice mode	Sequential
Bandwidth	910 Hz/Px

# Sequence - Part 2

Echo train duration	357 ms
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Turbo factor	72

# Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	A01-08;D09-16;E17-20;H21-24

# Sequence - Special

Preparation scans 2 Preparation loops 0 Sample T1 2000 ms	
· ·	
Sample T1 2000 ms	
RF-Duration 800 us	
Prep RF-Duration 400 us	
Time-BW-Product 3.2	
Timing Scheme STE*	
Mixing Time 1140 us	
FFT Scale 10	
Calculate FlipMap On	
HDR DICOMs Off	
STE<->FID Spoiler Off	
Scale risetime 1.20	

Mode	Off

# 

TA: 1:08 PM: FIX Voxel size: 2.5×2.5×2.5 mmPAT: Off Rel. SNR: 1.00 : 30e5ea5

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further	Off
preparation	
Wait for user to start	Off
Start measurements	Single measurement

#### **Routine**

Slice group	1
Slices	11
Dist. factor	0 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	6000 ms
TE 1	2.04 ms
TE 2	3.10 ms
Averages	1
Concatenations	11
Filter	None
Coil elements	A01-08;D09-16;E17-20;H21-2

#### **Contrast - Common**

TR	6000 ms
TE 1	2.04 ms
TE 2	3.10 ms
Flip angle 1	50 deg
Flip angle 2	6 deg

#### **Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1

#### **Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
Base resolution	80
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None

#### **Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off

#### **Resolution - Filter Image**

Prescan Normalize	Off
Normalize	Off
B1 filter	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

#### **Geometry - Common**

Slice group	1
Slices	11
Dist. factor	0 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	6000 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	11

#### **Geometry - AutoAlign**

	Slice group	1
	Position	R7.1 A46.8 F22.4 mm
	Orientation	Sagittal
	Phase enc. dir.	A >> P
	AutoAlign	
	Initial Position	R7.1 A46.8 F0.4
٠.	R	7.1 mm
	Α	46.8 mm
	F	0.4 mm
	Initial Rotation	0.00 deg
	Initial Orientation	Sagittal

#### **System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	22 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

# **System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

# **System - Adjust Volume**

! Position R6.4 A51.1	1 F25.9 mm
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# System - Adjust Volume

! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	205 mm
! R >> L	35 mm
! F >> H	205 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	408.000 V

# Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Multi-slice mode	Sequential
Bandwidth	1010 Hz/Px

# Sequence - Part 2

Echo train duration	386 ms
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Turbo factor	80

# Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	A01-08;D09-16;E17-20;H21-2

# Sequence - Special

Preparation scans	2
Preparation loops	0
Sample T1	2000 ms
RF-Duration	800 us
Prep RF-Duration	400 us
Time-BW-Product	3.2
Timing Scheme	STE*
Mixing Time	1060 us
FFT Scale	10
Calculate FlipMap	On
HDR DICOMs	Off
STE<->FID Spoiler	Off
Scale risetime	1.20

Mode	Off	

# \\USER\FE\TravelingSpine\_Run\Phantom\_2023\_07\_10\Dream2D\_sag\_2p5mmISO\_mediumFOV\_Ref VolOpt\_0p66\_272

TA: 1:08 PM: FIX Voxel size: 2.5×2.5×2.5 mmPAT: Off Rel. SNR: 1.00 : 30e5ea5

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further	Off
preparation	
Wait for user to start	Off
Start measurements	Single measurement

#### Routine

Slice group	1	
Slices	11	
Dist. factor	0 %	
Position	R7.1 A46.8 F22.4 mm	
Orientation	Sagittal	
Phase enc. dir.	A >> P	
AutoAlign		
FoV read	200 mm	
FoV phase	100.0 %	
Slice thickness	2.5 mm	
TR	6000 ms	
TE 1	2.04 ms	
TE 2	3.10 ms	
Averages	1	
Concatenations	11	
Filter	None	
Coil elements	A01-08;D09-16;E17-20;H21	1-2

#### **Contrast - Common**

TR	6000 ms
TE 1	2.04 ms
TE 2	3.10 ms
Flip angle 1	50 deg
Flip angle 2	6 deg

#### **Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1

#### **Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
Base resolution	80
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

# Resolution - iPAT

PAT mode	None

#### **Resolution - Filter Image**

Image Filter	Off	
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#### **Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	

# **Geometry - Common**

Slice group	1
Slices	11
Dist. factor	0 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	6000 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	11

# Geometry - AutoAlign

Slice group	1
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	R7.1 A46.8 F0.4
R	7.1 mm
Α	46.8 mm
F	0.4 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

# **System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	22 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

# System - Adjust Volume

! Position	R6.4 A51.1 F25.9 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	205 mm
! R >> L	35 mm
! F >> H	205 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	272.000 V

# Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Multi-slice mode	Sequential
Bandwidth	1010 Hz/Px

# Sequence - Part 2

Echo train duration	386 ms
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Turbo factor	80

# Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	A01-08;D09-16;E17-20;H21-24

# Sequence - Special

Preparation scans	2
Preparation loops	0
Sample T1	2000 ms
RF-Duration	800 us
Prep RF-Duration	400 us
Time-BW-Product	3.2
Timing Scheme	STE*
Mixing Time	1060 us
FFT Scale	10
Calculate FlipMap	On
HDR DICOMs	Off
STE<->FID Spoiler	Off
Scale risetime	1.20

Mode	Off	

# \\USER\FE\TravelingSpine\_Run\Phantom\_2023\_07\_10\Dream2D\_sag\_2p5mmISO\_mediumFOV\_Ref VolOpt\_1p5\_612

TA: 1:08 PM: FIX Voxel size: 2.5×2.5×2.5 mmPAT: Off Rel. SNR: 1.00 : 30e5ea5

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further	Off
preparation	
Wait for user to start	Off
Start measurements	Single measurement

#### Routine

Slice group	1
Slices	11
Dist. factor	0 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	6000 ms
TE 1	2.04 ms
TE 2	3.10 ms
Averages	1
Concatenations	11
Filter	None
Coil elements	A01-08;D09-16;E17-20;H

#### **Contrast - Common**

TR	6000 ms
TE 1 TE 2	2.04 ms
TE 2	3.10 ms
Flip angle 1	50 deg
Flip angle 2	6 deg

# **Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1

#### **Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
Base resolution	80
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None

# **Resolution - Filter Image**

Image Filter	Off	
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#### **Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	

# **Geometry - Common**

Slice group	1
Slices	11
Dist. factor	0 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	6000 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	11

#### **Geometry - AutoAlign**

Slice group	1
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	R7.1 A46.8 F0.4
R	7.1 mm
A	46.8 mm
F	0.4 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

# **System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	22 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

# System - Adjust Volume

! Position	R6.4 A51.1 F25.9 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	205 mm
! R >> L	35 mm
! F >> H	205 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	612.000 V

# Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Multi-slice mode	Sequential
Bandwidth	1010 Hz/Px

# Sequence - Part 2

Echo train duration	386 ms
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Turbo factor	80

# Sequence - Nuclei

TX/RX Nucleus	1H	
TX/RX delta frequency	0 Hz	
TX Nucleus	None	
TX delta frequency	0 Hz	
Coil elements	A01-08;D09-16;E17-20;H	21-24

# Sequence - Special

Preparation scans	2
Preparation loops	0
Sample T1	2000 ms
RF-Duration	800 us
Prep RF-Duration	400 us
Time-BW-Product	3.2
Timing Scheme	STE*
Mixing Time	1060 us
FFT Scale	10
Calculate FlipMap	On
HDR DICOMs	Off
STE<->FID Spoiler	Off
Scale risetime	1.20

Mode	Off	

# \\USER\FE\TravelingSpine\_Run\Phantom\_2023\_07\_10\coilQA\_sag\_FH\_1p5x1p5x2mm\_largeFOV

TA: 3:20 PM: FIX Voxel size: 1.5×1.5×2.0 mmRel. SNR: 1.00 : fl

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

#### **Routine**

Slice group	1
Slices	13
Dist. factor	20 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	H >> F
AutoAlign	
Phase oversampling	0 %
FoV read	384 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	30.0 ms
TE	6.0 ms
Averages	2
Concatenations	13
Filter	None
Coil elements	A01-08;D09-16;E17-20;H21-2

#### **Contrast - Common**

TR	30.0 ms
TE	6.0 ms
TD	0 ms
MTC	Off
Flip angle	12 deg
Fat suppr.	None
Water suppr.	None

#### **Contrast - Dynamic**

Averages	2
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

#### **Resolution - Common**

FoV read	384 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - Filter Image**

	=	
Image Filter	Off	
Distortion Corr.	Off	

#### **Resolution - Filter Image**

Prescan Normalize	Off
Normalize	Off
B1 filter	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

# **Geometry - Common**

Slice group	1
Slices	13
Dist. factor	20 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	H >> F
FoV read	384 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	30.0 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	13

# Geometry - AutoAlign

	Slice group	1
	Position	R7.1 A46.8 F22.4 mm
	Orientation	Sagittal
	Phase enc. dir.	H >> F
	AutoAlign	
,	Initial Position	R7.1 A46.8 F0.4
	R	7.1 mm
	A	46.8 mm
	F	0.4 mm
	Initial Rotation	90.00 deg
	Initial Orientation	Sagittal

# **Geometry - Saturation**

Fat suppr.	None
Water suppr.	None
Special sat.	None

#### **System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	22 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off

# System - Adjustments

Assume Silicone	Off
Adjustment Tolerance	Auto

# **System - Adjust Volume**

! Position	R0.8 A25.9 F47.8 mm
! Orientation	Sagittal
! Rotation	73.78 deg
! F >> H	199 mm
! A >> P	68 mm
! R >> L	32 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	408.000 V

# Physio - Signal1

1st Signal/Mode	None
TR	30.0 ms
Concatenations	13

# Sequence - Part 1

Introduction	Off
Dimension	2D
Contrasts	1
Multi-slice mode	Sequential
Bandwidth	200 Hz/Px

# Sequence - Part 2

Gradient mode	Fast
RF spoiling	On

# Sequence - Nuclei

TX/RX Nucleus	1H	
TX/RX delta frequency	0 Hz	
TX Nucleus	None	
TX delta frequency	0 Hz	
Coil elements	A01-08;D09-16;E17-20;H21-2	24

# Sequence - Special

ICE program	IceProgramCoilUtils
Prep. scans duration	0 ms
Optimal SNR	On
GFactor	On
Rx coil diode switching	On

Mode	Off

# $\verb|\USER|FE|TravelingSpine_Run|Phantom_2023_07_10| coilQA\_sag_FH\_1p5x1p5x2mm\_smallFOV| | CoilQA\_sag_FH_1p5x1p5x2mm\_smallFOV| | CoilQA\_sag_FH_1p5x1p5x2mm\_smallFOV| | CoilQA\_sag_FH_1p5x1p5x2mm_smallFOV| | CoilQA\_sag_FH_1p5x2mm_smallFOV| | CoilQA\_sag_FH_1p5x2mm_smallFOV| | CoilQA\_sag_FH_1p5x2mm_smallFOV| | CoilQA\_sag_FH_1p5x2mm_smallFOV| | CoilQA\_sag_FH_1p5x2mm_smallFOV| | CoilQA\_sag_FH_1p5x2mm_smallFOV| | Coil$

TA: 1:40 PM: FIX Voxel size: 1.5×1.5×2.0 mmRel. SNR: 1.00 : fl

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

# Routine

Slice group	1
Slices	13
Dist. factor	20 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	H >> F
AutoAlign	
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	30.0 ms
TE	6.0 ms
Averages	2
Concatenations	13
Filter	None
Coil elements	A01-08;D09-16;E17-20;H21

#### **Contrast - Common**

TR	30.0 ms
TE	6.0 ms
TD	0 ms
MTC	Off
Flip angle	12 deg
Fat suppr.	None
Water suppr.	None

#### **Contrast - Dynamic**

Averages	2
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

#### **Resolution - Common**

FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - Filter Image**

	=	
Image Filter	Off	
Distortion Corr.	Off	

#### **Resolution - Filter Image**

Prescan Normalize	Off
Normalize	Off
B1 filter	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	

#### **Geometry - Common**

Slice group	1
Slices	13
Dist. factor	20 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	H >> F
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	30.0 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	13

#### **Geometry - AutoAlign**

Slice group	1
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	H >> F
AutoAlign	
Initial Position	R7.1 A46.8 F0.4
TR	7.1 mm
Α	46.8 mm
F	0.4 mm
Initial Rotation	90.00 deg
Initial Orientation	Sagittal
-	

#### **Geometry - Saturation**

Fat suppr.	None
Water suppr.	None
Special sat.	None

#### **System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	22 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off

# System - Adjustments

Assume Silicone	Off
Adjustment Tolerance	Auto

# **System - Adjust Volume**

! Position	R0.8 A25.9 F47.8 mm
! Orientation	Sagittal
! Rotation	73.78 deg
! F >> H	199 mm
! A >> P	68 mm
! R >> L	32 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	408.000 V

# Physio - Signal1

1st Signal/Mode	None
TR	30.0 ms
Concatenations	13

# Sequence - Part 1

Introduction	Off
Dimension	2D
Contrasts	1
Multi-slice mode	Sequential
Bandwidth	200 Hz/Px

# Sequence - Part 2

Gradient mode	Fast
RF spoiling	On

# Sequence - Nuclei

TX/RX Nucleus	1H	
TX/RX delta frequency	0 Hz	
TX Nucleus	None	
TX delta frequency	0 Hz	
Coil elements	A01-08;D09-16;E17-20;H	21-24

# Sequence - Special

ICE program	IceProgramCoilUtils
Prep. scans duration	0 ms
Optimal SNR	On
GFactor	On
Rx coil diode switching	On

Mode	Off

# \\USER\FE\TravelingSpine\_Run\Phantom\_2023\_07\_10\coilQA\_tra\_RL\_0p5x0p5x5mm

TA: 2:41 PM: FIX Voxel size: 0.5×0.5×5.0 mmRel. SNR: 1.00 : fl

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further	Off
preparation	
Wait for user to start	Off
Start measurements	Single measurement

# Routine

Slice group	1
Slices	7
Dist. factor	300 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Transversal
Phase enc. dir.	R >> L
AutoAlign	
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	30.0 ms
TE	6.0 ms
Averages	2
Concatenations	7
Filter	None
Coil elements	A01-08;D09-16;E17-20;H21-2

#### **Contrast - Common**

TR	30.0 ms
TE	6.0 ms
TD	0 ms
MTC	Off
Flip angle	12 deg
Fat suppr.	None
Water suppr.	None

# **Contrast - Dynamic**

Averages	2
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

#### **Resolution - Common**

FoV read	192 mm	
FoV phase	100.0 %	
Slice thickness	5.0 mm	
Base resolution	384	
Phase resolution	100 %	
Phase partial Fourier	Off	
Interpolation	Off	

#### **Resolution - Filter Image**

	=	
Image Filter	Off	
Distortion Corr.	Off	

#### **Resolution - Filter Image**

Prescan Normalize	Off
Normalize	Off
B1 filter	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

#### **Geometry - Common**

Slice group	1
Slices	7
Dist. factor	300 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Transversal
Phase enc. dir.	R >> L
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	30.0 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	7

#### Geometry - AutoAlign

	, ,	
I	Slice group	1
	Position	R7.1 A46.8 F22.4 mm
	Orientation	Transversal
	Phase enc. dir.	R >> L
	AutoAlign	
,	Initial Position	R7.1 A46.8 F0.4
- 1	R	7.1 mm
	A	46.8 mm
	F	0.4 mm
	Initial Rotation	90.00 deg
	Initial Orientation	Transversal

# **Geometry - Saturation**

Fat suppr.	None
Water suppr.	None
Special sat.	None

# **System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	22 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off

# System - Adjustments

Assume Silicone	Off
Adjustment Tolerance	Auto

# **System - Adjust Volume**

! Position	R0.8 A25.9 F47.8 mm
! Orientation	Sagittal
! Rotation	73.78 deg
! F >> H	199 mm
! A >> P	68 mm
! R >> L	32 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	408.000 V

# Physio - Signal1

1st Signal/Mode	None
TR	30.0 ms
Concatenations	7

# Sequence - Part 1

Introduction	Off
Dimension	2D
Contrasts	1
Multi-slice mode	Sequential
Bandwidth	200 Hz/Px

# Sequence - Part 2

Gradient mode	Fast
RF spoiling	On

# Sequence - Nuclei

TX/RX Nucleus	1H	
TX/RX delta frequency	0 Hz	
TX Nucleus	None	
TX delta frequency	0 Hz	
Coil elements	A01-08;D09-16;E17-20;H	21-24

# Sequence - Special

ICE program	IceProgramCoilUtils
Prep. scans duration	0 ms
Optimal SNR	On
GFactor	On
Rx coil diode switching	On

Mode	Off

# \\USER\FE\TravelingSpine\_Run\Phantom\_2023\_07\_10\gre\_2mmlSO\_multichannel\_uncomb

TA: 1:21 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off Rel. SNR: 1.00 : fl

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

# Routine

Slice group	1	
Slices	44	
Dist. factor	0 %	
Position	R7.1 A46.8 F22.4 mm	
Orientation	Sagittal	
Phase enc. dir.	A >> P	
AutoAlign		
Phase oversampling	0 %	
FoV read	384 mm	
FoV phase	75.0 %	
Slice thickness	2.0 mm	
TR	550.0 ms	
TE	3.80 ms	
Averages	1	
Concatenations	1	
Filter	Distortion Corr.(3D)	
Coil elements	A01-08;D09-16;E17-20;H2 <sup>2</sup>	1-2

#### **Contrast - Common**

TR	550.0 ms
TE	3.80 ms
MTC	Off
Magn. preparation	None
Flip angle	30 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

#### **Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

#### **Resolution - Common**

FoV read	384 mm
FoV phase	75.0 %
Slice thickness	2.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None

#### **Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	On
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	

# **Geometry - Common**

Slice group	1
Slices	44
Dist. factor	0 %
Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	384 mm
FoV phase	75.0 %
Slice thickness	2.0 mm
TR	550.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

#### **Geometry - AutoAlign**

S	lice group	1
	Position	R7.1 A46.8 F22.4 mm
7	Orientation	Sagittal
	Phase enc. dir.	A >> P
Α	utoAlign	
Ir	itial Position	R7.1 A46.8 F0.4
R		7.1 mm
Α		46.8 mm
F		0.4 mm
Ir	itial Rotation	0.00 deg
Ir	itial Orientation	Sagittal

# **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None
Water suppr.	None
Special sat.	None

# **Geometry - Tim CT**

Tim CT mode	Off
Slices	44
Slice thickness	2.0 mm
Dist. factor	0 %
FoV read	384 mm
FoV phase	75.0 %
Segments	1

# **System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	22 mm
MSMA	S - C - T

#### **System - Miscellaneous**

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	On
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

# **System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

# **System - Adjust Volume**

Position	R7.1 A46.8 F22.4 mm
Orientation	Sagittal
Rotation	0.00 deg
A >> P F >> H R >> L	288 mm
F >> H	384 mm
R >> L	88 mm
Reset	Off

# System - Tx/Rx

Frequency 1H	297.192998 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	408.000 V

# Physio - Signal1

1st Signal/Mode	None
TR	550.0 ms
Concatenations	1
Segments	1

# Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	384 mm
FoV phase	75.0 %
Phase resolution	100 %

# **Physio - PACE**

Resp. control	Off
Concatenations	1

#### **Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

#### Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off

#### Inline - MIP

MIP-Time	Off
Save original images	On

# Inline - Soft Tissue

Wash - In	Off
Wash - Out	Off
TTP	Off
TTP PEI	Off
MIP - time	Off
Measurements	1

# **Inline - Composing**

Distortion Corr.	On	
Mode	3D	
Unfiltered images	On	

# Sequence - Part 1

Introduction	On
Dimension	2D
Phase stabilisation	On
Asymmetric echo	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	320 Hz/Px

# Sequence - Part 2

Segments	1
Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On

# Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	A01-08;D09-16;E17-20;H21-2

Mode	Off
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