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\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\I-cervical_localizer *

TA: 17 sec Coil Selection: Auto Voxel Size: 0.6×0.6×6.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	300 %
Position	R6.1 A6.5 H5.4 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	R6.1 A6.5 H5.4 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
AutoAlign	---

Contrast - Common

TR	7.8 ms
TE	3.69 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration Mode	None
Deep Resolve	Off
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	300 %
Position	R6.1 A6.5 H5.4 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	R6.1 A6.5 H5.4 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	8

Geometry - AutoAlign

Slice Group	1
Position	R6.1 A6.5 H5.4 mm

Geometry - AutoAlign

Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	R6.1 A6.5 H5.4 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	R6.1 A6.5 H5.4
R	6.1 mm
A	6.5 mm
H	5.4 mm
Initial Orientation	Coronal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	1 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	
Composing Group	1
Last Step	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal

System - Adjust Volume

Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slice-sel.
LR Balancing	Off

System - Tx/Rx

Frequency 1H	123.254256 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.8 ms
Segments	1
Concatenations	8

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	300 mm
FOV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	8

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off

Inline - MIP

MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Composing Group	1
Last Step	Off
Series Description	

Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	3.69 ms
TR	7.8 ms
Save Original Images	On

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	320 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\rest *

TA: 5:48 min Coil Selection: Auto Voxel Size: 1.0×1.0×3.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	2500.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	80 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	137
Delay in TR	0.00 ms

Resolution - Common

FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
Base Resolution	128

Resolution - Common

Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	None
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	Off
Static Field Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L12.8 P0.2 F53.7
L	12.8 mm
P	0.2 mm
F	53.7 mm
Initial Orientation	T > C
T > C	15.00
> S	0.00
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	54 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Advanced
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	44 mm
R >> L	128 mm
F >> H	93 mm
Reset	Off
Couple to	Acquisition Volume

System - pTx

B1 Shim	TrueForm
Excitation	ZOOMit
pTx Pulse	1
pTx Acceleration	1.0
pTx Volume	1
Vol. Property	Optimization Vol.
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	250 mm
R >> L	128 mm
F >> H	93 mm
Vol. Visibility	On

System - Tx/Rx

Frequency 1H	123.254256 MHz
? Ref. Amplitude 1H	0.000 V

System - Tx/Rx

Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2500.0 ms
Log Signals	Off
Concatenations	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
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
Measurements	137
Delay in TR	0.00 ms

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	epfid
Excitation	ZOOMit
RF Pulse Type	Normal
Gradient Mode	Performance
Bandwidth	1028 Hz/Px
Echo Spacing	1.10 ms
Free Echo Spacing	Off
EPI Factor	44

Sequence - Part 2

Introduction	Off
Ghost Reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\rightmiddle *

TA: 5:48 min Coil Selection: Auto Voxel Size: 1.0×1.0×3.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	2500.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	80 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	137
Delay in TR	0.00 ms

Resolution - Common

FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
Base Resolution	128

Resolution - Common

Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	None
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	Off
Static Field Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L12.8 P0.2 F53.7
L	12.8 mm
P	0.2 mm
F	53.7 mm
Initial Orientation	T > C
T > C	15.00
> S	0.00
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	54 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Advanced
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	44 mm
R >> L	128 mm
F >> H	93 mm
Reset	Off
Couple to	Acquisition Volume

System - pTx

B1 Shim	TrueForm
Excitation	ZOOMit
pTx Pulse	1
pTx Acceleration	1.0
pTx Volume	1
Vol. Property	Optimization Vol.
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	250 mm
R >> L	128 mm
F >> H	93 mm
Vol. Visibility	On

System - Tx/Rx

Frequency 1H	123.254256 MHz
? Ref. Amplitude 1H	0.000 V

System - Tx/Rx

Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2500.0 ms
Log Signals	Off
Concatenations	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
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
Measurements	137
Delay in TR	0.00 ms

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	epfid
Excitation	ZOOMit
RF Pulse Type	Normal
Gradient Mode	Performance
Bandwidth	1028 Hz/Px
Echo Spacing	1.10 ms
Free Echo Spacing	Off
EPI Factor	44

Sequence - Part 2

Introduction	Off
Ghost Reduction	Off

Sequence - Assistant

SAR Assistant	Off

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TA: 5:48 min Coil Selection: Auto Voxel Size: 1.0×1.0×3.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	2500.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	80 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	137
Delay in TR	0.00 ms

Resolution - Common

FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
Base Resolution	128

Resolution - Common

Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	None
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	Off
Static Field Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L12.8 P0.2 F53.7
L	12.8 mm
P	0.2 mm
F	53.7 mm
Initial Orientation	T > C
T > C	15.00
> S	0.00
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	54 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Advanced
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	44 mm
R >> L	128 mm
F >> H	93 mm
Reset	Off
Couple to	Acquisition Volume

System - pTx

B1 Shim	TrueForm
Excitation	ZOOMit
pTx Pulse	1
pTx Acceleration	1.0
pTx Volume	1
Vol. Property	Optimization Vol.
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	250 mm
R >> L	128 mm
F >> H	93 mm
Vol. Visibility	On

System - Tx/Rx

Frequency 1H	123.254256 MHz
? Ref. Amplitude 1H	0.000 V

System - Tx/Rx

Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2500.0 ms
Log Signals	Off
Concatenations	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
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
Measurements	137
Delay in TR	0.00 ms

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	epfid
Excitation	ZOOMit
RF Pulse Type	Normal
Gradient Mode	Performance
Bandwidth	1028 Hz/Px
Echo Spacing	1.10 ms
Free Echo Spacing	Off
EPI Factor	44

Sequence - Part 2

Introduction	Off
Ghost Reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\rightthumb *

TA: 5:48 min Coil Selection: Auto Voxel Size: 1.0×1.0×3.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	2500.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	80 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	137
Delay in TR	0.00 ms

Resolution - Common

FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
Base Resolution	128

Resolution - Common

Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	None
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	Off
Static Field Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L12.8 P0.2 F53.7
L	12.8 mm
P	0.2 mm
F	53.7 mm
Initial Orientation	T > C
T > C	15.00
> S	0.00
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	54 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Advanced
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	44 mm
R >> L	128 mm
F >> H	93 mm
Reset	Off
Couple to	Acquisition Volume

System - pTx

B1 Shim	TrueForm
Excitation	ZOOMit
pTx Pulse	1
pTx Acceleration	1.0
pTx Volume	1
Vol. Property	Optimization Vol.
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	250 mm
R >> L	128 mm
F >> H	93 mm
Vol. Visibility	On

System - Tx/Rx

Frequency 1H	123.254256 MHz
? Ref. Amplitude 1H	0.000 V

System - Tx/Rx

Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2500.0 ms
Log Signals	Off
Concatenations	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
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
Measurements	137
Delay in TR	0.00 ms

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	epfid
Excitation	ZOOMit
RF Pulse Type	Normal
Gradient Mode	Performance
Bandwidth	1028 Hz/Px
Echo Spacing	1.10 ms
Free Echo Spacing	Off
EPI Factor	44

Sequence - Part 2

Introduction	Off
Ghost Reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\leftmiddle *

TA: 5:48 min Coil Selection: Auto Voxel Size: 1.0×1.0×3.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	2500.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	80 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	137
Delay in TR	0.00 ms

Resolution - Common

FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
Base Resolution	128

Resolution - Common

Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	None
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	Off
Static Field Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L12.8 P0.2 F53.7
L	12.8 mm
P	0.2 mm
F	53.7 mm
Initial Orientation	T > C
T > C	15.00
> S	0.00
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	54 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Advanced
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	44 mm
R >> L	128 mm
F >> H	93 mm
Reset	Off
Couple to	Acquisition Volume

System - pTx

B1 Shim	TrueForm
Excitation	ZOOMit
pTx Pulse	1
pTx Acceleration	1.0
pTx Volume	1
Vol. Property	Optimization Vol.
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	250 mm
R >> L	128 mm
F >> H	93 mm
Vol. Visibility	On

System - Tx/Rx

Frequency 1H	123.254256 MHz
? Ref. Amplitude 1H	0.000 V

System - Tx/Rx

Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2500.0 ms
Log Signals	Off
Concatenations	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
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
Measurements	137
Delay in TR	0.00 ms

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	epfid
Excitation	ZOOMit
RF Pulse Type	Normal
Gradient Mode	Performance
Bandwidth	1028 Hz/Px
Echo Spacing	1.10 ms
Free Echo Spacing	Off
EPI Factor	44

Sequence - Part 2

Introduction	Off
Ghost Reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\rightpinky *

TA: 5:48 min Coil Selection: Auto Voxel Size: 1.0×1.0×3.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	2500.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	80 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	137
Delay in TR	0.00 ms

Resolution - Common

FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
Base Resolution	128

Resolution - Common

Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	None
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	Off
Static Field Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L12.8 P0.2 F53.7
L	12.8 mm
P	0.2 mm
F	53.7 mm
Initial Orientation	T > C
T > C	15.00
> S	0.00
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	54 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Advanced
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	44 mm
R >> L	128 mm
F >> H	93 mm
Reset	Off
Couple to	Acquisition Volume

System - pTx

B1 Shim	TrueForm
Excitation	ZOOMit
pTx Pulse	1
pTx Acceleration	1.0
pTx Volume	1
Vol. Property	Optimization Vol.
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	250 mm
R >> L	128 mm
F >> H	93 mm
Vol. Visibility	On

System - Tx/Rx

Frequency 1H	123.254256 MHz
? Ref. Amplitude 1H	0.000 V

System - Tx/Rx

Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2500.0 ms
Log Signals	Off
Concatenations	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
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
Measurements	137
Delay in TR	0.00 ms

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	epfid
Excitation	ZOOMit
RF Pulse Type	Normal
Gradient Mode	Performance
Bandwidth	1028 Hz/Px
Echo Spacing	1.10 ms
Free Echo Spacing	Off
EPI Factor	44

Sequence - Part 2

Introduction	Off
Ghost Reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\leftthumb *

TA: 5:48 min Coil Selection: Auto Voxel Size: 1.0×1.0×3.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	2500.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	80 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	137
Delay in TR	0.00 ms

Resolution - Common

FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
Base Resolution	128

Resolution - Common

Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	None
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	Off
Static Field Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	31
Distance Factor	0 %
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FOV Read	128 mm
FOV Phase	34.4 %
Slice Thickness	3.0 mm
TR	2500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L12.8 P0.2 F53.7
L	12.8 mm
P	0.2 mm
F	53.7 mm
Initial Orientation	T > C
T > C	15.00
> S	0.00
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	54 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Advanced
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	44 mm
R >> L	128 mm
F >> H	93 mm
Reset	Off
Couple to	Acquisition Volume

System - pTx

B1 Shim	TrueForm
Excitation	ZOOMit
pTx Pulse	1
pTx Acceleration	1.0
pTx Volume	1
Vol. Property	Optimization Vol.
Position	L12.8 P0.2 F53.7 mm
Orientation	T > C15.0
Rotation	0.00 deg
A >> P	250 mm
R >> L	128 mm
F >> H	93 mm
Vol. Visibility	On

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V

System - Tx/Rx

Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2500.0 ms
Log Signals	Off
Concatenations	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
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
Measurements	137
Delay in TR	0.00 ms

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	epfid
Excitation	ZOOMit
RF Pulse Type	Normal
Gradient Mode	Performance
Bandwidth	1028 Hz/Px
Echo Spacing	1.10 ms
Free Echo Spacing	Off
EPI Factor	44

Sequence - Part 2

Introduction	Off
Ghost Reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\I-III_localizer *

TA: 17 sec Coil Selection: Auto Voxel Size: 0.6×0.6×6.0 mm³ Acc:: None Rel. SNR: 1.00 | Substep: 1/3

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	300 %
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
AutoAlign	---

Contrast - Common

TR	7.8 ms
TE	3.69 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration Mode	None
Deep Resolve	Off
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	300 %
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	8

Geometry - AutoAlign

Slice Group	1
Position	R6.1 A10.1 H47.7 mm

Geometry - AutoAlign

Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	R6.1 A10.1 H47.7
R	6.1 mm
A	10.1 mm
H	47.7 mm
Initial Orientation	Coronal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	20 mm
Table Position	H
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg

System - Adjust Volume

A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slice-sel.
LR Balancing	Off

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.8 ms
Segments	1
Concatenations	8

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	300 mm
FOV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	8

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off

Inline - MIP

MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	3.69 ms
TR	7.8 ms
Save Original Images	On

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	320 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\I-III_localizer *

TA: 17 sec Coil Selection: Auto Voxel Size: 0.6×0.6×6.0 mm³ Acc:: None Rel. SNR: 1.00 | Substep: 2/3

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
AutoAlign	---

Contrast - Common

TR	7.8 ms
TE	3.69 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration Mode	None
Deep Resolve	Off
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	8

Geometry - AutoAlign

Slice Group	1
Position	L0.0 P13.2 F222.9 mm

Geometry - AutoAlign

Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	249 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg

System - Adjust Volume

A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slice-sel.
LR Balancing	Off

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.8 ms
Segments	1
Concatenations	8

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	300 mm
FOV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	8

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off

Inline - MIP

MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	3.69 ms
TR	7.8 ms
Save Original Images	On

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	320 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\I-III_localizer *

TA: 17 sec Coil Selection: Auto Voxel Size: 0.6×0.6×6.0 mm³ Acc:: None Rel. SNR: 1.00 | Substep: 3/3

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
AutoAlign	---

Contrast - Common

TR	7.8 ms
TE	3.69 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration Mode	None
Deep Resolve	Off
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	8

Geometry - AutoAlign

Slice Group	1
Position	L0.0 P41.4 F488.1 mm

Geometry - AutoAlign

Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	516 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg

System - Adjust Volume

A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slice-sel.
LR Balancing	Off

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.8 ms
Segments	1
Concatenations	8

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	300 mm
FOV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	8

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off

Inline - MIP

MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	3.69 ms
TR	7.8 ms
Save Original Images	On

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	320 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_3bed *

TA: 6:39 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 4.0 Rel. SNR: 1.00 | Substep: 1/3

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L14.6 A0.8 F55.1 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	4.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L14.6 A0.8 F55.1 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L14.6 A0.8 F55.1 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L14.6 A0.8 F55.1

Geometry - AutoAlign

L	14.6 mm
A	0.8 mm
F	55.1 mm
Initial Orientation	Sagittal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	55 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L14.6 A0.8 F55.1 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	256 mm
A >> P	256 mm
R >> L	103 mm
Reset	Off

System - pTx

B1 Shim	TrueForm

System - pTx

Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	100.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_3bed *

TA: 6:39 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 4.0 Rel. SNR: 1.00 | Substep: 2/3

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L7.0 A2.8 F303.8 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	4.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L7.0 A2.8 F303.8 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L7.0 A2.8 F303.8 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	304 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L7.0 A2.8 F303.8 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	256 mm
A >> P	256 mm
R >> L	103 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	100.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_3bed *

TA: 7:21 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 4.0 Rel. SNR: 1.00 | Substep: 3/3

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L18.8 A4.3 F548.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	4.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L18.8 A4.3 F548.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L18.8 A4.3 F548.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	548 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L18.8 A4.3 F548.3 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	256 mm
A >> P	256 mm
R >> L	116 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	100.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_cs25 *

TA: 1:29 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 25.0 Rel. SNR: 1.00 | Substep: 1/3

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L3.6 A0.8 F56.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	25.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L3.6 A0.8 F56.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L3.6 A0.8 F56.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L3.6 A0.8 F56.7

Geometry - AutoAlign

L	3.6 mm
A	0.8 mm
F	56.7 mm
Initial Orientation	Sagittal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	57 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L3.6 A0.8 F56.7 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	256 mm
A >> P	256 mm
R >> L	103 mm
Reset	Off

System - pTx

B1 Shim	TrueForm

System - pTx

Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	100.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_cs25 *

TA: 1:29 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 25.0 Rel. SNR: 1.00 | Substep: 2/3

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	R0.8 A2.8 F304.6 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	25.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	R0.8 A2.8 F304.6 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	R0.8 A2.8 F304.6 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	305 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	R0.8 A2.8 F304.6 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	256 mm
A >> P	256 mm
R >> L	103 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	100.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_cs25 *

TA: 1:35 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 25.0 Rel. SNR: 1.00 | Substep: 3/3

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L5.6 A4.3 F548.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	25.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L5.6 A4.3 F548.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L5.6 A4.3 F548.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	548 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L5.6 A4.3 F548.3 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	256 mm
A >> P	256 mm
R >> L	116 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	100.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_clinical_c-spine *

TA: 1:47 min Coil Selection: Auto Voxel Size: 0.6×0.6×3.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	34
Distance Factor	10 %
Position	L0.5 A0.8 F56.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Phase Oversampling	80 %
FOV Read	220 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	3500.0 ms
TE	106.00 ms
Averages	1
Concatenations	2
AutoAlign	---

Contrast - Common

TR	3500.0 ms
TE	106.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	160 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FOV Read	220 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	384
Phase Resolution	70 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	47
Deep Resolve	Off
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	On

Geometry - Common

Slice Group	1
Slices	34
Distance Factor	10 %
Position	L0.5 A0.8 F56.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Phase Oversampling	80 %
FOV Read	220 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	3500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Geometry - AutoAlign

Slice Group	1
Position	L0.5 A0.8 F56.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L0.5 A0.8 F56.7
L	0.5 mm
A	0.8 mm
F	56.7 mm
Initial Orientation	Sagittal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Saturation Region	1
Thickness	80.00 mm
Position	L4.8 A76.6 F74.8 mm
Orientation	C > T-8.4
Shape	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	57 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS Restricted
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
LR Balancing	Off

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3500.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	220 mm
FOV Phase	100.0 %
Phase Resolution	70 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	tseR_rr
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	Read
Bandwidth	260 Hz/Px
Echo Spacing	9.62 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	19
Echo Trains per Slice	14

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	130 deg
Max. TR	4000.0 ms
Allowed Delay	60 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_stir_BP *

TA: 3:43 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 3.0 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	R0.7 P5.4 F80.8 mm
Orientation	C > T-11.4
Phase Encoding Dir.	F >> H
Slices per Slab	120
Phase Oversampling	20 %
Slice Oversampling	33.3 %
FOV Read	260 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	2300.0 ms
TE	176.00 ms
Averages	1.0
Concatenations	1
AutoAlign	---

Contrast - Common

TR	2300.0 ms
TE	176.00 ms
MTC	Off
Magn. Preparation	Non-sel. IR
TI 1	230 ms
Flip Angle Mode	T2 Var
Flip Angle 1	120 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Body
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1

Contrast - Dynamic

Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FOV Read	260 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	3.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	On

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	R0.7 P5.4 F80.8 mm
Orientation	C > T-11.4
Phase Encoding Dir.	F >> H
Slices per Slab	120
Phase Oversampling	20 %
Slice Oversampling	33.3 %
FOV Read	260 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	2300.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	R0.7 P5.4 F80.8 mm
Orientation	C > T-11.4
Phase Encoding Dir.	F >> H
AutoAlign	---

Geometry - AutoAlign

Initial Position	R0.7 P5.4 F80.8
R	0.7 mm
P	5.4 mm
F	80.8 mm
Initial Orientation	C > T
C > T	-11.40
> S	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	81 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Advanced
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	R0.7 P5.4 F80.8 mm
Orientation	C > T-11.4
Rotation	90.00 deg
F >> H	260 mm
R >> L	260 mm
A >> P	96 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	2300.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI 1	230 ms
Dark Blood	Off
FOV Read	260 mm
FOV Phase	100.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcir
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Performance

Sequence - Part 1

Flow Compensation	None
Reordering	Linear
Bandwidth	347 Hz/Px
Echo Spacing	5.04 ms
Turbo Factor	150
Echo Train Duration	549 ms

Sequence - Part 2

Introduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_c-spine *

TA: 6:39 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 4.0 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L0.5 A0.8 F56.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	4.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L0.5 A0.8 F56.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L0.5 A0.8 F56.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L0.5 A0.8 F56.7

Geometry - AutoAlign

L	0.5 mm
A	0.8 mm
F	56.7 mm
Initial Orientation	Sagittal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	57 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L0.5 A0.8 F56.7 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	256 mm
A >> P	256 mm
R >> L	103 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V

System - Tx/Rx

Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	100.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px

Sequence - Part 1

Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\I-IV_localizer *

TA: 17 sec Coil Selection: Auto Voxel Size: 0.6×0.6×6.0 mm³ Acc:: None Rel. SNR: 1.00 | Substep: 1/4

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	300 %
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
AutoAlign	---

Contrast - Common

TR	7.8 ms
TE	3.69 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration Mode	None
Deep Resolve	Off
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	300 %
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	8

Geometry - AutoAlign

Slice Group	1
Position	R6.1 A10.1 H47.7 mm

Geometry - AutoAlign

Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	R6.1 A10.1 H47.7 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	R6.1 A10.1 H47.7
R	6.1 mm
A	10.1 mm
H	47.7 mm
Initial Orientation	Coronal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	20 mm
Table Position	H
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg

System - Adjust Volume

A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slice-sel.
LR Balancing	Off

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.8 ms
Segments	1
Concatenations	8

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	300 mm
FOV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	8

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off

Inline - MIP

MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	3.69 ms
TR	7.8 ms
Save Original Images	On

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	320 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\I-IV_localizer *

TA: 17 sec Coil Selection: Auto Voxel Size: 0.6×0.6×6.0 mm³ Acc:: None Rel. SNR: 1.00 | Substep: 2/4

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
AutoAlign	---

Contrast - Common

TR	7.8 ms
TE	3.69 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration Mode	None
Deep Resolve	Off
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	8

Geometry - AutoAlign

Slice Group	1
Position	L0.0 P13.2 F222.9 mm

Geometry - AutoAlign

Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	L0.0 P13.2 F222.9 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	249 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg

System - Adjust Volume

A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slice-sel.
LR Balancing	Off

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.8 ms
Segments	1
Concatenations	8

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	300 mm
FOV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	8

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off

Inline - MIP

MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	3.69 ms
TR	7.8 ms
Save Original Images	On

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	320 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\I-IV_localizer *

TA: 17 sec Coil Selection: Auto Voxel Size: 0.6×0.6×6.0 mm³ Acc:: None Rel. SNR: 1.00 | Substep: 3/4

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
AutoAlign	---

Contrast - Common

TR	7.8 ms
TE	3.69 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration Mode	None
Deep Resolve	Off
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	8

Geometry - AutoAlign

Slice Group	1
Position	L0.0 P41.4 F488.1 mm

Geometry - AutoAlign

Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	L0.0 P41.4 F488.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	516 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg

System - Adjust Volume

A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slice-sel.
LR Balancing	Off

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.8 ms
Segments	1
Concatenations	8

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	300 mm
FOV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	8

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off

Inline - MIP

MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	3.69 ms
TR	7.8 ms
Save Original Images	On

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	320 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\I-IV_localizer *

TA: 17 sec Coil Selection: Auto Voxel Size: 0.6×0.6×6.0 mm³ Acc:: None Rel. SNR: 1.00 | Substep: 4/4

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F738.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F738.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
AutoAlign	---

Contrast - Common

TR	7.8 ms
TE	3.69 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration Mode	None
Deep Resolve	Off
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F738.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	5
Distance Factor	300 %
Position	L0.0 P41.4 F738.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FOV Read	300 mm
FOV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	8

Geometry - AutoAlign

Slice Group	1
Position	L0.0 P41.4 F738.1 mm

Geometry - AutoAlign

Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	L0.0 P41.4 F738.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	766 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg

System - Adjust Volume

A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slice-sel.
LR Balancing	Off

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.8 ms
Segments	1
Concatenations	8

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	300 mm
FOV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	8

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off

Inline - MIP

MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	3.69 ms
TR	7.8 ms
Save Original Images	On

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	320 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_4bed *

TA: 5:20 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 4.0 Rel. SNR: 1.00 | Substep: 1/4

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L3.6 P0.6 F33.0 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	4.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L3.6 P0.6 F33.0 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L3.6 P0.6 F33.0 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L3.6 P0.6 F33.0

Geometry - AutoAlign

L	3.6 mm
P	0.6 mm
F	33.0 mm
Initial Orientation	Sagittal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	33 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L3.6 P0.6 F33.0 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	205 mm
A >> P	256 mm
R >> L	103 mm
Reset	Off

System - pTx

B1 Shim	TrueForm

System - pTx

Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	80.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_4bed *

TA: 5:20 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 4.0 Rel. SNR: 1.00 | Substep: 2/4

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L2.3 A4.4 F226.6 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	4.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L2.3 A4.4 F226.6 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L2.3 A4.4 F226.6 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	227 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L2.3 A4.4 F226.6 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	205 mm
A >> P	256 mm
R >> L	103 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	80.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_4bed *

TA: 5:57 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 4.0 Rel. SNR: 1.00 | Substep: 3/4

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L3.2 A4.3 F416.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	4.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L3.2 A4.3 F416.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L3.2 A4.3 F416.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	417 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L3.2 A4.3 F416.7 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	205 mm
A >> P	256 mm
R >> L	116 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	80.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_4bed *

TA: 5:57 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 4.0 Rel. SNR: 1.00 | Substep: 4/4

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L5.6 A4.3 F609.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	4.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L5.6 A4.3 F609.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L5.6 A4.3 F609.7 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	610 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L5.6 A4.3 F609.7 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	205 mm
A >> P	256 mm
R >> L	116 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	80.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_cs25_4bed *

TA: 1:11 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 25.0 Rel. SNR: 1.00 | Substep: 1/4

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L0.5 A0.1 F23.2 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	25.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L0.5 A0.1 F23.2 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L0.5 A0.1 F23.2 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L0.5 A0.1 F23.2

Geometry - AutoAlign

L	0.5 mm
A	0.1 mm
F	23.2 mm
Initial Orientation	Sagittal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	23 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L0.5 A0.1 F23.2 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	205 mm
A >> P	256 mm
R >> L	103 mm
Reset	Off

System - pTx

B1 Shim	TrueForm

System - pTx

Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	80.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_cs25_4bed *

TA: 1:11 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 25.0 Rel. SNR: 1.00 | Substep: 2/4

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L3.9 A2.8 F219.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	25.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L3.9 A2.8 F219.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	128
Phase Oversampling	80 %
Slice Oversampling	12.5 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L3.9 A2.8 F219.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	219 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L3.9 A2.8 F219.3 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	205 mm
A >> P	256 mm
R >> L	103 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	80.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_cs25_4bed *

TA: 1:20 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 25.0 Rel. SNR: 1.00 | Substep: 3/4

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L4.0 P8.2 F397.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	25.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L4.0 P8.2 F397.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L4.0 P8.2 F397.3 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	397 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L4.0 P8.2 F397.3 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	205 mm
A >> P	256 mm
R >> L	116 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	80.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\Weber_NiLab\DM_R01_Aim2\DM_R01_Aim2\T2w_whole-spine_cs25_4bed *

TA: 1:20 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 25.0 Rel. SNR: 1.00 | Substep: 4/4

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L1.7 P8.2 F589.1 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
TE	121.00 ms
Averages	1.4
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1500.0 ms
TE	121.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	100 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CS
Total Factor	25.0
Reference Scans	Integrated
Reference Lines PE	24
Reference Lines 3D	24
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	L1.7 P8.2 F589.1 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
Slices per Slab	144
Phase Oversampling	80 %
Slice Oversampling	11.1 %
FOV Read	256 mm
FOV Phase	80.0 %
Slice Thickness	0.80 mm
TR	1500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L1.7 P8.2 F589.1 mm
Orientation	Sagittal
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	L8.5 P0.0 H43.1

Geometry - AutoAlign

L	8.5 mm
P	0.0 mm
F	43.1 mm
Initial Orientation	S > T
S > T	-7.40
> C	0.00
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	589 mm
Table Position	F
Disable Voice Commands	Off
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

System - Miscellaneous

Coil Selection	Auto Coil Select
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L1.7 P8.2 F589.1 mm
Orientation	Sagittal
Rotation	90.00 deg
F >> H	205 mm
A >> P	256 mm
R >> L	116 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.254253 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	4.000
Gain	High

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	256 mm
FOV Phase	80.0 %
Phase Resolution	100 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

Inline - Open Recon

Algorithm	None

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Low SAR
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	625 Hz/Px
Echo Spacing	4.24 ms
Turbo Factor	100
Echo Train Duration	322 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s