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\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\headneck\_localizer

\*

TA: 9 sec Coil Selection: Auto Voxel Size: 1.4×1.4×6.0 mm<sup>3</sup> Acc.: 3 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	Off
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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 H50.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 H50.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 H50.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	75.0 %
Slice Thickness	6.0 mm
TR	1400.0 ms
TE	93.00 ms
Averages	1
Concatenations	3
AutoAlign	---
Coil Elements	BO1;HE1-4;NE1,2

**Contrast - Common**

TR	1400.0 ms
TE	93.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	160 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
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**Contrast - Dynamic**

Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	450 mm
FoV Phase	75.0 %
Slice Thickness	6.0 mm
Base Resolution	320
Phase Resolution	80 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	3
Reference Lines PE	36
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 H50.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 H50.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 H50.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	75.0 %
Slice Thickness	6.0 mm
TR	1400.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	3

**Geometry - AutoAlign**

Slice Group	1
Position	L0.0 P30.0 H50.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2

**Geometry - AutoAlign**

Position	L0.0 P30.0 H50.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Position	L0.0 P30.0 H50.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
AutoAlign	---
Initial Position	L0.0 P30.0 H50.0
L	0.0 mm
P	30.0 mm
H	50.0 mm
Initial Orientation	Coronal
Initial Rotation	90.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table Position	50 mm
Table Position	H
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	
Composing Group	1
Last Step	Off

**System - Miscellaneous**

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

**System - Adjustments**

Adjustment Strategy	Standard
B0 Shim	Tune up
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 - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V

**System - Tx/Rx**

Reset	Off
Correction Factor	1.00
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	1400.0 ms
Concatenations	3

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	450 mm
FoV Phase	75.0 %
Phase Resolution	80 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	3

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	93.00 ms
TR	1400.0 ms

**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	Adaptive
Composing Group	1
Last Step	Off
Series Description	

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	651 Hz/Px
Echo Spacing	3.72 ms

### Sequence - Part 1

Turbo Factor	192
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### Sequence - Part 2

Introduction	On
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### Sequence - Assistant

SAR Assistant	Flip Angle
Min Flip Angle	120 deg
Allowed Delay	30 s

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\tho\_localizer \*

TA: 18 sec Coil Selection: Auto Voxel Size: 1.4×1.4×6.0 mm<sup>3</sup> Acc:: 3 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	Off
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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	4
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	75.0 %
Slice Thickness	6.0 mm
TR	1400.0 ms
TE	93.00 ms
Averages	1
Concatenations	3
AutoAlign	---
Coil Elements	BO1,2;HE3,4;NE1,2;SP1,2

**Contrast - Common**

TR	1400.0 ms
TE	93.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	160 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None

**Contrast - Common**

Reconstruction	Magnitude
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**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	450 mm
FoV Phase	75.0 %
Slice Thickness	6.0 mm
Base Resolution	320
Phase Resolution	80 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	3
Reference Lines PE	36
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	4
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	75.0 %
Slice Thickness	6.0 mm
TR	1400.0 ms
Multi-Slice Mode	Single Shot

**Geometry - Common**

Series	Interleaved
Concatenations	3

**Geometry - AutoAlign**

Slice Group	1
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	4
Position	L0.0 P30.0 F160.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
AutoAlign	---
Initial Position	L0.0 P30.0 F160.0
L	0.0 mm
P	30.0 mm
F	160.0 mm
Initial Orientation	Coronal
Initial Rotation	90.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table Position	160 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	
Composing Group	1
Last Step	Off

**System - Miscellaneous**

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

**System - Adjustments**

Adjustment Strategy	Standard
B0 Shim	Tune up
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 - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	1400.0 ms
Concatenations	3

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	450 mm
FoV Phase	75.0 %
Phase Resolution	80 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	3

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	93.00 ms
TR	1400.0 ms

**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	Adaptive
Composing Group	1

**Inline - Composing**

Last Step	Off
Series Description	

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	651 Hz/Px
Echo Spacing	3.72 ms
Turbo Factor	192

**Sequence - Part 2**

Introduction	On
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**Sequence - Assistant**

SAR Assistant	Flip Angle
Min Flip Angle	120 deg
Allowed Delay	30 s

## \\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\abd\_localizer \*

TA: 18 sec Coil Selection: Auto Voxel Size: 1.4×1.4×6.0 mm<sup>3</sup> Acc:: 3 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	Off
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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	4
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	81.3 %
Slice Thickness	6.0 mm
TR	1400.0 ms
TE	93.00 ms
Averages	1
Concatenations	3
AutoAlign	---
Coil Elements	BO1-3;BO1;NE1;SP1-3

**Contrast - Common**

TR	1400.0 ms
TE	93.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	160 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None

**Contrast - Common**

Reconstruction	Magnitude
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**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	450 mm
FoV Phase	81.3 %
Slice Thickness	6.0 mm
Base Resolution	320
Phase Resolution	80 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	3
Reference Lines PE	36
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	4
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	81.3 %
Slice Thickness	6.0 mm
TR	1400.0 ms
Multi-Slice Mode	Single Shot



**Geometry - Common**

Series	Interleaved
Concatenations	3

**Geometry - AutoAlign**

Slice Group	1
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	4
Position	L0.0 P30.0 F320.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
AutoAlign	---
Initial Position	L0.0 P30.0 F320.0
L	0.0 mm
P	30.0 mm
F	320.0 mm
Initial Orientation	Coronal
Initial Rotation	90.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table Position	320 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	
Composing Group	1
Last Step	Off

**System - Miscellaneous**

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

**System - Adjustments**

Adjustment Strategy	Standard
B0 Shim	Tune up
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 - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	1400.0 ms
Concatenations	3

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	450 mm
FoV Phase	81.3 %
Phase Resolution	80 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	3

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	93.00 ms
TR	1400.0 ms

**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	Adaptive
Composing Group	1

**Inline - Composing**

Last Step	Off
Series Description	

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	651 Hz/Px
Echo Spacing	3.72 ms
Turbo Factor	208

**Sequence - Part 2**

Introduction	On
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**Sequence - Assistant**

SAR Assistant	Flip Angle
Min Flip Angle	120 deg
Allowed Delay	30 s

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\pelv\_localizer \*

TA: 9 sec Coil Selection: Auto Voxel Size: 1.4×1.4×6.0 mm<sup>3</sup> Acc.: 3 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	Off
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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F620.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F620.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F620.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	81.3 %
Slice Thickness	6.0 mm
TR	1400.0 ms
TE	93.00 ms
Averages	1
Concatenations	3
AutoAlign	---
Coil Elements	BO3;BO1-3;SP3-5

**Contrast - Common**

TR	1400.0 ms
TE	93.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	160 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1

**Contrast - Dynamic**

Multiple Series	Off
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**Resolution - Common**

FoV Read	450 mm
FoV Phase	81.3 %
Slice Thickness	6.0 mm
Base Resolution	320
Phase Resolution	80 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	3
Reference Lines PE	36
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F620.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F620.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F620.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	81.3 %
Slice Thickness	6.0 mm
TR	1400.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	3

**Geometry - AutoAlign**

Slice Group	1
Position	L0.0 P30.0 F620.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Position	L0.0 P30.0 F620.0 mm
Orientation	Coronal

**Geometry - AutoAlign**

Phase Encoding Dir.	F >> H
Slice Group	3
Position	L0.0 P30.0 F620.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
AutoAlign	---
Initial Position	L0.0 P30.0 F620.0
L	0.0 mm
P	30.0 mm
F	620.0 mm
Initial Orientation	Coronal
Initial Rotation	90.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table Position	620 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	
Composing Group	1
Last Step	Off

**System - Miscellaneous**

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

**System - Adjustments**

Adjustment Strategy	Standard
B0 Shim	Tune up
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 - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00

**System - Tx/Rx**

Image Scaling	1.000
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**Physio - Signal**

1st Signal/Mode	None
TR	1400.0 ms
Concatenations	3

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	450 mm
FoV Phase	81.3 %
Phase Resolution	80 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	3

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	93.00 ms
TR	1400.0 ms

**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	Adaptive
Composing Group	1
Last Step	Off
Series Description	

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	651 Hz/Px
Echo Spacing	3.72 ms
Turbo Factor	208

## Sequence - Part 2

Introduction	On
--------------	----

## Sequence - Assistant

SAR Assistant	Flip Angle
Min Flip Angle	120 deg
Allowed Delay	30 s

## \\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\thigh\_localizer \*

TA: 9 sec Coil Selection: Auto Voxel Size: 1.4×1.4×6.0 mm<sup>3</sup> Acc.: 3 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	Off
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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F920.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F920.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F920.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	81.3 %
Slice Thickness	6.0 mm
TR	1400.0 ms
TE	93.00 ms
Averages	1
Concatenations	3
AutoAlign	---
Coil Elements	BO3;BO1-3;SP3-5

**Contrast - Common**

TR	1400.0 ms
TE	93.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	160 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1

**Contrast - Dynamic**

Multiple Series	Off
-----------------	-----

**Resolution - Common**

FoV Read	450 mm
FoV Phase	81.3 %
Slice Thickness	6.0 mm
Base Resolution	320
Phase Resolution	80 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	3
Reference Lines PE	36
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F920.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F920.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	3
Slices	3
Distance Factor	100 %
Position	L0.0 P30.0 F920.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Phase Oversampling	70 %
FoV Read	450 mm
FoV Phase	81.3 %
Slice Thickness	6.0 mm
TR	1400.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	3

**Geometry - AutoAlign**

Slice Group	1
Position	L0.0 P30.0 F920.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
Slice Group	2
Position	L0.0 P30.0 F920.0 mm
Orientation	Coronal

**Geometry - AutoAlign**

Phase Encoding Dir.	F >> H
Slice Group	3
Position	L0.0 P30.0 F920.0 mm
Orientation	Coronal
Phase Encoding Dir.	F >> H
AutoAlign	---
Initial Position	L0.0 P30.0 F920.0
L	0.0 mm
P	30.0 mm
F	920.0 mm
Initial Orientation	Coronal
Initial Rotation	90.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
--------------------	------

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table Position	920 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	
Composing Group	1
Last Step	On

**System - Miscellaneous**

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

**System - Adjustments**

Adjustment Strategy	Standard
B0 Shim	Tune up
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 - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00

**System - Tx/Rx**

Image Scaling	1.000
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**Physio - Signal**

1st Signal/Mode	None
TR	1400.0 ms
Concatenations	3

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	450 mm
FoV Phase	81.3 %
Phase Resolution	80 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	3

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	93.00 ms
TR	1400.0 ms

**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	Adaptive
Composing Group	1
Last Step	On
Series Description	

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	651 Hz/Px
Echo Spacing	3.72 ms
Turbo Factor	208

## Sequence - Part 2

Introduction	On
--------------	----

## Sequence - Assistant

SAR Assistant	Flip Angle
Min Flip Angle	120 deg
Allowed Delay	30 s



\\Physics tree\Export_archive\Whole_Body_Sola\Whole_body_Sola_7_stations\ep2d_diff_stir_tra_S IAAdj *
TA: 3:51 min Coil Selection: Auto Voxel Size: 1.6×1.6×5.0 mm <sup>3</sup> Acc.: 2 Rel. SNR: 1.00   Substep: 1/7

**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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
TE	71.00 ms
Concatenations	1
AutoAlign	---
Coil Elements	HE1-4;NE2

**Contrast - Common**

TR	5880.0 ms
TE	71.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	180 ms
Fat-Water Contrast	Standard
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Delay in TR	0.00 ms

**Resolution - Common**

FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
Base Resolution	134
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Phase Partial Fourier	7/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R1.3 A7.0 H28.0
R	1.3 mm
A	7.0 mm
H	28.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
--------------------	------

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	28 mm
Table Position	H
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Diffusion
Series Description	composed_DWI

**System - Miscellaneous**

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

**System - Adjustments**

Adjustment Strategy	SliceAdjust
B0 Shim	Whole Body
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**Sequence - Part 1**

Free Echo Spacing	Off
Optimization	None
EPI Factor	108

**Sequence - Part 2**

Introduction	Off
Phase Correction	External

**System - Adjust Volume**

Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	280 mm
A >> P	347 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	3.000

**Physio - Signal**

1st Signal/Mode	None
TR	5880.0 ms
Concatenations	1

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Diff**

Diffusion Mode	3-Scan Trace
Diff. Directions	3
Diffusion Scheme	Bipolar
Diff. Weightings	3
b-value 1	50 s/mm <sup>2</sup>
b-value 2	600 s/mm <sup>2</sup>
b-value 3	900 s/mm <sup>2</sup>
Averages 1	3
Averages 2	3
Averages 3	6
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	0
Noise Masking	Off
Calculated Image	Off

**Sequence - Part 1**

Sequence Name	epir
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1964 Hz/Px
Echo Spacing	0.57 ms

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\ep2d\_diff\_stir\_tra\_S  
IAAdj \*

TA: 3:51 min Coil Selection: Auto Voxel Size: 1.6×1.6×5.0 mm<sup>3</sup> Acc.: 2 Rel. SNR: 1.00 | Substep: 2/7

### 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Routine

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
TE	71.00 ms
Concatenations	1
AutoAlign	---
Coil Elements	BO1;NE1,2;SP1,2

### Contrast - Common

TR	5880.0 ms
TE	71.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	180 ms
Fat-Water Contrast	Standard
Reconstruction	Magnitude

### Contrast - Dynamic

Dynamic Mode	Standard
Delay in TR	0.00 ms

### Resolution - Common

FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
Base Resolution	134
Phase Resolution	100 %
Interpolation	On

### Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Phase Partial Fourier	7/8

### Resolution - Filter

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

### Geometry - Common

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

### Geometry - AutoAlign

Slice Group	1
Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

### Geometry - Navigator

### Geometry - Saturation

Special Saturation	None
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### Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	172 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Diffusion
Series Description	composed_DWI

### System - Miscellaneous

Coil Selection	Auto Coil Select
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	SliceAdjust
B0 Shim	Whole Body
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**Sequence - Part 1**

Free Echo Spacing	Off
Optimization	None
EPI Factor	108

**Sequence - Part 2**

Introduction	Off
Phase Correction	External

**System - Adjust Volume**

Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	280 mm
A >> P	347 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	3.000

**Physio - Signal**

1st Signal/Mode	None
TR	5880.0 ms
Concatenations	1

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Diff**

Diffusion Mode	3-Scan Trace
Diff. Directions	3
Diffusion Scheme	Bipolar
Diff. Weightings	3
b-value 1	50 s/mm <sup>2</sup>
b-value 2	600 s/mm <sup>2</sup>
b-value 3	900 s/mm <sup>2</sup>
Averages 1	3
Averages 2	3
Averages 3	6
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	0
Noise Masking	Off
Calculated Image	Off

**Sequence - Part 1**

Sequence Name	epir
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1964 Hz/Px
Echo Spacing	0.57 ms

\\Physics tree\Export_archive\Whole_Body_Sola\Whole_body_Sola_7_stations\ep2d_diff_stir_tra_S IAAdj *
TA: 3:51 min Coil Selection: Auto Voxel Size: 1.6×1.6×5.0 mm <sup>3</sup> Acc.: 2 Rel. SNR: 1.00   Substep: 3/7

**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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
TE	71.00 ms
Concatenations	1
AutoAlign	---
Coil Elements	BO1-3;SP2,3

**Contrast - Common**

TR	5880.0 ms
TE	71.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	180 ms
Fat-Water Contrast	Standard
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Delay in TR	0.00 ms

**Resolution - Common**

FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
Base Resolution	134
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Phase Partial Fourier	7/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	372 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Diffusion
Series Description	composed_DWI

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	SliceAdjust
B0 Shim	Whole Body
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**Sequence - Part 1**

Free Echo Spacing	Off
Optimization	None
EPI Factor	108

**Sequence - Part 2**

Introduction	Off
Phase Correction	External

**System - Adjust Volume**

Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	280 mm
A >> P	347 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	3.000

**Physio - Signal**

1st Signal/Mode	None
TR	5880.0 ms
Concatenations	1

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Diff**

Diffusion Mode	3-Scan Trace
Diff. Directions	3
Diffusion Scheme	Bipolar
Diff. Weightings	3
b-value 1	50 s/mm <sup>2</sup>
b-value 2	600 s/mm <sup>2</sup>
b-value 3	900 s/mm <sup>2</sup>
Averages 1	3
Averages 2	3
Averages 3	6
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	0
Noise Masking	Off
Calculated Image	Off

**Sequence - Part 1**

Sequence Name	epir
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1964 Hz/Px
Echo Spacing	0.57 ms

\\Physics tree\Export_archive\Whole_Body_Sola\Whole_body_Sola_7_stations\ep2d_diff_stir_tra_S IAAdj *
TA: 3:51 min Coil Selection: Auto Voxel Size: 1.6×1.6×5.0 mm <sup>3</sup> Acc.: 2 Rel. SNR: 1.00   Substep: 4/7

**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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
TE	71.00 ms
Concatenations	1
AutoAlign	---
Coil Elements	BO3;BO1,2;SP3-5

**Contrast - Common**

TR	5880.0 ms
TE	71.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	180 ms
Fat-Water Contrast	Standard
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Delay in TR	0.00 ms

**Resolution - Common**

FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
Base Resolution	134
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Phase Partial Fourier	7/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
--------------------	------

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	572 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Diffusion
Series Description	composed_DWI

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	SliceAdjust
B0 Shim	Whole Body
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**Sequence - Part 1**

Free Echo Spacing	Off
Optimization	None
EPI Factor	108

**Sequence - Part 2**

Introduction	Off
Phase Correction	External

**System - Adjust Volume**

Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	280 mm
A >> P	347 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	3.000

**Physio - Signal**

1st Signal/Mode	None
TR	5880.0 ms
Concatenations	1

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Diff**

Diffusion Mode	3-Scan Trace
Diff. Directions	3
Diffusion Scheme	Bipolar
Diff. Weightings	3
b-value 1	50 s/mm <sup>2</sup>
b-value 2	600 s/mm <sup>2</sup>
b-value 3	900 s/mm <sup>2</sup>
Averages 1	3
Averages 2	3
Averages 3	6
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	0
Noise Masking	Off
Calculated Image	Off

**Sequence - Part 1**

Sequence Name	epir
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1964 Hz/Px
Echo Spacing	0.57 ms



\\Physics tree\Export_archive\Whole_Body_Sola\Whole_body_Sola_7_stations\ep2d_diff_stir_tra_S IAAdj *
TA: 3:51 min Coil Selection: Auto Voxel Size: 1.6×1.6×5.0 mm <sup>3</sup> Acc.: 2 Rel. SNR: 1.00   Substep: 5/7

**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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
TE	71.00 ms
Concatenations	1
AutoAlign	---
Coil Elements	BO2,3;SP5,6

**Contrast - Common**

TR	5880.0 ms
TE	71.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	180 ms
Fat-Water Contrast	Standard
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Delay in TR	0.00 ms

**Resolution - Common**

FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
Base Resolution	134
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Phase Partial Fourier	7/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	772 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Diffusion
Series Description	composed_DWI

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	SliceAdjust
B0 Shim	Whole Body
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**Sequence - Part 1**

Free Echo Spacing	Off
Optimization	None
EPI Factor	108

**Sequence - Part 2**

Introduction	Off
Phase Correction	External

**System - Adjust Volume**

Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	280 mm
A >> P	347 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	3.000

**Physio - Signal**

1st Signal/Mode	None
TR	5880.0 ms
Concatenations	1

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Diff**

Diffusion Mode	3-Scan Trace
Diff. Directions	3
Diffusion Scheme	Bipolar
Diff. Weightings	3
b-value 1	50 s/mm <sup>2</sup>
b-value 2	600 s/mm <sup>2</sup>
b-value 3	900 s/mm <sup>2</sup>
Averages 1	3
Averages 2	3
Averages 3	6
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	0
Noise Masking	Off
Calculated Image	Off

**Sequence - Part 1**

Sequence Name	epir
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1964 Hz/Px
Echo Spacing	0.57 ms

\\Physics tree\Export_archive\Whole_Body_Sola\Whole_body_Sola_7_stations\ep2d_diff_stir_tra_S IAAdj *
TA: 3:51 min Coil Selection: Auto Voxel Size: 1.6×1.6×5.0 mm <sup>3</sup> Acc.: 2 Rel. SNR: 1.00   Substep: 6/7

**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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
TE	71.00 ms
Concatenations	1
AutoAlign	---
Coil Elements	BO2,3;HE1-4

**Contrast - Common**

TR	5880.0 ms
TE	71.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	180 ms
Fat-Water Contrast	Standard
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Delay in TR	0.00 ms

**Resolution - Common**

FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
Base Resolution	134
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Phase Partial Fourier	7/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	972 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Diffusion
Series Description	composed_DWI

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	SliceAdjust
B0 Shim	Whole Body
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**Sequence - Part 1**

Free Echo Spacing	Off
Optimization	None
EPI Factor	108

**Sequence - Part 2**

Introduction	Off
Phase Correction	External

**System - Adjust Volume**

Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	280 mm
A >> P	347 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	3.000

**Physio - Signal**

1st Signal/Mode	None
TR	5880.0 ms
Concatenations	1

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Diff**

Diffusion Mode	3-Scan Trace
Diff. Directions	3
Diffusion Scheme	Bipolar
Diff. Weightings	3
b-value 1	50 s/mm <sup>2</sup>
b-value 2	600 s/mm <sup>2</sup>
b-value 3	900 s/mm <sup>2</sup>
Averages 1	3
Averages 2	3
Averages 3	6
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	0
Noise Masking	Off
Calculated Image	Off

**Sequence - Part 1**

Sequence Name	epir
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1964 Hz/Px
Echo Spacing	0.57 ms

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\ep2d\_diff\_stir\_tra\_S  
IAAdj \*

TA: 3:51 min Coil Selection: Auto Voxel Size: 1.6×1.6×5.0 mm<sup>3</sup> Acc.: 2 Rel. SNR: 1.00 | Substep: 7/7

### 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Routine

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
TE	71.00 ms
Concatenations	1
AutoAlign	---
Coil Elements	BO2,3;HE3,4;NE1,2;SP1

### Contrast - Common

TR	5880.0 ms
TE	71.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	180 ms
Fat-Water Contrast	Standard
Reconstruction	Magnitude

### Contrast - Dynamic

Dynamic Mode	Standard
Delay in TR	0.00 ms

### Resolution - Common

FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
Base Resolution	134
Phase Resolution	100 %
Interpolation	On

### Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Phase Partial Fourier	7/8

### Resolution - Filter

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

### Geometry - Common

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	80.6 %
Slice Thickness	5.0 mm
TR	5880.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

### Geometry - AutoAlign

Slice Group	1
Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

### Geometry - Navigator

### Geometry - Saturation

Special Saturation	None
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### Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	1172 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Diffusion
Series Description	composed_DWI

### System - Miscellaneous

Coil Selection	Auto Coil Select
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	SliceAdjust
B0 Shim	Whole Body
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**Sequence - Part 1**

Free Echo Spacing	Off
Optimization	None
EPI Factor	108

**Sequence - Part 2**

Introduction	Off
Phase Correction	External

**System - Adjust Volume**

Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	280 mm
A >> P	347 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	3.000

**Physio - Signal**

1st Signal/Mode	None
TR	5880.0 ms
Concatenations	1

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Diff**

Diffusion Mode	3-Scan Trace
Diff. Directions	3
Diffusion Scheme	Bipolar
Diff. Weightings	3
b-value 1	50 s/mm <sup>2</sup>
b-value 2	600 s/mm <sup>2</sup>
b-value 3	900 s/mm <sup>2</sup>
Averages 1	3
Averages 2	3
Averages 3	6
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	0
Noise Masking	Off
Calculated Image	Off

**Sequence - Part 1**

Sequence Name	epir
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1964 Hz/Px
Echo Spacing	0.57 ms

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t1\_f13d\_Dixon\_Caipi\_BH\_tra \*

TA: 19 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm<sup>3</sup> Acc.: 4 Rel. SNR: 1.00 | Substep: 1/7

### 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	HE1-4;NE2

### Contrast - Common

TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Flip Angle	20 deg
Fat-Water Contrast	Dixon
Lines per Shot	56
Contrasts	2
Reconstruction	Magnitude

### Contrast - Dynamic

Dynamic Mode	Standard
Temporal Interpolation	1
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Reordering	Linear
Time to Center	10.7 s
Burn Time to Center	Off

### Resolution - Common

FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm

### Resolution - Common

Base Resolution	256
Phase Resolution	85 %
Slice Resolution	100 %
Trajectory	Cartesian
Interpolation	On

### Resolution - Acceleration

Acceleration mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Total Factor	4
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Weak
Elliptical Scanning	Off

### Resolution - Filter

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

### Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
Series	Ascending
Concatenations	1

### Geometry - AutoAlign

Slab Group	1
Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R1.3 A7.0 H28.0
R	1.3 mm
A	7.0 mm
H	28.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	10.00 mm
Thickness	50.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	28 mm
Table Position	H
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T1Dixon

**System - Miscellaneous**

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

**System - Adjustments**

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

**System - Adjust Volume**

Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	323 mm
R >> L	430 mm
F >> H	220 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	5.000

**Physio - PACE**

Resp. Control	Breath-hold
Concatenations	1

**Inline - Dynamic**

Dynamic Mode	Standard
Temporal Interpolation	1
Flip Angle	20 deg
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Time to Center	10.7 s
Burn Time to Center	Off

**Inline - Liver**

Liver Registration	Off
Save Original Images	On
Dixon Evaluation	Off
Fat Fraction (2pt)	Off

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Save Original Images	On
Contrasts	2
TE 1	2.39 ms
TE 2	4.77 ms
TR	7.1 ms

**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 - 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	Adaptive
Series Description	composed_T1Dixon

**Sequence - Part 1**

Sequence Name	fl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Readout Mode	Monopolar
Gradient Mode	Fast
Reordering	Linear
Bandwidth	400 Hz/Px
Asymmetric Echo	Weak
Optimization	In Phase

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Assistant**

SAR Assistant	Off
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**Sequence - Assistant**

Optimization	In Phase
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\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t1\_fl3d\_Dixon\_Caipi\_BH\_tra \*

TA: 19 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm<sup>3</sup> Acc.: 4 Rel. SNR: 1.00 | Substep: 2/7

### 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO1;NE1,2;SP1,2

### Contrast - Common

TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Flip Angle	20 deg
Fat-Water Contrast	Dixon
Lines per Shot	56
Contrasts	2
Reconstruction	Magnitude

### Contrast - Dynamic

Dynamic Mode	Standard
Temporal Interpolation	1
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Reordering	Linear
Time to Center	10.7 s
Burn Time to Center	Off

### Resolution - Common

FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm

### Resolution - Common

Base Resolution	256
Phase Resolution	85 %
Slice Resolution	100 %
Trajectory	Cartesian
Interpolation	On

### Resolution - Acceleration

Acceleration mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Total Factor	4
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Weak
Elliptical Scanning	Off

### Resolution - Filter

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

### Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
Series	Ascending
Concatenations	1

### Geometry - AutoAlign

Slab Group	1
Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	10.00 mm
Thickness	50.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	172 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T1Dixon

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	323 mm
R >> L	430 mm
F >> H	220 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	5.000

**Physio - PACE**

Resp. Control	Breath-hold
Concatenations	1

**Inline - Dynamic**

Dynamic Mode	Standard
Temporal Interpolation	1
Flip Angle	20 deg
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Time to Center	10.7 s
Burn Time to Center	Off

**Inline - Liver**

Liver Registration	Off
Save Original Images	On
Dixon Evaluation	Off
Fat Fraction (2pt)	Off

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Save Original Images	On
Contrasts	2
TE 1	2.39 ms
TE 2	4.77 ms
TR	7.1 ms

**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 - 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	Adaptive
Series Description	composed_T1Dixon

**Sequence - Part 1**

Sequence Name	fl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Readout Mode	Monopolar
Gradient Mode	Fast
Reordering	Linear
Bandwidth	400 Hz/Px
Asymmetric Echo	Weak
Optimization	In Phase

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Assistant**

SAR Assistant	Off
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**Sequence - Assistant**

Optimization	In Phase
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\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t1\_fl3d\_Dixon\_Caipi\_BH\_tra \*

TA: 19 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm<sup>3</sup> Acc.: 4 Rel. SNR: 1.00 | Substep: 3/7

### 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO1-3;SP2,3

### Contrast - Common

TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Flip Angle	20 deg
Fat-Water Contrast	Dixon
Lines per Shot	56
Contrasts	2
Reconstruction	Magnitude

### Contrast - Dynamic

Dynamic Mode	Standard
Temporal Interpolation	1
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Reordering	Linear
Time to Center	10.7 s
Burn Time to Center	Off

### Resolution - Common

FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm

### Resolution - Common

Base Resolution	256
Phase Resolution	85 %
Slice Resolution	100 %
Trajectory	Cartesian
Interpolation	On

### Resolution - Acceleration

Acceleration mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Total Factor	4
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Weak
Elliptical Scanning	Off

### Resolution - Filter

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

### Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
Series	Ascending
Concatenations	1

### Geometry - AutoAlign

Slab Group	1
Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	10.00 mm
Thickness	50.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	372 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T1Dixon

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	323 mm
R >> L	430 mm
F >> H	220 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	5.000

**Physio - PACE**

Resp. Control	Breath-hold
Concatenations	1

**Inline - Dynamic**

Dynamic Mode	Standard
Temporal Interpolation	1
Flip Angle	20 deg
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Time to Center	10.7 s
Burn Time to Center	Off

**Inline - Liver**

Liver Registration	Off
Save Original Images	On
Dixon Evaluation	Off
Fat Fraction (2pt)	Off

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Save Original Images	On
Contrasts	2
TE 1	2.39 ms
TE 2	4.77 ms
TR	7.1 ms

**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 - 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	Adaptive
Series Description	composed_T1Dixon

**Sequence - Part 1**

Sequence Name	fl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Readout Mode	Monopolar
Gradient Mode	Fast
Reordering	Linear
Bandwidth	400 Hz/Px
Asymmetric Echo	Weak
Optimization	In Phase

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Assistant**

SAR Assistant	Off
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**Sequence - Assistant**

Optimization	In Phase
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\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t1\_fl3d\_Dixon\_Caipi\_BH\_tra \*

TA: 19 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm³ Acc.: 4 Rel. SNR: 1.00 | Substep: 4/7

### 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO3;BO1,2;SP3-5

### Contrast - Common

TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Flip Angle	20 deg
Fat-Water Contrast	Dixon
Lines per Shot	56
Contrasts	2
Reconstruction	Magnitude

### Contrast - Dynamic

Dynamic Mode	Standard
Temporal Interpolation	1
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Reordering	Linear
Time to Center	10.7 s
Burn Time to Center	Off

### Resolution - Common

FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm

### Resolution - Common

Base Resolution	256
Phase Resolution	85 %
Slice Resolution	100 %
Trajectory	Cartesian
Interpolation	On

### Resolution - Acceleration

Acceleration mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Total Factor	4
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Weak
Elliptical Scanning	Off

### Resolution - Filter

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

### Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
Series	Ascending
Concatenations	1

### Geometry - AutoAlign

Slab Group	1
Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg



**Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	10.00 mm
Thickness	50.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	572 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T1Dixon

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	323 mm
R >> L	430 mm
F >> H	220 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	5.000

**Physio - PACE**

Resp. Control	Breath-hold
Concatenations	1

**Inline - Dynamic**

Dynamic Mode	Standard
Temporal Interpolation	1
Flip Angle	20 deg
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Time to Center	10.7 s
Burn Time to Center	Off

**Inline - Liver**

Liver Registration	Off
Save Original Images	On
Dixon Evaluation	Off
Fat Fraction (2pt)	Off

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Save Original Images	On
Contrasts	2
TE 1	2.39 ms
TE 2	4.77 ms
TR	7.1 ms

**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 - 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	Adaptive
Series Description	composed_T1Dixon

**Sequence - Part 1**

Sequence Name	fl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Readout Mode	Monopolar
Gradient Mode	Fast
Reordering	Linear
Bandwidth	400 Hz/Px
Asymmetric Echo	Weak
Optimization	In Phase

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Assistant**

SAR Assistant	Off
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**Sequence - Assistant**

Optimization	In Phase
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\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t1\_f13d\_Dixon\_Caipi\_BH\_tra \*

TA: 19 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm<sup>3</sup> Acc.: 4 Rel. SNR: 1.00 | Substep: 5/7

### 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO2,3;SP5,6

### Contrast - Common

TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Flip Angle	20 deg
Fat-Water Contrast	Dixon
Lines per Shot	56
Contrasts	2
Reconstruction	Magnitude

### Contrast - Dynamic

Dynamic Mode	Standard
Temporal Interpolation	1
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Reordering	Linear
Time to Center	10.7 s
Burn Time to Center	Off

### Resolution - Common

FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm

### Resolution - Common

Base Resolution	256
Phase Resolution	85 %
Slice Resolution	100 %
Trajectory	Cartesian
Interpolation	On

### Resolution - Acceleration

Acceleration mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Total Factor	4
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Weak
Elliptical Scanning	Off

### Resolution - Filter

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

### Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
Series	Ascending
Concatenations	1

### Geometry - AutoAlign

Slab Group	1
Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	10.00 mm
Thickness	50.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	772 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T1Dixon

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	323 mm
R >> L	430 mm
F >> H	220 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	5.000

**Physio - PACE**

Resp. Control	Breath-hold
Concatenations	1

**Inline - Dynamic**

Dynamic Mode	Standard
Temporal Interpolation	1
Flip Angle	20 deg
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Time to Center	10.7 s
Burn Time to Center	Off

**Inline - Liver**

Liver Registration	Off
Save Original Images	On
Dixon Evaluation	Off
Fat Fraction (2pt)	Off

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Save Original Images	On
Contrasts	2
TE 1	2.39 ms
TE 2	4.77 ms
TR	7.1 ms

**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 - 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	Adaptive
Series Description	composed_T1Dixon

**Sequence - Part 1**

Sequence Name	fl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Readout Mode	Monopolar
Gradient Mode	Fast
Reordering	Linear
Bandwidth	400 Hz/Px
Asymmetric Echo	Weak
Optimization	In Phase

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Assistant**

SAR Assistant	Off
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**Sequence - Assistant**

Optimization	In Phase
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\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t1\_fl3d\_Dixon\_Caipi\_BH\_tra \*

TA: 19 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm<sup>3</sup> Acc.: 4 Rel. SNR: 1.00 | Substep: 6/7

### 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO2,3;HE1-4

### Contrast - Common

TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Flip Angle	20 deg
Fat-Water Contrast	Dixon
Lines per Shot	56
Contrasts	2
Reconstruction	Magnitude

### Contrast - Dynamic

Dynamic Mode	Standard
Temporal Interpolation	1
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Reordering	Linear
Time to Center	10.7 s
Burn Time to Center	Off

### Resolution - Common

FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm

### Resolution - Common

Base Resolution	256
Phase Resolution	85 %
Slice Resolution	100 %
Trajectory	Cartesian
Interpolation	On

### Resolution - Acceleration

Acceleration mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Total Factor	4
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Weak
Elliptical Scanning	Off

### Resolution - Filter

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

### Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
Series	Ascending
Concatenations	1

### Geometry - AutoAlign

Slab Group	1
Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	10.00 mm
Thickness	50.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	972 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T1Dixon

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	323 mm
R >> L	430 mm
F >> H	220 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	5.000

**Physio - PACE**

Resp. Control	Breath-hold
Concatenations	1

**Inline - Dynamic**

Dynamic Mode	Standard
Temporal Interpolation	1
Flip Angle	20 deg
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Time to Center	10.7 s
Burn Time to Center	Off

**Inline - Liver**

Liver Registration	Off
Save Original Images	On
Dixon Evaluation	Off
Fat Fraction (2pt)	Off

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Save Original Images	On
Contrasts	2
TE 1	2.39 ms
TE 2	4.77 ms
TR	7.1 ms

**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 - 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	Adaptive
Series Description	composed_T1Dixon

**Sequence - Part 1**

Sequence Name	fl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Readout Mode	Monopolar
Gradient Mode	Fast
Reordering	Linear
Bandwidth	400 Hz/Px
Asymmetric Echo	Weak
Optimization	In Phase

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Assistant**

SAR Assistant	Off
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**Sequence - Assistant**

Optimization	In Phase
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\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t1\_f13d\_Dixon\_Caipi\_BH\_tra \*

TA: 19 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm<sup>3</sup> Acc.: 4 Rel. SNR: 1.00 | Substep: 7/7

### 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO2,3;HE3,4;NE1,2;SP1

### Contrast - Common

TR	7.1 ms
TE 1	2.39 ms
TE 2	4.77 ms
Flip Angle	20 deg
Fat-Water Contrast	Dixon
Lines per Shot	56
Contrasts	2
Reconstruction	Magnitude

### Contrast - Dynamic

Dynamic Mode	Standard
Temporal Interpolation	1
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Reordering	Linear
Time to Center	10.7 s
Burn Time to Center	Off

### Resolution - Common

FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm

### Resolution - Common

Base Resolution	256
Phase Resolution	85 %
Slice Resolution	100 %
Trajectory	Cartesian
Interpolation	On

### Resolution - Acceleration

Acceleration mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Total Factor	4
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Weak
Elliptical Scanning	Off

### Resolution - Filter

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

### Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Phase Oversampling	0 %
Slice Oversampling	27.3 %
FoV Read	430 mm
FoV Phase	75.0 %
Slice Thickness	5.0 mm
TR	7.1 ms
Series	Ascending
Concatenations	1

### Geometry - AutoAlign

Slab Group	1
Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	10.00 mm
Thickness	50.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	1172 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T1Dixon

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	323 mm
R >> L	430 mm
F >> H	220 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	5.000

**Physio - PACE**

Resp. Control	Breath-hold
Concatenations	1

**Inline - Dynamic**

Dynamic Mode	Standard
Temporal Interpolation	1
Flip Angle	20 deg
Measurements	1
Multiple Series	Each Measurement
3D Reordering	Standard
Time to Center	10.7 s
Burn Time to Center	Off

**Inline - Liver**

Liver Registration	Off
Save Original Images	On
Dixon Evaluation	Off
Fat Fraction (2pt)	Off

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Save Original Images	On
Contrasts	2
TE 1	2.39 ms
TE 2	4.77 ms
TR	7.1 ms

**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 - 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	Adaptive
Series Description	composed_T1Dixon

**Sequence - Part 1**

Sequence Name	fl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Readout Mode	Monopolar
Gradient Mode	Fast
Reordering	Linear
Bandwidth	400 Hz/Px
Asymmetric Echo	Weak
Optimization	In Phase

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Assistant**

SAR Assistant	Off
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**Sequence - Assistant**

Optimization	In Phase
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\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t2\_haste\_tra \*

TA: 45 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm³ Acc:: 2 Rel. SNR: 1.00 | Substep: 1/7

**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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
TE	82.00 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	HE1-4;NE2

**Contrast - Common**

TR	1000.0 ms
TE	82.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate

**Resolution - Acceleration**

Acceleration Factor PE	2
Reference Lines PE	30
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R1.3 A7.0 H28.0
R	1.3 mm
A	7.0 mm
H	28.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	20.00 mm
Thickness	60.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	28 mm
Table Position	H
Inline Composing	On
Normalize	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**System - Miscellaneous**

Coil Selection	Auto Coil Select
MSMA	S - C - T

**System - Miscellaneous**

Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off

**System - Adjustments**

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

**System - Adjust Volume**

Position	R1.3 A7.0 H28.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	350 mm
R >> L	430 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	2.500

**Physio - Signal**

1st Signal/Mode	None
TR	1000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	430 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	82.00 ms
TR	1000.0 ms

**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	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	501 Hz/Px
Echo Spacing	4.08 ms
Turbo Factor	208

**Sequence - Part 2**

Introduction	On
--------------	----

**Sequence - Assistant**

SAR Assistant	TR, Flip Angle
Min Flip Angle	150 deg
Max. TR	1500.0 ms
Allowed Delay	30 s

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t2\_haste\_tra \*

TA: 45 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm³ Acc:: 2 Rel. SNR: 1.00 | Substep: 2/7

**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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
TE	82.00 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO1;NE1,2;SP1,2

**Contrast - Common**

TR	1000.0 ms
TE	82.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate

**Resolution - Acceleration**

Acceleration Factor PE	2
Reference Lines PE	30
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	20.00 mm
Thickness	60.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	172 mm
Table Position	F
Inline Composing	On
Normalize	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**System - Miscellaneous**

Coil Selection	Auto Coil Select
MSMA	S - C - T

**System - Miscellaneous**

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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F172.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	350 mm
R >> L	430 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	2.500

**Physio - Signal**

1st Signal/Mode	None
TR	1000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	430 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	82.00 ms
TR	1000.0 ms

**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	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	501 Hz/Px
Echo Spacing	4.08 ms
Turbo Factor	208

**Sequence - Part 2**

Introduction	On
--------------	----

**Sequence - Assistant**

SAR Assistant	TR, Flip Angle
Min Flip Angle	150 deg
Max. TR	1500.0 ms
Allowed Delay	30 s

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t2\_haste\_tra \*

TA: 45 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm³ Acc:: 2 Rel. SNR: 1.00 | Substep: 3/7

**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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
TE	82.00 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO1-3;SP2,3

**Contrast - Common**

TR	1000.0 ms
TE	82.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate

**Resolution - Acceleration**

Acceleration Factor PE	2
Reference Lines PE	30
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	20.00 mm
Thickness	60.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	372 mm
Table Position	F
Inline Composing	On
Normalize	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**System - Miscellaneous**

Coil Selection	Auto Coil Select
MSMA	S - C - T



**System - Miscellaneous**

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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F372.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	350 mm
R >> L	430 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	2.500

**Physio - Signal**

1st Signal/Mode	None
TR	1000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	430 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	82.00 ms
TR	1000.0 ms

**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	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	501 Hz/Px
Echo Spacing	4.08 ms
Turbo Factor	208

**Sequence - Part 2**

Introduction	On
--------------	----

**Sequence - Assistant**

SAR Assistant	TR, Flip Angle
Min Flip Angle	150 deg
Max. TR	1500.0 ms
Allowed Delay	30 s

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t2\_haste\_tra \*

TA: 45 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00 | Substep: 4/7**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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
TE	82.00 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO3;BO1,2;SP3-5

**Contrast - Common**

TR	1000.0 ms
TE	82.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate

**Resolution - Acceleration**

Acceleration Factor PE	2
Reference Lines PE	30
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	20.00 mm
Thickness	60.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	572 mm
Table Position	F
Inline Composing	On
Normalize	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**System - Miscellaneous**

Coil Selection	Auto Coil Select
MSMA	S - C - T

**System - Miscellaneous**

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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F572.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	350 mm
R >> L	430 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	2.500

**Physio - Signal**

1st Signal/Mode	None
TR	1000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	430 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	82.00 ms
TR	1000.0 ms

**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	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	501 Hz/Px
Echo Spacing	4.08 ms
Turbo Factor	208

**Sequence - Part 2**

Introduction	On
--------------	----

**Sequence - Assistant**

SAR Assistant	TR, Flip Angle
Min Flip Angle	150 deg
Max. TR	1500.0 ms
Allowed Delay	30 s

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t2\_haste\_tra \*

TA: 45 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm³ Acc:: 2 Rel. SNR: 1.00 | Substep: 5/7

**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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
TE	82.00 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO2,3;SP5,6

**Contrast - Common**

TR	1000.0 ms
TE	82.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate

**Resolution - Acceleration**

Acceleration Factor PE	2
Reference Lines PE	30
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	20.00 mm
Thickness	60.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	772 mm
Table Position	F
Inline Composing	On
Normalize	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**System - Miscellaneous**

Coil Selection	Auto Coil Select
MSMA	S - C - T

**System - Miscellaneous**

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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F772.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	350 mm
R >> L	430 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	2.500

**Physio - Signal**

1st Signal/Mode	None
TR	1000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	430 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	82.00 ms
TR	1000.0 ms

**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	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	501 Hz/Px
Echo Spacing	4.08 ms
Turbo Factor	208

**Sequence - Part 2**

Introduction	On
--------------	----

**Sequence - Assistant**

SAR Assistant	TR, Flip Angle
Min Flip Angle	150 deg
Max. TR	1500.0 ms
Allowed Delay	30 s

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t2\_haste\_tra \*

TA: 45 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm³ Acc:: 2 Rel. SNR: 1.00 | Substep: 6/7

**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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
TE	82.00 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO2,3;HE1-4

**Contrast - Common**

TR	1000.0 ms
TE	82.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate

**Resolution - Acceleration**

Acceleration Factor PE	2
Reference Lines PE	30
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	20.00 mm
Thickness	60.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	972 mm
Table Position	F
Inline Composing	On
Normalize	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**System - Miscellaneous**

Coil Selection	Auto Coil Select
MSMA	S - C - T

**System - Miscellaneous**

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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F972.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	350 mm
R >> L	430 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	2.500

**Physio - Signal**

1st Signal/Mode	None
TR	1000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	430 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	82.00 ms
TR	1000.0 ms

**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	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	501 Hz/Px
Echo Spacing	4.08 ms
Turbo Factor	208

**Sequence - Part 2**

Introduction	On
--------------	----

**Sequence - Assistant**

SAR Assistant	TR, Flip Angle
Min Flip Angle	150 deg
Max. TR	1500.0 ms
Allowed Delay	30 s

\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\t2\_haste\_tra \*

TA: 45 sec Coil Selection: Auto Voxel Size: 0.8×0.8×5.0 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00 | Substep: 7/7**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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

**Routine**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
TE	82.00 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO2,3;HE3,4;NE1,2;SP1

**Contrast - Common**

TR	1000.0 ms
TE	82.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Resolution - Common**

FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate

**Resolution - Acceleration**

Acceleration Factor PE	2
Reference Lines PE	30
Phase Partial Fourier	6/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	0 %
Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	430 mm
FoV Phase	81.3 %
Slice Thickness	5.0 mm
TR	1000.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H100.0
L	1.9 mm
A	0.0 mm
F	100.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	20.00 mm
Thickness	60.00 mm

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	On
Table Position	1172 mm
Table Position	F
Inline Composing	On
Normalize	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**System - Miscellaneous**

Coil Selection	Auto Coil Select
MSMA	S - C - T



**System - Miscellaneous**

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	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

**System - Adjust Volume**

Position	R1.3 A7.0 F1172.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	350 mm
R >> L	430 mm
F >> H	200 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	2.500

**Physio - Signal**

1st Signal/Mode	None
TR	1000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	430 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	82.00 ms
TR	1000.0 ms

**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	Weak
Save non-normalized	On
Composing Function	Adaptive
Series Description	composed_T2 Haste

**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	501 Hz/Px
Echo Spacing	4.08 ms
Turbo Factor	208

**Sequence - Part 2**

Introduction	On
--------------	----

**Sequence - Assistant**

SAR Assistant	TR, Flip Angle
Min Flip Angle	150 deg
Max. TR	1500.0 ms
Allowed Delay	30 s

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OMPOSED \*

TA: 1:14 min Coil Selection: Auto Voxel Size: 1.0×1.0×4.0 mm<sup>3</sup> Acc.: 2 Rel. SNR: 1.00 | Substep: 1/2

### 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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	38
Phase Partial Fourier	Off

### Resolution - Filter

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

### Routine

Slice Group	1
Slices	17
Distance Factor	10 %
Position	R6.4 A8.1 F89.5 mm
Orientation	S > T0.7
Phase Encoding Dir.	H >> F
Phase Oversampling	100 %
FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	3790.0 ms
TE	97.00 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO1,3;BO1-3;SP1-4

### Geometry - Common

Slice Group	1
Slices	17
Distance Factor	10 %
Position	R6.4 A8.1 F89.5 mm
Orientation	S > T0.7
Phase Encoding Dir.	H >> F
Phase Oversampling	100 %
FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	3790.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

### Contrast - Common

TR	3790.0 ms
TE	97.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

### Geometry - AutoAlign

Slice Group	1
Position	R6.4 A8.1 F89.5 mm
Orientation	S > T0.7
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	R6.4 A8.1 F89.5
R	6.4 mm
A	8.1 mm
F	89.5 mm
Initial Orientation	S > T
S > T	0.70
> C	0.00
Initial Rotation	90.00 deg

### Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

### Geometry - Navigator

### Geometry - Saturation

Special Saturation	None
--------------------	------

### Resolution - Common

FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	448
Phase Resolution	80 %
Trajectory	Cartesian
Interpolation	Off

### Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	89 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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
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 - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	3790.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	440 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Trajectory	Cartesian
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	97.00 ms

**Inline - Cardiac**

TR	3790.0 ms
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**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	

**Sequence - Part 1**

Sequence Name	tseR_rr
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	Read
Bandwidth	203 Hz/Px
Echo Spacing	9.66 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	21
Echo Trains per Slice	18

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

**Sequence - Assistant**

SAR Assistant	TR
Max. TR	4500.0 ms
Allowed Delay	30 s

**\\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\l\_t2\_tse\_sag\_p2\_C  
OMPOSED \***

TA: 1:14 min Coil Selection: Auto Voxel Size: 1.0×1.0×4.0 mm<sup>3</sup> Acc.: 2 Rel. SNR: 1.00 | Substep: 2/2

### 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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

### Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	38
Phase Partial Fourier	Off

### Resolution - Filter

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

### Routine

Slice Group	1
Slices	17
Distance Factor	10 %
Position	R1.3 A8.2 F416.8 mm
Orientation	S > T-0.6
Phase Encoding Dir.	H >> F
Phase Oversampling	100 %
FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	3790.0 ms
TE	97.00 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO3;BO1-3;SP3-8

### Geometry - Common

Slice Group	1
Slices	17
Distance Factor	10 %
Position	R1.3 A8.2 F416.8 mm
Orientation	S > T-0.6
Phase Encoding Dir.	H >> F
Phase Oversampling	100 %
FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	3790.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

### Contrast - Common

TR	3790.0 ms
TE	97.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

### Geometry - AutoAlign

Slice Group	1
Position	R1.3 A8.2 F416.8 mm
Orientation	S > T-0.6
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

### Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

### Geometry - Navigator

### Geometry - Saturation

Special Saturation	None
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### Resolution - Common

FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	448
Phase Resolution	80 %
Trajectory	Cartesian
Interpolation	Off

### Geometry - Tim Planning Suite

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

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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
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 - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	3790.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	440 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Trajectory	Cartesian
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	97.00 ms

**Inline - Cardiac**

TR	3790.0 ms
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**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	

**Sequence - Part 1**

Sequence Name	tseR_rr
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	Read
Bandwidth	203 Hz/Px
Echo Spacing	9.66 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	21
Echo Trains per Slice	18

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

**Sequence - Assistant**

SAR Assistant	TR
Max. TR	4500.0 ms
Allowed Delay	30 s

# \\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\l\_t1\_tse\_sag\_p2\_C OMPOSED \*

TA: 1:06 min Coil Selection: Auto Voxel Size: 1.1×1.1×4.0 mm<sup>3</sup> Acc.: 2 Rel. SNR: 1.00 | Substep: 1/2

## 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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

## Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off

## Resolution - Filter

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

## Routine

Slice Group	1
Slices	17
Distance Factor	10 %
Position	R6.4 A8.1 F89.5 mm
Orientation	S > T0.7
Phase Encoding Dir.	H >> F
Phase Oversampling	100 %
FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	643.0 ms
TE	8.70 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO1,3;BO1-3;SP1-4

## Geometry - Common

Slice Group	1
Slices	17
Distance Factor	10 %
Position	R6.4 A8.1 F89.5 mm
Orientation	S > T0.7
Phase Encoding Dir.	H >> F
Phase Oversampling	100 %
FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	643.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

## Geometry - AutoAlign

Slice Group	1
Position	R6.4 A8.1 F89.5 mm
Orientation	S > T0.7
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	R6.4 A8.1 F89.5
R	6.4 mm
A	8.1 mm
F	89.5 mm
Initial Orientation	S > T
S > T	0.70
> C	0.00
Initial Rotation	90.00 deg

## Contrast - Common

TR	643.0 ms
TE	8.70 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

## Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

## Resolution - Common

FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	384
Phase Resolution	75 %
Trajectory	Cartesian
Interpolation	Off

## Geometry - Navigator

## Geometry - Saturation

Special Saturation	None
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## Geometry - Tim Planning Suite

Set-n-Go Protocol	On
Table Position	89 mm
Table Position	F
Inline Composing	On
Normalize	Off
Save non-normalized	On
Composing Function	Spine
Series Description	

**System - Miscellaneous**

Coil Selection	Auto Coil Select
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
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 - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	643.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	440 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Trajectory	Cartesian
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	8.70 ms

**Inline - Cardiac**

TR	643.0 ms
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**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	

**Sequence - Part 1**

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	224 Hz/Px
Echo Spacing	8.72 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	3
Echo Trains per Slice	100

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

**Sequence - Assistant**

SAR Assistant	Flip Angle
Min Flip Angle	130 deg
Allowed Delay	30 s

# \\Physics tree\Export\_archive\Whole\_Body\_Sola\Whole\_body\_Sola\_7\_stations\l\_t1\_tse\_sag\_p2\_C OMPOSED \*

TA: 1:06 min Coil Selection: Auto Voxel Size: 1.1×1.1×4.0 mm³ Acc.: 2 Rel. SNR: 1.00 | Substep: 2/2

## 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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

## Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off

## Resolution - Filter

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

## Routine

Slice Group	1
Slices	17
Distance Factor	10 %
Position	R1.3 A8.2 F416.8 mm
Orientation	S > T-0.6
Phase Encoding Dir.	H >> F
Phase Oversampling	100 %
FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	643.0 ms
TE	8.70 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	BO3;BO1-3;SP3-8

## Geometry - Common

Slice Group	1
Slices	17
Distance Factor	10 %
Position	R1.3 A8.2 F416.8 mm
Orientation	S > T-0.6
Phase Encoding Dir.	H >> F
Phase Oversampling	100 %
FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	643.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

## Geometry - AutoAlign

Slice Group	1
Position	R1.3 A8.2 F416.8 mm
Orientation	S > T-0.6
Phase Encoding Dir.	H >> F
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

## Contrast - Common

TR	643.0 ms
TE	8.70 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

## Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

## Resolution - Common

FoV Read	440 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	384
Phase Resolution	75 %
Trajectory	Cartesian
Interpolation	Off

## Geometry - Navigator

## Geometry - Saturation

Special Saturation	None
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## Geometry - Tim Planning Suite

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



**System - Miscellaneous**

Coil Selection	Auto Coil Select
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
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 - Tx/Rx**

Frequency 1H	63.679606 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	643.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	440 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Trajectory	Cartesian
Dynamic Mode	Standard

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

**Inline - Cardiac**

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	8.70 ms

**Inline - Cardiac**

TR	643.0 ms
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**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	

**Sequence - Part 1**

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	224 Hz/Px
Echo Spacing	8.72 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	3
Echo Trains per Slice	100

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

**Sequence - Assistant**

SAR Assistant	Flip Angle
Min Flip Angle	130 deg
Allowed Delay	30 s