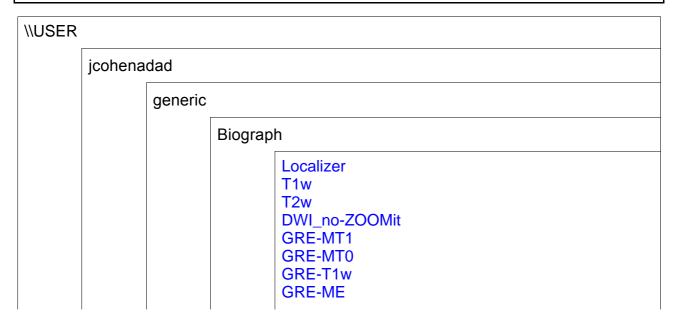
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\\USER\jcohenadad\generic\Biograph\Localizer

TA: 0:19 PM: ISO Voxel size: 1.0×1.0×6.0 mmPAT: Off Rel. SNR: 1.00 : fl

Properties

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

Routine

Slice group	1
Slices	5
Dist. factor	300 %
Position	L0.0 P10.0 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Slices	3
Dist. factor	50 %
Position	L0.0 P2.6 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	38 %
FoV read	500 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
Filter	Distortion Corr.(2D),
	Prescan Normalize
Coil elements	HEA;HEP;SP1,2

Contrast - Common

TR	7.8 ms
TE	3.69 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	500 mm
FoV phase	100.0 %

Resolution - Common

Slice thickness	6.0 mm
Base resolution	256
Phase resolution	80 %
Phase partial Fourier	Off
Interpolation	On

Resolution - iPAT

PAT mode	None
Matrix Coil Mode	Auto (Triple)

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off	
Elliptical filter	Off	

Geometry - Common

Slice group	1
Slices	5
Dist. factor	300 %
Position	L0.0 P10.0 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Slices	3
Dist. factor	50 %
Position	L0.0 P2.6 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	500 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
TR	7.8 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	8
* * * * * * * * *	-

Geometry - AutoAlign

Slice group	1
Slice group	2
AutoAlign	
Position	L0.0 P2.6 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Initial Position	L0.0 P10.0 H0.0
L	0.0 mm
P	10.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Saturation

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

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Geometry - Tim CT

Tim CT mode	Off
Slices	3
Slice thickness	6.0 mm
Dist. factor	50 %
FoV read	500 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	ISO
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Coil Mode	Auto (Triple)
AutoAlign	
Coil Select Mode	On - AutoCoilSelect

System - Adjustments

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

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	123.200000 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	7.8 ms

Physio - Signal1

Concatenations	8	
Segments	1	

Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	500 mm
FoV phase	100.0 %
Phase resolution	80 %

Physio - PACE

Resp. control	Off
Concatenations	8

Inline - Common

Subtract	Off	
Measurements	1	
StdDev	Off	
Liver registration	Off	
Save Original Images	On	

Inline - MIP

MIP-Sag	Off	
MIP-Cor	Off	
MIP-Tra	Off	
MIP-Time	Off	
Save Original Images	On	

Inline - Soft Tissue

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

Inline - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

Inline - MapIt

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

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

SIEMENS MAGNETOM Biograph_mMR

Sequence - Part 2

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

Mode	Off
Allowed delay	0 s

\\USER\jcohenadad\generic\Biograph\T1w

TA: 4:44 PM: ISO Voxel size: 1.0×1.0×1.0 mmPAT: 2 Rel. SNR: 1.00 : tfl

Properties

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

Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	192
FoV read	320 mm
FoV phase	81.3 %
Slice thickness	1.00 mm
TR	2000.0 ms
TE	3.72 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(3D),
	Prescan Normalize
Coil elements	HEA;HEP;NEA;NEP

Contrast - Common

TR	2000.0 ms
TE	3.72 ms
Magn. preparation	Non-sel. IR
ТІ	1000 ms
Flip angle	9 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

320 mm
81.3 %
1.00 mm
320
100 %
100 %
Off
Off

Resolution - Common

In	terpolation	Off	
	•		

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

Resolution - Filter Image

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

Resolution - Filter Rawdata

Raw filter	Off	
Elliptical filter	Off	

Geometry - Common

Clob group	1
Slab group	1
Slabs	1
Dist. factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	192
FoV read	320 mm
FoV phase	81.3 %
Slice thickness	1.00 mm
TR	2000.0 ms
Multi-slice mode	Single shot
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab group	1
AutoAlign	
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Initial Position	Isocenter
L	0.0 mm
Р	0.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm

		_
Inline Composing	Off	

System - Miscellaneous

Positioning mode	ISO
Table position	Н
Table position	0 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Coil Mode	Auto (Triple)
AutoAlign	
Coil Select Mode	On - AutoCoilSelect

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	260 mm
F >> H	320 mm
R >> L	192 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.200000 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	2000.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
ті	1000 ms
Fat suppr.	None
Dark blood	Off
FoV read	320 mm
FoV phase	81.3 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1

Inline - Common

StdDev	Off
Save Original Images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save Original Images	On

Inline - Composing

Inline Composing	Off	
Distortion Corr.	On	
Mode	3D	
Unfiltered images	Off	

Inline - MapIt

Save Original Images	On
MapIt	None
Flip angle	9 deg
Measurements	1
TR	2000.0 ms
TE	3.72 ms

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	10.2 ms
Bandwidth	150 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On
Incr. Gradient spoiling	On
Turbo factor	192

Mode	Off	
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\\USER\jcohenadad\generic\Biograph\T2w

TA: 4:02 PM: ISO Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : spcR

Properties

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

Routine

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	H >> F
AutoAlign	
Phase oversampling	80 %
Slice oversampling	12.5 %
Slices per slab	64
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
TR	1500 ms
TE	120 ms
Averages	1.4
Concatenations	1
Filter	Raw filter, Distortion
	Corr.(3D), Prescan
	Normalize
Coil elements	HEA;HEP;NEA;NEP

Contrast - Common

TR	1500 ms
TE	120 ms
MTC	Off
Magn. preparation	None
Flip angle	120 deg
Fat suppr.	None
Blood suppr.	Off
Restore magn.	On

Contrast - Dynamic

Averages	1.4
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Allowed
Slice partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	32
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

Resolution - Filter Image

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

Resolution - Filter Rawdata

Raw filter	On
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	H >> F
Slice oversampling	12.5 %
Slices per slab	64
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
TR	1500 ms
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
AutoAlign	
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	H >> F
Initial Position	Isocenter
L	0.0 mm
Р	0.0 mm
F	0.0 mm
Initial Rotation	90.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

Fat suppr.	None
Restore magn.	On
Special sat.	None

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm

		_
Inline Composing	Off	

System - Miscellaneous

Positioning mode	ISO
Table position	Н
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Coil Mode	Auto (Triple)
AutoAlign	
Coil Select Mode	On - AutoCoilSelect

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	90.00 deg
F >> H	256 mm
A >> P	256 mm
R >> L	52 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.200000 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	4.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
Trigger delay	0 ms
TR	1500 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1

Inline - Common

StdDev	Off
Save Original Images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save Original Images	On

Inline - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Flow comp.	No
Echo spacing	3.99 ms
Adiabatic-mode	Off
Bandwidth	625 Hz/Px

Sequence - Part 2

Echo train duration	311 ms
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
Flip angle mode	Constant
Turbo factor	100

Allowed delay	30 s	
7 tilowed delay	00 0	

\\USER\jcohenadad\generic\Biograph\DWI_no-ZOOMit

TA: 3:56 PM: ISO Voxel size: 0.9×0.9×5.0 mmPAT: Off Rel. SNR: 1.00 : epse

Properties

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

Routine

Slice group	1
Slices	15
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	0 %
FoV read	86 mm
FoV phase	37.5 %
Slice thickness	5.0 mm
TR	670 ms
TE	76.0 ms
Concatenations	5
Filter	Prescan Normalize
Coil elements	NEA;NEP;SP1

Contrast - Common

TR	670 ms
TE	76.0 ms
MTC	Off
Magn. preparation	None
Fat suppr.	SPAIR
Fat sat. mode	Strong

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	86 mm	
FoV phase	37.5 %	
Slice thickness	5.0 mm	
Base resolution	96	
Phase resolution	100 %	
Phase partial Fourier	7/8	
Interpolation	Off	

Resolution - iPAT

PAT mode	None
Matrix Coil Mode	Auto (Triple)

Resolution - Filter Image

Distortion Corr.	Off	
Prescan Normalize	On	
Dynamic Field Corr.	Off	

Resolution - Filter Rawdata

Raw filter	Off	
Elliptical filter	Off	

Geometry - Common

Slice group	1
Slices	15
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	86 mm
FoV phase	37.5 %
Slice thickness	5.0 mm
TR	670 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	5

Geometry - AutoAlign

Coomony management	
Slice group	1
AutoAlign	
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Sat. region	1
	· ·
Thickness	100 mm
Position	L0.0 P100.0 H0.0 mm
Orientation	Coronal
Sat. region	2
Thickness	100 mm
Position	L0.0 A100.0 H0.0 mm
Orientation	Coronal
Fat sat. mode	Strong
Special sat.	None

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	ISO
Table position	Н
Table position	0 mm

System - Miscellaneous

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Matrix Coil Mode	Auto (Triple)
AutoAlign	
Coil Select Mode	On - AutoCoilSelect

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P R >> L F >> H	33 mm
R >> L	86 mm
F >> H	75 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.200000 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	10.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	Pulse/Trigger
Average cycle	No Signal ms
Average cycle	No Signal ms
Acquisition window	3600 ms
Trigger pulse	1
Trigger delay	0 ms
TR	670 ms
Concatenations	5
Phases	1

Physio - PACE

Resp. control	Off
Concatenations	5

Diff - Neuro

MDDW
30
Monopolar
2
0 s/mm ²
800 s/mm ²
5
2
On
Off
Off
Off
On

Diff - Neuro

Tensor	Off
Noise level	8

Diff - Body

Diffusion mode	MDDW
Diff. directions	30
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	800 s/mm ²
b-value 1	5
b-value 2	2
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm²
Noise level	8

Diff - Composing

Inline Composing	Off	
Distortion Corr.	Off	

Sequence - Part 1

Introduction	On
Optimization	Min. TE
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1.28 ms
Bandwidth	882 Hz/Px

EPI factor	36
RF pulse type	Normal
Gradient mode	Fast*

\\USER\jcohenadad\generic\Biograph\GRE-MT1

TA: 2:12 PM: ISO Voxel size: 0.9×0.9×5.0 mmPAT: 2 Rel. SNR: 1.00 : fl

Properties

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

Routine

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	0 %
Slice oversampling	18.2 %
Slices per slab	22
FoV read	230 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
TR	35.0 ms
TE	3.13 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D),
	Prescan Normalize
Coil elements	NEA;NEP;SP1

Contrast - Common

TR	35.0 ms
TE	3.13 ms
MTC	On
Magn. preparation	None
Flip angle	9 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	230 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off

Resolution - Common

Slice partial Fourier	Off	
Interpolation	Off	

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

•	
Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice oversampling	18.2 %
Slices per slab	22
FoV read	230 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
TR	35.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
AutoAlign	
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Initial Position	Isocenter
L	0.0 mm
Р	0.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

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

Set-n-Go Protocol	Off	
Table position	Н	
Table position	0 mm	
Inline Composing	Off	

Geometry - Tim CT

Tim CT mode	Off
Slabs	1
Slices per slab	22
Slice thickness	5.00 mm
Dist. factor	20 %
FoV read	230 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Decitioning made	100
Positioning mode	ISO
Table position	F
Table position	0 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Coil Mode	Auto (Triple)
AutoAlign	
Coil Select Mode	On - AutoCoilSelect

System - Adjustments

B0 Shim mode	Standard Neck
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	58 mm
R >> L	230 mm
F >> H	110 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.200000 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	10.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	35.0 ms
Concatenations	1
Segments	1

Physio - Cardiac

Tagging	None

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	230 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save Original Images	On

Inline - MIP

MIP-Sag MIP-Cor MIP-Tra MIP-Time	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save Original Images	On

Inline - Soft Tissue

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

Inline - Composing

Inline Composing	Off	
Distortion Corr.	On	
Mode	2D	
I Infiltered images	Off	

Inline - MapIt

Save Original Images	On
MapIt	None
Flip angle	9 deg
Measurements	1
Contrasts	1
TR	35.0 ms
TE	3.13 ms

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	260 Hz/Px

Segments	1
Acoustic noise reduction	None
RF pulse type	Normal

SIEMENS MAGNETOM Biograph_mMR

Sequence - Part 2

Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

Mode	Off
Allowed delay	0 s

\\USER\jcohenadad\generic\Biograph\GRE-MT0

TA: 2:12 PM: ISO Voxel size: 0.9×0.9×5.0 mmPAT: 2 Rel. SNR: 1.00 : fl

Properties

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

Routine

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	0 %
Slice oversampling	18.2 %
Slices per slab	22
FoV read	230 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
TR	35.0 ms
TE	3.13 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D),
	Prescan Normalize
Coil elements	NEA;NEP;SP1

Contrast - Common

TR	35.0 ms
TE	3.13 ms
MTC	Off
Magn. preparation	None
Flip angle	9 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	230 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice oversampling	18.2 %
Slices per slab	22
FoV read	230 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
TR	35.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
AutoAlign	
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Initial Position	Isocenter
L	0.0 mm
Р	0.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

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

Set-n-Go Protocol	Off	
Table position	Н	
Table position	0 mm	
Inline Composing	Off	

Geometry - Tim CT

Tim CT mode	Off
Slabs	1
Slices per slab	22
Slice thickness	5.00 mm
Dist. factor	20 %
FoV read	230 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	ISO
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Coil Mode	Auto (Triple)
AutoAlign	
Coil Select Mode	On - AutoCoilSelect

System - Adjustments

B0 Shim mode	Standard Neck
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	58 mm
R >> L	230 mm
F >> H	110 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.200000 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	10.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	35.0 ms
Concatenations	1
Segments	1

Physio - Cardiac

Tagging	None

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	230 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save Original Images	On

Inline - MIP

MIP-Sag	Off	
MIP-Cor	Off	
MIP-Tra	Off	
MIP-Time	Off	
Save Original Images	On	

Inline - Soft Tissue

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

Inline - Composing

Inline Composing	Off	
Distortion Corr.	On	
Mode	2D	
I Infiltered images	Off	

Inline - MapIt

Save Original Images	On
Maplt	None
Flip angle	9 deg
Measurements	1
Contrasts	1
TR	35.0 ms
ITE	3.13 ms

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	260 Hz/Px

Segments	1
Acoustic noise reduction	None
RF pulse type	Normal

SIEMENS MAGNETOM Biograph_mMR

Sequence - Part 2

Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

Mode	Off
Allowed delay	0 s

\\USER\jcohenadad\generic\Biograph\GRE-T1w

TA: 0:57 PM: ISO Voxel size: 0.9×0.9×5.0 mmPAT: 2 Rel. SNR: 1.00 : fl

Properties

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

Routine

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	0 %
Slice oversampling	18.2 %
Slices per slab	22
FoV read	230 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
TR	15.0 ms
TE	3.13 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D),
	Prescan Normalize
Coil elements	NEA;NEP;SP1

Contrast - Common

TR	15.0 ms	
TE	3.13 ms	
MTC	Off	
Magn. preparation	None	
Flip angle	15 deg	
Fat suppr.	None	
Water suppr.	None	
SWI	Off	

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	230 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off

Resolution - Common

Slice partial Fourier	Off	
Interpolation	Off	

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice oversampling	18.2 %
Slices per slab	22
FoV read	230 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
TR	15.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
AutoAlign	
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

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

Set-n-Go Protocol	Off	
Table position	Н	
Table position	0 mm	
Inline Composing	Off	

Geometry - Tim CT

Tim CT mode	Off
Slabs	1
Slices per slab	22
Slice thickness	5.00 mm
Dist. factor	20 %
FoV read	230 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	ISO
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Coil Mode	Auto (Triple)
AutoAlign	
Coil Select Mode	On - AutoCoilSelect

System - Adjustments

B0 Shim mode	Standard Neck
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	58 mm
R >> L	230 mm
F >> H	110 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.200000 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	10.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	15.0 ms
Concatenations	1
Segments	1

Physio - Cardiac

Tagging	None

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	230 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save Original Images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save Original Images	On

Inline - Soft Tissue

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

Inline - Composing

Inline Composing	Off	
Distortion Corr.	On	
Mode	2D	
I Infiltered images	Off	

Inline - MapIt

Save Original Images	On	
MapIt	None	
Flip angle	15 deg	
Measurements	1	
Contrasts	1	
TR	15.0 ms	
TE	3.13 ms	

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	260 Hz/Px

Segments	1
Acoustic noise reduction	None
RF pulse type	Normal

SIEMENS MAGNETOM Biograph_mMR

Sequence - Part 2

Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

Mode	Off
Allowed delay	0 s

\\USER\jcohenadad\generic\Biograph\GRE-ME

TA: 4:45 PM: ISO Voxel size: 0.5×0.5×5.0 mmPAT: 2 Rel. SNR: 1.00 : me_r

Properties

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

Routine

Slice group	1
Slices	15
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	0 %
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	600.0 ms
TE	14.0 ms
Averages	2
Concatenations	1
Filter	Distortion Corr.(2D),
	Prescan Normalize,
	Elliptical filter
Coil elements	NEA;NEP;SP1

Contrast - Common

Water suppr.	None
Fat suppr.	None
Flip angle Fat suppr. Water suppr.	30 deg
MTC	Off
TE	14.0 ms
TR	600.0 ms

Contrast - Dynamic

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

Resolution - Common

FoV read	224 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
Base resolution	448
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA

Resolution - iPAT

Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off	
Elliptical filter	On	

Geometry - Common

Slice group	1
Slices	15
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	600.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
AutoAlign	
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Initial Position	Isocenter
L	0.0 mm
Р	0.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Sat. region	1
Thickness	100 mm
Position	L0.0 P100.0 H0.0 mm
Orientation	Coronal
Water suppr.	None
Special sat.	None

Geometry - Tim Planning Suite

-		
Set-n-Go Protocol	Off	
Table position	Н	
Table position	0 mm	
Inline Composing	Off	

System - Miscellaneous

Positioning mode	ISO
Table position	Н
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Coil Mode	Auto (Triple)
AutoAlign	
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	224 mm
R >> L	224 mm
F >> H	75 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.200000 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	600.0 ms
Concatenations	1

Inline - Common

Subtract	Off	
Measurements	1	
StdDev	Off	
Save Original Images	On	

Inline - MIP

MIP-Sag	Off	
MIP-Cor	Off	
MIP-Tra	Off	
MIP-Time	Off	
Save Original Images	On	

Inline - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

Sequence - Part 1

Introduction	On
Dimension	2D
Combined echoes	3
Flow comp.	Yes
Multi-slice mode	Interleaved
Bandwidth	260 Hz/Px

Sequence - Part 2

RF pulse type	Fast
Gradient mode	Normal
RF spoiling	On

Mode	Off
WIOGO	Oli