

SIEMENS MAGNETOM Verio syngo MR B15V

\\USER\ZAHID_RESEARCH\MS\No Name\3D SWI

TA: 6:39 PAT: 2 Voxel size: 1.0x0.5x2.0 mm Rel. SNR: 1.00 SIEMENS: gre

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	R3.8 P2.0 F20.7
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	256 mm
FoV phase	75.0 %
Slice thickness	2.00 mm
TR	29 ms
TE	20.0 ms
Averages	1
Concatenations	1
Filter	Prescan Normalize
Coil elements	HEA;HEP;NE1,2;SP1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
SWI	On

Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	512
Phase resolution	50 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

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

Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R3.8 P2.0 F20.7
Orientation	Transversal
Rotation	90.00 deg
A >> P	256 mm
R >> L	192 mm
F >> H	256 mm

Physio

1st Signal/Mode	None
Segments	1

Tagging	None
Dark blood	Off

Resp. control	Off

Inline

Subtract	Off
Liver registration	Off

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

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

MapIt	None
Contrasts	1

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	120 Hz/Px
Flow comp.	Yes
Allowed delay	0 s

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

SIEMENS MAGNETOM Verio syngo MR B15V

\\USER\ZAHID_RESEARCH\MS\No Name\2D MRV

TA: 7:08 PAT: 2 Voxel size: 1.0x0.5x2.5 mm Rel. SNR: 1.00 SIEMENS: fl_tof

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	128
Dist. factor	-33.00 %
Position	R3.8 P2.0 F20.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	23 ms
TE	5.02 ms
Averages	1
Concatenations	128
Filter	Elliptical filter
Coil elements	HEA;HEP;NE1,2;SP1

Contrast

TD	0.000 ms
MTC	Off
Flip angle	60 deg
Fat suppr.	None
Water suppr.	None

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

Resolution

Base resolution	512
Phase resolution	50 %
Phase partial Fourier	Off
Interpolation	Off

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

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off

Elliptical filter	On
Mode	Inplane
POCS	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending

Special sat.	Tracking F
Gap	10 mm
Thickness	40 mm

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R3.8 P2.0 F20.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	256 mm
A >> P	256 mm
F >> H	216 mm

Physio

1st Signal/Mode	None

Dark blood	Off

Angio

Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	On
MIP-Cor	On
MIP-Tra	On
MIP-Time	Off

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| Save original images On

Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	217 Hz/Px
Flow comp.	Yes

Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Verio syngo MR B15V

\\USER\ZAHID_RESEARCH\MS\No Name\FLOW QUANTIFICATION

TA: 1:21 PAT: 2 Voxel size: 0.6x0.6x4.0 mm Rel. SNR: 1.00 SIEMENS: fl_fq_retro

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	R3.8 P80.0 F23.2
Orientation	C > T39.8
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	42.15 ms
TE	4.14 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	HEA;HEP;NE1,2;SP1

Contrast

Flip angle	25 deg
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	448
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr. Mode	On
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

Shim mode	Tune up
Adjust with body coil	On
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	Pulse/Retro
Average cycle	No Signal ms
Calculated phases	30
Segments	3
Arrhythmia detection	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	50 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off

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

Sequence

Introduction	Off
Asymmetric echo	Strong
Contrasts	1
Bandwidth	531 Hz/Px
Flow comp.	No

RF pulse type	Fast
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Verio syngo MR B15V

\\USER\ZAHID_RESEARCH\MS\No Name\3D MRV (DYNAMIC)

TA: 4:18 PAT: 3 Voxel size: 0.9x0.9x0.9 mm Rel. SNR: 1.00 SIEMENS: fl3d_ce

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Phase partial Fourier	6/8
Slice partial Fourier	6/8
Interpolation	Off

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

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L0.0 P15.6 F157.9
Orientation	C > T6.6
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	8.3 %
Slices per slab	96
FoV read	340 mm
FoV phase	75.0 %
Slice thickness	0.90 mm
TR	3.41 ms
TE	1.27 ms
Averages	1
Filter	None
Coil elements	HEA;HEP;NE1,2;SP1,2

Geometry

Multi-slice mode	Sequential
Series	Ascending

Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Contrast

Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None

Averaging mode	Short term
Reconstruction	Magnitude
Measurements	15
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Multiple series	Each measurement

Positioning mode	FIX
Table position	F
Table position	135 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Off

Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Resolution

Base resolution	384
Phase resolution	100 %
Slice resolution	62 %

Physio

1st Signal/Mode	None
Segments	1

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Angio

3D centric reordering	On
Time to center	1.0 s

Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Allowed
Bandwidth	590 Hz/Px
Optimization	Min. TE TR
Allowed delay	0 s

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

SIEMENS MAGNETOM Verio syngo MR B15V

\\USER\ZAHID_RESEARCH\MS\No Name\ (HI-RES MRA)

TA: 7:10 PAT: 2 Voxel size: 0.6x0.6x0.6 mm Rel. SNR: 1.00 SIEMENS: fl_tof

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	-19.44 %
Position	R0.7 P11.9 F118.1
Orientation	C > T5.0 > S-0.2
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	10 %
Slice oversampling	22.2 %
Slices per slab	144
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	0.63 mm
TR	15 ms
TE	3.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP;NE1,2;SP1,2

Contrast

MTC	Off
Flip angle	30 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

Resolution

Base resolution	640
Phase resolution	100 %
Slice resolution	50 %
Phase partial Fourier	Off
Slice partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off
POCS	Off

Geometry

Multi-slice mode	Sequential
Series	Descending
Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Positioning mode	REF
Table position	F
Table position	135 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
Dark blood	Off

Angio

TONE ramp	70 %
Flow direction	A >> P
3D centric reordering	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	On

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

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	182 Hz/Px
Flow comp.	Yes

Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Verio syngo MR B15V

\\USER\ZAHID_RESEARCH\MS\No Name\fl3_50_coronal_tp_retro_iPAT_.57X.57x4
 TA: 1:21 PAT: 2 Voxel size: 0.8x0.8x4.0 mm Rel. SNR: 1.00 SIEMENS: fl_fq_retro

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	L1.0 P15.2 F23.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	350 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	42.15 ms
TE	4.14 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	HEA;HEP;NE1,2;SP1,2

Contrast

Flip angle	25 deg
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	448
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr. Mode	On
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

Shim mode	Tune up
Adjust with body coil	On
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	Pulse/Retro
Average cycle	No Signal ms
Calculated phases	30
Segments	3
Arrhythmia detection	None

Angio

Flow mode	Free
Encodings	1
Velocity enc.	50 cm/s
Direction	F >> H
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off

SIEMENS MAGNETOM Verio syngo MR B15V

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

Sequence

Introduction	Off
Asymmetric echo	Strong
Contrasts	1
Bandwidth	531 Hz/Px
Flow comp.	No

RF pulse type	Fast
Gradient mode	Fast
RF spoiling	On

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\\USER	ZAHID_RESEARCH			
		MS		
			No Name	
				3D SWI
				2D MRV
				FLOW QUANTIFICATION
				3D MRV (DYNAMIC)
				(HI-RES MRA)
				fl3_50_coronal_tp_retro_iPAT_.57X.57x4