SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150821\localizer

TA: 0:13 PAT: Off Voxel size: 1.1×1.0×7.0 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
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	2
Concatenations	3
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1
Dark blood	Off
Resp. control	Off

Inline

Subtract	Off
Liver registration	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
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	320 Hz/Px
Flow comp.	No
Allowed delay	0 s
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

\\USER\AMRIT\Liyong\20150821\t2_haste_sag_p2

TA: 0:13 PAT: 2 Voxel size: 1.0×1.0×2.0 mm Rel. SNR: 1.00 SIEMENS: haste

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	30
Dist. factor	0 %
Position	R0.9 A16.5 H52.3
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	395 ms
TE	76 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

MTC	Off
Magn. preparation	None
Flip angle	110 deg
Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Phase partial Fourier	5/8
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	On
Intensity	Medium
Cut off	20
Width	4
Unfiltered images	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Single shot
Series	Interleaved
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Resp. control	Off

Inline

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	On
Dimension	2D

Contrasts	1
Bandwidth	592 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	5.82 ms
Turbo factor	192
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150821\gre_david

TA: 0:45 PAT: 2 Voxel size: 0.9×0.8×4.0 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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	40
Dist. factor	0 %
Position	L1.8 A14.8 H44.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	1
Concatenations	40
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On
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
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1
Dark blood	Off
Resp. control	Off

Inline

Subtract	Off
Liver registration	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
Wash - In	Off
Wash - Out	Off

TTP	Off
PEI	Off
MIP - time	Off

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	320 Hz/Px
Flow comp.	No
Allowed delay	0 s
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

\\USER\AMRIT\Liyong\20150821\ep_seg_fid33_venc20_low

TA: 2:24 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep_seg_fid_venc

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	L5.4 A15.4 H30.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	36 ms
TE	18 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
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	L5.4 A15.4 H30.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Physio

1st Signal/Mode	None
Segments	4
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.87 ms
EPI factor	33
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	On
Pat Ref Scan	On
VENC value	400
Undersampled	On

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc20_res256

TA: 1:54 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L5.4 A15.4 H30.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.55 ms
TE	6.01 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	40

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	20 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\ep2d_venc8_fast_basal_venc8

TA: 1:19:55 PAT: 2 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	1000 %
Position	L5.4 A15.4 H30.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	5920 ms
TE	34.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	25 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	820
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R1.1 A81.7 F99.5
Orientation	C > T-5.4 > S0.9
Sat. region 2	
Thickness	50 mm
Position	R0.5 P72.7 F78.8
Orientation	C > T-5.4 > S0.9
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
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
AutoAlign	---
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	L5.4 A15.4 H30.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	16 cm/s
Direction	R >> L
Magnitude sum	Off

Sequence

Introduction	Off
Bandwidth	1628 Hz/Px
Free echo spacing	Off
Echo spacing	0.96 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	1
DummyScan Number	5
FOV Shift Number	1
Shift K0 Center	1
Every Other Slice	1

SER Number	1
Venc Repetition	800
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150821\ep_seg_fid33_venc8_low

TA: 2:24 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep_seg_fid_venc

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	L5.4 A15.4 H30.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	36 ms
TE	18 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
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	L5.4 A15.4 H30.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Physio

1st Signal/Mode	None
Segments	4
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.87 ms
EPI factor	33
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	On
Pat Ref Scan	On
VENC value	160
Undersampled	On

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc8_res256

TA: 1:54 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L5.4 A15.4 H30.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	33

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\ep_seg_fid33_venc8_4th_ventrical

TA: 2:24 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep_seg_fid_venc

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	L5.4 A9.8 H76.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	36 ms
TE	18 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
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	L5.4 A9.8 H76.5
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Physio

1st Signal/Mode	None
Segments	4
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.87 ms
EPI factor	33
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	On
Pat Ref Scan	On
VENC value	160
Undersampled	On

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc8_res256_4th_ventri

TA: 1:54 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L5.4 A9.8 H76.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	33

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\t2_haste_tra_p2

TA: 0:17 PAT: 2 Voxel size: 1.0×1.0×4.0 mm Rel. SNR: 1.00 SIEMENS: haste

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	40
Dist. factor	0 %
Position	L1.8 A14.8 H44.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	395 ms
TE	76 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

MTC	Off
Magn. preparation	None
Flip angle	117 deg
Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Phase partial Fourier	5/8
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	On
Intensity	Medium
Cut off	20
Width	4
Unfiltered images	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Single shot
Series	Interleaved
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Resp. control	Off

Inline

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	On
Dimension	2D

Contrasts	1
Bandwidth	592 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	4.78 ms
Turbo factor	192
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150821\ep_seg_fid33_venc8_4th_ventrical

TA: 2:24 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep_seg_fid_venc

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	L5.4 A9.8 H99.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	36 ms
TE	18 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
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	L5.4 A9.8 H99.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Physio

1st Signal/Mode	None
Segments	4
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.87 ms
EPI factor	33
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	On
Pat Ref Scan	On
VENC value	160
Undersampled	On

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc8_res256_4th_monroe

TA: 1:54 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L5.4 A9.8 H99.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	33

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\ep_seg_fid33_venc8_aqueduct

TA: 2:24 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep_seg_fid_venc

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	L5.4 A8.9 H83.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	36 ms
TE	18 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
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	L5.4 A8.9 H83.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Physio

1st Signal/Mode	None
Segments	4
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.87 ms
EPI factor	33
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	On
Pat Ref Scan	On
VENC value	160
Undersampled	On

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc8_res256_aqueduct

TA: 1:54 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L5.4 A8.9 H83.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	33

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\localizer

TA: 0:13 PAT: Off Voxel size: 1.1×1.0×7.0 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
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	2
Concatenations	3
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1
Dark blood	Off
Resp. control	Off

Inline

Subtract	Off
Liver registration	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
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	320 Hz/Px
Flow comp.	No
Allowed delay	0 s
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

\\USER\AMRIT\Liyong\20150821\t2_haste_sag_p2

TA: 0:14 PAT: 2 Voxel size: 1.0×1.0×2.0 mm Rel. SNR: 1.00 SIEMENS: haste

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	20
Dist. factor	0 %
Position	L0.5 A19.7 H39.6
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	639 ms
TE	76 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

MTC	Off
Magn. preparation	None
Flip angle	110 deg
Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Phase partial Fourier	5/8
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	On
Intensity	Medium
Cut off	20
Width	4
Unfiltered images	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Single shot
Series	Interleaved
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Resp. control	Off

Inline

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	On
Dimension	2D

Contrasts	1
Bandwidth	592 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	5.82 ms
Turbo factor	192
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150821\t2_haste_tra_p2

TA: 0:23 PAT: Off Voxel size: 1.0×1.0×4.0 mm Rel. SNR: 1.00 SIEMENS: haste

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	40
Dist. factor	0 %
Position	R2.0 A11.2 H54.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	540 ms
TE	76 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

MTC	Off
Magn. preparation	None
Flip angle	117 deg
Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	On
Intensity	Medium
Cut off	20
Width	4
Unfiltered images	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Single shot
Series	Interleaved
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Resp. control	Off

Inline

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	On
Dimension	2D
Contrasts	1
Bandwidth	592 Hz/Px
Flow comp.	No

Allowed delay	30 s
Echo spacing	4.78 ms
Turbo factor	192
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150821\fl_fq_mb2_venc8_res256_nav

TA: 0:15 PAT: Off Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	2
Dist. factor	1700 %
Position	L0.0 A13.1 H54.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	2
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb2f2p2_venc90_res256

TA: 1:54 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A13.1 H18.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	33

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	2
FOV Shift	2
Distance22	72

\\USER\AMRIT\Liyong\20150821\fl_fq_mb6_venc8_res256_nav

TA: 0:41 PAT: Off Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	6
Dist. factor	500 %
Position	L0.0 A13.1 H54.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	6
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb6f2p2_venc8_res256

TA: 1:54 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A13.1 F6.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	33

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	6
FOV Shift	2
Distance22	24

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc8_res256_bottom

TA: 1:54 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A13.1 H18.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	33

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc8_res256_up

TA: 1:54 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A13.1 H90.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	33

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	8 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\localizer

TA: 0:13 PAT: Off Voxel size: 1.1×1.0×7.0 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
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	2
Concatenations	3
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1
Dark blood	Off
Resp. control	Off

Inline

Subtract	Off
Liver registration	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
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	320 Hz/Px
Flow comp.	No
Allowed delay	0 s
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

\\USER\AMRIT\Liyong\20150821\ep2d_venc5_fast_TP_mb3

TA: 41:26 PAT: 2 Voxel size: 1.5×1.5×5.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A14.8 H17.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	38.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	25 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	420
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A93.4 H17.0
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P62.2 H17.0
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
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
AutoAlign	---
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	L0.0 A14.8 H17.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	5 cm/s
Direction	Through plane
Magnitude sum	Off

Sequence

Introduction	Off
Bandwidth	1776 Hz/Px
Free echo spacing	Off
Echo spacing	0.94 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1

SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150821\ep2d_venc5_slow_TP_mb3

TA: 41:26 PAT: 2 Voxel size: 1.5×1.5×5.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A14.8 H17.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	38.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	25 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	420
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A93.4 H17.0
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P62.2 H17.0
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
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
AutoAlign	---
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	L0.0 A14.8 H17.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	5 cm/s
Direction	Through plane
Magnitude sum	Off

Sequence

Introduction	Off
Bandwidth	1776 Hz/Px
Free echo spacing	Off
Echo spacing	0.94 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1

SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150821\ep2d_venc5_fast_TP_mb1

TA: 40:27 PAT: 2 Voxel size: 1.5×1.5×5.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A14.8 H17.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	38.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	25 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	420
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A93.4 H17.0
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P62.2 H17.0
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
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
AutoAlign	---
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	L0.0 A14.8 H17.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	5 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	5 cm/s
Direction	Through plane
Magnitude sum	Off

Sequence

Introduction	Off
Bandwidth	1776 Hz/Px
Free echo spacing	Off
Echo spacing	0.94 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	1
DummyScan Number	5
FOV Shift Number	1
Shift K0 Center	1
Every Other Slice	1

SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150821\localizer

TA: 0:13 PAT: Off Voxel size: 1.1×1.0×7.0 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
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	2
Concatenations	3
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1
Dark blood	Off
Resp. control	Off

Inline

Subtract	Off
Liver registration	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
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	320 Hz/Px
Flow comp.	No
Allowed delay	0 s
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

\\USER\AMRIT\Liyong\20150821\gre_david

TA: 0:45 PAT: 2 Voxel size: 0.9×0.8×4.0 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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	40
Dist. factor	0 %
Position	L1.8 A33.8 H37.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	1
Concatenations	40
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On
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
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Tim CT mode	Off

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1
Dark blood	Off
Resp. control	Off

Inline

Subtract	Off
Liver registration	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
Wash - In	Off
Wash - Out	Off

TTP	Off
PEI	Off
MIP - time	Off

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	320 Hz/Px
Flow comp.	No
Allowed delay	0 s
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

\\USER\AMRIT\Liyong\20150821\fl_fq_mb2_venc90_res256_nav

TA: 0:15 PAT: Off Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	2
Dist. factor	1700 %
Position	L0.0 A41.5 H26.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	2
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Triple
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb2f2p2_venc90_res256

TA: 2:08 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A41.5 F9.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	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

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	900 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	38

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	2
FOV Shift	2
Distance22	72

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc90_res256_bottom

TA: 2:08 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A41.5 F9.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	900 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	38

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc90_res256_up

TA: 2:08 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A41.5 H62.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	23.60 ms
TE	8.02 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	900 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	38

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb_ip_venc90_res256_nav

TA: 0:12 PAT: Off Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb_ip

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	2
Dist. factor	1700 %
Position	L0.0 A14.9 H25.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	2
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Triple
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb_ip_mb2f2p2_venc90_res256

TA: 2:05 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb_ip

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	1700 %
Position	L0.0 A14.9 F11.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Triple
Reference scan mode	Separate
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	ECG/Trigger
Average cycle	478 ± 42 ms
Captured cycle	-not set-
Acquisition window	900 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	47

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	2
FOV Shift	2
Distance22	72

\\USER\AMRIT\Liyong\20150821\fl_fq_mb_gre

TA: 0:41 PAT: Off Voxel size: 1.2×1.2×5.0 mm Rel. SNR: 1.00 USER: fl_fq_mb_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
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	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	150.00 ms
TE	10.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BC

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	On
HEP	Off
HEA	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	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1

\\USER\AMRIT\Liyong\20150821\ep2d_bold_slc_prof

TA: 5.3 s PAT: Off Voxel size: 7.8×3.9×5.0 mm Rel. SNR: 1.00 USER: ep2d_bold_slc_prof

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	500 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	113 ms
TE	53 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BC

Contrast

MTC	Off
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	50 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None

System

Body	On
HEP	Off
HEA	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
AutoAlign	---
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	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	500 mm
A >> P	500 mm
F >> H	5 mm

Physio

1st Signal/Mode	None

BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	On
Interpolation	3D-K-space
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	752 Hz/Px
Free echo spacing	Off
Echo spacing	1.38 ms
EPI factor	64
RF pulse type	Normal
Gradient mode	Fast
RF90 duration	5120

\\USER\AMRIT\Liyong\20150821\ep2d_fairest_UI_iPAT_OVS_mbf3O2

TA: 1:36 PAT: Off Voxel size: 2.7×2.7×5.0 mm Rel. SNR: 1.00 USER: ep2d_fairest_UI_iPAT_OVS

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	12
Dist. factor	100 %
Position	L2.4 P43.6 F6.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	175 mm
FoV phase	59.4 %
Slice thickness	5.0 mm
TR	3000 ms
TE	16 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	64
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	100 mm
Position	L0.0 A46.6 F33.3
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
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
AutoAlign	---
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	L2.4 P43.6 F6.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	175 mm
A >> P	104 mm
F >> H	115 mm

Physio

1st Signal/Mode	None

BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	3256 Hz/Px
Free echo spacing	Off
Echo spacing	0.69 ms
EPI factor	38
RF pulse type	Normal
Gradient mode	Fast
Perfusion Method	NONE
IR Slab Thickness	100 mm
Post IR Delay	700000 us
Inf.Sat Thickness	100 mm
Post Inf.Sat Delay	1000000 us
IR-Inf.Sat Spacing	0 mm
Pre.IR Time Delay	0 us
non-sel IR Slab Thic	300 mm
Ovs	2.0 (1/2 on;
Crusher Gradient	0 s/mm2
MB Factor	3.0
Fake ASL	1.0 (1 off,0
FOV Shift	3.0
DummyScan	4.0

\\USER\AMRIT\Liyong\20150821\BP_nIV_m3m1_sag

TA: 0:30 PAT: Off Voxel size: 1.5×1.5×3.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_sat_2mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	3
Dist. factor	0 %
Position	R3.6 A5.4 F9.7
Orientation	Sagittal
Phase enc. dir.	H >> F
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	25.0 %
Slices per slab	8
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	5000 ms
TE	113.98 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	6
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
Multiple series	Off

Resolution

Base resolution	120
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Raw filter	Off

Geometry

Series	Ascending
Sat. region 1	
Thickness	80 mm
Position	R3.6 P0.0 H0.0
Orientation	Sagittal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	R3.6 A5.4 F9.7
Orientation	Sagittal
Rotation	90.00 deg
A >> P	180 mm
F >> H	180 mm
R >> L	72 mm

Physio

1st Signal/Mode	None

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1262 Hz/Px
Echo spacing	0.9 ms
Turbo factor	10
EPI factor	120
RF pulse type	Normal
Gradient mode	Fast*
refocussing type	sinc 2560
flip angle excit	90
Crusher Momentum	12700
Crusher Time	790
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0
MB Number	3
Shift or Not	0
Dummy Number	1
MB Number2	1
Dummy TR(ut:ms)	0

\\USER\AMRIT\Liyong\20150821\BP_nIV_m2m1_sag

TA: 0:30 PAT: Off Voxel size: 1.5×1.5×3.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_sat_2mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	2
Dist. factor	0 %
Position	R3.6 A5.4 F9.7
Orientation	Sagittal
Phase enc. dir.	H >> F
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	25.0 %
Slices per slab	8
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	5000 ms
TE	113.98 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	6
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
Multiple series	Off

Resolution

Base resolution	120
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Raw filter	Off

Geometry

Series	Ascending
Sat. region 1	
Thickness	60 mm
Position	R3.6 P0.0 H0.0
Orientation	Sagittal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	R3.6 A5.4 F9.7
Orientation	Sagittal
Rotation	90.00 deg
A >> P	180 mm
F >> H	180 mm
R >> L	48 mm

Physio

1st Signal/Mode	None

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1262 Hz/Px
Echo spacing	0.9 ms
Turbo factor	10
EPI factor	120
RF pulse type	Normal
Gradient mode	Fast*
refocussing type	sinc 2560
flip angle excit	90
Crusher Momentum	12700
Crusher Time	790
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0
MB Number	2
Shift or Not	0
Dummy Number	1
MB Number2	1
Dummy TR(ut:ms)	0

\\USER\AMRIT\Liyong\20150821\ep2d_fairest_UI_iPAT_OVS_asl_mbf3O2

TA: 4:48 PAT: Off Voxel size: 2.7×2.7×4.0 mm Rel. SNR: 1.00 USER: ep2d_fairest_UI_iPAT_OVS

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	21
Dist. factor	10 %
Position	L4.2 P52.4 H63.1
Orientation	T > C-42.0
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	175 mm
FoV phase	59.4 %
Slice thickness	4.0 mm
TR	3000 ms
TE	16 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	60
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	64
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	100 mm
Position	L0.0 A76.2 H67.2
Orientation	C > T43.4
Special sat.	None

System

Body	Off
HEP	On
HEA	On
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
AutoAlign	---
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	L4.2 P52.4 H63.1
Orientation	T > C-42.0
Rotation	0.00 deg
R >> L	175 mm
A >> P	104 mm
F >> H	92 mm

Physio

1st Signal/Mode	None

BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	3256 Hz/Px
Free echo spacing	Off
Echo spacing	0.69 ms
EPI factor	38
RF pulse type	Normal
Gradient mode	Fast
Perfusion Method	QUIPSS II
IR Slab Thickness	112 mm
Post IR Delay	700000 us
Inf.Sat Thickness	100 mm
Post Inf.Sat Delay	1000000 us
IR-Inf.Sat Spacing	0 mm
Pre.IR Time Delay	0 us
non-sel IR Slab Thic	312 mm
Ovs	2.0 (1/2 on;
Crusher Gradient	0 s/mm2
MB Factor	3.0
Fake ASL	0.0 (1 off,0
FOV Shift	3.0
DummyScan	4.0

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3f3p2_venc90_res256

TA: 2:04 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A23.5 F6.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	870 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	45

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	3
FOV Shift	3
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3f1p2_venc90_res256

TA: 2:04 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A23.5 F6.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	870 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	45

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	3
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3_venc90_res256_nav

TA: 0:12 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A23.5 H25.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	48
Matrix Coil Mode	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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1

FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb1f1p2_venc90_res256_bottom

TA: 2:04 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A23.5 F6.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	870 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	45

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb4f2p2_venc90_res256

TA: 2:04 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L0.0 A23.5 F6.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
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.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	870 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	45

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	4
FOV Shift	2
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb4_venc90_res256_nav

TA: 0:15 PAT: 2 Voxel size: 0.8×0.8×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	4
Dist. factor	700 %
Position	L0.0 A23.5 H41.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	4
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	48
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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1

FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3_venc90_res256_nav

TA: 8.9 s PAT: 2 Voxel size: 1.2×1.2×3.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	3
Dist. factor	1700 %
Position	L0.7 P15.3 H71.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	300 mm
FoV phase	68.8 %
Slice thickness	3.0 mm
TR	17.50 ms
TE	5 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP;NE1,2;SP1-4

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	48
Matrix Coil Mode	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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3f3p1_venc90_res256_new

TA: 2:35 PAT: Off Voxel size: 1.2×1.2×3.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	1700 %
Position	L0.7 P15.3 H17.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	300 mm
FoV phase	68.8 %
Slice thickness	3.0 mm
TR	17.50 ms
TE	5 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP;NE1,2;SP1-4

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Triple
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	870 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	49

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off

Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	3
FOV Shift	3
Distance22	54

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3_venc90_res256_nav

TA: 0:12 PAT: 2 Voxel size: 1.0×1.0×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	3
Dist. factor	2200 %
Position	L5.9 P15.3 H19.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP;NE1,2;SP1-4

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	48
Matrix Coil Mode	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

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3f3p1_venc90_res256_pre

TA: 3:45 PAT: Off Voxel size: 1.0×1.0×4.0 mm Rel. SNR: 1.00 USER: fl_fq_mb

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	700 %
Position	L5.9 P15.3 F70.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP;NE1,2;SP1-4

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Triple
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	870 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	45

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off

Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	3
FOV Shift	3
Distance22	92

\\USER\AMRIT\Liyong\20150821\pgrs3d_seg_asl_MB_ref1_f4z_tr8s

TA: 1:04 PAT: Off Voxel size: 4.0×4.0×3.0 mm Rel. SNR: 1.00 USER: pgrs3d_seg_asl_MB

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	3
Dist. factor	0 %
Position	L7.3 A4.8 H63.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	25.0 %
Slices per slab	8
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	8000 ms
TE	32.12 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	12
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
Multiple series	Each measurement

Resolution

Base resolution	64
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Raw filter	Off

Geometry

Series	Ascending
Sat. region 1	
Thickness	72 mm
Position	L7.3 A4.8 H63.6
Orientation	Transversal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	L7.3 A4.8 H63.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	256 mm
A >> P	256 mm
F >> H	72 mm

Physio

1st Signal/Mode	None
Segments	1

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	2790 Hz/Px
Echo spacing	0.4 ms
Turbo factor	10
EPI factor	65
RF pulse type	Normal
Gradient mode	Fast
Background Suppr.	Off
Suppress arteries	0 s/mm2
Start of time series	2000 ms
Increment time series	250 ms
Length of time series	1 ms
Use adaptive TR	Off
MB Number	3
Number of echoes	1

Additional Echo Time	0
Post sat	Off
Q2TIPS duration	200 ms
BS parameter[1]	500 ms
BS parameter[2]	10 ms
BS parameter[3]	0 ms
FOCI parameter[1]	800
FOCI parameter[2]	24
FOCI parameter[3]	1.0
FOCI parameter[4]	2000
Ref Scan(1)	1

\\USER\AMRIT\Liyong\20150821\pgrs3d_seg_asl_MB_ref0_f4z_tr3s_bs

TA: 2:24 PAT: Off Voxel size: 4.0×4.0×3.0 mm Rel. SNR: 1.00 USER: pgrs3d_seg_asl_MB

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	3
Dist. factor	0 %
Position	L7.3 A4.8 H63.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	25.0 %
Slices per slab	8
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	3000 ms
TE	32.12 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	24
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
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Multiple series	Each measurement

Resolution

Base resolution	64
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Raw filter	Off

Geometry

Series	Ascending
Sat. region 1	
Thickness	72 mm
Position	L7.3 A4.8 H63.6
Orientation	Transversal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	L7.3 A4.8 H63.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	256 mm
A >> P	256 mm
F >> H	72 mm

Physio

1st Signal/Mode	None
Segments	1

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	2790 Hz/Px
Echo spacing	0.4 ms

Turbo factor	10
EPI factor	65
RF pulse type	Normal
Gradient mode	Fast
Background Suppr.	Off
Suppress arteries	0 s/mm2
Start of time series	600 ms
Increment time series	250 ms
Length of time series	1 ms
Use adaptive TR	Off
MB Number	3
Number of echoes	1
Additional Echo Time	0
Post sat	Off
Q2TIPS duration	200 ms
BS parameter[1]	500 ms
BS parameter[2]	10 ms
BS parameter[3]	0 ms
FOCI parameter[1]	800
FOCI parameter[2]	24
FOCI parameter[3]	1.0
FOCI parameter[4]	2000
Ref Scan(1)	0

\\USER\AMRIT\Liyong\20150821\pgrs3d_seg_asl_MB_ref0_f4z_tr3s_bs

TA: 2:24 PAT: Off Voxel size: 4.0×4.0×3.0 mm Rel. SNR: 1.00 USER: pgrs3d_seg_asl_MB

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	L7.3 A4.8 H63.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	25.0 %
Slices per slab	24
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	3000 ms
TE	32.12 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	24
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
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Multiple series	Each measurement

Resolution

Base resolution	64
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Raw filter	Off

Geometry

Series	Ascending
Sat. region 1	
Thickness	72 mm
Position	L7.3 A4.8 H63.6
Orientation	Transversal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	L7.3 A4.8 H63.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	256 mm
A >> P	256 mm
F >> H	72 mm

Physio

1st Signal/Mode	None
Segments	1

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	2790 Hz/Px
Echo spacing	0.4 ms

Turbo factor	30
EPI factor	65
RF pulse type	Normal
Gradient mode	Fast
Background Suppr.	Off
Suppress arteries	0 s/mm2
Start of time series	600 ms
Increment time series	250 ms
Length of time series	1 ms
Use adaptive TR	Off
MB Number	1
Number of echoes	1
Additional Echo Time	0
Post sat	Off
Q2TIPS duration	200 ms
BS parameter[1]	500 ms
BS parameter[2]	10 ms
BS parameter[3]	0 ms
FOCI parameter[1]	800
FOCI parameter[2]	24
FOCI parameter[3]	1.0
FOCI parameter[4]	2000
Ref Scan(1)	0

SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150821\localizer

TA: 0:13 PAT: Off Voxel size: 1.1×1.0×7.0 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
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	2
Concatenations	3
Filter	Prescan Normalize, Elliptical filter
Coil elements	NE1,2;SP1,2

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Tim CT mode	Off

System

Body	Off
NE2	On
NE1	On
HEP	Off
HEA	Off
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
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1
Dark blood	Off
Resp. control	Off

Inline

Subtract	Off
Liver registration	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
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	320 Hz/Px
Flow comp.	No
Allowed delay	0 s
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

\\USER\AMRIT\Liyong\20150821\trufi_singleshot_15sl_iPAT

TA: 0:18 PAT: 2 Voxel size: 2.0×1.3×6.0 mm Rel. SNR: 1.00 SIEMENS: CV

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	On
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	On
Start measurements	single

Routine

Slice group 1	
Slices	25
Dist. factor	30 %
Position	L2.8 P6.7 F0.6
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Auto	On
Phase oversampling	0 %
FoV read	340 mm
FoV phase	75.0 %
Slice thickness	6.0 mm
TR	258.52 ms
TE	1.23 ms
Averages	1
Concatenations	25
Filter	Distortion Corr.(2D)
Coil elements	HEA;HEP;NE1,2;SP1-4

Contrast

TD	0 ms
Magn. preparation	None
Flip angle	51 deg
Fat suppr.	None
Restore magn.	On
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	66 %
Phase partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	26
Matrix Coil Mode	Dual
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	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	On
SP2	On
SP8	Off
SP6	Off
SP3	On
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
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	710 ms
Trigger pulse	1
Trigger delay	400 ms
Segments	76
Phases	1
Dark blood	Off
Cine	Off
Resp. control	Off

Inline

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	2D
Reordering	Linear
Asymmetric echo	Allowed
Bandwidth	849 Hz/Px
Optimization	Min. TE TR
Allowed delay	3 s
Echo spacing	2.9 ms
Sequence type	Trufi
Define	Shots
Shots per slice	1
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant

\\USER\AMRIT\Liyong\20150821\trufi_singleshot_15sl_iPAT

TA: 0:25 PAT: 2 Voxel size: 2.0×1.3×6.0 mm Rel. SNR: 1.00 SIEMENS: CV

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	On
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	On
Start measurements	single

Routine

Slice group 1	
Slices	35
Dist. factor	30 %
Position	L0.0 A5.8 F0.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0 deg
Auto	On
Phase oversampling	0 %
FoV read	340 mm
FoV phase	75.0 %
Slice thickness	6.0 mm
TR	258.52 ms
TE	1.23 ms
Averages	1
Concatenations	35
Filter	Distortion Corr.(2D)
Coil elements	HEA;HEP;NE1,2;SP1-4

Contrast

TD	0 ms
Magn. preparation	None
Flip angle	51 deg
Fat suppr.	None
Restore magn.	On
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	66 %
Phase partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	26
Matrix Coil Mode	Dual
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	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	On
SP2	On
SP8	Off
SP6	Off
SP3	On
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
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	710 ms
Trigger pulse	1
Trigger delay	400 ms
Segments	76
Phases	1
Dark blood	Off
Cine	Off
Resp. control	Off

Inline

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	2D
Reordering	Linear
Asymmetric echo	Allowed
Bandwidth	849 Hz/Px
Optimization	Min. TE TR
Allowed delay	3 s
Echo spacing	2.9 ms
Sequence type	Trufi
Define	Shots
Shots per slice	1
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3_greX_nav

TA: 0:18 PAT: Off Voxel size: 1.3×1.3×5.0 mm Rel. SNR: 1.00 USER: fl_fq_mb_greX

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	3
Dist. factor	1600 %
Position	R0.8 P0.0 H21.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	320 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP;NE1,2;SP1-4

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Triple
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	20

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3_greX_true

TA: 3:02 PAT: Off Voxel size: 1.3×1.3×5.0 mm Rel. SNR: 1.00 USER: fl_fq_mb_greX

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	3
Dist. factor	1600 %
Position	R0.8 P0.0 H21.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	320 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	19.10 ms
TE	5.77 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP;NE1,2;SP1-4

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Triple
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
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	Adaptive Combine
AutoAlign	---
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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	708 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	37

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	100 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
MIP-Tra	Off
MIP-Time	Off

Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	3
FOV Shift	3
Distance22	20

\\USER\AMRIT\Liyong\20150821\ep_seg_fid33_venc20_ipat3

TA: 2:43 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep_seg_fid_venc

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	L5.4 A15.4 H30.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	29 ms
TE	14 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
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	L5.4 A15.4 H30.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Physio

1st Signal/Mode	None
Segments	6
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.87 ms
EPI factor	25
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	On
Pat Ref Scan	On
VENC value	400
Undersampled	On

\\USER\AMRIT\Liyong\20150821\ep_seg_fid33_venc20_ipat2

TA: 2:24 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep_seg_fid_venc

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	L5.4 A15.4 H30.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	36 ms
TE	18 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
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	L5.4 A15.4 H30.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Physio

1st Signal/Mode	None
Segments	4
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.87 ms
EPI factor	33
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	On
Pat Ref Scan	On
VENC value	400
Undersampled	On

\\USER\AMRIT\Liyong\20150821\ep_seg_fid33_venc2_ipat4_brain

TA: 2:39 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep_seg_fid_venc

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	R1.6 A13.4 H148.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	22 ms
TE	11 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP
Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
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	R1.6 A13.4 H148.5
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Pause after meas.	0.0 s
Multiple series	Off

Physio

1st Signal/Mode	None
Segments	8
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.87 ms
EPI factor	17
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	On
Pat Ref Scan	On
VENC value	40
Undersampled	On

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

\\USER\AMRIT\Liyong\20150821\ep_seg_fid33_venc40_ipat4

TA: 2:39 Voxel size: 1.4×1.4×4.0 mm Rel. SNR: 1.00 USER: ep_seg_fid_venc

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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	50 %
Position	L5.4 A15.4 H30.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	180 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	22 ms
TE	11 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	800
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Matrix Coil Mode	Auto (CP)
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
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	L5.4 A15.4 H30.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	4 mm

Physio

1st Signal/Mode	None
Segments	8
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.87 ms
EPI factor	17
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	On
Pat Ref Scan	On
VENC value	800
Undersampled	On

\\USER\AMRIT\Liyong\20150821\fl_fq_mb3_gre_nav

TA: 0:17 PAT: Off Voxel size: 1.2×1.2×5.0 mm Rel. SNR: 1.00 USER: fl_fq_mb_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
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	17.55 ms
TE	5.00 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	BC

Contrast

Flip angle	15 deg
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	On
HEP	Off
HEA	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	Adaptive Combine
AutoAlign	---
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
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 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
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1