SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150420\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\20150420\t2_haste_sag_p2

TA: 0:41 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	100
Dist. factor	0 %
Position	L3.2 A12.5 H46.9
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\20150420\t2_haste_tra_p2

TA: 0:33 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	80
Dist. factor	0 %
Position	R1.7 A19.6 H49.1
Orientation	Transversal
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	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	5.82 ms
Turbo factor	192
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150420\ep2d_venc10_fast_TP_SS_EPI

TA: 1:20:54 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 A11.2 H73.4
Orientation	T > C14.6
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	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	L0.0 A87.4 H53.5
Orientation	C > T-14.6
Sat. region 2	
Thickness	50 mm
Position	L0.0 P63.3 H92.8
Orientation	C > T-14.6
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 A11.2 H73.4
Orientation	T > C14.6
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.	10 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	800
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150420\ep_seg_fid33_venc10_centric

TA: 1:32 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	L0.0 A11.2 H73.4
Orientation	T > C14.6
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	512
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	L0.0 A11.2 H73.4
Orientation	T > C14.6
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	100
Undersampled	On

\\USER\AMRIT\Liyong\20150420\ep_seg_fid33_venc10_ncentric

TA: 1:32 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	L0.0 A11.2 H73.4
Orientation	T > C14.6
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	512
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	L0.0 A11.2 H73.4
Orientation	T > C14.6
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	Off
Pat Ref Scan	On
VENC value	100
Undersampled	On

\\USER\AMRIT\Liyong\20150420\ep_seg_fid33_venc1_centric

TA: 1:32 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	L0.0 A13.1 H6.9
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	512
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	L0.0 A13.1 H6.9
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	10
Undersampled	On

\\USER\AMRIT\Liyong\20150420\ep_seg_fid33_venc1_centric_up1

TA: 1:32 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	L0.0 A16.3 H32.0
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	512
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	L0.0 A16.3 H32.0
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	10
Undersampled	On

\\USER\AMRIT\Liyong\20150420\fl_fq_mb1_second_up1

TA: 1:45 PAT: Off Voxel size: 1.4×1.4×4.0 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	20 %
Position	L0.0 A16.3 H32.0
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	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	128
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	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	41

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	40

\\USER\AMRIT\Liyong\20150420\gre

TA: 1:01 PAT: Off Voxel size: 0.9×0.8×3.0 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	30
Dist. factor	20 %
Position	L0.0 A24.2 H5.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	1
Concatenations	30
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\20150420\ep_seg_fid33_venc10_centric_fast

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	L0.0 P19.7 H35.8
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	SP1,2
Body	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	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	L0.0 P19.7 H35.8
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	4
Resp. control	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

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	100
Undersampled	On

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

\\USER\AMRIT\Liyong\20150420\ep_seg_fid33_venc10_centric_slow_spine

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	L0.0 P19.7 H35.8
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	SP1,2
Body	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	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	L0.0 P19.7 H35.8
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	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	100
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\20150420\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	SP1-3

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
SP4	Off
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	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\20150420\t2_haste_sag_p2

TA: 0:33 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	80
Dist. factor	0 %
Position	L3.2 A12.5 H46.9
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	SP1,2

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
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	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\20150420\t2_haste_tra_p2

TA: 0:33 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	80
Dist. factor	0 %
Position	R1.7 A19.0 F23.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	395 ms
TE	76 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	SP2-5

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
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	Off
SP7	Off
SP5	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\20150420\ep_seg_fid33_venc10_kidney_shallow

TA: 3:00 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	L0.0 A13.0 F65.9
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	SP2,3
Body	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	Off
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
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	L0.0 A13.0 F65.9
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	1000
Pause after meas.	0.0 s
Multiple series	Off

Physio

1st Signal/Mode	None
Segments	4
Resp. control	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

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	100
Undersampled	On

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

System

\\USER\AMRIT\Liyong\20150420\ep_seg_fid33_venc10_lumbar_shallow

TA: 1:48 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	L0.0 A13.0 F141.4
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	SP3-6
Body	Off
SP4	On
SP2	Off
SP8	Off
SP6	On
SP3	On
SP1	Off
SP7	Off
SP5	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	L0.0 A13.0 F141.4
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	600
Pause after meas.	0.0 s
Multiple series	Off

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	100
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\20150420\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\20150420\t2_haste_sag_p2

TA: 0:41 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	100
Dist. factor	0 %
Position	L3.2 A12.5 H46.9
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
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
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
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\20150420\t2_haste_tra_p2

TA: 0:33 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	80
Dist. factor	0 %
Position	R1.7 A19.6 H49.1
Orientation	Transversal
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	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
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
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
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\20150420\gre

TA: 0:45 PAT: 2 Voxel size: 0.9×0.8×3.0 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	20 %
Position	R3.6 A23.6 F6.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 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
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
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\20150420\ep2d_venc10_fast_TP_shallow

TA: 1:01:10 PAT: 2 Voxel size: 1.5×1.5×4.0 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	3
Dist. factor	700 %
Position	L0.0 A7.8 H59.3
Orientation	T > C10.2
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	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	620
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 A85.2 H45.4
Orientation	C > T-10.2
Sat. region 2	
Thickness	50 mm
Position	L0.0 P68.0 H72.9
Orientation	C > T-10.2
Special sat.	None

System

Body	Off
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
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 A7.8 H59.3
Orientation	T > C10.2
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	68 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	10 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	600
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150420\fl_fq_mb3_second_venc5_nav

TA: 0:13 PAT: Off Voxel size: 1.5×1.5×4.0 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 A7.8 H59.3
Orientation	T > C10.2
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	26.65 ms
TE	9.56 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
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

Contrast

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

Physio

1st Signal/Mode	None
Segments	1

Resolution

Base resolution	128
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

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	5 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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No

System

Body	Off

RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	32

\\USER\AMRIT\Liyong\20150420\fl_fq_mb3_second_venc5

TA: 1:38 PAT: Off Voxel size: 1.5×1.5×4.0 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	20 %
Position	L0.0 A3.6 H25.4
Orientation	T > C10.2
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	26.65 ms
TE	9.56 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
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

Contrast

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

Physio

1st Signal/Mode	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	750 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	28

Resolution

Base resolution	128
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

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	5 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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	Off

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\20150420\ep2d_venc10_sag_fh_shallow

TA: 59:24 PAT: 2 Voxel size: 1.5×1.5×4.0 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	700 %
Position	L0.0 A7.8 H59.3
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 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	620
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 A85.2 H45.4
Orientation	C > T-10.2
Sat. region 2	
Thickness	50 mm
Position	L0.0 P68.0 H72.9
Orientation	C > T-10.2
Special sat.	None

System

Body	Off
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
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 A7.8 H59.3
Orientation	Sagittal
Rotation	0.00 deg
F >> H	192 mm
A >> P	192 mm
R >> L	4 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	10 cm/s
Direction	F >> H
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	1
FOV Shift Number	1
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	600
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150420\ep_seg_fid33_venc120_carotid_shallow

TA: 1:48 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	L0.0 A46.5 F44.3
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	600
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
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
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
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	L0.0 A46.5 F44.3
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	1200
Undersampled	On

\\USER\AMRIT\Liyong\20150420\ep_seg_fid33_venc120_hr_cow_shallow

TA: 1:57 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	L0.0 A18.2 H56.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	174 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	39 ms
TE	19 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	600
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
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
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
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	L0.0 A18.2 H56.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	174 mm
A >> P	174 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	0.97 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	1200
Undersampled	On

\\USER\AMRIT\Liyong\20150420\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\20150420\t2_haste_sag_p2

TA: 0:41 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	100
Dist. factor	0 %
Position	L3.2 A12.5 H46.9
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\20150420\gre_david

TA: 0:45 PAT: 2 Voxel size: 0.9×0.8×3.0 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	20 %
Position	R3.6 A27.0 H52.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 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\20150420\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	L0.0 A10.6 H50.0
Orientation	T > C7.3
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\20150420\ep2d_venc8_fast_TP_pos2

TA: 1:20:25 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	2
Dist. factor	1200 %
Position	L0.0 A17.1 H75.1
Orientation	T > C7.3
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	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	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	L0.0 A90.7 H17.5
Orientation	C > T-4.3
Sat. region 2	
Thickness	50 mm
Position	L0.0 P59.2 H84.9
Orientation	C > T-7.3
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	L0.0 A17.1 H75.1
Orientation	T > C7.3
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	56 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	16 cm/s
Direction	Through plane
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	2
DummyScan Number	5
FOV Shift Number	3
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\20150420\ep2d_venc8_fast_sag_pos2

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	L3.0 A24.1 H54.7
Orientation	S > C-0.9 > T-0.1
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	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	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	L1.2 A92.4 F59.0
Orientation	C > T-5.4 > S0.9
Sat. region 2	
Thickness	50 mm
Position	L1.8 P62.0 F38.4
Orientation	C > T-5.4 > S0.9
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	L3.0 A24.1 H54.7
Orientation	S > C-0.9 > T-0.1
Rotation	0.00 deg
F >> H	180 mm
A >> P	180 mm
R >> L	4 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	16 cm/s
Direction	F >> H
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\20150420\ep_seg_fid33_venc90_carotid_shallow

TA: 1:48 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	L0.0 A46.5 F44.3
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	600
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
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
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
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	L0.0 A46.5 F44.3
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	1800
Undersampled	On

\\USER\AMRIT\Liyong\20150420\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\20150420\t2_haste_sag_p2

TA: 0:41 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	100
Dist. factor	0 %
Position	R1.7 A12.5 H12.4
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\20150420\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	L0.0 A10.6 H5.4
Orientation	T > C7.3
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\20150420\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	R1.2 A14.0 F16.3
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\20150420\ep2d_venc8_fast_TP_pos2

TA: 1:20:25 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	2
Dist. factor	800 %
Position	L0.0 A12.4 H20.3
Orientation	T > C7.3
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	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	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	L0.0 A92.5 H32.4
Orientation	C > T-4.3
Sat. region 2	
Thickness	50 mm
Position	L0.0 P57.4 H99.8
Orientation	C > T-7.3
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	L0.0 A12.4 H20.3
Orientation	T > C7.3
Rotation	0.00 deg
R >> L	180 mm
A >> P	180 mm
F >> H	40 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	16 cm/s
Direction	Through plane
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	2
DummyScan Number	5
FOV Shift Number	3
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\20150420\ep2d_venc8_fast_sag_pos2

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	L0.7 A13.4 H14.3
Orientation	S > C-0.9 > T-0.1
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	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	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	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	L0.7 A13.4 H14.3
Orientation	S > C-0.9 > T-0.1
Rotation	0.00 deg
F >> H	180 mm
A >> P	180 mm
R >> L	4 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	16 cm/s
Direction	F >> H
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\20150420\ep_seg_fid33_venc90_carotid_shallow

TA: 1:48 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	L0.0 A14.0 F46.1
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	600
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	L0.0 A14.0 F46.1
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	1800
Undersampled	On

\\USER\AMRIT\Liyong\20150420\ep_seg_fid33_venc30_cerebral_shallow

TA: 1:48 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	L0.0 A11.2 H18.0
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	600
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	L0.0 A11.2 H18.0
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	600
Undersampled	On

\\USER\AMRIT\Liyong\20150420\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\20150420\t2_haste_sag_p2

TA: 0:41 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	100
Dist. factor	0 %
Position	R1.7 A17.3 H6.4
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\20150420\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	L0.0 A15.7 H2.2
Orientation	T > C2.4
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\20150420\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 A22.3 F39.5
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\20150420\fl_fq_mb3f3p2_venc90_res256

TA: 1:33 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 A19.9 F64.7
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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\20150420\fl_fq_mb3_venc90_res256_nav

TA: 0:18 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	3
Dist. factor	700 %
Position	L0.0 A19.9 F32.7
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	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.	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\20150420\fl_fq_mb3f3p1_venc90_res256

TA: 2:49 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	1
Dist. factor	700 %
Position	L0.0 A19.9 F64.7
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	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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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\20150420\fl_fq_mb2f2p2_venc90_res256

TA: 1:33 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 A31.4 F66.1
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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	32

\\USER\AMRIT\Liyong\20150420\fl_fq_mb2_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

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	700 %
Position	L0.0 A31.4 F50.1
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	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.	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\20150420\fl_fq_mb2f2p1_venc90_res256

TA: 2:49 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	1
Dist. factor	700 %
Position	L0.0 A31.4 F66.1
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	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	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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	32

\\USER\AMRIT\Liyong\20150420\fl_fq_mb4f2p2_venc90_res256

TA: 1:33 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 A31.4 F66.1
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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\20150420\fl_fq_mb4_venc90_res256_nav

TA: 0:23 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	4
Dist. factor	700 %
Position	L0.0 A31.4 F18.1
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	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.	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\20150420\fl_fq_mb6f2p2_venc90_res256

TA: 1:33 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 A31.4 F66.1
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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	6
FOV Shift	2
Distance22	32

\\USER\AMRIT\Liyong\20150420\fl_fq_mb6_venc90_res256_nav

TA: 0:34 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	700 %
Position	L0.0 A31.4 H13.9
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	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.	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\20150420\fl_fq_mb4f2p2_venc90_res256_closer

TA: 1:33 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 A31.4 F66.1
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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	16

\\USER\AMRIT\Liyong\20150420\fl_fq_mb4_venc90_res256_closer_nav

TA: 0:23 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	4
Dist. factor	300 %
Position	L0.0 A31.4 F42.1
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	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.	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\20150420\fl_fq_mb1f1p2_venc90_res256_bottom

TA: 1:33 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 A31.4 F66.1
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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\20150420\fl_fq_mb1f1p2_venc90_res256_bottom_up1

TA: 1:33 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 A31.4 F34.1
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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\20150420\fl_fq_mb1f1p2_venc90_res256_bottom_up3

TA: 1:33 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 A31.4 F2.1
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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\20150420\fl_fq_mb1f1p2_venc90_res256_bottom_up4

TA: 1:33 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 A31.4 H29.9
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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\20150420\fl_fq_mb1f1p2_venc90_res256_bottom_up_half

TA: 1:33 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 A31.4 F50.1
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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\20150420\fl_fq_mb1f1p2_venc90_res256_bottom_up_1andhalf

TA: 1:33 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 A31.4 F18.1
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	650 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	34

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\20150420\fl_fq_mb3_venc90_res256_nav_extra

TA: 0:18 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	3
Dist. factor	800 %
Position	L0.0 A21.8 H49.6
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	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	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.	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\20150420\fl_fq_mb3f3p2_venc90_res256_extra

TA: 1:47 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 A21.8 H13.6
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	750 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	39

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	36

\\USER\AMRIT\Liyong\20150420\fl_fq_mb4_venc90_res256_closer_nav_extra

TA: 0:23 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	4
Dist. factor	350 %
Position	L0.0 A21.8 H58.6
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	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	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.	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\20150420\fl_fq_mb4f2p2_venc90_closer_res256_extra

TA: 1:47 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 A21.8 H31.6
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	750 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	39

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	18

\\USER\AMRIT\Liyong\20150420\ep2d_m3f2p2_OVS_flash_test

TA: 0:11 PAT: 2 Voxel size: 0.8×0.8×5.0 mm Rel. SNR: 1.00 USER: ep2d_bold_OVS_flash_test

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	300 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	50.0 %
Slice thickness	5.00 mm
TR	1000 ms
TE	31 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	8
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	256
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	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	Isocenter
Orientation	Transversal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P0.0 H60.0
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
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	200 mm
A >> P	100 mm
F >> H	225 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	On
Interpolation	3D-K-space
Spatial filter	Off

Sequence

Introduction	Off
Asymmetric echo	Off
Bandwidth	814 Hz/Px
Free echo spacing	Off
Echo spacing	1.35 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	1
FOV Shift Number	3
SkewType(1ff)	0
OVS flash(1on)	1
SER Number	1
Spoil factor	5
Skew Direction	0
Sat RF90 duration	5120
Dual On(1)	3
Echo Distance	1.00
MB Measurements	4
Ramp On	On