SIEMENS MAGNETOM TrioTim syngo MR B17

\\USER\AMRIT\Liyong\20150303\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\20150303\t2_haste_tra_p2

TA: 1:14 PAT: 2 Voxel size: 1.0×1.0×2.0 mm Rel. SNR: 1.00 SIEMENS: haste

Properties

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

Routine

Slice group 1	
Slices	80
Dist. factor	0 %
Position	R0.1 A8.2 H30.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	905 ms
TE	76 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

MTC	Off
Magn. preparation	None
Flip angle	150 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\20150303\t2_haste_cor_p2

TA: 1:40 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	R0.1 A8.2 H14.0
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	984 ms
TE	76 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

MTC	Off
Magn. preparation	None
Flip angle	150 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\20150303\t2_haste_sag_p2

TA: 2:03 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	R0.1 A12.5 H16.5
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	1210 ms
TE	76 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

MTC	Off
Magn. preparation	None
Flip angle	150 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\20150303\ep2d_venc5_fast_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	38.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A88.8 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P66.8 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

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

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

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_push_adboda_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	38.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A88.8 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P66.8 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

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

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

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_push_adboda_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	38.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A88.8 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P66.8 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

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

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

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_no_venc_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	38.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A88.8 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P66.8 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

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

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

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_breathhold_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	38.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A88.8 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P66.8 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

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

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

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_slowbreath_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	38.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A88.8 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P66.8 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A10.1 F21.1
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

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

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

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_slowbreath_AP_24slc

TA: 5:31:31 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	24
Dist. factor	0 %
Position	L0.0 A17.6 H8.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	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	4000
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 A96.2 H8.5
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	L0.0 P59.4 H8.5
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A17.6 H8.5
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	96 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	5 cm/s
Direction	A >> P
Magnitude sum	Off

Sequence

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

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

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_slowbreath_TP_SAT

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	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 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	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 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\20150303\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	SP1-4

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	Off
HEA	Off
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	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\20150303\t2_haste_sag_p1

TA: 0:24 PAT: 2 Voxel size: 1.0×0.8×2.0 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	45
Dist. factor	10 %
Position	R9.7 A6.4 H0.1
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	500 ms
TE	75 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	SP2,3

Contrast

MTC	Off
Magn. preparation	None
Flip angle	150 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	320
Phase resolution	80 %
Phase partial Fourier	4/8
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	Off
HEA	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	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	601 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	5.8 ms
Turbo factor	256
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150303\fl_fq_mb4f2_bottom

TA: 1:45 PAT: Off Voxel size: 1.5×1.5×5.0 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 A27.2 F30.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	16.85 ms
TE	4.65 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	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	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	47

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

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

RF spoiling	On
MB Number	4
FOV Shift	2
Distance22	40

\\USER\AMRIT\Liyong\20150303\fl_fq_mb4f2_bottom

TA: 1:45 PAT: Off Voxel size: 1.5×1.5×5.0 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 A27.2 F30.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	16.85 ms
TE	4.65 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	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	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	Pulse/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	800 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	47

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

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

RF spoiling	On
MB Number	4
FOV Shift	2
Distance22	40

\\USER\AMRIT\Liyong\20150303\t2_haste_sag_p1

TA: 0:24 PAT: 2 Voxel size: 1.0×0.8×2.0 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	45
Dist. factor	10 %
Position	R9.7 A6.4 H0.1
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	500 ms
TE	75 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	SP1-4

Contrast

MTC	Off
Magn. preparation	None
Flip angle	150 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	320
Phase resolution	80 %
Phase partial Fourier	4/8
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	Off
HEA	Off
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
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	601 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	5.8 ms
Turbo factor	256
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150303\t2_haste_tra_p3

TA: 0:24 PAT: 2 Voxel size: 1.0×0.8×2.0 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	45
Dist. factor	10 %
Position	L0.6 A7.6 H72.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	500 ms
TE	75 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	SP2

Contrast

MTC	Off
Magn. preparation	None
Flip angle	150 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	320
Phase resolution	80 %
Phase partial Fourier	4/8
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	Off
HEA	Off
SP4	Off
SP2	On
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	601 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	5.8 ms
Turbo factor	256
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150303\t2_haste_tra_p2

TA: 0:24 PAT: 2 Voxel size: 1.0×0.8×2.0 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	45
Dist. factor	10 %
Position	L0.6 A10.7 F18.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	500 ms
TE	75 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	SP2-5

Contrast

MTC	Off
Magn. preparation	None
Flip angle	150 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	320
Phase resolution	80 %
Phase partial Fourier	4/8
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	Off
HEA	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	601 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	5.8 ms
Turbo factor	256
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150303\t2_haste_tra_p1

TA: 0:24 PAT: 2 Voxel size: 1.0×0.8×2.0 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	45
Dist. factor	10 %
Position	L0.6 A13.7 F111.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	500 ms
TE	75 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	SP2-5

Contrast

MTC	Off
Magn. preparation	None
Flip angle	150 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	320
Phase resolution	80 %
Phase partial Fourier	4/8
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	Off
HEA	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	601 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	5.8 ms
Turbo factor	256
RF pulse type	Fast
Gradient mode	Fast

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_slowbreath_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_slowbreath_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_breathhold_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2-5

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	Off
SP7	Off
SP5	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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_breathhold_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2-5

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	Off
SP7	Off
SP5	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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_pushad_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_pushad_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep_seg_fid33_venc

TA: 6.9 s Voxel size: 1.6×1.6×5.0 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 A9.1 H21.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	138 ms
TE	16 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	10
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Multiple series	Each measurement

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	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	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 A9.1 H21.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	5 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	0.79 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	Off

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_pushad_1more_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_pushad_1more_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_no_venc_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	0

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_no_venc_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P13.5 F21.1
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	SP2,3

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A65.2 F21.1
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P90.5 F21.1
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	Off
HEA	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
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	R23.6 P13.5 F21.1
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	0

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_no_venc_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P14.7 H91.5
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEP;SP1-4

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A64.0 H91.5
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P91.7 H91.5
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	Off
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	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	R23.6 P14.7 H91.5
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	0

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_no_venc_TP_SAT

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

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	R23.6 P14.7 H91.5
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEP;SP1-4

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	R23.6 A64.0 H91.5
Orientation	Coronal
Sat. region 2	
Thickness	50 mm
Position	R23.6 P91.7 H91.5
Orientation	Coronal
Special sat.	None

System

Body	Off
HEP	On
HEA	Off
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	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	R23.6 P14.7 H91.5
Orientation	Transversal
Rotation	90.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

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

Sequence

Introduction	Off
Bandwidth	1302 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	0

\\USER\AMRIT\Liyong\20150303\ep2d_venc_mb3_flashref_pkx

TA: 5:35 PAT: 4 Voxel size: 1.5×1.5×5.0 mm Rel. SNR: 1.00 USER: ep2d_venc_sbmb_SAT_flashref_pkx

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 A10.1 H13.3
Orientation	T > C10.6
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	408 ms
TE	1.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	821
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	4
Ref. lines PE	48
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
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 A10.1 H13.3
Orientation	T > C10.6
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.	5 cm/s
Direction	Through plane
Magnitude sum	Off

Sequence

Introduction	Off
Asymmetric echo	Off
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.98 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	0
Dual On(1)	0
true TE	16670
true TR	33960

| Venc Type(0off,1+-,20+,3on) 1

\\USER\AMRIT\Liyong\20150303\ep2d_venc_ms3_mb3_seg_centric

TA: 0:13 PAT: 2 Voxel size: 1.6×1.6×5.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_seg

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	222 ms
TE	50.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	20 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	26
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
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	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
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	200 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Magnitude sum	Off

Sequence

Introduction	Off
Bandwidth	1776 Hz/Px
Free echo spacing	Off
Echo spacing	0.92 ms
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	4
FOV Shift Number	1
Shift K0 Center	1
Every Other Slice	1
SER Number	1
2nd RFoff(1)	0
Flow Compensation	Off
Centric Reorder	On
Venc Type(0off,1+-,20+,3on)	1
Venc Repetition	10
MB Measurements	10

\\USER\AMRIT\Liyong\20150303\ep2d_venc_ms3_mb3_seg

TA: 0:13 PAT: 2 Voxel size: 1.6×1.6×5.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_seg

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	222 ms
TE	50.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Flip angle	20 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	26
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
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	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
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	200 mm
F >> H	85 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Magnitude sum	Off

Sequence

Introduction	Off
Bandwidth	1776 Hz/Px
Free echo spacing	Off
Echo spacing	0.92 ms
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	4
FOV Shift Number	1
Shift K0 Center	1
Every Other Slice	1
SER Number	1
2nd RFoff(1)	0
Flow Compensation	Off
Centric Reorder	Off
Venc Type(0off,1+-,20+,3on)	1
Venc Repetition	10
MB Measurements	10

\\USER\AMRIT\Liyong\20150303\fl_gre_pc_TEST

TA: 0:41 PAT: Off Voxel size: 1.2×1.2×5.0 mm Rel. SNR: 1.00 USER: fl_gre_pc_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	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	150.00 ms
TE	10.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BC

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	On
HEP	Off
HEA	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

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

\\USER\AMRIT\Liyong\20150303\fl_fq_TEST

TA: 2:04 PAT: Off Voxel size: 0.8×0.8×5.0 mm Rel. SNR: 1.00 USER: fl_fq_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	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	474.10 ms
TE	5.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BC

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	On
HEP	Off
HEA	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

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

\\USER\AMRIT\Liyong\20150303\fl_fq_mb

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

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	On
HEP	Off
HEA	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	0

\\USER\AMRIT\Liyong\20150303\fl_fq_mb3

TA: 2:05 PAT: Off Voxel size: 0.8×0.8×5.0 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 A5.4 H25.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	31.75 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
Sat. region 1	
Thickness	5 mm
Position	Isocenter
Orientation	Transversal
Sat. region 2	
Thickness	5 mm
Position	L0.0 P0.0 H20.0
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	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	ECG/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	480 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	15

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	3
FOV Shift	1
Distance22	0

\\USER\AMRIT\Liyong\20150303\fl_fq_mb1

TA: 2:05 PAT: Off Voxel size: 0.8×0.8×5.0 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 A5.4 H25.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	31.75 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
Sat. region 1	
Thickness	5 mm
Position	Isocenter
Orientation	Transversal
Sat. region 2	
Thickness	5 mm
Position	L0.0 P0.0 H20.0
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	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	ECG/Trigger
Average cycle	No Signal ms
Captured cycle	-not set-
Acquisition window	480 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	15

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	0

\\USER\AMRIT\Liyong\20150303\FLASH_orig_upper

TA: 7.0 s Voxel size: 0.8×0.8×5.0 mm Rel. SNR: 1.00 USER: FLASH_orig

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	400 %
Position	L0.0 A5.4 H50.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	9.1 ms
TE	4.8 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
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	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	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

Inline

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

Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	390 Hz/Px
Gradient mode	Fast
RF spoiling	On
Online ICE	Off
Selection box	Second Choice
Spoil me!	On
Test Time	400 ms
dARRAY [1]	2.0 [UnitArr]
dARRAY [2]	12.0 [UnitArr]
dARRAY [3]	22.00 [UnitArr]

\\USER\AMRIT\Liyong\20150303\FLASH_orig

TA: 7.0 s Voxel size: 0.8×0.8×5.0 mm Rel. SNR: 1.00 USER: FLASH_orig

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	400 %
Position	L0.0 A5.4 H0.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	9.1 ms
TE	4.8 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
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	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	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

Inline

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

Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	390 Hz/Px
Gradient mode	Fast
RF spoiling	On
Online ICE	Off
Selection box	Second Choice
Spoil me!	On
Test Time	400 ms
dARRAY [1]	2.0 [UnitArr]
dARRAY [2]	12.0 [UnitArr]
dARRAY [3]	22.00 [UnitArr]

\\USER\AMRIT\Liyong\20150303\fl_fq_mb

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

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Special sat.	None

System

Body	On
HEP	Off
HEA	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
Segments	1

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	1
FOV Shift	1
Distance22	0

\\USER\AMRIT\Liyong\20150303\MB3f3_cv_FLASH

TA: 0:13 PAT: Off Voxel size: 1.6×1.6×3.0 mm Rel. SNR: 1.00 USER: MB_cv_FLASH

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 A5.4 H32.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Auto	Off
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	436.48 ms
TE	1.68 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Magn. preparation	None
Flip angle	12 deg
Fat suppr.	None
Restore magn.	Off
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	10
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Trajectory	Cartesian
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
POCS	Off

Geometry

Multi-slice mode	Single shot
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	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	128
Dark blood	Off
Cine	Off
Resp. control	Off

Inline

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

Sequence

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Off
Bandwidth	908 Hz/Px
Flow comp.	No
Optimization	Min. TE TR
Allowed delay	0 s
Echo spacing	3.4 ms
Sequence type	Gre
Define	Shots
Shots per slice	1
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
RF spoiling	On
Phase Enc. Rewinder	On
Kernel	CV
Label Offset	80 mm
Post Label Delay	1000000 us
MB Number	3
FOV Shift	3
Polarity(1)	0
my checkbox	Off

\\USER\AMRIT\Liyong\20150303\MB3_cv_FLASH

TA: 0:13 PAT: Off Voxel size: 1.6×1.6×3.0 mm Rel. SNR: 1.00 USER: MB_cv_FLASH

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 A5.4 H32.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Auto	Off
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	436.48 ms
TE	1.68 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Magn. preparation	None
Flip angle	12 deg
Fat suppr.	None
Restore magn.	Off
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	10
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Trajectory	Cartesian
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
POCS	Off

Geometry

Multi-slice mode	Single shot
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	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	128
Dark blood	Off
Cine	Off
Resp. control	Off

Inline

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

Sequence

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Off
Bandwidth	908 Hz/Px
Flow comp.	No
Optimization	Min. TE TR
Allowed delay	0 s
Echo spacing	3.4 ms
Sequence type	Gre
Define	Shots
Shots per slice	1
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
RF spoiling	On
Phase Enc. Rewinder	On
Kernel	CV
Label Offset	80 mm
Post Label Delay	1000000 us
MB Number	3
FOV Shift	1
Polarity(1)	0
my checkbox	Off

\\USER\AMRIT\Liyong\20150303\MB3f2_cv_FLASH

TA: 0:13 PAT: Off Voxel size: 1.6×1.6×3.0 mm Rel. SNR: 1.00 USER: MB_cv_FLASH

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 A5.4 H32.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Auto	Off
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	436.48 ms
TE	1.68 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Magn. preparation	None
Flip angle	12 deg
Fat suppr.	None
Restore magn.	Off
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	10
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Trajectory	Cartesian
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
POCS	Off

Geometry

Multi-slice mode	Single shot
Series	Ascending
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	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	128
Dark blood	Off
Cine	Off
Resp. control	Off

Inline

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

Sequence

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Off
Bandwidth	908 Hz/Px
Flow comp.	No
Optimization	Min. TE TR
Allowed delay	0 s
Echo spacing	3.4 ms
Sequence type	Gre
Define	Shots
Shots per slice	1
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
RF spoiling	On
Phase Enc. Rewinder	On
Kernel	CV
Label Offset	80 mm
Post Label Delay	1000000 us
MB Number	3
FOV Shift	2
Polarity(1)	0
my checkbox	Off

\\USER\AMRIT\Liyong\20150303\fl_fq_mb1

TA: 3:15 PAT: Off Voxel size: 1.0×1.0×5.0 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 A22.4 F72.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	18.00 ms
TE	5.23 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	192
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	1000 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	55

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	100

\\USER\AMRIT\Liyong\20150303\FLASH_orig_upper

TA: 7.0 s Voxel size: 0.8×0.8×5.0 mm Rel. SNR: 1.00 USER: FLASH_orig

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 A22.4 F32.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	9.1 ms
TE	4.8 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
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	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	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

Inline

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

Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	390 Hz/Px
Gradient mode	Fast
RF spoiling	On
Online ICE	Off
Selection box	Second Choice
Spoil me!	On
Test Time	400 ms
dARRAY [1]	2.0 [UnitArr]
dARRAY [2]	12.0 [UnitArr]
dARRAY [3]	22.00 [UnitArr]

\\USER\AMRIT\Liyong\20150303\fl_fq_mb3

TA: 3:15 PAT: Off Voxel size: 1.0×1.0×5.0 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 A22.4 F72.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	18.00 ms
TE	5.23 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	192
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	1000 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	55

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

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

RF spoiling	On
MB Number	3
FOV Shift	1
Distance22	40

\\USER\AMRIT\Liyong\20150303\fl_fq_mb2_bottom_RL

TA: 1:45 PAT: Off Voxel size: 1.5×1.5×5.0 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 A12.7 F51.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	16.85 ms
TE	4.65 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	47

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	R >> L
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	1
Distance22	40

\\USER\AMRIT\Liyong\20150303\fl_fq_mb1_second

TA: 3:14 PAT: Off Voxel size: 0.8×0.8×5.0 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 A30.9 F47.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 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	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	1
FOV Shift	1
Distance22	40

\\USER\AMRIT\Liyong\20150303\fl_fq_mb3_second

TA: 3:14 PAT: Off Voxel size: 0.8×0.8×5.0 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 A30.9 F47.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 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	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	1
Distance22	40

\\USER\AMRIT\Liyong\20150303\FLASH_orig_upper

TA: 7.0 s Voxel size: 0.8×0.8×5.0 mm Rel. SNR: 1.00 USER: FLASH_orig

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 A30.9 F7.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	9.1 ms
TE	4.8 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
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	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	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

Inline

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

Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	390 Hz/Px
Gradient mode	Fast
RF spoiling	On
Online ICE	Off
Selection box	Second Choice
Spoil me!	On
Test Time	400 ms
dARRAY [1]	2.0 [UnitArr]
dARRAY [2]	12.0 [UnitArr]
dARRAY [3]	22.00 [UnitArr]

\\USER\AMRIT\Liyong\20150303\FLASH_orig_upper_slc2

TA: 4.7 s Voxel size: 0.8×0.8×5.0 mm Rel. SNR: 1.00 USER: FLASH_orig

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 A30.9 F27.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	9.1 ms
TE	4.8 ms
Averages	1
Concatenations	2
Filter	None
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
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	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	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

Inline

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

Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	390 Hz/Px
Gradient mode	Fast
RF spoiling	On
Online ICE	Off
Selection box	Second Choice
Spoil me!	On
Test Time	400 ms
dARRAY [1]	2.0 [UnitArr]
dARRAY [2]	12.0 [UnitArr]
dARRAY [3]	22.00 [UnitArr]

\\USER\AMRIT\Liyong\20150303\fl_pc_venc10

TA: 1:36 PAT: Off Voxel size: 1.5×1.5×3.0 mm Rel. SNR: 1.00 SIEMENS: fl_pc

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 A18.8 H0.6
Orientation	T > C8.2 > S-4.4
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	22.55 ms
TE	7.37 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	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
Coil Combine Mode	Sum of Squares
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	737 ms
Trigger pulse	1
Trigger delay	0 ms
Segments	1
Phases	32

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Magnitude sum	Off
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
Dimension	2D
Asymmetric echo	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No

RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

\\USER\AMRIT\Liyong\20150303\FLASH_orig_upper6

TA: 7.0 s Voxel size: 1.5×1.5×5.0 mm Rel. SNR: 1.00 USER: FLASH_orig

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	300 %
Position	L0.0 A27.2 H29.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	9.1 ms
TE	4.8 ms
Averages	1
Concatenations	6
Filter	None
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
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	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	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

Inline

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

Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	390 Hz/Px
Gradient mode	Fast
RF spoiling	On
Online ICE	Off
Selection box	Second Choice
Spoil me!	On
Test Time	400 ms
dARRAY [1]	2.0 [UnitArr]
dARRAY [2]	12.0 [UnitArr]
dARRAY [3]	22.00 [UnitArr]

\\USER\AMRIT\Liyong\20150303\fl_fq_mb6f3_bottom

TA: 1:45 PAT: Off Voxel size: 1.5×1.5×5.0 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 A27.2 F20.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	16.85 ms
TE	4.65 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	47

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

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

RF spoiling	On
MB Number	6
FOV Shift	3
Distance22	20

\\USER\AMRIT\Liyong\20150303\FLASH_orig_upper

TA: 4.7 s Voxel size: 1.5×1.5×5.0 mm Rel. SNR: 1.00 USER: FLASH_orig

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 A27.2 H29.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	9.1 ms
TE	4.8 ms
Averages	1
Concatenations	4
Filter	None
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
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	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	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

Inline

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

Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	390 Hz/Px
Gradient mode	Fast
RF spoiling	On
Online ICE	Off
Selection box	Second Choice
Spoil me!	On
Test Time	400 ms
dARRAY [1]	2.0 [UnitArr]
dARRAY [2]	12.0 [UnitArr]
dARRAY [3]	22.00 [UnitArr]

\\USER\AMRIT\Liyong\20150303\fl_fq_mb4f2_bottom

TA: 1:45 PAT: Off Voxel size: 1.5×1.5×5.0 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 A27.2 F30.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	16.85 ms
TE	4.65 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	47

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

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

RF spoiling	On
MB Number	4
FOV Shift	2
Distance22	40

\\USER\AMRIT\Liyong\20150303\ep2d_mb3_flashref

TA: 3.3 s PAT: 2 Voxel size: 1.6×1.6×5.0 mm Rel. SNR: 1.00 USER: ep2d_bold_sbmb_cte_ipat_fov_asym_fl

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	50 %
Position	L0.0 A16.3 H0.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.00 mm
TR	300 ms
TE	30 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	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
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 A16.3 H0.0
Orientation	Transversal
Rotation	0.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	88 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
Bandwidth	1698 Hz/Px
Free echo spacing	Off
Echo spacing	0.76 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	2
Shift K0 Center	1
Every Other Slice	1
SER Number	1
2nd RFoff(1)	0
Polarity(1)	0
Dephase(0)	0
Echo Distance	1.00
MB Measurements	4
Ramp On	On

\\USER\AMRIT\Liyong\20150303\ep_seg_fid3_venc

TA: 3.0 s Voxel size: 1.6×1.6×5.0 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	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	23 ms
TE	4.3 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BC

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Multiple series	Each measurement

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	On
HEP	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	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	200 mm
F >> H	5 mm

Physio

1st Signal/Mode	None
Segments	43
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	1.03 ms
EPI factor	3
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	Off
Pat Ref Scan	Off
VENC value	0
Undersampled	Off

\\USER\AMRIT\Liyong\20150303\ep_seg_fid65_venc

TA: 0.6 s Voxel size: 1.6×1.6×5.0 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	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	68 ms
TE	27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BC

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Multiple series	Each measurement

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	On
HEP	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	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	200 mm
F >> H	5 mm

Physio

1st Signal/Mode	None
Segments	2
Resp. control	Off

Sequence

Introduction	Off
Dimension	2D
Bandwidth	1502 Hz/Px
Free echo spacing	Off
Echo spacing	0.75 ms
EPI factor	65
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
Flow Compensation	Off
Centric Reorder	Off
Pat Ref Scan	Off
VENC value	0
Undersampled	Off

\\USER\AMRIT\Liyong\20150303\ep_seg_fid33_venc

TA: 0.5 s Voxel size: 1.6×1.6×5.0 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	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	33 ms
TE	16 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEP

Contrast

MTC	Off
Flip angle	15 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Pause after meas. 1	0.0 s
Pause after meas. 2	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
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	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	200 mm
F >> H	5 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	0.79 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\20150303\fl_gre

TA: 2:21 PAT: Off Voxel size: 0.8×0.8×2.0 mm Rel. SNR: 1.00 USER: fl_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

Slab group 1	
Slabs	1
Dist. factor	-50.00 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	25.0 %
Slices per slab	32
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	21 ms
TE	10.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BC

Contrast

MTC	Off
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

Resolution

Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	6/8
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
POCS	Off

Geometry

Multi-slice mode	Sequential
Series	Descending
Special sat.	None

System

Body	On
HEP	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
Dark blood	Off

Angio

TONE ramp	70 %
Flow direction	F >> H
3D centric reordering	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	Off
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	78 Hz/Px
Flow comp.	Yes
Gradient mode	Fast
RF spoiling	On

\\USER\AMRIT\Liyong\20150303\ep_seg_fid33_venc

TA: 6.9 s Voxel size: 1.6×1.6×5.0 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	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	138 ms
TE	16 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	10
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Multiple series	Each measurement

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	Interleaved
Series	Interleaved
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	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	200 mm
F >> H	5 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	0.79 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\20150303\ep_seg_fid33_venc1_tr200

TA: 1:06 Voxel size: 1.6×1.6×5.0 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 A6.7 H90.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	33 ms
TE	16 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	400
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	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	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 A6.7 H90.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	5 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	0.79 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\20150303\ep_seg_fid33_venc10_tr400

TA: 1:06 Voxel size: 1.6×1.6×5.0 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 A13.9 H15.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	33 ms
TE	16 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	400
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	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	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 A13.9 H15.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	5 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	0.79 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\20150303\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\20150303\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	L5.4 A14.3 H18.3
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	395 ms
TE	76 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

MTC	Off
Magn. preparation	None
Flip angle	113 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\20150303\t2_haste_cor_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	R0.1 A14.3 H15.3
Orientation	Coronal
Phase enc. dir.	R >> L
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	113 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\20150303\ep2d_venc10_fast_TP_SAT

TA: 41:26 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 A14.3 H6.8
Orientation	T > C15.0
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	36.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A90.3 F13.6
Orientation	C > T-15.0
Sat. region 2	
Thickness	50 mm
Position	L0.0 P60.0 H26.7
Orientation	C > T-15.0
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A14.3 H6.8
Orientation	T > C15.0
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	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc10_slow_TP_SAT

TA: 41:26 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 A14.3 H6.8
Orientation	T > C15.0
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	36.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A90.3 F13.6
Orientation	C > T-15.0
Sat. region 2	
Thickness	50 mm
Position	L0.0 P60.0 H26.7
Orientation	C > T-15.0
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A14.3 H6.8
Orientation	T > C15.0
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	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc10_holdexp_TP_SAT

TA: 41:26 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 A14.3 H6.8
Orientation	T > C15.0
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	36.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A90.3 F13.6
Orientation	C > T-15.0
Sat. region 2	
Thickness	50 mm
Position	L0.0 P60.0 H26.7
Orientation	C > T-15.0
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A14.3 H6.8
Orientation	T > C15.0
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	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc10_freebreath_TP_SAT

TA: 41:26 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 A14.3 H6.8
Orientation	T > C15.0
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	36.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A90.3 F13.6
Orientation	C > T-15.0
Sat. region 2	
Thickness	50 mm
Position	L0.0 P60.0 H26.7
Orientation	C > T-15.0
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A14.3 H6.8
Orientation	T > C15.0
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	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc10_holdinsp_TP_SAT

TA: 41:26 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 A14.3 H6.8
Orientation	T > C15.0
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	36.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

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

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Sat. region 1	
Thickness	50 mm
Position	L0.0 A90.3 F13.6
Orientation	C > T-15.0
Sat. region 2	
Thickness	50 mm
Position	L0.0 P60.0 H26.7
Orientation	C > T-15.0
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A14.3 H6.8
Orientation	T > C15.0
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	400
Spoil factor	5
Skew Direction	1
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,400++)	1

\\USER\AMRIT\Liyong\20150303\ep2d_venc10_fastbreath_TrueTP_highres

TA: 41:26 PAT: 2 Voxel size: 1.2×1.2×3.0 mm Rel. SNR: 1.00 USER: ep2d_venc_ms_sbmb_SAT

Properties

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

Routine

Slice group 1	
Slices	3
Dist. factor	700 %
Position	L0.0 A14.3 H6.8
Orientation	T > C15.0
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	5920 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

Base resolution	154
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 A90.3 F13.6
Orientation	C > T-15.0
Sat. region 2	
Thickness	50 mm
Position	L0.0 P60.0 H26.7
Orientation	C > T-15.0
Special sat.	None

System

Body	Off
HEP	On
HEA	On
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A14.3 H6.8
Orientation	T > C15.0
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	51 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	1476 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	154
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1

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

\\USER\AMRIT\Liyong\20150303\ep2d_venc5_fastbreath_AP_highres

TA: 41:26 PAT: 2 Voxel size: 1.2×1.2×3.0 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 A26.8 H72.8
Orientation	T > C15.0
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	5920 ms
TE	43.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

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

Resolution

Base resolution	154
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 A102.9 H52.4
Orientation	C > T-15.0
Sat. region 2	
Thickness	50 mm
Position	L0.0 P47.5 H92.7
Orientation	C > T-15.0
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 A26.8 H72.8
Orientation	T > C15.0
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	51 mm

Physio

1st Signal/Mode	None

Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	5 cm/s
Direction	A >> P
Magnitude sum	Off

Sequence

Introduction	Off
Bandwidth	1476 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	154
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	3
DummyScan Number	5
FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1

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