

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality

TA: 1:01 PAT: 3 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.0 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Sat. region 1

Thickness	50 mm
Position	L3.3 A65.3 F70.8
Orientation	T > C-44.7 > S2.0
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off

Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	27 mm

Physio

1st Signal/Mode	None
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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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.67 ms
<hr/>	
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

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TA: 1:01 PAT: 3 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.0 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Sat. region 1

Thickness	50 mm
Position	L3.3 A65.3 F70.8
Orientation	T > C-44.7 > S2.0
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off

Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	27 mm

Physio

1st Signal/Mode	None
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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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.67 ms
<hr/>	
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

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Properties

Prio Recon	Off
Before measurement	
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Load to viewer	On
Inline movie	Off
Auto store images	On
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Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.0 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	27 mm

Physio

1st Signal/Mode	None
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Starting ignore meas	0
Ignore after transition	0
Model transition states	On
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Threshold	4.00
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Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
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Meas[7]	Baseline
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Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
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Free echo spacing	Off
Echo spacing	0.67 ms
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
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Step [1]	1
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Routine

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Slices	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.0 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat. None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off

Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	27 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Flow comp.	No

Free echo spacing	Off
Echo spacing	0.67 ms
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

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TA: 1:08 PAT: 2 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	21.0 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	64
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Sat. region 1

Thickness	50 mm
Position	L3.3 A65.3 F70.8
Orientation	T > C-44.7 > S2.0
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off

Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	36 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1930 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.68 ms
<hr/>	
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	4900 us
Slice multiplier	1
Multi-band PE shift	4 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

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TA: 1:08 PAT: 2 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	21.0 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	64
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat. None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off

Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	36 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1930 Hz/Px
Flow comp.	No

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Free echo spacing	Off
Echo spacing	0.68 ms
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	4900 us
Slice multiplier	1
Multi-band PE shift	4 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

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TA: 5:18 PAT: 2 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties

Prio Recon	Off
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Load images to graphic segments	Off
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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	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	21.0 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	300
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	64
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat. None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	36 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1930 Hz/Px
Flow comp.	No

Free echo spacing	Off
Echo spacing	0.68 ms
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	4900 us
Slice multiplier	1
Multi-band PE shift	4 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality

TA: 5:11 PAT: 3 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.0 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	300
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat. None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	27 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Flow comp.	No

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Free echo spacing	Off
Echo spacing	0.67 ms
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality

TA: 9:51 PAT: 3 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.0 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	580
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat. None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	27 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Flow comp.	No

Free echo spacing	Off
Echo spacing	0.67 ms
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality

TA: 9:51 PAT: 3 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.0 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	580
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Sat. region 1

Thickness	50 mm
Position	L3.3 A65.3 F70.8
Orientation	T > C-44.7 > S2.0
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off

Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	27 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.67 ms
<hr/>	
SIR accel. factor	1
EPI factor	116
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality

TA: 5:18 PAT: 2 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	1000 ms
TE	24.4 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	300
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	64
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off

Positioning mode

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

Adjust with body coil	Off
Confirm freq. adjustment	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	216 mm
F >> H	36 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1930 Hz/Px
Flow comp.	No

Free echo spacing	Off
Echo spacing	0.68 ms
SIR accel. factor	1
EPI factor	144
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	4900 us
Slice multiplier	1
Multi-band PE shift	4 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality

TA: 5:18 PAT: 2 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.6 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	300
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	64
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	216 mm
F >> H	36 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1930 Hz/Px
Flow comp.	No

Free echo spacing	Off
Echo spacing	0.68 ms
SIR accel. factor	1
EPI factor	144
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	4900 us
Slice multiplier	1
Multi-band PE shift	4 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality

TA: 5:11 PAT: 3 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.6 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	300
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat. None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	T > C11.0 > S0.2
Rotation	0.00 deg
R >> L	216 mm
A >> P	216 mm
F >> H	27 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Flow comp.	No

Free echo spacing	Off
Echo spacing	0.66 ms
SIR accel. factor	1
EPI factor	144
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality

TA: 5:11 PAT: 3 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.6 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	300
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat. None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	Sagittal
Rotation	0.00 deg
F >> H	216 mm
A >> P	216 mm
R >> L	27 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Flow comp.	No

Free echo spacing	Off
Echo spacing	0.66 ms
SIR accel. factor	1
EPI factor	144
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality

TA: 5:11

PAT: 3

Voxel size: 1.5x1.5x1.5 mm

Rel. SNR: 1.00

USER: AV_ep2d_bold_sd_20140727

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	18
Dist. factor	0 %
Position	R2.0 A17.6 H2.4
Orientation	Sagittal
Phase enc. dir.	H >> F
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	1000 ms
TE	18.6 ms
Multi-band accel. factor	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	300
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.

None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
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	On
Assume Silicone	Off
! Ref. amplitude 1H	260.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R2.0 A17.6 H2.4
Orientation	Sagittal
Rotation	90.00 deg
A >> P	216 mm
F >> H	216 mm
R >> L	27 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	12
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
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Flow comp.	No

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Free echo spacing	Off
Echo spacing	0.66 ms
SIR accel. factor	1
EPI factor	144
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5120 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Jen\Aud image quality optiz\ep2d_M1P2f1_iso150

TA: 0:28

PAT: 3

Voxel size: 1.5x1.5x1.5 mm

Rel. SNR: 1.00

USER: ep2d_bold_OVS_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	12
Dist. factor	0 %
Position	L1.2 P36.6 H20.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1100 ms
TE	18 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Flip angle	70 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending

Sat. region 1

Thickness	110 mm
Position	L0.0 A50.7 H0.0
Orientation	Coronal

Sat. region 2

Thickness	110 mm
Position	L0.0 P136.2 F35.7
Orientation	C > T14.7
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
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	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L1.2 P36.6 H20.5
Orientation	Transversal
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	18 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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Asymmetric echo	Off
Bandwidth	1828 Hz/Px
Free echo spacing	Off
Echo spacing	0.65 ms
<hr/>	
EPI factor	116
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
<hr/>	
RF90 duration	5120
MB Number	1
DummyScan Number	1
FOV Shift Number	1
SkewType(1ff)	0
OVS flash(1on)	1
SER Number	1
Spoil factor	1
Skew Direction	1
Sat RF90 duration	5120
Dual On(1)	3
Echo Distance	1.00
MB Measurements	4
Ramp On	On

Table of contents

\\USER

Feinberglab
Jen

Aud image quality optiz

---seq optim 20200228-----

tSNR_1p5mm_SBIPAT3_pf7_te18_tr1000_sat_ESpt66_rf5120_RV220

tSNR_1p5mm_SBIPAT3_pf7_te18_tr1000_sat_ESpt66_rf5120_RV200

tSNR_1p5mm_SBIPAT3_pf7_te18_tr1000_ESpt66_rf5120_RV200

tSNR_1p5mm_SBIPAT3_pf7_te18_tr1000_ESpt66_rf5120_RV260

tSNR_1p5mm_MB2PAT2_pf7_te18_tr1000_sat_ESpt66_rf5120_RV200

tSNR_1p5mm_MB2PAT2_pf7_te18_tr1000_ESpt66_rf5120_RV260

rfMRI_1p5mm_MB2PAT2_pf7_te18_tr1000_ESpt66_rf5120_RV260

rfMRI_1p5mm_SBIPAT3_pf7_te18_tr1000_ESpt66_rf5120_RV260

===fx test SB 200V sat v 260V no sat=====

PIFrSn_1p5mm_SBIPAT3_pf7_te18_tr1000_ESpt66_rf5120_RV260

PIFrSn_1p5mm_SBIPAT3_pf7_te18_tr1000_sat_ESpt66_rf5120_RV200

=== larger FOV ===20200310

rfMRI_1p5mm_MB2PAT2_pf7_te24_largeFOV_ESpt68_rf5120_RV260

rfMRI_1p5mm_MB2PAT2_pf6_te18_largeFOV_ESpt68_rf5120_RV260

rfMRI_1p5mm_SBIPAT3_pf7_te18_largeFOV_ESpt66_rf5120_RV260

rfMRI_1p5mm_SBIPAT3_pf7_te18_largeFOV_ESpt66_rf5120_RV260_sag

rfMRI_1p5mm_SBIPAT3_pf7_te18_largeFOV_ESpt66_rf5120_RV260_sag_hf

ovs TEST

ep2d_M1P2f1_iso150