\\USER\Feinberglab\Jen\Aud image quality				
TA: 1:01				USER: AV_ep2d_bold_sd_20140727

Droportion		Sat. region 1	
Properties Properties	O#	Thickness	50 mm
Prio Recon	Off	Position	L3.3 A65.3 F70.8
Before measurement After measurement		Orientation	T > C-44.7 > S2.0
Load to viewer	On	Special sat.	None
Inline movie	Off	Table position	Н
Auto store images	On	Table position	0 mm
Load to stamp segments	Off	Inline Composing	Off
Load images to graphic	Off	Inline Composing	Oli
segments	Oli	System	
Auto open inline display	Off	T1	On
Start measurement without	On	M2	On
further preparation	011	B4	On
Wait for user to start	Off	M3	On
Start measurements	single	V32	Off
	Sirigio	Positioning mode	FIX
Routine		MSMA	S - C - T
Slice group 1		Sagittal	R >> L
Slices	18	Coronal	A >> P
Dist. factor	0 %	Transversal	F >> H
Position	R2.0 A17.6 H2.4	Coil Combine Mode	Sum of Squares
Orientation	T > C11.0 > S0.2	AutoAlign	
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg		
Phase oversampling	0 %	Shim mode	Standard
FoV read	216 mm	Adjust with body coil	Off
FoV phase	80.6 %	Confirm freq. adjustment	On
Slice thickness	1.50 mm	Assume Silicone	Off
TR	1000 ms	! Ref. amplitude 1H	200.000 V
TE	18.0 ms	Adjustment Tolerance	Auto
Multi-band accel. factor	1	Adjust volume	
Filter	None	Position	R2.0 A17.6 H2.4
Coil elements	B4;M2,3;T1	Orientation	T > C11.0 > S0.2
Contrast		Rotation	0.00 deg
MTC	Off	R >> L	216 mm
Magn. preparation	None	A >> P	174 mm
Flip angle	50 deg	F >> H	27 mm
Fat suppr.	Fat sat.	Physio	
		1st Signal/Mode	None
Averaging mode	Long term		None
Reconstruction	Magnitude	BOLD	
Measurements	50	GLM Statistics	Off
Delay in TR	0 ms	Dynamic t-maps	Off
Multiple series	Off	Starting ignore meas	0
Resolution		Ignore after transition	0
Base resolution	144	Model transition states	On
Phase resolution	100 %	Temp. highpass filter	On
Phase partial Fourier	7/8	Threshold	4.00
Interpolation	Off	Paradigm size	12
		Meas[1]	Baseline
PAT mode	GRAPPA	Meas[2]	Baseline
Accel. factor PE	3	Meas[3]	Baseline
Ref. lines PE	48	Meas[4]	Baseline
Reference scan mode	GRE	Meas[5]	Baseline
Distortion Corr.	Off	Meas[6]	Baseline
Prescan Normalize	Off	Meas[7]	Baseline
Raw filter	On	Meas[8]	Baseline
Elliptical filter	Off	Meas[9]	Baseline
Hamming		Meas[10]	Baseline
	Off		
l laming	Off	Meas[11]	Active
Geometry	Off	Meas[12]	Active
	Off Interleaved	Meas[12] Motion correction	Active Off
Geometry		Meas[12]	Active

Sequence

Ocquerice	
Introduction Bandwidth	Off 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 Off
RF spoiling	OII
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 FFT scale factor	Off
GRE iPAT ref. FA	1.00
	12.0 deg Never
Send B1 shim trigger Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	i 1
Step [2]	0

\\USER\Feinberglab\Jen\Aud image quality				
TA: 1:01				USER: AV_ep2d_bold_sd_20140727
.,	. ,	7 0 X 0 1 0 1 2 0 1 1 1 0 X 1 1 0 X 1 1 0 1 1 1 1 1		00211.711_0p2a_501a_6a_20110127

Droportion		Sat. region 1	
Properties Properties	O#	Thickness	50 mm
Prio Recon	Off	Position	L3.3 A65.3 F70.8
Before measurement After measurement		Orientation	T > C-44.7 > S2.0
Load to viewer	On	Special sat.	None
Inline movie	Off	Table position	Н
Auto store images	On	Table position	0 mm
Load to stamp segments	Off	Inline Composing	Off
Load images to graphic	Off	Inline Composing	Oli
segments	Oli	System	
Auto open inline display	Off	T1	On
Start measurement without	On	M2	On
further preparation	011	B4	On
Wait for user to start	Off	M3	On
Start measurements	single	V32	Off
	Sirigio	Positioning mode	FIX
Routine		MSMA	S - C - T
Slice group 1		Sagittal	R >> L
Slices	18	Coronal	A >> P
Dist. factor	0 %	Transversal	F >> H
Position	R2.0 A17.6 H2.4	Coil Combine Mode	Sum of Squares
Orientation	T > C11.0 > S0.2	AutoAlign	
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg		
Phase oversampling	0 %	Shim mode	Standard
FoV read	216 mm	Adjust with body coil	Off
FoV phase	80.6 %	Confirm freq. adjustment	On
Slice thickness	1.50 mm	Assume Silicone	Off
TR	1000 ms	! Ref. amplitude 1H	200.000 V
TE	18.0 ms	Adjustment Tolerance	Auto
Multi-band accel. factor	1	Adjust volume	
Filter	None	Position	R2.0 A17.6 H2.4
Coil elements	B4;M2,3;T1	Orientation	T > C11.0 > S0.2
Contrast		Rotation	0.00 deg
MTC	Off	R >> L	216 mm
Magn. preparation	None	A >> P	174 mm
Flip angle	50 deg	F >> H	27 mm
Fat suppr.	Fat sat.	Physio	
		1st Signal/Mode	None
Averaging mode	Long term		None
Reconstruction	Magnitude	BOLD	
Measurements	50	GLM Statistics	Off
Delay in TR	0 ms	Dynamic t-maps	Off
Multiple series	Off	Starting ignore meas	0
Resolution		Ignore after transition	0
Base resolution	144	Model transition states	On
Phase resolution	100 %	Temp. highpass filter	On
Phase partial Fourier	7/8	Threshold	4.00
Interpolation	Off	Paradigm size	12
		Meas[1]	Baseline
PAT mode	GRAPPA	Meas[2]	Baseline
Accel. factor PE	3	Meas[3]	Baseline
Ref. lines PE	48	Meas[4]	Baseline
Reference scan mode	GRE	Meas[5]	Baseline
Distortion Corr.	Off	Meas[6]	Baseline
Prescan Normalize	Off	Meas[7]	Baseline
Raw filter	On	Meas[8]	Baseline
Elliptical filter	Off	Meas[9]	Baseline
Hamming		Meas[10]	Baseline
	Off		
l laming	Off	Meas[11]	Active
Geometry	Off	Meas[12]	Active
	Off Interleaved	Meas[12] Motion correction	Active Off
Geometry		Meas[12]	Active

Sequence

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

\\USER\Feinberglab\Jen\Aud image quality				
TA: 1:01	PAT: 3			USER: AV ep2d bold sd 20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	H
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	0.5
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
	g	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	18	Auto Coil Select	Default
Dist. factor	0 %	Auto Coll Gelect	
Position	R2.0 A17.6 H2.4	Shim mode	Standard
Orientation	T > C11.0 > S0.2	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	200.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	80.6 %	Adjust volume	
Slice thickness	1.50 mm	Position	R2.0 A17.6 H2.4
TR	1000 ms	Orientation	T > C11.0 > S0.2
TE	18.0 ms	Rotation	0.00 deg
Multi-band accel. factor	1	R >> L	216 mm
Filter	None	A >> P	174 mm
Coil elements	B4;M2,3;T1	F >> H	27 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	1	
Flip angle	50 deg	BOLD	0"
Fat suppr.	Fat sat.	GLM Statistics	Off
A	I t	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	50	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	12
Base resolution	144	—— Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	7/8	Meas[3]	Baseline
	170	Meas[4]	Baseline
•	Off	IVICaS[4]	
Interpolation	Off	Meas[5]	Baseline
•	Off GRAPPA		Baseline Baseline
Interpolation		Meas[5]	
Interpolation PAT mode	GRAPPA	Meas[5] Meas[6]	Baseline
Interpolation PAT mode Accel. factor PE Ref. lines PE	GRAPPA 3	Meas[5] Meas[6] Meas[7] Meas[8]	Baseline Baseline
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	GRAPPA 3 48 GRE	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	GRAPPA 3 48 GRE	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	Baseline Baseline Baseline Baseline Baseline Baseline
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	GRAPPA 3 48 GRE Off Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Baseline Baseline Baseline Baseline Baseline Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	GRAPPA 3 48 GRE Off Off On	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Baseline Baseline Baseline Active Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	GRAPPA 3 48 GRE Off Off On Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Motion correction	Baseline Baseline Baseline Baseline Baseline Active Active Off
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	GRAPPA 3 48 GRE Off Off On	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Motion correction Spatial filter	Baseline Baseline Baseline Baseline Baseline Active Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	GRAPPA 3 48 GRE Off Off On Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Motion correction Spatial filter Sequence	Baseline Baseline Baseline Baseline Baseline Active Active Off Off
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	GRAPPA 3 48 GRE Off Off On Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Motion correction Spatial filter	Baseline Baseline Baseline Baseline Baseline Active Active Off

Free echo spacing Echo spacing	Off 0.67 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 116 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5120 us 1 1 0 1 0 0 Off Off Off Off

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" VOND 4 E - ODIDATO (7 : 40 : 4000 EO :00 (E400 DV000				
TA: 1:01	PAT: 3	Voxel size: 1.5×1.5×1.5 mm	Rel. SNR: 1.00	USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		-
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	011	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning and	FIV
	On	Positioning mode	FIX
further preparation	0"	MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		— Coil Combine Mode	Sum of Squares
Slices	18	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	0 % R2.0 A17.6 H2.4	Chima mada	Ctondord
	T > C11.0 > S0.2	Shim mode	Standard
Orientation		Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	80.6 %	Adjust volume	
Slice thickness	1.50 mm	Position	R2.0 A17.6 H2.4
TR	1000 ms	Orientation	T > C11.0 > S0.2
TE	18.0 ms	Rotation	0.00 deg
Multi-band accel. factor	1	R >> L	216 mm
Filter	None	A >> P	174 mm
Coil elements	B4;M2,3;T1	F >> H	27 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	-	
Flip angle	50 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
. ст опри		 Dynamic t-maps 	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	50	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	0"		
•	Off	Threshold	4.00
	Off		
Resolution		Paradigm size	12
Base resolution	144	Paradigm size — Meas[1]	12 Baseline
Base resolution Phase resolution	144 100 %	Paradigm size — Meas[1] Meas[2]	12 Baseline Baseline
Base resolution Phase resolution Phase partial Fourier	144 100 % 7/8	Paradigm size — Meas[1] Meas[2] Meas[3]	12 Baseline Baseline Baseline
Base resolution Phase resolution	144 100 %	Paradigm size — Meas[1] Meas[2] Meas[3] Meas[4]	12 Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation	144 100 % 7/8 Off	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	12 Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode	144 100 % 7/8 Off GRAPPA	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	12 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	144 100 % 7/8 Off GRAPPA 3	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	12 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE	144 100 % 7/8 Off GRAPPA 3 48	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	12 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	144 100 % 7/8 Off GRAPPA 3	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	12 Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	144 100 % 7/8 Off GRAPPA 3 48 GRE	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	12 Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	144 100 % 7/8 Off GRAPPA 3 48 GRE	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	12 Baseline Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	144 100 % 7/8 Off GRAPPA 3 48 GRE	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	12 Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	144 100 % 7/8 Off GRAPPA 3 48 GRE Off Off	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Motion correction	12 Baseline Active Active Off
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	144 100 % 7/8 Off GRAPPA 3 48 GRE Off Off Off On	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	12 Baseline Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	144 100 % 7/8 Off GRAPPA 3 48 GRE Off Off	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Motion correction Spatial filter	12 Baseline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Active Active Off
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	144 100 % 7/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Motion correction Spatial filter Sequence	Baseline Active Active Off Off
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	144 100 % 7/8 Off GRAPPA 3 48 GRE Off Off Off On	Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Motion correction Spatial filter	12 Baseline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Active Active Off

Free echo spacing Echo spacing	Off 0.67 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 116 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5120 us 1 1 0 1 0 0 Off Off Off Off

	\\\ \CED\	a) lan) Aud imaga gualitu	
TA. 4.00 DAT 0 V	1 F MESSATS 13	o\Jen\Aud image quality	400 DV000
TA: 1:08 PAT: 2 V	oxel size: 1.5×1.5×1.5 mm	Kei. SNK: 1.00 USER: AV_0	ep2d_bold_sd_20140727
Droportion		Sat. region 1	
Properties	0"	Thickness	50 mm
Prio Recon	Off	Position	L3.3 A65.3 F70.8
Before measurement		Orientation	T > C-44.7 > S2.0
After measurement		Special sat.	None
Load to viewer	On		
Inline movie	Off	Table position	H
Auto store images	On	Table position	0 mm
Load to stamp segments	Off	Inline Composing	Off
Load images to graphic	Off	System	
segments		T1	On
Auto open inline display	Off	M2	On
Start measurement without	On	B4	On
further preparation		M3	On
Wait for user to start	Off	V32	Off
Start measurements	single	V 32	OII
Routine		Positioning mode	FIX
Slice group 1		— MSMA	S - C - T
Slices	24	Sagittal	R >> L
Dist. factor	0 %	Coronal	A >> P
Position	R2.0 A17.6 H2.4	Transversal	F >> H
		Coil Combine Mode	Sum of Squares
Orientation	T > C11.0 > S0.2	AutoAlign	·
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg		
Phase oversampling	0 %	Shim mode	Standard
FoV read	216 mm	Adjust with body coil	Off
FoV phase 80.6 %		Confirm freq. adjustment	On
Slice thickness	1.50 mm	Assume Silicone	Off
TR	1000 ms	! Ref. amplitude 1H	200.000 V
TE	21.0 ms	Adjustment Tolerance	Auto
Multi-band accel. factor	2	Adjust volume	
Filter	None	Position	R2.0 A17.6 H2.4
Coil elements	B4;M2,3;T1	Orientation	T > C11.0 > S0.2
Contrast		Rotation	0.00 deg
MTC	Off	— R >> L	216 mm
Magn. preparation	None	A >> P	174 mm
Flip angle	50 deg	F >> H	36 mm
Fat suppr.	Fat sat.	Physio	
1 at suppr.		1st Signal/Mode	None
Averaging mode	Long term	15t Signal/Mode	INOHE
Reconstruction	Magnitude	BOLD	
Measurements	50	GLM Statistics	Off
Delay in TR	0 ms	Dynamic t-maps	Off
Multiple series	Off	Starting ignore meas	0
Resolution		Ignore after transition	0
	1.1.1	Model transition states	On
Base resolution Phase resolution	144	Temp. highpass filter	On
	100 %	Threshold	4.00
Phase partial Fourier	7/8 Off	Paradigm size	12
Interpolation	Off	Meas[1]	Baseline
PAT mode	GRAPPA	Meas[2]	Baseline
Accel. factor PE	2	Meas[3]	Baseline
Ref. lines PE		Meas[4]	Baseline
Reference scan mode	GRE	Meas[5]	Baseline
		Meas[6]	Baseline
Distortion Corr.	Off	Meas[7]	Baseline
Prescan Normalize	Off	Meas[8]	Baseline
Paw filtor	On	···	

Raw filter

Hamming

Geometry

Series

Elliptical filter

Multi-slice mode

On

Off

Off

Interleaved

Interleaved

Meas[9]

Meas[10]

Meas[11]

Meas[12]

Spatial filter

Motion correction

Baseline

Baseline

Active

Active

Off

Off

Sequence

Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1930 Hz/Px No Off 0.68 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 116 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	4900 us 1 4 1/FoV 0 0 0 0 1 0 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Jen\Aud image quality

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

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	3	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning mode	FIX
further preparation	Oli	Positioning mode	
	Off	MSMA	S - C - T
Wait for user to start		Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	24	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	R2.0 A17.6 H2.4	Chim mode	Standard
Orientation	T > C11.0 > S0.2	Shim mode	Standard
		Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	80.6 %	Adjust volume	
Slice thickness	1.50 mm	Position	R2.0 A17.6 H2.4
TR	1000 ms	Orientation	T > C11.0 > S0.2
TE	21.0 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	216 mm
Filter	None	A >> P	174 mm
Coil elements	B4;M2,3;T1	F >> H	36 mm
Contrast		Physio	
MTC	Off		Mana
Magn. preparation	None	1st Signal/Mode	None
		BOLD	
Flip angle	50 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	50	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
•	J II		12
Resolution		Paradigm size	
Base resolution	144	— Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	7/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
		. Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	2	Meas[7]	Baseline
Ref. lines PE	64	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Motion correction	Off
Elliptical filter	Off	Spatial filter	Off
Hamming	Off	1 .	
Geometry		Sequence	0#
Multi-slice mode	Interleaved	Introduction	Off
	Interleaved	Bandwidth	1930 Hz/Px
Series	IIICIICAVCA	Flow comp.	No

Free echo spacing Echo spacing	Off 0.68 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 116 Normal Off
	4900 us 1 4 1/FoV 0 0 0 0 1 0 0 0 On Off Off Off Off Off Off Off Off Off

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

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement	-	Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	Oli	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Destinate a second	FIV
	On	Positioning mode	FIX
further preparation	0#	MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	24	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	R2.0 A17.6 H2.4	Shim mode	Standard
Orientation	T > C11.0 > S0.2		
Phase enc. dir.	1 > C11.0 > S0.2 A >> P	Adjust with body coil	Off
		Confirm freq. adjustment	On Off
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	80.6 %	Adjust volume	
Slice thickness	1.50 mm	Position	R2.0 A17.6 H2.4
TR	1000 ms	Orientation	T > C11.0 > S0.2
TE	21.0 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	216 mm
Filter	None	A >> P	174 mm
Coil elements	B4;M2,3;T1	F >> H	36 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	1	110110
Flip angle	50 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
		Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	300	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Pacalution		Paradigm size	12
Resolution	4.4.4	Meas[1]	Baseline
Base resolution	144	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	7/8	Meas[4]	Baseline
Interpolation	Off	Meas[4] Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	2		Baseline
Ref. lines PE	2 64	Meas[7]	
		Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
Distortion Corr.	Off	Meas[10]	Baseline
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[12]	Active
Elliptical filter	Off	Motion correction	Off
-mparoar mitor	~··	Spatial filter	Off
Hamming	Off		
Hamming		Sequence	
Geometry	Off	Sequence Introduction	Off
		Sequence	

Free echo spacing Echo spacing	Off 0.68 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 116 Normal Off
	4900 us 1 4 1/FoV 0 0 0 0 1 0 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Jen\Aud image quality TA: 5:11 PAT: 3 Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement	-	Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	311	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning and	FIV
	On	Positioning mode	FIX
further preparation	0"	MSMA	S-C-T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	18	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	R2.0 A17.6 H2.4	Shim mode	Standard
Orientation	T > C11.0 > S0.2		
Phase enc. dir.	A >> P	Adjust with body coil	Off
		Confirm freq. adjustment	On Off
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	80.6 %	Adjust volume	
Slice thickness	1.50 mm	Position	R2.0 A17.6 H2.4
TR	1000 ms	Orientation	T > C11.0 > S0.2
TE	18.0 ms	Rotation	0.00 deg
Multi-band accel. factor	1	R >> L	216 mm
Filter	None	A >> P	174 mm
Coil elements	B4;M2,3;T1	F >> H	27 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None		140110
Flip angle	50 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
		Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	300	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
1		Paradigm size	12
Resolution		- Meas[1]	Baseline
Base resolution	144	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	7/8	Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
DAT mode	CDADDA		
PAT mode Accel. factor PE	GRAPPA	Meas[6]	Baseline Baseline
	3	Meas[7]	Daseille
Ref. lines PE		Maga[0]	Pagalina
Deferen	48	Meas[8]	Baseline
Reference scan mode		Meas[9]	Baseline
	48 GRE	Meas[9] Meas[10]	Baseline Baseline
Distortion Corr.	48 GRE Off	Meas[9] Meas[10] Meas[11]	Baseline Baseline Active
Distortion Corr. Prescan Normalize	48 GRE Off Off	Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Active Active
Distortion Corr. Prescan Normalize Raw filter	48 GRE Off Off On	Meas[9] Meas[10] Meas[11]	Baseline Baseline Active Active Off
Distortion Corr. Prescan Normalize Raw filter Elliptical filter	48 GRE Off Off On Off	Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Active Active
Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	48 GRE Off Off On	Meas[9] Meas[10] Meas[11] Meas[12] Motion correction	Baseline Baseline Active Active Off
Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	48 GRE Off Off On Off Off	Meas[9] Meas[10] Meas[11] Meas[12] Motion correction Spatial filter Sequence	Baseline Baseline Active Active Off
Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	48 GRE Off Off On Off	Meas[9] Meas[10] Meas[11] Meas[12] Motion correction Spatial filter	Baseline Baseline Active Active Off Off

Free echo spacing Echo spacing	Off 0.67 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 116 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5120 us 1 1 0 1 0 0 Off Off Off Off

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

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	System	0
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation	3.1	MSMA	S-C-T
Wait for user to start	Off		R >> L
Start measurements	single	Sagittal Coronal	A >> P
Start measurements	Sirigie	Transversal	F >> H
Routine			
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	18	AutoAlign	 D ()
Dist. factor	0 %	Auto Coil Select	Default
Position	R2.0 A17.6 H2.4	Shim mode	Standard
Orientation	T > C11.0 > S0.2	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0.86 dog	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	80.6 %		Auto
Slice thickness	1.50 mm	Adjust volume	D2 0 447 C H2 4
TR	1.00 ms	Position	R2.0 A17.6 H2.4
		Orientation	T > C11.0 > S0.2
TE	18.0 ms	Rotation	0.00 deg
Multi-band accel. factor	1 Name	R >> L	216 mm
Filter	None	A >> P	174 mm
Coil elements	B4;M2,3;T1	F >> H	27 mm
Contrast		Physio Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	50 deg		0#
Fat suppr.	Fat sat.	GLM Statistics	Off
Averaging mode	Long torm	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	580	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	12
Base resolution	144	——— Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	7/8	Meas[3]	Baseline
•	Off	Meas[4]	Baseline
Interpolation	OII	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	3	Meas[7]	Baseline
Ref. lines PE	48	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[10]	Active
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On		
Elliptical filter	Off	Motion correction	Off
Hamming	Off	Spatial filter	Off
Geometry		Sequence	0"
Multi-slice mode	Interleaved	Introduction	Off
		Bandwidth	1828 Hz/Px
Series	Interleaved	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 Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5120 us 1 1 0 1 0 Off Off Off Off Off Off Off Soff Off Off 20 12.0 deg Never Standard 0 2 1 1

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

Properties		Sat. region 1	
Prio Recon	Off	Thickness	50 mm
Before measurement	U II	Position	L3.3 A65.3 F70.8
After measurement		Orientation	T > C-44.7 > S2.0
Load to viewer	On	Special sat.	None
Inline movie	Off	Table position	Н
Auto store images	On	Table position	0 mm
Load to stamp segments	Off	Inline Composing	Off
Load images to graphic	Off		Oli
segments	OII	System	
Auto open inline display	Off	T1	On
Start measurement without	On	M2	On
further preparation	Oli	B4	On
Wait for user to start	Off	M3	On
Start measurements	single	V32	Off
<u> </u>	Sirigie	Positioning mode	FIX
Routine		MSMA	S - C - T
Slice group 1		Sagittal	R >> L
Slices	18	Coronal	A >> P
Dist. factor	0 %	Transversal	F >> H
Position	R2.0 A17.6 H2.4	Coil Combine Mode	Sum of Squares
Orientation	T > C11.0 > S0.2	AutoAlign	
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg		
Phase oversampling	0 %	Shim mode	Standard
FoV read	216 mm	Adjust with body coil	Off
FoV phase	80.6 %	Confirm freq. adjustment	On
Slice thickness	1.50 mm	Assume Silicone	Off
TR	1000 ms	! Ref. amplitude 1H	200.000 V
TE	18.0 ms	Adjustment Tolerance	Auto
Multi-band accel. factor	1	Adjust volume	
Filter	None	Position	R2.0 A17.6 H2.4
Coil elements	B4;M2,3;T1	Orientation	T > C11.0 > S0.2
Contrast		Rotation	0.00 deg
MTC	Off	R >> L	216 mm
Magn. preparation	None	A >> P	174 mm
Flip angle	50 deg	F >> H	27 mm
Fat suppr.	Fat sat.	Physio	
		1st Signal/Mode	None
Averaging mode	Long term		None
Reconstruction	Magnitude	BOLD	
Measurements	580	GLM Statistics	Off
Delay in TR	0 ms	Dynamic t-maps	Off
Multiple series	Off	Starting ignore meas	0
Resolution		Ignore after transition	0
Base resolution	144	Model transition states	On
Phase resolution	100 %	Temp. highpass filter	On
Phase partial Fourier	7/8	Threshold	4.00
Interpolation	Off	Paradigm size	12
		Meas[1]	Baseline
PAT mode	GRAPPA	Meas[2]	Baseline
Accel. factor PE	3	Meas[3]	Baseline
Ref. lines PE	48	Meas[4]	Baseline
Reference scan mode	GRE	Meas[5]	Baseline
Distortion Corr	O#	Meas[6]	Baseline
Distortion Corr.	Off	Meas[7]	Baseline
Prescan Normalize	Off	Meas[8]	Baseline
Raw filter	On Off	Meas[9]	Baseline
Elliptical filter	Off	Meas[10]	Baseline
Hamming	Off	Meas[11]	Active
Geometry		Meas[12]	Active
Occinctly			
-	Interleaved	Motion correction	Off
Multi-slice mode Series	Interleaved Interleaved	Motion correction Spatial filter	Off Off

Sequence

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

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

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	0.11	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning mode	FIV
	OII	Positioning mode	FIX
further preparation	Off	MSMA	S-C-T
Wait for user to start		Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		— Coil Combine Mode	Sum of Squares
Slices	24	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	R2.0 A17.6 H2.4	Shim mode	Standard
Orientation	T > C11.0 > S0.2		Off
	A >> P	Adjust with body coil	
Phase enc. dir.	0.00 deg	Confirm freq. adjustment	On Off
Rotation	<u> </u>	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.50 mm	Position	R2.0 A17.6 H2.4
TR	1000 ms	Orientation	T > C11.0 > S0.2
TE	24.4 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	216 mm
Filter	None	A >> P	216 mm
Coil elements	B4;M2,3;T1	F >> H	36 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None		
Flip angle	50 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
		Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	300	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Posolution		Paradigm size	12
Resolution	1.4.4	— Meas[1]	Baseline
Base resolution	144	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	7/8	Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	2	Meas[o]	Baseline Baseline
		= =	
Ref. lines PE	64 CDF	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
	~	Meas[10]	Baseline
Distortion Corr.	Off	1 0/0001771	Active
		Meas[11]	
Prescan Normalize	Off	Meas[12]	Active
Prescan Normalize Raw filter	Off On	Meas[12] Motion correction	Active Off
Prescan Normalize Raw filter Elliptical filter	Off On Off	Meas[12]	Active
Prescan Normalize Raw filter Elliptical filter Hamming	Off On	Meas[12] Motion correction	Active Off
Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Off On Off Off	Meas[12] Motion correction Spatial filter	Active Off
Prescan Normalize Raw filter Elliptical filter Hamming	Off On Off	Meas[12] Motion correction Spatial filter Sequence	Active Off Off

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 Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	4900 us 1 4 1/FoV 0 0 0 0 1 0 0 0 On Off Off Off Off Off Off Off Off Off

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

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	0.11	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning mode	FIX
further preparation	OII	Positioning mode	
	Off	MSMA	S - C - T
Wait for user to start	_	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		 Coil Combine Mode 	Sum of Squares
Slices	24	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	R2.0 A17.6 H2.4	Chim prode	Ctondord
		Shim mode	Standard
Orientation	T > C11.0 > S0.2	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.50 mm	Position	R2.0 A17.6 H2.4
TR	1000 ms	Orientation	T > C11.0 > S0.2
TE	18.6 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	216 mm
Filter	None	A >> P	216 mm
Coil elements	B4;M2,3;T1	F>> H	36 mm
Contrast	D 1,1012,0,1 1	ı	30 111111
	0"	Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	50 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term		0
Reconstruction	Magnitude	Starting ignore meas	
	300	Ignore after transition	0
Measurements		Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	12
Base resolution	144	- Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	6/8	Meas[3]	Baseline
•		Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	2	Meas[7]	Baseline
Ref. lines PE	64	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
	ONL		
Distortion Corr.	Off	Meas[10]	Baseline
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[12]	Active
Elliptical filter	Off	Motion correction	Off
Hamming	Off	Spatial filter	Off
Geometry		Sequence	
Multi-slice mode	Interleaved	Introduction	Off
	Interleaved	Bandwidth	1930 Hz/Px
Series			

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 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. FFT scale factor 1.00 GRE iPAT ref. FA 12.0 deg Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas Paradigm size 2 Multiplier 1 Step [1] 1 Step [2]	Free echo spacing Echo spacing	Off 0.68 ms
Excite pulse duration Slice multiplier Multi-band PE shift ZBlip scheme 0 MB kernel size 0 MB knockout band 0 No. of interleaved TEs 0 RF pulse shape EPI noise scans 0 EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Off Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Conline multi-band recon. FFT scale factor Triggering scheme Standard Starting ignore meas Paradigm size Multiplier Step [1] 1 4 1/FoV 1 6 1/FoV 1 6 1/FoV 2 6 1/FoV 2 7 1/FoV 2 7 1/FoV 2 7 1/FoV 2 8 1/FoV 3 1 1/FoV 2 1 1 1/FoV 2 1 1/FoV 2 1 1 1/FoV 2 1 1 1/FoV 2 1 1/FoV 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	EPI factor Gradient mode RF spoiling	144 Normal Off
	Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1]	4900 us 1 4 1/FoV 0 0 0 0 1 0 0 1 0 O O O O O O O O O O O

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

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	5	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning mode	FIX
further preparation	OII	Positioning mode	
	Off	MSMA	S - C - T
Wait for user to start	-	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	18	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	R2.0 A17.6 H2.4	Shim mode	Standard
Orientation	T > C11.0 > S0.2		Standard
		Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.50 mm	Position	R2.0 A17.6 H2.4
TR	1000 ms	Orientation	T > C11.0 > S0.2
TE	18.6 ms	Rotation	0.00 deg
Multi-band accel. factor	1	R >> L	216 mm
Filter	None	A >> P	216 mm
Coil elements	B4;M2,3;T1	F >> H	27 mm
Contrast	, , ,	Physio	
MTC	Off		Mana
Magn. preparation	None	1st Signal/Mode	None
		BOLD	
Flip angle	50 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	300	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
·	Jii		4.00 12
Resolution		Paradigm size	
Base resolution	144	Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	7/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
		Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	3	Meas[7]	Baseline
Ref. lines PE	48	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Motion correction	Off
Elliptical filter	Off	Spatial filter	Off
Hamming	Off	1 .	Oil
Geometry		Sequence	0"
Multi-slice mode	Interleaved	Introduction	Off
Series	Interleaved	Bandwidth	1828 Hz/Px
Selles		Flow comp.	No

Free echo spacing Echo spacing	Off 0.66 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 144 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5120 us 1 1 0 1 0 Off Off Off Off Off

\\USER\Feinberglab\Jen\Aud image quality
ze: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727 PAT: 3 Voxel size: 1.5×1.5×1.5 mm TA: 5:11

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	0.11	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning mode	FIX
further preparation	Oli	Positioning mode	
	Off	MSMA	S - C - T
Wait for user to start	_	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	18	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	R2.0 A17.6 H2.4	Chim was de	Ctondord
		Shim mode	Standard
Orientation	Sagittal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.50 mm	Position	R2.0 A17.6 H2.4
TR	1000 ms	Orientation	Sagittal
TE	18.6 ms	Rotation	0.00 deg
Multi-band accel. factor	1	F >> H	216 mm
Filter	None	A >> P	216 mm
Coil elements	B4;M2,3;T1	R >> L	_
	D4,IVIZ,3,1 1	ı	27 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	50 deg		0#
Fat suppr.	Fat sat.	GLM Statistics	Off
A	Louis towns	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	300	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	12
	1.4.4	- Meas[1]	Baseline
Base resolution	144	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	7/8	Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE			
	3	Meas[7]	Baseline
Ref. lines PE	48	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
Distortion Corr.	Off	Meas[10]	Baseline
Prescan Normalize	Off	Meas[11]	Active
Raw filter		Meas[12]	Active
	On Off	Motion correction	Off
Elliptical filter	Off	Spatial filter	Off
Hamming	Off	Sequence	
Coomotru		- Introduction	Off
Geometry		- I IIIII OUUCIIOII	Oli
Multi-slice mode Series	Interleaved Interleaved	Bandwidth	1828 Hz/Px

Free echo spacing Echo spacing	Off 0.66 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 144 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5120 us 1 1 0 1 0 Off Off Off Off Off

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	· · · · · · · · · · · · · · · · · · ·	A = ABIBATO (7.740 L. EOV.EO (60.6200 B)(600 L.C.
TA: 5:11	PAT: 3	Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation	Oli	Positioning mode MSMA	S - C - T
Wait for user to start	Off	_	8 - C - 1 R >> L
Start measurements	single	Sagittal Coronal	A >> P
Start measurements	Sirigie		
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	18	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	R2.0 A17.6 H2.4	Shim mode	Standard
Orientation	Sagittal	Adjust with body coil	Off
Phase enc. dir.	H >> F	Confirm freq. adjustment	On
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	260.000 V
FoV read	216 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %		Auto
Slice thickness	1.50 mm	Adjust volume	D2 0 447 C U2 4
TR	1000 ms	Position	R2.0 A17.6 H2.4
TE	18.6 ms	Orientation	Sagittal
Multi-band accel. factor	10.0 1115	Rotation	90.00 deg
Filter	None	A >> P	216 mm
		F >> H	216 mm
Coil elements	B4;M2,3;T1	R >> L	27 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None		
Flip angle	50 deg	BOLD	~
Fat suppr.	Fat sat.	GLM Statistics	Off
		Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	300	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	12
Base resolution	144	Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	7/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
	••••••••••••••••••••••••••••••••••••••	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	3	Meas[7]	Baseline
Ref. lines PE	48	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Motion correction	Off
Elliptical filter	Off	Spatial filter	Off
Hamming	Off		
Geometry		Sequence	
		Introduction	Off
Multi-slice mode	Interleaved		_
Multi-slice mode Series	Interleaved Interleaved	Bandwidth Flow comp.	1828 Hz/Px No

Free echo spacing Echo spacing	Off 0.66 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 144 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5120 us 1 1 0 1 0 0 Off Off Off Off

\\USER	\Feinberglab\Jen\Aud image	quality optiz\ep2d_M1P2f1	_iso150
TA: 0:28 PAT: 3	Voxel size: 1.5×1.5×1.5 mm		_ p2d_bold_OVS_flash
		Sat. region 1	
Properties		Thickness	110 mm
Prio Recon	Off	Position	L0.0 A50.7 H0.0
Before measurement		Orientation	Coronal
After measurement		Sat. region 2	Colonal
Load to viewer	On	Thickness	110 mm
Inline movie	Off		110 mm L0.0 P136.2 F35.7
Auto store images	On	Position	
Load to stamp segments	Off	Orientation	C > T14.7
Load images to graphic	Off	Special sat.	None
segments		Table position	Н
Auto open inline display	Off	Table position	0 mm
Start measurement without	On	Inline Composing	Off
further preparation	Oll	Inline Composing	Oli
Wait for user to start	Off	System	
		T1	On
Start measurements	single	M2	On
Routine		B4	On
Slice group 1		M3	On
Slices	12	V32	Off
Dist. factor	0 %	V 32	
Position	L1.2 P36.6 H20.5	Positioning mode	FIX
		MSMA	S - C - T
Orientation	Transversal	Sagittal	R >> L
Phase enc. dir.	A >> P	Coronal	A >> P
Rotation	0.00 deg	Transversal	F >> H
Phase oversampling	0 %	Coil Combine Mode	Sum of Squares
FoV read	216 mm	AutoAlign	
FoV phase	80.6 %	Auto Coil Select	Default
Slice thickness	1.50 mm	Auto Con Select	
TR	1100 ms	Shim mode	Standard
TE	18 ms	Adjust with body coil	Off
Averages	1	Confirm freq. adjustment	Off
Concatenations	1	Assume Silicone	Off
Filter	None	! Ref. amplitude 1H	200.000 V
Coil elements	B4;M2,3;T1	Adjustment Tolerance	Auto
Gon cicinonis	D4,1012,0,11	Adjust volume	Auto
Contrast		Position	1.1.2 D26 6 H20 F
MTC	Off		L1.2 P36.6 H20.5
Flip angle	70 deg	Orientation	Transversal
Fat suppr.	Fat sat.	Rotation	0.00 deg
		R >> L	216 mm
Averaging mode	Long term	A >> P	174 mm
Reconstruction	Magnitude	F >> H	18 mm
Measurements	20	Physio	
Delay in TR	0 ms		None
Multiple series	Off	1st Signal/Mode	None
Resolution		BOLD	
	111	GLM Statistics	Off
Base resolution	144 100 %	Dynamic t-maps	Off
Phase resolution		Starting ignore meas	0
Phase partial Fourier	7/8	Ignore after transition	0
Interpolation	Off	Model transition states	On
PAT mode	GRAPPA	Temp. highpass filter	On
Accel. factor PE	3	Threshold	4.00
Ref. lines PE			20
	48 Separate	Paradigm size	
Reference scan mode	Separate	Meas[1]	Baseline
Distortion Corr.	Off	Meas[2]	Baseline
Prescan Normalize	Off	Meas[3]	Baseline
Raw filter	On	Meas[4]	Baseline
Elliptical filter	Off	Meas[5]	Baseline
•	Off	Meas[6]	Baseline
Hamming	Oil	Meas[7]	Baseline
Geometry		Meas[8]	Baseline
Multi-slice mode	Interleaved	Meas[9]	Baseline
Series	Ascending	Meas[10]	Baseline
		Meas[11]	Active

Meas[11]

Active

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

Sequence

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

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Jer	1
	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