$\verb|\USER\Feinberg| lab| Suhyung \\ SMS_EPI \\ localizer_50V_newcoil$

TA: 0:27 PA	AT: Off Voxel size: 1.2×1.1	x3.0 mm Rel. SNR: 1.00	SIEMENS: gre
Properties		Phase resolution	90 %
Prio Recon	Off	 Phase partial Fourier 	6/8
Before measurement	Oli	Interpolation	On
After measurement		PAT mode	None
Load to viewer	On	FAI IIIOGE	
Inline movie	Off	Image Filter	Off
	On	Distortion Corr.	Off
Auto store images Load to stamp segments	Off	Prescan Normalize	Off
Load images to graphic	Off	Normalize	Off
	Oli	B1 filter	Off
segments	Off	Raw filter	Off
Auto open inline display		Elliptical filter	Off
Start measurement without	On	1	
further preparation	Off	Geometry	
Wait for user to start		Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
Routine		Saturation mode	Standard
Slice group 1		Special sat.	None
Slices	5		
Dist. factor	20 %	Table position	Н
Position	Isocenter	Table position	0 mm
Orientation	Sagittal	Inline Composing	Off
Phase enc. dir.	A >> P		OII
Rotation	0.00 deg	Tim CT mode	Off
Slice group 2	0.00 409	Custom	
Slices	5	System	
Dist. factor	20 %	LV1	On
Position	L0.0 P77.6 H18.2	LV2	On
Orientation	Coronal	LV3	On
Phase enc. dir.	R >> L	LV4	On
Rotation	0.00 deg	LV5	On
Slice group 3	0.00 deg	LV6	On
Slices	5	LV7	On
Dist. factor	20 %	LV8	On
Position	L0.0 P77.6 H18.2	LV9	On
Orientation		L10	On
	Transversal	L11	On
Phase enc. dir.	A >> P	L12	On
Rotation	0.00 deg	L13	On
Phase oversampling	0 %	L14	On
FoV read	280 mm	L15	On
FoV phase	100.0 %	L16	On
Slice thickness	3.0 mm	L17	On
TR	10.0 ms	L18	On
TE	3.00 ms	L19	On
Averages	1	L20	On
Concatenations	15	L21	On
Filter	None	L22	On
Coil elements	L10-24;LV1-9	L23	On
Contrast		L24	On
TD	0 ms	- Desitioning and	FIV
MTC	Off	Positioning mode	FIX
Magn. preparation	None	MSMA Societal	S-C-T
Flip angle	10 deg	Sagittal	R >> L
Fat suppr.	None	Coronal	A >> P
Water suppr.	None	Transversal	F >> H
SWI	Off	Save uncombined	On
	·····	Coil Combine Mode	Sum of Squares
Averaging mode	Short term	AutoAlign	
Reconstruction	Magnitude	Auto Coil Select	Off
Measurements	1	Shim mode	Tune up
Multiple series	Each measurement	Adjust with body coil	Off
•		Confirm freq. adjustment	Off
Resolution	050	Assume Silicone	Off
Base resolution	256	Assume silicone	OII 50,000 V

! Ref. amplitude 1H

50.000 V

	Adjustment Tolerance	Auto
	Adjust volume Position	Isocenter
	Orientation	Transversal
	Rotation	0.00 deg
	R >> L	350 mm
	A >> P	263 mm
	F >> H	350 mm
ļ	Physio	000 111111
1	1st Signal/Mode	None
	Segments	1
	Tagging	None
	Dark blood	Off
	Resp. control	Off
	Inline	
	Subtract	Off
	Liver registration	Off
	Std-Dev-Sag	Off
	Std-Dev-Cor	Off
	Std-Dev-Tra	Off
	Std-Dev-Time	Off
	MIP-Sag	Off
	MIP-Cor	Off
	MIP-Tra	Off
	MIP-Time	Off
	Save original images	On
	Wash - In	Off
	Wash - Out	Off
	TTP	Off
	PEI	Off
	MIP - time	Off
	MapIt	None
	Contrasts	1
ļ		•
1	Sequence Introduction	On
	Dimension	2D
	Phase stabilisation	Off
	Asymmetric echo	Allowed
	Bandwidth	320 Hz/Px
	Flow comp.	320 H2/PX No
	1 10W COMP. 	INO
	RF pulse type	Normal
	Gradient mode	Whisper
	Excitation	Slice-sel.
		0-

On

Excitation RF spoiling

\\USER\Feinberglab\Suhyung\SMS_EPI\AV_ep2d_bold_sd1ipat3mb4_pt75mm_tSNR_shimWholeVol TA: 1:26 PAT: 3 Voxel size: 1.5×1.5×2.0 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	L1	On
Auto store images	On	L2	On
Load to stamp segments	Off	L3	On
Load images to graphic	Off	L3 L4	On
segments		L5	On
Auto open inline display	Off	L6	On
Start measurement without	On	L7	On
further preparation	0"	L8	On
Wait for user to start	Off		
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slice group 1		—— Sagittal	R >> L
Slices	60	Coronal	A >> P
Dist. factor	0 %	Transversal	F >> H
Position	R6.0 A6.3 F32.8	Coil Combine Mode	Sum of Squares
Orientation	Transversal	AutoAlign	D-fIt
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	On
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	2.00 mm	! Ref. amplitude 1H	120.000 V
TR	4220 ms	Adjustment Tolerance	Auto
TE	29.0 ms	Adjust volume	
Multi-band accel. factor	4	Position	R6.0 A6.3 F32.8
Filter	None	Orientation	Transversal
Coil elements	L1-8	Rotation	0.00 deg
Contrast		R >> L	192 mm
MTC	Off	—— A >> P	192 mm
Magn. preparation	None	F >> H	120 mm
Flip angle	80 deg	Physio	
Fat suppr.	Fat sat.	1st Signal/Mode	None
			None
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	5	Dynamic t-maps	Off
Delay in TR	0 ms	Starting ignore meas	0
Multiple series	Off	Ignore after transition	0
Resolution		Model transition states	On
Base resolution	128	Temp. highpass filter	On
Phase resolution	100 %	Threshold	4.00
Phase partial Fourier	Off	Paradigm size	20
Interpolation	Off	Meas[1]	Baseline
		Meas[2]	Baseline
PAT mode	GRAPPA	Meas[3]	Baseline
Accel. factor PE	3	Meas[4]	Baseline
Ref. lines PE	84 ODE	Meas[5]	Baseline
Reference scan mode	GRE	Meas[6]	Baseline
Distortion Corr.	Off	Meas[7]	Baseline
Prescan Normalize	Off	Meas[8]	Baseline
Raw filter	On	Meas[9]	Baseline
Elliptical filter	Off	Meas[10]	Baseline
Hamming	Off	Meas[11]	Active
· ·		Meas[12]	Active
Geometry		Meas[13]	Active
Multi-slice mode	Interleaved	Meas[14]	Active
Series	Interleaved	Meas[15]	Active
		····· Meas[16]	Active

Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth Flow comp.	1148 Hz/Px No
Free echo spacing	Off
Echo spacing	1 ms
SIR accel. factor EPI factor	1 128
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration Slice multiplier	5820 us 1
Multi-band PE shift	2 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 MB RF phase scramble	On 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
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg Never
Send B1 shim trigger Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	<u>-</u> 1
Step [1]	1
Step [2]	0

\\USER\Feinberglab\Suhyung\SMS_EPI\AV_ep2d_bold_sd1ipat3mb5_pt75mm_tSNR_shimWholeVol TA: 1:31 PAT: 3 Voxel size: 1.5×1.5×2.0 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	L1	On
Auto store images	On	L2	On
Load to stamp segments	Off	L3	On
Load images to graphic	Off	L4	On
segments		L5	On
Auto open inline display	Off	L6	On
Start measurement without	On	L7	On
further preparation		L8	On
Wait for user to start	Off		
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slice group 1		——— Sagittal	R >> L
Slices	60	Coronal	A >> P
Dist. factor	0 %	Transversal	F >> H
Position	R6.0 A6.3 F32.8	Coil Combine Mode	Sum of Squares
Orientation	Transversal	AutoAlign	
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	On
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	2.00 mm	! Ref. amplitude 1H	120.000 V
TR	4220 ms	Adjustment Tolerance	Auto
TE	29.0 ms	Adjust volume	71010
Multi-band accel. factor	5	Position	R6.0 A6.3 F32.8
Filter	None	Orientation	Transversal
Coil elements	L1-8	Rotation	0.00 deg
Contract		R >> L	192 mm
Contrast	0"	——— A >> P	192 mm
MTC Magn propagation	Off None	F >> H	120 mm
Magn. preparation	80 deg	Dhusia	
Flip angle Fat suppr.	Fat sat.	Physio	Mana
	Fai Sai.	1st Signal/Mode	None
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	5	Dynamic t-maps	Off
Delay in TR	0 ms	Starting ignore meas	0
Multiple series	Off	Ignore after transition	0
Resolution		Model transition states	On
Base resolution	128	Temp. highpass filter	On
Phase resolution	100 %	Threshold	4.00
Phase partial Fourier	Off	Paradigm size	20
Interpolation	Off	Meas[1]	Baseline
		Meas[2]	Baseline
PAT mode	GRAPPA	Meas[3]	Baseline
Accel. factor PE	3	Meas[4]	Baseline
Ref. lines PE	84	Meas[5]	Baseline
Reference scan mode	GRE	Meas[6]	Baseline
Distortion Corr.	Off	Meas[7]	Baseline
Prescan Normalize	Off	Meas[8]	Baseline
Raw filter	On	Meas[9]	Baseline
Elliptical filter	Off	Meas[10]	Baseline
Hamming	Off	Meas[11]	Active
1		Meas[12]	Active
Geometry		Meas[13]	Active
Multi-slice mode	Interleaved	Meas[14]	Active
Series	Interleaved	Meas[15]	Active
1		····· Meas[16]	Active

Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	1148 Hz/Px No
Flow comp. Free echo spacing	Off
Echo spacing	1 ms
SIR accel. factor	1
EPI factor	128
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	2 1/FoV
zBlip scheme	0
MB kernel size 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 Off
MB RF phase scramble SENSE1 coil combine	Off Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
Online multi-band recon.	Online
FFT scale factor GRE iPAT ref. FA	0.20 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

\\USER\Feinberglab\Suhyung\SMS_EPI\AV_ep2d_bold_sd1ipat3mb6_pt75mm_tSNR_shimWholeVol TA: 1:35 PAT: 3 Voxel size: 1.5×1.5×2.0 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	L1	On
Auto store images	On	L2	On
Load to stamp segments	Off	L3	On
Load images to graphic	Off	L4	On
segments		L5	On
Auto open inline display	Off	L6	On
Start measurement without	On	L7	On
further preparation		L8	On
Wait for user to start	Off		
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slice group 1		– Sagittal	R >> L
Slices	60	Coronal	A >> P
Dist. factor	0 %	Transversal	F >> H
Position	R6.0 A6.3 F32.8	Coil Combine Mode	Sum of Squares
Orientation	Transversal	AutoAlign	
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	On
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	2.00 mm	! Ref. amplitude 1H	120.000 V
TR	4220 ms	Adjustment Tolerance	Auto
TE	29.6 ms	Adjust volume	71010
Multi-band accel. factor	6	Position	R6.0 A6.3 F32.8
Filter	None	Orientation	Transversal
Coil elements	L1-8	Rotation	0.00 deg
I		R >> L	192 mm
Contrast	~"	– A >> P	192 mm
MTC	Off	F >> H	120 mm
Magn. preparation	None	I .	
Flip angle	80 deg	Physio	
Fat suppr.	Fat sat.	1st Signal/Mode	None
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	5	Dynamic t-maps	Off
Delay in TR	0 ms	Starting ignore meas	0
Multiple series	Off	Ignore after transition	0
Resolution		Model transition states	On
Base resolution	128	 Temp. highpass filter 	On
Phase resolution	100 %	Threshold	4.00
Phase partial Fourier	Off	Paradigm size	20
Interpolation	Off	Meas[1]	Baseline
		Meas[2]	Baseline
PAT mode	GRAPPA	Meas[3]	Baseline
Accel. factor PE	3	Meas[4]	Baseline
Ref. lines PE	84	Meas[5]	Baseline
Reference scan mode	GRE	Meas[6]	Baseline
Distortion Corr.	Off	Meas[7]	Baseline
Prescan Normalize	Off	Meas[8]	Baseline
		Meas[9]	Baseline
I Raw filter		Mooo[10]	Baseline
Raw filter Elliptical filter	On Off	Meas[10]	
Elliptical filter	Off	Meas[11]	Active
		Meas[11] Meas[12]	Active Active
Elliptical filter	Off	Meas[11] Meas[12] Meas[13]	Active Active Active
Elliptical filter Hamming	Off Off Interleaved	Meas[11] Meas[12] Meas[13] Meas[14]	Active Active Active Active
Elliptical filter Hamming Geometry	Off Off	Meas[11] Meas[12] Meas[13]	Active Active Active

Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth	Off 1148 Hz/Px
Flow comp.	1146 HZ/PX No
Free echo spacing	Off
Echo spacing	1.02 ms
SIR accel. factor	1
EPI factor	128
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	2 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 MB RF phase scramble	On 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
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg Never
Send B1 shim trigger Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	<u>-</u> 1
Step [1]	1
Step [2]	0

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