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\\RESEARCH **RESEARCH** Oscar HCPh LR AAhead_scout_64ch-head-coil anat-T1w_t1_mprage_tra_p2_iso_siemens_axial fmap-epi_acq-b0_dir-PA_6dir_monopolar fmap-epi_acq-b0_dir-AP__6dir_monopolar fmap-epi_acq-b0_dir-LR__6dir_monopolar_HR1_2mm_BW fmap-epi_acq-b0_dir-RL__6dir_monopolar_HR1_2mm_BW dwi-dwi_acq-highres_dir-LR__trigger_monopolar_71fpvphase fmap-phasediff__gre func-bold_task-qct_dir-LR__cmrr_me4_sms4 fmap-epi_acq-bold_dir-LR__cmrr_me4_sms1 fmap-epi_acq-bold_dir-RL__cmrr_me4_sms1 fmap-epi_acq-bold_dir-AP__cmrr_me4_sms1 fmap-epi_acq-bold_dir-PA__cmrr_me4_sms1 func-bold_task-rest_dir-LR__cmrr_me4_sms4 func-bold_task-bht_dir-LR__cmrr_me4_sms4 anat-T2w__space

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\AAhead_scout_64ch-head-coil

TA: 14 sec Coil Selection: Auto Voxel Size: 1.6×1.6×1.6 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	Off
· · ·	
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	3.2 ms
TE	1.37 ms
Averages	1
Concatenations	1
AutoAlign	Head

Contrast - Common

TR	3.2 ms
TE	1.37 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Time to Center	6.2 s

Resolution - Common

FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
Base Resolution	160
Phase Resolution	100 %
Slice Resolution	69 %
Trajectory	Cartesian

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24

Resolution - Acceleration

Acceleration Factor 3D	1
Phase Partial Fourier	6/8
Slice Partial Fourier	6/8
Asymmetric Echo	Weak

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Noise Masking	Off
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	3.2 ms
Multi-Slice Mode	Sequential
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head
Initial Position	Isocenter
L	0.0 mm
Р	0.0 mm
Н	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

Coil Selection	Auto Coil Select
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Dynamic

Dynamic Mode	Standard
Flip Angle	8 deg
Measurements	1
Time to Center	6.2 s

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Save Original Images	On
Contrasts	1
TE	1.37 ms
TR	3.2 ms

Inline - MIP

MIP Sag	Off	
MIP Cor	Off	
MIP Tra	Off	
MIP Time	Off	
Radial MIP	Off	
Save Original Images	On	
MPR Sag	Off	
MPR Cor	Off	
MPR Tra	Off	

Inline - Composing

	- 3
Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle	8 deg
Measurements	1
Contrasts	1
TE	1.37 ms
TR	3.2 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	fl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Bandwidth	540 Hz/Px
Asymmetric Echo	Weak

Sequence - Part 2

Introduction	On
RF Spoiling	On
Breast Application	Off

Sequence - Assistant

1		
SAR Assistant	Off	
JAN Assistant	Oli	

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\anat-T1w__t1_mprage_tra_p2_iso_siemens_axial

TA: 5:03 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further	On
preparation	
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	L0.0 A27.4 H15.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	16.7 %
FoV Read	230 mm
FoV Phase	87.5 %
Slice Thickness	0.8 mm
TR	2200.0 ms
TE	2.55 ms
Averages	1
Concatenations	1
AutoAlign	

Contrast - Common

TR	2200.0 ms
TE	2.55 ms
Magn. Preparation	Non-sel. IR
TI	900 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	230 mm
FoV Phase	87.5 %
Slice Thickness	0.8 mm
Base Resolution	288
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA

Resolution - Acceleration

Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Allowed
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	On

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	L0.0 A27.4 H15.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	16.7 %
FoV Read	230 mm
FoV Phase	87.5 %
Slice Thickness	0.8 mm
TR	2200.0 ms
Multi-Slice Mode	Single Shot
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L0.0 A27.4 H15.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	
Initial Position	L0.0 A27.4 H15.0
L	0.0 mm
Α	27.4 mm
Н	15.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

System - Miscellaneous

Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard	
B0 Shim	Tune up	
B1 Shim	TrueForm	
CoilShim	Off	
Adjustment Tolerance	Auto	
Adjust with Body Coil	Off	
Confirm Frequency	Never	
Assume Silicone	Off	

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
A >> P R >> L F >> H	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2200.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
ТΙ	900 ms
Dark Blood	Off
FoV Read	230 mm
FoV Phase	87.5 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	2.55 ms

Inline - Cardiac

TR	2200.0 ms
Inline - MIP	
MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off	
I II III IC COITIPOSITIQ	OII	

Inline - MapIt

MapIt	None
Flip Angle	8 deg
Measurements	1
TE	2.55 ms
TR	2200.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Reordering	Linear
Bandwidth	260 Hz/Px
Echo Spacing	7.46 ms
Asymmetric Echo	Allowed
Turbo Factor	224

Sequence - Part 2

Introduction	On	
RF Spoiling	On	
Incr. Gradient Spoiling	On	

Sequence - Assistant

SAR Assistant	Off	

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TA: 40 sec Coil Selection: Auto Voxel Size: 1.3×1.3×1.6 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	87
Distance Factor	0 %
Position	L0.0 A1.9 H1.8 mm
Orientation	T > C-14.6 > S-2.1
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	234 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	4000.0 ms
TE	90.00 ms
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

1000.0 ms
90.00 ms
Off
None
at Saturation
Strong
/lagnitude
9

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	234 mm	
FoV Phase	100.0 %	
Slice Thickness	1.6 mm	
Base Resolution	180	
Phase Resolution	100 %	
Interpolation	Off	

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	54
SMS Factor	3
Advanced Reconstruction	Off
Phase Partial Fourier	7/8

Resolution - Filter

Raw Filter	Off	
Elliptical Filter	Off	
Distortion Correction	Off	
Normalize	Off	

Geometry - Common

Slice Group	1
Slices	87
Distance Factor	0 %
Position	L0.0 A1.9 H1.8 mm
Orientation	T > C-14.6 > S-2.1
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	234 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	4000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

- · · · · · · · · · · · · · · · · · · ·	
Slice Group	1
Position	L0.0 A1.9 H1.8 mm
Orientation	T > C-14.6 > S-2.1
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 A1.9 H1.8
R	0.0 mm
A	1.9 mm
Н	1.8 mm
Initial Orientation	T > C
T > C	-14.60
> S	-2.10
Initial Rotation	-0.42 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	Nana	
LSOECIAL SAIDTAILON	None	

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

Adjustment Strategy	Standard
B0 Shim	Standard

B1 Shim	TrueForm	
CoilShim	Off	
Adjustment Tolerance	Auto	
Adjust with Body Coil	Off	
Confirm Frequency	Never	
Assume Silicone	Off	

Sequence - Part 2

Introduction	Off
Phase Correction	Internal

System - Adjust Volume

! Position	L0.0 A1.9 H1.8 mm
! Orientation	T > C-14.6 > S-2.1
! Rotation	179.58 deg
! A >> P	239 mm
! R >> L	239 mm
! F >> H	140 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4000.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	Free
Diff. Directions	6
Diffusion Scheme	Monopolar
Diff. Weightings	1
b-value	0 s/mm²
Averages	3
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	Off
Tensor	Off
FA Maps	Off
ADC Maps	Off
Exponential ADC Maps	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Performance
Bandwidth	1634 Hz/Px
Echo Spacing	0.70 ms
Free Echo Spacing	On
Optimization	None
EPI Factor	180

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TA: 40 sec Coil Selection: Auto Voxel Size: 1.3×1.3×1.6 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	87
Distance Factor	0 %
Position	L0.0 A1.9 H1.8 mm
Orientation	T > C-14.6 > S-2.1
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	234 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	4000.0 ms
TE	90.00 ms
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	4000.0 ms
TE	90.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	234 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
Base Resolution	180
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	54
SMS Factor	3
Advanced Reconstruction	Off
Phase Partial Fourier	7/8

Resolution - Filter

Raw Filter	Off	
Elliptical Filter	Off	
Distortion Correction	Off	
Normalize	Off	

Geometry - Common

Slice Group	1
Slices	87
Distance Factor	0 %
Position	L0.0 A1.9 H1.8 mm
Orientation	T > C-14.6 > S-2.1
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	234 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	4000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

- · · · · · · · · · · · · · · · · · · ·	
Slice Group	1
Position	L0.0 A1.9 H1.8 mm
Orientation	T > C-14.6 > S-2.1
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 A1.9 H1.8
R	0.0 mm
A	1.9 mm
Н	1.8 mm
Initial Orientation	T > C
T > C	-14.60
> S	-2.10
Initial Rotation	-0.42 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	Nana	
LSOECIAL SAIDTAILON	None	

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

Adjustment Strategy	Standard	
B0 Shim	Standard	

	-	
B1 Shim		TrueForm
CoilShim		Off
Adjustmen	t Tolerance	Auto
Adjust with	n Body Coil	Off
Confirm Fr	equency	Never
Assume Si	ilicone	Off

Sequence - Part 2

Introduction	Off
Phase Correction	Internal

System - Adjust Volume

! Position	L0.0 A1.9 H1.8 mm
! Orientation	T > C-14.6 > S-2.1
! Rotation	179.58 deg
! A >> P	239 mm
! R >> L	239 mm
! F >> H	140 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4000.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	Free
Diff. Directions	6
Diffusion Scheme	Monopolar
Diff. Weightings	1
b-value	0 s/mm²
Averages	3
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	Off
Tensor	Off
FA Maps	Off
ADC Maps	Off
Exponential ADC Maps	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Performance
Bandwidth	1634 Hz/Px
Echo Spacing	0.70 ms
Free Echo Spacing	On
Optimization	None
EPI Factor	180

\\RESEARCH\RESEARCH\Oscar\HCPh_LR\fmap-epi_acq-b0_dir-LR__6dir_monopolar_HR1_2mm_B W

TA: 53 sec Coil Selection: Auto Voxel Size: 1.3×1.3×1.2 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	114
Distance Factor	0 %
Position	R3.8 A20.9 H13.6 mm
Orientation	T > C-14.4 > S2.0
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	248 mm
FoV Phase	73.7 %
Slice Thickness	1.2 mm
TR	5300.0 ms
TE	90.00 ms
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	5300.0 ms
TR TE	90.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	248 mm
FoV Phase	73.7 %
Slice Thickness	1.2 mm
Base Resolution	190
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	40
SMS Factor	3
Advanced Reconstruction	Off

Resolution - Acceleration

Phase Partial Fourier	7/8	

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Off

Geometry - Common

Slice Group	1
Slices	114
Distance Factor	0 %
Position	R3.8 A20.9 H13.6 mm
Orientation	T > C-14.4 > S2.0
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	248 mm
FoV Phase	73.7 %
Slice Thickness	1.2 mm
TR	5300.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R3.8 A20.9 H13.6 mm
Orientation	T > C-14.4 > S2.0
Phase Encoding Dir.	L >> R
AutoAlign	Head > Brain
Initial Position	L0.1 A0.5 H5.7
L	0.1 mm
Α	0.5 mm
Н	5.7 mm
Initial Orientation	T > C
T > C	-14.60
> S	-2.10
Initial Rotation	-90.42 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None	
Special Saluration	INOTIE	

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance

System - Miscellaneous

	Coil Focus	Flat	
--	------------	------	--

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	R3.7 A21.5 H11.3 mm
! Orientation	T > C-14.4 > S2.0
! Rotation	-88.20 deg
! R >> L	169 mm
! A >> P	228 mm
! F >> H	140 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	5300.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	Free
Diff. Directions	6
Diffusion Scheme	Monopolar
Diff. Weightings	1
b-value	0 s/mm²
Averages	3
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	Off
Tensor	Off
FA Maps	Off
ADC Maps	Off
Exponential ADC Maps	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Performance*
Bandwidth	1462 Hz/Px

Sequence - Part 1

Echo Spacing	0.93 ms
Free Echo Spacing	On
Optimization	None
EPI Factor	140

Sequence - Part 2

Introduction	Off
Phase Correction	Internal

\\RESEARCH\RESEARCH\Oscar\HCPh_LR\fmap-epi_acq-b0_dir-RL__6dir_monopolar_HR1_2mm_B W

TA: 53 sec Coil Selection: Auto Voxel Size: 1.3×1.3×1.2 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	114
Distance Factor	0 %
Position	R3.8 A20.9 H13.6 mm
Orientation	T > C-14.4 > S2.0
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	248 mm
FoV Phase	73.7 %
Slice Thickness	1.2 mm
TR	5300.0 ms
TE	90.00 ms
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	5300.0 ms
TR TE	90.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	248 mm
FoV Phase	73.7 %
Slice Thickness	1.2 mm
Base Resolution	190
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	40
SMS Factor	3
Advanced Reconstruction	Off

Resolution - Acceleration

Phase Partial Fourier	7/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Off

Geometry - Common

Slice Group	1
Slices	114
Distance Factor	0 %
Position	R3.8 A20.9 H13.6 mm
Orientation	T > C-14.4 > S2.0
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	248 mm
FoV Phase	73.7 %
Slice Thickness	1.2 mm
TR	5300.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R3.8 A20.9 H13.6 mm
Orientation	T > C-14.4 > S2.0
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.1 A0.5 H5.7
L	0.1 mm
Α	0.5 mm
Н	5.7 mm
Initial Orientation	T > C
T > C	-14.60
> S	-2.10
Initial Rotation	89.58 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance

System - Miscellaneous

	Coil Focus	Flat	
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System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	R3.7 A21.5 H11.3 mm
! Orientation	T > C-14.4 > S2.0
! Rotation	-88.20 deg
! R >> L	169 mm
! A >> P	228 mm
! F >> H	140 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	5300.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	Free
Diff. Directions	6
Diffusion Scheme	Monopolar
Diff. Weightings	1
b-value	0 s/mm²
Averages	3
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	Off
Tensor	Off
FA Maps	Off
ADC Maps	Off
Exponential ADC Maps	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Performance*
Bandwidth	1462 Hz/Px

Sequence - Part 1

Echo Spacing	0.93 ms
Free Echo Spacing	On
Optimization	None
EPI Factor	140

Sequence - Part 2

Ir	ntroduction	Off
Р	hase Correction	Internal

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\dwi-dwi_acq-highres_dir-LR__trigger_monopolar_71fov phase

TA: 33:10 min Coil Selection: Auto Voxel Size: 1.6×1.6×1.6 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further	On
preparation	
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	87
Distance Factor	0 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	234 mm
FoV Phase	71.2 %
Slice Thickness	1.6 mm
TR	7000.0 ms
TE	98.00 ms
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	7000.0 ms
TE	98.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	234 mm
FoV Phase	71.2 %
Slice Thickness	1.6 mm
Base Resolution	146
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	38
SMS Factor	3
Advanced Reconstruction	Off

Resolution - Acceleration

Phase Partial Fourier	7/8

Resolution - Filter

Raw Filter	Off	
Elliptical Filter	Off	
Distortion Correction	Off	
Normalize	Off	

Geometry - Common

Slice Group	1
Slices	87
Distance Factor	0 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	234 mm
FoV Phase	71.2 %
Slice Thickness	1.6 mm
TR	7000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	L >> R
AutoAlign	Head > Brain
Initial Position	L0.0 P0.0 F5.0
L	0.0 mm
Р	0.0 mm
F	5.0 mm
Initial Orientation	Transversal
Initial Rotation	-90.17 deg

Geometry - Navigator

Geometry - Saturation

0 110 1 11	
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	5 mm
Table Position	F
Inline Composing	Off

Coil Selection	Auto Coil Select
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

1	Adjustment Strategy	Standard
E	30 Shim	Standard
E	31 Shim	TrueForm
(CoilShim	Off
A	Adjustment Tolerance	Auto
ŀ	Adjust with Body Coil	Off
(Confirm Frequency	Never
A	Assume Silicone	Off

Sequence - Part 1

Free Echo Spacing	Off
Optimization	None
EPI Factor	104

Sequence - Part 2

Introduction	Off
Phase Correction	Internal

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	-90.17 deg
R >> L	167 mm
A >> P F >> H	234 mm
F >> H	140 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7000.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	Free
Diff. Directions	279
Diffusion Scheme	Monopolar
Diff. Weightings	2
b-value 1	0 s/mm²
b-value 2	3000 s/mm ²
Averages 1	1
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	Off
Exponential ADC Maps	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Performance*
Bandwidth	1630 Hz/Px
Echo Spacing	0.78 ms

$\verb|\RESEARCH| Coscar| HCPh_LR | fmap-phase diff_gre|$

TA: 2:31 min Coil Selection: Auto Voxel Size: 2.0×2.0×2.0 mm³ Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	72
Distance Factor	0 %
Position	R5.2 A24.2 H12.6 mm
Orientation	T > C-14.5 > S3.7
Phase Encoding Dir.	P >> A
Phase Oversampling	0 %
FoV Read	228 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	324.0 ms
TE 1	4.45 ms
TE 2	6.91 ms
Averages	1
Concatenations	2
AutoAlign	Head > Brain

Contrast - Common

TR	324.0 ms
TE 1	4.45 ms
TE 2	6.91 ms
MTC	Off
Flip Angle	55 deg
Fat-Water Contrast	Standard
Contrasts	2
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	228 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	114
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Phase Partial Fourier	Off	
Asymmetric Echo	Off	

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Off
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	72
Distance Factor	0 %
Position	R5.2 A24.2 H12.6 mm
Orientation	T > C-14.5 > S3.7
Phase Encoding Dir.	P >> A
Phase Oversampling	0 %
FoV Read	228 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	324.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Geometry - AutoAlign

Slice Group	1
Position	R5.2 A24.2 H12.6 mm
Orientation	T > C-14.5 > S3.7
Phase Encoding Dir.	P >> A
AutoAlign	Head > Brain
Initial Position	L0.0 A2.5 H1.7
R	0.0 mm
A	2.5 mm
Н	1.7 mm
Initial Orientation	T > C
T > C	-14.60
> S	-2.10
Initial Rotation	179.57 deg

Geometry - Saturation

Special Saturation	None	
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

Adjustment Strategy	Standard
Aujustinent Strategy	Stanuaru
B0 Shim	Standard
B1 Shim	TrueForm

CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	R5.2 A24.2 H12.6 mm
! Orientation	T > C-14.5 > S3.7
! Rotation	-89.30 deg
! R >> L	169 mm
! A >> P	228 mm
! F >> H	140 mm
Reset	Off

System - pTx

B1 Giiiii	B1 Shim	TrueForm
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System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Sequence - Part 1

Sequence Name	fm_r
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	On
Bandwidth	1218 Hz/Px
Asymmetric Echo	Off

Sequence - Part 2

Introduction	On
RF Spoiling	On

Sequence - Assistant

SAR Assistant	Off	
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TA: 3:07 min Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
TR	1600.0 ms
TE 1	12.60 ms
TE 2	32.20 ms
TE 3	51.80 ms
TE 4	71.40 ms
Averages	1
Multi-band accel. factor	4
AutoAlign	Head > Brain

Contrast - Common

TR	1600.0 ms
TE 1	12.60 ms
TE 2	32.20 ms
TE 3	51.80 ms
TE 4	71.40 ms
MTC	Off
Magn. Preparation	None
Flip Angle	64 deg
Fat-Water Contrast	Fat Saturation
Contrasts	4
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	99
Delay in TR	0.00 ms

Resolution - Common

FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
Base Resolution	102
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference scan mode	Single-shot
Acceleration Factor PE	2
Reference Lines PE	18
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	2D
Normalize	Off

Geometry - Common

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
TR	1600.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

Geometry - AutoAlign

Slice Group	1
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	L >> R
AutoAlign	Head > Brain
Initial Position	R0.6 A1.1 H3.2
R	0.6 mm
A	1.1 mm
Н	3.2 mm
Initial Orientation	T > C
T > C	-16.70
> S	0.00
Initial Rotation	-90.23 deg

Geometry - Saturation

Special Saturation	None	
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	3 mm
Table Position	Н
Inline Composing	Off

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares

System - Miscellaneous

Matrix Optimization	Off	
Coil Focus	Flat	

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Rotation	-90.23 deg
R >> L	167 mm
A >> P	224 mm
F >> H	132 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	1600.0 ms
Multi-band accel. factor	4

BOLD

DOLD		
GLM Statistics	Off	
Ignore Meas. at Start	0	
Ignore After Transition	0	
Model Transition States	On	
Temp. Highpass Filter	On	
Threshold	4.00	
Paradigm Size	20	
Meas[1]	Active	
Meas[2]	Active	
Meas[3]	Active	
Meas[4]	Active	
Meas[5]	Active	
Meas[6]	Active	
Meas[7]	Active	
Meas[8]	Active	
Meas[9]	Active	
Meas[10]	Active	
Meas[11]	Ignore	
Meas[12]	Ignore	
Meas[13]	Ignore	
Meas[14]	Ignore	
Meas[15]	Ignore	
Meas[16]	Ignore	
Meas[17]	Ignore	
Meas[18]	Ignore	
Meas[19]	Ignore	

BOLD

Meas[20]	Ignore
Motion Correction	Off
Spatial Filter	Off
Measurements	99
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Dimension	2D
Excitation	Standard
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	1960 Hz/Px
Echo Spacing	0.65 ms
Free Echo Spacing	Off
EPI Factor	76

Sequence - Part 2

Introduction	Off
RF Spoiling	Off

4000 us
0
0
0 us
Off
On
Off
On
Off
Online
1.00
110.00 deg
0.00 Hz
5.20
Off
Standard

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\fmap-epi_acq-bold_dir-LR__cmrr_me4_sms1

TA: 27 sec Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R6.0 A22.8 H14.0 mm
Orientation	T > C-16.7 > S5.7
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
TR	3811.0 ms
TE	35.00 ms
Averages	1
Multi-band accel. factor	1
AutoAlign	Head > Brain

Contrast - Common

TR	3811.0 ms
TE	35.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	64 deg
Fat-Water Contrast	Fat Saturation
Contrasts	1
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	4
Delay in TR	0.00 ms

Resolution - Common

FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
Base Resolution	102
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference scan mode	Single-shot
Acceleration Factor PE	2
Reference Lines PE	18
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	2D
Normalize	Off

Geometry - Common

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R6.0 A22.8 H14.0 mm
Orientation	T > C-16.7 > S5.7
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
TR	3811.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

Geometry - AutoAlign

Slice Group	1
Position	R6.0 A22.8 H14.0 mm
Orientation	T > C-16.7 > S5.7
Phase Encoding Dir.	L >> R
AutoAlign	Head > Brain
Initial Position	R0.6 A1.1 H3.2
R	0.6 mm
A	1.1 mm
Н	3.2 mm
Initial Orientation	T > C
T > C	-16.70
> S	0.00
Initial Rotation	-90.22 deg

Geometry - Saturation

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

System - Miscellaneous

-	
Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm

CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	R5.8 A23.1 H12.1 mm
! Orientation	T > C-16.7 > S5.7
! Rotation	-88.88 deg
! R >> L	167 mm
! A >> P	224 mm
! F >> H	132 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3811.0 ms
Multi-band accel. factor	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
Meas[1]	Active
Meas[2]	Active
Meas[3]	Active
Meas[4]	Active
Meas[5]	Active
Meas[6]	Active
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
Meas[10]	Active
Meas[11]	Ignore
Meas[12]	Ignore
Meas[13]	Ignore
Meas[14]	Ignore
Meas[15]	Ignore
Meas[16]	Ignore
Meas[17]	Ignore
Meas[18]	Ignore
Meas[19]	Ignore
Meas[20]	Ignore
Motion Correction	Off
Spatial Filter	Off
Measurements	4
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Dimension	2D
Excitation	Standard
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	1960 Hz/Px
Echo Spacing	0.65 ms
Free Echo Spacing	Off
EPI Factor	76

Sequence - Part 2

Introduction	Off
RF Spoiling	Off

Excite pulse duration	4000 us
Min. prep scans	0
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Force Maxwell corr.	Off
PF omits higher k-space	Off
Disable freq. update	Off
Suppress 16-bit DICOM	On
Force equal slice timing	Off
FFT scale factor	1.00
Fat saturation FA	110.00 deg
Fat sat. offset	0.00 Hz
Sinc exc. pulse BWTP	5.20
Physio recording	Off
Triggering scheme	Standard

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\fmap-epi_acq-bold_dir-RL__cmrr_me4_sms1

TA: 27 sec Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group 1 Slices 60 Distance Factor 0 % Position R0.6 A1.1 H3.2 mm Orientation T > C-16.7 Phase Encoding Dir. R >> L Phase Oversampling 0 % FoV Read 224 mm FoV Phase 74.5 % Slice Thickness 2.2 mm TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1 AutoAlign Head > Brain	<u> </u>	
Distance Factor 0 % Position R0.6 A1.1 H3.2 mm Orientation T > C-16.7 Phase Encoding Dir. R >> L Phase Oversampling 0 % FoV Read 224 mm FoV Phase 74.5 % Slice Thickness 2.2 mm TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1	Slice Group	1
Position R0.6 A1.1 H3.2 mm Orientation T > C-16.7 Phase Encoding Dir. R >> L Phase Oversampling 0 % FoV Read 224 mm FoV Phase 74.5 % Slice Thickness 2.2 mm TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1	Slices	60
Orientation T > C-16.7 Phase Encoding Dir. R >> L Phase Oversampling 0 % FoV Read 224 mm FoV Phase 74.5 % Slice Thickness 2.2 mm TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1	Distance Factor	0 %
Phase Encoding Dir. R >> L Phase Oversampling 0 % FoV Read 224 mm FoV Phase 74.5 % Slice Thickness 2.2 mm TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1	Position	R0.6 A1.1 H3.2 mm
Phase Oversampling 0 % FoV Read 224 mm FoV Phase 74.5 % Slice Thickness 2.2 mm TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1	Orientation	T > C-16.7
FoV Read 224 mm FoV Phase 74.5 % Slice Thickness 2.2 mm TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1	Phase Encoding Dir.	R >> L
FoV Phase 74.5 % Slice Thickness 2.2 mm TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1	Phase Oversampling	0 %
Slice Thickness 2.2 mm TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1	FoV Read	224 mm
TR 3811.0 ms TE 35.00 ms Averages 1 Multi-band accel. factor 1	FoV Phase	74.5 %
TE 35.00 ms Averages 1 Multi-band accel. factor 1	Slice Thickness	2.2 mm
Averages 1 Multi-band accel. factor 1	TR	3811.0 ms
Multi-band accel. factor 1	TE	35.00 ms
	Averages	1
AutoAlign Head > Brain	Multi-band accel. factor	1
	AutoAlign	Head > Brain

Contrast - Common

TR	3811.0 ms
TE	35.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	64 deg
Fat-Water Contrast	Fat Saturation
Contrasts	1
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	4
Delay in TR	0.00 ms

Resolution - Common

FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
Base Resolution	102
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference scan mode	Single-shot
Acceleration Factor PE	2
Reference Lines PE	18
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	2D
Normalize	Off

Geometry - Common

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
TR	3811.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

Geometry - AutoAlign

Slice Group	1
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	R0.6 A1.1 H3.2
R	0.6 mm
Α	1.1 mm
Н	3.2 mm
Initial Orientation	T > C
T > C	-16.70
> S	0.00
Initial Rotation	89.77 deg

Geometry - Saturation

Special Saturation	None	
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm

CoilShim	Off	
Adjustment Tolerance	Auto	
Adjust with Body Coil	Off	
Confirm Frequency	Never	
Assume Silicone	Off	

System - Adjust Volume

! Position	R0.6 A1.4 H1.3 mm
! Orientation	T > C-16.7
! Rotation	-90.22 deg
! R >> L	167 mm
! A >> P	224 mm
! F >> H	132 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3811.0 ms
Multi-band accel. factor	1

BOLD

GLM Statistics Off Ignore Meas. at Start 0 Ignore After Transition 0 Model Transition States On Temp. Highpass Filter On Threshold 4.00 Paradigm Size 20 Meas[1] Active Meas[2] Active Meas[3] Active Meas[4] Active Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Ignore After Transition 0
Model Transition States On Temp. Highpass Filter On Threshold 4.00 Paradigm Size 20 Meas[1] Active Meas[2] Active Meas[3] Active Meas[4] Active Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Temp. Highpass Filter On Threshold 4.00 Paradigm Size 20 Meas[1] Active Meas[2] Active Meas[3] Active Meas[4] Active Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Threshold 4.00 Paradigm Size 20 Meas[1] Active Meas[2] Active Meas[3] Active Meas[4] Active Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore
Paradigm Size 20 Meas[1] Active Meas[2] Active Meas[3] Active Meas[4] Active Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[1] Active Meas[2] Active Meas[3] Active Meas[4] Active Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[2] Active Meas[3] Active Meas[4] Active Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[3] Active Meas[4] Active Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[4] Active Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[5] Active Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[6] Active Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[7] Active Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[8] Active Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[9] Active Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[10] Active Meas[11] Ignore Meas[12] Ignore
Meas[11] Ignore Meas[12] Ignore
Meas[12] Ignore
Managed 21
Meas[13] Ignore
Meas[14] Ignore
Meas[15] Ignore
Meas[16] Ignore
Meas[17] Ignore
Meas[18] Ignore
Meas[19] Ignore
Meas[20] Ignore
Motion Correction Off
Spatial Filter Off
Measurements 4
Delay in TR 0.00 ms

Sequence - Part 1

Sequence Name	epfid
Dimension	2D
Excitation	Standard
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	1960 Hz/Px
Echo Spacing	0.65 ms
Free Echo Spacing	Off
EPI Factor	76

Sequence - Part 2

Introduction	Off
RF Spoiling	Off

Excite pulse duration	4000 us
Min. prep scans	0
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Force Maxwell corr.	Off
PF omits higher k-space	Off
Disable freq. update	Off
Suppress 16-bit DICOM	On
Force equal slice timing	Off
FFT scale factor	1.00
Fat saturation FA	110.00 deg
Fat sat. offset	0.00 Hz
Sinc exc. pulse BWTP	5.20
Physio recording	Off
Triggering scheme	Standard

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\fmap-epi_acq-bold_dir-AP__cmrr_me4_sms1

TA: 27 sec Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R5.9 A18.9 H12.8 mm
Orientation	T > C-16.7 > S5.7
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	211 mm
FoV Phase	100.0 %
Slice Thickness	2.2 mm
TR	3808.0 ms
TE	35.00 ms
Averages	1
Multi-band accel. factor	1
AutoAlign	Head > Brain

Contrast - Common

TR	3808.0 ms
TE	35.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	64 deg
Fat-Water Contrast	Fat Saturation
Contrasts	1
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	4
Delay in TR	0.00 ms

Resolution - Common

FoV Read	211 mm
FoV Phase	100.0 %
Slice Thickness	2.2 mm
Base Resolution	96
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference scan mode	Single-shot
Acceleration Factor PE	2
Reference Lines PE	22
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	2D
Normalize	Off

Geometry - Common

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R5.9 A18.9 H12.8 mm
Orientation	T > C-16.7 > S5.7
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	211 mm
FoV Phase	100.0 %
Slice Thickness	2.2 mm
TR	3808.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

Geometry - AutoAlign

Slice Group	1
Position	R5.9 A18.9 H12.8 mm
Orientation	T > C-16.7 > S5.7
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	R0.6 P2.8 H2.0
R	0.6 mm
Р	2.8 mm
Н	2.0 mm
Initial Orientation	T > C
T > C	-16.70
> S	0.00
Initial Rotation	-0.23 deg

Geometry - Saturation

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm

CoilShim	Off	
Adjustment Tolerance	Auto	
Adjust with Body Coil	Off	
Confirm Frequency	Never	
Assume Silicone	Off	

System - Adjust Volume

! Position	R5.7 A17.9 H10.5 mm
! Orientation	T > C-16.7 > S5.7
! Rotation	1.12 deg
! A >> P	211 mm
!R >> L !F >> H	211 mm
! F >> H	132 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3808.0 ms
Multi-band accel. factor	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
Meas[1]	Active
Meas[2]	Active
Meas[3]	Active
Meas[4]	Active
Meas[5]	Active
Meas[6]	Active
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
Meas[10]	Active
Meas[11]	Ignore
Meas[12]	Ignore
Meas[13]	Ignore
Meas[14]	Ignore
Meas[15]	Ignore
Meas[16]	Ignore
Meas[17]	Ignore
Meas[18]	Ignore
Meas[19]	Ignore
Meas[20]	Ignore
Motion Correction	Off
Spatial Filter	Off
Measurements	4
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Dimension	2D
Excitation	Standard
Gradient Mode	Performance
Flow Compensation	None
Bandwidth	2264 Hz/Px
Echo Spacing	0.53 ms
Free Echo Spacing	Off
EPI Factor	96

Sequence - Part 2

Introduction	Off
RF Spoiling	Off

Excite pulse duration	4000 us
Min. prep scans	0
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Force Maxwell corr.	Off
PF omits higher k-space	Off
Disable freq. update	Off
Suppress 16-bit DICOM	On
Force equal slice timing	Off
FFT scale factor	1.00
Fat saturation FA	110.00 deg
Fat sat. offset	0.00 Hz
Sinc exc. pulse BWTP	5.20
Physio recording	Off
Triggering scheme	Standard

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\fmap-epi_acq-bold_dir-PA__cmrr_me4_sms1

TA: 27 sec Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R5.9 A18.9 H12.8 mm
Orientation	T > C-16.7 > S5.7
Phase Encoding Dir.	P >> A
Phase Oversampling	0 %
FoV Read	211 mm
FoV Phase	100.0 %
Slice Thickness	2.2 mm
TR	3808.0 ms
TE	35.00 ms
Averages	1
Multi-band accel. factor	1
AutoAlign	Head > Brain

Contrast - Common

TR	3808.0 ms
TE	35.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	64 deg
Fat-Water Contrast	Fat Saturation
Contrasts	1
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	4
Delay in TR	0.00 ms

Resolution - Common

FoV Read	211 mm
FoV Phase	100.0 %
Slice Thickness	2.2 mm
Base Resolution	96
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference scan mode	Single-shot
Acceleration Factor PE	2
Reference Lines PE	22
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	2D
Normalize	Off

Geometry - Common

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R5.9 A18.9 H12.8 mm
Orientation	T > C-16.7 > S5.7
Phase Encoding Dir.	P >> A
Phase Oversampling	0 %
FoV Read	211 mm
FoV Phase	100.0 %
Slice Thickness	2.2 mm
TR	3808.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

Geometry - AutoAlign

Slice Group	1
Position	R5.9 A18.9 H12.8 mm
Orientation	T > C-16.7 > S5.7
Phase Encoding Dir.	P >> A
AutoAlign	Head > Brain
Initial Position	R0.6 P2.8 H2.0
R	0.6 mm
P	2.8 mm
Н	2.0 mm
Initial Orientation	T > C
T > C	-16.70
> S	0.00
Initial Rotation	179.77 deg

Geometry - Saturation

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off
Coil Focus	Flat

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm

CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	R5.7 A17.9 H10.5 mm
! Orientation	T > C-16.7 > S5.7
! Rotation	1.12 deg
! A >> P	211 mm
! R >> L	211 mm
! F >> H	132 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3808.0 ms
Multi-band accel. factor	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
Meas[1]	Active
Meas[2]	Active
Meas[3]	Active
Meas[4]	Active
Meas[5]	Active
Meas[6]	Active
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
Meas[10]	Active
Meas[11]	Ignore
Meas[12]	Ignore
Meas[13]	Ignore
Meas[14]	Ignore
Meas[15]	Ignore
Meas[16]	Ignore
Meas[17]	Ignore
Meas[18]	Ignore
Meas[19]	Ignore
Meas[20]	Ignore
Motion Correction	Off
Spatial Filter	Off
Measurements	4
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Dimension	2D
Excitation	Standard
Gradient Mode	Performance
Flow Compensation	None
Bandwidth	2264 Hz/Px
Echo Spacing	0.53 ms
Free Echo Spacing	Off
EPI Factor	96

Sequence - Part 2

Introduction	Off
RF Spoiling	Off

Excite pulse duration	4000 us
Min. prep scans	0
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Force Maxwell corr.	Off
PF omits higher k-space	Off
Disable freq. update	Off
Suppress 16-bit DICOM	On
Force equal slice timing	Off
FFT scale factor	1.00
Fat saturation FA	110.00 deg
Fat sat. offset	0.00 Hz
Sinc exc. pulse BWTP	5.20
Physio recording	Off
Triggering scheme	Standard

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\func-bold_task-rest_dir-LR__cmrr_me4_sms4

TA: 20:29 min Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
TR	1600.0 ms
TE 1	12.60 ms
TE 2	32.20 ms
TE 3	51.80 ms
TE 4	71.40 ms
Averages	1
Multi-band accel. factor	4
AutoAlign	Head > Brain

Contrast - Common

TR	1600.0 ms
TE 1	12.60 ms
TE 2	32.20 ms
TE 3	51.80 ms
TE 4	71.40 ms
MTC	Off
Magn. Preparation	None
Flip Angle	64 deg
Fat-Water Contrast	Fat Saturation
Contrasts	4
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	750
Delay in TR	0.00 ms

Resolution - Common

FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
Base Resolution	102
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference scan mode	Single-shot
Acceleration Factor PE	2
Reference Lines PE	18
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	2D
Normalize	Off

Geometry - Common

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
TR	1600.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

Geometry - AutoAlign

Slice Group	1
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	L >> R
AutoAlign	Head > Brain
Initial Position	R0.6 A1.1 H3.2
R	0.6 mm
Α	1.1 mm
Н	3.2 mm
Initial Orientation	T > C
T > C	-16.70
> S	0.00
Initial Rotation	-90.23 deg

Geometry - Saturation

Special Saturation None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	3 mm
Table Position	Н
Inline Composing	Off

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares

System - Miscellaneous

Matrix Optimization	Off	
Coil Focus	Flat	

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Rotation	-90.23 deg
R >> L	167 mm
A >> P	224 mm
F >> H	132 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	1600.0 ms
Multi-band accel. factor	4

BOLD

GLM Statistics	Off	
Ignore Meas. at Start	0	
Ignore After Transition	0	
Model Transition States	On	
Temp. Highpass Filter	On	
Threshold	4.00	
Paradigm Size	20	
Meas[1]	Active	
Meas[2]	Active	
Meas[3]	Active	
Meas[4]	Active	
Meas[5]	Active	
Meas[6]	Active	
Meas[7]	Active	
Meas[8]	Active	
Meas[9]	Active	
Meas[10]	Active	
Meas[11]	Ignore	
Meas[12]	Ignore	
Meas[13]	Ignore	
Meas[14]	Ignore	
Meas[15]	Ignore	
Meas[16]	Ignore	
Meas[17]	Ignore	
Meas[18]	Ignore	
Meas[19]	Ignore	

BOLD

Meas[20]	Ignore
Motion Correction	Off
Spatial Filter	Off
Measurements	750
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Dimension	2D
Excitation	Standard
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	1960 Hz/Px
Echo Spacing	0.65 ms
Free Echo Spacing	Off
EPI Factor	76

Sequence - Part 2

Introduction	Off
RF Spoiling	Off

•	
Excite pulse duration	4000 us
Min. prep scans	0
Min. prep scans SB	0
Inter-TE delay	0 us
Single-band images	Off
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Opt. MB RF pulse BW	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Force Maxwell corr.	Off
PF omits higher k-space	Off
Disable freq. update	Off
Suppress 16-bit DICOM	On
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.00 deg
Fat sat. offset	0.00 Hz
Sinc exc. pulse BWTP	5.20
Physio recording	Off
Triggering scheme	Standard

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\func-bold_task-bht_dir-LR__cmrr_me4_sms4

TA: 6:00 min Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
TR	1600.0 ms
TE 1	12.60 ms
TE 2	32.20 ms
TE 3	51.80 ms
TE 4	71.40 ms
Averages	1
Multi-band accel. factor	4
AutoAlign	Head > Brain

Contrast - Common

TR	1600.0 ms
TE 1	12.60 ms
TE 2	32.20 ms
TE 3	51.80 ms
TE 4	71.40 ms
MTC	Off
Magn. Preparation	None
Flip Angle	64 deg
Fat-Water Contrast	Fat Saturation
Contrasts	4
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	207
Delay in TR	0.00 ms

Resolution - Common

FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
Base Resolution	102
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference scan mode	Single-shot
Acceleration Factor PE	2
Reference Lines PE	18
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off	
Elliptical Filter	Off	
Hamming	Off	
Distortion Correction	2D	
Normalize	Off	

Geometry - Common

Slice Group	1
Slices	60
Distance Factor	0 %
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	L >> R
Phase Oversampling	0 %
FoV Read	224 mm
FoV Phase	74.5 %
Slice Thickness	2.2 mm
TR	1600.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

Geometry - AutoAlign

Slice Group	1
'	
Position	R0.6 A1.1 H3.2 mm
Orientation	T > C-16.7
Phase Encoding Dir.	L >> R
AutoAlign	Head > Brain
Initial Position	R0.6 A1.1 H3.2
R	0.6 mm
A	1.1 mm
Н	3.2 mm
Initial Orientation	T > C
T > C	-16.70
> S	0.00
Initial Rotation	-90.23 deg

Geometry - Saturation

Special Saturation	None	
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	3 mm
Table Position	Н
Inline Composing	Off

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares

System - Miscellaneous

Matrix Optimization	Off	
Coil Focus	Flat	

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	R0.6 A1.4 H1.3 mm
! Orientation	T > C-16.7
! Rotation	-90.22 deg
! R >> L	167 mm
! A >> P	224 mm
! F >> H	132 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	1600.0 ms
Multi-band accel. factor	4

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	20
Meas[1]	Active
Meas[2]	Active
Meas[3]	Active
Meas[4]	Active
Meas[5]	Active
Meas[6]	Active
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
Meas[10]	Active
Meas[11]	Ignore
Meas[12]	Ignore
Meas[13]	Ignore
Meas[14]	Ignore
Meas[15]	Ignore
Meas[16]	Ignore
Meas[17]	Ignore
Meas[18]	Ignore
Meas[19]	Ignore

BOLD

Meas[20]	Ignore
Motion Correction	Off
Spatial Filter	Off
Measurements	207
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Dimension	2D
Excitation	Standard
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	1960 Hz/Px
Echo Spacing	0.65 ms
Free Echo Spacing	Off
EPI Factor	76

Sequence - Part 2

Introduction	Off
RF Spoiling	Off

4000 us
0
0
0 us
Off
On
Off
On
Off
Online
1.00
110.00 deg
0.00 Hz
5.20
Off
Standard

\\RESEARCH\\RESEARCH\\Oscar\\HCPh_LR\\anat-T2w__space

TA: 5:44 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	240
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	0.80 mm
TR	3200.0 ms
TE	413.00 ms
Averages	1.0
Concatenations	1
AutoAlign	Head > Basis

Contrast - Common

TR	3200.0 ms
TE	413.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	T2 Var
Fat-Water Contrast	Standard
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Total Factor	3
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Allowed
Slice Partial Fourier	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	240
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	0.80 mm
TR	3200.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
Р	0.0 mm
Н	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None
I Special Saluration	INDITE

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	Н
Inline Composing	Off

Coil Selection	ACS All but spine
MSMA	S-C-T
Sagittal	R >> L

System - Miscellaneous

Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	123.248216 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	3200.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	256 mm
FoV Phase	100.0 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off	
Measurements	1	
StdDev	Off	
Save Original Images	On	

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On

Inline - Cardiac

TE	413.00 ms
TR	3200.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing Off

Sequence - Part 1

Sequence Name	spcR
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	710 Hz/Px
Echo Spacing	3.86 ms
Turbo Factor	282
Echo Train Duration	961 ms

Sequence - Part 2

Introduction	On	

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s