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\\USER\\Vu\\fMRI\_testing\\20200824\_actual\\localizer

TA: 0:15 PM: REF Voxel size: 0.5×0.5×5.0 mmPAT: Off Rel. SNR: 1.00 : qfl

**Properties**

Prio recon	On
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	On
Load images to graphic segments	On
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	8.6 ms
TE	3.69 ms
Averages	2
Concatenations	3
Filter	Elliptical filter
Coil elements	AC

**Contrast - Common**

TR	8.6 ms
TE	3.69 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

**Contrast - Dynamic**

Averages	2
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

**Contrast - Dynamic**

Multiple series	Each measurement
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**Resolution - Common**

FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	On

**Resolution - iPAT**

PAT mode	None
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**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	On

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	8.6 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	3

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	Isocenter
Orientation	Transversal

**Geometry - AutoAlign**

Phase enc. dir.	A >> P
Slice group	3
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

**Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None
Water suppr.	None
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**Geometry - Tim CT**

Tim CT mode	Off
Slices	1
Slice thickness	5.0 mm
Dist. factor	20 %
FoV read	250 mm
FoV phase	100.0 %
Segments	1

**System - Miscellaneous**

Positioning mode	REF
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Off - AutoCoilSelect

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**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 Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	8.6 ms
Concatenations	3
Segments	1

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	250 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	3

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Soft Tissue**

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

**Inline - Composing**

Inline Composing	Off
Distortion Corr.	Off

**Inline - MapIt**

Save original images	On
MapIt	None
Flip angle	20 deg
Measurements	1
Contrasts	1
TR	8.6 ms

**Inline - MapIt**

TE	3.69 ms
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**Sequence - Part 1**

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Sequential
Bandwidth	320 Hz/Px

**Sequence - Part 2**

Segments	1
Acoustic noise reduction	Active
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

**Sequence - Assistant**

Mode	Off
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\\USER\\Vu\\fMRI\_testing\\20200824\_actual\\b1map\_tra\_p2\_267V

TA: 9.0 s PM: REF Voxel size: 4.0×4.0×4.0 mmPAT: 2 Rel. SNR: 1.00 : tfl

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	20
Dist. factor	100 %
Position	L1.2 P4.2 F1.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	4000.0 ms
TE	1.73 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	AC

**Contrast - Common**

TR	4000.0 ms
TE	1.73 ms
Magn. preparation	None
Flip angle	5.0 deg
Fat suppr.	None
Water suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

**Resolution - Common**

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
Base resolution	64
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	16

**Resolution - iPAT**

Reference scan mode	Integrated
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**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	20
Dist. factor	100 %
Position	L1.2 P4.2 F1.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	4000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	L1.2 P4.2 F1.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L1.2 P4.2 F1.2
L	1.2 mm
P	4.2 mm
F	1.2 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Navigator****Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off

**System - Miscellaneous**

AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**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 Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	4000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Centric
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Interleaved
Echo spacing	3.8 ms
Bandwidth	440 Hz/Px

**Sequence - Part 2**

RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.

**Sequence - Part 2**

RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	64

**Sequence - pTX Pulses****Sequence - Special**

Tx scale diag mag	0.0
Tx scale diag phs	0 deg
Tx scale offdiag mag	1.0
Tx scale offdiag phs	0 deg
Rel. B1 mapping	Off
Ref. scan	On
Use B1 map recon	On
Dummy RF pulses	1000

**Sequence - Assistant**

Mode	Off
------	-----

\\USER\\Vu\\fMRI\_testing\\20200824\_actual\\gre\_field\_mapping\_tra

TA: 0:29 PM: REF Voxel size: 4.0×4.0×4.0 mmRel. SNR: 1.00 : fm\_r

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	40
Dist. factor	0 %
Position	L2.4 P3.6 H0.6 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	225.0 ms
TE 1	3.06 ms
TE 2	4.08 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	AC

**Contrast - Common**

TR	225.0 ms
TE 1	3.06 ms
TE 2	4.08 ms
MTC	Off
Flip angle	25 deg
Fat suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
Base resolution	64
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off

**Resolution - Filter Image**

Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	40
Dist. factor	0 %
Position	L2.4 P3.6 H0.6 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	225.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	L2.4 P3.6 H0.6 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L2.4 P3.6 H0.6
L	2.4 mm
P	3.6 mm
H	0.6 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L2.4 P3.6 H0.6 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	160 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
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**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Flow comp.	Yes
Multi-slice mode	Interleaved
Bandwidth	908 Hz/Px

**Sequence - Part 2**

RF pulse type	Fast
Gradient mode	Fast
RF spoiling	On

**Sequence - Assistant**

Mode	Off
------	-----



\\USER\\Vu\\fMRI\_testing\\20200824\_actual\\cmrr\_mbep2d\_bold\_1.6mm\_brain\_shim

TA: 1:46 PM: FIX Voxel size: 1.6×1.6×1.6 mmPAT: 2 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	85
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	1000 ms
TE	21.00 ms
Multi-band accel. factor	5
Filter	None
Coil elements	AC

**Contrast - Common**

TR	1000 ms
TE	21.00 ms
MTC	Off
Magn. preparation	None
Flip angle	45 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
Base resolution	130
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	66
Reference scan mode	GRE

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	85
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	1000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	5

**Geometry - AutoAlign**

Slice group	1
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L2.4 A2.4 H4.2
L	2.4 mm
A	2.4 mm
H	4.2 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	136 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	1000 ms
Multi-band accel. factor	5

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.6 ms
Bandwidth	2024 Hz/Px

**Sequence - Part 2**

EPI factor	130
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5760 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\Vu\fmri\_testing\20200824\_actual\cmrr\_mbep2d\_bold\_1.6mm\_standard\_shim

TA: 1:46 PM: FIX Voxel size: 1.6×1.6×1.6 mmPAT: 2 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	85
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	1000 ms
TE	21.00 ms
Multi-band accel. factor	5
Filter	None
Coil elements	AC

**Contrast - Common**

TR	1000 ms
TE	21.00 ms
MTC	Off
Magn. preparation	None
Flip angle	45 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
Base resolution	130
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	66
Reference scan mode	GRE

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	85
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	1000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	5

**Geometry - AutoAlign**

Slice group	1
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L2.4 A2.4 H4.2
L	2.4 mm
A	2.4 mm
H	4.2 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	136 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	1000 ms
Multi-band accel. factor	5

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.6 ms
Bandwidth	2024 Hz/Px

**Sequence - Part 2**

EPI factor	130
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5760 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\\Vu\\fMRI\_testing\\20200824\_actual\\cmrr\_mbep2d\_bold\_1.6mm\_adv\_shim

TA: 1:46 PM: FIX Voxel size: 1.6×1.6×1.6 mmPAT: 2 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	85
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	1000 ms
TE	21.00 ms
Multi-band accel. factor	5
Filter	None
Coil elements	AC

**Contrast - Common**

TR	1000 ms
TE	21.00 ms
MTC	Off
Magn. preparation	None
Flip angle	45 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
Base resolution	130
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	66
Reference scan mode	GRE

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	85
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	1000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	5

**Geometry - AutoAlign**

Slice group	1
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L2.4 A2.4 H4.2
L	2.4 mm
A	2.4 mm
H	4.2 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	136 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	1000 ms
Multi-band accel. factor	5

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.6 ms
Bandwidth	2024 Hz/Px

**Sequence - Part 2**

EPI factor	130
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5760 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\\Vu\\fMRI\_testing\\20200824\_actual\\cmrr\_mbep2d\_bold\_1.25mm

TA: 2:52 PM: FIX Voxel size: 1.3×1.3×1.3 mmPAT: 3 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	111
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2000 ms
TE	21.60 ms
Multi-band accel. factor	3
Filter	None
Coil elements	AC

**Contrast - Common**

TR	2000 ms
TE	21.60 ms
MTC	Off
Magn. preparation	None
Flip angle	78 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
Base resolution	168
Phase resolution	100 %
Phase partial Fourier	7/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	66
Reference scan mode	GRE

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	111
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	3

**Geometry - AutoAlign**

Slice group	1
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L2.4 A2.4 H4.2
L	2.4 mm
A	2.4 mm
H	4.2 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	210 mm
R >> L	210 mm
F >> H	139 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	2000 ms
Multi-band accel. factor	3

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.69 ms
Bandwidth	1750 Hz/Px

**Sequence - Part 2**

EPI factor	168
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5500 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard



\\USER\Vu\fmri\_testing\20200824\_actual\cmrr\_mbep2d\_bold\_0.8mm\_noSM

TA: 4:22 PM: FIX Voxel size: 0.8×0.8×1.6 mmPAT: 3 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	84
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	4000 ms
TE	20.20 ms
Multi-band accel. factor	3
Filter	None
Coil elements	AC

**Contrast - Common**

TR	4000 ms
TE	20.20 ms
MTC	Off
Magn. preparation	None
Flip angle	87 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
Base resolution	260
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	66
Reference scan mode	GRE

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	84
Dist. factor	0 %
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	4000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	3

**Geometry - AutoAlign**

Slice group	1
Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L2.4 A2.4 H4.2
L	2.4 mm
A	2.4 mm
H	4.2 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L2.4 A2.4 H4.2 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	135 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	4000 ms
Multi-band accel. factor	3

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1 ms
Bandwidth	1132 Hz/Px

**Sequence - Part 2**

EPI factor	260
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5120 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\\Vu\\fMRI\_testing\\20200824\_actual\\t1\_mp2rage\_sag\_p3\_0.7mm\_SFVA

TA: 7:50 PM: REF Voxel size: 0.7×0.7×0.7 mmPAT: 3 Rel. SNR: 1.00 : tfl

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A1.8 F23.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	240
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
TR	4500.0 ms
TE	3.37 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	AC

**Contrast - Common**

TR	4500.0 ms
TE	3.37 ms
Magn. preparation	Non-sel. IR
T1 1	900 ms
T1 2	2750 ms
Flip angle 1	5.0 deg
Flip angle 2	3.0 deg
Fat suppr.	Water excit. fast
Water suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

**Resolution - Common**

FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

**Resolution - Common**

Slice partial Fourier	7/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	36
Accel. factor 3D	1
Reference scan mode	Integrated

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A1.8 F23.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	240
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
TR	4500.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	L0.0 A1.8 F23.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Initial Position	L0.0 A1.8 F23.5
R	0.0 mm
A	1.8 mm
F	23.5 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

**Geometry - Navigator****Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Basis
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L0.0 A1.8 F23.5 mm
Orientation	Sagittal
Rotation	0.00 deg
A >> P	224 mm
F >> H	224 mm
R >> L	168 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Non-sel.

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	4500.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	Non-sel. IR
TI 1	900 ms
TI 2	2750 ms
Fat suppr.	Water excit. fast
Dark blood	Off
FoV read	224 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
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**Inline - Common**

Measurements	1
StdDev	Off
Save original images	On

**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Composing**

Inline Composing	Off
Distortion Corr.	Off

**Inline - MapIt**

Save original images	On
MapIt	T1 map
Flip angle 1	5.0 deg
Flip angle 2	3.0 deg
Measurements	1
TR	4500.0 ms
TE	3.37 ms

**Sequence - Part 1**

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	8.3 ms
Bandwidth	200 Hz/Px

**Sequence - Part 2**

RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	210

**Sequence - Assistant**

Mode	Off
------	-----

\\USER\Vu\fmri\_testing\20200824\_actual\t1\_mprage\_sag\_p3\_0.7mm\_NIH

TA: 4:21 PM: FIX Voxel size: 0.7×0.7×0.7 mmPAT: 3 Rel. SNR: 1.00 : tfl

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A1.8 F23.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	240
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
TR	2200.0 ms
TE	3.06 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	AC

**Contrast - Common**

TR	2200.0 ms
TE	3.06 ms
Magn. preparation	Non-sel. IR
T1	1050 ms
Flip angle	7.0 deg
Fat suppr.	Water excit. fast
Water suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

**Resolution - Common**

FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	7/8
Slice partial Fourier	Off
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	36
Accel. factor 3D	1
Reference scan mode	Integrated

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A1.8 F23.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	240
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
TR	2200.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	L0.0 A1.8 F23.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Initial Position	L0.0 A1.8 F23.5
R	0.0 mm
A	1.8 mm
F	23.5 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

**Geometry - Navigator****Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T

**System - Miscellaneous**

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Basis
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L0.0 A1.8 F23.5 mm
Orientation	Sagittal
Rotation	0.00 deg
A >> P	224 mm
F >> H	224 mm
R >> L	168 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Non-sel.

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	2200.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	Non-sel. IR
TI	1050 ms
Fat suppr.	Water excit. fast
Dark blood	Off
FoV read	224 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Composing**

Inline Composing	Off
Distortion Corr.	Off

**Inline - MapIt**

Save original images	On
MapIt	None
Flip angle	7.0 deg
Measurements	1
TR	2200.0 ms
TE	3.06 ms

**Sequence - Part 1**

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	7.6 ms
Bandwidth	230 Hz/Px

**Sequence - Part 2**

RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	240

**Sequence - Assistant**

Mode	Off
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\\USER\Vu\fmri\_testing\20200824\_actualeja\_svs\_press

TA: 1:24 PM: REF Vol: 20 x20 x20 mmRel. SNR: 1.00 : press

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Position	Isocenter
Orientation	Transversal
Rotation	0 deg
Vol R >> L	20 mm
Vol R >> L	20 mm
Vol F >> H	20 mm
TR	4000 ms
TE	23.00 ms
Averages	1
Filter	None
Coil elements	AC

**Contrast**

TR	4000 ms
TE	23.00 ms
Averages	1
Excite flip angle	40 deg
Refocus flip angle	180 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	15

**Resolution - Common**

Vector size	4096
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**Geometry - Common**

Position	Isocenter
Orientation	Transversal
Rotation	0 deg
Vol R >> L	20 mm
Vol A >> P	20 mm
Vol F >> H	20 mm

**Geometry - AutoAlign**

AutoAlign	---
Initial Position	Isocenter
L	0 mm
P	0 mm
H	0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**System - Miscellaneous**

Positioning mode	REF
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**System - Miscellaneous**

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	20 mm
R >> L	20 mm
F >> H	20 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
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**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	4000 ms

**Sequence - Common**

Introduction	On
Preparation scans	4
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	4000 Hz
Acquisition duration	1024 ms
Remove oversampling	On

**Sequence - Special**

Excite pulse duration	2600 us
Refocus pulse duration	6000 us
Spoiler max. amplitude	20.0 mT/m
Refocus grad. factor	1.00
OVS slab thickness	80.0 mm
OVS slab pos. offset	7.0 mm
Spoiler duration	1300 us

**Sequence - Special**

Acq. window shift	200 us
Min. settling delay	300 us
Gradient ramp time	210 us
Forced min. TE1	0 ms
VAPOR flip angle	80 deg
VAPOR delay 8	28 ms
VAPOR delay 7	76 ms
OVS pulse duration	5120 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	68 ms
VAPOR delay 5	102 ms
VAPOR delay 4	105 ms
VAPOR delay 3	122 ms
VAPOR delay 2	100 ms
VAPOR delay 1	150 ms
Enable OVS	On
Weighted averages	Off
Send ref. scans	Off
Inversion pulse	Off
'RR' refoc. pulse	Off
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	Excit. FA
Excit. FA inc.	4 deg
Measurements	15



\\USER\Vu\fmri\_testing\20200824\_actual\cmrr\_mbep2d\_bold\_0.5mm\_feinberg2016

TA: 3:22 PM: FIX Voxel size: 0.5×0.5×1.0 mmPAT: 2 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	60
Dist. factor	0 %
Position	L2.4 P0.0 F11.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	90 mm
FoV phase	88.9 %
Slice thickness	1.00 mm
TR	3000 ms
TE	22.60 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	3000 ms
TE	22.60 ms
MTC	Off
Magn. preparation	None
Flip angle	45 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	90 mm
FoV phase	88.9 %
Slice thickness	1.00 mm
Base resolution	180
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	66
Reference scan mode	GRE

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	60
Dist. factor	0 %
Position	L2.4 P0.0 F11.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	90 mm
FoV phase	88.9 %
Slice thickness	1.00 mm
TR	3000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

Slice group	1
Position	L2.4 P0.0 F11.4 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L2.4 P0.0 F11.4
L	2.4 mm
P	0.0 mm
F	11.4 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L2.4 P0.0 F11.4 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	80 mm
R >> L	90 mm
F >> H	60 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	3000 ms
Multi-band accel. factor	2

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	50
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1.36 ms
Bandwidth	816 Hz/Px

**Sequence - Part 2**

EPI factor	160
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5760 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\Vu\fmri\_testing\20200824\_actual\cmrr\_mbep2d\_bold\_0.5\_feinberg2016

TA: 1:49 PM: FIX Voxel size: 0.5×0.5×1.0 mmPAT: 2 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	60
Dist. factor	0 %
Position	L1.8 A0.6 H59.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	90 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	3000 ms
TE	25.20 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	3000 ms
TE	25.20 ms
MTC	Off
Magn. preparation	None
Flip angle	67 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	90 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
Base resolution	180
Phase resolution	89 %
Phase partial Fourier	5/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	44
Reference scan mode	Single-shot

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	60
Dist. factor	0 %
Position	L1.8 A0.6 H59.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	90 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	3000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

Slice group	1
Position	L1.8 A0.6 H59.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L1.8 A0.6 H59.0
L	1.8 mm
A	0.6 mm
H	59.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L1.8 A0.6 H59.0 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	90 mm
R >> L	90 mm
F >> H	60 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	3000 ms
Multi-band accel. factor	2

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	20
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1.36 ms
Bandwidth	816 Hz/Px

**Sequence - Part 2**

EPI factor	160
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5120 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\\Vu\\fMRI_testing\\20200824_actual\\cmrr_mbep2d_bold_0.5mm_ipat3mb4_wholebrain_fleet_n oGap
TA: 3:10 PM: FIX Voxel size: 0.5×0.5×1.0 mmPAT: 3 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	100
Dist. factor	0 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	7019 ms
TE	34.20 ms
Multi-band accel. factor	4
Filter	None
Coil elements	AC

**Contrast - Common**

TR	7019 ms
TE	34.20 ms
MTC	Off
Magn. preparation	None
Flip angle	45 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	10
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
Base resolution	400
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	66

**Resolution - iPAT**

Reference scan mode	FLEET
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**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	100
Dist. factor	0 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	7019 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

**Geometry - AutoAlign**

Slice group	1
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.6 A3.0 F10.8
L	0.6 mm
A	3.0 mm
F	10.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares

**System - Miscellaneous**

Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	100 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	7019 ms
Multi-band accel. factor	4

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active

**BOLD**

Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Measurements	10
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1.38 ms
Bandwidth	834 Hz/Px

**Sequence - Part 2**

EPI factor	400
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5820 us
FLEET ref. prep. scans	0
FLEET ref. min. TR	0 ms
Slice multiplier	2
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
FLEET iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\Vu\fmri\_testing\20200824\_actual\cmrr\_mbep2d\_bold\_0.5mm\_ipat3mb4\_wholebrain\_noSM

TA: 2:59 PM: FIX Voxel size: 0.5×0.5×0.5 mmPAT: 3 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	100
Dist. factor	100 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	0.50 mm
TR	3510 ms
TE	34.20 ms
Multi-band accel. factor	4
Filter	None
Coil elements	AC

**Contrast - Common**

TR	3510 ms
TE	34.20 ms
MTC	Off
Magn. preparation	None
Flip angle	80 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	25
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	0.50 mm
Base resolution	400
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	66
Reference scan mode	Segmented

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	100
Dist. factor	100 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	0.50 mm
TR	3510 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

**Geometry - AutoAlign**

Slice group	1
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.6 A3.0 F10.8
L	0.6 mm
A	3.0 mm
F	10.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	100 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	3510 ms
Multi-band accel. factor	4

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	25
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1.38 ms
Bandwidth	834 Hz/Px

**Sequence - Part 2**

EPI factor	400
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
Physio recording	Off
Triggering scheme	Standard



\\USER\\Vul\\fMRI_testing\\20200824_actual\\cmrr_mbep2d_bold_0.5x0.5x1.0_ipat3mb4_wholebrain_no SM
TA: 2:59 PM: FIX Voxel size: 0.5x0.5x1.0 mmPAT: 3 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	100
Dist. factor	100 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	3510 ms
TE	34.20 ms
Multi-band accel. factor	4
Filter	None
Coil elements	AC

**Contrast - Common**

TR	3510 ms
TE	34.20 ms
MTC	Off
Magn. preparation	None
Flip angle	80 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	25
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
Base resolution	400
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	66

**Resolution - iPAT**

Reference scan mode	Segmented
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**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	100
Dist. factor	100 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	3510 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

**Geometry - AutoAlign**

Slice group	1
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.6 A3.0 F10.8
L	0.6 mm
A	3.0 mm
F	10.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares

**System - Miscellaneous**

Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	199 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	3510 ms
Multi-band accel. factor	4

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active

**BOLD**

Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Measurements	25
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1.38 ms
Bandwidth	834 Hz/Px

**Sequence - Part 2**

EPI factor	400
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\Vu\fmri_testing\20200824_actual\cmrr_mbep2d_bold_0.4x0.4x0.8_ipat4mb2_wholebrain_no SM
TA: 2:48 PM: FIX Voxel size: 0.4x0.4x0.8 mmPAT: 4 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	60
Dist. factor	100 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	0.84 mm
TR	4660 ms
TE	36.80 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	4660 ms
TE	36.80 ms
MTC	Off
Magn. preparation	None
Flip angle	80 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	25
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	0.84 mm
Base resolution	476
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	4
Ref. lines PE	88

**Resolution - iPAT**

Reference scan mode	FLEET
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**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	60
Dist. factor	100 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	0.84 mm
TR	4660 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

Slice group	1
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.6 A3.0 F10.8
L	0.6 mm
A	3.0 mm
F	10.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares

**System - Miscellaneous**

Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	100 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	4660 ms
Multi-band accel. factor	2

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active

**BOLD**

Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Measurements	25
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1.74 ms
Bandwidth	750 Hz/Px

**Sequence - Part 2**

EPI factor	476
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5820 us
FLEET ref. prep. scans	0
FLEET ref. min. TR	0 ms
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
FLEET iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\Vu\fmri\_testing\20200824\_actual\cmrr\_mbep2d\_bold\_0.4x0.4x0.4\_ipat4mb2\_noSM

TA: 2:51 PM: FIX Voxel size: 0.4x0.4x0.4 mmPAT: 4 Rel. SNR: 1.00 : epfid

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	60
Dist. factor	100 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	0.42 mm
TR	4740 ms
TE	39.00 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	4740 ms
TE	39.00 ms
MTC	Off
Magn. preparation	None
Flip angle	80 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	25
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	0.42 mm
Base resolution	476
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	4
Ref. lines PE	88
Reference scan mode	FLEET

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

**Geometry - Common**

Slice group	1
Slices	60
Dist. factor	100 %
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	0.42 mm
TR	4740 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

Slice group	1
Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.6 A3.0 F10.8
L	0.6 mm
A	3.0 mm
F	10.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L0.6 A3.0 F10.8 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.180122 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	4740 ms
Multi-band accel. factor	2

**BOLD**

GLM Statistics	Off
Dynamic t-maps	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]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	25
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1.74 ms
Bandwidth	750 Hz/Px

**Sequence - Part 2**

EPI factor	476
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	6920 us
FLEET ref. prep. scans	0
FLEET ref. min. TR	0 ms
Slice multiplier	1
Multi-band PE shift	0 1/FoV
MB kernel size	1
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Fat saturation FA	110.0 deg
FLEET iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard