

**Table of contents**

\\USER

FIL Physics

Vahid

Misun's 1st Pilot

localizer  
gre\_1441B\_B0\_4.0mm  
MP2RAGE\_WBIC\_opt65\_PAT3\_PF68\_240Hz\_largerFOV  
cmrr\_mbep2d\_1p25\_REV  
cmrr\_mbep2d\_1p25\_fMRI\_PA  
cmrr\_mbep2d\_1p00\_REV  
cmrr\_mbep2d\_1p00\_fMRI\_PA  
nc\_epi3d\_0p92mm\_noSEG\_BWT18\_180\_300us  
nc\_epi3d\_0p92mm\_noSEG\_WB

## \\USER\FIL Physics\Vahid\Misun's 1st Pilot\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	Off
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	297.211090 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\FIL Physics\Vahid\Misun's 1st Pilot\gre\_1441B\_B0\_4.0mm

TA: 0:38 PM: REF Voxel size: 4.0×4.0×4.0 mmPAT: Off Rel. SNR: 1.00 : WIP\_gre

**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	20 %
Position	R0.6 A7.8 F29.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	44
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	4.00 mm
TR	15.0 ms
TE 1	2.04 ms
TE 2	5.10 ms
Concatenations	1
Filter	None
Coil elements	AC

**Contrast - Common**

TR	15.0 ms
TE 1	2.04 ms
TE 2	5.10 ms
MTC	Off
Magn. preparation	None
Flip angle	8 deg
Fat suppr.	Water excit. fast
Water suppr.	None

**Contrast - Dynamic**

Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

**Resolution - Common**

FoV read	224 mm
FoV phase	100.0 %
Slice thickness	4.00 mm
Base resolution	56
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

**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	Off

**Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	R0.6 A7.8 F29.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	44
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	4.00 mm
TR	15.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	R0.6 A7.8 F29.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R0.6 A7.8 F29.5
R	0.6 mm
A	7.8 mm
F	29.5 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

**Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	Water excit. fast
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
Slabs	1
Slices per slab	44
Slice thickness	4.00 mm

**Geometry - Tim CT**

Dist. factor	20 %
FoV read	224 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	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	R0.6 A7.8 F29.5 mm
Orientation	Sagittal
Rotation	0.00 deg
A >> P	224 mm
F >> H	224 mm
R >> L	176 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Non-sel.

**System - Tx/Rx**

Frequency 1H	297.211090 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	15.0 ms
Concatenations	1
Segments	1

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
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**

Measurements	1
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**Inline - Composing**

Inline Composing	Off
Distortion Corr.	Off

**Sequence - Part 1**

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Contrasts	2
Flow comp. 1	No
Readout mode	Monopolar
Multi-slice mode	Interleaved
Bandwidth 1	500 Hz/Px
Bandwidth 2	500 Hz/Px

**Sequence - Part 2**

Segments	1
Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Whisper
Excitation	Non-sel.
RF spoiling	On

**Sequence - Special**

Mode	B0 Measurment
Masking	Custom Mask
Phase Unwrapping	Spatial

**Sequence - Assistant**

Mode	Off
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\\USER\FIL Physics\Vahid\Misun's 1st Pilot\MP2RAGE\_WBIC\_Opt65\_PAT3\_PF68\_240Hz\_largerFOV

TA: 9:07 PM: REF Voxel size: 0.6×0.6×0.7 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	R1.2 A9.4 F33.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	240
FoV read	220 mm
FoV phase	100.0 %
Slice thickness	0.65 mm
TR	5000.0 ms
TE	2.54 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	AC

**Contrast - Common**

TR	5000.0 ms
TE	2.54 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. normal
Water suppr.	None

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	220 mm
FoV phase	100.0 %
Slice thickness	0.65 mm
Base resolution	340
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

**Resolution - Common**

Slice partial Fourier	6/8
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	R1.2 A9.4 F33.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	240
FoV read	220 mm
FoV phase	100.0 %
Slice thickness	0.65 mm
TR	5000.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	R1.2 A9.4 F33.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Initial Position	R1.2 A9.4 F33.0
R	1.2 mm
A	9.4 mm
F	33.0 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	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Basis
Coil Select Mode	Off - All

**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	R1.2 A9.4 F33.0 mm
Orientation	Sagittal
Rotation	0.00 deg
A >> P	220 mm
F >> H	220 mm
R >> L	156 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Non-sel.

**System - Tx/Rx**

Frequency 1H	297.211090 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	5000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	Non-sel. IR
TI 1	900 ms
TI 2	2750 ms
Fat suppr.	Water excit. normal
Dark blood	Off
FoV read	220 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	5000.0 ms
TE	2.54 ms

**Sequence - Part 1**

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	7.1 ms
Bandwidth	240 Hz/Px

**Sequence - Part 2**

RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	180

**Sequence - Assistant**

Mode	Off
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\\USER\FIL Physics\Vahid\Misun's 1st Pilot\cmrr\_mbep2d\_1p25\_REV

TA: 1:10 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	78
Dist. factor	0 %
Position	L1.9 A4.1 F6.8 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	---
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2100 ms
TE	19.00 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	2100 ms
TE	19.00 ms
MTC	Off
Magn. preparation	None
Flip angle	70 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
Base resolution	160
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	78
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	78
Dist. factor	0 %
Position	L1.9 A4.1 F6.8 mm
Orientation	Transversal
Phase enc. dir.	P >> A
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2100 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

Slice group	1
Position	L1.9 A4.1 F6.8 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	---
Initial Position	L1.9 A4.1 F6.8
L	1.9 mm
A	4.1 mm
F	6.8 mm
Initial Rotation	180.00 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	---
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	L1.9 A4.1 F6.8 mm
Orientation	Transversal
Rotation	-180.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	98 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.211090 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	2100 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	1
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	On
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.78 ms
Bandwidth	1488 Hz/Px

**Sequence - Part 2**

EPI factor	160
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	6400 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	On
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\FIL Physics\Vahid\Misun's 1st Pilot\cmrr\_mbep2d\_1p25\_fMRI\_PA

TA: 16:06 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	78
Dist. factor	0 %
Position	L1.9 A4.1 F6.8 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	---
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2100 ms
TE	19.00 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	2100 ms
TE	19.00 ms
MTC	Off
Magn. preparation	None
Flip angle	70 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	428
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
Base resolution	160
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	78
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	78
Dist. factor	0 %
Position	L1.9 A4.1 F6.8 mm
Orientation	Transversal
Phase enc. dir.	P >> A
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2100 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

Slice group	1
Position	L1.9 A4.1 F6.8 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	---
Initial Position	L1.9 A4.1 F6.8
L	1.9 mm
A	4.1 mm
F	6.8 mm
Initial Rotation	180.00 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	---
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	L1.9 A4.1 F6.8 mm
Orientation	Transversal
Rotation	-180.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	98 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.211090 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	2100 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	428
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	On
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.78 ms
Bandwidth	1488 Hz/Px

**Sequence - Part 2**

EPI factor	160
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	6400 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
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\FIL Physics\Vahid\Misun's 1st Pilot\cmrr\_mbep2d\_1p00\_REV

TA: 1:26 PM: FIX Voxel size: 1.0×1.0×1.1 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	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	---
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.10 mm
TR	2600 ms
TE	21.60 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	2600 ms
TE	21.60 ms
MTC	Off
Magn. preparation	None
Flip angle	70 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	4
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.10 mm
Base resolution	198
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	78
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	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	P >> A
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.10 mm
TR	2600 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

Slice group	1
Position	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	---
Initial Position	L1.9 A7.3 F11.5
L	1.9 mm
A	7.3 mm
F	11.5 mm
Initial Rotation	180.00 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	---
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	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Rotation	-180.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	93 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.211090 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	2600 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	4
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	On
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.78 ms
Bandwidth	1486 Hz/Px

**Sequence - Part 2**

EPI factor	198
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	6400 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	On
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\FIL Physics\Vahid\Misun's 1st Pilot\cmrr\_mbep2d\_1p00\_fMRI\_PA

TA: 16:15 PM: FIX Voxel size: 1.0×1.0×1.1 mmPAT: 3 Rel. SNR: 1.00 : efpid

**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	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	---
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.10 mm
TR	2600 ms
TE	21.60 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	2600 ms
TE	21.60 ms
MTC	Off
Magn. preparation	None
Flip angle	70 deg
Fat suppr.	Fat sat.

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	346
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.10 mm
Base resolution	198
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	78
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	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	P >> A
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.10 mm
TR	2600 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

Slice group	1
Position	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	---
Initial Position	L1.9 A7.3 F11.5
L	1.9 mm
A	7.3 mm
F	11.5 mm
Initial Rotation	180.00 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	---
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	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Rotation	-180.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	93 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.211090 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	2600 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	346
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	On
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.78 ms
Bandwidth	1486 Hz/Px

**Sequence - Part 2**

EPI factor	198
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	6400 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
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\FIL Physics\Vahid\Misun's 1st Pilot\nc\_epi3d\_0p92mm\_noSEG\_BWT18\_180\_300us

TA: 15:56 PM: FIX Voxel size: 0.9×0.9×0.9 mmPAT: 8 Rel. SNR: 1.00 : ep3dv3u

**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
Position	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	88
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	0.92 mm
TR	59.00 ms
TE 1	23.00 ms
TE 2	300.00 ms
TE 3	300.00 ms
Filter	None
Coil elements	AC

**Contrast - Common**

TR	59.00 ms
TE 1	23.00 ms
TE 2	300.00 ms
TE 3	300.00 ms
MTC	Off
Flip angle	15.0 deg
Fat suppr.	Water excit. normal

**Contrast - Dynamic**

Reconstruction	Magnitude
Measurements	350
Pause after meas.	0.000 s

**Resolution - Common**

FoV read	192 mm
FoV phase	100.0 %
Slice thickness	0.92 mm
Base resolution	208
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	4
Ref. lines PE	96

**Resolution - iPAT**

Accel. factor 3D	2
Ref. lines 3D	88
Reference scan mode	GRE/separate

**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
Position	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	88
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	0.92 mm
TR	59.00 ms

**Geometry - AutoAlign**

Slab group	1
Position	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L1.9 A7.3 F11.5
L	1.9 mm
A	7.3 mm
F	11.5 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
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	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	81 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	297.211090 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Dimension	3D
Contrasts	1
Bandwidth	925 Hz/Px

**Sequence - Part 2**

Gradient mode	Fast
RF spoiling	On

**Sequence - Special**

Caipi Delta	0
In-plane segments	1
Number of RF pulses	3
Sinc duration	300 us
TBWP	18
Phase Evolution	180 deg
Off resonance frequency	0 Hz
VoxDepth	1 2pi
SpoilAmp	20 mt/m
EddCurr0	540 us
EddCurr1	250 us
TRamp	210 usec
TFlat	800 usec
effective TE	23000 usec
Quiet File	None
SlabGradScale	15.0
IceProgram	IceProgram2DiPatOffline3D
effective PF	0.73
RF Spoil Basic Inc	50.0 deg
Trigger Type	Vol3ms
X_Shim_0	0.0 mt/m*ms
X_Shim_1	0.0 mt/m*ms
X_Shim_2	0.0 mt/m*ms
Y_Shim_0	0.0 mt/m*ms
Y_Shim_1	0.0 mt/m*ms
Y_Shim_2	0.0 mt/m*ms
Z_Shim_0	0.0 mt/m*ms

**Sequence - Special**

Z_Shim_1	0.0 mt/m*ms
Z_Shim_2	0.0 mt/m*ms
RO_Off	Off
PE_Off	Off
RO_OnSlice	Off
PE_OnSlice	Off
RO_Opp	On
PE_Opp	On
BlipUP_DOWN	On
PCAutoCorr	Off
PCAcrossSeg	Off
OnlineFFT	On
PFSUBMatrix	Off
PF_POCS	Off
DummyNavigators	Off
Navs always on	On
Navs on for ref scans	On
Lin Ref Part	On
Sym Ref Data	On
Late PF	Off
FlyBack Exc	Off
MT_GaussPulse	Off
MT_HardPulse	On
MT dual-Freq	Off
Part. enc. balanced in	On
Pol slice sel grad	Off
Dummies	10 AccVol
Fillers	0 AccVol
BlipUpDown	4 BlipVol
MT FlipAngle	220 Deg
MT OFFRES	2000 Hz
MT PLS_DUR	4000 us
MT-subpulse	10 Number
MT-subpulseFA	12 Deg
MT-subpulse_tau	100 us
m_IMT_HardPulse_Dur	200 us

**Sequence - Assistant**

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

\\USER\FIL Physics\Vahid\Misun's 1st Pilot\nc\_epi3d\_0p92mm\_noSEG\_WB

TA: 2:41 PM: FIX Voxel size: 0.9×0.9×0.9 mmPAT: Off Rel. SNR: 1.00 : ep3dv3u

**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
Position	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	160
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	0.92 mm
TR	100.00 ms
TE 1	23.00 ms
TE 2	300.00 ms
TE 3	300.00 ms
Filter	None
Coil elements	AC

**Contrast - Common**

TR	100.00 ms
TE 1	23.00 ms
TE 2	300.00 ms
TE 3	300.00 ms
MTC	On
Flip angle	8.0 deg
Fat suppr.	Water excit. normal

**Contrast - Dynamic**

Reconstruction	Magnitude
Measurements	2
Pause after meas. 1	0.000 s

**Resolution - Common**

FoV read	192 mm
FoV phase	100.0 %
Slice thickness	0.92 mm
Base resolution	208
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

**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	Off

**Geometry - Common**

Slab group	1
Slabs	1
Position	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	160
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	0.92 mm
TR	100.00 ms

**Geometry - AutoAlign**

Slab group	1
Position	L1.9 A7.3 F11.5 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L1.9 A7.3 F11.5
L	1.9 mm
A	7.3 mm
F	11.5 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off

**System - Adjustments**

Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

! Position	L1.9 A7.3 F11.5 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	192 mm
! R >> L	192 mm
! F >> H	81 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	297.211090 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Dimension	3D
Contrasts	1
Bandwidth	925 Hz/Px

**Sequence - Part 2**

Gradient mode	Fast
RF spoiling	On

**Sequence - Special**

Caipi Delta	0
In-plane segments	4
Number of RF pulses	3
Sinc duration	300 us
TBWP	18
Phase Evolution	180 deg
Off resonance frequency	0 Hz
VoxDeph	1 2pi
SpoilAmp	20 mt/m
EddCurr0	540 us
EddCurr1	250 us
TRamp	210 usec
TFlat	800 usec
effective TE	23000 usec
Quiet File	None
SlabGradScale	15.0
IceProgram	IceProgram2DiPatOffline3D
effective PF	0.73
RF Spoil Basic Inc	50.0 deg
Trigger Type	Vol3ms
X_Shim_0	0.0 mt/m*ms
X_Shim_1	0.0 mt/m*ms
X_Shim_2	0.0 mt/m*ms
Y_Shim_0	0.0 mt/m*ms
Y_Shim_1	0.0 mt/m*ms
Y_Shim_2	0.0 mt/m*ms
Z_Shim_0	0.0 mt/m*ms
Z_Shim_1	0.0 mt/m*ms
Z_Shim_2	0.0 mt/m*ms
RO_Off	Off

**Sequence - Special**

PE_Off	Off
RO_OnSlice	Off
PE_OnSlice	Off
RO_Opp	On
PE_Opp	On
BlipUP_DOWN	On
PCAutoCorr	Off
PCAcrossSeg	Off
OnlineFFT	On
PFSubMatrix	Off
PF_POCS	Off
DummyNavigators	Off
Navs always on	On
Navs on for ref scans	On
Lin Ref Part	On
Sym Ref Data	On
Late PF	Off
FlyBack Exc	Off
MT_GaussPulse	Off
MT_HardPulse	Off
MT dual-Freq	Off
Part. enc. balanced in	On
Pol slice sel grad	Off
Dummies	2 AccVol
Fillers	0 AccVol
BlipUpDown	1 BlipVol
MT FlipAngle	420 Deg
MT OFFRES	2000 Hz
MT PLS_DUR	4000 us
MT-subpulse	10 Number
MT-subpulseFA	12 Deg
MT-subpulse_tau	100 us
m_IMT_HardPulse_Dur	200 us

**Sequence - Assistant**

Mode	Off
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