\\USER\MR-Physik\CEST\CEST_SS_NOE_APT_MT\b1map_tra_p2_cp_mode_ss

TA: 0:33 PM: FIX Voxel size: 1.8×1.8×3.0 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	18
Dist. factor	20 %
Position	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.0 mm
TR	16000.0 ms
TE	1.68 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast - Common

TR	16000.0 ms
TE	1.68 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	Off

Resolution - Common

FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.0 mm
Base resolution	128
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

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	18
Dist. factor	20 %
Position	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.0 mm
TR	16000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.7 A7.8 F16.7
L	0.7 mm
A	7.8 mm
F	16.7 mm
Initial Rotation	90.00 deg
Initial Orientation	T > C
T > C	-12.4
> S	0.5

Geometry - Navigator

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

System - Adjust Volume

! Position	L1.0 A11.4 F16.6 mm
! Orientation	T > C-12.2 > S0.5
! Rotation	0.32 deg
! A >> P	242 mm
! R >> L	172 mm
! F >> H	56 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.174824 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	16000.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	230 mm
FoV phase	81.3 %
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	Fast
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	104

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None

Sequence - Nuclei

TX delta frequency	0 Hz
Coil elements	A32

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\MR-Physik\CEST\CEST_SS_NOE_APT_MT\CEST_TRA_IMPI4_SlabSel_720nT

TA: 6:41 PM: FIX Voxel size: 1.8×1.8×3.0 mmPAT: 2 Rel. SNR: 1.00 : fl_CEST

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	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	18
FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
TR	3.7 ms
TE	1.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast - Common

TR	3.7 ms
TE	1.77 ms
MTC	Off
Magn. preparation	None
Flip angle	6 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	56
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s

Contrast - Dynamic

Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s
Multiple series	Off

Resolution - Common

FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
Base resolution	128
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2

Resolution - iPAT

Ref. lines PE	24
Accel. factor 3D	1
Ref. lines 3D	18
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
Dist. factor	20 %
Position	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
Slice oversampling	0.0 %
Slices per slab	18
FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
TR	3.7 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.7 A7.8 F16.7
L	0.7 mm
A	7.8 mm
F	16.7 mm
Initial Rotation	90.00 deg
Initial Orientation	T > C
T > C	-12.4
> S	0.5

Geometry - Saturation

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

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

System - Miscellaneous

Matrix Optimization	Off
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	L1.0 A11.4 F16.6 mm
! Orientation	T > C-12.2 > S0.5
! Rotation	0.32 deg
! A >> P	242 mm
! R >> L	172 mm
! F >> H	56 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.174824 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	5.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	3.7 ms
Concatenations	1
Segments	1

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	230 mm
FoV phase	81.3 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	56
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

Inline - Soft Tissue

Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	56
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s

Inline - Composing

Distortion Corr.	Off

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	On
Phase stabilisation	Off
Reordering	Spiral
Asymmetric echo	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	550 Hz/Px

Sequence - Part 2

Define	Segments
Shots per slice	52
Segments	1
Acoustic noise reduction	None
RF pulse type	Optimized
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Incr. Gradient spoiling	Off

Sequence - Special

CEST	On
Pulse Type	Gauss
B1 definition	pure FA
B1	0.72 uT
No. of Pulses	120 n
Pulse Duration	15360 µs
Interpulse Delay	10 ms
Recover Time	1000 ms
Recover Time M0	12000 ms
No. of Locking Pulses	1 n
Lock Interpulse Delay	1 ms
Spoiling	only last
Fat Sat	Off
Spiral Elong. E	0.7
Offset Distribution	TH1
Suppressed M0	On
Offset	3.0 ppm
Freq Shift	1.2 ppm
Delta Freq	1.2 ppm
Scale Factor	10.0 (null)
Duration	1.0 ms
BWTP	9.6
EmpFactor	0.87
Samples	200
B0 Correction	Z-Spectrum
Image Registration	None

Sequence - Assistant

Mode	Off

\\USER\MR-Physik\CEST\CEST_SS_NOE_APT_MT\CEST_TRA_IMPI4_SlabSel_1000nT

TA: 6:41 PM: FIX Voxel size: 1.8×1.8×3.0 mmPAT: 2 Rel. SNR: 1.00 : fl_CEST

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	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	18
FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
TR	3.7 ms
TE	1.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast - Common

TR	3.7 ms
TE	1.77 ms
MTC	Off
Magn. preparation	None
Flip angle	6 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	56
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s

Contrast - Dynamic

Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s
Multiple series	Off

Resolution - Common

FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
Base resolution	128
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2

Resolution - iPAT

Ref. lines PE	24
Accel. factor 3D	1
Ref. lines 3D	18
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
Dist. factor	20 %
Position	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
Slice oversampling	0.0 %
Slices per slab	18
FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
TR	3.7 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.7 A7.8 F16.7
L	0.7 mm
A	7.8 mm
F	16.7 mm
Initial Rotation	90.00 deg
Initial Orientation	T > C
T > C	-12.4
> S	0.5

Geometry - Saturation

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

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

System - Miscellaneous

Matrix Optimization	Off
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	L1.0 A11.4 F16.6 mm
! Orientation	T > C-12.2 > S0.5
! Rotation	0.32 deg
! A >> P	242 mm
! R >> L	172 mm
! F >> H	56 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.174824 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	5.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	3.7 ms
Concatenations	1
Segments	1

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	230 mm
FoV phase	81.3 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	56
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

Inline - Soft Tissue

Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	56
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s

Inline - Composing

Distortion Corr.	Off

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	On
Phase stabilisation	Off
Reordering	Spiral
Asymmetric echo	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	550 Hz/Px

Sequence - Part 2

Define	Segments
Shots per slice	52
Segments	1
Acoustic noise reduction	None
RF pulse type	Optimized
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Incr. Gradient spoiling	Off

Sequence - Special

CEST	On
Pulse Type	Gauss
B1 definition	pure FA
B1	1.00 uT
No. of Pulses	120 n
Pulse Duration	15360 µs
Interpulse Delay	10 ms
Recover Time	1000 ms
Recover Time M0	12000 ms
No. of Locking Pulses	1 n
Lock Interpulse Delay	1 ms
Spoiling	only last
Fat Sat	Off
Spiral Elong. E	0.7
Offset Distribution	TH1
Suppressed M0	On
Offset	3.0 ppm
Freq Shift	1.2 ppm
Delta Freq	1.2 ppm
Scale Factor	10.0 (null)
Duration	1.0 ms
BWTP	9.6
EmpFactor	0.87
Samples	200
B0 Correction	Z-Spectrum
Image Registration	None

Sequence - Assistant

Mode	Off

\\USER\MR-Physik\CEST\CEST_SS_NOE_APT_MT\T1_Satrec_TRA_IMPI4_SlabSel

TA: 1:13 PM: FIX Voxel size: 1.8×1.8×3.0 mmPAT: 2 Rel. SNR: 1.00 : fl_CEST

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	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	18
FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
TR	3.7 ms
TE	1.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast - Common

TR	3.7 ms
TE	1.77 ms
MTC	Off
Magn. preparation	None
Flip angle	6 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	14
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s

Contrast - Dynamic

Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Multiple series	Off

Resolution - Common

FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
Base resolution	128
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Ref. lines 3D	18
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
Dist. factor	20 %
Position	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
Slice oversampling	0.0 %
Slices per slab	18
FoV read	230 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
TR	3.7 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	L0.7 A7.8 F16.7 mm
Orientation	T > C-12.4 > S0.5
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.7 A7.8 F16.7
L	0.7 mm
A	7.8 mm

Geometry - AutoAlign

F	16.7 mm
Initial Rotation	90.00 deg
Initial Orientation	T > C
T > C	-12.4
> S	0.5

Geometry - Saturation

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

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

System - Adjust Volume

! Position	L1.0 A11.4 F16.6 mm
! Orientation	T > C-12.2 > S0.5
! Rotation	0.32 deg
! A >> P	242 mm
! R >> L	172 mm
! F >> H	56 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.174824 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	5.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	3.7 ms
Concatenations	1
Segments	1

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	230 mm
FoV phase	81.3 %

Physio - Cardiac

Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	14
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	14
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s

Inline - Composing

Distortion Corr.	Off

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	On
Phase stabilisation	Off
Reordering	Spiral
Asymmetric echo	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	550 Hz/Px

Sequence - Part 2

Define	Segments
Shots per slice	52
Segments	1
Acoustic noise reduction	None
RF pulse type	Optimized
Gradient mode	Fast

Sequence - Part 2

Excitation	Slab-sel.
RF spoiling	On
Incr. Gradient spoiling	Off

Sequence - Special

CEST	On
Pulse Type	SATREC
B1 definition	pure FA
B1	3.70 uT
No. of Pulses	3 n
Pulse Duration	15360 µs
Interpulse Delay	4 ms
Recover Time	0 ms
Recover Time M0	0 ms
No. of Locking Pulses	1 n
Lock Interpulse Delay	1 ms
Spoiling	Variable
Fat Sat	Off
Spiral Elong. E	0.7
Offset Distribution	Single
Suppressed M0	On
Offset	0.0 ppm
Freq Shift	0.0 ppm
Delta Freq	0.0 ppm
Scale Factor	10.0 (null)
Duration	1.0 ms
BWTP	9.6
EmpFactor	0.87
Samples	200
B0 Correction	Z-Spectrum
Image Registration	None

Sequence - Assistant

Mode	Off