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## \\CMIC PRISMA

## Physics

## T2MES

## T2MES\_low\_res

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BH_FW_4e_GT			
pre_MOLLI_5s(3s)3s_256			
post_MOLLI_4s(1s)3s(1s)2s_256			
T2map	0-25-55	new	SSFP
pre		FB	T1T2
pre	FB	T1T2	high
post		FB	T1T2
pre_MOLLI_5s(3s)3s_256			
post_MOLLI_4s(1s)3s(1s)2s_256			
T2map	0-25-55	new	SSFP
pre		FB	T1T2
pre	FB	T1T2	high
post		FB	T1T2
pre_MOLLI_5s(3s)3s_256			
post_MOLLI_4s(1s)3s(1s)2s_256			
T2map	0-25-55	new	SSFP
pre		FB	T1T2
pre	FB	T1T2	high
post		FB	T1T2
pre_MOLLI_5s(3s)3s_256			
post_MOLLI_4s(1s)3s(1s)2s_256			
T2map	0-25-55	new	SSFP
pre		FB	T1T2
pre	FB	T1T2	high
post		FB	T1T2
BH_FW_4e_GT			
se	te	=	10
se	te	=	20
se	te	=	30
se	te	=	40
se	te	=	50
se	te	=	60
se	te	=	80
se	te	=	100
se	te	=	125
se	te	=	150
IR		GRE	TI=20
IR		GRE	TI=50
IR		GRE	TI=100
IR		GRE	TI=200
IR		GRE	TI=400
IR		GRE	TI=600
IR		GRE	TI=800
IR		GRE	TI=1000
IR		GRE	TI=1300
IR		GRE	TI=1700

IR GRE  
 BH\_FW\_4e2i\_GT  
 highres\_3D\_of\_tubes  
 FAMAP120HIGHBWTP\_90  
 FAMAP60HIGHBWTP\_45

TI=2100

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\tfl\_loc\_multi\_iPAT@c

TA: 4.1 s PM: ISO Voxel size: 2.1×2.1×8.0 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	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	On
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	3
Dist. factor	300 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	3
Slices	3
Dist. factor	200 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	400 mm
FoV phase	91.7 %
Slice thickness	8.0 mm
TR	500.00 ms
TE	1.46 ms
Averages	1
Concatenations	7
Filter	Distortion Corr.(2D), Prescan Normalize, Elliptical filter
Coil elements	BO1-3;SP1-3

**Contrast - Common**

TR	500.00 ms
TE	1.46 ms
TD	0 ms
Magn. preparation	None
Flip angle	8 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	400 mm
FoV phase	91.7 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	50 %
Phase partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Integrated

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	On
POCS	Off

**Geometry - Common**

Slice group	1
Slices	3
Dist. factor	300 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	3
Slices	3
Dist. factor	200 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	400 mm
FoV phase	91.7 %
Slice thickness	8.0 mm
TR	500.00 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	7

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter

**Geometry - AutoAlign**

Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	2
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	3
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	ISO
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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	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	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	123.261407 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	500.00 ms
Concatenations	7
Segments	56

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	On
Dark blood thickness	200 %
FoV read	400 mm
FoV phase	91.7 %
Phase resolution	50 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	1

**Physio - PACE**

Resp. control	Off
Concatenations	7

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

**Inline - Cardiac**

Inline Evaluation	Off
Magn. preparation	None
Contrasts	1
TE	1.46 ms
TR	500.00 ms
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1

**Sequence - Part 1**

Flow comp.	No
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	3.7 ms
Sequence type	Gre
Bandwidth	473 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	56
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
RF spoiling	On
Phase Enc. Rewinder	On
Cine	Off

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\GRE FA 120

TA: 18:00 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	None
Flip angle	120 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	75 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

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

**Geometry - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off

**System - Tx/Rx**

? Ref. amplitude 1H	0.000 V
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**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\GRE FA 60

TA: 18:00 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	None
Flip angle	60 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	75 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

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

**Geometry - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off



**System - Tx/Rx**

? Ref. amplitude 1H	0.000 V
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**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\highres\_3D\_of\_tubes

TA: 0:45 PM: FIX Voxel size: 1.0×1.0×1.0 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	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**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	16.7 %
Slices per slab	96
FoV read	256 mm
FoV phase	64.8 %
Slice thickness	1.00 mm
TR	400.90 ms
TE	1.77 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	400.90 ms
TE	1.77 ms
Magn. preparation	None
Flip angle	12 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	256 mm
FoV phase	64.8 %
Slice thickness	1.00 mm
Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
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
POCS	Off

**Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice oversampling	16.7 %
Slices per slab	96
FoV read	256 mm
FoV phase	64.8 %
Slice thickness	1.00 mm
TR	400.90 ms
Multi-slice mode	Sequential
Series	Descending
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****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	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slab-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	400.90 ms
Concatenations	1
Segments	95

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	64.8 %
Phase resolution	100 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	1

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

**Inline - Cardiac**

Inline Evaluation	Off
Magn. preparation	None
Contrasts	1
TE	1.77 ms
TR	400.90 ms
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

**Sequence - Part 1**

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Flow comp.	No
Optimization	Min. TE TR
Multi-slice mode	Sequential
Echo spacing	4.2 ms
Sequence type	Gre
Bandwidth	592 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	95
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
Flip angle mode	Constant
RF spoiling	On
Phase Enc. Rewinder	On
Cine	Off

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\BH\_FW\_4e\_GT

TA: 0:13 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: Off Rel. SNR: 1.00 : fl

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	208.00 ms
TE 1	1.56 ms
TE 2	3.88 ms
TE 3	6.2 ms
TE 4	8.52 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	208.00 ms
TE 1	1.56 ms
TE 2	3.88 ms
TE 3	6.2 ms
TE 4	8.52 ms
Magn. preparation	None
Flip angle	12 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	Off

**Resolution - Common**

Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	None
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**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	208.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm

**System - Miscellaneous**

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	830 ms
Trigger pulse	1
Trigger delay	622 ms
TR	208.00 ms
Concatenations	1
Segments	20
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off

**Physio - Cardiac**

Trajectory	Cartesian
Dummy heartbeats	1

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

**Inline - Cardiac**

Inline Evaluation	Off
Magn. preparation	None
Contrasts	4
TE 1	1.56 ms
TE 2	3.88 ms
TE 3	6.2 ms
TE 4	8.52 ms
TR	208.00 ms
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Off
Contrasts	4
Flow comp. 1	No
Readout mode	Monopolar
Optimization	Min. TE TR
Multi-slice mode	Sequential
Echo spacing	10.4 ms
Sequence type	Gre
Bandwidth 1	977 Hz/Px
Bandwidth 2	977 Hz/Px
Bandwidth 3	977 Hz/Px
Bandwidth 4	977 Hz/Px

**Sequence - Part 2**

Define	Segments
Segments	20
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
RF spoiling	On
Phase Enc. Rewinder	On

**Sequence - Part 2**

Cine	Off
------	-----

**Sequence - Special**

FatWater Separation	On
Multi-echo Images	On
In-Opp Phase Images	Off
Frequency Map	On
T2* Map	Off
Motion Correction	Off
MoCo Averaging Mode	Complex MoCo
MoCo Images Only?	Off
Frequency Offset	0 Hz
No. of Interleaves	0

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\pre\_MOLLI\_5s(3s)3s\_256

TA: 8.7 s PM: FIX Voxel size: 1.4×1.4×8.0 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	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

**Resolution - iPAT**

Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	280.56 ms
TE	1.12 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	280.56 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	280.56 ms
TE	1.12 ms
Magn. preparation	Non-sel. IR T1map
TI	180 ms
Flip angle	20 deg
Fat suppr.	None
Wrap-up Magn.	None

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

**Resolution - iPAT**

PAT mode	GRAPPA
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**System - Miscellaneous**

Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	700 ms
Trigger pulse	1
Trigger delay	418 ms
TR	280.56 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. IR T1map
T1	180 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0

**Physio - Cardiac**

Motion Correction	Standard
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**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 scout mode	Off
Error map	On
Synth PSIR	Off
Periods in seconds	On
16 bit images	Off
T1 sampling scheme	Native

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s



\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\post\_MOLLI\_4s(1s)3s(1s)2s\_256

TA: 0:19 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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

**Resolution - iPAT**

Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	360.56 ms
TE	1.12 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	360.56 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	360.56 ms
TE	1.12 ms
Magn. preparation	Non-sel. IR T1map
TI	260 ms
Flip angle	20 deg
Fat suppr.	None
Wrap-up Magn.	None

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

**Resolution - iPAT**

PAT mode	GRAPPA
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**System - Miscellaneous**

Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	831 ms
Trigger pulse	1
Trigger delay	470 ms
TR	360.56 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. IR T1map
TI	260 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0

**Physio - Cardiac**

Motion Correction	Standard
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**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

**Sequence - Special**

Partition coeff map	On
ECV map	Off
Synth ECV map	On
T1 scout mode	Off
Error map	On
Synth PSIR	On
Periods in seconds	On
16 bit images	Off
T1 sampling scheme	Post Gd

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

## \\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\T2map 0-25-55 new SSFP

TA: 0:16 PM: FIX Voxel size: 1.9×1.9×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	229.07 ms
TE	1.26 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	229.07 ms
TE	1.26 ms
Magn. preparation	T2 prep. adiab.
T2 prep. duration 1	0 ms
T2 prep. duration 2	30 ms
T2 prep. duration 3	55 ms
Flip angle	70 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	83 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	229.07 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L

**System - Miscellaneous**

Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	853 ms
Trigger pulse	1
Trigger delay	623 ms
TR	229.07 ms
Concatenations	1
Segments	60
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	T2 prep. adiab.
T2 prep. duration 1	0 ms
T2 prep. duration 2	30 ms
T2 prep. duration 3	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	83 %

**Physio - Cardiac**

Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	None

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Sequence type	Trufi
Bandwidth	1184 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	60
Trufi delta freq.	0 Hz
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

**Sequence - Special**

Periods in seconds	On
16 bit images	Off

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\pre FB T1T2

TA: 1:14 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
TE	1.26 ms
Averages	3
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	824.00 ms
TE	1.26 ms
Magn. preparation	Non-sel. SR perf
T1	550 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Flip angle	100 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	3
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %

**Resolution - Common**

Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	830 ms
Trigger pulse	1
Trigger delay	0 ms
TR	824.00 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. SR perf

**Physio - Cardiac**

T1	550 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	Standard

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	Standard
Save original images	On

**Inline - Cardiac**

Inline Evaluation	T1 map
Magn. preparation	Non-sel. SR perf
Num. of preps	9
Sampling duration 1	1 beats
Sampling duration 2	1 beats
Sampling duration 3	1 beats
Sampling duration 4	1 beats
Sampling duration 5	1 beats
Sampling duration 6	1 beats
Sampling duration 7	1 beats
Sampling duration 8	1 beats
Sampling duration 9	1 beats
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Contrasts	1
TE	1.26 ms
TR	824.00 ms
Recovery duration 1	1 beats
Recovery duration 2	1 beats
Recovery duration 3	0 beats
Recovery duration 4	0 beats
Recovery duration 5	0 beats
Recovery duration 6	0 beats
Recovery duration 7	0 beats
Recovery duration 8	1 beats

**Inline - Cardiac**

Recovery duration 9	1 beats
Motion Correction	Standard
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.9 ms
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 array 0	550 ms
T1 array 1	550 ms
T1 array 2	550 ms
T1 array 3	550 ms
T1 array 4	550 ms
T1 array 5	550 ms
T1 array 6	550 ms
T1 array 7	550 ms
T1 array 8	550 ms
High-contrast acquisition	On
Error map	Off
SPAIR delay	5 ms
T1 sampling scheme	Custom

**Sequence - Assistant**

Mode	Off
Allowed delay	10 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\pre FB T1T2 high HR

TA: 1:40 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
TE	1.26 ms
Averages	3
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	824.00 ms
TE	1.26 ms
Magn. preparation	Non-sel. SR perf
T1	350 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Flip angle	100 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	3
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %

**Resolution - Common**

Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None



**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	150 mm
! R >> L	150 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	830 ms
Trigger pulse	1
Trigger delay	0 ms
TR	824.00 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. SR perf

**Physio - Cardiac**

T1	350 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	Standard

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	Standard
Save original images	On

**Inline - Cardiac**

Inline Evaluation	T1 map
Magn. preparation	Non-sel. SR perf
Num. of preps	9
Sampling duration 1	1 beats
Sampling duration 2	1 beats
Sampling duration 3	1 beats
Sampling duration 4	1 beats
Sampling duration 5	1 beats
Sampling duration 6	1 beats
Sampling duration 7	1 beats
Sampling duration 8	1 beats
Sampling duration 9	1 beats
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Contrasts	1
TE	1.26 ms
TR	824.00 ms
Recovery duration 1	2 beats
Recovery duration 2	2 beats
Recovery duration 3	0 beats
Recovery duration 4	0 beats
Recovery duration 5	0 beats
Recovery duration 6	0 beats
Recovery duration 7	0 beats
Recovery duration 8	3 beats

**Inline - Cardiac**

Recovery duration 9	3 beats
Motion Correction	Standard
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.9 ms
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
TI array 0	350 ms
TI array 1	350 ms
TI array 2	350 ms
TI array 3	350 ms
TI array 4	350 ms
TI array 5	350 ms
TI array 6	350 ms
TI array 7	350 ms
TI array 8	350 ms
High-contrast acquisition	On
Error map	Off
SPAIR delay	5 ms
T1 sampling scheme	Fixed TS

**Sequence - Assistant**

Mode	Off
Allowed delay	10 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\post FB T1T2

TA: 1:05 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	904.00 ms
TE	1.26 ms
Averages	3
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	904.00 ms
TE	1.26 ms
Magn. preparation	Non-sel. SR perf
T1	300 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Flip angle	100 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	3
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %

**Resolution - Common**

Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	904.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	150 mm
! R >> L	150 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	930 ms
Trigger pulse	1
Trigger delay	0 ms
TR	904.00 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. SR perf

**Physio - Cardiac**

T1	300 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	Standard

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	Standard
Save original images	On

**Inline - Cardiac**

Inline Evaluation	T1 map
Magn. preparation	Non-sel. SR perf
Num. of preps	9
Sampling duration 1	1 beats
Sampling duration 2	1 beats
Sampling duration 3	1 beats
Sampling duration 4	1 beats
Sampling duration 5	1 beats
Sampling duration 6	1 beats
Sampling duration 7	1 beats
Sampling duration 8	1 beats
Sampling duration 9	1 beats
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Contrasts	1
TE	1.26 ms
TR	904.00 ms
Recovery duration 1	0 beats
Recovery duration 2	0 beats
Recovery duration 3	0 beats
Recovery duration 4	0 beats
Recovery duration 5	0 beats
Recovery duration 6	0 beats
Recovery duration 7	0 beats
Recovery duration 8	1 beats

**Inline - Cardiac**

Recovery duration 9	1 beats
Motion Correction	Standard
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.9 ms
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 array 0	300 ms
T1 array 1	300 ms
T1 array 2	300 ms
T1 array 3	300 ms
T1 array 4	300 ms
T1 array 5	300 ms
T1 array 6	300 ms
T1 array 7	300 ms
T1 array 8	300 ms
High-contrast acquisition	On
Error map	Off
SPAIR delay	5 ms
T1 sampling scheme	Fixed TS

**Sequence - Assistant**

Mode	Off
Allowed delay	10 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\pre\_MOLLI\_5s(3s)3s\_256

TA: 8.7 s PM: FIX Voxel size: 1.4×1.4×8.0 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	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

**Resolution - iPAT**

Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	280.56 ms
TE	1.12 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	280.56 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	280.56 ms
TE	1.12 ms
Magn. preparation	Non-sel. IR T1map
T1	180 ms
Flip angle	20 deg
Fat suppr.	None
Wrap-up Magn.	None

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

**Resolution - iPAT**

PAT mode	GRAPPA
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**System - Miscellaneous**

Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	700 ms
Trigger pulse	1
Trigger delay	418 ms
TR	280.56 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. IR T1map
T1	180 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0

**Physio - Cardiac**

Motion Correction	Standard
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**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 scout mode	Off
Error map	On
Synth PSIR	Off
Periods in seconds	On
16 bit images	Off
T1 sampling scheme	Native

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\post\_MOLLI\_4s(1s)3s(1s)2s\_256

TA: 0:19 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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

**Resolution - iPAT**

Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	360.56 ms
TE	1.12 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	360.56 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	360.56 ms
TE	1.12 ms
Magn. preparation	Non-sel. IR T1map
T1	260 ms
Flip angle	20 deg
Fat suppr.	None
Wrap-up Magn.	None

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

**Resolution - iPAT**

PAT mode	GRAPPA
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**System - Miscellaneous**

Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	831 ms
Trigger pulse	1
Trigger delay	470 ms
TR	360.56 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. IR T1map
TI	260 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0

**Physio - Cardiac**

Motion Correction	Standard
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**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

**Sequence - Special**

Partition coeff map	On
ECV map	Off
Synth ECV map	On
T1 scout mode	Off
Error map	On
Synth PSIR	On
Periods in seconds	On
16 bit images	Off
T1 sampling scheme	Post Gd

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

## \\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\T2map 0-25-55 new SSFP

TA: 0:16 PM: FIX Voxel size: 1.9×1.9×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	229.07 ms
TE	1.26 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	229.07 ms
TE	1.26 ms
Magn. preparation	T2 prep. adiab.
T2 prep. duration 1	0 ms
T2 prep. duration 2	30 ms
T2 prep. duration 3	55 ms
Flip angle	70 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	83 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	229.07 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L

**System - Miscellaneous**

Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	853 ms
Trigger pulse	1
Trigger delay	623 ms
TR	229.07 ms
Concatenations	1
Segments	60
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	T2 prep. adiab.
T2 prep. duration 1	0 ms
T2 prep. duration 2	30 ms
T2 prep. duration 3	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	83 %

**Physio - Cardiac**

Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	None

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Sequence type	Trufi
Bandwidth	1184 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	60
Trufi delta freq.	0 Hz
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

**Sequence - Special**

Periods in seconds	On
16 bit images	Off

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\pre FB T1T2

TA: 1:14 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
TE	1.26 ms
Averages	3
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	824.00 ms
TE	1.26 ms
Magn. preparation	Non-sel. SR perf
T1	550 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Flip angle	100 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	3
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %

**Resolution - Common**

Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	830 ms
Trigger pulse	1
Trigger delay	0 ms
TR	824.00 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. SR perf

**Physio - Cardiac**

T1	550 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	Standard

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	Standard
Save original images	On

**Inline - Cardiac**

Inline Evaluation	T1 map
Magn. preparation	Non-sel. SR perf
Num. of preps	9
Sampling duration 1	1 beats
Sampling duration 2	1 beats
Sampling duration 3	1 beats
Sampling duration 4	1 beats
Sampling duration 5	1 beats
Sampling duration 6	1 beats
Sampling duration 7	1 beats
Sampling duration 8	1 beats
Sampling duration 9	1 beats
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Contrasts	1
TE	1.26 ms
TR	824.00 ms
Recovery duration 1	1 beats
Recovery duration 2	1 beats
Recovery duration 3	0 beats
Recovery duration 4	0 beats
Recovery duration 5	0 beats
Recovery duration 6	0 beats
Recovery duration 7	0 beats
Recovery duration 8	1 beats

**Inline - Cardiac**

Recovery duration 9	1 beats
Motion Correction	Standard
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.9 ms
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 array 0	550 ms
T1 array 1	550 ms
T1 array 2	550 ms
T1 array 3	550 ms
T1 array 4	550 ms
T1 array 5	550 ms
T1 array 6	550 ms
T1 array 7	550 ms
T1 array 8	550 ms
High-contrast acquisition	On
Error map	Off
SPAIR delay	5 ms
T1 sampling scheme	Custom

**Sequence - Assistant**

Mode	Off
Allowed delay	10 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\pre FB T1T2 high HR

TA: 1:40 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
TE	1.26 ms
Averages	3
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	824.00 ms
TE	1.26 ms
Magn. preparation	Non-sel. SR perf
T1	350 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Flip angle	100 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	3
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %

**Resolution - Common**

Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	150 mm
! R >> L	150 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	830 ms
Trigger pulse	1
Trigger delay	0 ms
TR	824.00 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. SR perf

**Physio - Cardiac**

T1	350 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	Standard

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	Standard
Save original images	On

**Inline - Cardiac**

Inline Evaluation	T1 map
Magn. preparation	Non-sel. SR perf
Num. of preps	9
Sampling duration 1	1 beats
Sampling duration 2	1 beats
Sampling duration 3	1 beats
Sampling duration 4	1 beats
Sampling duration 5	1 beats
Sampling duration 6	1 beats
Sampling duration 7	1 beats
Sampling duration 8	1 beats
Sampling duration 9	1 beats
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Contrasts	1
TE	1.26 ms
TR	824.00 ms
Recovery duration 1	2 beats
Recovery duration 2	2 beats
Recovery duration 3	0 beats
Recovery duration 4	0 beats
Recovery duration 5	0 beats
Recovery duration 6	0 beats
Recovery duration 7	0 beats
Recovery duration 8	3 beats



**Inline - Cardiac**

Recovery duration 9	3 beats
Motion Correction	Standard
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.9 ms
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 array 0	350 ms
T1 array 1	350 ms
T1 array 2	350 ms
T1 array 3	350 ms
T1 array 4	350 ms
T1 array 5	350 ms
T1 array 6	350 ms
T1 array 7	350 ms
T1 array 8	350 ms
High-contrast acquisition	On
Error map	Off
SPAIR delay	5 ms
T1 sampling scheme	Fixed TS

**Sequence - Assistant**

Mode	Off
Allowed delay	10 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\post FB T1T2

TA: 1:05 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	904.00 ms
TE	1.26 ms
Averages	3
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	904.00 ms
TE	1.26 ms
Magn. preparation	Non-sel. SR perf
T1	300 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Flip angle	100 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	3
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %

**Resolution - Common**

Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	904.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	150 mm
! R >> L	150 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	930 ms
Trigger pulse	1
Trigger delay	0 ms
TR	904.00 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. SR perf

**Physio - Cardiac**

T1	300 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	Standard

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	Standard
Save original images	On

**Inline - Cardiac**

Inline Evaluation	T1 map
Magn. preparation	Non-sel. SR perf
Num. of preps	9
Sampling duration 1	1 beats
Sampling duration 2	1 beats
Sampling duration 3	1 beats
Sampling duration 4	1 beats
Sampling duration 5	1 beats
Sampling duration 6	1 beats
Sampling duration 7	1 beats
Sampling duration 8	1 beats
Sampling duration 9	1 beats
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Contrasts	1
TE	1.26 ms
TR	904.00 ms
Recovery duration 1	0 beats
Recovery duration 2	0 beats
Recovery duration 3	0 beats
Recovery duration 4	0 beats
Recovery duration 5	0 beats
Recovery duration 6	0 beats
Recovery duration 7	0 beats
Recovery duration 8	1 beats

**Inline - Cardiac**

Recovery duration 9	1 beats
Motion Correction	Standard
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.9 ms
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 array 0	300 ms
T1 array 1	300 ms
T1 array 2	300 ms
T1 array 3	300 ms
T1 array 4	300 ms
T1 array 5	300 ms
T1 array 6	300 ms
T1 array 7	300 ms
T1 array 8	300 ms
High-contrast acquisition	On
Error map	Off
SPAIR delay	5 ms
T1 sampling scheme	Fixed TS

**Sequence - Assistant**

Mode	Off
Allowed delay	10 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\pre\_MOLLI\_5s(3s)3s\_256

TA: 8.7 s PM: FIX Voxel size: 1.4×1.4×8.0 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	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

**Resolution - iPAT**

Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	280.56 ms
TE	1.12 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	280.56 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	280.56 ms
TE	1.12 ms
Magn. preparation	Non-sel. IR T1map
T1	180 ms
Flip angle	20 deg
Fat suppr.	None
Wrap-up Magn.	None

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

**Resolution - iPAT**

PAT mode	GRAPPA
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**System - Miscellaneous**

Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	700 ms
Trigger pulse	1
Trigger delay	418 ms
TR	280.56 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. IR T1map
T1	180 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0

**Physio - Cardiac**

Motion Correction	Standard
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**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 scout mode	Off
Error map	On
Synth PSIR	Off
Periods in seconds	On
16 bit images	Off
T1 sampling scheme	Native

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\post\_MOLLI\_4s(1s)3s(1s)2s\_256

TA: 0:19 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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

**Resolution - iPAT**

Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	360.56 ms
TE	1.12 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	360.56 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	360.56 ms
TE	1.12 ms
Magn. preparation	Non-sel. IR T1map
T1	260 ms
Flip angle	20 deg
Fat suppr.	None
Wrap-up Magn.	None

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

**Resolution - iPAT**

PAT mode	GRAPPA
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**System - Miscellaneous**

Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	831 ms
Trigger pulse	1
Trigger delay	470 ms
TR	360.56 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. IR T1map
TI	260 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0

**Physio - Cardiac**

Motion Correction	Standard
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**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

**Sequence - Special**

Partition coeff map	On
ECV map	Off
Synth ECV map	On
T1 scout mode	Off
Error map	On
Synth PSIR	On
Periods in seconds	On
16 bit images	Off
T1 sampling scheme	Post Gd

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s



## \\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\T2map 0-25-55 new SSFP

TA: 0:16 PM: FIX Voxel size: 1.9×1.9×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	229.07 ms
TE	1.26 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	229.07 ms
TE	1.26 ms
Magn. preparation	T2 prep. adiab.
T2 prep. duration 1	0 ms
T2 prep. duration 2	30 ms
T2 prep. duration 3	55 ms
Flip angle	70 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	83 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	229.07 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L

**System - Miscellaneous**

Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	853 ms
Trigger pulse	1
Trigger delay	623 ms
TR	229.07 ms
Concatenations	1
Segments	60
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	T2 prep. adiab.
T2 prep. duration 1	0 ms
T2 prep. duration 2	30 ms
T2 prep. duration 3	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	83 %

**Physio - Cardiac**

Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	None

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Sequence type	Trufi
Bandwidth	1184 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	60
Trufi delta freq.	0 Hz
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

**Sequence - Special**

Periods in seconds	On
16 bit images	Off

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\pre FB T1T2

TA: 1:14 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
TE	1.26 ms
Averages	3
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	824.00 ms
TE	1.26 ms
Magn. preparation	Non-sel. SR perf
T1	550 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Flip angle	100 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	3
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %

**Resolution - Common**

Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	830 ms
Trigger pulse	1
Trigger delay	0 ms
TR	824.00 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. SR perf

**Physio - Cardiac**

T1	550 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	Standard

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	Standard
Save original images	On

**Inline - Cardiac**

Inline Evaluation	T1 map
Magn. preparation	Non-sel. SR perf
Num. of preps	9
Sampling duration 1	1 beats
Sampling duration 2	1 beats
Sampling duration 3	1 beats
Sampling duration 4	1 beats
Sampling duration 5	1 beats
Sampling duration 6	1 beats
Sampling duration 7	1 beats
Sampling duration 8	1 beats
Sampling duration 9	1 beats
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Contrasts	1
TE	1.26 ms
TR	824.00 ms
Recovery duration 1	1 beats
Recovery duration 2	1 beats
Recovery duration 3	0 beats
Recovery duration 4	0 beats
Recovery duration 5	0 beats
Recovery duration 6	0 beats
Recovery duration 7	0 beats
Recovery duration 8	1 beats

**Inline - Cardiac**

Recovery duration 9	1 beats
Motion Correction	Standard
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.9 ms
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 array 0	550 ms
T1 array 1	550 ms
T1 array 2	550 ms
T1 array 3	550 ms
T1 array 4	550 ms
T1 array 5	550 ms
T1 array 6	550 ms
T1 array 7	550 ms
T1 array 8	550 ms
High-contrast acquisition	On
Error map	Off
SPAIR delay	5 ms
T1 sampling scheme	Custom

**Sequence - Assistant**

Mode	Off
Allowed delay	10 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\pre FB T1T2 high HR

TA: 1:40 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
TE	1.26 ms
Averages	3
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	824.00 ms
TE	1.26 ms
Magn. preparation	Non-sel. SR perf
T1	350 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Flip angle	100 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	3
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %

**Resolution - Common**

Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	824.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	150 mm
! R >> L	150 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	830 ms
Trigger pulse	1
Trigger delay	0 ms
TR	824.00 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. SR perf

**Physio - Cardiac**

T1	350 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	Standard

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	Standard
Save original images	On

**Inline - Cardiac**

Inline Evaluation	T1 map
Magn. preparation	Non-sel. SR perf
Num. of preps	9
Sampling duration 1	1 beats
Sampling duration 2	1 beats
Sampling duration 3	1 beats
Sampling duration 4	1 beats
Sampling duration 5	1 beats
Sampling duration 6	1 beats
Sampling duration 7	1 beats
Sampling duration 8	1 beats
Sampling duration 9	1 beats
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Contrasts	1
TE	1.26 ms
TR	824.00 ms
Recovery duration 1	2 beats
Recovery duration 2	2 beats
Recovery duration 3	0 beats
Recovery duration 4	0 beats
Recovery duration 5	0 beats
Recovery duration 6	0 beats
Recovery duration 7	0 beats
Recovery duration 8	3 beats

**Inline - Cardiac**

Recovery duration 9	3 beats
Motion Correction	Standard
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.9 ms
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
TI array 0	350 ms
TI array 1	350 ms
TI array 2	350 ms
TI array 3	350 ms
TI array 4	350 ms
TI array 5	350 ms
TI array 6	350 ms
TI array 7	350 ms
TI array 8	350 ms
High-contrast acquisition	On
Error map	Off
SPAIR delay	5 ms
T1 sampling scheme	Fixed TS

**Sequence - Assistant**

Mode	Off
Allowed delay	10 s



\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\post FB T1T2

TA: 1:05 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: 2 Rel. SNR: 1.00 : tfi

**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	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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	904.00 ms
TE	1.26 ms
Averages	3
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	904.00 ms
TE	1.26 ms
Magn. preparation	Non-sel. SR perf
T1	300 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Flip angle	100 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	3
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %

**Resolution - Common**

Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	7/8
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	36
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	904.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	150 mm
! R >> L	150 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	930 ms
Trigger pulse	1
Trigger delay	0 ms
TR	904.00 ms
Concatenations	1
Segments	72
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	Non-sel. SR perf

**Physio - Cardiac**

T1	300 ms
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0
Motion Correction	Standard

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	Standard
Save original images	On

**Inline - Cardiac**

Inline Evaluation	T1 map
Magn. preparation	Non-sel. SR perf
Num. of preps	9
Sampling duration 1	1 beats
Sampling duration 2	1 beats
Sampling duration 3	1 beats
Sampling duration 4	1 beats
Sampling duration 5	1 beats
Sampling duration 6	1 beats
Sampling duration 7	1 beats
Sampling duration 8	1 beats
Sampling duration 9	1 beats
T2 prep. duration 1	0 ms
T2 prep. duration 2	0 ms
T2 prep. duration 3	0 ms
T2 prep. duration 4	0 ms
T2 prep. duration 5	0 ms
T2 prep. duration 6	0 ms
T2 prep. duration 7	0 ms
T2 prep. duration 8	55 ms
T2 prep. duration 9	55 ms
Contrasts	1
TE	1.26 ms
TR	904.00 ms
Recovery duration 1	0 beats
Recovery duration 2	0 beats
Recovery duration 3	0 beats
Recovery duration 4	0 beats
Recovery duration 5	0 beats
Recovery duration 6	0 beats
Recovery duration 7	0 beats
Recovery duration 8	1 beats

**Inline - Cardiac**

Recovery duration 9	1 beats
Motion Correction	Standard
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.9 ms
Sequence type	Trufi
Bandwidth	1085 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	72
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
Cine	Off

**Sequence - Special**

Partition coeff map	Off
ECV map	Off
Synth ECV map	Off
T1 array 0	300 ms
T1 array 1	300 ms
T1 array 2	300 ms
T1 array 3	300 ms
T1 array 4	300 ms
T1 array 5	300 ms
T1 array 6	300 ms
T1 array 7	300 ms
T1 array 8	300 ms
High-contrast acquisition	On
Error map	Off
SPAIR delay	5 ms
T1 sampling scheme	Fixed TS

**Sequence - Assistant**

Mode	Off
Allowed delay	10 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\BH\_FW\_4e\_GT

TA: 0:13 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: Off Rel. SNR: 1.00 : fl

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	208.00 ms
TE 1	1.56 ms
TE 2	3.88 ms
TE 3	6.2 ms
TE 4	8.52 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	208.00 ms
TE 1	1.56 ms
TE 2	3.88 ms
TE 3	6.2 ms
TE 4	8.52 ms
Magn. preparation	None
Flip angle	12 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	Off

**Resolution - Common**

Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	None
----------	------

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	208.00 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm

**System - Miscellaneous**

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	25 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	830 ms
Trigger pulse	1
Trigger delay	622 ms
TR	208.00 ms
Concatenations	1
Segments	20
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off

**Physio - Cardiac**

Trajectory	Cartesian
Dummy heartbeats	1

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

**Inline - Cardiac**

Inline Evaluation	Off
Magn. preparation	None
Contrasts	4
TE 1	1.56 ms
TE 2	3.88 ms
TE 3	6.2 ms
TE 4	8.52 ms
TR	208.00 ms
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Off
Contrasts	4
Flow comp. 1	No
Readout mode	Monopolar
Optimization	Min. TE TR
Multi-slice mode	Sequential
Echo spacing	10.4 ms
Sequence type	Gre
Bandwidth 1	977 Hz/Px
Bandwidth 2	977 Hz/Px
Bandwidth 3	977 Hz/Px
Bandwidth 4	977 Hz/Px

**Sequence - Part 2**

Define	Segments
Segments	20
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
RF spoiling	On
Phase Enc. Rewinder	On

**Sequence - Part 2**

Cine	Off
------	-----

**Sequence - Special**

FatWater Separation	On
Multi-echo Images	On
In-Opp Phase Images	Off
Frequency Map	On
T2* Map	Off
Motion Correction	Off
MoCo Averaging Mode	Complex MoCo
MoCo Images Only?	Off
Frequency Offset	0 Hz
No. of Interleaves	0

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 10

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	10.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Water suppr.	None
Special sat.	None

**Contrast - Common**

TR	10000.0 ms
TE	10.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	On
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
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s



\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 20

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	20.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.0 ms
TE	20.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	270 mm
R >> L	360 mm
F >> H	8 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 30

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	30.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Water suppr.	None
Special sat.	None

**Contrast - Common**

TR	10000.0 ms
TE	30.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	270 mm
R >> L	360 mm
F >> H	8 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 40

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Water suppr.	None
Special sat.	None

**Contrast - Common**

TR	10000.0 ms
TE	40.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	On
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
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 50

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	50.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.0 ms
TE	50.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	On
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
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**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s



\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 60

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	60.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.0 ms
TE	60.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	On
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
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**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 80

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Routine**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	80.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Water suppr.	None
Special sat.	None

**Contrast - Common**

TR	10000.0 ms
TE	80.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	On
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
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 100

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	100.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.0 ms
TE	100.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	On
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
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 125

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	125.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.0 ms
TE	125.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	On
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
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s



\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\se te = 150

TA: 24:10 PM: FIX Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : se

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
TE	150.0 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.0 ms
TE	150.0 ms
MTC	Off
Magn. preparation	None
Flip angle 1	90 deg
Flip angle 2	180 deg
Fat suppr.	None
Water suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	50 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	On
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
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**System - Tx/Rx**

Frequency 1H	123.261407 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	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	100 %

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Asymmetric echo	Off

**Sequence - Part 1**

Contrasts	1
Multi-slice mode	Interleaved
Bandwidth	501 Hz/Px

**Sequence - Part 2**

Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=20

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	20 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=50

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	50 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=100

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	100 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

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



\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=200

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	200 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=400

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	400 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
--------------	----------

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=600

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	600 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=800

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	800 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=1000

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	1000 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=1300

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	1300 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=1700

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	1700 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\IR GRE TI=2100

TA: 24:00 PM: REF Voxel size: 1.9×1.9×8.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms
TE	10.00 ms
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	10000.00 ms
TE	10.00 ms
Magn. preparation	Non-sel. IR
TI	2100 ms
Flip angle	90 deg

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Position	Isocenter
Orientation	Transversal

**Geometry - Common**

Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	10000.00 ms

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000

**System - Tx/Rx**

Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Bandwidth	500 Hz/Px
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**Sequence - Special**

Adiab IR Pulse	Tan/Tanh
RF Phase Spoiling	ON

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\BH\_FW\_4e2i\_GT

TA: 0:13 PM: FIX Voxel size: 1.4×1.4×8.0 mmPAT: Off Rel. SNR: 1.00 : fl

**Properties**

Prio recon	Off
Load images to viewer	Off
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
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	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	287.60 ms
TE 1	1.56 ms
TE 2	2.72 ms
TE 3	3.88 ms
TE 4	5.04 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	287.60 ms
TE 1	1.56 ms
TE 2	2.72 ms
TE 3	3.88 ms
TE 4	5.04 ms
Magn. preparation	None
Flip angle	12 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
Base resolution	256
Phase resolution	75 %
Phase partial Fourier	Off

**Resolution - Common**

Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	None
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**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
POCS	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	8.0 mm
TR	287.60 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm

**System - Miscellaneous**

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Cardiac
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	ECG/Trigger
Average cycle	725 ± 90 ms
Average cycle	No Signal ms
Captured cycle	725 ± 90 ms
Acquisition window	831 ms
Trigger pulse	1
Trigger delay	543 ms
TR	287.60 ms
Concatenations	1
Segments	20
Phases	1
Adaptive Triggering	Off

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	360 mm
FoV phase	75.0 %
Phase resolution	75 %
Cine	Off

**Physio - Cardiac**

Trajectory	Cartesian
Dummy heartbeats	1

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

**Inline - Cardiac**

Inline Evaluation	Off
Magn. preparation	None
Contrasts	4
TE 1	1.56 ms
TE 2	2.72 ms
TE 3	3.88 ms
TE 4	5.04 ms
TR	287.60 ms
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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Off
Contrasts	4
Flow comp. 1	No
Readout mode	Monopolar
Optimization	None
Multi-slice mode	Sequential
Echo spacing	14.4 ms
Sequence type	Gre
Bandwidth 1	977 Hz/Px
Bandwidth 2	977 Hz/Px
Bandwidth 3	977 Hz/Px
Bandwidth 4	977 Hz/Px

**Sequence - Part 2**

Define	Segments
Segments	20
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
RF spoiling	On
Phase Enc. Rewinder	On

**Sequence - Part 2**

Cine	Off
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**Sequence - Special**

FatWater Separation	On
Multi-echo Images	Off
In-Opp Phase Images	Off
Frequency Map	Off
T2* Map	Off
Motion Correction	Off
MoCo Averaging Mode	Complex MoCo
MoCo Images Only?	Off
Frequency Offset	0 Hz
No. of Interleaves	2

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\highres\_3D\_of\_tubes

TA: 4:49 PM: FIX Voxel size: 1.0×1.0×1.0 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	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**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	20.0 %
Slices per slab	120
FoV read	256 mm
FoV phase	64.8 %
Slice thickness	1.00 mm
TR	400.90 ms
TE	1.77 ms
Averages	5
Concatenations	1
Filter	None
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	400.90 ms
TE	1.77 ms
Magn. preparation	None
Flip angle	12 deg
Fat suppr.	None
Wrap-up Magn.	None

**Contrast - Dynamic**

Averages	5
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	256 mm
FoV phase	64.8 %
Slice thickness	1.00 mm
Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
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
POCS	Off

**Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice oversampling	20.0 %
Slices per slab	120
FoV read	256 mm
FoV phase	64.8 %
Slice thickness	1.00 mm
TR	400.90 ms
Multi-slice mode	Sequential
Series	Descending
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

**Geometry - Navigator****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	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slab-sel.

**System - Tx/Rx**

Frequency 1H	123.261407 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	400.90 ms
Concatenations	1
Segments	95

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	64.8 %
Phase resolution	100 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	1

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

**Inline - Cardiac**

Inline Evaluation	Off
Magn. preparation	None
Contrasts	1
TE	1.77 ms
TR	400.90 ms
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

**Sequence - Part 1**

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Flow comp.	No
Optimization	Min. TE TR
Multi-slice mode	Sequential
Echo spacing	4.2 ms
Sequence type	Gre
Bandwidth	592 Hz/Px

**Sequence - Part 2**

Define	Shots
Shots per slice	1
Segments	95
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
Flip angle mode	Constant
RF spoiling	On
Phase Enc. Rewinder	On
Cine	Off

**Sequence - Assistant**

Mode	Off
Allowed delay	0 s

\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\FAMAP120HIGHBWTP\_90

TA: 4:30 PM: REF Voxel size: 2.8×2.8×10.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	10.0 mm
TR	5000.0 ms
TE	4.2 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	5000.0 ms
TE	4.2 ms
MTC	Off
Flip angle	90 deg
Fat suppr.	None
Water suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	10.0 mm
Base resolution	128
Phase resolution	75 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D

**Resolution - Filter Image**

Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	10.0 mm
TR	5000.0 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Water suppr.	None
Special sat.	None

**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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm

**System - Adjustments**

Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 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

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Contrasts	1
Multi-slice mode	Sequential
Bandwidth	1560 Hz/Px

**Sequence - Part 2**

Gradient mode	Fast
RF spoiling	On

**Sequence - Nuclei**

TX/RX Nucleus	1H
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**Sequence - Nuclei**

TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	BO1-3;SP2-4

**Sequence - Special**

Online ICE	Off
Selection box	Second Choice
Spoil me!	On
Test Time	400 ms
dARRAY [1]	2.0 [UnitArr]
dARRAY [2]	12.0 [UnitArr]
dARRAY [3]	22.00 [UnitArr]

**Sequence - Assistant**

Mode	Off
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\\CMIC PRISMA\Physics\T2MES\T2MES\_low\_res\FAMAP60HIGHBWTP\_45

TA: 4:30 PM: FIX Voxel size: 2.8×2.8×10.0 mmRel. SNR: 1.00 : fl

**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	On
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	10.0 mm
TR	5000.0 ms
TE	4.2 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	BO1-3;SP2-4

**Contrast - Common**

TR	5000.0 ms
TE	4.2 ms
MTC	Off
Flip angle	45 deg
Fat suppr.	None
Water suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	360 mm
FoV phase	75.0 %
Slice thickness	10.0 mm
Base resolution	128
Phase resolution	75 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	2D

**Resolution - Filter Image**

Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	360 mm
FoV phase	75.0 %
Slice thickness	10.0 mm
TR	5000.0 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
Phase	0.0 mm
Read	0.0 mm
Shift	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm



**System - Adjustments**

Adjust with body coil	On
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	100 mm
! R >> L	100 mm
! F >> H	50 mm
Reset	Off

**System - pTx Volumes**

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

Frequency 1H	123.261407 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

**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.	On
Mode	2D
Unfiltered images	Off

**Sequence - Part 1**

Introduction	Off
Dimension	2D
Contrasts	1
Multi-slice mode	Sequential
Bandwidth	1560 Hz/Px

**Sequence - Part 2**

Gradient mode	Fast
RF spoiling	On

**Sequence - Nuclei**

TX/RX Nucleus	1H
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**Sequence - Nuclei**

TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	BO1-3;SP2-4

**Sequence - Special**

Online ICE	Off
Selection box	Second Choice
Spoil me!	On
Test Time	400 ms
dARRAY [1]	2.0 [UnitArr]
dARRAY [2]	12.0 [UnitArr]
dARRAY [3]	22.00 [UnitArr]

**Sequence - Assistant**

Mode	Off
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