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\\USER\3T VA60\pelvis\rectum\localizer

TA: 13 sec Coil Selection: Auto Voxel Size: 1.7×1.7×7.0 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Routine**

Slice Group	1
Slices	7
Distance Factor	120 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slice Group	2
Slices	7
Distance Factor	120 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slice Group	3
Slices	7
Distance Factor	120 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	20 %
FOV Read	400 mm
FOV Phase	100.0 %
Slice Thickness	7.0 mm
TR	700.0 ms
TE	89.00 ms
Averages	1
Concatenations	1
AutoAlign	---

**Contrast - Common**

TR	700.0 ms
TE	89.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Hyperecho
Flip Angle	100 deg

**Contrast - Common**

Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

**Resolution - Common**

FOV Read	400 mm
FOV Phase	100.0 %
Slice Thickness	7.0 mm
Base Resolution	240
Phase Resolution	70 %
Interpolation	1.00

**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Deep Resolve	On
Phase Partial Fourier	5/8

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	7
Distance Factor	120 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slice Group	2
Slices	7
Distance Factor	120 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slice Group	3
Slices	7
Distance Factor	120 %

**Geometry - Common**

Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	20 %
FOV Read	400 mm
FOV Phase	100.0 %
Slice Thickness	7.0 mm
TR	700.0 ms
Multi-Slice Mode	Single Shot
Series	Ascending
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slice Group	2
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slice Group	3
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Adjustments**

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

**System - Adjust Volume**

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

**System - pTx**

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

Frequency 1H	123.200000 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	700.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	400 mm
FOV Phase	100.0 %
Phase Resolution	70 %
Motion Correction	None

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

**Inline - MIP**

MIP Sag	Off
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**Inline - MIP**

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

**Inline - Composing**

Inline Composing	Off
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**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	h
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	496 Hz/Px
Echo Spacing	5.22 ms
Turbo Factor	168

**Sequence - Part 2**

Introduction	On
Motion Correction	None

**Sequence - Assistant**

SAR Assistant	TR
Max. TR	1000.0 ms
Allowed Delay	0 s

\\USER\3T VA60\pelvis\rectum\t2\_tse\_tra

TA: 1:16 min Coil Selection: Auto Voxel Size: 0.5×0.5×4.0 mm<sup>3</sup> Acc:: 3 Rel. SNR: 1.00**Properties**

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

**Resolution - Common**

FOV Read	400 mm
FOV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	432
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	40
Deep Resolve	Off
Phase Partial Fourier	Off

**Routine**

Slice Group	1
Slices	30
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	40 %
FOV Read	400 mm
FOV Phase	100.0 %
Slice Thickness	4.0 mm
TR	5720.0 ms
TE	81.00 ms
Averages	1
Concatenations	1
AutoAlign	---

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	30
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	40 %
FOV Read	400 mm
FOV Phase	100.0 %
Slice Thickness	4.0 mm
TR	5720.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	5720.0 ms
TE	81.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle	160 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	Parallel F/H
Gap	11.00 mm
Thickness	50.00 mm

**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Adjustments**

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

**System - Adjust Volume**

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

**System - pTx**

B1 Shim	TrueForm
LR Balancing	Off

**System - Tx/Rx**

Frequency 1H	123.200000 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
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**Physio - Signal**

TR	5720.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	400 mm
FOV Phase	100.0 %
Phase Resolution	100 %
Motion Correction	None

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

**Inline - MIP**

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

**Inline - Composing**

Inline Composing	Off
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**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	qtse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	241 Hz/Px
Echo Spacing	9.02 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	19
Echo Trains per Slice	12

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	On
Reduce Motion Sens.	On
Motion Correction	None

**Sequence - Assistant**

SAR Assistant	Flip Angle
Min Flip Angle	100 deg
Allowed Delay	30 s

## \\USER\3T VA60\pelvis\rectum\t2\_tse\_sag

TA: 4:40 min Coil Selection: Auto Voxel Size: 0.6×0.6×3.0 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Resolution - Common**

FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	336
Phase Resolution	100 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	Self-calibration
Acceleration Factor PE	2
Reference Lines PE	32
Deep Resolve	Off
Phase Partial Fourier	Off

**Routine**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	F >> H
Phase Oversampling	100 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4890.0 ms
TE	92.00 ms
Averages	4
Concatenations	1
AutoAlign	---

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	F >> H
Phase Oversampling	100 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4890.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	4890.0 ms
TE	92.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle	160 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	F >> H
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg



**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Adjustments**

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

**System - Adjust Volume**

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

**System - pTx**

B1 Shim	TrueForm
LR Balancing	Off

**System - Tx/Rx**

Frequency 1H	123.200000 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	4890.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	200 mm
FOV Phase	100.0 %
Phase Resolution	100 %
Motion Correction	None

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

**Inline - MIP**

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

**Inline - Composing**

Inline Composing	Off
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**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	tseR
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	257 Hz/Px
Echo Spacing	9.16 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	25
Echo Trains per Slice	14

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off

**Sequence - Part 2**

WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On
Motion Correction	None

**Sequence - Assistant**

SAR Assistant	Flip Angle
Min Flip Angle	100 deg
Allowed Delay	30 s

\\USER\3T VA60\pelvis\rectum\t2\_tse\_sax

TA: 4:40 min Coil Selection: Auto Voxel Size: 0.6×0.6×3.0 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Resolution - Common**

FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	336
Phase Resolution	100 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	Self-calibration
Acceleration Factor PE	2
Reference Lines PE	32
Deep Resolve	Off
Phase Partial Fourier	Off

**Routine**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4890.0 ms
TE	92.00 ms
Averages	4
Concatenations	1
AutoAlign	---

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4890.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	4890.0 ms
TE	92.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle	160 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Adjustments**

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

**System - Adjust Volume**

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

**System - pTx**

B1 Shim	TrueForm
LR Balancing	Off

**System - Tx/Rx**

Frequency 1H	123.200000 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	4890.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	200 mm
FOV Phase	100.0 %
Phase Resolution	100 %
Motion Correction	None

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

**Inline - MIP**

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

**Inline - Composing**

Inline Composing	Off
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**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	tseR
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	257 Hz/Px
Echo Spacing	9.16 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	25
Echo Trains per Slice	14

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off

**Sequence - Part 2**

WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On
Motion Correction	None

**Sequence - Assistant**

SAR Assistant	Flip Angle
Min Flip Angle	100 deg
Allowed Delay	30 s

\\USER\3T VA60\pelvis\rectum\t2\_tse\_lax

TA: 4:40 min Coil Selection: Auto Voxel Size: 0.6×0.6×3.0 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Resolution - Common**

FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	336
Phase Resolution	100 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	Self-calibration
Acceleration Factor PE	2
Reference Lines PE	32
Deep Resolve	Off
Phase Partial Fourier	Off

**Routine**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4890.0 ms
TE	92.00 ms
Averages	4
Concatenations	1
AutoAlign	---

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4890.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	4890.0 ms
TE	92.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle	160 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Adjustments**

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

**System - Adjust Volume**

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

**System - pTx**

B1 Shim	TrueForm
LR Balancing	Off

**System - Tx/Rx**

Frequency 1H	123.200000 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	4890.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	200 mm
FOV Phase	100.0 %
Phase Resolution	100 %
Motion Correction	None

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Subtraction**

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

**Inline - MIP**

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

**Inline - Composing**

Inline Composing	Off
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**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	tseR
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	257 Hz/Px
Echo Spacing	9.16 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	25
Echo Trains per Slice	14

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off

**Sequence - Part 2**

WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On
Motion Correction	None

**Sequence - Assistant**

SAR Assistant	Flip Angle
Min Flip Angle	100 deg
Allowed Delay	30 s



## \USER\3T VA60\pelvis\rectum\ep2d\_diff\_sax

TA: 3:02 min Coil Selection: Auto Voxel Size: 1.0×1.0×3.0 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Routine**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	3000.0 ms
TE	63.00 ms
Concatenations	1
AutoAlign	---

**Contrast - Common**

TR	3000.0 ms
TE	63.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Delay in TR	0.00 ms

**Resolution - Common**

FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	100
Phase Resolution	100 %

**Resolution - Common**

Interpolation	On
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**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Deep Resolve	Off
Phase Partial Fourier	Off

**Resolution - Filter**

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	2D
Static Field Correction	Off
Normalize	Off

**Geometry - Common**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	3000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Navigator****Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Adjustments**

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

**System - Adjust Volume**

Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	66 mm
Reset	Off

**System - pTx**

B1 Shim	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	123.200000 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	3.000

**Physio - Signal**

1st Signal/Mode	None
TR	3000.0 ms
Concatenations	1

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Diff**

Diffusion Mode	4-Scan Trace
Diff. Directions	4
Diffusion Scheme	Monopolar
Diff. Weightings	2
b-value 1	50 s/mm <sup>2</sup>
b-value 2	800 s/mm <sup>2</sup>
Averages 1	3
Averages 2	11
Complex Averaging	On
Dynamic Field Correction	On
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	10
Calculated Image	Off

**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast*
Bandwidth	1724 Hz/Px
Echo Spacing	0.68 ms
Free Echo Spacing	Off
Optimization	None
EPI Factor	100

**Sequence - Part 2**

Introduction	On
Phase Correction	External
Ghost Reduction	Off

**Sequence - Assistant**

SAR Assistant	Off
Optimization	None

\\USER\3T VA60\pelvis\rectum\resolve\_diff\_sax

TA: 3:36 min Coil Selection: Auto Voxel Size: 1.0×1.0×3.0 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Resolution - Common**

FOV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	100
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Accel. Mode	GRAPPA
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	50
Phase Partial Fourier	Off
Readout Partial Fourier	7/8
Readout Segments	5

**Routine**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4210.0 ms
TE 1	53 ms
TE 2	79 ms
Concatenations	1
AutoAlign	---

**Resolution - Filter**

Raw Filter	On
Distortion Correction	2D
Normalize	Off

**Geometry - Common**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4210.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Contrast - Common**

TR	4210.0 ms
TE 1	53 ms
TE 2	79 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Contrasts	2
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1

**Resolution - Common**

FOV Read	200 mm
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**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

**Geometry - Saturation**

Special Saturation	None
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**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Adjustments**

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

**System - Adjust Volume**

Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
R >> L	200 mm
A >> P	200 mm
F >> H	66 mm
Reset	Off

**System - pTx**

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

Frequency 1H	123.200000 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	3.000

**Physio - Signal**

1st Signal/Mode	None
TR	4210.0 ms
Concatenations	1

**Diff**

Diffusion Mode	4-Scan Trace
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**Diff**

Diff. Directions	4
Diffusion Scheme	Monopolar
Diff. Weightings	2
b-value 1	50 s/mm <sup>2</sup>
b-value 2	1000 s/mm <sup>2</sup>
Averages 1	1
Averages 2	2
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	5
Calculated Image	Off

**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	resolve
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	962 Hz/Px
Echo Spacing	0.38 ms
Optimization	Min. TE
EPI Factor	50

**Sequence - Part 2**

Introduction	On
Reacquisition Mode	Off

**Sequence - Assistant**

SAR Assistant	Off
Optimization	Min. TE