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\\USER

3T NX2501

pelvis

rectum Deep Resolve

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## \\USER\3T NX2501\pelvis\rectum Deep Resolve\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	On
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
	All Segments
Inline Movie	Off
Before Measurement	
After Measurement	

## Routine

Slice Group	1
Slices	7
Distance Factor	120 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Slice Group	2
Slices	5
Distance Factor	250 %
Position	L0.0 P50.0 H0.0 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Slice Group	3
Slices	5
Distance Factor	160 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	---
Phase Oversampling	20 %
FOV Read	400 mm
FOV Phase	100.0 %
Slice Thickness	7.0 mm
TR	700.0 ms
TE	87.00 ms
Averages	1

## Contrast - Common

TR	700.0 ms
TE	87.00 ms
MTC	Off

## Contrast - Common

Magn. Preparation	None
Flip Angle Mode	Hyperecho
Flip Angle 1	100 deg
Flip Angle 2	90 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	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 / ID Gain	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	5
Distance Factor	250 %
Position	L0.0 P50.0 H0.0 mm
Orientation	Coronal

**Geometry - Common**

Phase Encoding Dir.	R >> L
Slice Group	3
Slices	5
Distance Factor	160 %
Position	Isocenter
Orientation	Sagittal
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

**Geometry - AutoAlign**

Slice Group	1
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
Slice Group	2
Position	L0.0 P50.0 H0.0 mm
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
Slice Group	3
Position	Isocenter
Orientation	Sagittal
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

**Physio - Cardiac**

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

**Physio - Cardiac**

Phase Resolution	70 %
Motion Correction	None

**Physio - PACE**

Resp. Control	Off
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**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	h
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	496 Hz/Px
Echo Spacing	5.12 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 NX2501\pelvis\rectum Deep Resolve\2\_tse\_tra

TA: 1:08 min Coil Selection: Auto Voxel Size: 0.4x0.4x4.0 mm<sup>3</sup> Acc:: 4 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	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
	Default
Inline Movie	Off
Before Measurement	
After Measurement	

## Routine

Slice Group	1
Slices	30
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Phase Oversampling	40 %
FOV Read	400 mm
FOV Phase	100.0 %
Slice Thickness	4.0 mm
TR	5110.0 ms
TE	80.00 ms
Averages	1
Concatenations	1

## Contrast - Common

TR	5110.0 ms
TE	80.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	160 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

## Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1

## Contrast - Dynamic

Multiple Series	Off
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## Resolution - Common

FOV Read	400 mm
FOV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	528
Phase Resolution	100 %
Interpolation	On

## Resolution - Acceleration

Acceleration Mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	4
Reference Lines PE	26
Deep Resolve / ID Gain	On
Phase Partial Fourier	Off

## 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	5110.0 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

**Geometry - AutoAlign**

H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 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

**System - Tx/Rx**

Reset	Off
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	5110.0 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	237 Hz/Px
Echo Spacing	8.88 ms
Free Echo Spacing	Off

**Sequence - Part 1**

Define	Turbo Factor
Turbo Factor	17
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	110 deg
Allowed Delay	30 s

## \\USER\3T NX2501\pelvis\rectum Deep Resolve\2\_tse\_sag

TA: 3:31 min Coil Selection: Auto Voxel Size: 0.3×0.3×3.0 mm<sup>3</sup> Acc:: 3 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	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
	Default
Inline Movie	Off
Before Measurement	
After Measurement	

**Routine**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	F >> H
AutoAlign	---
Phase Oversampling	100 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	5110.0 ms
TE	92.00 ms
Averages	4
Concatenations	1

**Contrast - Common**

TR	5110.0 ms
TE	92.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	160 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1

**Contrast - Dynamic**

Multiple Series	Off
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**Resolution - Common**

FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	384
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	Self-calibration
Acceleration Factor PE	3
Reference Lines PE	32
Deep Resolve / ID Gain	On
Phase Partial Fourier	Off

**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	5110.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	F >> H
AutoAlign	---
Initial Position	L0.0 P0.0 H0.0
L	0.0 mm
P	0.0 mm



**Geometry - AutoAlign**

H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	-90.00 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
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	5110.0 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	296 Hz/Px
Echo Spacing	9.22 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	26
Echo Trains per Slice	10

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
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	110 deg
Allowed Delay	30 s

## \\USER\3T NX2501\pelvisrectum Deep Resolvt2\_tse\_sax

TA: 3:31 min Coil Selection: Auto Voxel Size: 0.3×0.3×3.0 mm<sup>3</sup> Acc:: 3 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	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
	Default
Inline Movie	Off
Before Measurement	
After Measurement	

**Routine**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Phase Oversampling	100 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	5110.0 ms
TE	92.00 ms
Averages	4
Concatenations	1

**Contrast - Common**

TR	5110.0 ms
TE	92.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	160 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1

**Contrast - Dynamic**

Multiple Series	Off
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**Resolution - Common**

FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	384
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	Self-calibration
Acceleration Factor PE	3
Reference Lines PE	32
Deep Resolve / ID Gain	On
Phase Partial Fourier	Off

**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	5110.0 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	L0.0 P0.0 H0.0
L	0.0 mm
P	0.0 mm

**Geometry - AutoAlign**

H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 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
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	5110.0 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	296 Hz/Px
Echo Spacing	9.22 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	26
Echo Trains per Slice	10

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
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	110 deg
Allowed Delay	30 s

## \\USER\3T NX2501\pelvis\rectum Deep Resolve\2\_tse\_lax

TA: 3:31 min Coil Selection: Auto Voxel Size: 0.3×0.3×3.0 mm<sup>3</sup> Acc:: 3 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	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
	Default
Inline Movie	Off
Before Measurement	
After Measurement	

**Routine**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Phase Oversampling	100 %
FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	5110.0 ms
TE	92.00 ms
Averages	4
Concatenations	1

**Contrast - Common**

TR	5110.0 ms
TE	92.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle 1	160 deg
Flip Angle 2	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1

**Contrast - Dynamic**

Multiple Series	Off
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**Resolution - Common**

FOV Read	200 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	384
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	Self-calibration
Acceleration Factor PE	3
Reference Lines PE	32
Deep Resolve / ID Gain	On
Phase Partial Fourier	Off

**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	5110.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P0.0 H0.0
L	0.0 mm
P	0.0 mm

**Geometry - AutoAlign**

H	0.0 mm
Initial Orientation	Coronal
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
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	5110.0 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	296 Hz/Px
Echo Spacing	9.22 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	26
Echo Trains per Slice	10

**Sequence - Part 2**

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
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	110 deg
Allowed Delay	30 s



## \\USER\3T NX2501\pelvis\rectum Deep Resolve\ep2d\_diff\_sax

TA: 2:35 min Coil Selection: Auto Voxel Size: 1.0x1.0x3.0 mm<sup>3</sup> Acc:: 3 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	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
	3rd Segment
Inline Movie	Off
Before Measurement	
After Measurement	

**Routine**

Slice Group	1
Slices	20
Distance Factor	10 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Phase Oversampling	50 %
FOV Read	230 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4300.0 ms
TE	63.00 ms
Concatenations	1

**Contrast - Common**

TR	4300.0 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	230 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm

**Resolution - Common**

Base Resolution	110
Phase Resolution	100 %
Interpolation	On

**Resolution - Acceleration**

Acceleration Mode	GRAPPA
Reference Scans	EPI/Separate
Acceleration Factor PE	3
Reference Lines PE	30
Deep Resolve / ID Gain	On
Phase Partial Fourier	Off

**Resolution - Filter**

Raw Filter	Off
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	50 %
FOV Read	230 mm
FOV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4300.0 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	L0.0 P0.0 H0.0
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 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	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	230 mm
A >> P	230 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	4300.0 ms
Concatenations	1

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Diff**

Diffusion Mode	3D Diagonal
Diff. Directions	1
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	3
Averages 2	28
Complex Averaging	On
Dynamic Field Correction	On
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	Off
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm <sup>2</sup>
ADC Noise Threshold	20
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	1894 Hz/Px
Echo Spacing	0.63 ms
Free Echo Spacing	Off
Optimization	None
EPI Factor	110

**Sequence - Part 2**

Introduction	Off
Phase Correction	Internal
Ghost Reduction	Off

**Sequence - Assistant**

SAR Assistant	Off
Optimization	None

\\USER\3T NX2501\pelvis\rectum Deep Resolve\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	Off
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
	Default
Inline Movie	Off
Before Measurement	
After Measurement	

**Resolution - Common**

FOV Read	200 mm
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
AutoAlign	---
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

**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

**Geometry - AutoAlign**

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P0.0 H0.0
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 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	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	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