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\\USER

Khan

NeuroAnalytics

SNSX\_TLE\_7t(April2025)

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\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\localizer

TA: 0:26 PM: REF Voxel size: 1.2×1.2×5.0 mmPAT: Off Rel. 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	3
Dist. factor	400 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	3
Dist. factor	300 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	3
Dist. factor	500 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	12.0 ms
TE	3.33 ms
Averages	1
Concatenations	9
Filter	None
Coil elements	AC

**Contrast - Common**

TR	12.0 ms
TE	3.33 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

**Contrast - Dynamic**

Multiple series	Each measurement
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**Resolution - Common**

FoV read	300 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - iPAT**

PAT mode	None
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**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	3
Dist. factor	400 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	3
Dist. factor	300 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	3
Dist. factor	500 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	12.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	9

**Geometry - AutoAlign**

Slice group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	Isocenter
Orientation	Transversal

**Geometry - AutoAlign**

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

**Geometry - Saturation**

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

**Geometry - Tim Planning Suite**

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

**Geometry - Tim CT**

Tim CT mode	Off
Slices	3
Slice thickness	5.0 mm
Dist. factor	500 %
FoV read	300 mm
FoV phase	100.0 %
Segments	1

**System - Miscellaneous**

Positioning mode	REF
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

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

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	297.105997 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	12.0 ms
Concatenations	9
Segments	1

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	300 mm
FoV phase	100.0 %
Phase resolution	90 %

**Physio - PACE**

Resp. control	Off
Concatenations	9

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Soft Tissue**

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

**Inline - Composing**

Inline Composing	Off
Distortion Corr.	Off

**Inline - MapIt**

Save original images	On
MapIt	None
Flip angle	15 deg
Measurements	1
Contrasts	1
TR	12.0 ms

**Inline - MapIt**

TE	3.33 ms
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**Sequence - Part 1**

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	230 Hz/Px

**Sequence - Part 2**

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

**Sequence - Assistant**

Mode	Off
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\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\bss\_map

TA: 1:37 PM: REF Voxel size: 4.0×4.0×4.0 mmPAT: 4 Rel. 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**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	48
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.00 mm
TR	5.0 ms
TE	2.04 ms
TE2 B0	4.08 ms
Averages	1
Concatenations	1
Filter	Raw filter
Coil elements	HC2

**Contrast - Common**

TR	5.0 ms
TE	2.04 ms
TE2 B0	4.08 ms
Flip angle	5 deg

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.00 mm
Base resolution	64
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	2
Ref. lines 3D	24
Reference scan mode	GRE/separate

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	On
Elliptical filter	Off

**Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	48
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	4.00 mm
TR	5.0 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

**Geometry - Saturation**

Saturation mode	Standard
Special sat.	None

**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

Positioning mode	REF
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**System - Miscellaneous**

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

! Position	L0.0 P0.7 H2.9 mm
! Orientation	Sagittal
! Rotation	0.00 deg
! A >> P	184 mm
! F >> H	152 mm
! R >> L	192 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Slab-sel.

**System - Tx/Rx**

Frequency 1H	297.105997 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	5.0 ms
Concatenations	1
Segments	1

**Physio - Cardiac**

Tagging	None
Dark blood	Off
FoV read	256 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off

**Inline - Common**

Save original images	On
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**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Soft Tissue**

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

**Inline - Composing**

Inline Composing	Off
Distortion Corr.	Off

**Inline - MapIt**

Save original images	On
MapIt	None
Flip angle	5 deg
Measurements	1
Contrasts	1
TR	5.0 ms
TE	2.04 ms
TE2 B0	4.08 ms

**Sequence - Part 1**

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Sequential
Bandwidth	1000 Hz/Px

**Sequence - Part 2**

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

**Sequence - Special**

Map Type	Integrated
Number of shim-sets	8
Off-res frequency	4000 Hz
Off-res pulse dur	8000 us
Off-res TX volt	150 V
Off-res Crusher	4 pi
RO Spoiler	1.00
ExcFA (Abs kern.)	10 deg
TE (Abs kern.)	10.33 ms
TR (Abs kern.)	40.0 ms
ROSpoil(Abs kern.)	4.00
Measure B0 Map	On

**Sequence - Special**

Contrasts(B0 kern.)	2
ExcFA (B0 kern.)	10 deg
TR (B0 kern.)	10.0 ms
RelSpoil (B0 kern.)	1.00
Call B0 Acq	On
Call B1 Acq	Off
Rel. Mask Threshold	20
Calculate B0	On
Save Images	Off
Save Fields	On
Save Adj Fields	Off

**Sequence - Assistant**

Mode	Off
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\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\mp2rage\_sag\_700iso\_cs\_us4\_pTx

TA: 7:09 PM: REF Voxel size: 0.7×0.7×0.7 mmPAT: 1.0 Rel. SNR: 1.00 : WIP\_cmp

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	224
FoV read	246 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
TR	6000.0 ms
TE	2.27 ms
Averages	1
Concatenations	1
Filter	Raw filter, Distortion Corr.(3D)
Coil elements	HC2

**Contrast - Common**

TR	6000.0 ms
TE	2.27 ms
Magn. preparation	Non-sel. IR
TI 1	860 ms
TI 2	2700 ms
Flip angle 1	4 deg
Flip angle 2	5 deg
Fat suppr.	None
Water suppr.	None

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	246 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
Base resolution	352
Phase resolution	100 %
Slice resolution	100 %

**Resolution - Common**

Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

**Resolution - iPAT**

PAT mode	None
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**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	On
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	On
Elliptical filter	Off

**Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	224
FoV read	246 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
TR	6000.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

**Geometry - Navigator****Geometry - Tim Planning Suite**

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



**System - Miscellaneous**

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

! Position	L0.0 P0.7 H9.4 mm
! Orientation	Sagittal
! Rotation	0.00 deg
! A >> P	217 mm
! F >> H	173 mm
! R >> L	192 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Non-sel.

**System - Tx/Rx**

Frequency 1H	297.105997 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	6000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	Non-sel. IR
TI 1	860 ms
TI 2	2700 ms
Fat suppr.	None
Dark blood	Off
FoV read	246 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
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**Inline - Common**

Measurements	1
StdDev	Off
Save original images	On

**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Composing**

Inline Composing	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	On

**Inline - MapIt**

Save original images	On
MapIt	T1 map
Flip angle 1	4 deg
Flip angle 2	5 deg
Measurements	1
Contrasts	1
TR	6000.0 ms
TE	2.27 ms

**Sequence - Part 1**

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	7.7 ms
Bandwidth	190 Hz/Px

**Sequence - Part 2**

RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	224

**Sequence - pTX Pulses**

pTX Pulse	1
Pulse type	Excitation
pTX Pulse	2
Pulse type	Inversion

**Sequence - Special**

Sparse Sampling	On
US	4.0 x
Samples/TR	216
Density	0.50
Jitter Radius	1.2
Reference Scan	External
No. Ref-Lines	32
Centric	Off
Virtual Coils	Off

**Sequence - Special**

Shift Inv Pulse	0 Hz
No. Iterations	20
CSM RO Resolution	0
Regularisation INV1	0.00100
Regularisation INV2	0.00100
Uniform	On
Denoised UNI	On
FLAWS	Off
FLAWS-hc	Off
FLAWS-hc inv.	Off
Division image	Off
T1 Map	On
Synthetic T1 0	0 ms
Synthetic T1 1	0 ms
Denoise Lambda	1
Scaling	0 10^
Echo Averaging	Off
FID Monitoring	Off

**Sequence - Assistant**

Mode	Off
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\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\T2\_spc\_sag\_ptx\_C45

TA: 7:30 PM: FIX Voxel size: 0.6×0.6×0.6 mmPAT: 6 Rel. SNR: 1.00 : spc

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slab group	1
Slabs	1
Position	R3.6 A20.3 F29.1 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	288
FoV read	225 mm
FoV phase	99.4 %
Slice thickness	0.60 mm
TR	2000 ms
TE	132 ms
Averages	1.0
Concatenations	1
Filter	Distortion Corr.(3D)
Coil elements	HC2

**Contrast - Common**

TR	2000 ms
TE	132 ms
Magn. preparation	None
Fat suppr.	None
Blood suppr.	Off

**Contrast - Dynamic**

Averages	1.0
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

**Resolution - Common**

FoV read	225 mm
FoV phase	99.4 %
Slice thickness	0.60 mm
Base resolution	352
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Allowed
Slice partial Fourier	Off
Interpolation	Off

**Resolution - iPAT**

PAT mode	CAIPIRINHA
Accel. factor PE	3

**Resolution - iPAT**

Ref. lines PE	48
Accel. factor 3D	2
Ref. lines 3D	32
Reordering Shift 3D	0
Reference scan mode	Integrated

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	On
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slab group	1
Slabs	1
Position	R3.6 A20.3 F29.1 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	288
FoV read	225 mm
FoV phase	99.4 %
Slice thickness	0.60 mm
TR	2000 ms
Series	Ascending
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	R3.6 A20.3 F29.1 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R3.6 A20.3 F29.1
R	3.6 mm
A	20.3 mm
F	29.1 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

**Geometry - Saturation**

Fat suppr.	None
Special sat.	None

**Geometry - Navigator****Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

Positioning mode	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
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

! Position	R0.7 A0.7 F16.7 mm
! Orientation	Sagittal
! Rotation	0.00 deg
! A >> P	202 mm
! F >> H	152 mm
! R >> L	172 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Non-sel.

**System - Tx/Rx**

Frequency 1H	297.105997 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
Trigger delay	0 ms
TR	2000 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	225 mm
FoV phase	99.4 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1

**Inline - Common**

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	3D
Unfiltered images	On

**Sequence - Part 1**

Introduction	On
Dimension	3D
Elliptical scanning	On
Reordering	Linear
Flow comp.	No
Echo spacing	4.26 ms
Bandwidth	473 Hz/Px

**Sequence - Part 2**

Echo train duration	264 ms
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Non-sel.
Flip angle mode	T2 var
Turbo factor	65

**Sequence - pTX Pulses**

pTX Pulse	1
Pulse type	Excitation

**Sequence - Special**

Rfc pTx RF Dur	900 us
Rfc pTx slot-size	3
BSS B1 Map	On

**Sequence - Assistant**

Allowed delay	0 s
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\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\ASPIRE\_800iso\_7e

TA: 6:06 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 2 Rel. 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	On
Start measurements	Single measurement

**Routine**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	R5.8 A9.3 F13.2 mm
Orientation	Transversal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	10.0 %
Slices per slab	160
FoV read	205 mm
FoV phase	87.5 %
Slice thickness	0.75 mm
TR	30.0 ms
TE 1	1.65 ms
TE 2	3.93 ms
TE 3	6.21 ms
TE 4	8.49 ms
TE 5	10.77 ms
TE 6	13.05 ms
TE 7	15.33 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	HC2

**Contrast - Common**

TR	30.0 ms
TE 1	1.65 ms
TE 2	3.93 ms
TE 3	6.21 ms
TE 4	8.49 ms
TE 5	10.77 ms
TE 6	13.05 ms
TE 7	15.33 ms
MTC	Off
Magn. preparation	None
Flip angle	7 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude

**Contrast - Dynamic**

Measurements	1
Multiple series	Each measurement

**Resolution - Common**

FoV read	205 mm
FoV phase	87.5 %
Slice thickness	0.75 mm
Base resolution	272
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	6/8
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.	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**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	R5.8 A9.3 F13.2 mm
Orientation	Transversal
Phase enc. dir.	R >> L
Slice oversampling	10.0 %
Slices per slab	160
FoV read	205 mm
FoV phase	87.5 %
Slice thickness	0.75 mm
TR	30.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	R5.8 A9.3 F13.2 mm
Orientation	Transversal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	R5.8 A9.3 F13.2
R	5.8 mm
A	9.3 mm

**Geometry - AutoAlign**

F	13.2 mm
Initial Rotation	90.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

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

**Geometry - Tim Planning Suite**

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

**Geometry - Tim CT**

Tim CT mode	Off
Slabs	1
Slices per slab	160
Slice thickness	0.75 mm
Dist. factor	20 %
FoV read	205 mm
FoV phase	87.5 %
Segments	1

**System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Advanced
B1 Shim mode	Volume-selective
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

! Position	R5.8 A6.9 F22.7 mm
! Orientation	Sagittal
! Rotation	0.00 deg
! A >> P	213 mm
! F >> H	173 mm
! R >> L	171 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	Volume-selective
Excitation	Slab-sel.
pTx Volume	1
Vol. Property	B1 Shim Vol.
Position	R5.9 A1.1 F20.4 mm

**System - pTx Volumes**

Orientation	Sagittal
Rotation	32.05 deg
A >> P	172 mm
F >> H	122 mm
R >> L	142 mm
Vol. Visibility	On

**System - Tx/Rx**

Frequency 1H	297.105997 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	30.0 ms
Concatenations	1
Segments	1

**Physio - Cardiac**

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	205 mm
FoV phase	87.5 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Soft Tissue**

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

**Inline - Composing**

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

**Inline - MapIt**

Save original images	On
MapIt	None
Flip angle	7 deg
Measurements	1
Contrasts	7
TR	30.0 ms
TE 1	1.65 ms
TE 2	3.93 ms
TE 3	6.21 ms
TE 4	8.49 ms
TE 5	10.77 ms
TE 6	13.05 ms
TE 7	15.33 ms

**Sequence - Part 1**

Introduction	On
Dimension	3D
Elliptical scanning	On
Phase stabilisation	On
Asymmetric echo	Allowed
Contrasts	7
Flow comp. 1	No
Readout mode	Monopolar
Multi-slice mode	Interleaved
Bandwidth 1	610 Hz/Px
Bandwidth 2	610 Hz/Px
Bandwidth 3	610 Hz/Px
Bandwidth 4	610 Hz/Px
Bandwidth 5	610 Hz/Px
Bandwidth 6	610 Hz/Px
Bandwidth 7	610 Hz/Px

**Sequence - Part 2**

Segments	1
Acoustic noise reduction	None
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

**Sequence - Special**

Phase Combination	ASPIRE
Advanced Options	On
Additional FFT Scale	1.00
Magnitude Scale	1000
PO Smoothing Sigma	5 mm
Use PO for next measurements	Off
ASPIRE 1. Echo	1
ASPIRE 2. Echo	2
Mag of Complex Sum	On
UMPIRE Unwrapping	Off
T2* / R2*	T2* + R2*

**Sequence - Assistant**

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

\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\dark-fluid\_tse\_cor\_p2\_.67x.67x2.5

TA: 2:44 PM: FIX Voxel size: 0.3×0.3×2.5 mmPAT: 2 Rel. SNR: 1.00 : tir\_rr

**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	26
Dist. factor	10 %
Position	R4.4 A7.4 F36.3 mm
Orientation	C > T-17.9
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.5 mm
TR	9000.0 ms
TE	84 ms
Averages	1
Concatenations	2
Filter	B1 filter
Coil elements	HC2

**Contrast - Common**

TR	9000.0 ms
TE	84 ms
TD	0.0 ms
MTC	Off
Magn. preparation	Slice-sel. IR
TI	2600 ms
Flip angle	150 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Water suppr.	None
Restore magn.	Off
Freeze suppressed tissue	Off

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.5 mm
Base resolution	288
Phase resolution	100 %
Phase partial Fourier	Off

**Resolution - Common**

Trajectory	Cartesian
Interpolation	On

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	38
Reference scan mode	Integrated

**Resolution - Filter Image**

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

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	26
Dist. factor	10 %
Position	R4.4 A7.4 F36.3 mm
Orientation	C > T-17.9
Phase enc. dir.	R >> L
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.5 mm
TR	9000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	2

**Geometry - AutoAlign**

Slice group	1
Position	R4.4 A7.4 F36.3 mm
Orientation	C > T-17.9
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	R4.4 A7.4 F36.3
R	4.4 mm
A	7.4 mm
F	36.3 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-17.9
> S	0.0

**Geometry - Saturation**

Fat suppr.	Fat sat.
Fat sat. mode	Strong
Water suppr.	None
Restore magn.	Off
Special sat.	None

**Geometry - Navigator**



**Geometry - Tim Planning Suite**

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

**Geometry - Tim CT**

Tim CT mode	Off
Slices	26
Slice thickness	2.5 mm
Dist. factor	10 %
FoV read	192 mm
FoV phase	81.3 %

**System - Miscellaneous**

Positioning mode	FIX
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	Volume-selective
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

! Position	R4.4 A7.4 F36.3 mm
! Orientation	C > T-17.9
! Rotation	0.00 deg
! R >> L	169 mm
! F >> H	192 mm
! A >> P	67 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	Volume-selective
pTx Volume	1
Vol. Property	B1 Shim Vol.
Position	R2.9 A9.3 F30.7 mm
Orientation	C > T-18.5
Rotation	0.00 deg
R >> L	140 mm
F >> H	150 mm
A >> P	62 mm
Vol. Visibility	On

**System - Tx/Rx**

Frequency 1H	297.105997 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	9000.0 ms
Concatenations	2

**Physio - Cardiac**

Magn. preparation	Slice-sel. IR
TI	2600 ms
Fat suppr.	Fat sat.
Dark blood	Off
FoV read	192 mm
FoV phase	81.3 %
Phase resolution	100 %
Trajectory	Cartesian

**Physio - PACE**

Resp. control	Off
Concatenations	2

**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.	Off

**Sequence - Part 1**

Introduction	On
Dimension	2D
Compensate T2 decay	Off
Reduce Motion Sens.	On
Contrasts	1
Flow comp.	Read
Optimization	In phase
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	10.5 ms
Bandwidth	248 Hz/Px

**Sequence - Part 2**

Define	Turbo factor
Echo trains per slice	8
Phase correction	Automatic
Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast
Hyperecho	Off
WARP	Off
Red. EC sensitivity	Off
Turbo factor	17

**Sequence - Assistant**

Mode	Min flip angle
Min flip angle	130 deg

**Sequence - Assistant**

Allowed delay	60 s
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\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\mbep2d\_diff\_b2000\_b1000\_95dir\_AP

TA: 9:15 PM: REF Voxel size: 1.5×1.5×1.5 mmPAT: 3 Rel. SNR: 1.00 : epse

**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	100
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	5500 ms
TE	60.80 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	5500 ms
TE	60.80 ms
MTC	Off
Magn. preparation	None
Flip angle	80 deg
Refocus flip angle	160 deg
Fat suppr.	None
Grad. rev. fat suppr.	Disabled

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
Base resolution	138
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3

**Resolution - iPAT**

Ref. lines PE	54
Reference scan mode	FLEET

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	100
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	5500 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

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

**Geometry - Saturation**

Fat suppr.	None
Grad. rev. fat suppr.	Disabled
Special sat.	None

**Geometry - Navigator****Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Miscellaneous**

Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	Patient-specific
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	208 mm
R >> L	208 mm
F >> H	150 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	Patient-specific
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	297.105997 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	5500 ms
Multi-band accel. factor	2

**Physio - PACE**

Resp. control	Off
Multi-band accel. factor	2

**Diff - Neuro**

Diffusion mode	Free
Diff. directions	95
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm <sup>2</sup>
b-value 2	2000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	On
ADC maps	On
FA maps	On
Mosaic	On
Tensor	On
Noise level	80

**Diff - Body**

Diffusion mode	Free
Diff. directions	95
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm <sup>2</sup>
b-value 2	2000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	On
ADC maps	On
Exponential ADC Maps	Off
FA maps	On
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm <sup>2</sup>
Noise level	80

**Diff - Composing**

Inline Composing	Off
Distortion Corr.	Off

**Sequence - Part 1**

Introduction	Off
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.75 ms
Bandwidth	1510 Hz/Px

**Sequence - Part 2**

EPI factor	138
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5120 us
Refocus pulse duration	10240 us
FLEET ref. prep. scans	0
FLEET ref. min. TR	0 ms
Single-band images	Off
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	On
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
FLEET iPAT ref. FA	12.0 deg
Physio recording	Off

\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\mbep2d\_diff\_B0\_PA

TA: 1:06 PM: REF Voxel size: 1.5×1.5×1.5 mmPAT: 3 Rel. SNR: 1.00 : epse

**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	100
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	5500 ms
TE	60.80 ms
Multi-band accel. factor	2
Filter	None
Coil elements	AC

**Contrast - Common**

TR	5500 ms
TE	60.80 ms
MTC	Off
Magn. preparation	None
Flip angle	80 deg
Refocus flip angle	160 deg
Fat suppr.	None
Grad. rev. fat suppr.	Disabled

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
Base resolution	138
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3

**Resolution - iPAT**

Ref. lines PE	54
Reference scan mode	FLEET

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	100
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	5500 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	2

**Geometry - AutoAlign**

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

**Geometry - Saturation**

Fat suppr.	None
Grad. rev. fat suppr.	Disabled
Special sat.	None

**Geometry - Navigator****Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Miscellaneous**

Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	Volume-selective
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	208 mm
R >> L	208 mm
F >> H	150 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	Volume-selective
Excitation	Standard
pTx Volume	1
Vol. Property	B1 Shim Vol.
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	162 mm
Vol. Visibility	On

**System - Tx/Rx**

Frequency 1H	297.105997 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	5500 ms
Multi-band accel. factor	2

**Physio - PACE**

Resp. control	Off
Multi-band accel. factor	2

**Diff - Neuro**

Diffusion mode	MDDW
Diff. directions	6
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm <sup>2</sup>
b-value 2	2000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1

**Diff - Neuro**

Diff. weighted images	On
Trace weighted images	On
ADC maps	On
FA maps	On
Mosaic	On
Tensor	On
Noise level	80

**Diff - Body**

Diffusion mode	MDDW
Diff. directions	6
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm <sup>2</sup>
b-value 2	2000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	On
ADC maps	On
Exponential ADC Maps	Off
FA maps	On
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm <sup>2</sup>
Noise level	80

**Diff - Composing**

Inline Composing	Off
Distortion Corr.	Off

**Sequence - Part 1**

Introduction	Off
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.75 ms
Bandwidth	1510 Hz/Px

**Sequence - Part 2**

EPI factor	138
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	5120 us
Refocus pulse duration	10240 us
FLEET ref. prep. scans	0
FLEET ref. min. TR	0 ms
Single-band images	Off
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	On
Invert RO/PE polarity	On
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
FLEET iPAT ref. FA	12.0 deg
Physio recording	Off

\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\cb\_sp2d\_diff\_C52\_Spiral\_R3

TA: 10:18 PM: REF Voxel size: 1.5×1.5×1.5 mmPAT: 6 Rel. SNR: 1.00 : epse

**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	On
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	88
Dist. factor	0 %
Position	L0.0 P5.4 F4.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.5 mm
TR	6500 ms
TE	82.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	FP

**Contrast - Common**

TR	6500 ms
TE	82.0 ms
MTC	Off
Magn. preparation	None
Flip angle exc	69 deg
Flip angle fat sat	110 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong

**Contrast - Dynamic**

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

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.5 mm
Base resolution	134
Trajectory	Spiral
Interpolation	Off

**Resolution - iPAT**

Accel. mode	Slice accel.
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**Resolution - iPAT**

Accel. factor PE	3
Ref. lines PE	18
Accel. factor slice	2
Reference scan mode	EPI/separate

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	88
Dist. factor	0 %
Position	L0.0 P5.4 F4.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	1.5 mm
TR	6500 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	L0.0 P5.4 F4.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L0.0 P5.4 F4.8
L	0.0 mm
P	5.4 mm
F	4.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	Fat sat.
Fat sat. mode	Strong
Special sat.	None

**Geometry - Navigator****Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

Positioning mode	REF
Table position	H
Table position	0 mm

**System - Miscellaneous**

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Brain
B1 Shim mode	Volume-selective
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	L0.0 P5.4 F4.8 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	132 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	Volume-selective
Excitation	Standard
pTx Volume	1
Vol. Property	B1 Shim Vol.
Position	L0.0 P5.4 F4.8 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	200 mm
R >> L	200 mm
F >> H	132 mm
Vol. Visibility	On

**System - Tx/Rx**

Frequency 1H	297.105997 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	6500 ms
Concatenations	1

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Diff - Neuro**

Diffusion mode	Free
Diff. directions	94
Diffusion Scheme	Monopolar Plus
Diff. weightings	1
b-value	2000 s/mm <sup>2</sup>
b-value	1

**Diff - Neuro**

Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	Off
Tensor	Off
Noise level	40

**Diff - Body**

Diffusion mode	Free
Diff. directions	94
Diffusion Scheme	Monopolar Plus
Diff. weightings	1
b-value	2000 s/mm <sup>2</sup>
b-value	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm <sup>2</sup>
Noise level	40

**Diff - Composing**

Inline Composing	Off
Distortion Corr.	Off

**Sequence - Part 1**

Introduction	Off
Optimization	None
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1.08 ms
Bandwidth	2194 Hz/Px

**Sequence - Part 2**

EPI factor	134
RF pulse type	Normal
Gradient mode	Fast
Excitation	Standard

**Sequence - pTX Pulses****Sequence - Special**

FFT scale	1.00
OGSE b-Value	300.0 s/mm <sup>2</sup>
Diff Slew Rate Scale	18.0
Field probe trigger	On
Field probe sync	0 #
Alt OGSE scheme	On
Run spiral PAT Ref scans	Off
ADC-to-Grad delay	0 us
SMS CAIPI	osc
VD Spiral	0.2
Num. PAT Echos	1 #
Slew rate scale	7.0



\\USER\Khan\NeuroAnalytics\SNSX\_TLE\_7t(April2025)\gre\_field\_mapping

TA: 1:27 PM: FIX Voxel size: 2.0×2.0×2.0 mmRel. SNR: 1.00 : fm\_r

**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	74
Dist. factor	0 %
Position	R0.5 P9.6 H5.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	542.0 ms
TE 1	4.08 ms
TE 2	5.1 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	AC

**Contrast - Common**

TR	542.0 ms
TE 1	4.08 ms
TE 2	5.1 ms
MTC	Off
Flip angle	35 deg
Fat suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off

**Resolution - Filter Image**

Prescan Normalize	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	74
Dist. factor	0 %
Position	R0.5 P9.6 H5.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	542.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slice group	1
Position	R0.5 P9.6 H5.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R0.5 P9.6 H5.8
R	0.5 mm
P	9.6 mm
H	5.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

**Geometry - Saturation**

Fat suppr.	None
Special sat.	None

**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	Volume-selective
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	R0.5 P9.6 H5.8 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	210 mm
R >> L	210 mm
F >> H	148 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	Volume-selective
pTx Volume	1
Vol. Property	B1 Shim Vol.
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	210 mm
R >> L	210 mm
F >> H	148 mm
Vol. Visibility	On

**System - Tx/Rx**

Frequency 1H	297.105997 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Sequence - Part 1**

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Flow comp.	Yes
Multi-slice mode	Interleaved
Bandwidth	601 Hz/Px

**Sequence - Part 2**

RF pulse type	Normal
Gradient mode	Normal
RF spoiling	On

**Sequence - Assistant**

Mode	Off
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