\\USER\RESEARCH MRI\Neuro 3T\21-6105_DBS\AAHead_Scout

TA: 14 sec Coil Selection: Auto Voxel Size: 1.6×1.6×1.6 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	Off
Wait for User to Start	On
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
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	All Segments
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	L0.0 P10.0 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	3.2 ms
TE	1.37 ms
Averages	1
Concatenations	1
AutoAlign	Head

Contrast - Common

TR	3.2 ms
TE	1.37 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Time to Center	6.2 s

Resolution - Common

FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
Base Resolution	160
Phase Resolution	100 %
Slice Resolution	69 %
Trajectory	Cartesian

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24

Resolution - Acceleration

Acceleration Factor 3D	1
Phase Partial Fourier	6/8
Slice Partial Fourier	6/8
Asymmetric Echo	Weak

Resolution - Filter

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

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	L0.0 P10.0 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	3.2 ms
Multi-Slice Mode	Sequential
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L0.0 P10.0 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

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
MSMA	S - C - T
Sagittal	L >> R
Coronal	P >> A
Transversal	F >> H
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
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	123.245412 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Dynamic

Dynamic Mode	Standard
Flip Angle	8 deg
Measurements	1
Time to Center	6.2 s

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Save Original Images	On
Contrasts	1
TE	1.37 ms
TR	3.2 ms

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

Sequence - Part 1

Sequence Name	fl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Bandwidth	540 Hz/Px
Asymmetric Echo	Weak

Sequence - Part 2

Introduction	On
RF Spoiling	On
Breast Application	Off

Sequence - Assistant

SAR Assistant	Off

\\USER\RESEARCH MRI\Neuro 3T\21-6105_DBS\t1_mprage_tra_p2_iso

TA: 6:53 min Coil Selection: Auto Voxel Size: 0.6×0.6×1.0 mm³ 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	R13.3 P29.4 H39.0 mm
Orientation	T > S10.5 > C-3.3
Phase Encoding Dir.	R >> L
Slices per Slab	128
Phase Oversampling	10 %
Slice Oversampling	25.0 %
FoV Read	200 mm
FoV Phase	100.0 %
Slice Thickness	1.0 mm
TR	2200.0 ms
TE	2.72 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	2200.0 ms
TE	2.72 ms
Magn. Preparation	Non-sel. IR
TI	944 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	200 mm
FoV Phase	100.0 %
Slice Thickness	1.0 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA

Resolution - Acceleration

Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Allowed
Elliptical Scanning	Off

Resolution - Filter

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

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	R13.3 P29.4 H39.0 mm
Orientation	T > S10.5 > C-3.3
Phase Encoding Dir.	R >> L
Slices per Slab	128
Phase Oversampling	10 %
Slice Oversampling	25.0 %
FoV Read	200 mm
FoV Phase	100.0 %
Slice Thickness	1.0 mm
TR	2200.0 ms
Multi-Slice Mode	Single Shot
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	R13.3 P29.4 H39.0 mm
Orientation	T > S10.5 > C-3.3
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	R13.3 P29.4 H39.0
R	13.3 mm
P	29.4 mm
H	39.0 mm
Initial Orientation	T > S
T > S	10.50
> C	-3.30
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	39 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T

System - Miscellaneous

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
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
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.245412 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2200.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI	944 ms
Dark Blood	Off
FoV Read	200 mm
FoV Phase	100.0 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR

Inline - Cardiac

Save Original Images	On
TE	2.72 ms
TR	2200.0 ms

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

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Reordering	Linear
Bandwidth	250 Hz/Px
Echo Spacing	8.24 ms
Asymmetric Echo	Allowed
Turbo Factor	160

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	On

Sequence - Assistant

SAR Assistant	Off

\\USER\RESEARCH MRI\Neuro 3T\21-6105_DBS\bto_Axial _3D-EDGE_2x1_0p9mm_iso

TA: 5:59 min Coil Selection: Auto Voxel Size: 0.9×0.9×0.9 mm³ 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	R1.6 A24.3 F15.5 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	240
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	0.9 mm
TR	3000.0 ms
TE	2.46 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	3000.0 ms
TE	2.46 ms
Magn. Preparation	Non-sel. IR
TI	700 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	0.9 mm
Base Resolution	288
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA

Resolution - Acceleration

Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	6/8
Slice Partial Fourier	6/8
Asymmetric Echo	Allowed
Elliptical Scanning	Off

Resolution - Filter

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

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	R1.6 A24.3 F15.5 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	240
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	0.9 mm
TR	3000.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	R1.6 A24.3 F15.5 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	R1.6 A24.3 F15.5
R	1.6 mm
A	24.3 mm
F	15.5 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	15 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

System - Miscellaneous

Transversal	F >> H
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	R1.6 A24.3 F15.5 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	256 mm
A >> P	256 mm
F >> H	216 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.245412 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3000.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI	700 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	100.0 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	2.46 ms

Inline - Cardiac

TR	3000.0 ms

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

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	240 Hz/Px
Echo Spacing	6.06 ms
Asymmetric Echo	Allowed
Turbo Factor	180

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	Off

Sequence - Assistant

SAR Assistant	Off

\\USER\RESEARCH MRI\Neuro 3T\21-6105_DBS\FGATIR

TA: 6:17 min Coil Selection: Auto Voxel Size: 0.8×0.8×1.0 mm³ 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
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	R13.3 P29.4 H39.0 mm
Orientation	T > S10.5 > C-3.3
Phase Encoding Dir.	R >> L
Slices per Slab	160
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	240 mm
FoV Phase	81.3 %
Slice Thickness	1.0 mm
TR	3000.0 ms
TE	3.56 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	3000.0 ms
TE	3.56 ms
Magn. Preparation	Non-sel. IR
TI	409 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	240 mm
FoV Phase	81.3 %
Slice Thickness	1.0 mm
Base Resolution	320
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA

Resolution - Acceleration

Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	6/8
Asymmetric Echo	Allowed
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	3D
Normalize	Image Based
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	R13.3 P29.4 H39.0 mm
Orientation	T > S10.5 > C-3.3
Phase Encoding Dir.	R >> L
Slices per Slab	160
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	240 mm
FoV Phase	81.3 %
Slice Thickness	1.0 mm
TR	3000.0 ms
Multi-Slice Mode	Single Shot
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	R13.3 P29.4 H39.0 mm
Orientation	T > S10.5 > C-3.3
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	R13.3 P29.4 H39.0
R	13.3 mm
P	29.4 mm
H	39.0 mm
Initial Orientation	T > S
T > S	10.50
> C	-3.30
Initial Rotation	90.00 deg

Geometry - Navigator

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
MSMA	S - C - T

System - Miscellaneous

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
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	R13.3 P29.4 H39.0 mm
Orientation	T > S10.5 > C-3.3
Rotation	90.00 deg
R >> L	195 mm
A >> P	240 mm
F >> H	160 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.245412 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3000.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI	409 ms
Dark Blood	Off
FoV Read	240 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR

Inline - Cardiac

Save Original Images	On
TE	3.56 ms
TR	3000.0 ms

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

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	130 Hz/Px
Echo Spacing	9.04 ms
Asymmetric Echo	Allowed
Turbo Factor	120

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	Off

Sequence - Assistant

SAR Assistant	Off