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## \\NEUROSPIN\RECHERCHE\FM\C2P\_Protocols\_B1MAP\1-b1map\_tra\_5mm\_CPmode

TA: 12 sec Coil Selection: Auto Voxel Size: 5.0×5.0×2.5 mm<sup>3</sup> Acc:: None Rel. SNR: 1.00**Properties**

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

**Routine**

Slice Group	1
Slices	40
Distance Factor	100 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	320 mm
FOV Phase	62.5 %
Slice Thickness	2.5 mm
TR	6000.0 ms
TE	1.72 ms
Averages	1
Concatenations	1
AutoAlign	---

**Contrast - Common**

TR	6000.0 ms
TE	1.72 ms
Magn. Preparation	None
Flip Angle	6 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Centric

**Resolution - Common**

FOV Read	320 mm
FOV Phase	62.5 %

**Resolution - Common**

Slice Thickness	2.5 mm
Base Resolution	64
Phase Resolution	100 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration Mode	None
Phase Partial Fourier	Off
Asymmetric Echo	Off

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	100 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	320 mm
FOV Phase	62.5 %
Slice Thickness	2.5 mm
TR	6000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

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

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

Set-n-Go Protocol	Off
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**Geometry - Tim Planning Suite**

Table Position	0 mm
Table Position	H

**System - Miscellaneous**

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

**System - Adjustments**

Adjustment Strategy	Standard
B0 Shim	Brain
B1 Shim	TrueForm
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	320 mm
F >> H	198 mm
Reset	Off

**System - pTx**

B1 Shim	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	297.159149 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	6000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	320 mm
FOV Phase	62.5 %
Phase Resolution	100 %

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	tfl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Centric
Bandwidth	1000 Hz/Px
Echo Spacing	3.42 ms
Asymmetric Echo	Off
Turbo Factor	40

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Special**

B1 mapping type	Combined
Export B1 maps	Off
Mosaic recon.	On
Dummy RF pulses	0
Sat. flip angle	80 °
Time BW product	9.0
Perform QA pTx	Off
FOV shift for QA pTx	Off

**Sequence - Assistant**

SAR Assistant	Off
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## \NEUROSPIN\RECHERCHE\FM\C2P\_Protocols\_B1MAP\2-b1map\_tra\_5mm\_fastmode

TA: 1:40 min Coil Selection: Auto Voxel Size: 5.0x5.0x2.5 mm<sup>3</sup> Acc:: None Rel. SNR: 1.00**Properties**

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

**Routine**

Slice Group	1
Slices	40
Distance Factor	100 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	320 mm
FOV Phase	62.5 %
Slice Thickness	2.5 mm
TR	10000.0 ms
TE	1.72 ms
Averages	1
Concatenations	1
AutoAlign	---

**Contrast - Common**

TR	10000.0 ms
TE	1.72 ms
Magn. Preparation	None
Flip Angle	6 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Centric

**Resolution - Common**

FOV Read	320 mm
FOV Phase	62.5 %

**Resolution - Common**

Slice Thickness	2.5 mm
Base Resolution	64
Phase Resolution	100 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration Mode	None
Phase Partial Fourier	Off
Asymmetric Echo	Off

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	100 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	320 mm
FOV Phase	62.5 %
Slice Thickness	2.5 mm
TR	10000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

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

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

Set-n-Go Protocol	Off
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**Geometry - Tim Planning Suite**

Table Position	0 mm
Table Position	H

**System - Miscellaneous**

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

**System - Adjustments**

Adjustment Strategy	Standard
B0 Shim	Brain
B1 Shim	TrueForm
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	320 mm
F >> H	198 mm
Reset	Off

**System - pTx**

B1 Shim	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	297.159149 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	320 mm
FOV Phase	62.5 %
Phase Resolution	100 %

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	tfl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Centric
Bandwidth	1000 Hz/Px
Echo Spacing	3.42 ms
Asymmetric Echo	Off
Turbo Factor	40

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Special**

B1 mapping type	Fast relative
Export B1 maps	Off
Mosaic recon.	On
Dummy RF pulses	0
Sat. flip angle	80 °
Time BW product	9.0
Perform QA pTx	Off
FOV shift for QA pTx	Off

**Sequence - Assistant**

SAR Assistant	Off
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## \NEUROSPIN\RECHERCHE\FMC2P\_Protocols\_B1MAP\3-b1map\_tra\_5mm\_fullmode\_interfero

TA: 3:00 min Coil Selection: Auto Voxel Size: 5.0×5.0×2.5 mm<sup>3</sup> Acc:: None Rel. SNR: 1.00**Properties**

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

**Routine**

Slice Group	1
Slices	40
Distance Factor	100 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	320 mm
FOV Phase	62.5 %
Slice Thickness	2.5 mm
TR	10000.0 ms
TE	1.72 ms
Averages	1
Concatenations	1
AutoAlign	---

**Contrast - Common**

TR	10000.0 ms
TE	1.72 ms
Magn. Preparation	None
Flip Angle	6 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Centric

**Resolution - Common**

FOV Read	320 mm
FOV Phase	62.5 %

**Resolution - Common**

Slice Thickness	2.5 mm
Base Resolution	64
Phase Resolution	100 %
Interpolation	Off

**Resolution - Acceleration**

Acceleration Mode	None
Phase Partial Fourier	Off
Asymmetric Echo	Off

**Resolution - Filter**

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

**Geometry - Common**

Slice Group	1
Slices	40
Distance Factor	100 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FOV Read	320 mm
FOV Phase	62.5 %
Slice Thickness	2.5 mm
TR	10000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

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

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

Set-n-Go Protocol	Off
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**Geometry - Tim Planning Suite**

Table Position	0 mm
Table Position	H

**System - Miscellaneous**

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

**System - Adjustments**

Adjustment Strategy	Standard
B0 Shim	Brain
B1 Shim	TrueForm
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	320 mm
F >> H	198 mm
Reset	Off

**System - pTx**

B1 Shim	TrueForm
Excitation	Slice-sel.

**System - Tx/Rx**

Frequency 1H	297.159149 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

**Physio - Signal**

1st Signal/Mode	None
TR	10000.0 ms
Concatenations	1

**Physio - Cardiac**

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	320 mm
FOV Phase	62.5 %
Phase Resolution	100 %

**Physio - PACE**

Resp. Control	Off
Concatenations	1

**Inline - Open Recon**

Algorithm	None
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**Sequence - Part 1**

Sequence Name	tfl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Centric
Bandwidth	1000 Hz/Px
Echo Spacing	3.42 ms
Asymmetric Echo	Off
Turbo Factor	40

**Sequence - Part 2**

Introduction	Off
RF Spoiling	On
Incr. Gradient Spoiling	Off

**Sequence - Special**

B1 mapping type	Interferometric
Export B1 maps	Off
Mosaic recon.	On
Dummy RF pulses	0
Sat. flip angle	80 °
Time BW product	9.0
Perform QA pTx	Off
FOV shift for QA pTx	Off

**Sequence - Assistant**

SAR Assistant	Off
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