

# ExamCard:

## Landman\_Data\_Comparison\_R5\_201609

swVersion : 5.1.7.1  
modelVersion : 5.1  
methodsVersi : 31.1

### Examcard description:

patientOrientation : PatientPos\_HFS  
dockingMode : DockingMode\_Front  
anatomicRegion : SRT.T-A0100.Brain  
laterality : unpaired  
heartRate : 60  
autoFillInHeartRate : false  
mainSystemType : AWASW\_MST\_T30  
alignOverlap : 30  
pushToWorkStation : false  
tableUsage : UseTable  
geoLinkPropagation : false

## Protocols:

<a href="#">CoilSurveyScan</a>	
<a href="#">Survey SHC32</a>	
<a href="#">B1_calibration</a>	[B1]
<a href="#">SenseRefScan</a>	
<a href="#">T1W/3D/TFE</a>	[SAG]
<a href="#">Original PGPP_1mm</a>	
<a href="#">T2W_TSE_32chSHC</a>	[Hipp]
<a href="#">FLAIR_LongTR_MOD</a>	[Ax]
<a href="#">Resting state</a>	[AC-PC]
<a href="#">WIP_dti_landman_5min</a>	[AC-PC]
<a href="#">DTI_APA</a>	[AC-PC]
<a href="#">WIP_HARDI_60_2_5iso</a>	[AC-PC]
<a href="#">WIP_dti_4min_matchTE</a>	[AC-PC]
<a href="#">Ax-B0map</a>	[AC-PC]
<a href="#">ASL_BASELINE PGPP</a>	[Axial]
<a href="#">ASL_M0 Ref</a>	
<a href="#">3DPCA_DEM_MJD</a>	[COW]
<a href="#">VESSELWALL_T1VISTA 0.6iso</a>	[cor]
<a href="#">SWI_DEM_MJD</a>	[Axial]
<a href="#">Resting state</a>	

# Protocol Name: CoilSurveyScan

Methodes Description:

Other Tags:

applicationMode : AGDEF\_APPL\_IMAGING  
lastModifiedTimeUtc : 6/1/2013 7:57:21 AM  
linkState : false

=====GEOMETRY=====

Patient weight [kg] :	25
Nucleus :	H1
Multi coil :	YES
compacted :	0 -1 -1 -1 -1 -1 -1 -1 -1 -1 1 2 -1 -1
compacted coils :	BODY_QUAD , SENSE_HEAD_32AH , SENSE_HEAD_32P_SE
compacted conns :	/CDAS.ConnPFEI/PFEI.ConnQBC , /CDAS.ConnQBC
stacks channels :	3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
clinical modes :	BODY_QUAD.Complete , SENSE_HEAD_32P_SE
compacted (exclude) :	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils (exclude) :	
compacted conns (exclude) :	
stacks channels (exclude) :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity :	CLAS_SYN
FOV (mm) :	705
FOV (mm) :	465
FOV (mm) :	705 705 705 705 705 705 705 705 705 705
ACQ voxel size FH (mm) :	15
ACQ voxel size FH (mm) :	15
Slice thickness (mm) :	15
EX_PROC_recon_voxel_size :	11.0159997940063
RF0V (%) :	65.9574432373047
Image shutter :	YES
Fold-over suppression :	NO
Slice oversampling :	DEFAULT
RF select. FOS :	NO
Matrix scan :	48
reconstruction :	64
Scan percentage (%) :	76.0849990844727
SENSE :	NO
k-t Acceleration :	NO
EX_ACQ_overcont_slices :	NO
Stacks :	2
Slices :	47 47
Slice thickness (mm) :	15
Slice orientation :	SAGITTAL
Fold-over direction :	AP
Fat shift direction :	F
Slice Offc. AP (P=+mm) :	-40 -40
RL (L=+mm) :	0 0
FH (H=+mm) :	26.6666660308838 26.6666660308838

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        Ang.  AP (deg) :          0 0
              RL (deg) :          0 0
              FH (deg) :          0 0
EX_GEO_stacks_table_long_pos : 21000000000 21000000000
      Free rotatable :          NO
Multi-chunk :          NO
Stacks as packages :          NO
Move table per stack :          NO
Large table movement :          NO
Stack alignment :          NONE
EX_GEO_stack_display_order :    NONE
PlanAlign :            NO
REST slabs :           0
      delay :          NO
EX_TRACK_tracking :      NONE
Interactive positioning :      NO
External control :         NO
Allow table movement :      NO
Patient position :          HEAD_FIRST
Patient orientation :        SUPINE
=====CONTRAST=====
Scan type :              IMAGING
Scan mode :              3D
      technique :         FFE
      loop order :        ZY
Contrast enhancement :    T1
Acquisition mode :        CARTESIAN
Fast Imaging mode :        NO
      3D non-selective :   NO
Echoes :                  1
EX_ACQ_b0zshim_enum :     DEFAULT
      partial echo :       NO
      shifted echo :       NO
TE :                      SHORTEST
Flip angle (deg) :        1
TR :                      SHORTEST
Halfscan :                NO
Water-fat shift :          MINIMUM
EX_ACQ_RF_shim_data :     0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  Get shim and F0 from PRIDE : NO
  Calculate shim now :      NO
  F0 Determination :        AUTO
X      shim value :         0
Y      shim value :         0
Z      shim value :         0
Z2     shim value :         0
ZX     shim value :         0
ZY     shim value :         0
X2-Y2  shim value :         0
2XY    shim value :         0
Z3     shim value :         0
Z2X    shim value :         0

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Z2Y      shim value :      0
Z(X2-Y2) shim value :      0
2XYZ      shim value :      0
X3        shim value :      0
Y3        shim value :      0
Shim offset freq :      0
Nav shim offset freq :      0
Navigator X shim value :      0
Navigator Y shim value :      0
Navigator Z shim value :      0
mDIXON :      NO
Fat suppression :      NO
Water suppression :      NO
    shared :      NO
MTC :      NO
Custom prepulse :      NO
Diffusion mode :      NO
EX_DIFF_array_x :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors :      2
EX_DIFF_nr_dti_directions :      1
EX_DIFF_nr_dti_vectors :      1
EX_DIFF_weighting_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme :      user_defined
EX_DIFF_grad_factor :      1
MRE enable :      NO
Multi-transmit :      NO
SAR mode :      HIGH
B1 mode :      DEFAULT
EX_MULTIX_SAR_mode :      AUTO
PNS mode :      LOW
Gradient mode :      DEFAULT
SofTone mode :      NO
=====MOTION=====
Cardiac synchronization :      NO
Heart rate > 250 bpm :      NO
Respiratory compensation :      NO
Navigator respiratory comp :      OFF
    weighted gating :      NO
Flow compensation :      NO
fMRI echo stabilisation :      NO
NSA :      1
=====DYNANG=====
Angio / Contrast enh. :      NO
Quantitative flow :      NO
Manual start :      NO
EX_abuse_dyn_loop :      NO
Dynamic study :      NO
Arterial Spin labeling :      NO

```

=====PROC=====

Preparation phases : AUTO  
Interactive F0 : NO  
Gradient demo : NO  
Pre scan : COILSURVEY  
SmartPlan survey : NONE  
EX\_ACQ\_whole\_body\_fat\_water : NO  
EX\_ACQ\_B0\_map : NO  
EX\_ACQ\_B1\_map : NO  
MIP/MPR : NO  
SWIp : NO  
Images : NO  
Autoview image : NO  
Calculated images : NO  
EX\_TS\_reference\_tissue : WHITE\_MATTER  
Recon compression : NONE  
Recon compression : NONE  
Nr recon channels : 8  
EX\_PROC\_delrec\_fcc\_proc : PTIMIZED  
Preset window contrast : SOFT  
EX\_PROC\_usdef\_coca : NO  
EX\_PROC\_coca\_acq\_nrs : 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_coca\_rec\_nrs : 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
EX\_PROC\_usdef\_coil\_survey : NO  
EX\_PROC\_coil\_survey\_acq\_nrs : 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_coil\_survey\_rec\_nrs : 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
Reconstruction mode : PARALLEL  
Save raw data : NO  
Analyse with IQT : NO  
EX\_PROC\_to\_gyroview : NO  
Hardcopy protocol : NO  
Image filter : DEFAULT  
Viewable raw data : NO  
Elliptical k-space shutter : DEFAULT

=====PDF=====

EX\_conflict\_suggestion : 0  
GEX\_CONV\_id : 0 31 1  
GEX\_CONV\_ppde\_update : 0  
GEX\_CONV\_made\_by\_philips : YES  
GEX\_CONV\_applied\_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -  
GEX\_CONV\_base\_release : 18  
EX\_GEO\_voxel\_size\_conv\_done : YES  
EX\_PROC\_scan\_pat\_ref\_id : 541938977  
EX\_PROC\_coca\_patient\_ref\_ids : 0  
EX\_PROC\_coca\_nr\_channels : 0  
EX\_PROC\_coca\_nr\_stacks : 0  
EX\_PROC\_coca\_edge\_dist\_pos : 10000 10000 10000 10000 10000 10000 10  
EX\_PROC\_coca\_edge\_dist\_neg : -10000 -10000 -10000 -10000 -10000 -10  
EX\_PROC\_senseref\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_senseref\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_surv\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_coil\_surv\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0

EX\_PROC\_sense\_ref\_qbc\_stack : 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_sense\_ref\_syn\_stack : 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
EX\_PROC\_coil\_survey\_pat\_ref\_ids :0  
EX\_PROC\_coil\_survey\_nr\_channels :0  
EX\_PROC\_coil\_survey\_nr\_stacks : 0  
EX\_PROC\_coil\_survey\_qbc\_stack : 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_coil\_survey\_syn\_stack : 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
EX\_GEO\_auto\_coils\_selected : NO  
EX\_COIL\_ui\_use\_review\_mode : YES

=====INFO=====

Total scan duration : 00:05.4  
IF\_absolute\_SNR : 96.8581619262695  
Rel. SNR : 1  
Act. TR/TE (ms) : 3.8 / 0.49  
ACQ matrix M x P : 48 x 31  
ACQ voxel MPS (mm) : 14.69 / 15.16 / 15.0  
REC voxel MPS (mm) : 11.02 / 10.68 / 15.0  
Scan percentage (%) : 96.875  
Packages : 1  
WFS (pix) / BW (Hz) : 0.105 / 4142.5  
Min. WFS (pix) / Max. BW (Hz) : 0.105 / 4142.5  
Local torso SAR : < 6 %  
Whole body SAR / level : < 0.1 W/kg / normal  
SED : 0.0 kJ/kg  
B1+rms : 0.40 uT  
Max B1+rms : 0.40 uT  
PNS / level : 17 % / normal  
dB/dt : 43.8 T/s  
Sound Pressure Level (dB) : 6.645263671875

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## Protocol Name: Survey SHC32

Methodes Description:

Other Tags:

applicationMode : AGDEF\_APPL\_IMAGING  
linkState : false  
laterality : unpaired

=====GEOMETRY=====

Patient weight [kg] : 25  
Nucleus : H1  
SmartSelect : AUTO  
Multi coil : YES  
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 1 0 -1 -1  
compacted coils : SENSE\_HEAD\_32AH , SENSE\_HEAD\_32P  
compacted conns : /CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn  
stacks channels : 65535 0 0 0 65535 0 0 0 0 0 0 0 0 0 0  
clinical modes : SENSE\_HEAD\_32P\_SENSE\_HEAD\_32AH , SENSE

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compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils (exclude) :
compacted conns (exclude) :
stacks channels (exclude) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity : CLEAR
FOV (mm) : 250
FOV (mm) : 250
FOV (mm) : 130 130 130 250 250 250 250 250 250 250 25
ACQ voxel size FH (mm) : 0.9765625
ACQ voxel size FH (mm) : 1.953125
Slice thickness (mm) : 10
EX_PROC_recon_voxel_size : 0.9765625
RF0V (%) : 100
Fold-over suppression : NO
Matrix scan : 256
      reconstruction : 256
Scan percentage (%) : 50
SENSE : NO
k-t Acceleration : NO
Stacks : 3
      type : PARALLEL_STACK
Slices : 7 7 7
Slice thickness (mm) : 10
      slice gap : USER_DEF
            gap (mm) : 10 10 10
Slice orientation : SAGITTAL
Fold-over direction : AP
Fat shift direction : F
Slice Offc. AP (P=+mm) : -20 0 0
            RL (L=+mm) : 0 0 0
            FH (H=+mm) : 20 20 40
      Ang. AP (deg) : 0 0 0
            RL (deg) : 0 0 0
            FH (deg) : 0 0 0
EX_GEO_stacks_table_long_pos : 2100000000 2100000000 2100000000
      Free rotatable : NO
Slice scan order : DEFAULT
Stack scan order : ASCEND
Move table per stack : NO
Large table movement : NO
Stack alignment : NONE
EX_GEO_stack_display_order : NONE
PlanAlign : NO
REST slabs : 0
      delay : NO
EX_TRACK_tracking : NONE
Interactive positioning : NO
External control : NO
Allow table movement : NO
Patient position : HEAD_FIRST
Patient orientation : SUPINE
=====CONTRAST=====

```

Scan type :	IMAGING
Scan mode :	M2D
technique :	FFE
Contrast enhancement :	T1
Acquisition mode :	CARTESIAN
Fast Imaging mode :	TFE
shot mode :	MSH
TFE factor :	64
startup echoes :	DEFAULT
shot interval :	SHORTEST
profile order :	LINEAR
Echoes :	1
EX_ACQ_b0zshim_enum :	DEFAULT
partial echo :	YES
shifted echo :	NO
TE :	INPHASE
(ms) :	4.60485887527466
Flip angle (deg) :	15
TR :	SHORTEST
Halfscan :	NO
Water-fat shift :	USER_DEF
(pixels) :	3.5
EX_ACQ_RF_shim_data :	0 0
Shim :	DEFAULT
Get shim and F0 from PRIDE :	NO
Calculate shim now :	NO
F0 Determination :	AUTO
X shim value :	0
Y shim value :	0
Z shim value :	0
Z2 shim value :	0
ZX shim value :	0
ZY shim value :	0
X2-Y2 shim value :	0
2XY shim value :	0
Z3 shim value :	0
Z2X shim value :	0
Z2Y shim value :	0
Z(X2-Y2) shim value :	0
2XYZ shim value :	0
X3 shim value :	0
Y3 shim value :	0
Shim offset freq :	0
Nav shim offset freq :	0
Navigator X shim value :	0
Navigator Y shim value :	0
Navigator Z shim value :	0
mDIXON :	NO
Fat suppression :	NO
Water suppression :	NO
TFE prepulse :	INV
slice selection :	NO



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        shared : NO
        delay : USER_DEF
            (ms) : 800
        PSIR : NO
MTC : NO
T2prep : NO
Custom prepulse : NO
Diffusion mode : NO
EX_DIFF_array_x : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
        nr of b-factors : 2
EX_DIFF_nr_dti_directions : 1
EX_DIFF_nr_dti_vectors : 1
EX_DIFF_weighting_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme : user_defined
EX_DIFF_grad_factor : 1
MRE enable : NO
Multi-transmit : NO
SAR mode : HIGH
B1 mode : DEFAULT
EX_MULTIX_SAR_mode : AUTO
PNS mode : LOW
Gradient mode : DEFAULT
SofTone mode : NO
=====MOTION=====
Cardiac synchronization : NO
Heart rate > 250 bpm : NO
Respiratory compensation : NO
Navigator respiratory comp : OFF
    weighted gating : NO
Flow compensation : NO
fMRI echo stabilisation : NO
Motion smoothing : NO
NSA : 1
=====DYNANG=====
Angio / Contrast enh. : NO
Quantitative flow : NO
Manual start : NO
EX_abuse_dyn_loop : NO
Dynamic study : NO
Arterial Spin labeling : NO
=====PROC=====
Preparation phases : AUTO
Interactive F0 : NO
Gradient demo : NO
Pre scan : NO
SmartPlan survey : NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map : NO

```

[illegible]

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EX_COIL_ui_use_review_mode :      YES
=====INFO=====
Total scan duration      :      01:10.8
IF_absolute_SNR      :      1.6161515712738
Rel. SNR      :      1
Act. TR/TE (ms)      :      9.8 / 4.6
ACQ matrix M x P      :      256 x 128
ACQ voxel MPS (mm)      :      0.98 / 1.95 / 10.0
REC voxel MPS (mm)      :      0.98 / 0.98 / 10.0
Scan percentage (%)      :      50
TFE shots      :      2
TFE dur. shot / acq (ms)      :      1124.0 / 629.1
TFE shot interval (ms)      :      1124.02209472656
Min. TI delay      :      354.9541015625
WFS (pix) / BW (Hz)      :      3.494 / 124.3
Min. WFS (pix) / Max. BW (Hz)      :      0.559 / 776.8
Min. TR/TE (ms)      :      9.8 / 1.37
Head SAR      :      < 11 %
Whole body SAR / level      :      0.0 W/kg / normal
SED      :      0.0 kJ/kg
Bl+rms      :      0.77 uT
Max Bl+rms      :      0.77 uT
PNS / level      :      49 % / normal
dB/dt      :      45.6 T/s
Sound Pressure Level (dB)      :      10.0645656585693

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## Protocol Name: B1\_calibration

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Methodes Description:
methodDescription :  TRA      T1FFE 20      2.3      60

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Other Tags:
applicationMode :  AGDEF_APPL_IMAGING
lastModifiedTimeUtc :  2010-01-11 10:44:47.172
linkState :  false
laterality :  unpaired

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=====GEOMETRY=====
Patient weight [kg]      :      25
Nucleus      :      H1
SmartSelect      :      USER_DEF
compacted      :      0 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils      :      BODY_QUAD
compacted conns      :      /CDAS.ConnPFEI/PFEI.ConnQBC
stacks channels      :      3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
clinical modes      :      BODY_QUAD.Complete
compacted (exclude)      :      -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils (exclude) :
compacted conns (exclude) :

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stacks channels (exclude) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity : CLAS_SYN
FOV (mm) : 530
FOV (mm) : 464
FOV (mm) : 24 24 24 24 24 24 24 24 24 24 24 24 24 24
ACQ voxel size FH (mm) : 8.27999973297119
ACQ voxel size FH (mm) : 10.0799999237061
Slice thickness (mm) : 8
EX_PROC_recon_voxel_size : 4.140625
RF0V (%) : 87.5471725463867
Image shutter : YES
Fold-over suppression : NO
Slice oversampling : DEFAULT
RF select. FOS : NO
Matrix scan : 64
      reconstruction : 112
Scan percentage (%) : 64.5148468017578
SENSE : NO
k-t Acceleration : NO
EX_ACQ_overcont_slices : NO
Stacks : 1
Slices : 3
Slice thickness (mm) : 8
Slice orientation : TRANSVERSAL
Fold-over direction : AP
Fat shift direction : L
Slice Offc. AP (P=+mm) : -40
      RL (L=+mm) : 0
      FH (H=+mm) : 15.4488515853882
      Ang. AP (deg) : 0
      RL (deg) : 0
      FH (deg) : 0
EX_GEO_stacks_table_long_pos : 2100000000
      Free rotatable : NO
Multi-chunk : NO
Large table movement : NO
PlanAlign : NO
REST slabs : 0
      delay : NO
EX_TRACK_tracking : NONE
Interactive positioning : NO
External control : NO
Allow table movement : NO
Patient position : HEAD_FIRST
Patient orientation : SUPINE
=====CONTRAST=====
Scan type : IMAGING
Scan mode : 3D
      technique : FFE
      loop order : ZY
Contrast enhancement : T1
Acquisition mode : CARTESIAN

```

Fast Imaging mode	:	NO
3D non-selective	:	NO
Echoes	:	1
EX_ACQ_b0zshim_enum	:	DEFAULT
partial echo	:	NO
shifted echo	:	NO
TE	:	SHORTEST
Flip angle (deg)	:	60
TR	:	USER_DEF
(ms)	:	20
Halfscan	:	NO
Water-fat shift	:	USER_DEF
(pixels)	:	1
EX_ACQ_RF_shim	:	NO
EX_ACQ_RF_shim_data	:	0 0
Shim	:	DEFAULT
Get shim and F0 from PRIDE	:	NO
Calculate shim now	:	NO
F0 Determination	:	AUTO
X shim value	:	0
Y shim value	:	0
Z shim value	:	0
Z2 shim value	:	0
ZX shim value	:	0
ZY shim value	:	0
X2-Y2 shim value	:	0
2XY shim value	:	0
Z3 shim value	:	0
Z2X shim value	:	0
Z2Y shim value	:	0
Z(X2-Y2) shim value	:	0
2XYZ shim value	:	0
X3 shim value	:	0
Y3 shim value	:	0
Shim offset freq	:	0
Nav shim offset freq	:	0
Navigator X shim value	:	0
Navigator Y shim value	:	0
Navigator Z shim value	:	0
mDIXON	:	NO
Fat suppression	:	NO
Water suppression	:	NO
shared	:	NO
MTC	:	NO
Custom prepulse	:	NO
Diffusion mode	:	NO
EX_DIFF_array_x	:	0 0
EX_DIFF_array_y	:	0 0
EX_DIFF_array_z	:	0 0
EX_DIFF_array_b	:	0 0
nr of b-factors	:	2
EX_DIFF_nr_dti_directions	:	1

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EX_DIFF_nr_dti_vectors      :      1
EX_DIFF_weighting_ix_array  :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array  :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme     :      user_defined
EX_DIFF_grad_factor         :      1
MRE enable                  :      NO
Multi-transmit              :      YES
Transmit channels           :      BOTH
SAR mode                    :      HIGH
B1 mode                    :      DEFAULT
EX_MULTIX_SAR_mode          :      AUTO
PNS mode                   :      LOW
Gradient mode               :      DEFAULT
SoftTone mode               :      NO
=====MOTION=====
Cardiac synchronization     :      NO
Heart rate > 250 bpm        :      NO
Respiratory compensation    :      NO
Navigator respiratory comp  :      OFF
    weighted gating         :      NO
Flow compensation           :      NO
fMRI echo stabilisation     :      NO
NSA                          :      1
=====DYNANG=====
Angio / Contrast enh.      :      NO
Quantitative flow           :      NO
Manual start                :      NO
EX_abuse_dyn_loop           :      NO
Dynamic study               :      INDIVIDUAL
    dyn scans                :      2
    recon multiplier         :      1
    dyn scan times           :      SHORTEST
    fov time mode            :      VOXEL
    dummy scans              :      0
    immediate subtraction    :      NO
    fast next scan           :      NO
    synch. ext. device       :      NO
    dyn stabilization        :      NO
    prospect. motion corr.   :      NO
Keyhole                     :      NO
Arterial Spin labeling      :      NO
=====PROC=====
Preparation phases         :      AUTO
Interactive F0              :      NO
Gradient demo               :      NO
Pre scan                   :      NO
SmartPlan survey            :      NONE
EX_ACQ_whole_body_fat_water :      NO
EX_ACQ_B0_map               :      NO
EX_ACQ_B1_map               :      CAL
EX_ACQ_B1_map_type          :      TR
EX_ACQ_B1_TR_extension     :      80

```

```

EX_ACQ_B1_selective : YES
EX_ACQ_B1_spoil : 10
MIP/MPR : NO
SWIp : NO
Images : MODULUS
Autoview image : NO
Calculated images : B1
EX_TS_reference_tissue : BREAST
Preset window contrast : SOFT
EX_PROC_usdef_coca : NO
EX_PROC_coca_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey : NO
EX_PROC_coil_survey_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode : PARALLEL
Save raw data : NO
Analyse with IQT : NO
EX_PROC_to_gyroview : NO
Hardcopy protocol : NO
Image filter : DEFAULT
Geometry correction : DEFAULT
Viewable raw data : NO
Elliptical k-space shutter : DEFAULT
=====PDF=====
EX_conflict_suggestion : 0
GEX_CONV_id : 0 31 1
GEX_CONV_ppde_update : 0
GEX_CONV_made_by_philips : YES
GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release : 18
EX_GEO_voxel_size_conv_done : YES
EX_PROC_scan_pat_ref_id : 541938977
EX_PROC_coca_patient_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos : 10000 10000 10000 10000 10000 10000 10
EX_PROC_coca_edge_dist_neg : -10000 -10000 -10000 -10000 -10000 -10
EX_PROC_senseref_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_senseref_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_sense_ref_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_GEO_auto_coils_selected : NO
EX_COIL_ui_use_review_mode : YES
=====INFO=====

```

Total scan duration	:	00:31.4
IF_absolute_SNR	:	191.079650878906
Rel. SNR	:	1
Act. TR/TE (ms)	:	20 / 2.3
Dyn. scan time	:	00:15.6
Time to k0	:	00:08.0
ACQ matrix M x P	:	64 x 46
ACQ voxel MPS (mm)	:	8.28 / 10.08 / 8.00
REC voxel MPS (mm)	:	4.73 / 4.64 / 8.00
Scan percentage (%)	:	82.1428604125977
WFS (pix) / BW (Hz)	:	0.870 / 499.4
Min. WFS (pix) / Max. BW (Hz)	:	0.140 / 3106.6
Min. TR/TE (ms)	:	6.4 / 2.3
Head SAR	:	< 15 %
Whole body SAR / level	:	0.0 W/kg / normal
SED	:	0.0 kJ/kg
Coil Power	:	0.90 uT / 15 %
Max B1+rms	:	0.90 uT
PNS / level	:	21 % / normal
dB/dt	:	41.9 T/s
Sound Pressure Level (dB)	:	7.45694828033447

## Protocol Name: SenseRefScan

Methodes Description:

Other Tags:

applicationMode	:	AGDEF_APPL_IMAGING
lastModifiedTimeUtc	:	6/1/2013 7:58:46 AM
linkState	:	false

=====GEOMETRY=====

Patient weight [kg]	:	25
Nucleus	:	H1
Multi coil	:	NO
compacted	:	0 1 -1 -1 -1 -1 -1 -1 -1 -1 0 1 -1 -1
compacted coils	:	SENSE_HEAD_32AH , SENSE_HEAD_32P
compacted conns	:	/CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn
stacks channels	:	65535 0 0 0 65535 0 0 0 0 0 0 0 0 0 0
clinical modes	:	SENSE_HEAD_32P_SENSE_HEAD_32AH , SENSE
compacted (exclude)	:	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils (exclude)	:	
compacted conns (exclude)	:	
stacks channels (exclude)	:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity	:	CLEAR
FOV (mm)	:	450
FOV (mm)	:	356
FOV (mm)	:	351 351 404 404 404 404 404 404 404 40
ACQ voxel size FH (mm)	:	4.68800020217896



ACQ voxel size FH (mm) :	6
Slice thickness (mm) :	3
EX_PROC_recon_voxel_size :	4.68800020217896
RF0V (%) :	79.1111145019531
Image shutter :	YES
Fold-over suppression :	NO
Slice oversampling :	DEFAULT
RF select. FOS :	NO
Matrix scan :	96
reconstruction :	96
Scan percentage (%) :	60.9720001220703
SENSE :	NO
k-t Acceleration :	NO
EX_ACQ_overcont_slices :	YES
Stacks :	2
Slices :	117 117
Slice thickness (mm) :	3
Slice orientation :	CORONAL
Fold-over direction :	LR
Fat shift direction :	F
Slice Offc. AP (P=+mm) :	-14.3667097091675 -14.3667097091675
RL (L=+mm) :	2.00401258468628 2.00401258468628
FH (H=+mm) :	16.0085697174072 16.0085697174072
Ang. AP (deg) :	0 0
RL (deg) :	0 0
FH (deg) :	0 0
EX_GEO_stacks_table_long_pos :	2100000000 2100000000
Free rotatable :	NO
Multi-chunk :	NO
Stacks as packages :	YES
Stack scan order :	ASCEND
Move table per stack :	NO
Large table movement :	NO
Stack alignment :	NONE
EX_GEO_stack_display_order :	NONE
PlanAlign :	NO
REST slabs :	0
delay :	NO
EX_TRACK_tracking :	NONE
Interactive positioning :	NO
External control :	NO
Allow table movement :	NO
Patient position :	HEAD_FIRST
Patient orientation :	SUPINE
=====CONTRAST=====	
Scan type :	IMAGING
Scan mode :	3D
technique :	FFE
loop order :	ZY
Contrast enhancement :	T1
Acquisition mode :	CARTESIAN
Fast Imaging mode :	NO

3D non-selective :	NO
Echoes :	1
EX_ACQ_b0zshim_enum :	DEFAULT
partial echo :	NO
shifted echo :	NO
TE :	SHORTEST
Flip angle (deg) :	1
TR :	SHORTEST
Halfscan :	NO
Water-fat shift :	MINIMUM
EX_ACQ_RF_shim_data :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Get shim and F0 from PRIDE :	NO
Calculate shim now :	NO
F0 Determination :	AUTO
X shim value :	0
Y shim value :	0
Z shim value :	0
Z2 shim value :	0
ZX shim value :	0
ZY shim value :	0
X2-Y2 shim value :	0
2XY shim value :	0
Z3 shim value :	0
Z2X shim value :	0
Z2Y shim value :	0
Z(X2-Y2) shim value :	0
2XYZ shim value :	0
X3 shim value :	0
Y3 shim value :	0
Shim offset freq :	0
Nav shim offset freq :	0
Navigator X shim value :	0
Navigator Y shim value :	0
Navigator Z shim value :	0
mDIXON :	NO
Fat suppression :	NO
Water suppression :	NO
shared :	NO
MTC :	NO
Custom prepulse :	NO
Diffusion mode :	NO
EX_DIFF_array_x :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
nr of b-factors :	2
EX_DIFF_nr_dti_directions :	1
EX_DIFF_nr_dti_vectors :	1
EX_DIFF_weighting_ix_array :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme :	user_defined
EX_DIFF_grad_factor :	1

```

MRE enable : NO
Multi-transmit : NO
SAR mode : HIGH
B1 mode : DEFAULT
EX_MULTIX_SAR_mode : AUTO
PNS mode : LOW
Gradient mode : DEFAULT
SofTone mode : NO
=====MOTION=====
Cardiac synchronization : NO
Heart rate > 250 bpm : NO
Respiratory compensation : NO
Navigator respiratory comp : OFF
    weighted gating : NO
Flow compensation : NO
fMRI echo stabilisation : NO
NSA : 1
=====DYNANG=====
Angio / Contrast enh. : NO
Quantitative flow : NO
Manual start : NO
EX_abuse_dyn_loop : NO
Dynamic study : NO
Arterial Spin labeling : NO
=====PROC=====
Preparation phases : AUTO
Interactive F0 : NO
Gradient demo : NO
Pre scan : SENSE_REF_FAST
SmartPlan survey : NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map : NO
EX_ACQ_B1_map : NO
MIP/MPR : NO
SWIp : NO
Images : NO
Autoview image : NO
Calculated images : NO
EX_TS_reference_tissue : WHITE_MATTER
Recon compression : NONE
Recon compression : NONE
    Nr recon channels : 8
EX_PROC_delrec_fcc_proc : PTIMIZED
Preset window contrast : SOFT
EX_PROC_usdef_coca : NO
EX_PROC_coca_acq_nrs : 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs : 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey : NO
EX_PROC_coil_survey_acq_nrs : 1000 1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode : PARALLEL
Save raw data : NO

```

Analyse with IQT : NO  
EX\_PROC\_to\_gyroview : NO  
Hardcopy protocol : NO  
Image filter : DEFAULT  
Viewable raw data : NO  
Elliptical k-space shutter : DEFAULT

=====PDF=====

EX\_conflict\_suggestion : 0  
GEX\_CONV\_id : 0 31 1  
GEX\_CONV\_ppde\_update : 0  
GEX\_CONV\_made\_by\_philips : YES  
GEX\_CONV\_applied\_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -  
GEX\_CONV\_base\_release : 18  
EX\_GEO\_voxel\_size\_conv\_done : YES  
EX\_PROC\_scan\_pat\_ref\_id : 541938977  
EX\_PROC\_coca\_patient\_ref\_ids : 0  
EX\_PROC\_coca\_nr\_channels : 0  
EX\_PROC\_coca\_nr\_stacks : 0  
EX\_PROC\_coca\_edge\_dist\_pos : 352.5 352.5 10000 10000 10000 10000 10  
EX\_PROC\_coca\_edge\_dist\_neg : -352.5 -352.5 -10000 -10000 -10000 -10  
EX\_PROC\_senseref\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_senseref\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_surv\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_coil\_surv\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0  
EX\_PROC\_sense\_ref\_qbc\_stack : 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_sense\_ref\_syn\_stack : 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
EX\_PROC\_coil\_survey\_pat\_ref\_ids : 541938977 541938977 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_survey\_nr\_channels : 32 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_survey\_nr\_stacks : 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_survey\_qbc\_stack : 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_coil\_survey\_syn\_stack : 1  
EX\_GEO\_auto\_coils\_selected : NO  
EX\_COIL\_ui\_use\_review\_mode : YES

=====INFO=====

Total scan duration : 00:06.4  
IF\_absolute\_SNR : 10.3058767318726  
Rel. SNR : 9.12797546386719  
Act. TR/TE (ms) : 1.90 / 0.78  
ACQ matrix M x P : 96 x 59  
ACQ voxel MPS (mm) : 4.69 / 6.04 / 6.00  
REC voxel MPS (mm) : 4.69 / 4.69 / 3.00  
Scan percentage (%) : 77.6315765380859  
Packages : 1  
WFS (pix) / BW (Hz) : 0.210 / 2071.3  
Min. WFS (pix) / Max. BW (Hz) : 0.210 / 2071.3  
Head SAR : < 1 %  
Whole body SAR / level : 0.0 W/kg / normal  
SED : 0.0 kJ/kg  
B1+rms : 0.28 uT  
Max B1+rms : 0.28 uT  
PNS / level : 31 % / normal

dB/dt : 44.3 T/s  
Sound Pressure Level (dB) : 16.8499011993408

---

## Protocol Name: T1W/3D/TFE

### Methodes Description:

methodDescription : SAG T1TFE 8.9 4.6 8

### Other Tags:

applicationMode : AGDEF\_APPL\_IMAGING

linkState : false

laterality : unpaired

=====GEOMETRY=====

Patient weight [kg] : 25  
Nucleus : H1  
SmartSelect : AUTO  
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils : SENSE\_HEAD\_32AH , SENSE\_HEAD\_32P  
compacted conns : /CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn  
stacks channels : 65535 0 0 0 65535 0 0 0 0 0 0 0 0 0 0  
clinical modes : SENSE\_HEAD\_32P\_SENSE\_HEAD\_32AH  
compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils (exclude) :  
compacted conns (exclude) :  
stacks channels (exclude) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Uniformity : CLEAR  
FOV (mm) : 256  
FOV (mm) : 256  
FOV (mm) : 170 250 250 250 250 250 250 250 250 250 25  
ACQ voxel size FH (mm) : 1  
ACQ voxel size FH (mm) : 1  
Slice thickness (mm) : 1  
EX\_PROC\_recon\_voxel\_size : 1  
RF0V (%) : 100  
Fold-over suppression : NO  
Slice oversampling : DEFAULT  
RF select. FOS : NO  
Matrix scan : 256  
reconstruction : 256  
Scan percentage (%) : 100  
SENSE : YES  
P reduction (AP) : 2  
S reduction (AP) : 1  
k-t Acceleration : NO  
EX\_ACQ\_overcont\_slices : NO  
Stacks : 1  
Slices : 170  
Slice thickness (mm) : 1

Slice orientation :	SAGITTAL
Fold-over direction :	AP
Fat shift direction :	F
Slice Offc. AP (P=+mm) :	-14.3667097091675
RL (L=+mm) :	2.00401258468628
FH (H=+mm) :	16.0085697174072
Ang. AP (deg) :	0
RL (deg) :	0
FH (deg) :	4.91461277008057
EX_GE0_stacks_table_long_pos :	2100000000
Free rotatable :	NO
Multi-chunk :	NO
Large table movement :	NO
PlanAlign :	NO
REST slabs :	1
shared :	NO
type :	FREE
circular slabs :	10 10 10 10 10 10 10 10 10 10 10 10
orientation :	TRANSVERSAL
thickness (mm) :	27.1649112701416 60 60 60 60 60 60 60
position :	LEFT
gap :	DEFAULT
(mm) :	15 20 20 20 20 20 20 20 20 20 20 20
distance (mm) :	50 50 50 50 50 50 50 50 50 50 50 50
Rest Offc. AP (P=+mm) :	-28.8515567779541 0 0 0 0 0 0 0 0 0 0 0
RL (L=+mm) :	-0.336553871631622 0 0 0 0 0 0 0 0 0 0 0
FH (H=+mm) :	-192.214431762695 0 0 0 0 0 0 0 0 0 0 0
Ang. AP (deg) :	-1.57794213294983 0 0 0 0 0 0 0 0 0 0 0
RL (deg) :	0.0090950159355998 0 0 0 0 0 0 0 0 0 0 0
FH (deg) :	-0.274766117334366 0 0 0 0 0 0 0 0 0 0 0
angulation (deg) :	0 0 0 0 0 0 0 0 0 0 0 0
FM shape :	NO
composite elements :	1 1 1 1 1 1 1 1 1 1 1 1
correction factor :	1 1 1 1 1 1 1 1 1 1 1 1
power :	1
target :	FAT
timed :	NO
start (phase) :	1
stop (phase) :	2
delay :	NO
(ms) :	50
EX_TRACK_tracking :	NONE
Interactive positioning :	NO
External control :	NO
Allow table movement :	NO
Patient position :	HEAD_FIRST
Patient orientation :	SUPINE
=====CONTRAST=====	
Scan type :	IMAGING
Scan mode :	3D
technique :	FFE
Contrast enhancement :	T1

Acquisition mode :	CARTESIAN
Fast Imaging mode :	TFE
3D non-selective :	NO
shot mode :	MSH
TFE factor :	128
EX_TFE_3d_free_factor :	NO
startup echoes :	DEFAULT
shot interval :	SHORTEST
profile order :	LINEAR
turbo direction :	YZ
Echoes :	1
EX_ACQ_b0zshim_enum :	DEFAULT
partial echo :	NO
shifted echo :	NO
TE :	INPHASE
(ms) :	4.60485887527466
Flip angle (deg) :	8
TR :	SHORTEST
Halfscan :	NO
Water-fat shift :	USER_DEF
(pixels) :	2
EX_ACQ_RF_shim_data :	0 0
Shim :	AUTO
Get shim and F0 from PRIDE :	NO
Calculate shim now :	NO
F0 Determination :	AUTO
X shim value :	0
Y shim value :	0
Z shim value :	0
Z2 shim value :	0
ZX shim value :	0
ZY shim value :	0
X2-Y2 shim value :	0
2XY shim value :	0
Z3 shim value :	0
Z2X shim value :	0
Z2Y shim value :	0
Z(X2-Y2) shim value :	0
2XYZ shim value :	0
X3 shim value :	0
Y3 shim value :	0
Shim offset freq :	0
Nav shim offset freq :	0
Navigator X shim value :	0
Navigator Y shim value :	0
Navigator Z shim value :	0
mDIXON :	NO
Fat suppression :	NO
Water suppression :	NO
TFE prepulse :	INV
slice selection :	NO
shared :	NO

delay :	SHORTEST
PSIR :	NO
MTC :	NO
T2prep :	NO
Custom prepulse :	NO
Diffusion mode :	NO
EX_DIFF_array_x :	0 0
EX_DIFF_array_y :	0 0
EX_DIFF_array_z :	0 0
EX_DIFF_array_b :	0 0
nr of b-factors :	2
EX_DIFF_nr_dti_directions :	1
EX_DIFF_nr_dti_vectors :	1
EX_DIFF_weighting_ix_array :	0 0
EX_DIFF_direction_ix_array :	0 0
User defined DTI scheme :	user_defined
EX_DIFF_grad_factor :	1
MRE enable :	NO
Multi-transmit :	NO
SAR mode :	HIGH
B1 mode :	DEFAULT
EX_MULTIX_SAR_mode :	AUTO
PNS mode :	LOW
Gradient mode :	DEFAULT
SoftTone mode :	YES
=====MOTION=====	
Cardiac synchronization :	NO
Heart rate > 250 bpm :	NO
Respiratory compensation :	NO
Navigator respiratory comp :	OFF
weighted gating :	NO
Flow compensation :	NO
fMRI echo stabilisation :	NO
Motion smoothing :	NO
NSA :	1
=====DYNANG=====	
Angio / Contrast enh. :	NO
Quantitative flow :	NO
CENTRA :	NO
Manual start :	NO
EX_abuse_dyn_loop :	NO
Dynamic study :	NO
Arterial Spin labeling :	NO
=====PROC=====	
Preparation phases :	AUTO
Interactive F0 :	NO
Gradient demo :	NO
Pre scan :	NO
SmartPlan survey :	NONE
EX_ACQ_whole_body_fat_water :	NO
EX_ACQ_B0_map :	NO
EX_ACQ_B1_map :	NO



[illegible]

```

EX_COIL_ui_use_review_mode :      YES
=====INFO=====
Total scan duration :      04:25.3
IF_absolute_SNR :          1.50540721416473
Rel. SNR :                 1.33334803581238
Act. TR/TE (ms) :          8.9 / 4.6
ACQ matrix M x P :         256 x 256
ACQ voxel MPS (mm) :       1.00 / 1.00 / 1.00
REC voxel MPS (mm) :       1.00 / 1.00 / 1.00
Scan percentage (%) :      100
TFE shots :                218
TFE dur. shot / acq (ms) :  1211.2 / 1145.6
TFE shot interval (ms) :   1211.20568847656
Min. TI delay :            629.012084960938
WFS (pix) / BW (Hz) :      2.001 / 217.0
Min. WFS (pix) / Max. BW (Hz) : 0.559 / 776.8
Min. TR/TE (ms) :          8.9 / 3.7
Head SAR :                 < 15 %
Whole body SAR / level :   0.0 W/kg / normal
SED :                      0.0 kJ/kg
Bl+rms :                   0.91 uT
Max Bl+rms :               0.91 uT
PNS / level :              37 % / normal
dB/dt :                    26.9 T/s
Sound Pressure Level (dB) : 3.37745690345764

```

---

# Protocol Name: Original PGPP\_1mm

```

Methodes Description:
methodDescription :  SAG      T1TFE 8.9      4.6      8

```

```

Other Tags:
applicationMode :  AGDEF_APPL_IMAGING
linkState :  false
laterality :  unpaired

```

```

=====GEOMETRY=====
Patient weight [kg] :      25
Nucleus :                H1
SmartSelect :            AUTO
compacted :              0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils :        SENSE_HEAD_32AH , SENSE_HEAD_32P
compacted conns :        /CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn
stacks channels :        65535 0 0 0 65535 0 0 0 0 0 0 0 0 0 0
clinical modes :         SENSE_HEAD_32P_SENSE_HEAD_32AH
compacted (exclude) :    -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils (exclude) :
compacted conns (exclude) :
stacks channels (exclude) :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```

Uniformity :	BT_CLEAR
FOV (mm) :	256
FOV (mm) :	256
FOV (mm) :	170 250 250 250 250 250 250 250 250 250
ACQ voxel size FH (mm) :	1
ACQ voxel size FH (mm) :	1
Slice thickness (mm) :	1
EX_PROC_recon_voxel_size :	1
RF0V (%) :	100
Fold-over suppression :	NO
Slice oversampling :	DEFAULT
RF select. FOS :	NO
Matrix scan :	256
reconstruction :	256
Scan percentage (%) :	100
SENSE :	YES
P reduction (AP) :	2
S reduction (AP) :	1
k-t Acceleration :	NO
EX_ACQ_overcont_slices :	NO
Stacks :	1
Slices :	170
Slice thickness (mm) :	1
Slice orientation :	SAGITTAL
Fold-over direction :	AP
Fat shift direction :	F
Slice Offc. AP (P=+mm) :	-14.3667097091675
RL (L=+mm) :	2.00401258468628
FH (H=+mm) :	16.0085697174072
Ang. AP (deg) :	0
RL (deg) :	0
FH (deg) :	4.91461277008057
EX_GEO_stacks_table_long_pos :	2100000000
Free rotatable :	NO
Multi-chunk :	NO
Large table movement :	NO
PlanAlign :	NO
REST slabs :	1
shared :	NO
type :	FREE
circular slabs :	10 10 10 10 10 10 10 10 10 10 10 10
orientation :	TRANSVERSAL
thickness (mm) :	27.1649112701416 60 60 60 60 60 60 60
position :	LEFT
gap :	DEFAULT
(mm) :	15 20 20 20 20 20 20 20 20 20 20 20
distance (mm) :	50 50 50 50 50 50 50 50 50 50 50 50
Rest Offc. AP (P=+mm) :	-28.8515567779541 0 0 0 0 0 0 0 0 0 0 0
RL (L=+mm) :	-0.336553871631622 0 0 0 0 0 0 0 0 0 0 0
FH (H=+mm) :	-192.214431762695 0 0 0 0 0 0 0 0 0 0 0
Ang. AP (deg) :	-1.57794213294983 0 0 0 0 0 0 0 0 0 0 0
RL (deg) :	0.0090950159355998 0 0 0 0 0 0 0 0 0 0 0

```

          FH (deg) : -0.274766117334366 0 0 0 0 0 0 0 0 0 0 0 0
    angulation (deg) : 0 0 0 0 0 0 0 0 0 0 0 0 0
    FM shape : NO
    composite elements : 1 1 1 1 1 1 1 1 1 1 1 1
    correction factor : 1 1 1 1 1 1 1 1 1 1 1 1
    power : 1
    target : FAT
    timed : NO
      start (phase) : 1
      stop (phase) : 2
    delay : NO
      (ms) : 50
EX_TRACK_tracking : NONE
Interactive positioning : NO
External control : NO
Allow table movement : NO
Patient position : HEAD_FIRST
Patient orientation : SUPINE
=====CONTRAST=====
Scan type : IMAGING
Scan mode : 3D
  technique : FFE
Contrast enhancement : T1
Acquisition mode : CARTESIAN
Fast Imaging mode : TFE
  3D non-selective : NO
  shot mode : SSH
  startup echoes : DEFAULT
  shot interval : USER_DEF
    (ms) : 3000
  profile order : LINEAR
  turbo direction : ZY
Echoes : 1
EX_ACQ_b0zshim_enum : DEFAULT
  partial echo : NO
  shifted echo : NO
TE : SHORTEST
Flip angle (deg) : 5
TR : SHORTEST
Halfscan : NO
Water-fat shift : USER_DEF
  (pixels) : 2
EX_ACQ_RF_shim_data : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim : AUTO
  Get shim and F0 from PRIDE : NO
  Calculate shim now : NO
  F0 Determination : AUTO
X      shim value : 0
Y      shim value : 0
Z      shim value : 0
Z2     shim value : 0
ZX     shim value : 0

```

```

ZY          shim value : 0
X2-Y2       shim value : 0
2XY         shim value : 0
Z3          shim value : 0
Z2X         shim value : 0
Z2Y         shim value : 0
Z(X2-Y2)    shim value : 0
2XYZ        shim value : 0
X3          shim value : 0
Y3          shim value : 0
Shim offset freq : 0
Nav shim offset freq : 0
Navigator X shim value : 0
Navigator Y shim value : 0
Navigator Z shim value : 0
mDIXON      : NO
Fat suppression : NO
Water suppression : NO
TFE prepulse : INV
    slice selection : NO
    shared : NO
    delay : SHORTEST
    PSIR : NO
MTC : NO
T2prep : NO
Custom prepulse : NO
Diffusion mode : NO
EX_DIFF_array_x : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors : 2
EX_DIFF_nr_dti_directions : 1
EX_DIFF_nr_dti_vectors : 1
EX_DIFF_weighting_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme : user_defined
EX_DIFF_grad_factor : 1
MRE enable : NO
Multi-transmit : NO
SAR mode : HIGH
B1 mode : DEFAULT
EX_MULTIX_SAR_mode : AUTO
PNS mode : LOW
Gradient mode : DEFAULT
SofTone mode : YES
=====MOTION=====
Cardiac synchronization : NO
Heart rate > 250 bpm : NO
Respiratory compensation : NO
Navigator respiratory comp : OFF
    weighted gating : NO

```

```

Flow compensation      :      NO
fMRI echo stabilisation :      NO
Motion smoothing       :      NO
NSA                    :        1
=====DYNANG=====
Angio / Contrast enh.  :      NO
Quantitative flow      :      NO
CENTRA                :      NO
Manual start          :      NO
EX_abuse_dyn_loop      :      NO
Dynamic study         :      NO
Arterial Spin labeling :      NO
=====PROC=====
Preparation phases    :      AUTO
Interactive F0        :      NO
Gradient demo         :      NO
Pre scan              :      NO
SmartPlan survey      :      NONE
EX_ACQ_whole_body_fat_water :    NO
EX_ACQ_B0_map         :      NO
EX_ACQ_B1_map         :      NO
MIP/MPR              :      NO
SWIp                  :      NO
Images                :      MODULUS
Autoview image        :      MODULUS
Calculated images     :      NO
EX_TS_reference_tissue :    GREY_MATTER
Recon compression     :      NONE
Recon compression     :      NONE
  Nr recon channels   :        8
EX_PROC_delrec_fcc_proc :    PTIMIZED
Preset window contrast :      SOFT
EX_PROC_usdef_coca    :      NO
EX_PROC_coca_acq_nrs  :    1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs  :    2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey :    NO
EX_PROC_coil_survey_acq_nrs :    0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs :    0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode   :    REAL_TIME
Save raw data         :      NO
Analyse with IQT      :      NO
EX_PROC_to_gyroview   :      NO
Hardcopy protocol     :      NO
Image filter          :    DEFAULT
Geometry correction   :    DEFAULT
Viewable raw data     :      NO
Elliptical k-space shutter :    DEFAULT
=====PDF=====
EX_conflict_suggestion :        0
GEX_CONV_id           :    0 31 1
GEX_CONV_ppde_update  :        0
GEX_CONV_made_by_philips :    YES

```

```

GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release : 18
EX_GEO_voxel_size_conv_done : YES
EX_PROC_scan_pat_ref_id : 541938977
EX_PROC_coca_patient_ref_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_stacks : 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos : 176.147598266602 10000 10000 10000 100
EX_PROC_coca_edge_dist_neg : -176.147613525391 -10000 -10000 -10000
EX_PROC_senseref_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_senseref_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_sense_ref_qbc_stack : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_GEO_auto_coils_selected : YES
EX_COIL_ui_use_review_mode : YES

```

=====INFO=====

```

Total scan duration : 06:25.8
IF_absolute_SNR : 1.39573836326599
Rel. SNR : 0.0688792318105698
Act. TR/TE (ms) : 8.0 / 3.7
ACQ matrix M x P : 256 x 256
ACQ voxel MPS (mm) : 1.00 / 1.00 / 1.00
REC voxel MPS (mm) : 1.00 / 1.00 / 1.00
Scan percentage (%) : 100
TFE factor : 218
TFE dur. shot / acq (ms) : 1807.2 / 1745.4
Min. TI delay : 925.616088867188
WFS (pix) / BW (Hz) : 2.001 / 217.0
Min. WFS (pix) / Max. BW (Hz) : 0.559 / 776.8
Head SAR : < 5 %
Whole body SAR / level : 0.0 W/kg / normal
SED : 0.0 kJ/kg
B1+rms : 0.54 uT
Max B1+rms : 0.55 uT
PNS / level : 42 % / normal
dB/dt : 29.5 T/s
Sound Pressure Level (dB) : 9.48481273651123

```

---

## Protocol Name: T2W\_TSE\_32chSHC

Methodes Description:

```

methodDescription : TRA      TSE      3381      80      90

```

Other Tags:

applicationMode : AGDEF\_APPL\_IMAGING  
lastModifiedTimeUtc : 2010-04-16 07:21:18.834  
linkState : false  
laterality : unpaired

=====GEOMETRY=====

Patient weight [kg] : 25  
Nucleus : H1  
SmartSelect : AUTO  
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils : SENSE\_HEAD\_32P , SENSE\_HEAD\_32AH  
compacted conns : /CDAS.ConnPFEI/PFEI.ConnA , /CDAS.Conn  
stacks channels : 65535 0 0 0 65471 0 0 0 0 0 0 0 0 0 0  
clinical modes : SENSE\_HEAD\_32P\_SENSE\_HEAD\_32AH  
compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils (exclude) :  
compacted conns (exclude) :  
stacks channels (exclude) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Uniformity : CLEAR  
FOV (mm) : 230  
FOV (mm) : 184  
FOV (mm) : 52 143 143 143 143 143 143 143 143 143 143  
ACQ voxel size FH (mm) : 0.5  
ACQ voxel size FH (mm) : 0.5  
Slice thickness (mm) : 2  
EX\_PROC\_recon\_voxel\_size : 0.479166656732559  
RFOV (%) : 80  
EX\_ACQ\_small\_fov : NO  
Fold-over suppression : NO  
Matrix scan : 460  
reconstruction : 480  
Scan percentage (%) : 100  
SENSE : YES  
P reduction (AP) : 1  
k-t Acceleration : NO  
Stacks : 1  
type : PARALLEL\_STACK  
Slices : 26  
Slice thickness (mm) : 2  
slice gap : USER\_DEF  
gap (mm) : 0  
Slice orientation : CORONAL  
Fold-over direction : LR  
Fat shift direction : F  
Slice Offc. AP (P=+mm) : 1.0519847869873  
RL (L=+mm) : -0.212470144033432  
FH (H=+mm) : -9.24132251739502  
Ang. AP (deg) : 2.48234629631042  
RL (deg) : 30.2763442993164  
FH (deg) : -0.671660363674164  
EX\_GEO\_stacks\_table\_long\_pos : 2100000000



```

      Free rotatable : NO
Minimum number of packages : 1
Slice scan order : DEFAULT
Large table movement : NO
PlanAlign : NO
REST slabs : 0
      delay : NO
EX_TRACK_tracking : NONE
Interactive positioning : NO
External control : NO
Allow table movement : NO
Patient position : HEAD_FIRST
Patient orientation : SUPINE
=====CONTRAST=====
Scan type : IMAGING
Scan mode : MS
      technique : SE
Modified SE : NO
Acquisition mode : CARTESIAN
Fast Imaging mode : TSE
      shot mode : MSH
TSE factor : 15
      startup echoes : 0
      profile order : LINEAR
      DRIVE : NO
      ultrashort : NO
      fid reduction : DEFAULT
Echoes : 1
EX_ACQ_b0zshim_enum : DEFAULT
      partial echo : NO
TE : USER_DEF
      (ms) : 90
Flip angle (deg) : 90
Refocusing control : YES
      angle (deg) : 120
      echo enhancement : NONE
      bright fat reduction : NO
TR : SHORTEST
Halfscan : NO
Water-fat shift : MAXIMUM
EX_ACQ_RF_shim_data : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim : DEFAULT
      Get shim and F0 from PRIDE : NO
      Calculate shim now : NO
      F0 Determination : AUTO
X      shim value : 0
Y      shim value : 0
Z      shim value : 0
Z2     shim value : 0
ZX     shim value : 0
ZY     shim value : 0
X2-Y2  shim value : 0

```

2XY	shim value	:	0
Z3	shim value	:	0
Z2X	shim value	:	0
Z2Y	shim value	:	0
Z(X2-Y2)	shim value	:	0
2XYZ	shim value	:	0
X3	shim value	:	0
Y3	shim value	:	0
Shim offset freq	:		0
Nav shim offset freq	:		0
Navigator X shim value	:		0
Navigator Y shim value	:		0
Navigator Z shim value	:		0
mDIXON	:		NO
Fat suppression	:		NO
Grad Rev Fat suppr	:		NO
Water suppression	:		NO
BB pulse	:		NONE
shared	:		NO
MTC	:		NO
T2prep	:		NO
Custom prepulse	:		NO
EX_LOLO_enable	:		NO
Diffusion mode	:		NO
EX_DIFF_array_x	:		0 0
EX_DIFF_array_y	:		0 0
EX_DIFF_array_z	:		0 0
EX_DIFF_array_b	:		0 0
nr of b-factors	:		2
EX_DIFF_nr_dti_directions	:		1
EX_DIFF_nr_dti_vectors	:		1
EX_DIFF_weighting_ix_array	:		0 0
EX_DIFF_direction_ix_array	:		0 0
User defined DTI scheme	:		user_defined
EX_DIFF_grad_factor	:		1
MRE enable	:		NO
Multi-transmit	:		NO
SAR mode	:		HIGH
B1 mode	:		DEFAULT
EX_MULTIX_SAR_mode	:		AUTO
PNS mode	:		LOW
Gradient mode	:		DEFAULT
SoftTone mode	:		USER_DEF
factor	:		4
=====MOTION=====			
Cardiac synchronization	:		NO
Heart rate > 250 bpm	:	NO	
Respiratory compensation	:		NO
Navigator respiratory comp	:		OFF
weighted gating	:		NO
Flow compensation	:		NO
Temporal slice spacing	:		DEFAULT

```

Motion smoothing : NO
NSA : 2
SMART : NO
=====DYNANG=====
Manual start : NO
EX_abuse_dyn_loop : NO
Dynamic study : NO
Arterial Spin labeling : NO
=====PROC=====
Preparation phases : AUTO
Interactive F0 : NO
Gradient demo : NO
Pre scan : NO
SmartPlan survey : NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map : NO
EX_ACQ_B1_map : NO
MIP/MPR : NO
Images : MODULUS
Autoview image : MODULUS
Calculated images : NO
EX_TS_reference_tissue : GREY_MATTER
Recon compression : NONE
Recon compression : NONE
Nr recon channels : 8
EX_PROC_delrec_fcc_proc : PTIMIZED
Preset window contrast : SOFT
EX_PROC_usdef_coca : NO
EX_PROC_coca_acq_nrs : 1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs : 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey : NO
EX_PROC_coil_survey_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode : REAL_TIME
Save raw data : NO
Analyse with IQT : NO
EX_PROC_to_gyroview : NO
Hardcopy protocol : NO
Image filter : DEFAULT
Geometry correction : DEFAULT
Viewable raw data : NO
=====PDF=====
EX_conflict_suggestion : 0
GEX_CONV_id : 0 31 1
GEX_CONV_ppde_update : 0
GEX_CONV_made_by_philips : YES
GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release : 18
EX_GEO_voxel_size_conv_done : YES
EX_PROC_scan_pat_ref_id : 541938977
EX_PROC_coca_patient_ref_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```

```

EX_PROC_coca_nr_stacks      :      2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos  :    10000 10000 10000 10000 10000 10000 10
EX_PROC_coca_edge_dist_neg  :   -10000 -10000 -10000 -10000 -10000 -10
EX_PROC_senseref_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_senseref_rfsh_rx_ph  : 0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph  : 0 0 0 0 0 0 0 0
EX_PROC_sense_ref_qbc_stack  : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack  : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_GEO_auto_coils_selected   : YES
EX_COIL_ui_use_review_mode   : YES

```

=====INFO=====

```

Total scan duration      :      03:52.8
IF_absolute_SNR          :      0.797238945960999
Rel. SNR                  :      0.571614325046539
Act. TR/TE (ms)          :      2376
Act. TE (ms)              :      90
ACQ matrix M x P         :      460 x 360
ACQ voxel MPS (mm)       :      0.50 / 0.51 / 2.00
REC voxel MPS (mm)       :      0.48 / 0.48 / 2.00
Scan percentage (%)       :      97.8260879516602
Packages                  :      2
Min. slice gap (mm)      :      2
WFS (pix) / BW (Hz)      :      2.363 / 183.8
TSE es / shot (ms)       :      11.3 / 169
TEeff / TEequiv (ms)     :      90 / 81
Head SAR                  :      < 90 %
Whole body SAR / level    :      < 0.2 W/kg / normal
SED                        :      0.0 kJ/kg
B1+rms                    :      2.21 uT
Max B1+rms                :      2.21 uT
PNS / level               :      23 % / normal
dB/dt                     :      11.2 T/s
Sound Pressure Level (dB) :      1.84885823726654

```

---

## Protocol Name: FLAIR\_LongTR\_MOD

Methodes Description:

```

methodDescription :  TRA      TIR      11000      125      90

```

Other Tags:

```

applicationMode :  AGDEF_APPL_IMAGING
lastModifiedTimeUtc :  2010-04-07 19:31:29.726

```

linkState : false  
laterality : unpaired

=====GEOMETRY=====

Patient weight [kg] : 25  
Nucleus : H1  
SmartSelect : AUTO  
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils : SENSE\_HEAD\_32AH , SENSE\_HEAD\_32P  
compacted conns : /CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn  
stacks channels : 65531 0 0 0 65535 0 0 0 0 0 0 0 0 0 0  
clinical modes : SENSE\_HEAD\_32P\_SENSE\_HEAD\_32AH  
compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils (exclude) :  
compacted conns (exclude) :  
stacks channels (exclude) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Uniformity : CLEAR  
FOV (mm) : 230  
FOV (mm) : 182.413787841797  
FOV (mm) : 150 119 119 119 119 119 119 119 119 119 11  
ACQ voxel size FH (mm) : 1  
ACQ voxel size FH (mm) : 1  
Slice thickness (mm) : 2  
EX\_PROC\_recon\_voxel\_size : 0.71875  
RFOV (%) : 79.3103408813477  
Fold-over suppression : NO  
Matrix scan : 232  
reconstruction : 320  
Scan percentage (%) : 98.9130401611328  
SENSE : YES  
P reduction (AP) : 1.20000004768372  
k-t Acceleration : NO  
Stacks : 1  
type : PARALLEL\_STACK  
Slices : 75  
Slice thickness (mm) : 2  
slice gap : USER\_DEF  
gap (mm) : 0  
Slice orientation : TRANSVERSAL  
Fold-over direction : LR  
Fat shift direction : P  
Slice Offc. AP (P=+mm) : -12.1278877258301  
RL (L=+mm) : 1.99212861061096  
FH (H=+mm) : 5.42133474349976  
Ang. AP (deg) : -1.05240416526794  
RL (deg) : -1.10846042633057  
FH (deg) : 4.89425134658813  
EX\_GEO\_stacks\_table\_long\_pos : 2100000000  
Free rotatable : NO  
Minimum number of packages : 4  
Slice scan order : DEFAULT  
Large table movement : NO

PlanAlign :	NO
REST slabs :	1
shared :	NO
type :	PARALLEL
circular slabs :	10 10 10 10 10 10 10 10 10 10 10 10
orientation :	TRANSVERSAL
thickness (mm) :	60 60 60 60 60 60 60 60 60 60 60 60
position :	CAUDAL
gap :	DEFAULT
(mm) :	15 20 20 20 20 20 20 20 20 20 20 20
distance (mm) :	50 50 50 50 50 50 50 50 50 50 50 50
Rest Offc. AP (P=+mm) :	-14.4489049911499 0 0 0 0 0 0 0 0 0 0 0
RL (L=+mm) :	4.19615459442139 0 0 0 0 0 0 0 0 0 0 0
FH (H=+mm) :	-114.535972595215 0 0 0 0 0 0 0 0 0 0 0
Ang. AP (deg) :	-1.05240416526794 0 0 0 0 0 0 0 0 0 0 0
RL (deg) :	-1.10846042633057 0 0 0 0 0 0 0 0 0 0 0
FH (deg) :	4.89425134658813 0 0 0 0 0 0 0 0 0 0 0
angulation (deg) :	0 0 0 0 0 0 0 0 0 0 0 0
FM shape :	NO
composite elements :	1 1 1 1 1 1 1 1 1 1 1 1
correction factor :	1 1 1 1 1 1 1 1 1 1 1 1
power :	1
target :	FAT
timed :	NO
start (phase) :	1
stop (phase) :	2
delay :	NO
(ms) :	50
EX_TRACK_tracking :	NONE
Interactive positioning :	NO
External control :	NO
Allow table movement :	NO
Patient position :	HEAD_FIRST
Patient orientation :	SUPINE
=====CONTRAST=====	
Scan type :	IMAGING
Scan mode :	MS
technique :	IR
Acquisition mode :	CARTESIAN
Fast Imaging mode :	TSE
shot mode :	MSH
TSE factor :	31
startup echoes :	0
profile order :	LINEAR
DRIVE :	NO
ultrashort :	YES
shift :	0
fid reduction :	DEFAULT
Echoes :	1
EX_ACQ_b0zshim_enum :	DEFAULT
partial echo :	NO
TE :	USER_DEF

```

(ms) : 125
Refocusing control : YES
  angle (deg) : 120
  echo enhancement : NONE
  bright fat reduction : NO
TR : USER_DEF
  (ms) : 10000
Halfscan : NO
Water-fat shift : MAXIMUM
IR delay (ms) : 2700
  acquire during delay : YES
EX_IR_2nd_inv : NO
  power : 1
EX_ACQ_RF_shim_data : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim : DEFAULT
  Get shim and F0 from PRIDE : NO
  Calculate shim now : NO
  F0 Determination : AUTO
X      shim value : 0
Y      shim value : 0
Z      shim value : 0
Z2     shim value : 0
ZX     shim value : 0
ZY     shim value : 0
X2-Y2  shim value : 0
2XY    shim value : 0
Z3     shim value : 0
Z2X    shim value : 0
Z2Y    shim value : 0
Z(X2-Y2) shim value : 0
2XYZ   shim value : 0
X3     shim value : 0
Y3     shim value : 0
Shim offset freq : 0
Nav shim offset freq : 0
Navigator X shim value : 0
Navigator Y shim value : 0
Navigator Z shim value : 0
mDIXON : NO
Fat suppression : SPIR
  strength : STRONG
  frequency offset : DEFAULT
Grad Rev Fat suppr : NO
Water suppression : NO
  shared : NO
MTC : NO
T2prep : NO
Custom prepulse : NO
EX_LOLO_enable : NO
Diffusion mode : NO
EX_DIFF_array_x : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```

```

EX_DIFF_array_z : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  nr of b-factors : 2
EX_DIFF_nr_dti_directions : 1
EX_DIFF_nr_dti_vectors : 1
EX_DIFF_weighting_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme : user_defined
EX_DIFF_grad_factor : 1
MRE enable : NO
Multi-transmit : NO
SAR mode : HIGH
B1 mode : DEFAULT
EX_MULTIX_SAR_mode : AUTO
PNS mode : HIGH
Gradient mode : DEFAULT
SofTone mode : NO
=====MOTION=====
Cardiac synchronization : NO
Heart rate > 250 bpm : NO
Respiratory compensation : NO
Navigator respiratory comp : OFF
  weighted gating : NO
Flow compensation : YES
  direction : IN_PLANE
Motion smoothing : NO
NSA : 2
  SMART : NO
=====DYNANG=====
Manual start : NO
EX_abuse_dyn_loop : NO
Dynamic study : NO
Arterial Spin labeling : NO
=====PROC=====
Preparation phases : AUTO
Interactive F0 : NO
Gradient demo : NO
Pre scan : NO
SmartPlan survey : NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map : NO
EX_ACQ_B1_map : NO
MIP/MPR : NO
Images : MODULUS
Autoview image : MODULUS
EX_TS_reference_tissue : GREY_MATTER
Recon compression : NONE
Recon compression : NONE
  Nr recon channels : 8
EX_PROC_delrec_fcc_proc : PTIMIZED
Preset window contrast : SOFT
EX_PROC_usdef_coca : NO

```



EX\_PROC\_coca\_acq\_nrs : 1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_coca\_rec\_nrs : 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
EX\_PROC\_usdef\_coil\_survey : NO  
EX\_PROC\_coil\_survey\_acq\_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_coil\_survey\_rec\_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
Reconstruction mode : REAL\_TIME  
Save raw data : NO  
Analyse with IQT : NO  
EX\_PROC\_to\_gyroview : NO  
Hardcopy protocol : NO  
Image filter : DEFAULT  
Geometry correction : DEFAULT  
Viewable raw data : NO

=====PDF=====

EX\_conflict\_suggestion : 0  
GEX\_CONV\_id : 0 31 1  
GEX\_CONV\_ppde\_update : 0  
GEX\_CONV\_made\_by\_philips : YES  
GEX\_CONV\_applied\_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -  
GEX\_CONV\_base\_release : 18  
EX\_GEO\_voxel\_size\_conv\_done : YES  
EX\_PROC\_scan\_pat\_ref\_id : 541938977  
EX\_PROC\_coca\_patient\_ref\_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coca\_nr\_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coca\_nr\_stacks : 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coca\_edge\_dist\_pos : 178.818939208984 10000 10000 10000 100  
EX\_PROC\_coca\_edge\_dist\_neg : -178.795074462891 -10000 -10000 -10000  
EX\_PROC\_senseref\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_senseref\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_surv\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_coil\_surv\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0  
EX\_PROC\_sense\_ref\_qbc\_stack : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_sense\_ref\_syn\_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
EX\_PROC\_coil\_survey\_pat\_ref\_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_survey\_nr\_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_survey\_nr\_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_survey\_qbc\_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_coil\_survey\_syn\_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
EX\_GEO\_auto\_coils\_selected : YES  
EX\_COIL\_ui\_use\_review\_mode : YES

=====INFO=====

Total scan duration : 07:30.0  
IF\_absolute\_SNR : 1.15998351573944  
Rel. SNR : 1.0274041891098  
Act. TR/TE (ms) : 10000 / 2700  
Act. TE (ms) : 125  
ACQ matrix M x P : 232 x 148  
ACQ voxel MPS (mm) : 0.99 / 1.23 / 2.00  
REC voxel MPS (mm) : 0.72 / 0.72 / 2.00  
Scan percentage (%) : 80.5194778442383  
Packages : 5  
Min. slice gap (mm) : 2

Optimal slices :	32
Max. slices :	80
WFS (pix) / BW (Hz) :	1.313 / 330.8
Full flow comp. :	YES
TSE es / shot (ms) :	7.8 / 242
TEeff / TEequiv (ms) :	125 / 111
Min. TR/TE (ms) :	9275 / 50
Head SAR :	< 67 %
Whole body SAR / level :	< 0.1 W/kg / normal
SED :	< 0.1 kJ/kg
B1+rms :	1.91 uT
Max B1+rms :	1.91 uT
PNS / level :	51 % / normal
dB/dt :	52.6 T/s
Sound Pressure Level (dB) :	20.2527694702148

## Protocol Name: Resting state

Methodes Description:

Other Tags:

```

applicationMode : AGDEF_APPL_IMAGING
linkState : false
laterality : unpaired

```

=====GEOMETRY=====

Patient weight [kg] :	25
Nucleus :	H1
SmartSelect :	AUTO
compacted :	0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils :	SENSE_HEAD_32AH , SENSE_HEAD_32P
compacted conns :	/CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn
stacks channels :	65531 0 0 0 65535 0 0 0 0 0 0 0 0 0 0
clinical modes :	SENSE_HEAD_32P_SENSE_HEAD_32AH
compacted (exclude) :	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils (exclude) :	
compacted conns (exclude) :	
stacks channels (exclude) :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity :	CLEAR
FOV (mm) :	240
FOV (mm) :	240
FOV (mm) :	121.599998474121 250 250 250 250 250 2
ACQ voxel size FH (mm) :	3
ACQ voxel size FH (mm) :	3
Slice thickness (mm) :	3.20000004768372
EX_PROC_recon_voxel_size :	3
RFOV (%) :	100
Fold-over suppression :	NO
Matrix scan :	80

reconstruction :	80
Scan percentage (%) :	100
SENSE :	YES
P reduction (AP) :	2
k-t Acceleration :	NO
Stacks :	1
type :	PARALLEL_STACK
Slices :	38
Slice thickness (mm) :	3.20000004768372
slice gap :	USER_DEF
gap (mm) :	0
Slice orientation :	TRANSVERSAL
Fold-over direction :	AP
Fat shift direction :	A
Slice Offc. AP (P=+mm) :	-11.0084676742554
RL (L=+mm) :	0.872701227664948
FH (H=+mm) :	13.8170366287231
Ang. AP (deg) :	-1.05240416526794
RL (deg) :	-1.10846042633057
FH (deg) :	4.89425134658813
EX_GEO_stacks_table_long_pos :	2100000000
Free rotatable :	NO
Minimum number of packages :	1
Slice scan order :	ASCEND
Large table movement :	NO
PlanAlign :	NO
REST slabs :	0
delay :	NO
Shim Size AP (mm) :	171.363876342773
RL (mm) :	129.150146484375
FH (mm) :	113.97046661377
Offc. AP (P=+mm) :	-3.86548471450806
RL (L=+mm) :	-0.506013989448547
FH (H=+mm) :	15.580135345459
Ang. AP (deg) :	-1.97411704063416
RL (deg) :	-10.0008583068848
FH (deg) :	4.8738169670105
Shim volumes :	1
EX_TRACK_tracking :	NONE
Interactive positioning :	NO
External control :	NO
Allow table movement :	NO
Patient position :	HEAD_FIRST
Patient orientation :	SUPINE
=====CONTRAST=====	
Scan type :	IMAGING
Scan mode :	MS
technique :	FFE
Contrast enhancement :	NO
Acquisition mode :	CARTESIAN
Fast Imaging mode :	EPI
shot mode :	SSH

Echoes :	1
EX_ACQ_b0zshim_enum :	DEFAULT
partial echo :	NO
shifted echo :	NO
TE :	USER_DEF
(ms) :	28
Flip angle (deg) :	90
TR :	USER_DEF
(ms) :	2000
Halfscan :	NO
Water-fat shift :	USER_DEF
(pixels) :	11
EX_ACQ_RF_shim_data :	0 0
Shim :	HOS_VOLUME
Get shim and F0 from PRIDE :	NO
Calculate shim now :	NO
F0 Determination :	AUTO
X shim value :	0
Y shim value :	0
Z shim value :	0
Z2 shim value :	0
ZX shim value :	0
ZY shim value :	0
X2-Y2 shim value :	0
2XY shim value :	0
Z3 shim value :	0
Z2X shim value :	0
Z2Y shim value :	0
Z(X2-Y2) shim value :	0
2XYZ shim value :	0
X3 shim value :	0
Y3 shim value :	0
Shim offset freq :	0
Nav shim offset freq :	0
Navigator X shim value :	0
Navigator Y shim value :	0
Navigator Z shim value :	0
ShimAlign :	NO
mDIXON :	NO
Fat suppression :	SPIR
strength :	STRONG
frequency offset :	DEFAULT
Water suppression :	NO
shared :	NO
MTC :	NO
Custom prepulse :	NO
Diffusion mode :	NO
EX_DIFF_array_x :	0 0
EX_DIFF_array_y :	0 0
EX_DIFF_array_z :	0 0
EX_DIFF_array_b :	0 0
nr of b-factors :	2

```

EX_DIFF_nr_dti_directions :      1
EX_DIFF_nr_dti_vectors   :      1
EX_DIFF_weighting_ix_array :    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array :    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme   :    user_defined
EX_DIFF_grad_factor      :      1
MRE enable               :      NO
Multi-transmit           :      NO
SAR mode                 :      HIGH
B1 mode                  :      DEFAULT
EX_MULTIX_SAR_mode       :      AUTO
PNS mode                 :      HIGH
Gradient mode            :      MAXIMUM
SofTone mode             :      NO
=====MOTION=====
Cardiac synchronization   :      NO
Heart rate > 250 bpm      :      NO
Respiratory compensation :      NO
Navigator respiratory comp : OFF
    weighted gating       :      NO
Flow compensation         :      NO
Temporal slice spacing    :      MINIMAL
fMRI echo stabilisation   :      NO
NSA                       :      1
=====DYNANG=====
Angio / Contrast enh.    :      NO
Quantitative flow         :      NO
Manual start              :      YES
EX_abuse_dyn_loop         :      NO
Dynamic study             :      INDIVIDUAL
    dyn scans             :      203
    recon multiplier      :      1
    dyn scan times        :      SHORTEST
    fov time mode         :      VOXEL
    dummy scans           :      5
    immediate subtraction :      NO
    fast next scan        :      NO
    synch. ext. device     :      YES
        start at dyn.     :      1
        interval (dyn)    :      1
    dyn stabilization     :      REGULAR
    prospect. motion corr. :      NO
Keyhole                   :      NO
Arterial Spin labeling    :      NO
=====PROC=====
Preparation phases        :      FULL
Interactive F0            :      NO
Gradient demo             :      NO
Pre scan                  :      NO
SmartPlan survey          :      NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map             :      NO

```

```

EX_ACQ_B1_map      :      NO
MIP/MPR           :      NO
SWIp              :      NO
Images            :      MODULUS
Autoview image    :      MODULUS
Calculated images :      NO
EX_TS_reference_tissue : GREY_MATTER
EX_ACQ_epi_2d_phase_corr : NO
Recon compression :      NONE
Recon compression :      NONE
    Nr recon channels :      8
EX_PROC_delrec_fcc_proc : PTIMIZED
Preset window contrast : SOFT
EX_PROC_usdef_coca :      NO
EX_PROC_coca_acq_nrs : 1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs : 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey : NO
EX_PROC_coil_survey_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode : REAL_TIME
    reuse memory :      NO
Save raw data      :      NO
Analyse with IQT   :      NO
EX_PROC_to_gyroview :      NO
Hardcopy protocol  :      NO
Image filter       :      DEFAULT
Geometry correction :      DEFAULT
Viewable raw data  :      NO
=====PDF=====
EX_conflict_suggestion : 0
GEX_CONV_id           : 0 31 1
GEX_CONV_ppde_update  : 0
GEX_CONV_made_by_philips : YES
GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release : 18
EX_GEO_voxel_size_conv_done : YES
EX_PROC_scan_pat_ref_id : 541938977
EX_PROC_coca_patient_ref_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_stacks : 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos : 172.809295654297 10000 10000 10000 100
EX_PROC_coca_edge_dist_neg : -179.551834106445 -10000 -10000 -10000
EX_PROC_senseref_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_senseref_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_sense_ref_qbc_stack : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

```

```

EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_GEO_auto_coils_selected : YES
EX_COIL_ui_use_review_mode : YES
=====INFO=====
Total scan duration : 06:59.9
IF_absolute_SNR : 6.20777082443237
Rel. SNR : 5.4982590675354
Act. TR/TE (ms) : 2000 / 28
Dyn. scan time : 00:02.0
Time to k0 : 0.994
ACQ matrix M x P : 80 x 78
ACQ voxel MPS (mm) : 3.00 / 3.08 / 3.20
REC voxel MPS (mm) : 3.00 / 3.00 / 3.20
Scan percentage (%) : 97.5
Packages : 1
Min. slice gap (mm) : 0
EPI factor : 39
WFS (pix) / BW (Hz) : 11.001 / 39.5
BW in EPI freq. dir. (Hz) : 2123.3
Min. WFS (pix) / Max. BW (Hz) : 7.233 / 60.0
Min. TR/TE (ms) : 1967 / 9.6
Head SAR : < 37 %
Whole body SAR / level : < 0.1 W/kg / normal
SED : 0.0 kJ/kg
B1+rms : 1.42 uT
Max B1+rms : 1.42 uT
PNS / level : 95 % / 1st level
dB/dt : 119.0 T/s
Sound Pressure Level (dB) : 19.4884967803955

```

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## Protocol Name: WIP\_dti\_landman\_5min

Methodes Description:

Other Tags:

```

applicationMode : AGDEF_APPL_IMAGING
linkState : false
laterality : unpaired

```

```

=====GEOMETRY=====
Patient weight [kg] : 25
Nucleus : H1
SmartSelect : AUTO
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils : SENSE_HEAD_32AH , SENSE_HEAD_32P
compacted conns : /CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn
stacks channels : 65531 0 0 0 65535 0 0 0 0 0 0 0 0 0
clinical modes : SENSE_HEAD_32P_SENSE_HEAD_32AH
compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1

```

```

compacted coils (exclude) :
compacted conns (exclude) :
stacks channels (exclude) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity : CLEAR
FOV (mm) : 240
FOV (mm) : 240
FOV (mm) : 125 250 250 250 250 250 250 250 250 250 25
ACQ voxel size FH (mm) : 2.5
ACQ voxel size FH (mm) : 2.5
Slice thickness (mm) : 2.5
EX_PROC_recon_voxel_size : 2.5
RF0V (%) : 100
EX_ACQ_small_fov : NO
Fold-over suppression : NO
Matrix scan : 96
      reconstruction : 96
Scan percentage (%) : 100
SENSE : YES
      P reduction (AP) : 2.20000004768372
k-t Acceleration : NO
Stacks : 1
      type : PARALLEL_STACK
Slices : 50
Slice thickness (mm) : 2.5
      slice gap : USER_DEF
            gap (mm) : 0
Slice orientation : TRANSVERSAL
Fold-over direction : AP
Fat shift direction : P
Slice Offc. AP (P=+mm) : -11.0084676742554
            RL (L=+mm) : 0.872701227664948
            FH (H=+mm) : 13.8170366287231
      Ang. AP (deg) : -1.05240416526794
            RL (deg) : -1.10846042633057
            FH (deg) : 4.89425134658813
EX_GEO_stacks_table_long_pos : 2100000000
      Free rotatable : NO
Minimum number of packages : 1
Slice scan order : DEFAULT
Large table movement : NO
PlanAlign : NO
REST slabs : 0
      delay : NO
Shim Size AP (mm) : 171.363876342773
            RL (mm) : 129.150146484375
            FH (mm) : 113.97046661377
      Offc. AP (P=+mm) : -3.86548471450806
            RL (L=+mm) : -0.506013989448547
            FH (H=+mm) : 15.580135345459
      Ang. AP (deg) : -1.97411704063416
            RL (deg) : -10.0008583068848
            FH (deg) : 4.8738169670105

```



```

Shim volumes      : 1
EX_TRACK_tracking : NONE
Interactive positioning : NO
External control  : NO
Allow table movement : NO
Patient position  : HEAD_FIRST
Patient orientation : SUPINE
=====CONTRAST=====
Scan type      : IMAGING
Scan mode      : MS
    technique   : SE
Modified SE     : NO
Acquisition mode : CARTESIAN
Fast Imaging mode : EPI
    shot mode    : SSH
Echoes          : 1
EX_ACQ_b0zshim_enum : DEFAULT
    partial echo : NO
TE              : USER_DEF
    (ms)         : 53
Flip angle (deg) : 90
TR              : USER_DEF
    (ms)         : 7775
Halfscan        : YES
    factor       : 0.702127635478973
Water-fat shift  : MINIMUM
EX_ACQ_RF_shim_data : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim            : HOS_VOLUME
    Get shim and F0 from PRIDE : NO
    Calculate shim now          : NO
    F0 Determination           : AUTO
X        shim value : 0
Y        shim value : 0
Z        shim value : 0
Z2       shim value : 0
ZX       shim value : 0
ZY       shim value : 0
X2-Y2    shim value : 0
2XY      shim value : 0
Z3       shim value : 0
Z2X      shim value : 0
Z2Y      shim value : 0
Z(X2-Y2) shim value : 0
2XYZ     shim value : 0
X3       shim value : 0
Y3       shim value : 0
Shim offset freq : 0
Nav shim offset freq : 0
Navigator X shim value : 0
Navigator Y shim value : 0
Navigator Z shim value : 0
ShimAlign      : NO

```

```

mDIXON : NO
Fat suppression : NO
Grad Rev Fat suppr : YES
Water suppression : NO
BB pulse : NONE
    shared : NO
MTC : NO
Custom prepulse : NO
Diffusion mode : DTI
    sequence : E
EX_DIFF_grad_dur_enum : MAXIMUM
    gradient overplus : NO
    directional resolution : HIGH
EX_DIFF_array_x : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors : 2
EX_DIFF_nr_dti_directions : 1
EX_DIFF_nr_dti_vectors : 1
EX_DIFF_weighting_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme : user_defined
EX_DIFF_grad_factor : 1
    nr of b-factors : 2
    b-factor order : LIN
    max b-factor : 1000
    average high b : USER_DEF
        b-factor averages : 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
MRE enable : NO
Multi-transmit : NO
SAR mode : HIGH
B1 mode : DEFAULT
EX_MULTIX_SAR_mode : AUTO
PNS mode : MODERATE
Gradient mode : ENHANCED
SofTone mode : NO
=====MOTION=====
Cardiac synchronization : NO
Heart rate > 250 bpm : NO
Respiratory compensation : NO
Navigator respiratory comp : OFF
    weighted gating : NO
Flow compensation : NO
Temporal slice spacing : DEFAULT
NSA : 1
=====DYNANG=====
Manual start : NO
EX_abuse_dyn_loop : NO
Dynamic study : NO
    dyn stabilization : NO
Arterial Spin labeling : NO

```

=====PROC=====

```

Preparation phases      :      AUTO
Interactive F0         :      NO
Gradient demo          :      NO
Pre scan               :      NO
SmartPlan survey       :      NONE
EX_ACQ_whole_body_fat_water :      NO
EX_ACQ_B0_map          :      NO
EX_ACQ_B1_map          :      NO
MIP/MPR               :      NO
Images                 :      MODULUS
Autoview image         :      MODULUS
Calculated images      :      NO
EX_TS_reference_tissue :      GREY_MATTER
EX_ACQ_epi_2d_phase_corr :      NO
Recon compression     :      NONE
Recon compression     :      NONE
    Nr recon channels  :      8
EX_PROC_delrec_fcc_proc :      PTIMIZED
Preset window contrast :      SOFT
EX_PROC_usdef_coca     :      NO
EX_PROC_coca_acq_nrs   :      1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs   :      2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey :      NO
EX_PROC_coil_survey_acq_nrs :      0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs :      0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode    :      PARALLEL
Save raw data          :      NO
Analyse with IQT       :      NO
EX_PROC_to_gyroview    :      NO
Hardcopy protocol      :      NO
Image filter           :      DEFAULT
Geometry correction    :      DEFAULT
Viewable raw data      :      NO
  
```

=====PDF=====

```

EX_conflict_suggestion :      0
GEX_CONV_id            :      0 31 1
GEX_CONV_ppde_update   :      0
GEX_CONV_made_by_philips :      YES
GEX_CONV_applied_conversions :      0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release  :      18
EX_GEO_voxel_size_conv_done :      YES
EX_PROC_scan_pat_ref_id :      541938977
EX_PROC_coca_patient_ref_ids :      541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels :      32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_stacks  :      2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos :      172.809295654297 10000 10000 10000 100
EX_PROC_coca_edge_dist_neg :      -179.551834106445 -10000 -10000 -10000
EX_PROC_senseref_rfsh_rx_scls :      1 1 1 1 1 1 1 1
EX_PROC_senseref_rfsh_rx_ph :      0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls :      1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph :      0 0 0 0 0 0 0 0
  
```

```

EX_PROC_sense_ref_qbc_stack : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_GEO_auto_coils_selected : YES
EX_COIL_ui_use_review_mode : YES

```

=====INFO=====

```

Total scan duration : 05:03.2
IF_absolute_SNR : 2.50316500663757
Rel. SNR : 0.403230905532837
Act. TR/TE (ms) : 7775
Act. TE (ms) : 53
ACQ matrix M x P : 96 x 93
ACQ voxel MPS (mm) : 2.50 / 2.56 / 2.50
REC voxel MPS (mm) : 2.50 / 2.50 / 2.50
Scan percentage (%) : 97.7272720336914
Packages : 1
Min. slice gap (mm) : 0
Diff Gr (DELTA/delta(ms)) : 25.4 / 13.4
EPI factor : 43
WFS (pix) / BW (Hz) : 11.979 / 36.3
BW in EPI freq. dir. (Hz) : 3317.6
Min. TR/TE (ms) : 3654
Head SAR : < 19 %
Whole body SAR / level : 0.0 W/kg / normal
SED : 0.0 kJ/kg
B1+rms : 1.03 uT
Max B1+rms : 1.03 uT
PNS / level : 79 % / normal
dB/dt : 36.8 T/s
Sound Pressure Level (dB) : 12.4670457839966

```

---

## Protocol Name: DTI\_APA

### Methodes Description:

### Other Tags:

```

applicationMode : AGDEF_APPL_IMAGING
linkState : false
laterality : unpaired

```

=====GEOMETRY=====

```

Patient weight [kg] : 25
Nucleus : H1
SmartSelect : AUTO
compactd : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -

```

compacted coils :	SENSE_HEAD_32AH , SENSE_HEAD_32P
compacted conns :	/CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn
stacks channels :	65531 0 0 0 65535 0 0 0 0 0 0 0 0 0 0 0
clinical modes :	SENSE_HEAD_32P_SENSE_HEAD_32AH
compacted (exclude) :	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils (exclude) :	
compacted conns (exclude) :	
stacks channels (exclude) :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity :	CLEAR
FOV (mm) :	240
FOV (mm) :	240
FOV (mm) :	125 250 250 250 250 250 250 250 250 250
ACQ voxel size FH (mm) :	2.5
ACQ voxel size FH (mm) :	2.5
Slice thickness (mm) :	2.5
EX_PROC_recon_voxel_size :	2.5
RFOV (%) :	100
EX_ACQ_small_fov :	NO
Fold-over suppression :	NO
Matrix scan :	96
reconstruction :	96
Scan percentage (%) :	100
SENSE :	YES
P reduction (AP) :	2.20000004768372
k-t Acceleration :	NO
Stacks :	1
type :	PARALLEL_STACK
Slices :	50
Slice thickness (mm) :	2.5
slice gap :	USER_DEF
gap (mm) :	0
Slice orientation :	TRANSVERSAL
Fold-over direction :	AP
Fat shift direction :	A
Slice Offc. AP (P=+mm) :	-11.0084676742554
RL (L=+mm) :	0.872701227664948
FH (H=+mm) :	13.8170366287231
Ang. AP (deg) :	-1.05240416526794
RL (deg) :	-1.10846042633057
FH (deg) :	4.89425134658813
EX_GEO_stacks_table_long_pos :	2100000000
Free rotatable :	NO
Minimum number of packages :	1
Slice scan order :	DEFAULT
Large table movement :	NO
PlanAlign :	NO
REST slabs :	0
delay :	NO
Shim Size AP (mm) :	171.363876342773
RL (mm) :	129.150146484375
FH (mm) :	113.97046661377
Offc. AP (P=+mm) :	-3.86548471450806

RL (L=+mm) :	-0.506013989448547
FH (H=+mm) :	15.580135345459
Ang. AP (deg) :	-1.97411704063416
RL (deg) :	-10.0008583068848
FH (deg) :	4.8738169670105
Shim volumes :	1
EX_TRACK_tracking :	NONE
Interactive positioning :	NO
External control :	NO
Allow table movement :	NO
Patient position :	HEAD_FIRST
Patient orientation :	SUPINE
=====CONTRAST=====	
Scan type :	IMAGING
Scan mode :	MS
technique :	SE
Modified SE :	NO
Acquisition mode :	CARTESIAN
Fast Imaging mode :	EPI
shot mode :	SSH
Echoes :	1
EX_ACQ_b0zshim_enum :	DEFAULT
partial echo :	NO
TE :	USER_DEF
(ms) :	53
Flip angle (deg) :	90
TR :	USER_DEF
(ms) :	7775
Halfscan :	YES
factor :	0.702127635478973
Water-fat shift :	MINIMUM
EX_ACQ_RF_shim_data :	0 0
Shim :	HOS_VOLUME
Get shim and F0 from PRIDE :	NO
Calculate shim now :	NO
F0 Determination :	AUTO
X shim value :	0
Y shim value :	0
Z shim value :	0
Z2 shim value :	0
ZX shim value :	0
ZY shim value :	0
X2-Y2 shim value :	0
2XY shim value :	0
Z3 shim value :	0
Z2X shim value :	0
Z2Y shim value :	0
Z(X2-Y2) shim value :	0
2XYZ shim value :	0
X3 shim value :	0
Y3 shim value :	0
Shim offset freq :	0

```

Nav shim offset freq : 0
Navigator X shim value : 0
Navigator Y shim value : 0
Navigator Z shim value : 0
ShimAlign : NO
mDIXON : NO
Fat suppression : NO
Grad Rev Fat suppr : YES
Water suppression : NO
BB pulse : NONE
    shared : NO
MTC : NO
Custom prepulse : NO
Diffusion mode : DTI
    sequence : E
EX_DIFF_grad_dur_enum : MAXIMUM
    gradient overplus : NO
    directional resolution : LOW
EX_DIFF_array_x : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors : 2
EX_DIFF_nr_dti_directions : 1
EX_DIFF_nr_dti_vectors : 1
EX_DIFF_weighting_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme : user_defined
EX_DIFF_grad_factor : 1
    nr of b-factors : 2
    b-factor order : LIN
    max b-factor : 1000
    average high b : USER_DEF
        b-factor averages : 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
MRE enable : NO
Multi-transmit : NO
SAR mode : HIGH
B1 mode : DEFAULT
EX_MULTIX_SAR_mode : AUTO
PNS mode : MODERATE
Gradient mode : ENHANCED
SofTone mode : NO
=====MOTION=====
Cardiac synchronization : NO
Heart rate > 250 bpm : NO
Respiratory compensation : NO
Navigator respiratory comp : OFF
    weighted gating : NO
Flow compensation : NO
Temporal slice spacing : DEFAULT
NSA : 1
=====DYNANG=====

```

```

Manual start : NO
EX_abuse_dyn_loop : NO
Dynamic study : NO
    dyn stabilization : NO
Arterial Spin labeling : NO
=====PROC=====
Preparation phases : AUTO
Interactive F0 : NO
Gradient demo : NO
Pre scan : NO
SmartPlan survey : NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map : NO
EX_ACQ_B1_map : NO
MIP/MPR : NO
Images : MODULUS
Autoview image : MODULUS
Calculated images : NO
EX_TS_reference_tissue : GREY_MATTER
EX_ACQ_epi_2d_phase_corr : NO
Recon compression : NONE
Recon compression : NONE
    Nr recon channels : 8
EX_PROC_delrec_fcc_proc : PTIMIZED
Preset window contrast : SOFT
EX_PROC_usdef_coca : NO
EX_PROC_coca_acq_nrs : 1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs : 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey : NO
EX_PROC_coil_survey_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode : PARALLEL
Save raw data : NO
Analyse with IQT : NO
EX_PROC_to_gyroview : NO
Hardcopy protocol : NO
Image filter : DEFAULT
Geometry correction : DEFAULT
Viewable raw data : NO
=====PDF=====
EX_conflict_suggestion : 0
GEX_CONV_id : 0 31 1
GEX_CONV_ppde_update : 0
GEX_CONV_made_by_philips : YES
GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release : 18
EX_GEO_voxel_size_conv_done : YES
EX_PROC_scan_pat_ref_id : 541938977
EX_PROC_coca_patient_ref_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_stacks : 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos : 172.809295654297 10000 10000 10000 10000 10000

```



```

EX_PROC_coca_edge_dist_neg : -179.551834106445 -10000 -10000 -10000
EX_PROC_senseref_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_senseref_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_sense_ref_qbc_stack : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_GEO_auto_coils_selected : YES
EX_COIL_ui_use_review_mode : YES

```

=====INFO=====

```

Total scan duration : 01:41.1
IF_absolute_SNR : 2.50316500663757
Rel. SNR : 0.403230905532837
Act. TR/TE (ms) : 7775
Act. TE (ms) : 53
ACQ matrix M x P : 96 x 93
ACQ voxel MPS (mm) : 2.50 / 2.56 / 2.50
REC voxel MPS (mm) : 2.50 / 2.50 / 2.50
Scan percentage (%) : 97.7272720336914
Packages : 1
Min. slice gap (mm) : 0
Diff Gr (DELTA/delta(ms)) : 25.4 / 13.4
EPI factor : 43
WFS (pix) / BW (Hz) : 11.979 / 36.3
BW in EPI freq. dir. (Hz) : 3317.6
Min. TR/TE (ms) : 3654
Head SAR : < 19 %
Whole body SAR / level : 0.0 W/kg / normal
SED : 0.0 kJ/kg
B1+rms : 1.03 uT
Max B1+rms : 1.03 uT
PNS / level : 79 % / normal
dB/dt : 37.1 T/s
Sound Pressure Level (dB) : 12.959753036499

```

---

## Protocol Name: WIP\_HARDI\_60\_2\_5iso

Methodes Description:

Other Tags:

```

applicationMode : AGDEF_APPL_IMAGING
linkState : false
laterality : unpaired

```

=====GEOMETRY=====

```

Patient weight [kg] : 25
Nucleus : H1
SmartSelect : AUTO
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils : SENSE_HEAD_32AH , SENSE_HEAD_32P
compacted conns : /CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn
stacks channels : 65531 0 0 0 65535 0 0 0 0 0 0 0 0 0 0
clinical modes : SENSE_HEAD_32P_SENSE_HEAD_32AH
compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils (exclude) :
compacted conns (exclude) :
stacks channels (exclude) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity : CLEAR
FOV (mm) : 240
FOV (mm) : 240
FOV (mm) : 125 250 250 250 250 250 250 250 250 250 25
ACQ voxel size FH (mm) : 2.5
ACQ voxel size FH (mm) : 2.5
Slice thickness (mm) : 2.5
EX_PROC_recon_voxel_size : 2.5
RF0V (%) : 100
EX_ACQ_small_fov : NO
Fold-over suppression : NO
Matrix scan : 96
reconstruction : 96
Scan percentage (%) : 100
SENSE : YES
P reduction (AP) : 2
k-t Acceleration : NO
Stacks : 1
type : PARALLEL_STACK
Slices : 50
Slice thickness (mm) : 2.5
slice gap : USER_DEF
gap (mm) : 0
Slice orientation : TRANSVERSAL
Fold-over direction : AP
Fat shift direction : P
Slice Offc. AP (P=+mm) : -11.0084676742554
RL (L=+mm) : 0.872701227664948
FH (H=+mm) : 13.8170366287231
Ang. AP (deg) : -1.05240416526794
RL (deg) : -1.10846042633057
FH (deg) : 4.89425134658813
EX_GEO_stacks_table_long_pos : 2100000000
Free rotatable : NO
Minimum number of packages : 1
Slice scan order : DEFAULT
Large table movement : NO
PlanAlign : NO
REST slabs : 0

```

delay :	NO
Shim Size AP (mm) :	171.363876342773
RL (mm) :	129.150146484375
FH (mm) :	113.97046661377
Offc. AP (P=+mm) :	-3.86548471450806
RL (L=+mm) :	-0.506013989448547
FH (H=+mm) :	15.580135345459
Ang. AP (deg) :	-1.97411704063416
RL (deg) :	-10.0008583068848
FH (deg) :	4.8738169670105
Shim volumes :	1
EX_TRACK_tracking :	NONE
Interactive positioning :	NO
External control :	NO
Allow table movement :	NO
Patient position :	HEAD_FIRST
Patient orientation :	SUPINE
=====CONTRAST=====	
Scan type :	IMAGING
Scan mode :	MS
technique :	SE
Modified SE :	NO
Acquisition mode :	CARTESIAN
Fast Imaging mode :	EPI
shot mode :	SSH
Echoes :	1
EX_ACQ_b0zshim_enum :	DEFAULT
partial echo :	NO
TE :	USER_DEF
(ms) :	75
Flip angle (deg) :	90
TR :	USER_DEF
(ms) :	6525
Halfscan :	YES
factor :	0.607843160629272
Water-fat shift :	MINIMUM
EX_ACQ_RF_shim_data :	0 0
Shim :	HOS_VOLUME
Get shim and F0 from PRIDE :	NO
Calculate shim now :	NO
F0 Determination :	AUTO
X shim value :	0
Y shim value :	0
Z shim value :	0
Z2 shim value :	0
ZX shim value :	0
ZY shim value :	0
X2-Y2 shim value :	0
2XY shim value :	0
Z3 shim value :	0
Z2X shim value :	0
Z2Y shim value :	0

```

Z(X2-Y2) shim value : 0
2XYZ shim value : 0
X3 shim value : 0
Y3 shim value : 0
Shim offset freq : 0
Nav shim offset freq : 0
Navigator X shim value : 0
Navigator Y shim value : 0
Navigator Z shim value : 0
ShimAlign : NO
mDIXON : NO
Fat suppression : NO
Grad Rev Fat suppr : YES
Water suppression : NO
BB pulse : NONE
    shared : NO
MTC : NO
Custom prepulse : NO
Diffusion mode : DTI
    sequence : E
EX_DIFF_grad_dur_enum : MAXIMUM
    gradient overplus : NO
    directional resolution : FILE
EX_DIFF_array_x : -0.796804666519165 -0.442713737487793
EX_DIFF_array_y : 0.485802829265594 -0.396112322807312 0
EX_DIFF_array_z : -0.359302073717117 -0.804425001144409
EX_DIFF_array_b : 0 2000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors : 2
EX_DIFF_nr_dti_directions : 60
EX_DIFF_nr_dti_vectors : 61
EX_DIFF_weighting_ix_array : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_DIFF_direction_ix_array : 0 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
User defined DTI scheme : user_def_conv (61, 2000)
EX_DIFF_grad_factor : 1.00601375102997
    average high b : USER_DEF
    b-factor averages : 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
MRE enable : NO
Multi-transmit : NO
SAR mode : HIGH
B1 mode : DEFAULT
EX_MULTIX_SAR_mode : AUTO
PNS mode : MODERATE
Gradient mode : ENHANCED
SoftTone mode : NO
=====MOTION=====
Cardiac synchronization : NO
Heart rate > 250 bpm : NO
Respiratory compensation : NO
Navigator respiratory comp : OFF
    weighted gating : NO
Flow compensation : NO
Temporal slice spacing : DEFAULT

```

```

NSA      :                               1
=====DYNANG=====
Manual start   :                          NO
EX_abuse_dyn_loop :                      NO
Dynamic study  :                          NO
    dyn stabilization :                    NO
Arterial Spin labeling :                  NO
=====PROC=====
Preparation phases :                     AUTO
Interactive F0   :                        NO
Gradient demo    :                        NO
Pre scan        :                        NO
SmartPlan survey :                       NONE
EX_ACQ_whole_body_fat_water :            NO
EX_ACQ_B0_map    :                        NO
EX_ACQ_B1_map    :                        NO
MIP/MPR         :                        NO
Images          :                       MODULUS
Autoview image   :                       MODULUS
Calculated images :                       NO
EX_TS_reference_tissue :                 GREY_MATTER
EX_ACQ_epi_2d_phase_corr :               NO
Recon compression :                     NONE
Recon compression :                     NONE
    Nr recon channels :                   8
EX_PROC_delrec_fcc_proc :                PTIMIZED
Preset window contrast :                 SOFT
EX_PROC_usdef_coca :                     NO
EX_PROC_coca_acq_nrs :                   1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs :                    2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey :              NO
EX_PROC_coil_survey_acq_nrs :             0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs :             0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode :                   PARALLEL
Save raw data     :                      NO
Analyse with IQT  :                      NO
EX_PROC_to_gyroview :                   NO
Hardcopy protocol :                      NO
Image filter      :                      DEFAULT
Geometry correction :                   DEFAULT
Viewable raw data :                      NO
=====PDF=====
EX_conflict_suggestion :                  0
GEX_CONV_id         :                    0 31 1
GEX_CONV_ppde_update :                   0
GEX_CONV_made_by_philips :               YES
GEX_CONV_applied_conversions :           0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release :                  18
EX_GEO_voxel_size_conv_done :            YES
EX_PROC_scan_pat_ref_id :                541938977
EX_PROC_coca_patient_ref_ids :           541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels :               32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```

```

EX_PROC_coca_nr_stacks      :      2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos  :    172.809295654297 10000 10000 10000 10000
EX_PROC_coca_edge_dist_neg  :   -179.551834106445 -10000 -10000 -10000
EX_PROC_senseref_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_senseref_rfsh_rx_ph  : 0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph  : 0 0 0 0 0 0 0 0
EX_PROC_sense_ref_qbc_stack  : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack  : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_GEO_auto_coils_selected   : YES
EX_COIL_ui_use_review_mode   : YES
=====INFO=====

```

```

Total scan duration      :      07:17.2
IF_absolute_SNR          :      1.99304974079132
Rel. SNR                  :      0.321057230234146
Act. TR/TE (ms)          :      6525
Act. TE (ms)              :      75
ACQ matrix M x P         :      96 x 94
ACQ voxel MPS (mm)       :      2.50 / 2.55 / 2.50
REC voxel MPS (mm)       :      2.50 / 2.50 / 2.50
Scan percentage (%)       :      97.9166641235352
Packages                  :      1
Min. slice gap (mm)      :      0
Diff Gr (DELTA/delta(ms)) :      36.4 / 26.3
User defined DTI scheme   :      user_def_conv (61, 2000)
EPI factor                :      47
WFS (pix) / BW (Hz)      :      13.078 / 33.2
BW in EPI freq. dir. (Hz) :      3311.5
Min. TR/TE (ms)          :      4818
Head SAR                  :      < 23 %
Whole body SAR / level    :      < 0.1 W/kg / normal
SED                       :      0.0 kJ/kg
B1+rms                    :      1.12 uT
Max B1+rms                :      1.12 uT
PNS / level               :      78 % / normal
dB/dt                     :      37.1 T/s
Sound Pressure Level (dB) :      13.4398393630981

```

---

# Protocol Name: WIP\_dti\_4min\_matchTE

Methodes Description:

Other Tags:  
 applicationMode : AGDEF\_APPL\_IMAGING

linkState : false  
laterality : unpaired

=====GEOMETRY=====

Patient weight [kg] : 25  
Nucleus : H1  
SmartSelect : AUTO  
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils : SENSE\_HEAD\_32AH , SENSE\_HEAD\_32P  
compacted conns : /CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn  
stacks channels : 65531 0 0 0 65535 0 0 0 0 0 0 0 0 0 0  
clinical modes : SENSE\_HEAD\_32P\_SENSE\_HEAD\_32AH  
compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils (exclude) :  
compacted conns (exclude) :  
stacks channels (exclude) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Uniformity : CLEAR  
FOV (mm) : 240  
FOV (mm) : 240  
FOV (mm) : 125 250 250 250 250 250 250 250 250 250 25  
ACQ voxel size FH (mm) : 2.5  
ACQ voxel size FH (mm) : 2.5  
Slice thickness (mm) : 2.5  
EX\_PROC\_recon\_voxel\_size : 2.5  
RFOV (%) : 100  
EX\_ACQ\_small\_fov : NO  
Fold-over suppression : NO  
Matrix scan : 96  
reconstruction : 96  
Scan percentage (%) : 100  
SENSE : YES  
P reduction (AP) : 2.20000004768372  
k-t Acceleration : NO  
Stacks : 1  
type : PARALLEL\_STACK  
Slices : 50  
Slice thickness (mm) : 2.5  
slice gap : USER\_DEF  
gap (mm) : 0  
Slice orientation : TRANSVERSAL  
Fold-over direction : AP  
Fat shift direction : P  
Slice Offc. AP (P=+mm) : -11.0084676742554  
RL (L=+mm) : 0.872701227664948  
FH (H=+mm) : 13.8170366287231  
Ang. AP (deg) : -1.05240416526794  
RL (deg) : -1.10846042633057  
FH (deg) : 4.89425134658813  
EX\_GEO\_stacks\_table\_long\_pos : 2100000000  
Free rotatable : NO  
Minimum number of packages : 1  
Slice scan order : DEFAULT

```

Large table movement : NO
PlanAlign : NO
REST slabs : 0
    delay : NO
Shim Size AP (mm) : 171.363876342773
           RL (mm) : 129.150146484375
           FH (mm) : 113.97046661377
    Offc. AP (P=+mm) : -3.86548471450806
           RL (L=+mm) : -0.506013989448547
           FH (H=+mm) : 15.580135345459
    Ang. AP (deg) : -1.97411704063416
           RL (deg) : -10.0008583068848
           FH (deg) : 4.8738169670105
Shim volumes : 1
EX_TRACK_tracking : NONE
Interactive positioning : NO
External control : NO
Allow table movement : NO
Patient position : HEAD_FIRST
Patient orientation : SUPINE
=====CONTRAST=====
Scan type : IMAGING
Scan mode : MS
    technique : SE
Modified SE : NO
Acquisition mode : CARTESIAN
Fast Imaging mode : EPI
    shot mode : SSH
Echoes : 1
EX_ACQ_b0zshim_enum : DEFAULT
    partial echo : NO
TE : USER_DEF
    (ms) : 75
Flip angle (deg) : 90
TR : USER_DEF
    (ms) : 6300
Halfscan : YES
    factor : 0.702127635478973
Water-fat shift : MINIMUM
EX_ACQ_RF_shim_data : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim : HOS_VOLUME
    Get shim and F0 from PRIDE : NO
    Calculate shim now : NO
    F0 Determination : AUTO
X      shim value : 0
Y      shim value : 0
Z      shim value : 0
Z2     shim value : 0
ZX     shim value : 0
ZY     shim value : 0
X2-Y2  shim value : 0
2XY    shim value : 0

```



```

Z3      shim value :      0
Z2X     shim value :      0
Z2Y     shim value :      0
Z(X2-Y2) shim value :      0
2XYZ    shim value :      0
X3      shim value :      0
Y3      shim value :      0
Shim offset freq :      0
Nav shim offset freq :      0
Navigator X shim value :      0
Navigator Y shim value :      0
Navigator Z shim value :      0
ShimAlign :      NO
mDIXON :      NO
Fat suppression :      NO
Grad Rev Fat suppr :      YES
Water suppression :      NO
BB pulse :      NONE
    shared :      NO
MTC :      NO
Custom prepulse :      NO
Diffusion mode :      DTI
    sequence :      E
EX_DIFF_grad_dur_enum :      MAXIMUM
    gradient overplus :      NO
    directional resolution :      HIGH
EX_DIFF_array_x :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors :      2
EX_DIFF_nr_dti_directions :      1
EX_DIFF_nr_dti_vectors :      1
EX_DIFF_weighting_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme :      user_defined
EX_DIFF_grad_factor :      1
    nr of b-factors :      2
    b-factor order :      LIN
    max b-factor :      1000
    average high b :      USER_DEF
        b-factor averages :      5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
MRE enable :      NO
Multi-transmit :      NO
SAR mode :      HIGH
B1 mode :      DEFAULT
EX_MULTIX_SAR_mode :      AUTO
PNS mode :      MODERATE
Gradient mode :      ENHANCED
SofTone mode :      NO
=====MOTION=====
Cardiac synchronization :      NO

```

```

Heart rate > 250 bpm :      NO
Respiratory compensation :    NO
Navigator respiratory comp :  OFF
    weighted gating :        NO
Flow compensation :          NO
Temporal slice spacing :     DEFAULT
NSA :                        1
=====DYNANG=====
Manual start :              NO
EX_abuse_dyn_loop :         NO
Dynamic study :             NO
    dyn stabilization :      NO
Arterial Spin labeling :     NO
=====PROC=====
Preparation phases :        SAMEPREP
Interactive F0 :            NO
Gradient demo :             NO
Pre scan :                  NO
SmartPlan survey :          NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map :             NO
EX_ACQ_B1_map :             NO
MIP/MPR :                   NO
Images :                    MODULUS
Autoview image :            MODULUS
Calculated images :         NO
EX_TS_reference_tissue :    GREY_MATTER
EX_ACQ_epi_2d_phase_corr :  NO
Recon compression :         NONE
Recon compression :         NONE
    Nr recon channels :      8
EX_PROC_delrec_fcc_proc :   PTIMIZED
Preset window contrast :    SOFT
EX_PROC_usdef_coca :        NO
EX_PROC_coca_acq_nrs :      1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs :      2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey : NO
EX_PROC_coil_survey_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode :       PARALLEL
Save raw data :              NO
Analyse with IQT :           NO
EX_PROC_to_gyroview :       NO
Hardcopy protocol :         NO
Image filter :               DEFAULT
Geometry correction :        DEFAULT
Viewable raw data :          NO
=====PDF=====
EX_conflict_suggestion :     0
GEX_CONV_id :                0 31 1
GEX_CONV_ppde_update :       0
GEX_CONV_made_by_philips :    YES

```

```

GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release : 18
EX_GEO_voxel_size_conv_done : YES
EX_PROC_scan_pat_ref_id : 541938977
EX_PROC_coca_patient_ref_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_stacks : 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos : 172.809295654297 10000 10000 10000 100
EX_PROC_coca_edge_dist_neg : -179.551834106445 -10000 -10000 -10000
EX_PROC_senseref_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_senseref_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_sense_ref_qbc_stack : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_GEO_auto_coils_selected : YES
EX_COIL_ui_use_review_mode : YES

```

=====INFO=====

```

Total scan duration : 04:05.7
IF_absolute_SNR : 2.00083494186401
Rel. SNR : 0.322311341762543
Act. TR/TE (ms) : 6300
Act. TE (ms) : 75
ACQ matrix M x P : 96 x 93
ACQ voxel MPS (mm) : 2.50 / 2.56 / 2.50
REC voxel MPS (mm) : 2.50 / 2.50 / 2.50
Scan percentage (%) : 97.7272720336914
Packages : 1
Min. slice gap (mm) : 0
Diff Gr (DELTA/delta(ms)) : 36.4 / 24.4
EPI factor : 43
WFS (pix) / BW (Hz) : 11.979 / 36.3
BW in EPI freq. dir. (Hz) : 3317.6
Min. TR/TE (ms) : 4754
Head SAR : < 24 %
Whole body SAR / level : < 0.1 W/kg / normal
SED : 0.0 kJ/kg
B1+rms : 1.14 uT
Max B1+rms : 1.14 uT
PNS / level : 79 % / normal
dB/dt : 36.8 T/s
Sound Pressure Level (dB) : 13.3786354064941

```

---

# Protocol Name: Ax-B0map

## Methodes Description:

methodDescription : TRA FFE 448 7.3 90

## Other Tags:

applicationMode : AGDEF\_APPL\_IMAGING

linkState : false

laterality : unpaired

## =====GEOMETRY=====

Patient weight [kg] : 25  
Nucleus : H1  
SmartSelect : AUTO  
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils : SENSE\_HEAD\_32AH , SENSE\_HEAD\_32P  
compacted conns : /CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn  
stacks channels : 65531 0 0 0 65535 0 0 0 0 0 0 0 0 0 0  
clinical modes : SENSE\_HEAD\_32P\_SENSE\_HEAD\_32AH  
compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils (exclude) :  
compacted conns (exclude) :  
stacks channels (exclude) : 0  
Uniformity : CLEAR  
FOV (mm) : 240  
FOV (mm) : 240  
FOV (mm) : 125 250 250 250 250 250 250 250 250 250 25  
ACQ voxel size FH (mm) : 3  
ACQ voxel size FH (mm) : 3  
Slice thickness (mm) : 2.5  
EX\_PROC\_recon\_voxel\_size : 1.875  
RFOV (%) : 100  
Fold-over suppression : NO  
Matrix scan : 80  
reconstruction : 128  
Scan percentage (%) : 100  
SENSE : NO  
k-t Acceleration : NO  
Stacks : 1  
type : PARALLEL\_STACK  
Slices : 50  
Slice thickness (mm) : 2.5  
slice gap : USER\_DEF  
gap (mm) : 0  
Slice orientation : TRANSVERSAL  
Fold-over direction : LR  
Fat shift direction : P  
Slice Offc. AP (P=+mm) : -11.0084676742554  
RL (L=+mm) : 0.872701227664948  
FH (H=+mm) : 13.8170366287231

```

        Ang.  AP (deg)  :      -1.05240416526794
              RL (deg)  :      -1.10846042633057
              FH (deg)  :      4.89425134658813
EX_GEO_stacks_table_long_pos  :      2100000000
      Free rotatable  :      NO
Minimum number of packages  :      1
Slice scan order  :      DEFAULT
Large table movement  :      NO
PlanAlign  :      NO
REST slabs  :      0
      delay  :      NO
Shim Size AP (mm)  :      171.363876342773
              RL (mm)  :      129.150146484375
              FH (mm)  :      113.97046661377
      Offc. AP (P=+mm)  :      -3.86548471450806
              RL (L=+mm)  :      -0.506013989448547
              FH (H=+mm)  :      15.580135345459
      Ang.  AP (deg)  :      -1.97411704063416
              RL (deg)  :      -10.0008583068848
              FH (deg)  :      4.8738169670105
Shim volumes  :      1
EX_TRACK_tracking  :      NONE
Interactive positioning  :      NO
External control  :      NO
Allow table movement  :      NO
Patient position  :      HEAD_FIRST
Patient orientation  :      SUPINE
=====CONTRAST=====
Scan type  :      IMAGING
Scan mode  :      MS
      technique  :      FFE
Contrast enhancement  :      NO
Acquisition mode  :      CARTESIAN
Fast Imaging mode  :      NO
Echoes  :      1
EX_ACQ_b0zshim_enum  :      DEFAULT
      partial echo  :      NO
      shifted echo  :      NO
TE  :      SHORTEST
Flip angle (deg)  :      30
TR  :      SHORTEST
Halfscan  :      NO
Water-fat shift  :      MAXIMUM
EX_ACQ_RF_shim_data  :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim  :      HOS_VOLUME
  Get shim and F0 from PRIDE  :      NO
  Calculate shim now  :      NO
  F0 Determination  :      AUTO
X      shim value  :      0
Y      shim value  :      0
Z      shim value  :      0
Z2     shim value  :      0

```

```

ZX      shim value :      0
ZY      shim value :      0
X2-Y2   shim value :      0
2XY     shim value :      0
Z3      shim value :      0
Z2X     shim value :      0
Z2Y     shim value :      0
Z(X2-Y2) shim value :      0
2XYZ    shim value :      0
X3      shim value :      0
Y3      shim value :      0
Shim offset freq :      0
Nav shim offset freq :      0
Navigator X shim value :      0
Navigator Y shim value :      0
Navigator Z shim value :      0
ShimAlign :      NO
mDIXON :      NO
Fat suppression :      NO
Water suppression :      NO
    shared :      NO
MTC :      NO
Custom prepulse :      NO
Diffusion mode :      NO
EX_DIFF_array_x :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors :      2
EX_DIFF_nr_dti_directions :      1
EX_DIFF_nr_dti_vectors :      1
EX_DIFF_weighting_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme :      user_defined
EX_DIFF_grad_factor :      1
MRE enable :      NO
Multi-transmit :      NO
SAR mode :      HIGH
B1 mode :      DEFAULT
EX_MULTIX_SAR_mode :      AUTO
PNS mode :      LOW
Gradient mode :      DEFAULT
SoftTone mode :      NO
=====MOTION=====
Cardiac synchronization :      NO
Heart rate > 250 bpm :      NO
Respiratory compensation :      NO
Navigator respiratory comp :      OFF
    weighted gating :      NO
Flow compensation :      NO
Temporal slice spacing :      DEFAULT
fMRI echo stabilisation :      NO

```

NSA :	1
=====DYNANG=====	
Angio / Contrast enh. :	NO
Quantitative flow :	NO
Manual start :	NO
EX_abuse_dyn_loop :	NO
Dynamic study :	NO
Arterial Spin labeling :	NO
=====PROC=====	
Preparation phases :	AUTO
Interactive F0 :	NO
Gradient demo :	NO
Pre scan :	NO
SmartPlan survey :	NONE
EX_ACQ_whole_body_fat_water :	NO
EX_ACQ_B0_map :	YES
EX_ACQ_B0_map_delta_TE :	1
EX_ACQ_B1_map :	NO
MIP/MPR :	NO
SWIp :	NO
Images :	MODULUS
Autoview image :	MODULUS
Calculated images :	B0
EX_TS_reference_tissue :	GREY_MATTER
Recon compression :	NONE
Recon compression :	NONE
Nr recon channels :	8
EX_PROC_delrec_fcc_proc :	PTIMIZED
Preset window contrast :	SOFT
EX_PROC_usdef_coca :	NO
EX_PROC_coca_acq_nrs :	1000 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs :	2 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey :	NO
EX_PROC_coil_survey_acq_nrs :	1000 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs :	1 1 1 1 1 1 1 1 1 1
Reconstruction mode :	REAL_TIME
Save raw data :	NO
Analyse with IQT :	NO
EX_PROC_to_gyroview :	NO
Hardcopy protocol :	NO
Image filter :	DEFAULT
Geometry correction :	DEFAULT
Viewable raw data :	NO
=====PDF=====	
EX_conflict_suggestion :	0
GEX_CONV_id :	0 31 1
GEX_CONV_ppde_update :	0
GEX_CONV_made_by_philips :	YES
GEX_CONV_applied_conversions :	0 6 2 1 0 7 0 8 11
GEX_CONV_base_release :	18
EX_GEO_voxel_size_conv_done :	YES
EX_PROC_scan_pat_ref_id :	541938977

EX\_PROC\_coca\_patient\_ref\_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coca\_nr\_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coca\_nr\_stacks : 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coca\_edge\_dist\_pos : 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  
EX\_PROC\_coca\_edge\_dist\_neg : -10000 -10000 -10000 -10000 -10000 -10000 -10000 -10000 -10000 -10000  
EX\_PROC\_senseref\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_senseref\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_surv\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_coil\_surv\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0  
EX\_PROC\_sense\_ref\_qbc\_stack : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_sense\_ref\_syn\_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
EX\_PROC\_coil\_survey\_pat\_ref\_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_survey\_nr\_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_survey\_nr\_stacks : 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_survey\_qbc\_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
EX\_PROC\_coil\_survey\_syn\_stack : 1  
EX\_GEO\_auto\_coils\_selected : YES  
EX\_COIL\_ui\_use\_review\_mode : YES

=====INFO=====

Total scan duration : 00:57.3  
IF\_absolute\_SNR : 7.15809726715088  
Rel. SNR : 1.15308654308319  
Act. TR/TE (ms) : 347 / 3.3  
ACQ matrix M x P : 80 x 80  
ACQ voxel MPS (mm) : 3.00 / 3.00 / 2.50  
REC voxel MPS (mm) : 1.88 / 1.88 / 2.50  
Scan percentage (%) : 100  
Packages : 1  
Min. slice gap (mm) : 0  
WFS (pix) / BW (Hz) : 0.870 / 499.4  
Min. WFS (pix) / Max. BW (Hz) : 0.175 / 2485.7  
Head SAR : < 17 %  
Whole body SAR / level : 0.0 W/kg / normal  
SED : 0.0 kJ/kg  
B1+rms : 0.98 uT  
Max B1+rms : 0.98 uT  
PNS / level : 44 % / normal  
dB/dt : 48.7 T/s  
Sound Pressure Level (dB) : 23.1132183074951

---

## Protocol Name: ASL\_BASELINE PGPP

Methodes Description:

Other Tags:

applicationMode : AGDEF\_APPL\_IMAGING  
linkState : false  
laterality : unpaired



=====GEOMETRY=====

```

Patient weight [kg] : 25
Nucleus : H1
SmartSelect : AUTO
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils : SENSE_HEAD_32AH , SENSE_HEAD_32P
compacted conns : /CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn
stacks channels : 65531 0 0 0 65535 0 0 0 0 0 0 0 0 0 0
clinical modes : SENSE_HEAD_32P_SENSE_HEAD_32AH
compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
compacted coils (exclude) :
compacted conns (exclude) :
stacks channels (exclude) : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity : CLEAR
FOV (mm) : 240
FOV (mm) : 240
FOV (mm) : 127 250 250 250 250 250 250 250 250 250 25
ACQ voxel size FH (mm) : 3.5
ACQ voxel size FH (mm) : 3.5
Slice thickness (mm) : 7
EX_PROC_recon_voxel_size : 3
RF0V (%) : 100
Fold-over suppression : NO
Matrix scan : 68
reconstruction : 80
Scan percentage (%) : 101.470588684082
SENSE : YES
P reduction (AP) : 2
k-t Acceleration : NO
Stacks : 1
type : PARALLEL_STACK
Slices : 17
Slice thickness (mm) : 7
slice gap : USER_DEF
gap (mm) : 0.5
Slice orientation : TRANSVERSAL
Fold-over direction : AP
Fat shift direction : P
Slice Offc. AP (P=+mm) : -11.5681705474854
RL (L=+mm) : 0.872701227664948
FH (H=+mm) : 10.4587621688843
Ang. AP (deg) : 0
RL (deg) : 0
FH (deg) : 0
EX_GEO_stacks_table_long_pos : 2100000000
Free rotatable : NO
Minimum number of packages : 1
Slice scan order : ASCEND
Large table movement : NO
PlanAlign : NO
REST slabs : 0
delay : NO

```

```

EX_TRACK_tracking      :      NONE
Interactive positioning :      NO
External control       :      NO
Allow table movement   :      NO
Patient position       :      HEAD_FIRST
Patient orientation     :      SUPINE
=====CONTRAST=====
Scan type              :      IMAGING
Scan mode              :      MS
    technique         :      FFE
Contrast enhancement   :      NO
Acquisition mode       :      CARTESIAN
Fast Imaging mode      :      EPI
    shot mode         :      SSH
Echoes                 :      1
EX_ACQ_b0zshim_enum    :      DEFAULT
    partial echo       :      NO
    shifted echo       :      NO
TE                     :      SHORTEST
Flip angle (deg)       :      90
TR                     :      USER_DEF
    (ms)              :      4075
Halfscan               :      NO
Water-fat shift        :      MINIMUM
EX_ACQ_RF_shim_data    :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim                   :      AUTO
    Get shim and F0 from PRIDE :      NO
    Calculate shim now      :      NO
    F0 Determination        :      AUTO
X       shim value      :      0
Y       shim value      :      0
Z       shim value      :      0
Z2      shim value      :      0
ZX      shim value      :      0
ZY      shim value      :      0
X2-Y2   shim value      :      0
2XY     shim value      :      0
Z3      shim value      :      0
Z2X     shim value      :      0
Z2Y     shim value      :      0
Z(X2-Y2) shim value     :      0
2XYZ    shim value      :      0
X3      shim value      :      0
Y3      shim value      :      0
Shim offset freq       :      0
Nav shim offset freq   :      0
Navigator X shim value :      0
Navigator Y shim value :      0
Navigator Z shim value :      0
mDIXON                :      NO
Fat suppression        :      SPIR
    strength           :      STRONG

```

frequency offset :	DEFAULT
Water suppression :	NO
shared :	NO
MTC :	NO
Custom prepulse :	NO
Diffusion mode :	NO
EX_DIFF_array_x :	0 0
EX_DIFF_array_y :	0 0
EX_DIFF_array_z :	0 0
EX_DIFF_array_b :	0 0
nr of b-factors :	2
EX_DIFF_nr_dti_directions :	1
EX_DIFF_nr_dti_vectors :	1
EX_DIFF_weighting_ix_array :	0 0
EX_DIFF_direction_ix_array :	0 0
User defined DTI scheme :	user_defined
EX_DIFF_grad_factor :	1
MRE enable :	NO
Multi-transmit :	NO
SAR mode :	HIGH
B1 mode :	DEFAULT
EX_MULTIX_SAR_mode :	AUTO
PNS mode :	MODERATE
Gradient mode :	DEFAULT
SoftTone mode :	NO
=====MOTION=====	
Cardiac synchronization :	NO
Heart rate > 250 bpm :	NO
Respiratory compensation :	NO
Navigator respiratory comp :	OFF
weighted gating :	NO
Flow compensation :	YES
Temporal slice spacing :	MINIMAL
fMRI echo stabilisation :	NO
NSA :	1
=====DYNANG=====	
Angio / Contrast enh. :	NO
Quantitative flow :	NO
Manual start :	YES
EX_abuse_dyn_loop :	NO
Dynamic study :	INDIVIDUAL
dyn scans :	30
recon multiplier :	1
dyn scan times :	SHORTEST
fov time mode :	VOXEL
dummy scans :	0
immediate subtraction :	NO
fast next scan :	NO
synch. ext. device :	NO
dyn stabilization :	REGULAR
prospect. motion corr. :	NO
Keyhole :	NO

```

Arterial Spin labeling :      pCASL
  label type :               PARALLEL
  label distance (mm) :      90
  label location :           F
EX_FLL_casl_dur :           1650
  label delay (ms) :         1600
  vascular crushing :        NO
  back. supp. :              YES
  back. supp. pulses :       1710 2860 0 0 0

```

=====PROC=====

```

Preparation phases :         AUTO
Interactive F0 :             NO
Gradient demo :             NO
Pre scan :                  NO
SmartPlan survey :          NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map :             NO
EX_ACQ_B1_map :             NO
MIP/MPR :                   NO
SWIp :                      NO
Images :                    MODULUS
Autoview image :            MODULUS
Calculated images :         NO
EX_TS_reference_tissue :    GREY_MATTER
EX_ACQ_epi_2d_phase_corr :  NO
Recon compression :         NONE
Recon compression :         NONE
  Nr recon channels :        8
EX_PROC_delrec_fcc_proc :    PTIMIZED
Preset window contrast :     SOFT
EX_PROC_usdef_coca :         NO
EX_PROC_coca_acq_nrs :       1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs :       2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey :  NO
EX_PROC_coil_survey_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode :        REAL_TIME
  reuse memory :             NO
Save raw data :              NO
Analyse with IQT :           NO
EX_PROC_to_gyroview :        NO
Hardcopy protocol :          NO
Image filter :               DEFAULT
Geometry correction :         DEFAULT
Viewable raw data :          NO

```

=====PDF=====

```

EX_conflict_suggestion :     0
GEX_CONV_id :                0 31 1
GEX_CONV_ppde_update :       0
GEX_CONV_made_by_philips :    YES
GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release :       18

```



# Protocol Name: ASL\_M0 Ref

Methodes Description:

Other Tags:

applicationMode : AGDEF\_APPL\_IMAGING

linkState : false

laterality : unpaired

=====GEOMETRY=====

Patient weight [kg] :	25
Nucleus :	H1
SmartSelect :	AUTO
compacted :	0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils :	SENSE_HEAD_32AH , SENSE_HEAD_32P
compacted conns :	/CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn
stacks channels :	65531 0 0 0 65535 0 0 0 0 0 0 0 0 0 0
clinical modes :	SENSE_HEAD_32P_SENSE_HEAD_32AH
compacted (exclude) :	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils (exclude) :	
compacted conns (exclude) :	
stacks channels (exclude) :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity :	CLEAR
FOV (mm) :	240
FOV (mm) :	240
FOV (mm) :	127 250 250 250 250 250 250 250 250 25
ACQ voxel size FH (mm) :	3.5
ACQ voxel size FH (mm) :	3.5
Slice thickness (mm) :	7
EX_PROC_recon_voxel_size :	3
RF0V (%) :	100
Fold-over suppression :	NO
Matrix scan :	68
reconstruction :	80
Scan percentage (%) :	101.470588684082
SENSE :	YES
P reduction (AP) :	2
k-t Acceleration :	NO
Stacks :	1
type :	PARALLEL_STACK
Slices :	17
Slice thickness (mm) :	7
slice gap :	USER_DEF
gap (mm) :	0.5
Slice orientation :	TRANSVERSAL
Fold-over direction :	AP
Fat shift direction :	P
Slice Offc. AP (P=+mm) :	-11.5681705474854
RL (L=+mm) :	0.872701227664948
FH (H=+mm) :	10.4587621688843

```

        Ang.  AP (deg) :          0
              RL (deg) :          0
              FH (deg) :          0
EX_GEO_stacks_table_long_pos : 2100000000
      Free rotatable :      NO
Minimum number of packages :      1
Slice scan order :      ASCEND
Large table movement :      NO
PlanAlign :      NO
REST slabs :      0
      delay :      NO
EX_TRACK_tracking :      NONE
Interactive positioning :      NO
External control :      NO
Allow table movement :      NO
Patient position :      HEAD_FIRST
Patient orientation :      SUPINE

```

```

=====CONTRAST=====

```

```

Scan type :      IMAGING
Scan mode :      MS
      technique :      FFE
Contrast enhancement :      NO
Acquisition mode :      CARTESIAN
Fast Imaging mode :      EPI
      shot mode :      SSH
Echoes :      1
EX_ACQ_b0zshim_enum :      DEFAULT
      partial echo :      NO
      shifted echo :      NO
TE :      SHORTEST
Flip angle (deg) :      90
TR :      USER_DEF
      (ms) :      20000
Halfscan :      NO
Water-fat shift :      MINIMUM
EX_ACQ_RF_shim_data :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim :      AUTO
  Get shim and F0 from PRIDE :      NO
  Calculate shim now :      NO
  F0 Determination :      AUTO
X      shim value :      0
Y      shim value :      0
Z      shim value :      0
Z2     shim value :      0
ZX     shim value :      0
ZY     shim value :      0
X2-Y2  shim value :      0
2XY    shim value :      0
Z3     shim value :      0
Z2X    shim value :      0
Z2Y    shim value :      0
Z(X2-Y2) shim value :      0

```

```

2XYZ      shim value :      0
X3        shim value :      0
Y3        shim value :      0
Shim offset freq :          0
Nav shim offset freq :      0
Navigator X shim value :    0
Navigator Y shim value :    0
Navigator Z shim value :    0
mDIXON :      NO
Fat suppression :      SPIR
    strength :      STRONG
    frequency offset :    DEFAULT
Water suppression :      NO
    shared :      NO
MTC :      NO
Custom prepulse :      NO
Diffusion mode :      NO
EX_DIFF_array_x :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors :      2
EX_DIFF_nr_dti_directions :    1
EX_DIFF_nr_dti_vectors :      1
EX_DIFF_weighting_ix_array :    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array :    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme :      user_defined
EX_DIFF_grad_factor :      1
MRE enable :      NO
Multi-transmit :      NO
SAR mode :      HIGH
B1 mode :      DEFAULT
EX_MULTIX_SAR_mode :      AUTO
PNS mode :      MODERATE
Gradient mode :      DEFAULT
SoftTone mode :      NO
=====MOTION=====
Cardiac synchronization :      NO
Heart rate > 250 bpm :      NO
Respiratory compensation :      NO
Navigator respiratory comp :    OFF
    weighted gating :      NO
Flow compensation :      YES
Temporal slice spacing :      MINIMAL
fMRI echo stabilisation :      NO
NSA :      1
=====DYNANG=====
Angio / Contrast enh. :      NO
Quantitative flow :      NO
Manual start :      YES
EX_abuse_dyn_loop :      NO
Dynamic study :      INDIVIDUAL

```



```

    dyn scans      :      1
    recon multiplier :      1
    dyn scan times  :  SHORTEST
    fov time mode   :  VOXEL
    dummy scans     :      0
    fast next scan  :  NO
    dyn stabilization :  REGULAR
    prospect. motion corr. :  NO
Keyhole           :  NO
Arterial Spin labeling :  NO

```

```

=====PROC=====

```

```

Preparation phases :  SAMEPREP
Interactive F0      :  NO
Gradient demo      :  NO
Pre scan           :  NO
SmartPlan survey   :  NONE
EX_ACQ_whole_body_fat_water :  NO
EX_ACQ_B0_map      :  NO
EX_ACQ_B1_map      :  NO
MIP/MPR            :  NO
SWIp               :  NO
Images             :  MODULUS
Autoview image     :  MODULUS
Calculated images  :  NO
EX_TS_reference_tissue :  GREY_MATTER
EX_ACQ_epi_2d_phase_corr :  NO
Recon compression  :  NONE
Recon compression  :  NONE
    Nr recon channels :  8
EX_PROC_delrec_fcc_proc :  PTIMIZED
Preset window contrast :  SOFT
EX_PROC_usdef_coca :  NO
EX_PROC_coca_acq_nrs :  1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs :  2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey :  NO
EX_PROC_coil_survey_acq_nrs :  0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs :  0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode :  REAL_TIME
    reuse memory     :  NO
Save raw data       :  NO
Analyse with IQT    :  NO
EX_PROC_to_gyroview :  NO
Hardcopy protocol   :  NO
Image filter        :  DEFAULT
Geometry correction :  DEFAULT
Viewable raw data   :  NO

```

```

=====PDF=====

```

```

EX_conflict_suggestion :  0
GEX_CONV_id            :  0 31 1
GEX_CONV_ppde_update   :  0
GEX_CONV_made_by_philips :  YES
GEX_CONV_applied_conversions :  0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -

```



# Protocol Name: 3DPCA\_DEM\_MJD

## Methodes Description:

methodDescription : TRA T1FFE 6.4 3.6 12

## Other Tags:

applicationMode : AGDEF\_APPL\_IMAGING

linkState : false

laterality : unpaired

## =====GEOMETRY=====

Patient weight [kg] : 25  
Nucleus : H1  
SmartSelect : AUTO  
compacted : 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils : SENSE\_HEAD\_32P , SENSE\_HEAD\_32AH  
compacted conns : /CDAS.ConnPFEI/PFEI.ConnA , /CDAS.Conn  
stacks channels : 65535 0 0 0 63483 0 0 0 0 0 0 0 0 0 0  
clinical modes : SENSE\_HEAD\_32P\_SENSE\_HEAD\_32AH  
compacted (exclude) : -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -  
compacted coils (exclude) :  
compacted conns (exclude) :  
stacks channels (exclude) : 0  
Uniformity : CLEAR  
FOV (mm) : 180  
FOV (mm) : 180  
FOV (mm) : 75 75 75 75 75 75 75 75 75 75 75 75 75 75  
ACQ voxel size FH (mm) : 0.661764979362488  
ACQ voxel size FH (mm) : 0.661764979362488  
Slice thickness (mm) : 0.5  
EX\_PROC\_recon\_voxel\_size : 0.3515625  
RFOV (%) : 100  
Fold-over suppression : NO  
Slice oversampling : DEFAULT  
RF select. FOS : NO  
Matrix scan : 272  
reconstruction : 512  
Scan percentage (%) : 78.5398178100586  
SENSE : YES  
P reduction (AP) : 2  
S reduction (AP) : 1  
k-t Acceleration : NO  
EX\_ACQ\_overcont\_slices : YES  
Stacks : 1  
Slices : 150  
Slice thickness (mm) : 0.5  
Slice orientation : TRANSVERSAL  
Fold-over direction : LR  
Fat shift direction : P  
Slice Offc. AP (P=+mm) : -7.6496262550354

```

        RL (L=+mm) : 0.872701227664948
        FH (H=+mm) : -10.2538185119629
    Ang.  AP (deg) : -1.05240416526794
        RL (deg) : -3.5425922870636
        FH (deg) : 4.89425134658813
EX_GEO_stacks_table_long_pos : 2100000000
    Free rotatable : NO
Multi-chunk : NO
Large table movement : NO
PlanAlign : NO
REST slabs : 0
    delay : NO
EX_TRACK_tracking : NONE
Interactive positioning : NO
External control : NO
Allow table movement : NO
Patient position : HEAD_FIRST
Patient orientation : SUPINE
=====CONTRAST=====
Scan type : IMAGING
Scan mode : 3D
    technique : FFE
    loop order : ZY
Contrast enhancement : T1
Acquisition mode : CARTESIAN
Fast Imaging mode : NO
    3D non-selective : NO
Echoes : 1
EX_ACQ_b0zshim_enum : DEFAULT
    partial echo : YES
    shifted echo : NO
TE : SHORTEST
Flip angle (deg) : 12
TR : SHORTEST
Halfscan : NO
Water-fat shift : USER_DEF
    (pixels) : 0.899999976158142
EX_ACQ_RF_shim_data : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim : DEFAULT
    Get shim and F0 from PRIDE : NO
    Calculate shim now : NO
    F0 Determination : AUTO
X      shim value : 0
Y      shim value : 0
Z      shim value : 0
Z2     shim value : 0
ZX     shim value : 0
ZY     shim value : 0
X2-Y2  shim value : 0
2XY    shim value : 0
Z3     shim value : 0
Z2X    shim value : 0

```

```

Z2Y      shim value :      0
Z(X2-Y2) shim value :      0
2XYZ      shim value :      0
X3        shim value :      0
Y3        shim value :      0
Shim offset freq :      0
Nav shim offset freq :      0
Navigator X shim value :      0
Navigator Y shim value :      0
Navigator Z shim value :      0
mDIXON :      NO
Fat suppression :      NO
Water suppression :      NO
    shared :      NO
MTC :      NO
Custom prepulse :      NO
Diffusion mode :      NO
EX_DIFF_array_x :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors :      2
EX_DIFF_nr_dti_directions :      1
EX_DIFF_nr_dti_vectors :      1
EX_DIFF_weighting_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme :      user_defined
EX_DIFF_grad_factor :      1
MRE enable :      NO
Multi-transmit :      NO
SAR mode :      HIGH
B1 mode :      USER_DEF
    amplitude (uT) :      10
EX_MULTIX_SAR_mode :      AUTO
PNS mode :      MODERATE
Gradient mode :      DEFAULT
SoftTone mode :      NO
=====MOTION=====
Cardiac synchronization :      NO
Heart rate > 250 bpm :      NO
Respiratory compensation :      NO
Navigator respiratory comp :      OFF
    weighted gating :      NO
Flow compensation :      YES
fMRI echo stabilisation :      NO
NSA :      1
=====DYNANG=====
Angio / Contrast enh. :      PC
Quantitative flow :      NO
PC flow directions :      RL_AP_FH
    uniform velocity :      YES
    PC velocity (cm/s) :      50

```

```

Tone pulse      : NO
Manual start    : NO
EX_abuse_dyn_loop : NO
Dynamic study   : NO
Arterial Spin labeling : NO
=====PROC=====
Preparation phases : FULL
Interactive F0    : NO
Gradient demo    : NO
Pre scan        : NO
SmartPlan survey : NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map    : NO
EX_ACQ_B1_map    : NO
MIP/MPR         : MIP
    protocol      : compose
SWIp            : NO
Images          : MODULUS
Autoview image   : MODULUS
Calculated images : NO
EX_TS_reference_tissue : BLOOD
Recon compression : NONE
Recon compression : NONE
    Nr recon channels : 8
EX_PROC_delrec_fcc_proc : PTIMIZED
Preset window contrast : SOFT
EX_PROC_usdef_coca : NO
EX_PROC_coca_acq_nrs : 1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs : 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey : NO
EX_PROC_coil_survey_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode : REAL_TIME
Save raw data      : NO
Analyse with IQT   : NO
EX_PROC_to_gyroview : NO
Hardcopy protocol  : NO
Image filter       : DEFAULT
Geometry correction : DEFAULT
EX_PROC_enable_lpc : YES
Viewable raw data  : NO
Elliptical k-space shutter : DEFAULT
=====PDF=====
EX_conflict_suggestion : 0
GEX_CONV_id           : 0 31 1
GEX_CONV_ppde_update  : 0
GEX_CONV_made_by_philips : YES
GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release : 18
EX_GEO_voxel_size_conv_done : YES
EX_PROC_scan_pat_ref_id : 541938977
EX_PROC_coca_patient_ref_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```



=====GEOMETRY=====

Patient weight [kg] :	25
Nucleus :	H1
SmartSelect :	AUTO
compacted :	0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils :	SENSE_HEAD_32P , SENSE_HEAD_32AH
compacted conns :	/CDAS.ConnPFEI/PFEI.ConnA , /CDAS.Conn
stacks channels :	65535 0 0 0 65533 0 0 0 0 0 0 0 0 0 0 0
clinical modes :	SENSE_HEAD_32P_SENSE_HEAD_32AH
compacted (exclude) :	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils (exclude) :	
compacted conns (exclude) :	
stacks channels (exclude) :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity :	CLEAR
FOV (mm) :	200
FOV (mm) :	166.265060424805
FOV (mm) :	45 119 119 119 119 119 119 119 119 119
ACQ voxel size FH (mm) :	0.600000023841858
ACQ voxel size FH (mm) :	0.600000023841858
Slice thickness (mm) :	0.5
EX_PROC_recon_voxel_size :	0.5
RF0V (%) :	83.1325302124023
Fold-over suppression :	NO
Slice oversampling :	USER_DEF
oversample factor :	1.79999995231628
RF select. FOS :	NO
Matrix scan :	332
reconstruction :	400
Scan percentage (%) :	100.362319946289
SENSE :	YES
P reduction (AP) :	1.5
S reduction (AP) :	1
k-t Acceleration :	NO
EX_ACQ_overcont_slices :	YES
Stacks :	1
Slices :	90
Slice thickness (mm) :	0.5
Slice orientation :	CORONAL
Fold-over direction :	LR
Fat shift direction :	F
Slice Offc. AP (P=+mm) :	-21.2796363830566
RL (L=+mm) :	2.04197883605957
FH (H=+mm) :	-9.3884801864624
Ang. AP (deg) :	0.424369186162949
RL (deg) :	18.9700660705566
FH (deg) :	3.76726269721985
EX_GEO_stacks_table_long_pos :	2100000000
Free rotatable :	NO
Multi-chunk :	NO
Large table movement :	NO
PlanAlign :	NO
REST slabs :	0



delay :	NO
EX_TRACK_tracking :	NONE
Interactive positioning :	NO
External control :	NO
Allow table movement :	NO
Patient position :	HEAD_FIRST
Patient orientation :	SUPINE
=====CONTRAST=====	
Scan type :	IMAGING
Scan mode :	3D
technique :	SE
Modified SE :	NO
Acquisition mode :	CARTESIAN
Fast Imaging mode :	TSE
3D VIEW :	NO
shot mode :	MSH
TSE factor :	56
3D free factor :	YES
startup echoes :	6
profile order :	LOW_HIGH
turbo direction :	YZ
DRIVE :	ANTI
ultrashort :	ULTRA
fid reduction :	DEFAULT
3D non-selective :	YES
Echoes :	1
EX_ACQ_b0zshim_enum :	DEFAULT
partial echo :	NO
TE :	SHORTEST
(ms) :	35.5999984741211
Flip angle (deg) :	90
Refocusing control :	TISS_SPEC
signal plateau :	BY_MIN_ANGLE
angle (deg) :	25
EX_RFE_max_refoc_angles :	120 120
TR :	USER_DEF
(ms) :	1500
Halfscan :	NO
Water-fat shift :	MINIMUM
EX_ACQ_RF_shim_data :	0 0
Shim :	DEFAULT
Get shim and F0 from PRIDE :	NO
Calculate shim now :	NO
F0 Determination :	AUTO
X shim value :	0
Y shim value :	0
Z shim value :	0
Z2 shim value :	0
ZX shim value :	0
ZY shim value :	0
X2-Y2 shim value :	0
2XY shim value :	0

```

Z3      shim value :      0
Z2X     shim value :      0
Z2Y     shim value :      0
Z(X2-Y2) shim value :      0
2XYZ    shim value :      0
X3      shim value :      0
Y3      shim value :      0
Shim offset freq :      0
Nav shim offset freq :      0
Navigator X shim value :      0
Navigator Y shim value :      0
Navigator Z shim value :      0
mDIXON :      NO
Fat suppression :      NO
Grad Rev Fat suppr :      NO
Water suppression :      NO
BB pulse :      NONE
    shared :      NO
MTC :      NO
T2prep :      NO
Custom prepulse :      NO
EX_LOLO_enable :      NO
Diffusion mode :      NO
EX_DIFF_array_x :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors :      2
EX_DIFF_nr_dti_directions :      1
EX_DIFF_nr_dti_vectors :      1
EX_DIFF_weighting_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme :      user_defined
EX_DIFF_grad_factor :      1
MRE enable :      NO
Multi-transmit :      NO
SAR mode :      HIGH
B1 mode :      DEFAULT
EX_MULTIX_SAR_mode :      AUTO
PNS mode :      MODERATE
Gradient mode :      MAXIMUM
SofTone mode :      NO
=====MOTION=====
Cardiac synchronization :      NO
Heart rate > 250 bpm :      NO
Respiratory compensation :      NO
Navigator respiratory comp :      OFF
    weighted gating :      NO
Flow compensation :      NO
Motion smoothing :      NO
NSA :      1
=====DYNANG=====

```

```

CENTRA : NO
Manual start : NO
EX_abuse_dyn_loop : NO
Dynamic study : NO
Arterial Spin labeling : NO
=====PROC=====
Preparation phases : AUTO
Interactive F0 : NO
Gradient demo : NO
Pre scan : NO
SmartPlan survey : NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map : NO
EX_ACQ_B1_map : NO
MIP/MPR : NO
Images : MODULUS
Autoview image : MODULUS
Calculated images : NO
EX_TS_reference_tissue : GREY_MATTER
Recon compression : NONE
Recon compression : NONE
Nr recon channels : 8
EX_PROC_delrec_fcc_proc : PTIMIZED
Preset window contrast : SOFT
EX_PROC_usdef_coca : NO
EX_PROC_coca_acq_nrs : 1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs : 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey : NO
EX_PROC_coil_survey_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode : PARALLEL
Save raw data : NO
Analyse with IQT : NO
EX_PROC_to_gyroview : NO
Hardcopy protocol : NO
Image filter : DEFAULT
Geometry correction : NONE
Viewable raw data : NO
Elliptical k-space shutter : NO
=====PDF=====
EX_conflict_suggestion : 0
GEX_CONV_id : 0 31 1
GEX_CONV_ppde_update : 0
GEX_CONV_made_by_philips : YES
GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release : 18
EX_GEO_voxel_size_conv_done : YES
EX_PROC_scan_pat_ref_id : 541938977
EX_PROC_coca_patient_ref_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_stacks : 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos : 178.477584838867 10000 10000 10000 100

```

EX\_PROC\_coca\_edge\_dist\_neg : -178.553680419922 -10000 -10000 -10000  
EX\_PROC\_senseref\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_senseref\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0  
EX\_PROC\_coil\_surv\_rfsh\_rx\_scls : 1 1 1 1 1 1 1 1  
EX\_PROC\_coil\_surv\_rfsh\_rx\_ph : 0 0 0 0 0 0 0 0  
EX\_PROC\_sense\_ref\_qbc\_stack : 1 2  
EX\_PROC\_sense\_ref\_syn\_stack : 0 1  
EX\_PROC\_coil\_survey\_pat\_ref\_ids : 0  
EX\_PROC\_coil\_survey\_nr\_channels : 0  
EX\_PROC\_coil\_survey\_nr\_stacks : 0  
EX\_PROC\_coil\_survey\_qbc\_stack : 0 2  
EX\_PROC\_coil\_survey\_syn\_stack : 0 1  
EX\_GEO\_auto\_coils\_selected : YES  
EX\_COIL\_ui\_use\_review\_mode : YES

=====INFO=====

IF\_csks\_in\_use : 6  
Total scan duration : 06:42.0  
IF\_absolute\_SNR : 0.676175355911255  
Rel. SNR : 1.00812876224518  
Act. TR/TE (ms) : 1500  
Act. TE (ms) : 36  
ACQ matrix M x P : 332 x 277  
ACQ voxel MPS (mm) : 0.60 / 0.60 / 1.00  
REC voxel MPS (mm) : 0.50 / 0.50 / 0.50  
Scan percentage (%) : 100.543479919434  
WFS (pix) / BW (Hz) : 0.569 / 763.9  
TSE es / shot (ms) : 4.0 / 257  
TEeff / TEequiv (ms) : 257 / 36 / 25  
Min. TR/TE (ms) : 275  
Head SAR : < 16 %  
Whole body SAR / level : 0.0 W/kg / normal  
SED : 0.0 kJ/kg  
B1+rms : 0.95 uT  
Max B1+rms : 0.95 uT  
PNS / level : 79 % / normal  
dB/dt : 116.8 T/s  
Sound Pressure Level (dB) : 15.0789060592651

---

## Protocol Name: SWI\_DEM\_MJD

### Methodes Description:

methodDescription : SAG T1FFE 25 2.1 30

### Other Tags:

applicationMode : AGDEF\_APPL\_IMAGING  
linkState : false  
laterality : unpaired

=====GEOMETRY=====

Patient weight [kg] :	25
Nucleus :	H1
SmartSelect :	AUTO
compacted :	0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils :	SENSE_HEAD_32AH , SENSE_HEAD_32P
compacted conns :	/CDAS.ConnPFEI/PFEI.ConnB , /CDAS.Conn
stacks channels :	65531 0 0 0 65535 0 0 0 0 0 0 0 0 0
clinical modes :	SENSE_HEAD_32P_SENSE_HEAD_32AH
compacted (exclude) :	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
compacted coils (exclude) :	
compacted conns (exclude) :	
stacks channels (exclude) :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uniformity :	CLEAR
FOV (mm) :	240
FOV (mm) :	180
FOV (mm) :	120 250 250 250 250 250 250 250 250 25
ACQ voxel size FH (mm) :	0.75
ACQ voxel size FH (mm) :	0.75
Slice thickness (mm) :	1.5
EX_PROC_recon_voxel_size :	0.75
RF0V (%) :	75
Fold-over suppression :	NO
Slice oversampling :	DEFAULT
RF select. FOS :	NO
Matrix scan :	320
reconstruction :	320
Scan percentage (%) :	100
SENSE :	YES
P reduction (AP) :	2
S reduction (AP) :	1
k-t Acceleration :	NO
EX_ACQ_overcont_slices :	NO
Stacks :	1
Slices :	80
Slice thickness (mm) :	1.5
Slice orientation :	TRANSVERSAL
Fold-over direction :	LR
Fat shift direction :	L
Slice Offc. AP (P=+mm) :	-11.5681705474854
RL (L=+mm) :	0.872701227664948
FH (H=+mm) :	10.4587621688843
Ang. AP (deg) :	0
RL (deg) :	0
FH (deg) :	0
EX_GEO_stacks_table_long_pos :	2100000000
Free rotatable :	NO
Multi-chunk :	NO
Large table movement :	NO
PlanAlign :	NO
REST slabs :	0
delay :	NO

```

EX_TRACK_tracking      :      NONE
Interactive positioning :      NO
External control       :      NO
Allow table movement   :      NO
Patient position       :      HEAD_FIRST
Patient orientation     :      SUPINE
=====CONTRAST=====
Scan type              :      IMAGING
Scan mode              :      3D
    technique          :      FFE
Contrast enhancement   :      T1
Acquisition mode       :      CARTESIAN
Fast Imaging mode      :      EPI
    3D non-selective   :      NO
    shot mode          :      MSH
EPI factor             :      3
    epi direction      :      YZ
Echoes                 :      1
EX_ACQ_b0zshim_enum    :      DEFAULT
    partial echo       :      NO
    shifted echo        :      NO
TE                     :      INPHASE
    (ms)               :      34.5364418029785
Flip angle (deg)       :      20
TR                     :      SHORTEST
Halfscan               :      NO
Water-fat shift        :      MINIMUM
EX_ACQ_RF_shim_data    :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shim                   :      AUTO
    Get shim and F0 from PRIDE :      NO
    Calculate shim now      :      NO
    F0 Determination        :      AUTO
X      shim value       :      0
Y      shim value       :      0
Z      shim value       :      0
Z2     shim value       :      0
ZX     shim value       :      0
ZY     shim value       :      0
X2-Y2  shim value       :      0
2XY    shim value       :      0
Z3     shim value       :      0
Z2X    shim value       :      0
Z2Y    shim value       :      0
Z(X2-Y2) shim value     :      0
2XYZ   shim value       :      0
X3     shim value       :      0
Y3     shim value       :      0
Shim offset freq       :      0
Nav shim offset freq   :      0
Navigator X shim value :      0
Navigator Y shim value :      0
Navigator Z shim value :      0

```

```

mDIXON : NO
Fat suppression : NO
Water suppression : NO
    shared : NO
MTC : NO
Custom prepulse : NO
Diffusion mode : NO
EX_DIFF_array_x : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    nr of b-factors : 2
EX_DIFF_nr_dti_directions : 1
EX_DIFF_nr_dti_vectors : 1
EX_DIFF_weighting_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme : user_defined
EX_DIFF_grad_factor : 1
MRE enable : NO
Multi-transmit : NO
SAR mode : HIGH
B1 mode : DEFAULT
EX_MULTIX_SAR_mode : AUTO
PNS mode : HIGH
Gradient mode : MAXIMUM
SofTone mode : NO
=====MOTION=====
Cardiac synchronization : NO
Heart rate > 250 bpm : NO
Respiratory compensation : NO
Navigator respiratory comp : OFF
    weighted gating : NO
Flow compensation : YES
fMRI echo stabilisation : NO
NSA : 1
=====DYNANG=====
Angio / Contrast enh. : INFLOW
Quantitative flow : NO
Tone pulse : NO
Manual start : NO
EX_abuse_dyn_loop : NO
Dynamic study : NO
Arterial Spin labeling : NO
=====PROC=====
Preparation phases : AUTO
Interactive F0 : NO
Gradient demo : NO
Pre scan : NO
SmartPlan survey : NONE
EX_ACQ_whole_body_fat_water : NO
EX_ACQ_B0_map : NO
EX_ACQ_B1_map : NO

```

```

MIP/MPR      : NO
SWIp         : NO
Images       : MODULUS
Autoview image : MODULUS
Calculated images : NO
EX_TS_reference_tissue : GREY_MATTER
EX_ACQ_epi_2d_phase_corr : NO
Recon compression : NONE
Recon compression : NONE
    Nr recon channels : 8
EX_PROC_delrec_fcc_proc : PTIMIZED
Preset window contrast : SOFT
EX_PROC_usdef_coca : NO
EX_PROC_coca_acq_nrs : 1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs : 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey : NO
EX_PROC_coil_survey_acq_nrs : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode : REAL_TIME
Save raw data : NO
Analyse with IQT : NO
EX_PROC_to_gyroview : NO
Hardcopy protocol : NO
Image filter : DEFAULT
Geometry correction : DEFAULT
Viewable raw data : NO
Elliptical k-space shutter : DEFAULT
=====PDF=====
EX_conflict_suggestion : 0
GEX_CONV_id : 0 31 1
GEX_CONV_ppde_update : 0
GEX_CONV_made_by_philips : YES
GEX_CONV_applied_conversions : 0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release : 18
EX_GEO_voxel_size_conv_done : YES
EX_PROC_scan_pat_ref_id : 541938977
EX_PROC_coca_patient_ref_ids : 541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels : 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_stacks : 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos : 179.256317138672 10000 10000 10000 100
EX_PROC_coca_edge_dist_neg : -176.993682861328 -10000 -10000 -10000
EX_PROC_senseref_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_senseref_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls : 1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph : 0 0 0 0 0 0 0 0
EX_PROC_sense_ref_qbc_stack : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

```





FOV (mm) :	240
FOV (mm) :	121.599998474121 250 250 250 250 250 2
ACQ voxel size FH (mm) :	3
ACQ voxel size FH (mm) :	3
Slice thickness (mm) :	3.20000004768372
EX_PROC_recon_voxel_size :	3
RF0V (%) :	100
Fold-over suppression :	NO
Matrix scan :	80
reconstruction :	80
Scan percentage (%) :	100
SENSE :	YES
P reduction (AP) :	2
k-t Acceleration :	NO
Stacks :	1
type :	PARALLEL_STACK
Slices :	38
Slice thickness (mm) :	3.20000004768372
slice gap :	USER_DEF
gap (mm) :	0
Slice orientation :	TRANSVERSAL
Fold-over direction :	AP
Fat shift direction :	A
Slice Offc. AP (P=+mm) :	-11.0084676742554
RL (L=+mm) :	0.872701227664948
FH (H=+mm) :	13.8170366287231
Ang. AP (deg) :	-1.05240416526794
RL (deg) :	-1.10846042633057
FH (deg) :	4.89425134658813
EX_GEO_stacks_table_long_pos :	2100000000
Free rotatable :	NO
Minimum number of packages :	1
Slice scan order :	ASCEND
Large table movement :	NO
PlanAlign :	NO
REST slabs :	0
delay :	NO
Shim Size AP (mm) :	171.363876342773
RL (mm) :	129.150146484375
FH (mm) :	113.97046661377
Offc. AP (P=+mm) :	-3.86548471450806
RL (L=+mm) :	-0.506013989448547
FH (H=+mm) :	15.580135345459
Ang. AP (deg) :	-1.97411704063416
RL (deg) :	-10.0008583068848
FH (deg) :	4.8738169670105
Shim volumes :	1
EX_TRACK_tracking :	NONE
Interactive positioning :	NO
External control :	NO
Allow table movement :	NO
Patient position :	HEAD_FIRST

Patient orientation :	SUPINE
=====CONTRAST=====	
Scan type :	IMAGING
Scan mode :	MS
technique :	FFE
Contrast enhancement :	NO
Acquisition mode :	CARTESIAN
Fast Imaging mode :	EPI
shot mode :	SSH
Echoes :	1
EX_ACQ_b0zshim_enum :	DEFAULT
partial echo :	NO
shifted echo :	NO
TE :	USER_DEF
(ms) :	28
Flip angle (deg) :	90
TR :	USER_DEF
(ms) :	2000
Halfscan :	NO
Water-fat shift :	USER_DEF
(pixels) :	11
EX_ACQ_RF_shim_data :	0 0
Shim :	HOS_VOLUME
Get shim and F0 from PRIDE :	NO
Calculate shim now :	NO
F0 Determination :	AUTO
X shim value :	0
Y shim value :	0
Z shim value :	0
Z2 shim value :	0
ZX shim value :	0
ZY shim value :	0
X2-Y2 shim value :	0
2XY shim value :	0
Z3 shim value :	0
Z2X shim value :	0
Z2Y shim value :	0
Z(X2-Y2) shim value :	0
2XYZ shim value :	0
X3 shim value :	0
Y3 shim value :	0
Shim offset freq :	0
Nav shim offset freq :	0
Navigator X shim value :	0
Navigator Y shim value :	0
Navigator Z shim value :	0
ShimAlign :	NO
mDIXON :	NO
Fat suppression :	SPIR
strength :	STRONG
frequency offset :	DEFAULT
Water suppression :	NO

```

        shared      :      NO
MTC      :      NO
Custom prepulse    :      NO
Diffusion mode     :      NO
EX_DIFF_array_x    :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_y    :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_z    :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_array_b    :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
        nr of b-factors :      2
EX_DIFF_nr_dti_directions :      1
EX_DIFF_nr_dti_vectors :      1
EX_DIFF_weighting_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_DIFF_direction_ix_array :      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User defined DTI scheme :      user_defined
EX_DIFF_grad_factor :      1
MRE enable :      NO
Multi-transmit :      NO
SAR mode :      HIGH
B1 mode :      DEFAULT
EX_MULTIX_SAR_mode :      AUTO
PNS mode :      HIGH
Gradient mode :      MAXIMUM
SofTone mode :      NO
=====MOTION=====
Cardiac synchronization :      NO
Heart rate > 250 bpm :      NO
Respiratory compensation :      NO
Navigator respiratory comp :      OFF
        weighted gating :      NO
Flow compensation :      NO
Temporal slice spacing :      MINIMAL
fMRI echo stabilisation :      NO
NSA :      1
=====DYNANG=====
Angio / Contrast enh. :      NO
Quantitative flow :      NO
Manual start :      YES
EX_abuse_dyn_loop :      NO
Dynamic study :      INDIVIDUAL
        dyn scans :      203
        recon multiplier :      1
        dyn scan times :      SHORTEST
        fov time mode :      VOXEL
        dummy scans :      5
        immediate subtraction :      NO
        fast next scan :      NO
        synch. ext. device :      YES
                start at dyn. :      1
                interval (dyn) :      1
        dyn stabilization :      REGULAR
        prospect. motion corr. :      NO
Keyhole :      NO

```

```

Arterial Spin labeling      :      NO
=====PROC=====
Preparation phases      :      FULL
Interactive F0      :      NO
Gradient demo      :      NO
Pre scan      :      NO
SmartPlan survey      :      NONE
EX_ACQ_whole_body_fat_water      :      NO
EX_ACQ_B0_map      :      NO
EX_ACQ_B1_map      :      NO
MIP/MPR      :      NO
SWIp      :      NO
Images      :      MODULUS
Autoview image      :      MODULUS
Calculated images      :      NO
EX_TS_reference_tissue      :      GREY_MATTER
EX_ACQ_epi_2d_phase_corr      :      NO
Recon compression      :      NONE
Recon compression      :      NONE
      Nr recon channels      :      8
EX_PROC_delrec_fcc_proc      :      PTIMIZED
Preset window contrast      :      SOFT
EX_PROC_usdef_coca      :      NO
EX_PROC_coca_acq_nrs      :      1000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coca_rec_nrs      :      2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_usdef_coil_survey      :      NO
EX_PROC_coil_survey_acq_nrs      :      0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_rec_nrs      :      0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Reconstruction mode      :      REAL_TIME
      reuse memory      :      NO
Save raw data      :      NO
Analyse with IQT      :      NO
EX_PROC_to_gyroview      :      NO
Hardcopy protocol      :      NO
Image filter      :      DEFAULT
Geometry correction      :      DEFAULT
Viewable raw data      :      NO

```

```

=====PDF=====
EX_conflict_suggestion      :      0
GEX_CONV_id      :      0 31 1
GEX_CONV_ppde_update      :      0
GEX_CONV_made_by_philips      :      YES
GEX_CONV_applied_conversions      :      0 6 2 1 0 7 0 8 11 4 8 13 -1 1 -1 -1 -
GEX_CONV_base_release      :      18
EX_GEO_voxel_size_conv_done      :      YES
EX_PROC_scan_pat_ref_id      :      541938977
EX_PROC_coca_patient_ref_ids      :      541938977 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_channels      :      32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_nr_stacks      :      2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coca_edge_dist_pos      :      172.809295654297 10000 10000 10000 100
EX_PROC_coca_edge_dist_neg      :      -179.551834106445 -10000 -10000 -10000
EX_PROC_senseref_rfsh_rx_scls      :      1 1 1 1 1 1 1 1

```

```

EX_PROC_senseref_rfsh_rx_ph : 0 0 0 0 0 0 0 0 0
EX_PROC_coil_surv_rfsh_rx_scls : 1 1 1 1 1 1 1 1 1
EX_PROC_coil_surv_rfsh_rx_ph : 0 0 0 0 0 0 0 0 0
EX_PROC_sense_ref_qbc_stack : 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_sense_ref_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_PROC_coil_survey_pat_ref_ids : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_channels : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_nr_stacks : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EX_PROC_coil_survey_qbc_stack : 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EX_PROC_coil_survey_syn_stack : 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EX_GEO_auto_coils_selected : YES
EX_COIL_ui_use_review_mode : YES

```

=====INFO=====

```

Total scan duration : 06:59.9
IF_absolute_SNR : 6.20777082443237
Rel. SNR : 38.700080871582
Act. TR/TE (ms) : 2000 / 28
Dyn. scan time : 00:02.0
Time to k0 : 0.994
ACQ matrix M x P : 80 x 78
ACQ voxel MPS (mm) : 3.00 / 3.08 / 3.20
REC voxel MPS (mm) : 3.00 / 3.00 / 3.20
Scan percentage (%) : 97.5
Packages : 1
Min. slice gap (mm) : 0
EPI factor : 39
WFS (pix) / BW (Hz) : 11.001 / 39.5
BW in EPI freq. dir. (Hz) : 2123.3
Min. WFS (pix) / Max. BW (Hz) : 7.233 / 60.0
Min. TR/TE (ms) : 1967 / 9.6
Head SAR : < 37 %
Whole body SAR / level : < 0.1 W/kg / normal
SED : 0.0 kJ/kg
B1+rms : 1.42 uT
Max B1+rms : 1.42 uT
PNS / level : 95 % / 1st level
dB/dt : 119.0 T/s
Sound Pressure Level (dB) : 19.4884967803955

```