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| Oscar |
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|                |
|----------------|
| HCPH_RL_Prisma |
|----------------|

|   |
|---|
| AAhead_scout_64ch-head-coil<br>anat-T1w__t1_mprage_tra_p2_iso_siemens_axial<br>fmap-epi_acq-bold_dir-LR__cmrr_me4_sms1<br>fmap-epi_acq-bold_dir-RL__cmrr_me4_sms1<br>fmap-epi_acq-bold_dir-AP__cmrr_me4_sms1<br>fmap-epi_acq-bold_dir-PA__cmrr_me4_sms1<br>func-bold_task-rest_dir-RL__cmrr_me4_sms4<br>fmap-phasediff__gre<br>dwi-dwi_acq-highres_dir-RL__trigger_monopolar<br>fmap-epi_acq-b0_dir-LR__6dir_monopolar_HR1_2mm_BW<br>fmap-epi_acq-b0_dir-RL__6dir_monopolar_HR1_2mm_BW<br>fmap-epi_acq-b0_dir-AP__6dir_monopolar_HR1_2mm_BW<br>fmap-epi_acq-b0_dir-PA__6dir_monopolar_HR1_2mm_BW<br>anat-T2w__space |
|---|

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prisma\AAhead\_scout\_64ch-head-coil

TA: 14 sec Coil Selection: Auto Voxel Size: 1.6×1.6×1.6 mm<sup>3</sup> Acc:: 3 Rel. SNR: 1.00**Properties**

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

**Resolution - Acceleration**

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

**Resolution - Filter**

|                       |         |
|-----------------------|---------|
| Raw Filter            | Off     |
| Elliptical Filter     | Off     |
| Distortion Correction | 3D      |
| Normalize             | Prescan |
| Noise Masking         | Off     |
| Image Filter          | Off     |

**Routine**

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

**Geometry - Common**

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

**Contrast - Common**

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

**Geometry - AutoAlign**

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

**Contrast - Dynamic**

|                |          |
|----------------|----------|
| Dynamic Mode   | Standard |
| Measurements   | 1        |
| Time to Center | 6.2 s    |

**Resolution - Common**

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

**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

|                     |                  |
|---------------------|------------------|
| Coil Selection      | Auto Coil Select |
| MSMA                | S - C - T        |
| Sagittal            | R >> L           |
| Coronal             | A >> P           |
| Transversal         | F >> H           |
| Coil Combination    | Adaptive Combine |
| Matrix Optimization | Off              |
| Coil Focus          | Flat             |

**Resolution - Acceleration**

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

**System - Adjustments**

|                       |          |
|-----------------------|----------|
| Adjustment Strategy   | Standard |
| B0 Shim               | Tune up  |
| B1 Shim               | TrueForm |
| CoilShim              | Off      |
| Adjustment Tolerance  | Auto     |
| Adjust with Body Coil | Off      |
| Confirm Frequency     | Never    |
| Assume Silicone       | Off      |

**System - Adjust Volume**

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

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Non-sel. |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - PACE**

|                |     |
|----------------|-----|
| Resp. Control  | Off |
| Concatenations | 1   |

**Inline - Dynamic**

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

**Inline - Subtraction**

|                      |     |
|----------------------|-----|
| Subtract             | Off |
| Measurements         | 1   |
| StdDev               | Off |
| Save Original Images | On  |

**Inline - Cardiac**

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

**Inline - MIP**

|                      |     |
|----------------------|-----|
| MIP Sag              | Off |
| MIP Cor              | Off |
| MIP Tra              | Off |
| MIP Time             | Off |
| Radial MIP           | Off |
| Save Original Images | On  |
| MPR Sag              | Off |
| MPR Cor              | Off |
| MPR Tra              | Off |

**Inline - Composing**

|                  |     |
|------------------|-----|
| Inline Composing | Off |
|------------------|-----|

**Inline - MapIt**

|                      |         |
|----------------------|---------|
| MapIt                | None    |
| Flip Angle           | 8 deg   |
| Measurements         | 1       |
| Contrasts            | 1       |
| TE                   | 1.37 ms |
| TR                   | 3.2 ms  |
| Save Original Images | On      |

**Sequence - Part 1**

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

**Sequence - Part 2**

|                    |     |
|--------------------|-----|
| Introduction       | On  |
| RF Spoiling        | On  |
| Breast Application | Off |

**Sequence - Assistant**

|               |     |
|---------------|-----|
| SAR Assistant | Off |
|---------------|-----|

|  |
|--|
| \\RESEARCH\RESEARCH\Oscar\HCPH_RL_Prisma\anat-T1w__t1_mprage_tra_p2_iso_siemens_axial            |
| I  |
| TA: 5:03 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm <sup>3</sup> Acc.: 2 Rel. SNR: 1.00 |

**Properties**

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

**Routine**

|                     |                     |
|---------------------|---------------------|
| Slab Group          | 1                   |
| Slabs               | 1                   |
| Distance Factor     | 50 %                |
| Position            | L0.0 A27.4 H15.0 mm |
| Orientation         | Transversal         |
| Phase Encoding Dir. | R >> L              |
| Slices per Slab     | 192                 |
| Phase Oversampling  | 0 %                 |
| Slice Oversampling  | 16.7 %              |
| FoV Read            | 230 mm              |
| FoV Phase           | 87.5 %              |
| Slice Thickness     | 0.8 mm              |
| TR                  | 2200.0 ms           |
| TE                  | 2.55 ms             |
| Averages            | 1                   |
| Concatenations      | 1                   |
| AutoAlign           | ---                 |

**Contrast - Common**

|                    |             |
|--------------------|-------------|
| TR                 | 2200.0 ms   |
| TE                 | 2.55 ms     |
| Magn. Preparation  | Non-sel. IR |
| TI                 | 900 ms      |
| Flip Angle         | 8 deg       |
| Fat-Water Contrast | Standard    |
| Dark Blood         | Off         |
| Reconstruction     | Magnitude   |

**Contrast - Dynamic**

|                 |                  |
|-----------------|------------------|
| Dynamic Mode    | Standard         |
| Measurements    | 1                |
| Multiple Series | Each Measurement |
| Reordering      | Linear           |

**Resolution - Common**

|                  |        |
|------------------|--------|
| FoV Read         | 230 mm |
| FoV Phase        | 87.5 % |
| Slice Thickness  | 0.8 mm |
| Base Resolution  | 288    |
| Phase Resolution | 100 %  |
| Slice Resolution | 100 %  |
| Interpolation    | Off    |

**Resolution - Acceleration**

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

**Resolution - Filter**

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

**Geometry - Common**

|                     |                     |
|---------------------|---------------------|
| Slab Group          | 1                   |
| Slabs               | 1                   |
| Distance Factor     | 50 %                |
| Position            | L0.0 A27.4 H15.0 mm |
| Orientation         | Transversal         |
| Phase Encoding Dir. | R >> L              |
| Slices per Slab     | 192                 |
| Phase Oversampling  | 0 %                 |
| Slice Oversampling  | 16.7 %              |
| FoV Read            | 230 mm              |
| FoV Phase           | 87.5 %              |
| Slice Thickness     | 0.8 mm              |
| TR                  | 2200.0 ms           |
| Multi-Slice Mode    | Single Shot         |
| Series              | Ascending           |
| Concatenations      | 1                   |

**Geometry - AutoAlign**

|                     |                     |
|---------------------|---------------------|
| Slab Group          | 1                   |
| Position            | L0.0 A27.4 H15.0 mm |
| Orientation         | Transversal         |
| Phase Encoding Dir. | R >> L              |
| AutoAlign           | ---                 |
| Initial Position    | L0.0 A27.4 H15.0    |
| L                   | 0.0 mm              |
| A                   | 27.4 mm             |
| H                   | 15.0 mm             |
| Initial Orientation | Transversal         |
| Initial Rotation    | 90.00 deg           |

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

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

**System - Miscellaneous**

|                |                  |
|----------------|------------------|
| Coil Selection | Auto Coil Select |
| MSMA           | S - C - T        |

**System - Miscellaneous**

|                     |                  |
|---------------------|------------------|
| Sagittal            | R >> L           |
| Coronal             | A >> P           |
| Transversal         | F >> H           |
| Coil Combination    | Adaptive Combine |
| Matrix Optimization | Off              |
| Coil Focus          | Flat             |

**System - Adjustments**

|                       |          |
|-----------------------|----------|
| Adjustment Strategy   | Standard |
| B0 Shim               | Tune up  |
| B1 Shim               | TrueForm |
| CoilShim              | Off      |
| Adjustment Tolerance  | Auto     |
| Adjust with Body Coil | Off      |
| Confirm Frequency     | Never    |
| Assume Silicone       | Off      |

**System - Adjust Volume**

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

**System - pTx**

|            |           |
|------------|-----------|
| B1 Shim    | TrueForm  |
| Excitation | Slab-sel. |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                 |           |
|-----------------|-----------|
| 1st Signal/Mode | None      |
| TR              | 2200.0 ms |
| Concatenations  | 1         |

**Physio - Cardiac**

|                    |             |
|--------------------|-------------|
| Fat-Water Contrast | Standard    |
| Magn. Preparation  | Non-sel. IR |
| TI                 | 900 ms      |
| Dark Blood         | Off         |
| FoV Read           | 230 mm      |
| FoV Phase          | 87.5 %      |
| Phase Resolution   | 100 %       |
| Dynamic Mode       | Standard    |

**Physio - PACE**

|                |     |
|----------------|-----|
| Resp. Control  | Off |
| Concatenations | 1   |

**Inline - Subtraction**

|                      |     |
|----------------------|-----|
| Subtract             | Off |
| Measurements         | 1   |
| StdDev               | Off |
| Save Original Images | On  |

**Inline - Cardiac**

|                   |             |
|-------------------|-------------|
| Magn. Preparation | Non-sel. IR |
|-------------------|-------------|

**Inline - Cardiac**

|                      |           |
|----------------------|-----------|
| Save Original Images | On        |
| TE                   | 2.55 ms   |
| TR                   | 2200.0 ms |

**Inline - MIP**

|                      |     |
|----------------------|-----|
| MIP Sag              | Off |
| MIP Cor              | Off |
| MIP Tra              | Off |
| MIP Time             | Off |
| Radial MIP           | Off |
| Save Original Images | On  |
| MPR Sag              | Off |
| MPR Cor              | Off |
| MPR Tra              | Off |

**Inline - Composing**

|                  |     |
|------------------|-----|
| Inline Composing | Off |
|------------------|-----|

**Inline - MapIt**

|                      |           |
|----------------------|-----------|
| MapIt                | None      |
| Flip Angle           | 8 deg     |
| Measurements         | 1         |
| TE                   | 2.55 ms   |
| TR                   | 2200.0 ms |
| Save Original Images | On        |

**Sequence - Part 1**

|                   |           |
|-------------------|-----------|
| Sequence Name     | tfl       |
| Dimension         | 3D        |
| Excitation        | Slab-sel. |
| RF Pulse Type     | Fast      |
| Gradient Mode     | Normal    |
| Flow Compensation | None      |
| Reordering        | Linear    |
| Bandwidth         | 260 Hz/Px |
| Echo Spacing      | 7.46 ms   |
| Asymmetric Echo   | Allowed   |
| Turbo Factor      | 224       |

**Sequence - Part 2**

|                         |    |
|-------------------------|----|
| Introduction            | On |
| RF Spoiling             | On |
| Incr. Gradient Spoiling | On |

**Sequence - Assistant**

|               |     |
|---------------|-----|
| SAR Assistant | Off |
|---------------|-----|

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prismalfmap-epi\_acq-bold\_dir-LR\_cmrr\_me4\_sms1

TA: 29 sec Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Routine**

|                          |                   |
|--------------------------|-------------------|
| Slice Group              | 1                 |
| Slices                   | 60                |
| Distance Factor          | 0 %               |
| Position                 | L0.0 A7.9 F3.6 mm |
| Orientation              | T > S-2.1 > C0.6  |
| Phase Encoding Dir.      | L >> R            |
| Phase Oversampling       | 0 %               |
| FoV Read                 | 231 mm            |
| FoV Phase                | 88.5 %            |
| Slice Thickness          | 2.2 mm            |
| TR                       | 4150.0 ms         |
| TE                       | 35.00 ms          |
| Averages                 | 1                 |
| Multi-band accel. factor | 1                 |
| AutoAlign                | Head > Brain      |

**Contrast - Common**

|                    |                |
|--------------------|----------------|
| TR                 | 4150.0 ms      |
| TE                 | 35.00 ms       |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Flip Angle         | 64 deg         |
| Fat-Water Contrast | Fat Saturation |
| Contrasts          | 1              |
| Reconstruction     | Magn./Phase    |

**Contrast - Dynamic**

|              |          |
|--------------|----------|
| Dynamic Mode | Standard |
| Measurements | 4        |
| Delay in TR  | 0.00 ms  |

**Resolution - Common**

|                  |        |
|------------------|--------|
| FoV Read         | 231 mm |
| FoV Phase        | 88.5 % |
| Slice Thickness  | 2.2 mm |
| Base Resolution  | 104    |
| Phase Resolution | 100 %  |
| Interpolation    | Off    |

**Resolution - Acceleration**

|                        |             |
|------------------------|-------------|
| Acceleration mode      | GRAPPA      |
| Reference scan mode    | Single-shot |
| Acceleration Factor PE | 2           |
| Reference Lines PE     | 22          |
| Phase Partial Fourier  | 6/8         |

**Resolution - Filter**

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Hamming               | Off |
| Distortion Correction | 2D  |
| Normalize             | Off |

**Geometry - Common**

|                          |                   |
|--------------------------|-------------------|
| Slice Group              | 1                 |
| Slices                   | 60                |
| Distance Factor          | 0 %               |
| Position                 | L0.0 A7.9 F3.6 mm |
| Orientation              | T > S-2.1 > C0.6  |
| Phase Encoding Dir.      | L >> R            |
| Phase Oversampling       | 0 %               |
| FoV Read                 | 231 mm            |
| FoV Phase                | 88.5 %            |
| Slice Thickness          | 2.2 mm            |
| TR                       | 4150.0 ms         |
| Multi-Slice Mode         | Interleaved       |
| Series                   | Interleaved       |
| Multi-band accel. factor | 1                 |

**Geometry - AutoAlign**

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | L >> R            |
| AutoAlign           | Head > Brain      |
| Initial Position    | L0.0 A7.9 F3.6    |
| R                   | 0.0 mm            |
| A                   | 7.9 mm            |
| F                   | 3.6 mm            |
| Initial Orientation | T > S             |
| T > S               | -2.10             |
| > C                 | 0.60              |
| Initial Rotation    | -90.00 deg        |

**Geometry - Saturation**

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

**Geometry - Tim Planning Suite**

|                   |      |
|-------------------|------|
| Set-n-Go Protocol | Off  |
| Table Position    | 4 mm |
| Table Position    | F    |
| Inline Composing  | Off  |

**System - Miscellaneous**

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

**System - Adjustments**

|                     |          |
|---------------------|----------|
| Adjustment Strategy | Standard |
| B0 Shim             | Standard |
| B1 Shim             | TrueForm |

**System - Adjustments**

|                       |       |
|-----------------------|-------|
| CoilShim              | Off   |
| Adjustment Tolerance  | Auto  |
| Adjust with Body Coil | Off   |
| Confirm Frequency     | Never |
| Assume Silicone       | Off   |

**System - Adjust Volume**

|             |                   |
|-------------|-------------------|
| Position    | L0.0 A7.9 F3.6 mm |
| Orientation | T > S-2.1 > C0.6  |
| Rotation    | -90.00 deg        |
| R >> L      | 205 mm            |
| A >> P      | 231 mm            |
| F >> H      | 132 mm            |
| Reset       | Off               |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                          |           |
|--------------------------|-----------|
| 1st Signal/Mode          | None      |
| TR                       | 4150.0 ms |
| Multi-band accel. factor | 1         |

**BOLD**

|                         |         |
|-------------------------|---------|
| GLM Statistics          | Off     |
| Ignore Meas. at Start   | 0       |
| Ignore After Transition | 0       |
| Model Transition States | On      |
| Temp. Highpass Filter   | On      |
| Threshold               | 4.00    |
| Paradigm Size           | 20      |
| Meas[1]                 | Active  |
| Meas[2]                 | Active  |
| Meas[3]                 | Active  |
| Meas[4]                 | Active  |
| Meas[5]                 | Active  |
| Meas[6]                 | Active  |
| Meas[7]                 | Active  |
| Meas[8]                 | Active  |
| Meas[9]                 | Active  |
| Meas[10]                | Active  |
| Meas[11]                | Ignore  |
| Meas[12]                | Ignore  |
| Meas[13]                | Ignore  |
| Meas[14]                | Ignore  |
| Meas[15]                | Ignore  |
| Meas[16]                | Ignore  |
| Meas[17]                | Ignore  |
| Meas[18]                | Ignore  |
| Meas[19]                | Ignore  |
| Meas[20]                | Ignore  |
| Motion Correction       | Off     |
| Spatial Filter          | Off     |
| Measurements            | 4       |
| Delay in TR             | 0.00 ms |

**Sequence - Part 1**

|                   |            |
|-------------------|------------|
| Sequence Name     | epfid      |
| Dimension         | 2D         |
| Excitation        | Standard   |
| Gradient Mode     | Fast       |
| Flow Compensation | None       |
| Bandwidth         | 2186 Hz/Px |
| Echo Spacing      | 0.67 ms    |
| Free Echo Spacing | On         |
| EPI Factor        | 92         |

**Sequence - Part 2**

|              |     |
|--------------|-----|
| Introduction | Off |
| RF Spoiling  | Off |

**Sequence - Special**

|                          |            |
|--------------------------|------------|
| Excite pulse duration    | 2320 us    |
| Min. prep scans          | 0          |
| SENSE1 coil combine      | Off        |
| Invert RO/PE polarity    | Off        |
| Force Maxwell corr.      | Off        |
| PF omits higher k-space  | Off        |
| Disable freq. update     | Off        |
| Suppress 16-bit DICOM    | On         |
| Force equal slice timing | Off        |
| FFT scale factor         | 1.00       |
| Fat saturation FA        | 110.00 deg |
| Fat sat. offset          | 0.00 Hz    |
| Sinc exc. pulse BWTP     | 5.20       |
| Physio recording         | Off        |
| Triggering scheme        | Standard   |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prismalfmap-epi\_acq-bold\_dir-RL\_cmrr\_me4\_sms1

TA: 29 sec Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Routine**

|                          |                   |
|--------------------------|-------------------|
| Slice Group              | 1                 |
| Slices                   | 60                |
| Distance Factor          | 0 %               |
| Position                 | L0.0 A7.9 F3.6 mm |
| Orientation              | T > S-2.1 > C0.6  |
| Phase Encoding Dir.      | R >> L            |
| Phase Oversampling       | 0 %               |
| FoV Read                 | 231 mm            |
| FoV Phase                | 88.5 %            |
| Slice Thickness          | 2.2 mm            |
| TR                       | 4150.0 ms         |
| TE                       | 35.00 ms          |
| Averages                 | 1                 |
| Multi-band accel. factor | 1                 |
| AutoAlign                | Head > Brain      |

**Contrast - Common**

|                    |                |
|--------------------|----------------|
| TR                 | 4150.0 ms      |
| TE                 | 35.00 ms       |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Flip Angle         | 64 deg         |
| Fat-Water Contrast | Fat Saturation |
| Contrasts          | 1              |
| Reconstruction     | Magn./Phase    |

**Contrast - Dynamic**

|              |          |
|--------------|----------|
| Dynamic Mode | Standard |
| Measurements | 4        |
| Delay in TR  | 0.00 ms  |

**Resolution - Common**

|                  |        |
|------------------|--------|
| FoV Read         | 231 mm |
| FoV Phase        | 88.5 % |
| Slice Thickness  | 2.2 mm |
| Base Resolution  | 104    |
| Phase Resolution | 100 %  |
| Interpolation    | Off    |

**Resolution - Acceleration**

|                        |             |
|------------------------|-------------|
| Acceleration mode      | GRAPPA      |
| Reference scan mode    | Single-shot |
| Acceleration Factor PE | 2           |
| Reference Lines PE     | 22          |
| Phase Partial Fourier  | 6/8         |

**Resolution - Filter**

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Hamming               | Off |
| Distortion Correction | 2D  |
| Normalize             | Off |

**Geometry - Common**

|                          |                   |
|--------------------------|-------------------|
| Slice Group              | 1                 |
| Slices                   | 60                |
| Distance Factor          | 0 %               |
| Position                 | L0.0 A7.9 F3.6 mm |
| Orientation              | T > S-2.1 > C0.6  |
| Phase Encoding Dir.      | R >> L            |
| Phase Oversampling       | 0 %               |
| FoV Read                 | 231 mm            |
| FoV Phase                | 88.5 %            |
| Slice Thickness          | 2.2 mm            |
| TR                       | 4150.0 ms         |
| Multi-Slice Mode         | Interleaved       |
| Series                   | Interleaved       |
| Multi-band accel. factor | 1                 |

**Geometry - AutoAlign**

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | R >> L            |
| AutoAlign           | Head > Brain      |
| Initial Position    | L0.0 A7.9 F3.6    |
| R                   | 0.0 mm            |
| A                   | 7.9 mm            |
| F                   | 3.6 mm            |
| Initial Orientation | T > S             |
| T > S               | -2.10             |
| > C                 | 0.60              |
| Initial Rotation    | 90.00 deg         |

**Geometry - Saturation**

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

**Geometry - Tim Planning Suite**

|                   |      |
|-------------------|------|
| Set-n-Go Protocol | Off  |
| Table Position    | 4 mm |
| Table Position    | F    |
| Inline Composing  | Off  |

**System - Miscellaneous**

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

**System - Adjustments**

|                     |          |
|---------------------|----------|
| Adjustment Strategy | Standard |
| B0 Shim             | Standard |
| B1 Shim             | TrueForm |



**System - Adjustments**

|                       |       |
|-----------------------|-------|
| CoilShim              | Off   |
| Adjustment Tolerance  | Auto  |
| Adjust with Body Coil | Off   |
| Confirm Frequency     | Never |
| Assume Silicone       | Off   |

**System - Adjust Volume**

|             |                   |
|-------------|-------------------|
| Position    | L0.0 A7.9 F3.6 mm |
| Orientation | T > S-2.1 > C0.6  |
| Rotation    | 90.00 deg         |
| R >> L      | 205 mm            |
| A >> P      | 231 mm            |
| F >> H      | 132 mm            |
| Reset       | Off               |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                          |           |
|--------------------------|-----------|
| 1st Signal/Mode          | None      |
| TR                       | 4150.0 ms |
| Multi-band accel. factor | 1         |

**BOLD**

|                         |         |
|-------------------------|---------|
| GLM Statistics          | Off     |
| Ignore Meas. at Start   | 0       |
| Ignore After Transition | 0       |
| Model Transition States | On      |
| Temp. Highpass Filter   | On      |
| Threshold               | 4.00    |
| Paradigm Size           | 20      |
| Meas[1]                 | Active  |
| Meas[2]                 | Active  |
| Meas[3]                 | Active  |
| Meas[4]                 | Active  |
| Meas[5]                 | Active  |
| Meas[6]                 | Active  |
| Meas[7]                 | Active  |
| Meas[8]                 | Active  |
| Meas[9]                 | Active  |
| Meas[10]                | Active  |
| Meas[11]                | Ignore  |
| Meas[12]                | Ignore  |
| Meas[13]                | Ignore  |
| Meas[14]                | Ignore  |
| Meas[15]                | Ignore  |
| Meas[16]                | Ignore  |
| Meas[17]                | Ignore  |
| Meas[18]                | Ignore  |
| Meas[19]                | Ignore  |
| Meas[20]                | Ignore  |
| Motion Correction       | Off     |
| Spatial Filter          | Off     |
| Measurements            | 4       |
| Delay in TR             | 0.00 ms |

**Sequence - Part 1**

|                   |            |
|-------------------|------------|
| Sequence Name     | epfid      |
| Dimension         | 2D         |
| Excitation        | Standard   |
| Gradient Mode     | Fast       |
| Flow Compensation | None       |
| Bandwidth         | 2186 Hz/Px |
| Echo Spacing      | 0.67 ms    |
| Free Echo Spacing | On         |
| EPI Factor        | 92         |

**Sequence - Part 2**

|              |     |
|--------------|-----|
| Introduction | Off |
| RF Spoiling  | Off |

**Sequence - Special**

|                          |            |
|--------------------------|------------|
| Excite pulse duration    | 2320 us    |
| Min. prep scans          | 0          |
| SENSE1 coil combine      | Off        |
| Invert RO/PE polarity    | Off        |
| Force Maxwell corr.      | Off        |
| PF omits higher k-space  | Off        |
| Disable freq. update     | Off        |
| Suppress 16-bit DICOM    | On         |
| Force equal slice timing | Off        |
| FFT scale factor         | 1.00       |
| Fat saturation FA        | 110.00 deg |
| Fat sat. offset          | 0.00 Hz    |
| Sinc exc. pulse BWTP     | 5.20       |
| Physio recording         | Off        |
| Triggering scheme        | Standard   |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prismalfmap-epi\_acq-bold\_dir-AP\_\_cmrr\_me4\_sms1

TA: 29 sec Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Routine**

|                          |                   |
|--------------------------|-------------------|
| Slice Group              | 1                 |
| Slices                   | 60                |
| Distance Factor          | 0 %               |
| Position                 | L0.0 A7.9 F3.6 mm |
| Orientation              | T > S-2.1 > C0.6  |
| Phase Encoding Dir.      | A >> P            |
| Phase Oversampling       | 0 %               |
| FoV Read                 | 211 mm            |
| FoV Phase                | 100.0 %           |
| Slice Thickness          | 2.2 mm            |
| TR                       | 4150.0 ms         |
| TE                       | 35.00 ms          |
| Averages                 | 1                 |
| Multi-band accel. factor | 1                 |
| AutoAlign                | Head > Brain      |

**Contrast - Common**

|                    |                |
|--------------------|----------------|
| TR                 | 4150.0 ms      |
| TE                 | 35.00 ms       |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Flip Angle         | 64 deg         |
| Fat-Water Contrast | Fat Saturation |
| Contrasts          | 1              |
| Reconstruction     | Magn./Phase    |

**Contrast - Dynamic**

|              |          |
|--------------|----------|
| Dynamic Mode | Standard |
| Measurements | 4        |
| Delay in TR  | 0.00 ms  |

**Resolution - Common**

|                  |         |
|------------------|---------|
| FoV Read         | 211 mm  |
| FoV Phase        | 100.0 % |
| Slice Thickness  | 2.2 mm  |
| Base Resolution  | 96      |
| Phase Resolution | 100 %   |
| Interpolation    | Off     |

**Resolution - Acceleration**

|                        |             |
|------------------------|-------------|
| Acceleration mode      | GRAPPA      |
| Reference scan mode    | Single-shot |
| Acceleration Factor PE | 2           |
| Reference Lines PE     | 22          |
| Phase Partial Fourier  | 6/8         |

**Resolution - Filter**

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Hamming               | Off |
| Distortion Correction | 2D  |
| Normalize             | Off |

**Geometry - Common**

|                          |                   |
|--------------------------|-------------------|
| Slice Group              | 1                 |
| Slices                   | 60                |
| Distance Factor          | 0 %               |
| Position                 | L0.0 A7.9 F3.6 mm |
| Orientation              | T > S-2.1 > C0.6  |
| Phase Encoding Dir.      | A >> P            |
| Phase Oversampling       | 0 %               |
| FoV Read                 | 211 mm            |
| FoV Phase                | 100.0 %           |
| Slice Thickness          | 2.2 mm            |
| TR                       | 4150.0 ms         |
| Multi-Slice Mode         | Interleaved       |
| Series                   | Interleaved       |
| Multi-band accel. factor | 1                 |

**Geometry - AutoAlign**

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | A >> P            |
| AutoAlign           | Head > Brain      |
| Initial Position    | L0.0 A7.9 F3.6    |
| R                   | 0.0 mm            |
| A                   | 7.9 mm            |
| F                   | 3.6 mm            |
| Initial Orientation | T > S             |
| T > S               | -2.10             |
| > C                 | 0.60              |
| Initial Rotation    | 0.00 deg          |

**Geometry - Saturation**

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

**Geometry - Tim Planning Suite**

|                   |      |
|-------------------|------|
| Set-n-Go Protocol | Off  |
| Table Position    | 4 mm |
| Table Position    | F    |
| Inline Composing  | Off  |

**System - Miscellaneous**

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

**System - Adjustments**

|                     |          |
|---------------------|----------|
| Adjustment Strategy | Standard |
| B0 Shim             | Standard |
| B1 Shim             | TrueForm |

**System - Adjustments**

|                       |       |
|-----------------------|-------|
| CoilShim              | Off   |
| Adjustment Tolerance  | Auto  |
| Adjust with Body Coil | Off   |
| Confirm Frequency     | Never |
| Assume Silicone       | Off   |

**System - Adjust Volume**

|             |                   |
|-------------|-------------------|
| Position    | L0.0 A7.9 F3.6 mm |
| Orientation | T > S-2.1 > C0.6  |
| Rotation    | 0.00 deg          |
| A >> P      | 211 mm            |
| R >> L      | 211 mm            |
| F >> H      | 132 mm            |
| Reset       | Off               |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                          |           |
|--------------------------|-----------|
| 1st Signal/Mode          | None      |
| TR                       | 4150.0 ms |
| Multi-band accel. factor | 1         |

**BOLD**

|                         |         |
|-------------------------|---------|
| GLM Statistics          | Off     |
| Ignore Meas. at Start   | 0       |
| Ignore After Transition | 0       |
| Model Transition States | On      |
| Temp. Highpass Filter   | On      |
| Threshold               | 4.00    |
| Paradigm Size           | 20      |
| Meas[1]                 | Active  |
| Meas[2]                 | Active  |
| Meas[3]                 | Active  |
| Meas[4]                 | Active  |
| Meas[5]                 | Active  |
| Meas[6]                 | Active  |
| Meas[7]                 | Active  |
| Meas[8]                 | Active  |
| Meas[9]                 | Active  |
| Meas[10]                | Active  |
| Meas[11]                | Ignore  |
| Meas[12]                | Ignore  |
| Meas[13]                | Ignore  |
| Meas[14]                | Ignore  |
| Meas[15]                | Ignore  |
| Meas[16]                | Ignore  |
| Meas[17]                | Ignore  |
| Meas[18]                | Ignore  |
| Meas[19]                | Ignore  |
| Meas[20]                | Ignore  |
| Motion Correction       | Off     |
| Spatial Filter          | Off     |
| Measurements            | 4       |
| Delay in TR             | 0.00 ms |

**Sequence - Part 1**

|                   |            |
|-------------------|------------|
| Sequence Name     | epfid      |
| Dimension         | 2D         |
| Excitation        | Standard   |
| Gradient Mode     | Fast       |
| Flow Compensation | None       |
| Bandwidth         | 2170 Hz/Px |
| Echo Spacing      | 0.67 ms    |
| Free Echo Spacing | On         |
| EPI Factor        | 96         |

**Sequence - Part 2**

|              |     |
|--------------|-----|
| Introduction | Off |
| RF Spoiling  | Off |

**Sequence - Special**

|                          |            |
|--------------------------|------------|
| Excite pulse duration    | 2320 us    |
| Min. prep scans          | 0          |
| SENSE1 coil combine      | Off        |
| Invert RO/PE polarity    | Off        |
| Force Maxwell corr.      | Off        |
| PF omits higher k-space  | Off        |
| Disable freq. update     | Off        |
| Suppress 16-bit DICOM    | On         |
| Force equal slice timing | Off        |
| FFT scale factor         | 1.00       |
| Fat saturation FA        | 110.00 deg |
| Fat sat. offset          | 0.00 Hz    |
| Sinc exc. pulse BWTP     | 5.20       |
| Physio recording         | Off        |
| Triggering scheme        | Standard   |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prismalfmap-epi\_acq-bold\_dir-PA\_cmrr\_me4\_sms1

TA: 29 sec Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Routine**

|                          |                   |
|--------------------------|-------------------|
| Slice Group              | 1                 |
| Slices                   | 60                |
| Distance Factor          | 0 %               |
| Position                 | L0.0 A7.9 F3.6 mm |
| Orientation              | T > S-2.1 > C0.6  |
| Phase Encoding Dir.      | P >> A            |
| Phase Oversampling       | 0 %               |
| FoV Read                 | 211 mm            |
| FoV Phase                | 100.0 %           |
| Slice Thickness          | 2.2 mm            |
| TR                       | 4150.0 ms         |
| TE                       | 35.00 ms          |
| Averages                 | 1                 |
| Multi-band accel. factor | 1                 |
| AutoAlign                | Head > Brain      |

**Contrast - Common**

|                    |                |
|--------------------|----------------|
| TR                 | 4150.0 ms      |
| TE                 | 35.00 ms       |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Flip Angle         | 64 deg         |
| Fat-Water Contrast | Fat Saturation |
| Contrasts          | 1              |
| Reconstruction     | Magn./Phase    |

**Contrast - Dynamic**

|              |          |
|--------------|----------|
| Dynamic Mode | Standard |
| Measurements | 4        |
| Delay in TR  | 0.00 ms  |

**Resolution - Common**

|                  |         |
|------------------|---------|
| FoV Read         | 211 mm  |
| FoV Phase        | 100.0 % |
| Slice Thickness  | 2.2 mm  |
| Base Resolution  | 96      |
| Phase Resolution | 100 %   |
| Interpolation    | Off     |

**Resolution - Acceleration**

|                        |             |
|------------------------|-------------|
| Acceleration mode      | GRAPPA      |
| Reference scan mode    | Single-shot |
| Acceleration Factor PE | 2           |
| Reference Lines PE     | 22          |
| Phase Partial Fourier  | 6/8         |

**Resolution - Filter**

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Hamming               | Off |
| Distortion Correction | 2D  |
| Normalize             | Off |

**Geometry - Common**

|                          |                   |
|--------------------------|-------------------|
| Slice Group              | 1                 |
| Slices                   | 60                |
| Distance Factor          | 0 %               |
| Position                 | L0.0 A7.9 F3.6 mm |
| Orientation              | T > S-2.1 > C0.6  |
| Phase Encoding Dir.      | P >> A            |
| Phase Oversampling       | 0 %               |
| FoV Read                 | 211 mm            |
| FoV Phase                | 100.0 %           |
| Slice Thickness          | 2.2 mm            |
| TR                       | 4150.0 ms         |
| Multi-Slice Mode         | Interleaved       |
| Series                   | Interleaved       |
| Multi-band accel. factor | 1                 |

**Geometry - AutoAlign**

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | P >> A            |
| AutoAlign           | Head > Brain      |
| Initial Position    | L0.0 A7.9 F3.6    |
| R                   | 0.0 mm            |
| A                   | 7.9 mm            |
| F                   | 3.6 mm            |
| Initial Orientation | T > S             |
| T > S               | -2.10             |
| > C                 | 0.60              |
| Initial Rotation    | -180.00 deg       |

**Geometry - Saturation**

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

**Geometry - Tim Planning Suite**

|                   |      |
|-------------------|------|
| Set-n-Go Protocol | Off  |
| Table Position    | 4 mm |
| Table Position    | F    |
| Inline Composing  | Off  |

**System - Miscellaneous**

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

**System - Adjustments**

|                     |          |
|---------------------|----------|
| Adjustment Strategy | Standard |
| B0 Shim             | Standard |
| B1 Shim             | TrueForm |

**System - Adjustments**

|                       |       |
|-----------------------|-------|
| CoilShim              | Off   |
| Adjustment Tolerance  | Auto  |
| Adjust with Body Coil | Off   |
| Confirm Frequency     | Never |
| Assume Silicone       | Off   |

**System - Adjust Volume**

|             |                   |
|-------------|-------------------|
| Position    | L0.0 A7.9 F3.6 mm |
| Orientation | T > S-2.1 > C0.6  |
| Rotation    | -180.00 deg       |
| A >> P      | 211 mm            |
| R >> L      | 211 mm            |
| F >> H      | 132 mm            |
| Reset       | Off               |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                          |           |
|--------------------------|-----------|
| 1st Signal/Mode          | None      |
| TR                       | 4150.0 ms |
| Multi-band accel. factor | 1         |

**BOLD**

|                         |         |
|-------------------------|---------|
| GLM Statistics          | Off     |
| Ignore Meas. at Start   | 0       |
| Ignore After Transition | 0       |
| Model Transition States | On      |
| Temp. Highpass Filter   | On      |
| Threshold               | 4.00    |
| Paradigm Size           | 20      |
| Meas[1]                 | Active  |
| Meas[2]                 | Active  |
| Meas[3]                 | Active  |
| Meas[4]                 | Active  |
| Meas[5]                 | Active  |
| Meas[6]                 | Active  |
| Meas[7]                 | Active  |
| Meas[8]                 | Active  |
| Meas[9]                 | Active  |
| Meas[10]                | Active  |
| Meas[11]                | Ignore  |
| Meas[12]                | Ignore  |
| Meas[13]                | Ignore  |
| Meas[14]                | Ignore  |
| Meas[15]                | Ignore  |
| Meas[16]                | Ignore  |
| Meas[17]                | Ignore  |
| Meas[18]                | Ignore  |
| Meas[19]                | Ignore  |
| Meas[20]                | Ignore  |
| Motion Correction       | Off     |
| Spatial Filter          | Off     |
| Measurements            | 4       |
| Delay in TR             | 0.00 ms |

**Sequence - Part 1**

|                   |            |
|-------------------|------------|
| Sequence Name     | epfid      |
| Dimension         | 2D         |
| Excitation        | Standard   |
| Gradient Mode     | Fast       |
| Flow Compensation | None       |
| Bandwidth         | 2170 Hz/Px |
| Echo Spacing      | 0.67 ms    |
| Free Echo Spacing | On         |
| EPI Factor        | 96         |

**Sequence - Part 2**

|              |     |
|--------------|-----|
| Introduction | Off |
| RF Spoiling  | Off |

**Sequence - Special**

|                          |            |
|--------------------------|------------|
| Excite pulse duration    | 2320 us    |
| Min. prep scans          | 0          |
| SENSE1 coil combine      | Off        |
| Invert RO/PE polarity    | Off        |
| Force Maxwell corr.      | Off        |
| PF omits higher k-space  | Off        |
| Disable freq. update     | Off        |
| Suppress 16-bit DICOM    | On         |
| Force equal slice timing | Off        |
| FFT scale factor         | 1.00       |
| Fat saturation FA        | 110.00 deg |
| Fat sat. offset          | 0.00 Hz    |
| Sinc exc. pulse BWTP     | 5.20       |
| Physio recording         | Off        |
| Triggering scheme        | Standard   |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prismalfunc-bold\_task-rest\_dir-RL\_cmrr\_me4\_sms4

TA: 20:29 min Coil Selection: Auto Voxel Size: 2.2×2.2×2.2 mm<sup>3</sup> Acc:: 2 Rel. SNR: 1.00**Properties**

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

**Resolution - Acceleration**

|                        |             |
|------------------------|-------------|
| Reference scan mode    | Single-shot |
| Acceleration Factor PE | 2           |
| Reference Lines PE     | 22          |
| Phase Partial Fourier  | 6/8         |

**Resolution - Filter**

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Hamming               | Off |
| Distortion Correction | 2D  |
| Normalize             | Off |

**Geometry - Common**

|                          |                    |
|--------------------------|--------------------|
| Slice Group              | 1                  |
| Slices                   | 60                 |
| Distance Factor          | 0 %                |
| Position                 | L0.0 A4.1 H0.2 mm  |
| Orientation              | T > C-17.2 > S-2.1 |
| Phase Encoding Dir.      | R >> L             |
| Phase Oversampling       | 0 %                |
| FoV Read                 | 211 mm             |
| FoV Phase                | 100.0 %            |
| Slice Thickness          | 2.2 mm             |
| TR                       | 1600.0 ms          |
| Multi-Slice Mode         | Interleaved        |
| Series                   | Interleaved        |
| Multi-band accel. factor | 4                  |

**Routine**

|                          |                    |
|--------------------------|--------------------|
| Slice Group              | 1                  |
| Slices                   | 60                 |
| Distance Factor          | 0 %                |
| Position                 | L0.0 A4.1 H0.2 mm  |
| Orientation              | T > C-17.2 > S-2.1 |
| Phase Encoding Dir.      | R >> L             |
| Phase Oversampling       | 0 %                |
| FoV Read                 | 211 mm             |
| FoV Phase                | 100.0 %            |
| Slice Thickness          | 2.2 mm             |
| TR                       | 1600.0 ms          |
| TE 1                     | 13.20 ms           |
| TE 2                     | 38.82 ms           |
| TE 3                     | 64.44 ms           |
| Averages                 | 1                  |
| Multi-band accel. factor | 4                  |
| AutoAlign                | Head > Brain       |

**Geometry - AutoAlign**

|                     |                    |
|---------------------|--------------------|
| Slice Group         | 1                  |
| Position            | L0.0 A4.1 H0.2 mm  |
| Orientation         | T > C-17.2 > S-2.1 |
| Phase Encoding Dir. | R >> L             |
| AutoAlign           | Head > Brain       |
| Initial Position    | L0.0 A4.1 H0.2     |
| R                   | 0.0 mm             |
| A                   | 4.1 mm             |
| H                   | 0.2 mm             |
| Initial Orientation | T > C              |
| T > C               | -17.20             |
| > S                 | -2.10              |
| Initial Rotation    | 89.42 deg          |

**Contrast - Common**

|                    |                |
|--------------------|----------------|
| TR                 | 1600.0 ms      |
| TE 1               | 13.20 ms       |
| TE 2               | 38.82 ms       |
| TE 3               | 64.44 ms       |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Flip Angle         | 64 deg         |
| Fat-Water Contrast | Fat Saturation |
| Contrasts          | 3              |
| Reconstruction     | Magn./Phase    |

**Contrast - Dynamic**

|              |          |
|--------------|----------|
| Dynamic Mode | Standard |
| Measurements | 750      |
| Delay in TR  | 0.00 ms  |

**Resolution - Common**

|                  |         |
|------------------|---------|
| FoV Read         | 211 mm  |
| FoV Phase        | 100.0 % |
| Slice Thickness  | 2.2 mm  |
| Base Resolution  | 96      |
| Phase Resolution | 100 %   |
| Interpolation    | Off     |

**Resolution - Acceleration**

|                   |        |
|-------------------|--------|
| Acceleration mode | GRAPPA |
|-------------------|--------|

**Geometry - Saturation**

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

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

**System - Miscellaneous**

|            |      |
|------------|------|
| Coil Focus | Flat |
|------------|------|

**System - Adjustments**

|                       |          |
|-----------------------|----------|
| Adjustment Strategy   | Standard |
| B0 Shim               | Standard |
| B1 Shim               | TrueForm |
| CoilShim              | Off      |
| Adjustment Tolerance  | Auto     |
| Adjust with Body Coil | Off      |
| Confirm Frequency     | Never    |
| Assume Silicone       | Off      |

**System - Adjust Volume**

|             |                    |
|-------------|--------------------|
| Position    | L0.0 A4.1 H0.2 mm  |
| Orientation | T > C-17.2 > S-2.1 |
| Rotation    | 89.42 deg          |
| R >> L      | 211 mm             |
| A >> P      | 211 mm             |
| F >> H      | 132 mm             |
| Reset       | Off                |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                          |           |
|--------------------------|-----------|
| 1st Signal/Mode          | None      |
| TR                       | 1600.0 ms |
| Multi-band accel. factor | 4         |

**BOLD**

|                         |        |
|-------------------------|--------|
| GLM Statistics          | Off    |
| Ignore Meas. at Start   | 0      |
| Ignore After Transition | 0      |
| Model Transition States | On     |
| Temp. Highpass Filter   | On     |
| Threshold               | 4.00   |
| Paradigm Size           | 20     |
| Meas[1]                 | Active |
| Meas[2]                 | Active |
| Meas[3]                 | Active |
| Meas[4]                 | Active |
| Meas[5]                 | Active |
| Meas[6]                 | Active |
| Meas[7]                 | Active |
| Meas[8]                 | Active |
| Meas[9]                 | Active |
| Meas[10]                | Active |
| Meas[11]                | Ignore |
| Meas[12]                | Ignore |
| Meas[13]                | Ignore |
| Meas[14]                | Ignore |
| Meas[15]                | Ignore |
| Meas[16]                | Ignore |
| Meas[17]                | Ignore |
| Meas[18]                | Ignore |
| Meas[19]                | Ignore |
| Meas[20]                | Ignore |

**BOLD**

|                   |         |
|-------------------|---------|
| Motion Correction | Off     |
| Spatial Filter    | Off     |
| Measurements      | 750     |
| Delay in TR       | 0.00 ms |

**Sequence - Part 1**

|                   |            |
|-------------------|------------|
| Sequence Name     | epfid      |
| Dimension         | 2D         |
| Excitation        | Standard   |
| Gradient Mode     | Fast       |
| Flow Compensation | None       |
| Bandwidth         | 2170 Hz/Px |
| Echo Spacing      | 0.69 ms    |
| Free Echo Spacing | On         |
| EPI Factor        | 96         |

**Sequence - Part 2**

|              |     |
|--------------|-----|
| Introduction | Off |
| RF Spoiling  | Off |

**Sequence - Special**

|                          |            |
|--------------------------|------------|
| Excite pulse duration    | 2320 us    |
| Min. prep scans          | 0          |
| Min. prep scans SB       | 0          |
| Inter-TE delay           | 0 us       |
| Single-band images       | Off        |
| MB LeakBlock kernel      | On         |
| MB dual kernel           | Off        |
| MB RF phase scramble     | Off        |
| Opt. MB RF pulse BW      | Off        |
| SENSE1 coil combine      | Off        |
| Invert RO/PE polarity    | Off        |
| Force Maxwell corr.      | Off        |
| PF omits higher k-space  | Off        |
| Disable freq. update     | Off        |
| Suppress 16-bit DICOM    | On         |
| Force equal slice timing | Off        |
| Online multi-band recon. | Online     |
| FFT scale factor         | 1.00       |
| Fat saturation FA        | 110.00 deg |
| Fat sat. offset          | 0.00 Hz    |
| Sinc exc. pulse BWTP     | 5.20       |
| Physio recording         | Off        |
| Triggering scheme        | Standard   |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prism\map-phasediff\_gre

TA: 2:31 min Coil Selection: Auto Voxel Size: 2.0×2.0×2.0 mm³ Rel. SNR: 1.00

**Properties**

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

**Routine**

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 72                |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | P >> A            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 228 mm            |
| FoV Phase           | 100.0 %           |
| Slice Thickness     | 2.0 mm            |
| TR                  | 324.0 ms          |
| TE 1                | 4.45 ms           |
| TE 2                | 6.91 ms           |
| Averages            | 1                 |
| Concatenations      | 2                 |
| AutoAlign           | Head > Brain      |

**Contrast - Common**

|                    |             |
|--------------------|-------------|
| TR                 | 324.0 ms    |
| TE 1               | 4.45 ms     |
| TE 2               | 6.91 ms     |
| MTC                | Off         |
| Flip Angle         | 55 deg      |
| Fat-Water Contrast | Standard    |
| Contrasts          | 2           |
| Reconstruction     | Magn./Phase |

**Contrast - Dynamic**

|                 |          |
|-----------------|----------|
| Dynamic Mode    | Standard |
| Measurements    | 1        |
| Multiple Series | Off      |

**Resolution - Common**

|                  |         |
|------------------|---------|
| FoV Read         | 228 mm  |
| FoV Phase        | 100.0 % |
| Slice Thickness  | 2.0 mm  |
| Base Resolution  | 114     |
| Phase Resolution | 100 %   |
| Interpolation    | Off     |

**Resolution - Acceleration**

|                       |     |
|-----------------------|-----|
| Phase Partial Fourier | Off |
| Asymmetric Echo       | Off |

**Resolution - Filter**

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

**Geometry - Common**

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 72                |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | P >> A            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 228 mm            |
| FoV Phase           | 100.0 %           |
| Slice Thickness     | 2.0 mm            |
| TR                  | 324.0 ms          |
| Multi-Slice Mode    | Interleaved       |
| Series              | Interleaved       |
| Concatenations      | 2                 |

**Geometry - AutoAlign**

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | P >> A            |
| AutoAlign           | Head > Brain      |
| Initial Position    | L0.0 A7.9 F3.6    |
| R                   | 0.0 mm            |
| A                   | 7.9 mm            |
| F                   | 3.6 mm            |
| Initial Orientation | T > S             |
| T > S               | -2.10             |
| > C                 | 0.60              |
| Initial Rotation    | -179.95 deg       |

**Geometry - Saturation**

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

**Geometry - Tim Planning Suite**

|                   |      |
|-------------------|------|
| Set-n-Go Protocol | Off  |
| Table Position    | 4 mm |
| Table Position    | F    |
| Inline Composing  | Off  |

**System - Miscellaneous**

|                     |                  |
|---------------------|------------------|
| Coil Selection      | Auto Coil Select |
| MSMA                | S - C - T        |
| Sagittal            | R >> L           |
| Coronal             | A >> P           |
| Transversal         | F >> H           |
| Coil Combination    | Adaptive Combine |
| Matrix Optimization | Off              |
| Coil Focus          | Flat             |

**System - Adjustments**

|                     |          |
|---------------------|----------|
| Adjustment Strategy | Standard |
| B0 Shim             | Standard |
| B1 Shim             | TrueForm |



**System - Adjustments**

|                       |       |
|-----------------------|-------|
| CoilShim              | Off   |
| Adjustment Tolerance  | Auto  |
| Adjust with Body Coil | Off   |
| Confirm Frequency     | Never |
| Assume Silicone       | Off   |

**System - Adjust Volume**

|             |                   |
|-------------|-------------------|
| Position    | L0.0 A7.9 F3.6 mm |
| Orientation | T > S-2.1 > C0.6  |
| Rotation    | -179.95 deg       |
| A >> P      | 228 mm            |
| R >> L      | 228 mm            |
| F >> H      | 144 mm            |
| Reset       | Off               |

**System - pTx**

|         |          |
|---------|----------|
| B1 Shim | TrueForm |
|---------|----------|

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Sequence - Part 1**

|                   |            |
|-------------------|------------|
| Sequence Name     | fm_r       |
| Dimension         | 2D         |
| RF Pulse Type     | Normal     |
| Gradient Mode     | Fast       |
| Flow Compensation | On         |
| Bandwidth         | 1218 Hz/Px |
| Asymmetric Echo   | Off        |

**Sequence - Part 2**

|              |    |
|--------------|----|
| Introduction | On |
| RF Spoiling  | On |

**Sequence - Assistant**

|               |     |
|---------------|-----|
| SAR Assistant | Off |
|---------------|-----|

|   |
|---|
| \\RESEARCH\RESEARCH\Oscar\HCPH_RL_Prisma\ldwi-dwi_acq-highres_dir-RL__trigger_monopolar           |
| TA: 33:17 min Coil Selection: Auto Voxel Size: 1.6×1.6×1.6 mm <sup>3</sup> Acc:: 6 Rel. SNR: 1.00 |

**Properties**

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

**Routine**

|                     |                    |
|---------------------|--------------------|
| Slice Group         | 1                  |
| Slices              | 87                 |
| Distance Factor     | 0 %                |
| Position            | R1.7 A16.0 H7.9 mm |
| Orientation         | T > S-0.5 > C-0.1  |
| Phase Encoding Dir. | R >> L             |
| Phase Oversampling  | 0 %                |
| FoV Read            | 234 mm             |
| FoV Phase           | 100.0 %            |
| Slice Thickness     | 1.6 mm             |
| TR                  | 7000.0 ms          |
| TE                  | 121.00 ms          |
| Concatenations      | 1                  |
| AutoAlign           | Head > Brain       |

**Contrast - Common**

|                    |                |
|--------------------|----------------|
| TR                 | 7000.0 ms      |
| TE                 | 121.00 ms      |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Fat-Water Contrast | Fat Saturation |
| Fat Saturation     | Strong         |
| Reconstruction     | Magnitude      |

**Contrast - Dynamic**

|                 |          |
|-----------------|----------|
| Dynamic Mode    | Standard |
| Multiple Series | Off      |
| Delay in TR     | 0.00 ms  |

**Resolution - Common**

|                  |         |
|------------------|---------|
| FoV Read         | 234 mm  |
| FoV Phase        | 100.0 % |
| Slice Thickness  | 1.6 mm  |
| Base Resolution  | 146     |
| Phase Resolution | 100 %   |
| Interpolation    | Off     |

**Resolution - Acceleration**

|                         |              |
|-------------------------|--------------|
| Acceleration mode       | SMS          |
| Reference Scans         | EPI/Separate |
| Acceleration Factor PE  | 2            |
| Reference Lines PE      | 54           |
| SMS Factor              | 3            |
| Advanced Reconstruction | Off          |

**Resolution - Acceleration**

|                       |     |
|-----------------------|-----|
| Phase Partial Fourier | 7/8 |
|-----------------------|-----|

**Resolution - Filter**

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Distortion Correction | Off |
| Normalize             | Off |

**Geometry - Common**

|                     |                    |
|---------------------|--------------------|
| Slice Group         | 1                  |
| Slices              | 87                 |
| Distance Factor     | 0 %                |
| Position            | R1.7 A16.0 H7.9 mm |
| Orientation         | T > S-0.5 > C-0.1  |
| Phase Encoding Dir. | R >> L             |
| Phase Oversampling  | 0 %                |
| FoV Read            | 234 mm             |
| FoV Phase           | 100.0 %            |
| Slice Thickness     | 1.6 mm             |
| TR                  | 7000.0 ms          |
| Multi-Slice Mode    | Interleaved        |
| Series              | Interleaved        |
| Concatenations      | 1                  |

**Geometry - AutoAlign**

|                     |                    |
|---------------------|--------------------|
| Slice Group         | 1                  |
| Position            | R1.7 A16.0 H7.9 mm |
| Orientation         | T > S-0.5 > C-0.1  |
| Phase Encoding Dir. | R >> L             |
| AutoAlign           | Head > Brain       |
| Initial Position    | L0.0 A7.9 F3.6     |
| R                   | 0.0 mm             |
| A                   | 7.9 mm             |
| F                   | 3.6 mm             |
| Initial Orientation | T > S              |
| T > S               | -2.10              |
| > C                 | 0.60               |
| Initial Rotation    | 90.00 deg          |

**Geometry - Navigator****Geometry - Saturation**

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

|                     |                  |
|---------------------|------------------|
| Coil Selection      | Auto Coil Select |
| MSMA                | S - C - T        |
| Sagittal            | R >> L           |
| Coronal             | A >> P           |
| Transversal         | F >> H           |
| Coil Combination    | Adaptive Combine |
| Matrix Optimization | Performance      |

**System - Miscellaneous**

|            |      |
|------------|------|
| Coil Focus | Flat |
|------------|------|

**System - Adjustments**

|                       |          |
|-----------------------|----------|
| Adjustment Strategy   | Standard |
| B0 Shim               | Standard |
| B1 Shim               | TrueForm |
| CoilShim              | Off      |
| Adjustment Tolerance  | Auto     |
| Adjust with Body Coil | Off      |
| Confirm Frequency     | Never    |
| Assume Silicone       | Off      |

**System - Adjust Volume**

|             |                    |
|-------------|--------------------|
| Position    | R1.7 A16.0 H7.9 mm |
| Orientation | T > S-0.5 > C-0.1  |
| Rotation    | 88.40 deg          |
| R >> L      | 234 mm             |
| A >> P      | 234 mm             |
| F >> H      | 140 mm             |
| Reset       | Off                |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                 |           |
|-----------------|-----------|
| 1st Signal/Mode | None      |
| TR              | 7000.0 ms |
| Concatenations  | 1         |

**Physio - PACE**

|                |     |
|----------------|-----|
| Resp. Control  | Off |
| Concatenations | 1   |

**Diff**

|                          |                        |
|--------------------------|------------------------|
| Diffusion Mode           | Free                   |
| Diff. Directions         | 279                    |
| Diffusion Scheme         | Monopolar              |
| Diff. Weightings         | 2                      |
| b-value 1                | 0 s/mm <sup>2</sup>    |
| b-value 2                | 3000 s/mm <sup>2</sup> |
| Averages 1               | 1                      |
| Averages 2               | 1                      |
| Dynamic Field Correction | Off                    |
| Invert Gray Scale        | Off                    |
| Diff. Weighted Images    | On                     |
| Trace Weighted Images    | On                     |
| Tensor                   | On                     |
| FA Maps                  | On                     |
| ADC Maps                 | On                     |
| Exponential ADC Maps     | Off                    |
| ADC Noise Threshold      | 40                     |
| Calculated Image         | Off                    |

**Sequence - Part 1**

|               |          |
|---------------|----------|
| Sequence Name | epse     |
| Excitation    | Standard |

**Sequence - Part 1**

|                   |            |
|-------------------|------------|
| RF Pulse Type     | Low SAR    |
| Gradient Mode     | Fast       |
| Bandwidth         | 1630 Hz/Px |
| Echo Spacing      | 0.94 ms    |
| Free Echo Spacing | On         |
| Optimization      | None       |
| EPI Factor        | 146        |

**Sequence - Part 2**

|                  |          |
|------------------|----------|
| Introduction     | Off      |
| Phase Correction | Internal |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prismalfmap-epi\_acq-b0\_dir-LR\_\_6dir\_monopolar\_HR1\_2mm\_BW

TA: 55 sec Coil Selection: Auto Voxel Size: 1.5×1.5×1.2 mm<sup>3</sup> Acc:: 6 Rel. SNR: 1.00

### Properties

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

### Routine

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 114               |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | L >> R            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 292 mm            |
| FoV Phase           | 86.3 %            |
| Slice Thickness     | 1.2 mm            |
| TR                  | 5600.0 ms         |
| TE                  | 90.00 ms          |
| Concatenations      | 1                 |
| AutoAlign           | Head > Brain      |

### Contrast - Common

|                    |                |
|--------------------|----------------|
| TR                 | 5600.0 ms      |
| TE                 | 90.00 ms       |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Fat-Water Contrast | Fat Saturation |
| Fat Saturation     | Strong         |
| Reconstruction     | Magnitude      |

### Contrast - Dynamic

|                 |          |
|-----------------|----------|
| Dynamic Mode    | Standard |
| Multiple Series | Off      |
| Delay in TR     | 0.00 ms  |

### Resolution - Common

|                  |        |
|------------------|--------|
| FoV Read         | 292 mm |
| FoV Phase        | 86.3 % |
| Slice Thickness  | 1.2 mm |
| Base Resolution  | 190    |
| Phase Resolution | 100 %  |
| Interpolation    | Off    |

### Resolution - Acceleration

|                         |              |
|-------------------------|--------------|
| Acceleration mode       | SMS          |
| Reference Scans         | EPI/Separate |
| Acceleration Factor PE  | 2            |
| Reference Lines PE      | 40           |
| SMS Factor              | 3            |
| Advanced Reconstruction | Off          |

### Resolution - Acceleration

|                       |     |
|-----------------------|-----|
| Phase Partial Fourier | 7/8 |
|-----------------------|-----|

### Resolution - Filter

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Distortion Correction | Off |
| Normalize             | Off |

### Geometry - Common

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 114               |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | L >> R            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 292 mm            |
| FoV Phase           | 86.3 %            |
| Slice Thickness     | 1.2 mm            |
| TR                  | 5600.0 ms         |
| Multi-Slice Mode    | Interleaved       |
| Series              | Interleaved       |
| Concatenations      | 1                 |

### Geometry - AutoAlign

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | L >> R            |
| AutoAlign           | Head > Brain      |
| Initial Position    | L0.0 A7.9 F3.6    |
| R                   | 0.0 mm            |
| A                   | 7.9 mm            |
| F                   | 3.6 mm            |
| Initial Orientation | T > S             |
| T > S               | -2.10             |
| > C                 | 0.60              |
| Initial Rotation    | -89.95 deg        |

### Geometry - Navigator

### Geometry - Saturation

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

### Geometry - Tim Planning Suite

|                   |      |
|-------------------|------|
| Set-n-Go Protocol | Off  |
| Table Position    | 4 mm |
| Table Position    | F    |
| Inline Composing  | Off  |

### System - Miscellaneous

|                     |                  |
|---------------------|------------------|
| Coil Selection      | Auto Coil Select |
| MSMA                | S - C - T        |
| Sagittal            | R >> L           |
| Coronal             | A >> P           |
| Transversal         | F >> H           |
| Coil Combination    | Adaptive Combine |
| Matrix Optimization | Performance      |

**System - Miscellaneous**

|            |      |
|------------|------|
| Coil Focus | Flat |
|------------|------|

**System - Adjustments**

|                       |          |
|-----------------------|----------|
| Adjustment Strategy   | Standard |
| B0 Shim               | Standard |
| B1 Shim               | TrueForm |
| CoilShim              | Off      |
| Adjustment Tolerance  | Auto     |
| Adjust with Body Coil | Off      |
| Confirm Frequency     | Never    |
| Assume Silicone       | Off      |

**System - Adjust Volume**

|             |                   |
|-------------|-------------------|
| Position    | L0.0 A7.9 F3.6 mm |
| Orientation | T > S-2.1 > C0.6  |
| Rotation    | -89.95 deg        |
| R >> L      | 253 mm            |
| A >> P      | 292 mm            |
| F >> H      | 137 mm            |
| Reset       | Off               |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                 |           |
|-----------------|-----------|
| 1st Signal/Mode | None      |
| TR              | 5600.0 ms |
| Concatenations  | 1         |

**Physio - PACE**

|                |     |
|----------------|-----|
| Resp. Control  | Off |
| Concatenations | 1   |

**Diff**

|                          |                     |
|--------------------------|---------------------|
| Diffusion Mode           | Free                |
| Diff. Directions         | 6                   |
| Diffusion Scheme         | Monopolar           |
| Diff. Weightings         | 1                   |
| b-value                  | 0 s/mm <sup>2</sup> |
| Averages                 | 3                   |
| Dynamic Field Correction | Off                 |
| Invert Gray Scale        | Off                 |
| Diff. Weighted Images    | On                  |
| Trace Weighted Images    | Off                 |
| Tensor                   | Off                 |
| FA Maps                  | Off                 |
| ADC Maps                 | Off                 |
| Exponential ADC Maps     | Off                 |
| Calculated Image         | Off                 |

**Sequence - Part 1**

|               |              |
|---------------|--------------|
| Sequence Name | epse         |
| Excitation    | Standard     |
| RF Pulse Type | Low SAR      |
| Gradient Mode | Performance* |
| Bandwidth     | 1462 Hz/Px   |

**Sequence - Part 1**

|                   |         |
|-------------------|---------|
| Echo Spacing      | 0.95 ms |
| Free Echo Spacing | On      |
| Optimization      | None    |
| EPI Factor        | 164     |

**Sequence - Part 2**

|                  |          |
|------------------|----------|
| Introduction     | Off      |
| Phase Correction | Internal |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prismalfmap-epi\_acq-b0\_dir-RL\_\_6dir\_monopolar\_HR1\_2mm\_BW

TA: 55 sec Coil Selection: Auto Voxel Size: 1.5×1.5×1.2 mm<sup>3</sup> Acc:: 6 Rel. SNR: 1.00

### Properties

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

### Routine

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 114               |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | R >> L            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 292 mm            |
| FoV Phase           | 86.3 %            |
| Slice Thickness     | 1.2 mm            |
| TR                  | 5600.0 ms         |
| TE                  | 90.00 ms          |
| Concatenations      | 1                 |
| AutoAlign           | Head > Brain      |

### Contrast - Common

|                    |                |
|--------------------|----------------|
| TR                 | 5600.0 ms      |
| TE                 | 90.00 ms       |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Fat-Water Contrast | Fat Saturation |
| Fat Saturation     | Strong         |
| Reconstruction     | Magnitude      |

### Contrast - Dynamic

|                 |          |
|-----------------|----------|
| Dynamic Mode    | Standard |
| Multiple Series | Off      |
| Delay in TR     | 0.00 ms  |

### Resolution - Common

|                  |        |
|------------------|--------|
| FoV Read         | 292 mm |
| FoV Phase        | 86.3 % |
| Slice Thickness  | 1.2 mm |
| Base Resolution  | 190    |
| Phase Resolution | 100 %  |
| Interpolation    | Off    |

### Resolution - Acceleration

|                         |              |
|-------------------------|--------------|
| Acceleration mode       | SMS          |
| Reference Scans         | EPI/Separate |
| Acceleration Factor PE  | 2            |
| Reference Lines PE      | 40           |
| SMS Factor              | 3            |
| Advanced Reconstruction | Off          |

### Resolution - Acceleration

|                       |     |
|-----------------------|-----|
| Phase Partial Fourier | 7/8 |
|-----------------------|-----|

### Resolution - Filter

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Distortion Correction | Off |
| Normalize             | Off |

### Geometry - Common

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 114               |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | R >> L            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 292 mm            |
| FoV Phase           | 86.3 %            |
| Slice Thickness     | 1.2 mm            |
| TR                  | 5600.0 ms         |
| Multi-Slice Mode    | Interleaved       |
| Series              | Interleaved       |
| Concatenations      | 1                 |

### Geometry - AutoAlign

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | R >> L            |
| AutoAlign           | Head > Brain      |
| Initial Position    | L0.0 A7.9 F3.6    |
| R                   | 0.0 mm            |
| A                   | 7.9 mm            |
| F                   | 3.6 mm            |
| Initial Orientation | T > S             |
| T > S               | -2.10             |
| > C                 | 0.60              |
| Initial Rotation    | 90.05 deg         |

### Geometry - Navigator

### Geometry - Saturation

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

### Geometry - Tim Planning Suite

|                   |      |
|-------------------|------|
| Set-n-Go Protocol | Off  |
| Table Position    | 4 mm |
| Table Position    | F    |
| Inline Composing  | Off  |

### System - Miscellaneous

|                     |                  |
|---------------------|------------------|
| Coil Selection      | Auto Coil Select |
| MSMA                | S - C - T        |
| Sagittal            | R >> L           |
| Coronal             | A >> P           |
| Transversal         | F >> H           |
| Coil Combination    | Adaptive Combine |
| Matrix Optimization | Performance      |

**System - Miscellaneous**

|            |      |
|------------|------|
| Coil Focus | Flat |
|------------|------|

**System - Adjustments**

|                       |          |
|-----------------------|----------|
| Adjustment Strategy   | Standard |
| B0 Shim               | Standard |
| B1 Shim               | TrueForm |
| CoilShim              | Off      |
| Adjustment Tolerance  | Auto     |
| Adjust with Body Coil | Off      |
| Confirm Frequency     | Never    |
| Assume Silicone       | Off      |

**System - Adjust Volume**

|             |                   |
|-------------|-------------------|
| Position    | L0.0 A7.9 F3.6 mm |
| Orientation | T > S-2.1 > C0.6  |
| Rotation    | 90.05 deg         |
| R >> L      | 253 mm            |
| A >> P      | 292 mm            |
| F >> H      | 137 mm            |
| Reset       | Off               |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                 |           |
|-----------------|-----------|
| 1st Signal/Mode | None      |
| TR              | 5600.0 ms |
| Concatenations  | 1         |

**Physio - PACE**

|                |     |
|----------------|-----|
| Resp. Control  | Off |
| Concatenations | 1   |

**Diff**

|                          |                     |
|--------------------------|---------------------|
| Diffusion Mode           | Free                |
| Diff. Directions         | 6                   |
| Diffusion Scheme         | Monopolar           |
| Diff. Weightings         | 1                   |
| b-value                  | 0 s/mm <sup>2</sup> |
| Averages                 | 3                   |
| Dynamic Field Correction | Off                 |
| Invert Gray Scale        | Off                 |
| Diff. Weighted Images    | On                  |
| Trace Weighted Images    | Off                 |
| Tensor                   | Off                 |
| FA Maps                  | Off                 |
| ADC Maps                 | Off                 |
| Exponential ADC Maps     | Off                 |
| Calculated Image         | Off                 |

**Sequence - Part 1**

|               |              |
|---------------|--------------|
| Sequence Name | epse         |
| Excitation    | Standard     |
| RF Pulse Type | Low SAR      |
| Gradient Mode | Performance* |
| Bandwidth     | 1462 Hz/Px   |

**Sequence - Part 1**

|                   |         |
|-------------------|---------|
| Echo Spacing      | 0.95 ms |
| Free Echo Spacing | On      |
| Optimization      | None    |
| EPI Factor        | 164     |

**Sequence - Part 2**

|                  |          |
|------------------|----------|
| Introduction     | Off      |
| Phase Correction | Internal |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prismalfmap-epi\_acq-b0\_dir-AP\_\_6dir\_monopolar\_HR1  
\_2mm\_BW

TA: 55 sec Coil Selection: Auto Voxel Size: 1.5×1.5×1.2 mm<sup>3</sup> Acc:: 6 Rel. SNR: 1.00

### Properties

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

### Routine

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 114               |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | A >> P            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 292 mm            |
| FoV Phase           | 86.3 %            |
| Slice Thickness     | 1.2 mm            |
| TR                  | 5600.0 ms         |
| TE                  | 90.00 ms          |
| Concatenations      | 1                 |
| AutoAlign           | Head > Brain      |

### Contrast - Common

|                    |                |
|--------------------|----------------|
| TR                 | 5600.0 ms      |
| TE                 | 90.00 ms       |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Fat-Water Contrast | Fat Saturation |
| Fat Saturation     | Strong         |
| Reconstruction     | Magnitude      |

### Contrast - Dynamic

|                 |          |
|-----------------|----------|
| Dynamic Mode    | Standard |
| Multiple Series | Off      |
| Delay in TR     | 0.00 ms  |

### Resolution - Common

|                  |        |
|------------------|--------|
| FoV Read         | 292 mm |
| FoV Phase        | 86.3 % |
| Slice Thickness  | 1.2 mm |
| Base Resolution  | 190    |
| Phase Resolution | 100 %  |
| Interpolation    | Off    |

### Resolution - Acceleration

|                         |              |
|-------------------------|--------------|
| Acceleration mode       | SMS          |
| Reference Scans         | EPI/Separate |
| Acceleration Factor PE  | 2            |
| Reference Lines PE      | 40           |
| SMS Factor              | 3            |
| Advanced Reconstruction | Off          |

### Resolution - Acceleration

|                       |     |
|-----------------------|-----|
| Phase Partial Fourier | 7/8 |
|-----------------------|-----|

### Resolution - Filter

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Distortion Correction | Off |
| Normalize             | Off |

### Geometry - Common

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 114               |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | A >> P            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 292 mm            |
| FoV Phase           | 86.3 %            |
| Slice Thickness     | 1.2 mm            |
| TR                  | 5600.0 ms         |
| Multi-Slice Mode    | Interleaved       |
| Series              | Interleaved       |
| Concatenations      | 1                 |

### Geometry - AutoAlign

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | A >> P            |
| AutoAlign           | Head > Brain      |
| Initial Position    | L0.0 A7.9 F3.6    |
| R                   | 0.0 mm            |
| A                   | 7.9 mm            |
| F                   | 3.6 mm            |
| Initial Orientation | T > S             |
| T > S               | -2.10             |
| > C                 | 0.60              |
| Initial Rotation    | 0.05 deg          |

### Geometry - Navigator

### Geometry - Saturation

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

### Geometry - Tim Planning Suite

|                   |      |
|-------------------|------|
| Set-n-Go Protocol | Off  |
| Table Position    | 4 mm |
| Table Position    | F    |
| Inline Composing  | Off  |

### System - Miscellaneous

|                     |                  |
|---------------------|------------------|
| Coil Selection      | Auto Coil Select |
| MSMA                | S - C - T        |
| Sagittal            | R >> L           |
| Coronal             | A >> P           |
| Transversal         | F >> H           |
| Coil Combination    | Adaptive Combine |
| Matrix Optimization | Performance      |



**System - Miscellaneous**

|            |      |
|------------|------|
| Coil Focus | Flat |
|------------|------|

**System - Adjustments**

|                       |          |
|-----------------------|----------|
| Adjustment Strategy   | Standard |
| B0 Shim               | Standard |
| B1 Shim               | TrueForm |
| CoilShim              | Off      |
| Adjustment Tolerance  | Auto     |
| Adjust with Body Coil | Off      |
| Confirm Frequency     | Never    |
| Assume Silicone       | Off      |

**System - Adjust Volume**

|             |                   |
|-------------|-------------------|
| Position    | L0.0 A7.9 F3.6 mm |
| Orientation | T > S-2.1 > C0.6  |
| Rotation    | 0.05 deg          |
| A >> P      | 253 mm            |
| R >> L      | 292 mm            |
| F >> H      | 137 mm            |
| Reset       | Off               |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                 |           |
|-----------------|-----------|
| 1st Signal/Mode | None      |
| TR              | 5600.0 ms |
| Concatenations  | 1         |

**Physio - PACE**

|                |     |
|----------------|-----|
| Resp. Control  | Off |
| Concatenations | 1   |

**Diff**

|                          |                     |
|--------------------------|---------------------|
| Diffusion Mode           | Free                |
| Diff. Directions         | 6                   |
| Diffusion Scheme         | Monopolar           |
| Diff. Weightings         | 1                   |
| b-value                  | 0 s/mm <sup>2</sup> |
| Averages                 | 3                   |
| Dynamic Field Correction | Off                 |
| Invert Gray Scale        | Off                 |
| Diff. Weighted Images    | On                  |
| Trace Weighted Images    | Off                 |
| Tensor                   | Off                 |
| FA Maps                  | Off                 |
| ADC Maps                 | Off                 |
| Exponential ADC Maps     | Off                 |
| Calculated Image         | Off                 |

**Sequence - Part 1**

|               |              |
|---------------|--------------|
| Sequence Name | epse         |
| Excitation    | Standard     |
| RF Pulse Type | Low SAR      |
| Gradient Mode | Performance* |
| Bandwidth     | 1462 Hz/Px   |

**Sequence - Part 1**

|                   |         |
|-------------------|---------|
| Echo Spacing      | 0.95 ms |
| Free Echo Spacing | On      |
| Optimization      | None    |
| EPI Factor        | 164     |

**Sequence - Part 2**

|                  |          |
|------------------|----------|
| Introduction     | Off      |
| Phase Correction | Internal |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prismalfmap-epi\_acq-b0\_dir-PA\_\_6dir\_monopolar\_HR1\_2mm\_BW

TA: 55 sec Coil Selection: Auto Voxel Size: 1.5×1.5×1.2 mm<sup>3</sup> Acc:: 6 Rel. SNR: 1.00

### Properties

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

### Routine

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 114               |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | P >> A            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 292 mm            |
| FoV Phase           | 86.3 %            |
| Slice Thickness     | 1.2 mm            |
| TR                  | 5600.0 ms         |
| TE                  | 90.00 ms          |
| Concatenations      | 1                 |
| AutoAlign           | Head > Brain      |

### Contrast - Common

|                    |                |
|--------------------|----------------|
| TR                 | 5600.0 ms      |
| TE                 | 90.00 ms       |
| MTC                | Off            |
| Magn. Preparation  | None           |
| Fat-Water Contrast | Fat Saturation |
| Fat Saturation     | Strong         |
| Reconstruction     | Magnitude      |

### Contrast - Dynamic

|                 |          |
|-----------------|----------|
| Dynamic Mode    | Standard |
| Multiple Series | Off      |
| Delay in TR     | 0.00 ms  |

### Resolution - Common

|                  |        |
|------------------|--------|
| FoV Read         | 292 mm |
| FoV Phase        | 86.3 % |
| Slice Thickness  | 1.2 mm |
| Base Resolution  | 190    |
| Phase Resolution | 100 %  |
| Interpolation    | Off    |

### Resolution - Acceleration

|                         |              |
|-------------------------|--------------|
| Acceleration mode       | SMS          |
| Reference Scans         | EPI/Separate |
| Acceleration Factor PE  | 2            |
| Reference Lines PE      | 40           |
| SMS Factor              | 3            |
| Advanced Reconstruction | Off          |

### Resolution - Acceleration

|                       |     |
|-----------------------|-----|
| Phase Partial Fourier | 7/8 |
|-----------------------|-----|

### Resolution - Filter

|                       |     |
|-----------------------|-----|
| Raw Filter            | Off |
| Elliptical Filter     | Off |
| Distortion Correction | Off |
| Normalize             | Off |

### Geometry - Common

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Slices              | 114               |
| Distance Factor     | 0 %               |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | P >> A            |
| Phase Oversampling  | 0 %               |
| FoV Read            | 292 mm            |
| FoV Phase           | 86.3 %            |
| Slice Thickness     | 1.2 mm            |
| TR                  | 5600.0 ms         |
| Multi-Slice Mode    | Interleaved       |
| Series              | Interleaved       |
| Concatenations      | 1                 |

### Geometry - AutoAlign

|                     |                   |
|---------------------|-------------------|
| Slice Group         | 1                 |
| Position            | L0.0 A7.9 F3.6 mm |
| Orientation         | T > S-2.1 > C0.6  |
| Phase Encoding Dir. | P >> A            |
| AutoAlign           | Head > Brain      |
| Initial Position    | L0.0 A7.9 F3.6    |
| R                   | 0.0 mm            |
| A                   | 7.9 mm            |
| F                   | 3.6 mm            |
| Initial Orientation | T > S             |
| T > S               | -2.10             |
| > C                 | 0.60              |
| Initial Rotation    | -179.95 deg       |

### Geometry - Navigator

### Geometry - Saturation

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

### Geometry - Tim Planning Suite

|                   |      |
|-------------------|------|
| Set-n-Go Protocol | Off  |
| Table Position    | 4 mm |
| Table Position    | F    |
| Inline Composing  | Off  |

### System - Miscellaneous

|                     |                  |
|---------------------|------------------|
| Coil Selection      | Auto Coil Select |
| MSMA                | S - C - T        |
| Sagittal            | R >> L           |
| Coronal             | A >> P           |
| Transversal         | F >> H           |
| Coil Combination    | Adaptive Combine |
| Matrix Optimization | Performance      |

**System - Miscellaneous**

|            |      |
|------------|------|
| Coil Focus | Flat |
|------------|------|

**System - Adjustments**

|                       |          |
|-----------------------|----------|
| Adjustment Strategy   | Standard |
| B0 Shim               | Standard |
| B1 Shim               | TrueForm |
| CoilShim              | Off      |
| Adjustment Tolerance  | Auto     |
| Adjust with Body Coil | Off      |
| Confirm Frequency     | Never    |
| Assume Silicone       | Off      |

**System - Adjust Volume**

|             |                   |
|-------------|-------------------|
| Position    | L0.0 A7.9 F3.6 mm |
| Orientation | T > S-2.1 > C0.6  |
| Rotation    | -179.95 deg       |
| A >> P      | 253 mm            |
| R >> L      | 292 mm            |
| F >> H      | 137 mm            |
| Reset       | Off               |

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Standard |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                 |           |
|-----------------|-----------|
| 1st Signal/Mode | None      |
| TR              | 5600.0 ms |
| Concatenations  | 1         |

**Physio - PACE**

|                |     |
|----------------|-----|
| Resp. Control  | Off |
| Concatenations | 1   |

**Diff**

|                          |                     |
|--------------------------|---------------------|
| Diffusion Mode           | Free                |
| Diff. Directions         | 6                   |
| Diffusion Scheme         | Monopolar           |
| Diff. Weightings         | 1                   |
| b-value                  | 0 s/mm <sup>2</sup> |
| Averages                 | 3                   |
| Dynamic Field Correction | Off                 |
| Invert Gray Scale        | Off                 |
| Diff. Weighted Images    | On                  |
| Trace Weighted Images    | Off                 |
| Tensor                   | Off                 |
| FA Maps                  | Off                 |
| ADC Maps                 | Off                 |
| Exponential ADC Maps     | Off                 |
| Calculated Image         | Off                 |

**Sequence - Part 1**

|               |              |
|---------------|--------------|
| Sequence Name | epse         |
| Excitation    | Standard     |
| RF Pulse Type | Low SAR      |
| Gradient Mode | Performance* |
| Bandwidth     | 1462 Hz/Px   |

**Sequence - Part 1**

|                   |         |
|-------------------|---------|
| Echo Spacing      | 0.95 ms |
| Free Echo Spacing | On      |
| Optimization      | None    |
| EPI Factor        | 164     |

**Sequence - Part 2**

|                  |          |
|------------------|----------|
| Introduction     | Off      |
| Phase Correction | Internal |

\\RESEARCH\RESEARCH\Oscar\HCPH\_RL\_Prisma\anat-T2w\_\_space

TA: 5:44 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 mm³ Acc.: 3 Rel. SNR: 1.00

**Properties**

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

**Routine**

|                     |              |
|---------------------|--------------|
| Slab Group          | 1            |
| Slabs               | 1            |
| Position            | Isocenter    |
| Orientation         | Sagittal     |
| Phase Encoding Dir. | A >> P       |
| Slices per Slab     | 240          |
| Phase Oversampling  | 0 %          |
| Slice Oversampling  | 0.0 %        |
| FoV Read            | 256 mm       |
| FoV Phase           | 100.0 %      |
| Slice Thickness     | 0.80 mm      |
| TR                  | 3200.0 ms    |
| TE                  | 413.00 ms    |
| Averages            | 1.0          |
| Concatenations      | 1            |
| AutoAlign           | Head > Basis |

**Contrast - Common**

|                    |           |
|--------------------|-----------|
| TR                 | 3200.0 ms |
| TE                 | 413.00 ms |
| MTC                | Off       |
| Magn. Preparation  | None      |
| Flip Angle Mode    | T2 Var    |
| Fat-Water Contrast | Standard  |
| Dark Blood         | Off       |
| Blood Suppression  | Off       |
| Wrap-up Magn.      | Restore   |
| Reconstruction     | Magnitude |

**Contrast - Dynamic**

|                 |                  |
|-----------------|------------------|
| Dynamic Mode    | Standard         |
| Measurements    | 1                |
| Multiple Series | Each Measurement |
| Reordering      | Linear           |

**Resolution - Common**

|                  |         |
|------------------|---------|
| FoV Read         | 256 mm  |
| FoV Phase        | 100.0 % |
| Slice Thickness  | 0.80 mm |
| Base Resolution  | 320     |
| Phase Resolution | 100 %   |
| Slice Resolution | 100 %   |
| Interpolation    | Off     |

**Resolution - Acceleration**

|                        |            |
|------------------------|------------|
| Acceleration mode      | GRAPPA     |
| Total Factor           | 3          |
| Reference Scans        | Integrated |
| Acceleration Factor PE | 3          |
| Reference Lines PE     | 24         |
| Acceleration Factor 3D | 1          |
| Phase Partial Fourier  | Allowed    |
| Slice Partial Fourier  | Off        |
| Elliptical Scanning    | Off        |

**Resolution - Filter**

|                       |         |
|-----------------------|---------|
| Raw Filter            | On      |
| Elliptical Filter     | Off     |
| Distortion Correction | 3D      |
| Normalize             | Prescan |
| Image Filter          | Off     |

**Geometry - Common**

|                     |           |
|---------------------|-----------|
| Slab Group          | 1         |
| Slabs               | 1         |
| Position            | Isocenter |
| Orientation         | Sagittal  |
| Phase Encoding Dir. | A >> P    |
| Slices per Slab     | 240       |
| Phase Oversampling  | 0 %       |
| Slice Oversampling  | 0.0 %     |
| FoV Read            | 256 mm    |
| FoV Phase           | 100.0 %   |
| Slice Thickness     | 0.80 mm   |
| TR                  | 3200.0 ms |
| Concatenations      | 1         |

**Geometry - AutoAlign**

|                     |              |
|---------------------|--------------|
| Slab Group          | 1            |
| Position            | Isocenter    |
| Orientation         | Sagittal     |
| Phase Encoding Dir. | A >> P       |
| AutoAlign           | Head > Basis |
| Initial Position    | Isocenter    |
| L                   | 0.0 mm       |
| P                   | 0.0 mm       |
| H                   | 0.0 mm       |
| Initial Orientation | Sagittal     |
| Initial Rotation    | 0.00 deg     |

**Geometry - Navigator****Geometry - Saturation**

|                    |      |
|--------------------|------|
| Special Saturation | None |
|--------------------|------|

**Geometry - Tim Planning Suite**

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

**System - Miscellaneous**

|                |                   |
|----------------|-------------------|
| Coil Selection | ACS All but spine |
| MSMA           | S - C - T         |
| Sagittal       | R >> L            |

**System - Miscellaneous**

|                     |                  |
|---------------------|------------------|
| Coronal             | A >> P           |
| Transversal         | F >> H           |
| Coil Combination    | Adaptive Combine |
| Matrix Optimization | Performance      |
| Coil Focus          | Flat             |

**System - Adjustments**

|                       |          |
|-----------------------|----------|
| Adjustment Strategy   | Standard |
| B0 Shim               | Tune up  |
| B1 Shim               | TrueForm |
| CoilShim              | Off      |
| Adjustment Tolerance  | Auto     |
| Adjust with Body Coil | Off      |
| Confirm Frequency     | Never    |
| Assume Silicone       | Off      |

**System - Adjust Volume**

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

**System - pTx**

|            |          |
|------------|----------|
| B1 Shim    | TrueForm |
| Excitation | Non-sel. |

**System - Tx/Rx**

|                     |                |
|---------------------|----------------|
| Frequency 1H        | 123.248185 MHz |
| ? Ref. Amplitude 1H | 0.000 V        |
| Reset               | Off            |
| Image Scaling       | 1.000          |

**Physio - Signal**

|                 |           |
|-----------------|-----------|
| 1st Signal/Mode | None      |
| Trigger Delay   | 0 ms      |
| TR              | 3200.0 ms |
| Concatenations  | 1         |

**Physio - Cardiac**

|                    |          |
|--------------------|----------|
| Fat-Water Contrast | Standard |
| Magn. Preparation  | None     |
| Dark Blood         | Off      |
| FoV Read           | 256 mm   |
| FoV Phase          | 100.0 %  |
| Phase Resolution   | 100 %    |
| Dynamic Mode       | Standard |

**Physio - PACE**

|                |     |
|----------------|-----|
| Resp. Control  | Off |
| Concatenations | 1   |

**Inline - Subtraction**

|                      |     |
|----------------------|-----|
| Subtract             | Off |
| Measurements         | 1   |
| StdDev               | Off |
| Save Original Images | On  |

**Inline - Cardiac**

|                      |      |
|----------------------|------|
| Magn. Preparation    | None |
| Save Original Images | On   |

**Inline - Cardiac**

|    |           |
|----|-----------|
| TE | 413.00 ms |
| TR | 3200.0 ms |

**Inline - MIP**

|                      |     |
|----------------------|-----|
| MIP Sag              | Off |
| MIP Cor              | Off |
| MIP Tra              | Off |
| MIP Time             | Off |
| Radial MIP           | Off |
| Save Original Images | On  |
| MPR Sag              | Off |
| MPR Cor              | Off |
| MPR Tra              | Off |

**Inline - Composing**

|                  |     |
|------------------|-----|
| Inline Composing | Off |
|------------------|-----|

**Sequence - Part 1**

|                     |           |
|---------------------|-----------|
| Sequence Name       | spcR      |
| Dimension           | 3D        |
| Excitation          | Non-sel.  |
| RF Pulse Type       | Normal    |
| Gradient Mode       | Fast      |
| Flow Compensation   | None      |
| Reordering          | Linear    |
| Bandwidth           | 710 Hz/Px |
| Echo Spacing        | 3.86 ms   |
| Turbo Factor        | 282       |
| Echo Train Duration | 961 ms    |

**Sequence - Part 2**

|              |    |
|--------------|----|
| Introduction | On |
|--------------|----|

**Sequence - Assistant**

|               |      |
|---------------|------|
| SAR Assistant | Off  |
| Allowed Delay | 30 s |