

On the scanner you need:

- 1) 32-ch head coil
- 2) Each fMRI run: 1 reference scan (~ few sec) + 1 acc scan (~few mins)

Reference scan (2 segments, takes few sec, size ~ 200MB)

1. Slice = 20
2. Phase enc. Dir = R>>L
3. Fov read = 210 mm
4. TR = 50 ms
TE = 27.5 ms
5. Flip angle = 25 deg
6. Measurements = 10
7. Base resolution = 42
8. Bandwidth = 3970 Hz/px
9. Reference Scan box checked

Acc scan (2 segments, takes few mins, size ~ XX GB)

1. Slice = 20
2. Phase enc. Dir = R>>L
3. Fov read = 210 mm
4. TR = 50 ms (the whole brain sampling rate is 10Hz = 0.1 sec),
TE = 27.5 ms
5. Flip angle = 25 deg
6. Measurements = 2460 (= 60 dummy scan + 2400 scan = 246 sec for example)
7. Base resolution = 42
8. Bandwidth = 3970 Hz/px
9. Reference Scan box unchecked

To achieve higher scan number, please use “Averages” option

10. Averages = 1,2,3,.....

For example: total 20 min = $20 \times 60 / (0.1 \text{ sec}) = 12000$ scans

set “Measurements = **2000**” and “Averages = **6**”,
let “Measurements” * “Averages” = total scan

TA: 0.5 s PM: REF Voxel size: 5.0×5.0×4.0 mm Rel. SNR: 1.10 : fl

Slice group 1	
1 Slices	20
Dist. factor	25 %
Position	Isocenter
Orientation	Transversal
2 Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
3 FoV read	210 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
4 TR	50.00 ms
TE	27.5 ms
10 Averages	1
Concatenations	1
Filter	None
Coil elements	BC

Routine Contrast Resolution Geometry System Physio Inline Sequence

TA: 0.5 s PM: REF Voxel size: 5.0×5.0×4.0 mm Rel. SNR: 1.10 : fl

Common Dynamic

TR	50.00 ms	Fat suppr.	Fat sat.
TE	29.10 ms	Water suppr.	None
MTC	<input checked="" type="checkbox"/>		
5 Flip angle	25 deg		

TR 50.00

Routine Contrast Resolution Geometry System Physio Inline Sequence

TA: 0.5 s PM: REF Voxel size: 5.0×5.0×4.0 mm Rel. SNR: 1.10 : fl

Common Dynamic

Averages 1

Averaging mode Short term

6 Measurements 10

Pause after meas. 1 0.0 s

Reconstruction Magnitude

Multiple series Off

Routine Contrast Resolution Geometry System Physio Inline Sequence

TA: 0.5 s PM: REF Voxel size: 5.0×5.0×4.0 mm Rel. SNR: 1.10 : fl

Common Filter Image Filter Rawdata

FoV read 210 mm

FoV phase 100.0 %

Slice thickness 4.0 mm

7 Base resolution 42

Phase resolution 100 %

Phase partial Fourier Off

Interpolation ☐

FoV read 210

Routine Contrast Resolution Geometry System Physio Inline Sequence

TA: 0.5 s PM: REF Voxel size: 5.0×5.0×4.0 mm Rel. SNR: 1.10 : fl

Part 1 Part 2 Special Nuclei Assistant

Introduction ☐

Dimension 2D

Contrasts 1

8 Bandwidth 3970 Hz/Px

Averaging mode Short term

Multi-slice mode Sequential

Routine Contrast Resolution Geometry System Physio Inline Sequence

TA: 0.5 s PM: REF Voxel size: 5.0×5.0×4.0 mm Rel. SNR: 1.10 : fl

Part 1 Part 2 Special Nuclei Assistant

9 Reference Scan ☒

Segment 2 #

GdG [1] 25.0 mT/m

Shift 3 FOV/*

Routine Contrast Resolution Geometry System Physio Inline Sequence