# SIEMENS MAGNETOM Prisma\_fit syngo MR D13D

\\USER\Research\Rorden\_Prisma\DTI\_Gradient\_Test\dti\_nopf\_x2\_ortho TA:2:16 PAT:2 Voxel size:3.0×3.0×3.0 mm Rel. SNR:1.00 :epse

Properties—			
1	Prio Recon	Off	
	Load to viewer	On	
	Inline movie	Off	
	Auto store images	On	
	Load to stamp segments	Off	
	Load images to graphic segments	Off	
	Auto open inline display	Off	
	Wait for user to start	On	
	Start measurements	single	
Routine			
	Nr. of slice groups	1	
	Slices	36	
	Dist. factor	0 %	
	Position	Isocenter	
	Orientation	Transversal	
	Phase enc. dir.	A >> P	
	AutoAlign		
	Phase oversampling	0 %	
	FoV read	216 mm	
	FoV phase	100.0 %	
	Slice thickness	3.0 mm	
	TR	5600 ms	
	TE	79.0 ms	
	Averages	1	
	Concatenations	1	
	Filter	Raw filter	
	Coil elements	HEA;HEP	

-Contrast	
MTC	Off
Magn. preparation	None
Fat suppr.	Fat sat.
Fat sat. mode	Weak
Averaging mode	Long term
Measurements	1
Delay in TR	0 ms
Reconstruction	Magnitude
Multiple series	Off

- Resolution	
Base resolution	72
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Intensity	Weak
Slope	25
Elliptical filter	Off
Dynamic Field Corr.	Off

Geometry	
Nr. of slice groups	1
Slices	36
Dist. factor	0 %
Position	Isocenter
Phase enc. dir.	A >> P
Phase oversampling	0 %
Multi-slice mode	Interleaved
Series	Interleaved
Nr. of sat. regions	0
Position mode	L-P-H
Fat suppr.	Fat sat.
Special sat.	None
Fat sat. mode	Weak
Special sat.	None
Set-n-Go Protocol	Off
Table position	P
Inline Composing	Off

-System-		
	Body	Off
	HEP	On
	HEA	On
	Position mode	L-P-H
	Positioning mode	REF
	Table position	Н
	Table position	0 mm
	MSMA	S - C - T
	Sagittal	R >> L
	Coronal	A >> P
	Transversal	F >> H
	Coil Combine Mode	Adaptive Combine
	AutoAlign	
	Coil Select Mode	On - Coil Memory
	B0 Shim mode	Advanced
	Adjust with body coil	Off
	Confirm freq. adjustment	Off
	Assume Dominant Fat	Off
	Assume Silicone	Off
	Adjustment Tolerance	Auto
	? Ref. amplitude 1H	0.000 V
	Position	Isocenter
	Rotation	0.00 deg
	R >> L	216 mm
	A >> P	216 mm
	F >> H	108 mm
	Frequency 1H	123.255749 MHz
	Correction factor	1
	AddCSaCSatNS 1H	66.311 V
	Gain	High
	Table position	0 mm
	Img. Scale. Cor.	1.000
-Physio	-	
	1st Signal/Mode	None
	Magn. preparation	None
	Resp. control	Off
-Inline		
	Inline Composing	Off
	Distortion correction	Off

-Sequence—			
-	Introduction	On	
	Averaging mode	Long term	
	Multi-slice mode	Interleaved	
	Bandwidth	1336 Hz/Px	
	Optimization	None	
	Free echo spacing	Off	
	Echo spacing	0.93 ms	
	EPI factor	72	
	RF pulse type	Normal	
	Gradient mode	Performance	
	Excitation	Standard	
	TX/RX delta frequency	0 Hz	
	TX Nucleus	None	
	TX delta frequency	0 Hz	
	Coil elements	HEA;HEP	
	Acquisition duration	0 ms	
-BOLD-	_		

rBOLD—————	
Delay in TR	0 ms
Diffusion mode	MDDW
Diff. weightings	2
b-value 1	0 s/mm²
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Distortion Corr.	Off
b-Value >=	0 s/mm²
Exponential ADC Maps	Off
Invert Gray Scale	Off
Calculated Image	Off

# SIEMENS MAGNETOM Prisma\_fit syngo MR D13D

\\USER\Research\Rorden\_Prisma\DTI\_Gradient\_Test\dti\_nopf\_x2\_roll TA:2:16 PAT:2 Voxel size:3.0×3.0×3.0 mm Rel. SNR:1.00 :epse

Properties—		
1	Prio Recon	Off
	Load to viewer	On
	Inline movie	Off
	Auto store images	On
	Load to stamp segments	Off
	Load images to graphic segments	Off
	Auto open inline display	Off
	Wait for user to start	On
	Start measurements	single
Routine		
	Nr. of slice groups	1
	Slices	36
	Dist. factor	0 %
	Position	Isocenter
	Orientation	Transversal
	Phase enc. dir.	A >> P
	AutoAlign	
	Phase oversampling	0 %
	FoV read	216 mm
	FoV phase	100.0 %
	Slice thickness	3.0 mm
	TR	5600 ms
	TE	79.0 ms
	Averages	1
	Concatenations	1
	Filter	Raw filter
	Coil elements	HEA;HEP
Contrast		
	MTC	Off
	Magn. preparation	None
	Fat suppr.	Fat sat.
	Fat sat. mode	Weak
	Averaging mode	Long term
	Measurements	1
	Delay in TR	0 ms
	Reconstruction	Magnitude
	Multiple series	Off

Base resolution	72	
Phase resolution	100 %	
Phase partial Fourier	Off	
Interpolation	Off	
PAT mode	GRAPPA	
Accel. factor PE	2	
Ref. lines PE	32	
Reference scan mode	Separate	
Distortion Corr.	Off	
Prescan Normalize	Off	
Raw filter	On	
Intensity	Weak	
Slope	25	
Elliptical filter	Off	
Dynamic Field Corr.	Off	
	Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Intensity Slope Elliptical filter	Phase resolution100 %Phase partial FourierOffInterpolationOffPAT modeGRAPPAAccel. factor PE2Ref. lines PE32Reference scan modeSeparateDistortion Corr.OffPrescan NormalizeOffRaw filterOnIntensityWeakSlope25Elliptical filterOff

Geometry—	
Nr. of slice groups	1
Slices	36
Dist. factor	0 %
Position	Isocenter
Phase enc. dir.	A >> P
Phase oversampling	0 %
Multi-slice mode	Interleaved
Series	Interleaved
Nr. of sat. regions	0
Position mode	L-P-H
Fat suppr.	Fat sat.
Special sat.	None
Fat sat. mode	Weak
Special sat.	None
Set-n-Go Protocol	Off
Table position	P
Inline Composing	Off

-System-		
	Body	Off
	HEP	On
	HEA	On
	Position mode	L-P-H
	Positioning mode	FIX
	Table position	Н
	Table position	0 mm
	MSMA	S - C - T
	Sagittal	R >> L
	Coronal	A >> P
	Transversal	F >> H
	Coil Combine Mode	Adaptive Combine
	AutoAlign	
	Coil Select Mode	On - Coil Memory
	B0 Shim mode	Advanced
	Adjust with body coil	Off
	Confirm freq. adjustment	Off
	Assume Dominant Fat	Off
	Assume Silicone	Off
	Adjustment Tolerance	Auto
	? Ref. amplitude 1H	0.000 V
	Position	Isocenter
	Rotation	0.00 deg
	R >> L	216 mm
	A >> P	216 mm
	F >> H	108 mm
	Frequency 1H	123.255749 MHz
	Correction factor	1
	AddCSaCSatNS 1H	66.311 V
	Gain	High
	Table position	0 mm
	Img. Scale. Cor.	1.000
-Physio	-	
	1st Signal/Mode	None
	Magn. preparation	None
	Resp. control	Off
-Inline		
	Inline Composing	Off
	Distortion correction	Off

Introduction	On
Averaging mode	Long term
Multi-slice mode	Interleaved
Bandwidth	1336 Hz/Px
Optimization	None
Free echo spacing	Off
Echo spacing	0.93 ms
EPI factor	72
RF pulse type	Normal
Gradient mode	Performance
Excitation	Standard
TX/RX delta frequency	$0  \mathrm{Hz}$
TX Nucleus	None
TX delta frequency	$0  \mathrm{Hz}$
Coil elements	HEA;HEP
Acquisition duration	0 ms

LROLD-		
	Delay in TR	0 ms
	Diffusion mode	MDDW
	Diff. weightings	2
	b-value 1	0 s/mm²
	Diff. weighted images	On
	Trace weighted images	Off
	ADC maps	Off
	FA maps	Off
	Mosaic	On
	Tensor	Off
	Distortion Corr.	Off
	b-Value >=	0 s/mm²
	Exponential ADC Maps	Off
	Invert Gray Scale	Off
	Calculated Image	Off

# SIEMENS MAGNETOM Prisma\_fit syngo MR D13D

\\USER\Research\Rorden\_Prisma\DTI\_Gradient\_Test\dti\_nopf\_x2\_pitch TA:2:16 PAT:2 Voxel size:3.0×3.0×3.0 mm Rel. SNR:1.00 :epse

-Properties—		
l cop com	Prio Recon	Off
	Load to viewer	On
	Inline movie	Off
	Auto store images	On
	Load to stamp segments	Off
	Load images to graphic segments	Off
	Auto open inline display	Off
	Wait for user to start	On
	Start measurements	single
Routine		
	Nr. of slice groups	1
	Slices	36
	Dist. factor	0 %
	Position	Isocenter
	Orientation	Transversal
	Phase enc. dir.	A >> P
	AutoAlign	
	Phase oversampling	0 %
	FoV read	216 mm
	FoV phase	100.0 %
	Slice thickness	3.0 mm
	TR	5600 ms
	TE	79.0 ms
	Averages	1
	Concatenations	1
	Filter	Raw filter
	Coil elements	HEA;HEP
-Contrast		
	MTC	Off
	Magn. preparation	None
	Fat suppr.	Fat sat.
	Fat sat. mode	Weak
	Averaging mode	Long term
	Measurements	1
	Delay in TR	0 ms
	Reconstruction	Magnitude
	Multiple series	Off

-Resolution	
Base resolution	72
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Intensity	Weak
Slope	25
Elliptical filter	Off
Dynamic Field Corr.	Off
Company	

-Geometry	
Nr. of slice groups	1
Slices	36
Dist. factor	0 %
Position	Isocenter
Phase enc. dir.	A >> P
Phase oversampling	0 %
Multi-slice mode	Interleaved
Series	Interleaved
Nr. of sat. regions	0
Position mode	L-P-H
Fat suppr.	Fat sat.
Special sat.	None
Fat sat. mode	Weak
Special sat.	None
Set-n-Go Protocol	Off
Table position	P
Inline Composing	Off

¬System—		
	Body	Off
	HEP	On
	HEA	On
	Position mode	L-P-H
	Positioning mode	FIX
	Table position	Н
	Table position	0 mm
	MSMA	S - C - T
	Sagittal	R >> L
	Coronal	A >> P
	Transversal	F >> H
	Coil Combine Mode	Adaptive Combine
	AutoAlign	
	Coil Select Mode	On - Coil Memory
	B0 Shim mode	Advanced
	Adjust with body coil	Off
	Confirm freq. adjustment	Off
	Assume Dominant Fat	Off
	Assume Silicone	Off
	Adjustment Tolerance	Auto
	? Ref. amplitude 1H	0.000 V
	Position	Isocenter
	Rotation	0.00 deg
	R >> L	216 mm
	A >> P	216 mm
	F >> H	108 mm
	Frequency 1H	123.255749 MHz
	Correction factor	1
	AddCSaCSatNS 1H	66.311 V
	Gain	High
	Table position	0 mm
	Img. Scale. Cor.	1.000
Physio		
	1st Signal/Mode	None
	Magn. preparation	None
	Resp. control	Off
Inline		
	Inline Composing	Off
	Distortion correction	Off

Introduction	On	
Averaging mode	Long term	
Multi-slice mode	Interleaved	
Bandwidth	1336 Hz/Px	
Optimization	None	
Free echo spacing	Off	
Echo spacing	0.93 ms	
EPI factor	72	
RF pulse type	Normal	
Gradient mode	Performance	
Excitation	Standard	
TX/RX delta frequency	0 Hz	
TX Nucleus	None	
TX delta frequency	0 Hz	
Coil elements	HEA;HEP	
Acquisition duration	0 ms	

Delay in TR 0 msDiffusion mode **MDDW** Diff. weightings b-value 1  $0 \text{ s/mm}^2$ Diff. weighted images On Trace weighted images Off ADC maps Off FA maps Off Mosaic On Tensor Off Distortion Corr. Off 0 s/mm<sup>2</sup> b-Value >= **Exponential ADC Maps** Off Invert Gray Scale Off Calculated Image Off

# SIEMENS MAGNETOM Prisma\_fit syngo MR D13D

\\USER\Research\Rorden\_Prisma\DTI\_Gradient\_Test\dti\_nopf\_x2\_yaw TA:2:16 PAT:2 Voxel size:3.0×3.0×3.0 mm Rel. SNR:1.00 :epse

Properties—		
1	Prio Recon	Off
	Load to viewer	On
	Inline movie	Off
	Auto store images	On
	Load to stamp segments	Off
	Load images to graphic segments	Off
	Auto open inline display	Off
	Wait for user to start	On
	Start measurements	single
Routine		
	Nr. of slice groups	1
	Slices	36
	Dist. factor	0 %
	Position	Isocenter
	Orientation	Transversal
	Phase enc. dir.	A >> P
	AutoAlign	
	Phase oversampling	0 %
	FoV read	216 mm
	FoV phase	100.0 %
	Slice thickness	3.0 mm
	TR	5600 ms
	TE	79.0 ms
	Averages	1
	Concatenations	1
	Filter	Raw filter
	Coil elements	HEA;HEP
Contrast		
	MTC	Off
	Magn. preparation	None
	Fat suppr.	Fat sat.
	Fat sat. mode	Weak
	Averaging mode	Long term
	Measurements	1
	Delay in TR	0 ms
	Reconstruction	Magnitude
	Multiple series	Off

- Resolution	
Base resolution	72
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Intensity	Weak
Slope	25
Elliptical filter	Off
Dynamic Field Corr.	Off
Coomotory	

Geometry—	
Nr. of slice groups	1
Slices	36
Dist. factor	0 %
Position	Isocenter
Phase enc. dir.	A >> P
Phase oversampling	0 %
Multi-slice mode	Interleaved
Series	Interleaved
Nr. of sat. regions	0
Position mode	L-P-H
Fat suppr.	Fat sat.
Special sat.	None
Fat sat. mode	Weak
Special sat.	None
Set-n-Go Protocol	Off
Table position	P
Inline Composing	Off

¬System—		
	Body	Off
	HEP	On
	HEA	On
	Position mode	L-P-H
	Positioning mode	FIX
	Table position	Н
	Table position	0 mm
	MSMA	S - C - T
	Sagittal	R >> L
	Coronal	A >> P
	Transversal	F >> H
	Coil Combine Mode	Adaptive Combine
	AutoAlign	
	Coil Select Mode	On - Coil Memory
	B0 Shim mode	Advanced
	Adjust with body coil	Off
	Confirm freq. adjustment	Off
	Assume Dominant Fat	Off
	Assume Silicone	Off
	Adjustment Tolerance	Auto
	? Ref. amplitude 1H	0.000 V
	Position	Isocenter
	Rotation	0.00 deg
	R >> L	216 mm
	A >> P	216 mm
	F >> H	108 mm
	Frequency 1H	123.255749 MHz
	Correction factor	1
	AddCSaCSatNS 1H	66.311 V
	Gain	High
	Table position	0 mm
	Img. Scale. Cor.	1.000
Physio		
	1st Signal/Mode	None
	Magn. preparation	None
	Resp. control	Off
Inline		
	Inline Composing	Off
	Distortion correction	Off

Sequence-	Introduction	On
	Averaging mode	Long term
	Multi-slice mode	Interleaved
	Bandwidth	1336 Hz/Px
	Optimization	None
	Free echo spacing	Off
	Echo spacing	0.93 ms
	EPI factor	72
	RF pulse type	Normal
	Gradient mode	Performance
	Excitation	Standard
	TX/RX delta frequency	0 Hz
	TX Nucleus	None
	TX delta frequency	0 Hz
	Coil elements	HEA;HEP
	Acquisition duration	0 ms
BOLD—		
	Dolov in TD	0 ma

#### Delay in TR $0 \, \text{ms}$ Diffusion mode **MDDW** Diff. weightings b-value 1 $0 \text{ s/mm}^2$ Diff. weighted images On Trace weighted images Off ADC maps Off FA maps Off Mosaic On Tensor Off Distortion Corr. Off 0 s/mm<sup>2</sup> b-Value >= **Exponential ADC Maps** Off Invert Gray Scale Off Calculated Image Off

# SIEMENS MAGNETOM Prisma\_fit syngo MR D13D

\\USER\Research\Rorden\_Prisma\DTI\_Gradient\_Test\dti\_nopf\_x2\_2axis TA:2:16 PAT:2 Voxel size:3.0×3.0×3.0 mm Rel. SNR:1.00 :epse

-Properties—		
	Prio Recon	Off
	Load to viewer	On
	Inline movie	Off
	Auto store images	On
	Load to stamp segments	Off
	Load images to graphic segments	Off
	Auto open inline display	Off
	Wait for user to start	On
	Start measurements	single
Routine		
	Nr. of slice groups	1
	Slices	36
	Dist. factor	0 %
	Position	Isocenter
	Orientation	Transversal
	Phase enc. dir.	A >> P
	AutoAlign	
	Phase oversampling	0 %
	FoV read	216 mm
	FoV phase	100.0 %
	Slice thickness	3.0 mm
	TR	5600 ms
	TE	79.0 ms
	Averages	1
	Concatenations	1
	Filter	Raw filter
	Coil elements	HEA;HEP
Contrast		
	MTC	Off
	Magn. preparation	None
	Fat suppr.	Fat sat.
	Fat sat. mode	Weak
	Averaging mode	Long term
	Measurements	1
	Delay in TR	0 ms
	Reconstruction	Magnitude
	Multiple series	Off

- Resolution -	
Base resolution	72
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Intensity	Weak
Slope	25
Elliptical filter	Off
Dynamic Field Corr.	Off

Geometry—	
Nr. of slice groups	1
Slices	36
Dist. factor	0 %
Position	Isocenter
Phase enc. dir.	A >> P
Phase oversampling	0 %
Multi-slice mode	Interleaved
Series	Interleaved
Nr. of sat. regions	0
Position mode	L-P-H
Fat suppr.	Fat sat.
Special sat.	None
Fat sat. mode	Weak
Special sat.	None
Set-n-Go Protocol	Off
Table position	P
Inline Composing	Off

¬System—		
	Body	Off
	HEP	On
	HEA	On
	Position mode	L-P-H
	Positioning mode	FIX
	Table position	Н
	Table position	0 mm
	MSMA	S - C - T
	Sagittal	R >> L
	Coronal	A >> P
	Transversal	F >> H
	Coil Combine Mode	Adaptive Combine
	AutoAlign	
	Coil Select Mode	On - Coil Memory
	B0 Shim mode	Advanced
	Adjust with body coil	Off
	Confirm freq. adjustment	Off
	Assume Dominant Fat	Off
	Assume Silicone	Off
	Adjustment Tolerance	Auto
	? Ref. amplitude 1H	0.000 V
	Position	Isocenter
	Rotation	0.00 deg
	R >> L	216 mm
	A >> P	216 mm
	F >> H	108 mm
	Frequency 1H	123.255749 MHz
	Correction factor	1
	AddCSaCSatNS 1H	66.311 V
	Gain	High
	Table position	0 mm
	Img. Scale. Cor.	1.000
-Physio		
	1st Signal/Mode	None
	Magn. preparation	None
	Resp. control	Off
-Inline		
	Inline Composing	Off
	Distortion correction	Off

Sequence-		
1	Introduction	On
	Averaging mode	Long term
	Multi-slice mode	Interleaved
	Bandwidth	1336 Hz/Px
	Optimization	None
	Free echo spacing	Off
	Echo spacing	0.93 ms
	EPI factor	72
	RF pulse type	Normal
	Gradient mode	Performance
	Excitation	Standard
	TX/RX delta frequency	0 Hz
	TX Nucleus	None
	TX delta frequency	0 Hz
	Coil elements	HEA;HEP
	Acquisition duration	0 ms
BOLD—		
	Delay in TR	0 ms
	Diffusion mode	MDDW
	Diff. weightings	2
	b-value 1	0 s/mm²
	Diff. weighted images	On
	Trace weighted images	Off
	ADC maps	Off
	FA maps	Off
	Mosaic	On
	Tensor	Off
	Distortion Corr.	Off
	b-Value >=	0 s/mm²
	Exponential ADC Maps	Off
	Invert Gray Scale	Off

Calculated Image

Off