

**RIH – HIGH RESOLUTION CHEST
GE LIGHTSPEED 16 / OPTIMA CT580 PROTOCOL**

Indications - interstitial lung disease, emphysema, bronchiectasis, asbestosis, restrictive lung disease

Position/Landmark	Head first or feet first-Supine Sternal Notch			
Topogram Direction	Craniocaudal			
Respiratory Phase	Inspiration and Expiration			
Scan Type	Helical and Axial			
KV / mA / Rotation time (sec)	Helical		Axial	
Pitch / Speed (mm/rotation)	120kv / smart mA (100-400) / 0.5 sec		120kv / smart mA (100-400) / 0.5 sec	
Noise Index	1.75:1 , 35.00mm 28.00		1i 30.00	
Detector width x Rows = Beam Collimation	1.25mm x 16 = 20mm		0.625mm x 2 = 1.25mm	
Average Tube Output	Helical: ctdi – 9 mGy dlp – 336 mGy.cm		Each Axial: ctdi – 1 mGy dlp – 25 mGy.cm	
Helical Set	body thickness/ recon			
Slice Thickness/ Spacing	recon	part	spacing	algorithm destination .
Algorithm	1	thin chest	1.25mm x .6mm	standard for dmpr
Recon Destination	2	supine hi res lungs	1.25mm x 20mm	bone+ pacs
	3	lungs	5mm x 5mm	lung pacs
First Axial Set	body thickness/ recon			
Slice Thickness/ Spacing	recon	part	spacing	algorithm destination .
Algorithm	1	supine hi res lungs	1.25mm x 20mm	bone+ pacs
Recon Destination		expiratory		
Second Axial Set	body thickness/ recon			
Slice Thickness/ Spacing	recon	part	spacing	algorithm destination .
Algorithm	1	prone hi res lungs	1.25mm x 20mm	bone+ pacs
Recon Destination		inspiratory		
Scan Start / End Locations	lung apices diaphragm 35cm			
DFOV	decrease appropriately			
IV Contrast Volume / Type / Rate				
Scan Delay				
2D/3D Technique Used	DMPR of 5mm x 5mm axial and coronal chest series (auto-batch on), average mode, auto-transferred to PACS.			
Comments:	There are three scans in this protocol: supine inspiration helical, supine expiration axials, and prone inspiration axials. Every effort must be made to acquire prone images. If the patient cannot hold their breath, please consult a radiologist. A breast shield is used on the supine images.			
Images required in PACS	Scouts, 5mm x 5mm axial chest, 5mm x 5mm coronal chest, 5mm x 5mm axial lungs, 1.25mm x 20mm axial supine inspiration hi res lung, 1.25mm x 20mm axial supine expiration hi res lung, 1.25mm x 20mm axial prone inspiration hi res lung, Dose Report			