

**RIH – RENAL RF THREE PHASE KIDNEY  
GE LIGHTSPEED 16 / OPTIMA CT580 PROTOCOL**

**Indications: To evaluate and characterize a known renal mass before and after tumor ablation.**

<b>Position/Landmark</b>	Head first or feet first-Supine Xyphoid			
<b>Topogram Direction</b>	Craniocaudal			
<b>Respiratory Phase</b>	Inspiration			
<b>Scan Type</b>	Helical			
<b>KV / mA / Rotation time (sec) Pitch / Speed (mm/rotation) Noise Index / ASiR / Dose Reduction</b>	120kv / smart mA (100-440) / 0.5 sec 1.375:1 , 27.50mm 16 / 30 / 30%			
<b>Detector width x Rows = Beam Collimation</b>	1.25mm x 16 = 20mm			
<b>Average Tube Output</b>	Each Helical: ctdi – 17.1 mGy dlp – 443 mGy.cm			
<b>First Helical Set</b>	recon	body part	thickness/ spacing	recon destination .
Slice Thickness/ Spacing	1	<b>non con kidneys</b>	2.5mm x 2.5mm	standard
Algorithm	2	thin nc kidneys	1.25mm x .6mm	standard
Recon Destination				for dmpr
<b>Second Helical Set</b>	recon	body part	thickness/ spacing	recon destination .
Slice Thickness/ Spacing	1	<b>cortical kidneys</b>	2.5mm x 2.5mm	standard
Algorithm	2	thin cortical kidneys	1.25mm x .6mm	standard
Recon Destination				for dmpr
<b>Third Helical Set</b>	recon	body part	thickness/ spacing	recon destination .
Slice Thickness/ Spacing	1	<b>delayed kidneys</b>	2.5mm x 2.5mm	standard
Algorithm	2	thin delayed kidneys	1.25mm x .6mm	standard
Recon Destination				for dmpr
<b>Scan Start / End Locations</b>	1 cm superior to diaphragm iliac crest (scan through entire kidneys) 38cm			
<b>DFOV</b>	decrease appropriately			
<b>IV Contrast Volume / Type / Rate</b>	100cc omni 350 3cc/sec			
<b>Scan Delay</b>	Non-Contrast -----	Cortical 65 seconds	Delayed 4 minutes	
<b>2D/3D Technique Used</b>	DMPR of 2.5mm x 2.5mm <b>coronal abdomen</b> series (auto-batch on), average mode, auto-transferred to PACS of each phase.			
<b>Comments:</b>	This protocol consists of a non contrast series, and then a contrast series, then a delayed series.			
<b>Images required in PACS</b>	Scouts, 2.5mm x 2.5mm axial nc kidneys, 2.5mm x 2.5mm coronal nc kidneys, 2.5mm x 2.5mm axial cortical kidneys, 2.5mm x 2.5mm coronal cortical kidneys, 2.5mm x 2.5mm axial delayed kidneys, 2.5mm x 2.5mm coronal delayed kidneys, Dose Report			