DoseLab CT Imaging QA Results

Summary: All tests passed

DoseLab version: 6.80
Date: March 06, 2020
Machine: Unit 9, #:4169
Phantom: Catphan 504
Magnification: 99.83%
Energy: 125 kV
Expected slice width: 2.0 mm
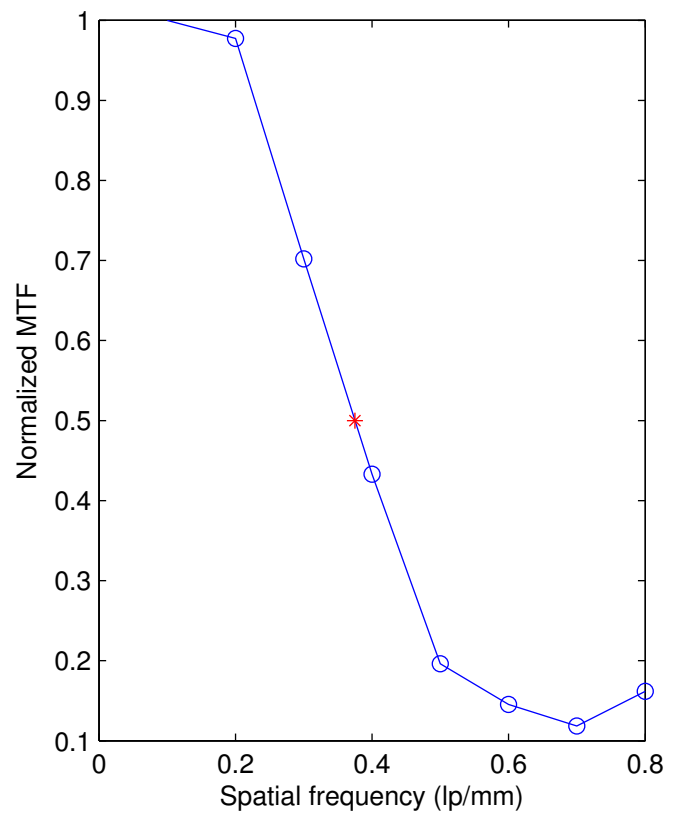Matrix size: 512x512
Performed by: Lingyue Sun
Tolerance set: Unit:1,6,7,8, 9 Large FOV

Scaling discrepancy: 0.8 mm (Pass)
Geometric distortion: 0.1 mm (Pass)
Spatial resolution (50% MTF): 0.38 lp/mm (Pass)
Minimum uniformity (ROI 22): 99.2% (Pass)

CTP404 module results

Contrast ROI details
Measured HU
1: 351
2: 95

HU constancy ROI details
Reference / Measured / Difference
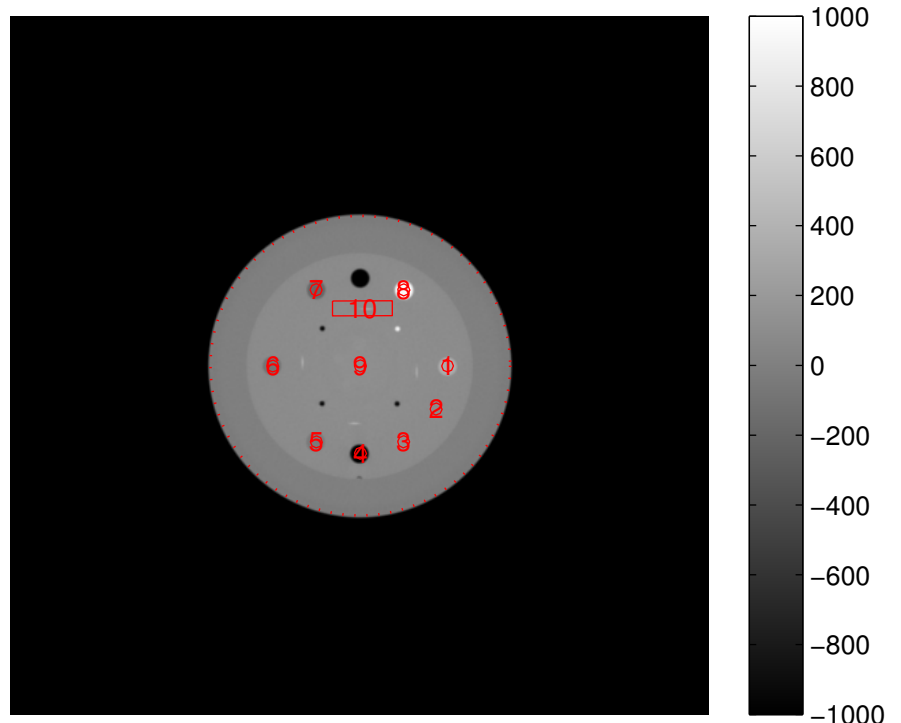3 (Acrylic): 120 / 121 / 1
4 (Air): −1000 / −999 / 1
5 (Polystyrene): −35 / −41 / −6
6 (LDPE): −100 / −97 / 3
7 (PMP): −200 / −187 / 13
8 (Teflon): 990 / 960 / −30
9 (CTP404): 100 / 124 / 24

CTP528 module results

Spatial resolution ROI details
Phantom lp/mm / Normalized MTF
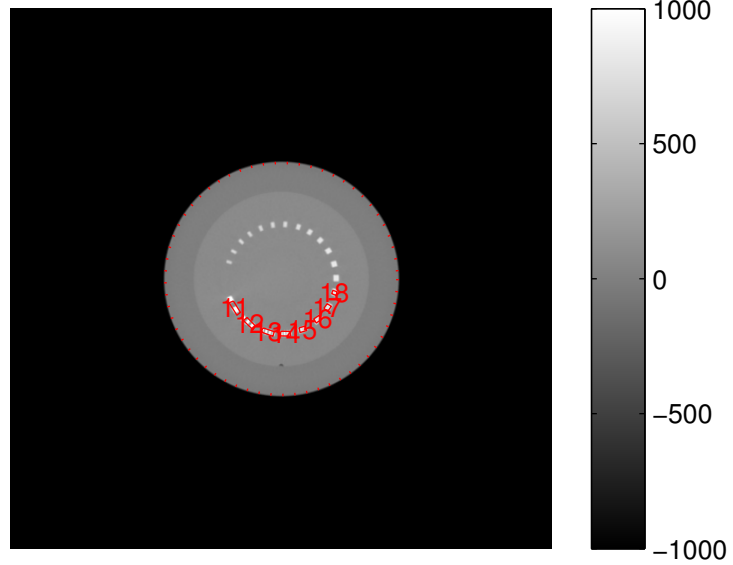11: 0.1 / 1.00
12: 0.2 / 0.98
13: 0.3 / 0.70
14: 0.4 / 0.43
15: 0.5 / 0.20
16: 0.6 / 0.15
17: 0.7 / 0.12
18: 0.8 / 0.16

CTP486 module results

Uniformity ROI details
Measured HU / Uniformity
19: 38 / 99.3%
20: 25 / 99.2%
21: 18 / 99.3%
22: 21 / 99.2%
23: 16 / 99.3%