DoseLab CT Imaging QA Results

Summary: All tests passed

DoseLab version: 6.80
Date: March 17, 2020
Machine: Unit 8, #:3864
Phantom: Catphan 504
Magnification: 99.81%
Energy: 125 kV
Expected slice width: 2.0 mm
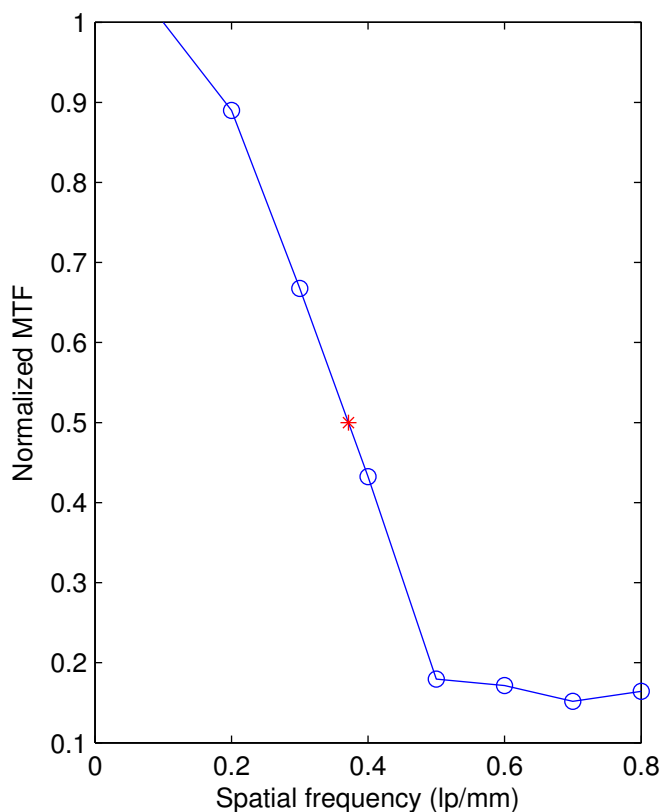Matrix size: 512x512
Performed by: Rebecca Frederick
Tolerance set: Unit:1,6,7,8, 9 Large FOV

Scaling discrepancy: 0.9 mm (Pass)
Geometric distortion: 0.2 mm (Pass)
Spatial resolution (50% MTF): 0.37 lp/mm (Pass)
Minimum uniformity (ROI 23): 98.7% (Pass)

CTP404 module results

Contrast ROI details
Measured HU
1: 339
2: 88

HU constancy ROI details
Reference / Measured / Difference
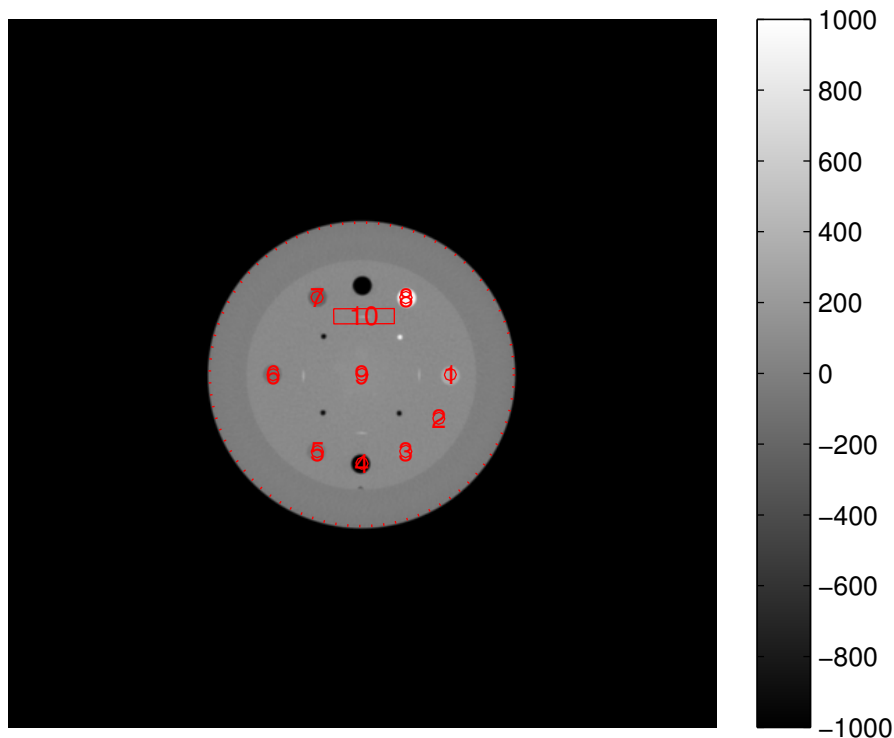3 (Acrylic): 120 / 111 / −9
4 (Air): −1000 / −999 / 1
5 (Polystyrene): −35 / −49 / −14
6 (LDPE): −100 / −109 / −9
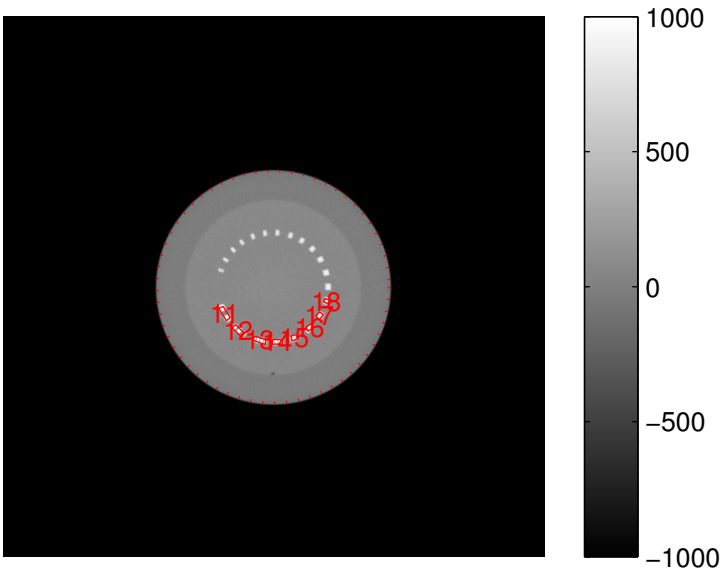7 (PMP): −200 / −199 / 1
8 (Teflon): 990 / 947 / −43
9 (CTP404): 100 / 122 / 22

CTP528 module results

Spatial resolution ROI details
Phantom lp/mm / Normalized MTF
11: 0.1 / 1.00
12: 0.2 / 0.89
13: 0.3 / 0.67
14: 0.4 / 0.43
15: 0.5 / 0.18
16: 0.6 / 0.17
17: 0.7 / 0.15
18: 0.8 / 0.16

CTP486 module results

Uniformity ROI details
Measured HU / Uniformity
19: 33 / 99.0%
20: 7 / 98.9%
21: 6 / 98.9%
22: 4 / 98.8%
23: 2 / 98.7%