DoseLab CT Imaging QA Results

Summary: All tests passed

DoseLab version: 6.80
Date: November 27, 2019
Machine: Unit 3, #:3484
Phantom: Catphan 504
Magnification: 100.02%
Energy: 100 kV
Expected slice width: 1.0 mm
Matrix size: 512x512
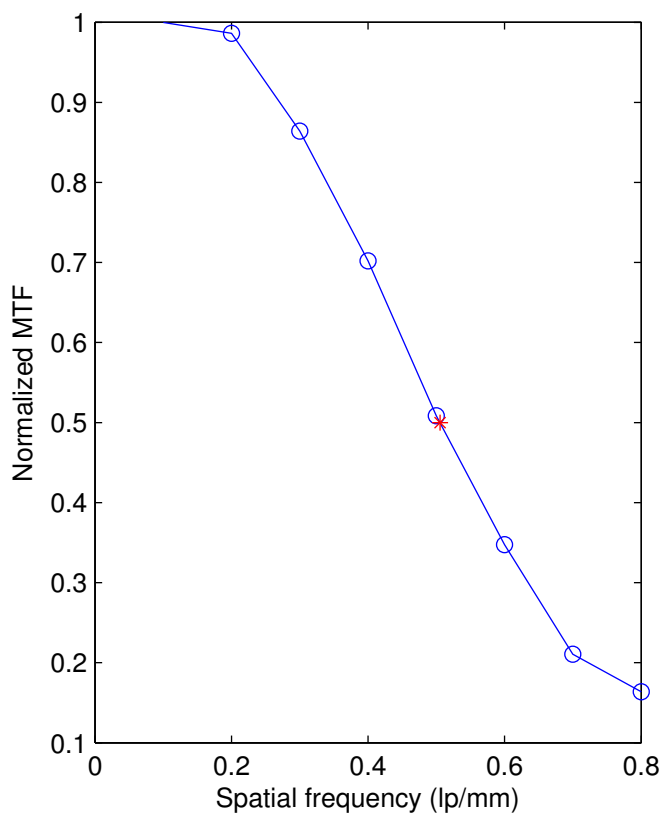Performed by: Thomas Mann
Tolerance set: Unit 3&5 Small FOV

Scaling discrepancy: 0.1 mm (Pass)
Geometric distortion: 0.1 mm (Pass)
Spatial resolution (50% MTF): 0.51 lp/mm (Pass)
Minimum uniformity (ROI 21): 96.9% (Pass)
Slice width: 1.72 mm (Pass)

CTP404 module results

Contrast ROI details
Measured HU
1: 396
2: 113

HU constancy ROI details
Reference / Measured / Difference
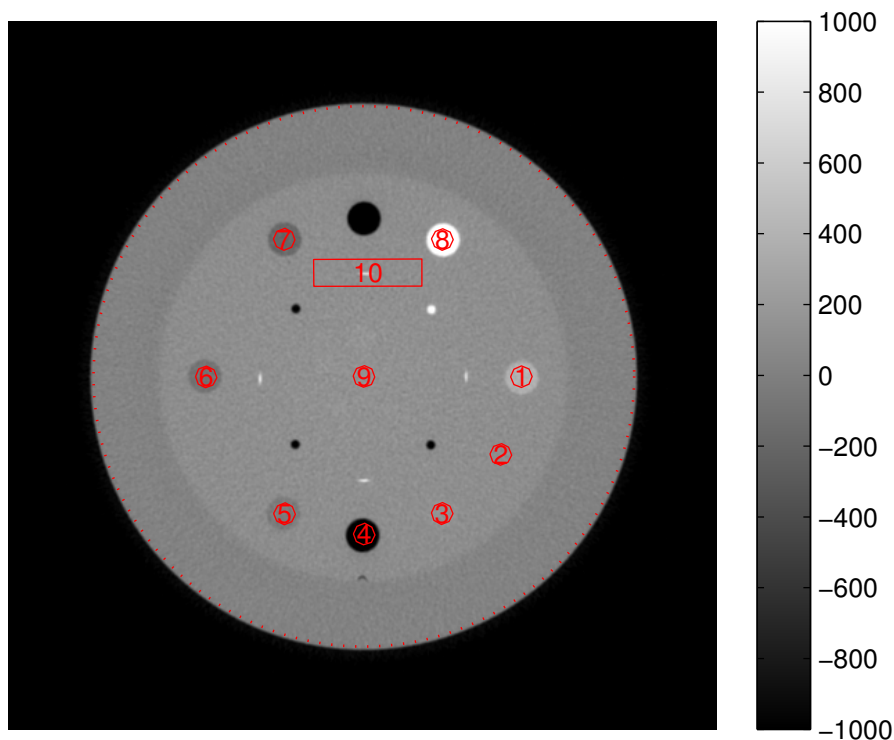3 (Acrylic): 120 / 149 / 29
4 (Air): −1000 / −1000 / 0
5 (Polystyrene): −35 / −33 / 2
6 (LDPE): −100 / −97 / 3
7 (PMP): −200 / −192 / 8
8 (Teflon): 990 / 1093 / 103
9 (CTP404): 100 / 141 / 41

CTP528 module results

Spatial resolution ROI details
Phantom lp/mm / Normalized MTF
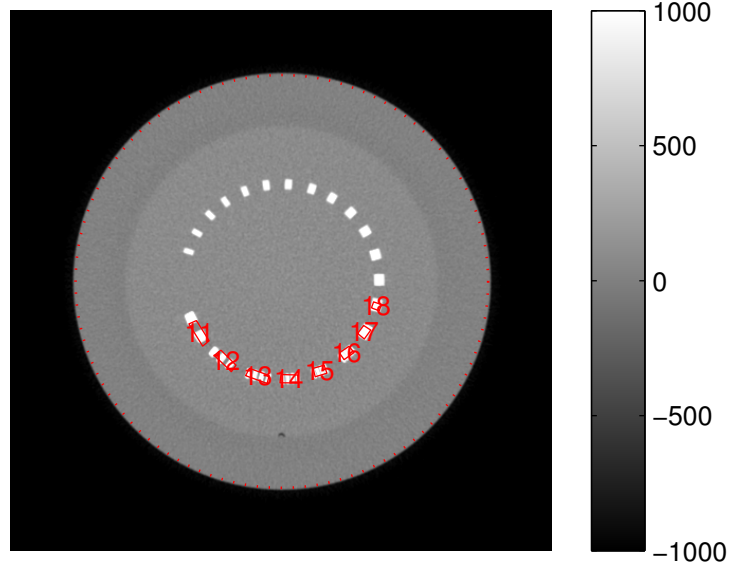11: 0.1 / 1.00
12: 0.2 / 0.99
13: 0.3 / 0.86
14: 0.4 / 0.70
15: 0.5 / 0.51
16: 0.6 / 0.35
17: 0.7 / 0.21
18: 0.8 / 0.16

CTP486 module results

Uniformity ROI details
Measured HU / Uniformity
19: 35 / 97.0%
20: 24 / 97.0%
21: 27 / 96.9%
22: 28 / 96.9%
23: 24 / 97.1%