

Manufacturer's Recommendations for Alternate Dental CBCT QA Program

Xoran: Model Mini Cat

Table 3A

Computed Tomography QC Requirements

Item	Required Test or Procedure	Frequency	Substitute Test or Procedure	Standard
1	Equipment Function "Indicators, Mechanical & other Safety Checks	Daily	User Manual , Safety Guidelines, Section 1.1, Pages 1- 12 Appendix A	Must work properly
2	Film Processing QC Testing	Daily	None, not applicable	None, not applicable
3	CT Number for Water	Daily	User Manual, CT Number and Standard Deviation of Water, Section 11.4, Pages 165-166, Appendix C	Mean \pm 100 HU Water STD \leq 30
4	Field Uniformity	Daily	User Manual, Uniformity Test, Section 11.6, Pages 167-168, Appendix C	Compare the mean values of each region. Total range for mean values must be within or equal to \pm 50 HU.
5	Laser Film Printer QC	Weekly	None, not applicable	None, not applicable
6	Low Contrast Resolution	Initial & Annually	User Manual, Low Contrast Section 11.3, Page 165, Appendix C	Greater or equal to 4 low contrast targets that should be distinguishable.
7	High Contrast Resolution	Initial & Annually	User Manual, Spatial Resolution, Section 11.3, Pages 163-165, Appendix C	The line pair of 15 lp/cm should be distinguishable.
8	Noise	Initial & Annually	User Manual, Image Noise, Section 11.8, Pages 174-175, Appendix D	Sinus 20s (600): 1.88 to 3.87 Sinus 10s (300): 2.69 to 7.04 Sinus 10s (150): 4.49 to 9.69 T Bone 20s (600): 3.54 to 7.91
9	Scan Localization Light Accuracy	Initial & Annually	User Manual, Laser Accuracy, Section 11.1, Pages 161-162, Appendix C	Laser must align properly with alignment stickers on perimeter of x-ray detector. Front laser should hit the center of the head rest and/or gantry.
10	Medical Physicist's QC Survey	Initial & Annually	Same as alternate Dental CBCT	NJAC 7:28-22.10
11	Medical Physicist's Quality Assurance Program Review	Initial & Annually	Same as alternate Dental CBC	NJAC 7:28-22.4(a)7