

Manufacturer's Recommendations for Alternate Dental CBCT QA Program
Imaging Sciences International: Model I-CAT FLX
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 Appendix A- Safety Information Pages A-1 to A-6 (Appendix F)	Must work properly
2	Film Processing QC Testing	None	None, not applicable	None, not applicable
3	CT Number for Water	Daily	Technical Guide Chapter 3: QA Air Water Test Pages 3-14 to 3-18 (Appendix C)	Water Expected Values = 0 HU Range = (-70 to +70) HU
4	Field Uniformity	Daily	Technical Guide Chapter 3: Uniformity Evaluation Pages 3-18 & 3-19 (Appendix C)	Subtract each mean value from the mean value of the center measurement. If the difference is greater than 90, make sure phantom is correctly centered in FOV and re-measure.
5	Laser Film Printer QC	None	None, not applicable	None, not applicable
6	Low Contrast Resolution	None	QA test to be performed using appropriate Low Contrast phantom. *Low Contrast phantom is not provided by Imaging Sciences International	To be established by Medical Physicist
7	High Contrast Resolution	Initial & Annually	Technical Guide Chapter 3: QA Line Pair Evaluation Pages 3-7 to 3-9 (Appendix D)	Verify the definition is present within line pairs 10,11 and 12.
8	Noise	Initial & Annually	Technical Guide Chapter 3: Noise Level Evaluation Pages 3-16 to 3-18 (Appendix C)	Water Expected Value = 0; Range = (-70 to +70) HU Air Expected Value= -1000 HU Range = (-1000 to -950) HU
9	Scan Localization Light Accuracy	None	Technical Manual Chapter 3: Geometric Calibration, Page 3-4 (Appendix E)	Using the Alignment Lasers, align the GeoCal fixture crosshair slits with the laser cross beams. The laser beams should roughly align with the fixture crosshair slits.
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

*Where no performance standard is identified or expressed by the manufacture, the medical physicist shall establish the standard for the facility's CBCT unit with justification.