

Manufacturer's Recommendations for Alternate Dental CBCT QA Program

Rayscan: Alpha System

Table 3 Requirements for Dental CBCT

Item	Required Test or Procedure	Frequency	Substitute Test or Procedure	Standard
1	Equipment Function "Indicators, Mechanical & other Safety Checks	Daily	Maintenance, Cleaning, and Disposal Section 2.10 Page 22 (Appendix B)	Must work properly
2	Film Processing QC Testing	Daily	None, not applicable	None, not applicable
3	CT Number for Water	Daily	RayScan Alpha System Manufactures' SPEC. Test Document Section 2.2.4, pp. 14-16 (Appendix A)	PMMA (HU)= 0 ± 100 (HU)
4	Field Uniformity	Daily	RayScan Alpha System Manufactures' SPEC. Test Document Section 2.2.5, pp. 17-19 (Appendix A)	Homogeneity ≥ 25
5	Laser Film Printer QC	Weekly	None, not applicable	None, not applicable
6	Low Contrast Resolution (Contrast to Noise Ratio-CNR)	Initial & Annually	RayScan Alpha System Manufactures' SPEC. Test Document Section 2.2.6, pp. 19-22 (Appendix A)	CNR ≥ 20
7	High Contrast Resolution (Modular Transfer Function - MTF 10%)	Initial & Annually	RayScan Alpha System Manufactures' SPEC. Test Document Section 2.2.7, pp. 22-25 (Appendix A)	MTF 10% > 1
8	Noise	Initial & Annually	RayScan Alpha System Manufactures' SPEC. Test Document Section 2.2.8, pp. 26-28 (Appendix A)	PMMA Noise < 100
9	Scan Localization Light Accuracy	Initial & Annually	None – Not Applicable	None – Not Applicable
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