

Manufacturer’s Recommendations for Alternate Dental CBCT QA Program

J. Morita Model: Accuitomo X800

Table 3A Requirements for Dental CBCT

Item	Required Test or Procedure	Frequency	Substitute Test or Procedure	Standard
1	Equipment Function “Indicators, Mechanical & other Safety Checks	Daily	Veraview X800 CT Function Page 26 (Appendix A)	No error message appears in daily check on Operation manual.
2	Film Processing QC Testing	Daily	None, not applicable	None, not applicable
3	CT Number for Water	Daily	Veraview X800 Quality Test Procedure Section 3.2 Greyscale Page 6-9 (Appendix A)	Check that the value for GreyScale (SD of 5 Means) is no more than 12.5.
4	Field Uniformity	Daily	Veraview X800 Quality Test Procedure Section 3.2 Greyscale Page 6-9 (Appendix A)	Check that the value for GreyScale (SD of 5 Means) is no more than 12.5.
5	Laser Film Printer QC	Weekly	None, not applicable	None, not applicable
6	Low Contrast Resolution	Initial & Annually	Veraview X800 Quality Test Procedure CT Function Page 26 (Appendix A)	The grey level and the standard deviations of the Acrylic plastics and bone equivalent plastic shall not overlap.
7	High Contrast Resolution	Initial & Annually	Veraview X800 Quality Test Procedure Section 3.3 MTF (Modulation Transfer Function) Page 10-12 CT Function Page 26 (Appendix A)	SD resolution 10% or higher at 2.0 lp/mm. HR resolution 10% or higher at 2.5 lp/mm. The MTF value at 2.0 lp/mm at SD lp/mm at HR shall be more than or equal to 0.1 (10%).
8	Noise	Initial & Annually	Veraview X800 Quality Test Procedure Section 3.2 Greyscale Page 6-9 CT Function Page 26 (Appendix A)	Check that the value for Noise (SD at A) is no more than 12.5. The standard deviation of the grey scale of center region of the Contrast phantom shall be less than 12.5 (10% of the full scale).
9	Scan Localization Light Accuracy	Initial & Annually	Veraview X800 Quality Test Procedure Section 3.5 CT Artifacts/ Patient Positioning Precision Page 13-16 (Appendix A)	Check that each poisoning for the X, Y, Z planes is within ± 3.0 mm.
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

