

Manufacturer's Recommendations for Alternate Dental CBCT QA Program

**Sordex: Model Scanora 3Dx (Palodex Group)**

**Table 6** Requirements for Dental CBCT

<b>Item</b>	<b>Required Test or Procedure</b>	<b>Substitute Test or Procedure</b>	<b>Standard</b>
1	Scan Increment Accuracy	None – Not Applicable	None – Not Applicable
2	Scan Localization Light Accuracy	Installation and Set-up Instructions. Sections 5. Unit calibration and adjustment Page 73 and 74 (Appendix E)	If the 3D geometric calibration is successful all the calibration values that appear on the image will be Passed.
3	Patient Dose (Multiple Scan Average Dose) MSAD or Computed Tomography Dose Index-CTDI	None Available	To be established by the Medical Physicist.*
4	Pre-Patient Collimation Accuracy	Installation and Set-up Instructions. Sections 5. Unit calibration and adjustment Page 80 (Appendix C)	If the collimator Y position calibration is successful the calibration values that appear on the image will be Passed.
5	Contrast Scale	3D Constancy Check Procedure, Section, Section 1. Automatic 3D QC program (Appendix D)	Pass Scanora QC phantom computerized software test:  Minimum PMMA ROI value: -95 Minimum PTFE ROI value: 400 Maximum AIR ROI value: -500  The test result and acceptance limit is displayed by the device.
6	CT Number for Water	3D Constancy Check Procedure, Section 1. Automatic 3D QC program (Appendix D)	Pass Scanora QC phantom computerized software test:  The test result and acceptance limit is displayed by the device. Minimum PMMA ROI: - 95
7	Slice Thickness	None- Not Applicable	None- Not Applicable
8	Field Uniformity	3D Constancy Check Procedure Section 1. Automatic 3D QC program (Appendix D)	Pass Scanora QC phantom computerized software test:  Uniformity Maximum Value: 200 The test result and acceptance limit is displayed by the device.
9	Low Contrast Resolution	3D Constancy Check Procedure Section 1. Automatic 3D QC program (Appendix D)	The automatic 3D QC test result is displayed by the device. Grey values are measured from the volume for PMMA, PTFE and Air.  Minimum PMMA ROI value: -95 Minimum PTFE ROI value: 400 Maximum AIR ROI value: -500
10	High Contrast Resolution	3D Constancy Check Procedure Section 3: High Contrast spatial resolution (Appendix D)	Constancy test phantom Visually identifiable spatial resolution must be at least 1LP/mm.

11	Noise	3D Constancy Check Procedure Section 1. Automatic 3D QC program (Appendix D)	Pass Scanora QC phantom software test :  Maximum PMMA Std. Dev.: 125 Maximum PTFE Std. Dev.: 145 Maximum Air Std. Dev.: 100  The test result and acceptance limit is displayed by the device.
12	Scan Protocol Review	Same as NJAC 22.10(a)	Same as NJAC 22.10(a)
13	Review of Facility and Technologists QC Tests	Same as NJAC 22.10(a)	Same as NJAC 22.10(a)
14	Physicist Report and Recommendations	Same as NJAC 22.10(a)	Same as NJAC 22.10(a)

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