

DENTRISCAN IMAGING SOLUTIONS INC.

**1800 Medical Plaza Dr, Suite 450, Houston, TX 77030 | FDA Reg:
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COMMERCIAL PROPOSAL FOR 3D CBCT IMAGING SYSTEM

Date: September 20, 2026

Project: Turnkey CBCT Imaging Suite for Outpatient Dental Clinic

Prepared For: BrightPath Outpatient Dental & Implant Center, 1240 Medical Center Dr, Conroe, TX 77304

Model: DENTRI-MAX 3D PRO with Cephalometric Arm & Implant Planning Suite

Proposal ID: DS-2026-CBCT-084A

Valid Until: 90 Days

PAGE 1: EXECUTIVE SUMMARY & CLINICAL INDICATIONS

DentriScan Imaging Solutions is pleased to submit this turnkey proposal for a premium 3D Cone Beam Computed Tomography (CBCT) system tailored for complex implantology, endodontics, impacted third molar assessment, and orthognathic surgical planning in a high-volume outpatient dental setting.

The DENTRI-MAX 3D PRO is a floor-mounted, 3-in-1 multimodal platform offering 2D panoramic, cephalometric (scan-type), and true 3D CBCT volumes in a single sensor pass. The system is designed around a low-dose, high-resolution CMOS flat-panel detector (200x200mm active area) paired with a 0.3mm focal spot pulsed X-ray tube. Key differentiator: AI-assisted metal artifact reduction (MAR+) and adaptive low-dose protocols designed for Texas outpatient compliance (TDSHS).

Clinical Scope: Implant planning (dual arch), full-mouth TMJ (open/closed), airway analysis, endodontic microsurgery, sinus evaluation, and guided surgery export.

PAGE 2: IMAGING PERFORMANCE & TECHNICAL ARCHITECTURE

Detector & Sensor: 200x200mm amorphous silicon flat-panel, 140µm pixel pitch, 16-bit grayscale, CsI scintillator. 0.5mm Cu filtration.

Field of View (FOV) Options: Selectable 5x5cm (endo), 8x8cm, 10x10cm, 12x8cm, 15x10cm, 16x12cm (extended), and 18x16cm max stitched dual-scan. No collimation change needed.

Voxel Size: 75µm (Endo HD), 100µm, 150µm, 200µm, 300µm, 400µm (Low-Dose).

Exposure: 60-99kV, 2-12mA, pulsed exposure 2.1-12.8s scan time, 8.9s effective radiation time in standard 10x10cm mode. Dose Area Product (DAP) 42-890 mGy·cm².

Resolution: MTF 10% @ 2.1 LP/mm, MTF 50% @ 1.2 LP/mm. Contrast resolution <1.0mm.

Patient Positioning: Motorized 3-axis chair with laser-guided Frankfurt plane, chin rest, head straps, and seated/wheelchair accessible. 360° rotation, 0.5°/s speed.

Reconstruction: GPU-accelerated (NVIDIA RTX A4000 included) FDK iterative reconstruction, 25-45s reconstruction for 10x10cm.

PAGE 3: RADIATION SAFETY, COMPLIANCE & REGULATORY

FDA: 510(k) Cleared K213485. IEC 60601-1, IEC 60601-1-3, IEC 60601-2-63 compliant. DICOM 3.0 compliant.

Texas Compliance: Texas Department of State Health Services (DSHS) Registration Support Package included. Lead-lined shielding calculation by Texas-licensed medical physicist (up to 8 hrs). Includes Texas 25 TAC §289.232 compliance checklist and RAM license amendment support.

Dose Optimization: ALARA-certified low-dose protocols: Pediatric 30% reduction, QuickScan (4.8s) 45% dose reduction with 180° half-rotation. Automatic exposure control (AEC) based on scout.

Quality Assurance: Integrated QA phantom (SEDENTEXCT IQ phantom), daily air calibration, automatic tube warm-up, 3-month remote QA audit via DentrCloud.

Cybersecurity: FDA 2023 Cyber Guidance compliant, SBOM provided, Windows 11 IoT Enterprise LTSC hardened, TLS 1.3 DICOM encryption, role-based access, audit logs retained 6 years (HIPAA).

Interoperability: HL7 v2 ADT/ORM interface engine for Eaglesoft, DentrAscend, Patterson Fuse. DICOM MWL, MPPS, Storage Commit.

PAGE 4: SOFTWARE ECOSYSTEM, AI & INTEGRATION

Imaging Software: DentrView Pro 6.2 – native 64-bit workstation license (2 seats included). Includes: Multiplanar reconstruction (MPR), curved MPR, 3D volume rendering, implant simulation (3000+ implant library: Nobel, Straumann, Dentsply Sirona, Zimmer), nerve canal tracing with AI assist, airway volume & minimum cross-section, TMJ analysis, and STL/DICOM fusion for surgical guides.

AI Features: MAR+ (Metal Artifact Reduction++) with deep-learning inpainting, Auto-ANB cephalometric analysis, automatic tooth segmentation (32 teeth FDI), periapical lesion detection aid (not diagnostic, FDA CAdE).

Guide Workflow: Direct export to 3Shape Implant Studio, exocad, Blue Sky Plan, and NobelClinician. Open STL/PLY export, no per-export fee.

Cloud: DentrCloud PACS: 500GB encrypted storage Year 1 included, viewer share links with expiration, patient portal. HIPAA BAA signed.

Hardware: Acquisition workstation: Dell Precision 3660, Intel i9-13900, 64GB RAM, 2TB NVMe, NVIDIA RTX A4000 16GB, dual 27" 4K diagnostic monitors (DICOM calibrated, 350 nits).

PAGE 5: INSTALLATION INFRASTRUCTURE & SITE REQUIREMENTS

Room Requirements: Minimum 8ft x 10ft footprint, 8ft ceiling. Unit footprint 48" x 52", weight 680 lbs. Floor loading: 150 lbs/sq ft. No ceiling reinforcement required.

Power: Dedicated 208-240VAC, single-phase, 30A breaker, 16A max draw. No three-phase needed. UPS: 3kVA online double-conversion included.

Environmental: 18-26°C, 30-70% non-condensing humidity. HVAC heat load 2.1kW. Noise <55dB.

Shielding: Includes preliminary shielding plan (0.5mm Pb equivalent drywall if adjacent public area). Lead glass not included.

Network: Gigabit Ethernet, static IP required. DICOM C-STORE to existing PACS.

Delivery & Installation: Rigging included via air-ride truck, white-glove install, calibration, and Texas physicist acceptance testing coordination. Timeline: 3-4 weeks ARO.

Decommissioning: Removal of existing Planmeca ProMax if requested, \$1,500 credit.

PAGE 6: TRAINING, WARRANTY & SERVICE

Training: 2-day on-site clinical applications training (up to 6 staff) + 8hrs remote advanced implant workflows. Texas CE credits (6 CEUs). Annual refresher webinar.

Warranty: 2-year comprehensive parts & labor warranty covering tube, detector, mechanics. Tube rated 30,000 exposures. 5-year detector warranty prorated.

Service: 24/7 remote diagnostics via secure VPN, on-site response Next Business Day (NBD) within Houston metro (50-mile radius). Includes 2 preventive maintenance visits in warranty period. Loaner detector program.

Support: Unlimited phone support 7AM-7PM CT, 99.2% uptime SLA with service credits. Dentriscan has 14 field engineers in TX.

Extended Options: Optional 5-year service plan: \$38,500 total, or \$8,900/yr pay-as-you-go. Includes tube replacement at 30k exposures.

PAGE 7: INVESTMENT SUMMARY, PRICING & FINANCIAL TERMS

Line Item	Description	Cost
Base System	DENTRI-MAX 3D PRO, 18x16cm max FOV, cephalometer	\$142,500
Workstations	2x Diagnostic Workstation + 27" 4K DICOM monitors	Included
Software	DentriView Pro 6.2 (2 seats), Implant library, AI modules	Included
Cloud Year 1	DentriCloud PACS 500GB, sharing, BAA	\$0 (Year1)
Installation	Rigging, install, calibration, physicist coordination	\$6,800
Shielding Plan	Medical physicist shielding calc (8hrs)	\$1,850
Training	On-site 2 days + CE	\$2,400
Warranty	2-yr comprehensive	Included
SUBTOTAL	Turnkey	\$153,550
Less Trade-in	Planmeca ProMax (functional)	-\$1,500
TOTAL INVESTMENT	Net, ex-tax	\$152,050
Financing	60mo @ \$2,995/mo or 0% 24mo available via Beacon Funding	

Payment Terms: 40% deposit, 40% prior to shipment, 20% on acceptance. Federal Section 179 eligible. Tariff surcharge: None. Price lock 90 days.

Tax: Exempt if nonprofit certificate provided; otherwise Montgomery County 8.25% not included.

Insurance: Equipment insured until acceptance.