

## Dental Microscope Technical Specification

- 1. Magnification**
- The system must have a 5-step magnification changer with a 6:1 ratio with Magnification factors 0.4x - 2.5x or more
  - The system must offer an optical magnification range from 1.4x to **21x or more with flat Apochromatic Optics**
  - The adjustment of the interpupillary distance must offer a distance from 55 mm to 75 mm with diopter setting must offer a value between +5 and -8 dpt.
  - The system must offer a field of view range from 8 mm to 151 mm
- 2. Focusing System**
- **Apochromatic, continuous 200 - 430 mm or more working range** for easy focusing easy single handed control without movement of the microscope.
- 3. Binocular Tubes**
- Main Surgeon Binocular Tube should be Tilttable tube 0 to 180 degree or better
  - Eye piece 10x or 12.5x magnetic wide field eyepiece with integrated eye cups for Main Surgeon Binocular tube
  - Left – Right optical tube movement  $\pm 25^\circ$  without changing eyepiece position.
- 4. Illumination**
- The system must offer TriLED illumination which includes 3 individual TriLEDs for RGB
  - The system must offer Tri LED illumination with Xenon-like brightness
  - working distance of 200 mm, the system must offer a typical light intensity of 170 KLux
  - The system must offer a 5,500 K cooling LED system far away from field of view for better cleaning
  - The system must offer a one finger activation of the TrueLight mode for handling composite materials in a natural light environment.
  - The system must offer a one finger activation of an integrated Fluorescence Mode for caries and composite detection
  - The system must offer a one finger activation of an integrated polarization filter
  - The system must offer a one finger activation of the Orange Color Mode for composite materials
- 5. Integrated HD Camera**
- The system must offer a fully integrated video camera for surgical microscope positioning with no additional load, no interfering lateral imbalance and no impact by external cables
  - The system must offer an integrated HD video camera in Full HD resolution with image capture and video recording functions

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- 6. Handgrip
  - Strong handgrips for adjustment of total microscope along with single button operation for all the operation like illumination, filter change (Green, Yellow), Working distance easy single handed control.
  
- 7. Stand
  - Floor stand with Auto Balance or Hydraulic balancing system Easy as 1-2-3 simple .
  - Each castor must provide a cable detector
  - The system must offer a 120° coupling.
  
- 8. Stand Height & Length
  - Height: 1700mm or more & Arm length: 1500mm or more
  
- 9. Electrical Data
  - Voltage : 115 / 230 V + / - 10%, Frequency : 50 – 60 Hz.
  
- 10. Product Quality
  - US FDA and CE certified Product.

**Optional Features :**

- 1. Dental Fluorescence
  - The system must offer an integrated Dental Fluorescence Mode that supports detection of carious substances and composite filling materials in Dental Treatment.
  - The system must offer integrated crossed polarizers that move specular reflections and aid in color mapping and shading in Dental practices.
  - The system must offer a light mode that prevents premature curing for typical composite materials for more than 60 seconds while preserving perception of color and depth in Dental Filling procedure.

  
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