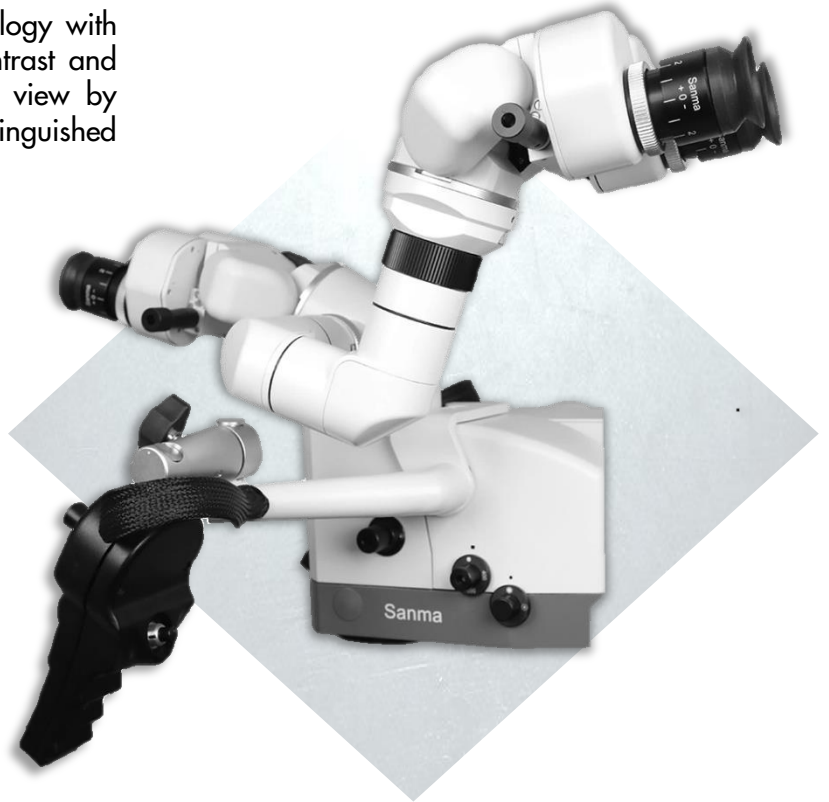




Sanma's optics and illumination technology with ergonomic controls screens a clear contrast and depth of focus with clear stereoscopic view by Accuracy handling and distinguished performance

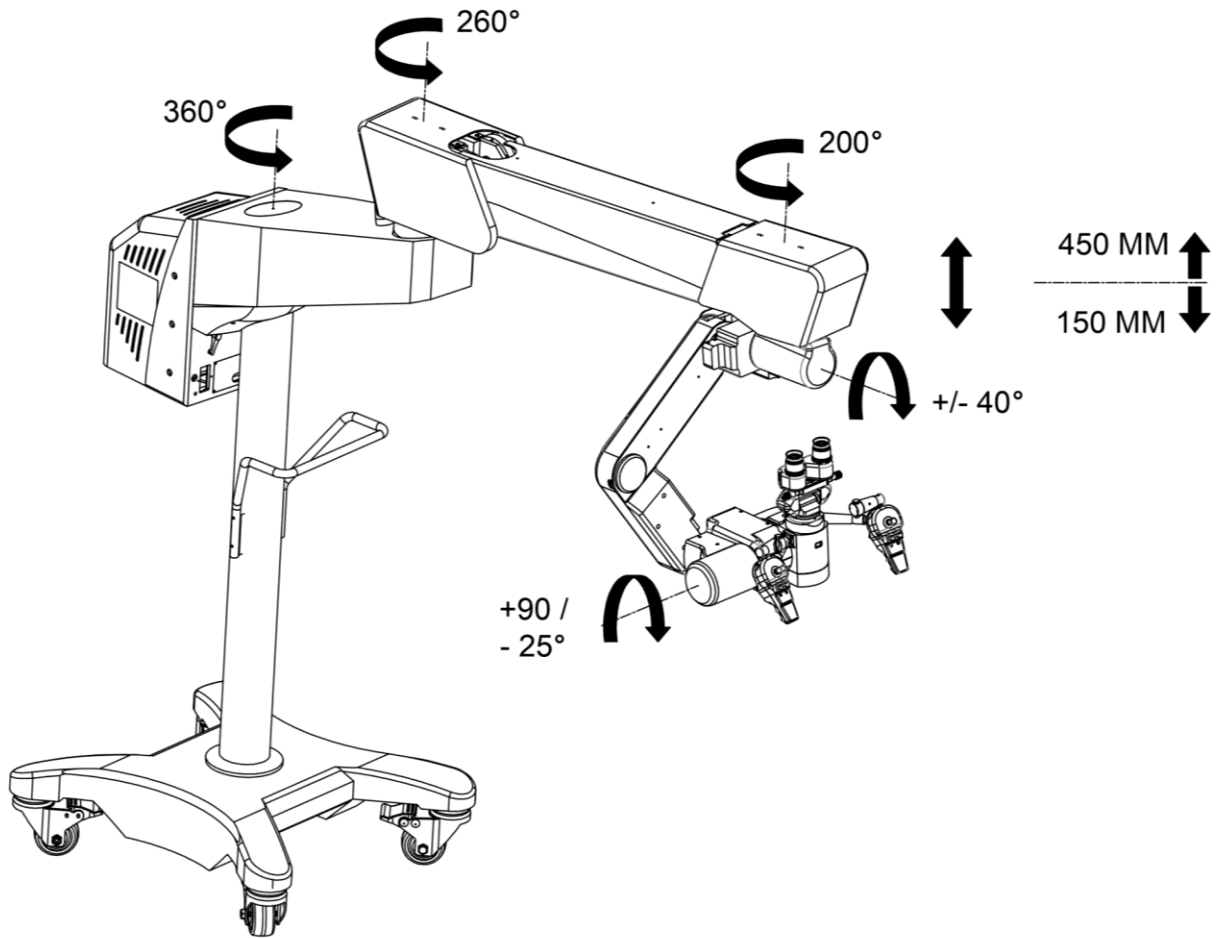


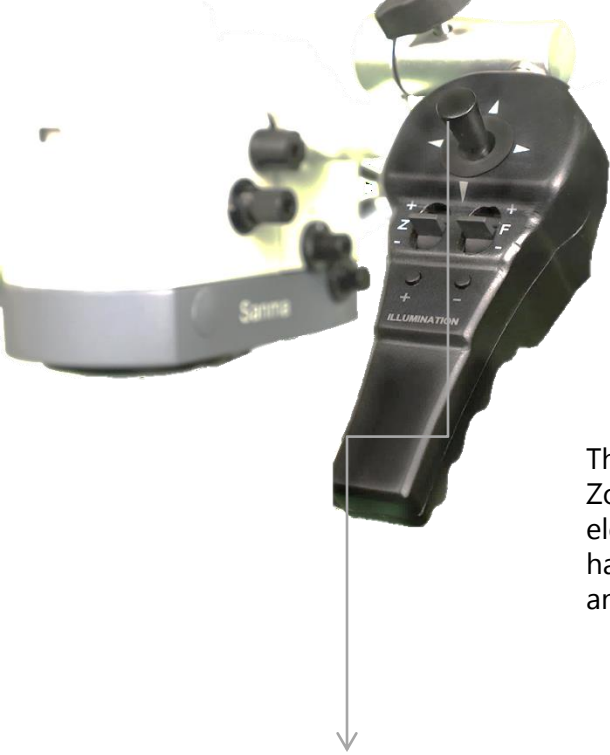
THE INTEND VISUALIZATION SYSTEM WITH UNIQUE AUGMENT FEATURE

Ocula

surgical Operating Microscope

▪ Neuro ▪ Spine ▪ ENT ▪ P&R ▪ Micro-Vascular





The all in one multi- controlled handgrip for Zoom, focus, light intensity, optical head, electromagnetic brakes ease surgeon's handling & positioning for microscopic view and comforts surgery timings

*Unique  
Augment  
Feature*

a gentle finger accessing motorized joystick helps to control fine positioning optical head movements alone without need of accessing the carrier arm or Electromagnetic brakes



Zoom 1:6 ratio & iFocus 200mm – 500mm controlled by both motorized handgrip and as well manually

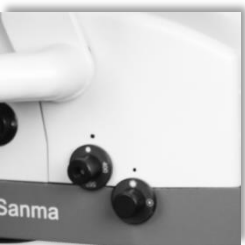


Optional: Foot Switch Control for Zoom, iFocus, Optical Head Control & Intensity

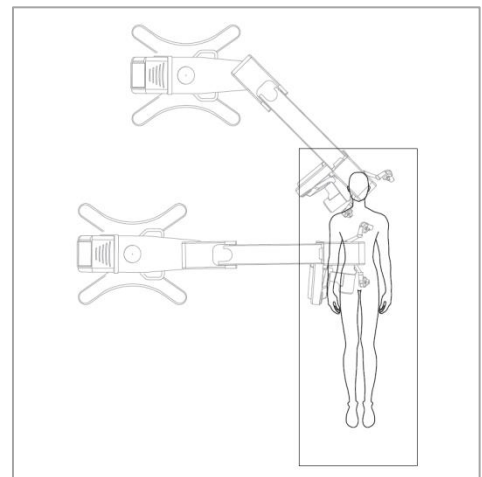




Maneuverable 6 axis electromagnetic brake controls

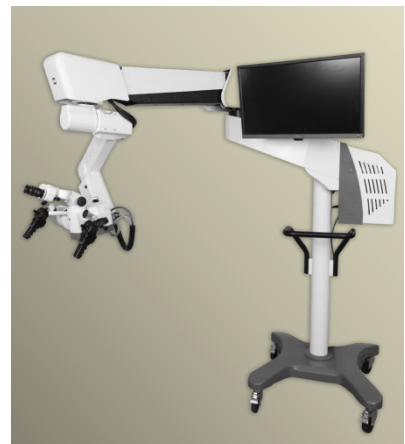
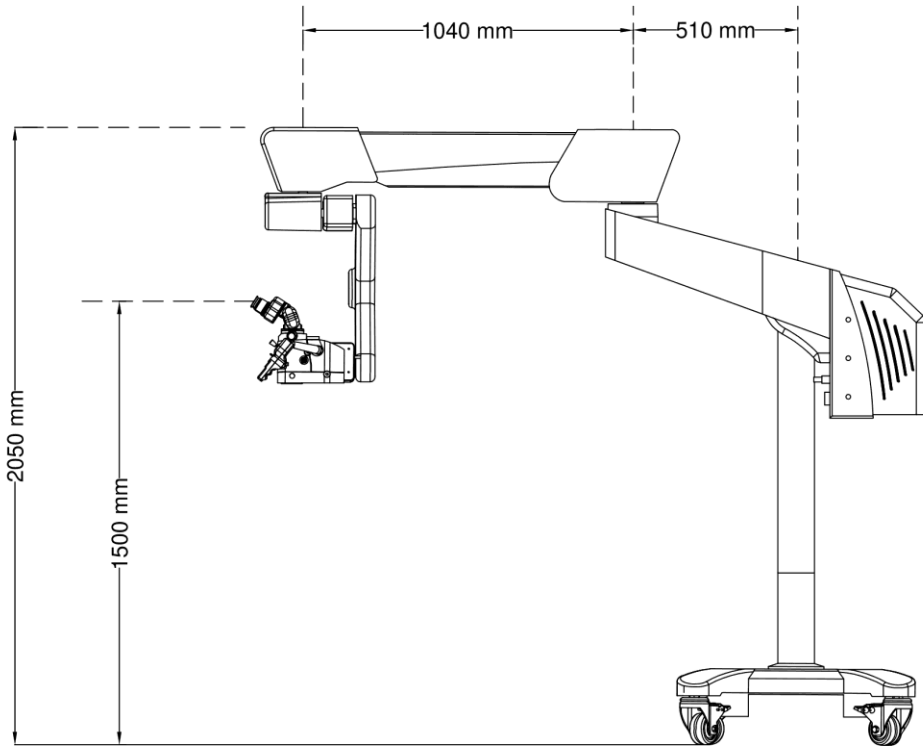


Optional Filters  
IR 800 / Yellow 560



The bright day light color LED illumination source through fused fiber optics cable stimulates vibrant surgeon's microscopic view  
Thanks to the LED technology ensuring the extended light life period compared with Xenon / Halogen.  
Easy lamp change

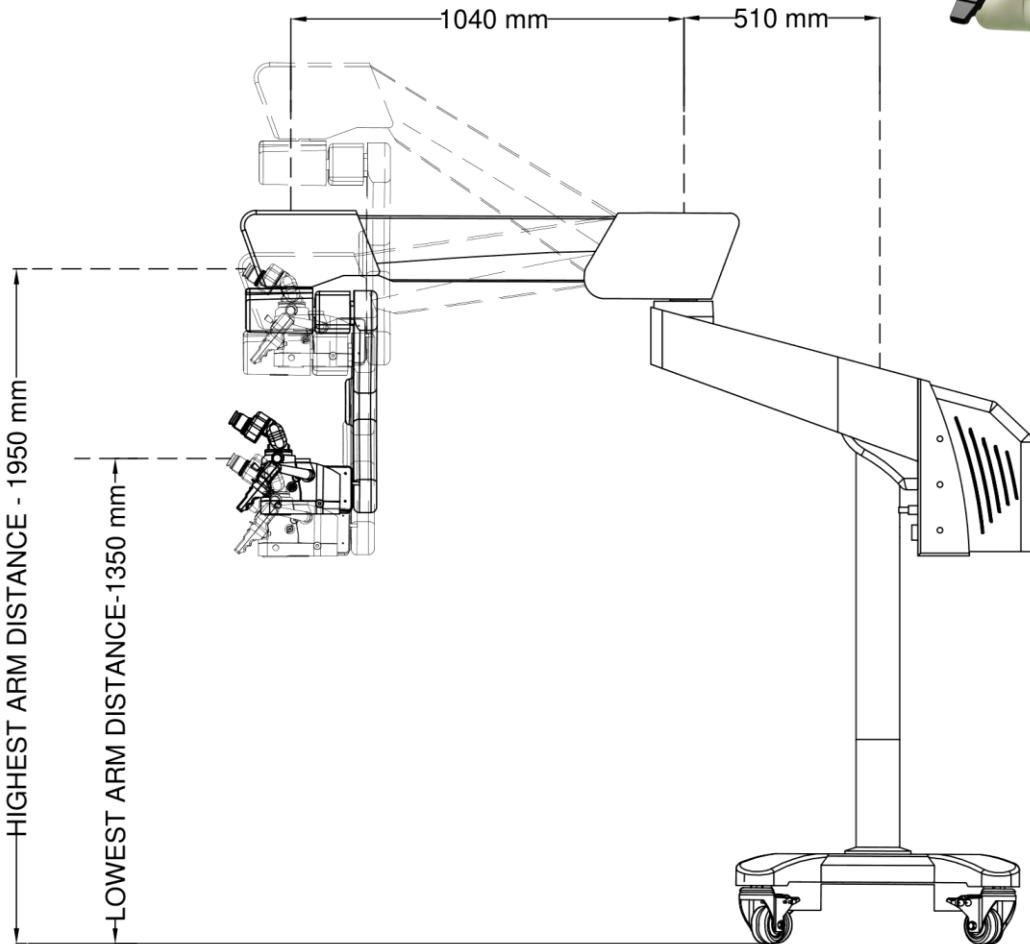






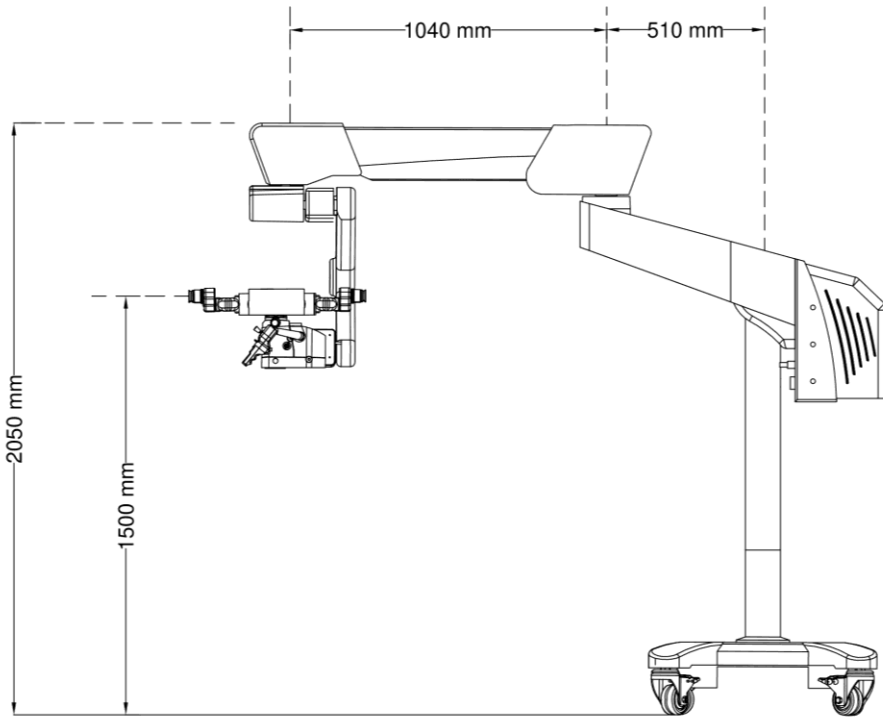
## Technical Data: Ocula

Optics	Fully Apochromatic optics	
	Eye Piece	10x or 12.5x Wide field & High Eye point
	Binocular View	0°-210°Tilttable Binocular Tube
	Magnification	1:6 Motorized Zoom 4x – 24x
	Objective / Focus	iFocus Motorized Multifocal optics with Working distance 200 – 500mm
Illumination	Day Light Bright Illumination Hi-power LED through fused OFC, with stand by LED Source	
	Day light Colour Temperature	
	Easy Lamp Changing Provision	
	Continuously variable Illumination Spot diameter with Gaussian distribution	
Fluorescence	Yellow 560	
	Infrared 800	
Documentation	Camera	Recorder
	Full HD CMOS	500GB Internal Storage Capacity and 2 USB ports for External Storage
Microscope Movement	6 Axis Electromagnetic Breaks	
	Joystick powered Fine optical head movement independently for swivel and axial movements	
	Multifunctional Handgrip for Zoom & Focus, Head Swivel & Axial, Illumination Intensity	
	Optional: Multifunctional Foot Control for zoom & Focus	
Accessories	Stereo Co-Observer Tube	
	Face to Face Bridge Attachment	
	0°-210°Tilttable Binocular Tube	

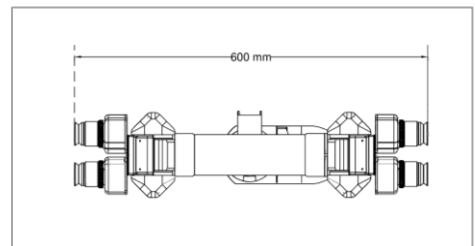


Optional configuration: assistant co-observer tube 0°-210°tiltable binocular eyepiece  
For flexible microscopic view applications





Configuration:  
face to face 0°-  
210°tiltable binocular  
eyepiece  
microscope view for  
micr-vascular surgery  
/ spine





Model: Lumin Pro

Sanma Fully Apochromatic optics designed to symbolize quality and the clear stereoscopic vivid three dimensional view

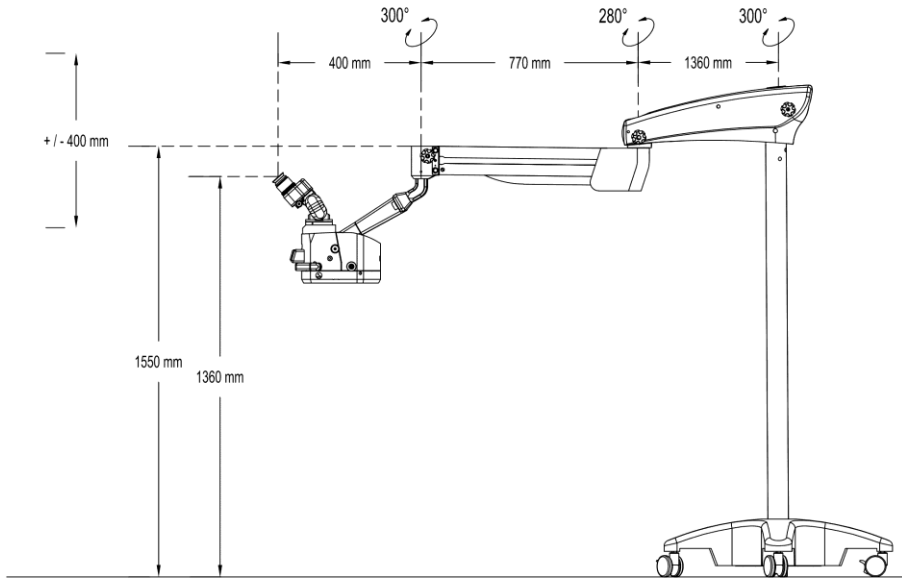
The vibrant homogenous Shadow Free illumination through fiber optic cable and Sanma optics ensures the clear focusing microscopic Surgical depth of focus

The Effective Day Light Color LED Reaches the Satisfactory Light Intensity and Extended Illumination Life Period, unlike Halogen or Xenon

### Sanma Offers

- Magnification Options : continuous Zoom 1:6 ratio
- i-Focus 200mm-500mm Variable Focal lens controlled by Handgrip ease surgeons to set focal length to any surgical & Diagnosing Procedures





Floor Stand

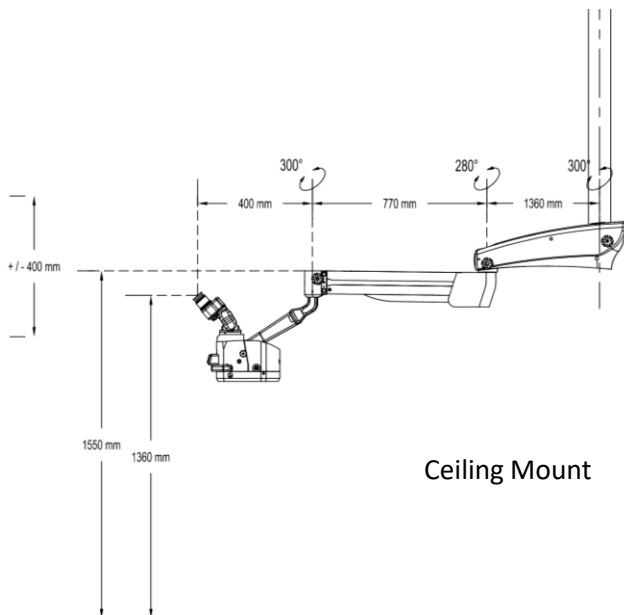
Integrated Camera  
Full HD CMOS

At one click push buttons for  
Video Recording & Still image  
Storage in Secured Data Card



### Technical Data –Lumin Pro

Optics	Full Apochromatic Galilean Type
Eye Piece	10 X Wide Field & High Eye Point (Option: 12.5X) (Diopter Adjustment +6 to -6) Optional: Dioptre with magnetic locks and dioptre setting from -8D to +5D
Binocular Tube	0°- 210° Tilt able Binocular Tube) (Inter Pupillary Distance: 50mm to 75mm)
Magnification	Step: 0.4X, 0.6X, 1.0X, 1.6X, 2.5X Or 1:6 Ratio Zoom Controlled by Motorized Handgrip. ( Optional Foot Switch )
Objective Lens	i – Focus 200mm - 500mm Variable Objective Lens controlled motorized Handgrip ( Optional: Foot Switch)
Optical Head Swivel	0° to 90° axially and 180° side wise
Illumination	Hi-Power LED Homogenous Co-axial shadow free Bright White Spot Light Guide: Through Fiber Optic Cable Automatic lamp cut off by moving up the carrier arm (Optional) Day Light Color Temperature Inbuilt UV filter ( Optional IR Filter0
Camera System	Integrated Full HD CMOS 1080p, Output: HD-SDI / HDMI, Push Buttons for Video Recording & Still Image Data Storage





Original Equipment Manufacturer  
Original Design Manufacturer  
Own Brand Manufacturer

## Surgical Operating Microscope – Visualization System

- Neuro
- Spine
- Plastic & Reconstructive
- Micro – Vascular
- ENT
- Ophthalmology
- Colposcopy
- Andrology

### Certification & Regulatory

Medical Device Directive 93/42/EEC

EMC Directive 89/336/EEC

Clinical Evaluation MEDDEV 2.7.1, Rev.04

Technical dossier as per MEDDEV 2.5.1

EN ISO 13485:2016 CB: BSI, Certificate no.: MD 667228

Specifications & Design are subject to change without prior notice as a result of further product development  
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