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Title	EG-550 Series Video Gastroscope Technical Specifications			
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EG-550 Series Video Gastroscope Technical Specifications



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1. General Description

The EG-550 series video gastroscope is specially designed for the inspection, diagnosis and therapy for human upper digestive track. The CMOS imaging technique, digital image processing technique, micro-optical and advanced software technique are applied on this device, providing high-quality images and making the therapy more safe, the diagnosis more accurate and the operation more stable.

This product can collect the real-time video, remotely control the image freeze and magnification function and realize the air/water feeding and suction.

The endoscope can be immersed for cleaning directly without waterproof cap for its fully-sealed design, thus to avoid the risk of damages caused by misoperation.

This product meets the relevant

international and national standards.

2. Advanced Technologies

- High-definition CMOS imaging technology 1920x1080 (2 MP)
- Micro-optical lens technique
- Super large angle imaging lens technique
- Auxiliary water-feeding
- High conductive section hardness insertion tube with finer diameter
- Quick air/water switch
- Smaller bending radius and large bending angle
- High polymer engineering materials with higher disinfectant tolerance
- Convenient operation with new generation operation handle
- Fully-sealed design
- Simple quick insertion and extract

3. Ports

- Electrical connector
- Suction port
- Auxiliary water-feeding port
- Cap for auxiliary water-feeding port

- Leakage detection port
- Electrosurgical equipment connector
- Air/water-feeding ports

4. Control and Insertion Sections

- Left/right angulation lock
- Left/right angulation control knob
- Up/down angulation control knob
- Up/down angulation lock
- Remote buttons (0-3)
 - Customize the functions of the four remote buttons by using the image processor.
 - The customizable functions include freeze, zoom, VIST, IRIS, image enhancement, color enhancement, CHb, transillumination mode, contrast enhancement, AGC, image size, screenshot, video print, video, timer, PBP, information display, one-key export and upload.
- Instrument channel

- Feeding liquid to the endoscope distal end
- For the biopsy accessories of the endoscope
 - Used as the suction tube after covering the biopsy valve cap firmly.
- Insertion limitation mark
- Suction valve
- Air/water valve
 - Block the valve hole with fingers to feed air.
 - Press the valve to feed water and clean the lens.
 - Press the valve to feed air or water to clean the blood, debris and mucosal adhered to the objective lens.

5. Distal End

- Objective lens
- Air/water nozzle

- Light guide lens
- Auxiliary water-feeding port
- Instrument channel outlet

6. Auxiliary Examination

- Biopsy forceps sampling
- Cytology brush sampling
- Feeding liquid by syringe

7. Disinfectant and Flush Liquid

- Recommended disinfectant:
Glutaraldehyde (alkaline, concentration:
 $\geq 2.4\%$)
- Recommended flushing liquid:
Tap water and ethyl alcohol

8. Technical Specifications

Net weight: 1.3 kg

See in the Appendix A.

9. Package List

- Endoscope
- Biopsy valve

- Cleaning brush
- Leakage detector
- Syringe (30mL)
- Injection tube
- Auxiliary water-feeding tube
- Channel plug
- Waterproof cap
- Distal end cap
- User manual

10. Application Range

This product, used with the image processor manufactured by the manufacturer, is used for the endoscopic inspection and diagnosis of the human upper digestive tract (including the esophagus, gastric cavity and duodenum).

11. Optional Accessories

- Light source: VLS-50D/T
- Image processor: HD-550 series
- Trolley: HDT-330

12. Safety Standard

- IEC 60601-1:2005+A1:2012
- IEC 60601-2-18:2009
- IEC 60601-1-2:2014

13. Environment Requirement

- Operating environment
 - Temperature: +5°C - +40°C
 - Relative humidity: 30% - 80%
(non-condensing)
 - Atmosphere pressure: 700hPa – 1060 hPa
- Storage environment
 - Temperature: -5°C - +40°C
 - Relative humidity: 30% - 80%
(non-condensing)
 - Atmosphere pressure: 700hPa – 1060 hPa
- Transportation environment
 - Temperature: -20°C - +55°C
 - Relative humidity: 20% - 90%
(non-condensing)
 - Atmosphere pressure: 700hPa – 1060 hPa

- Safety types
 - Degree of protection against electric shock: Type BF applied part
 - Degree of protection against harmful liquid: IPX7

Appendix

Appendix A Endoscope Specifications Table

No.	Parameter	EG-550	EG-550L
1	View direction	Front	
2	Field of view	140°±10%	
3	Resolution	Resolution ≥11.1lp/m; edge resolution ≥5.56p/mm (working distance: 10 mm)	
4	View depth	2 – 100 mm	
5	Outer diameter of the distal end	Φ 9.3 mm Allowance: +5%, not considering lower limit	Φ 9.8 mm Allowance: +5%, not considering lower limit
6	Outer diameter of the bending section	Φ 9.3 mm Allowance: +10%, not considering lower limit	Φ 9.8 mm Allowance: +10%, not considering lower limit
7	Angle	Up 210°; Down 90° Left 100°; Right 100° Allowance: -10%, not considering upper limit	
8	Min. inner diameter of the instrument channel	≥ Φ 2.8 mm	≥ Φ 3.2 mm
9	Working section length	1050 mm ±10%	
10	Total section length	1350 mm ±10%	
11	Min. viewing distance of instrument channel	2 mm	

No.	Parameter	EG-550	EG-550L
12	Illumination	≥ 18000 Lx	
13	Aspirated amount	≥ 400 mL/min	
14	Water/air feeding	Amount of fed water ≥ 40 mL/min, amount of fed air ≥ 800 mL/min	
15	Auxiliary water feeding	Support	
16	Endoscope information storage	Support	

Appendix B Recommended Methods for High-level Disinfectant

Disinfectant	High-level Disinfectant Parameter	Contact Time	Contact Type	Precautions
Glutaraldehyde (GA)	Concentration : ≥ 2.4% (alkaline)	≥ 45 minutes	Soak	<p>1. This disinfectant has sensitization and irritation on the skin, eye, and respiratory tract. In addition, it can cause dermatitis, conjunctivitis, nasal cavity inflammation, and occupational asthma. It is suitable for use in the automatic disinfection machine.</p> <p>2. This disinfectant is easy to condense on the endoscope and cleaning and disinfection devices.</p>

NOTE:

- The specifications of this system may change without any prior notification.
- Some products or features may not be available in some countries.
- Please contact the local distributor for more information.

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