ALPHAON

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ALPHAON: Another endoscopist created by AI

Real-Time Analysis of Endoscopic Images
Artificial Intelligence Medical Device for Gastrointestinal Endoscopy

CAIMI REFRESHING MEDICINE FOR HUMAN

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Ministry of Health and Welfare KHIDI iMET CENTER

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Looking to enhance early detection of cancers and tumors during endoscopy?
The use of artificial intelligence enables efficient detection and diagnosis of abnormalities during GI endoscopic procedures.

Gastrointestinal Endoscopy:
No More Relying on Your Eyes Alone

Real-time lesion analysis AI medical device designed for endoscopic screening of the gastrointestinal tract

ALPHAON

Excellent compatibility

Real-time analysis and marking of lesions

Display screening area and prevent omission

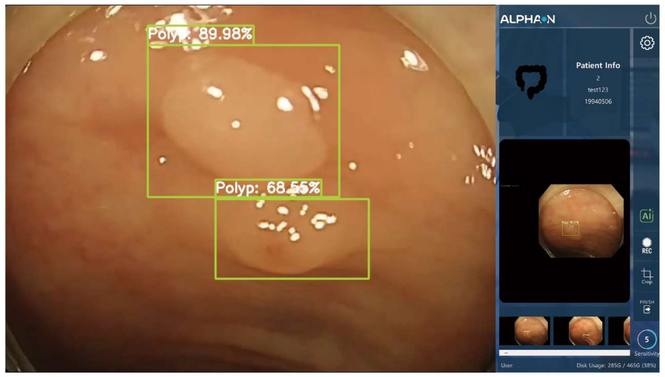
10 Levels

Adjustable detection sensitivity levels from 1-10

Capable of independent operation

ALPHAON: Another endoscopist created by AI

CAIMI's flagship product ALPHAON is an exceptional medical device for gastrointestinal exams, combining lesion analysis expertise equivalent to that of gastroenterologists with over 10 years of experience and the unique capability of AI, surpassing human abilities. It provides physicians support for various folds and blind spots within the gastrointestinal tract, displaying the current examination location, detecting abnormalities, and highlighting lesions.



Reasons for the Need

1. Detect early tumors that are difficult to identify with the naked eye
2. Prevent unchecked areas within folds and blind spots
3. Outstanding screening and diagnostic support
4. Improve patient satisfaction through increased early cancer detection rates
5. Reduce screening errors and misdiagnosis
6. Enhance satisfaction with medical check-ups by optimizing speed and precision
7. Elevate the quality and accuracy of GI endoscopy

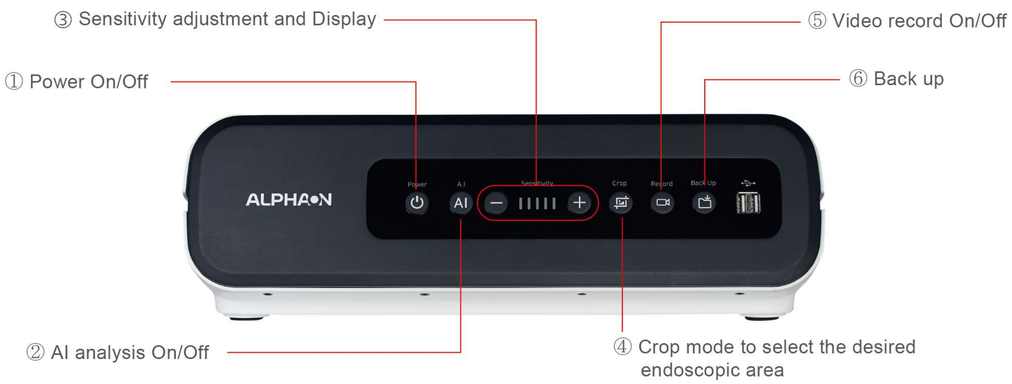
ALPHAON Main Functions

1. Detect, analyze, and highlight abnormalities during GI endoscopy
2. Display the current location of the endoscopic camera and prevent unchecked areas within the gastrointestinal tract
3. Adjustable detection sensitivity levels from 1~10, depending on the physician's experience
4. Convenient installation and operation of a standalone AI-enabled medical device
5. Compatible with various brands of endoscopic equipment
6. Transmit and receive patient information and endoscopic images

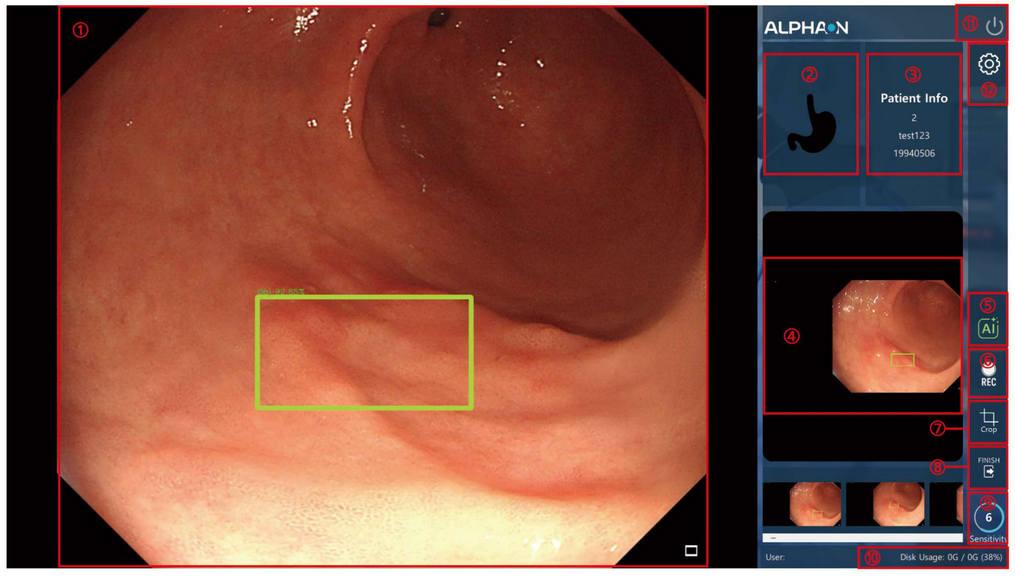
Outstanding Compatibility with Existing Endoscopic Equipment

Offer exceptional real-time compatibility with various endoscopic equipment in the market

Hardware Functions

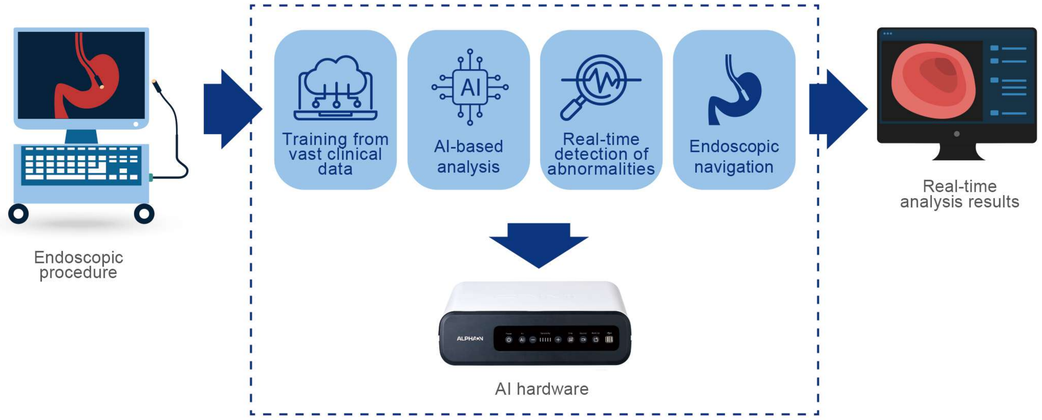


Software Functions



① Displays the actual endoscopic region from the video transmitted by the endoscopy system connected to ALPHAON.
② Indicates the current endoscope position using a navigationimage.
③ Displays patient identification information such as name, ID number, and date of birth.
④ Shows a snapshot of the AI analysis result as an image.
⑤ Controls the AI analysis function (On/Off).
⑥ Saves the video received from the endoscopy system connected to ALPHAON
⑦ Crops the endoscopic region from the video.
⑧ Ends the examination (automatically sends data to PACS upon completion).
⑨ Adjusts the AI sensitivity level.
⑩ Displays the hard disk usage of the ALPHAON device.
⑪ Closes the ALPHAON program.
⑫ Opens the program settings.

Real-time Analysis Algorithms for Gastrointestinal Endoscopic Video



ALPHAON Specification

Operation System	Windows	Windows 10 & 11
Compatibility	Gastrointestinal Endoscopy	Compatible with OLYMPUS, FUJIFILM, PENTAX, and other major endoscopy systems
Size	Dimension & Weight	W410×H125×D305, Approx.10 kg
Power Supply	Nominal Power Rate	100–240 VAC ±10%, 50/60 Hz
Interface	LAN/WAN	Ethernet TCP/IP
Data Backup	USB Connection	USB 2.0 : 2EA, USB 3.0 : 5EA
Image Input/Output	SDI(Serial Digital Interface) or HDMI (High Definition Multimedia Interface)	Input: SDI (2160P/4K) or HDMI(2160P/4K) Output: HDMI (2160P/4K) or SDI (2160P/4K)
Classification (Medical Electrical Equipment)	Type of Protection against Electric Shock	Class I
AI Performance	Performance	Accuracy : 89.16%, ROC AUC : 85.11%
	Endoscopy location checking	Accuracy : 92%

ALPHAON Accessories

ALPHAON Hardware 1EA, Power Cable 1EA, HDMI Cable 1EA, HD-SDI Cable 1EA, USB Cable 1EA, Movable Cart 1EA, Touch Screen Monitor 1EA, Keyboard and Mouse 1SET, IFU 1EA