



FEATURES

- 15.6" Full HD Touchscreen (1920 x 1080 Resolution)
- High-performance Xilinx FPGA Video Processor
- Compatible with Scopes and Handles from Various Manufacturers
- Supports Image Sensors Ranging from 400 x 400 to 1920 x 1080 Resolution
- Low-latency Image Transmission via 3G-SDI and HDMI Ports
- ARM Cortex-A76 Processor and Linux OS
- Customizable OSD and View Mode
- 93.6Wh Battery Up to 5 Hours of Service Time
- Rotatable Kickstand Handle Combo
- Custom Application Development for Clinical Needs

The EN-150 Portable Endoscopy System is a high-performance medical imaging solution designed for real-time visualization in gastroenterology, pulmonology, urology, gynecology, and ENT procedures. Featuring a 15.6-inch Full HD touchscreen and a powerful FPGA video processor, it delivers low-latency, high-resolution imaging for accurate diagnostics and procedural efficiency. Supporting a wide range of flexible and disposable endoscopes, the EN-150 is ideal for hospitals, ambulances, field clinics, and emergency response units. With seamless PACS integration and DICOM compatibility, it enhances workflow efficiency and interoperability across medical systems. Equipped with dual-band Wi-Fi (2.4 GHz & 5 GHz), Bluetooth 5.2, USB 3.0, HDMI, 3G-SDI, and Gigabit Ethernet, it ensures fast data transfer, real-time collaboration, and seamless integration with external displays and recording devices. The EN-150 also supports custom application development, allowing healthcare providers to optimize workflows for specialized clinical needs. Designed for versatility and mobility, it features a rotatable kickstand, VESA mount compatibility, and a high-capacity 93.6Wh lithium-ion battery that delivers up to 5 hours of continuous operation, ensuring reliable performance in critical care settings.

SPECIFICATIONS

SYSTEM		I/O INTERFACE	
Processor	Quad-core ARM Cortex-A76 (2.4GHz) + Quad-core ARM Cortex-A55 (1.8GHz) Processors	Audio	1 x Speaker, 8Ω/2W 1 x Microphone
VPU	High-performance Xilinx Zynq-7015 FPGA	Ports	2 x Endoscope Connectors
Memory	4GB LPDDR4 RAM		2 x USB 3.0 Type A
Storage	64GB eMMC Storage		2 x HDMI Output
			1 x 3G-SDI Output
DISPLAY			1 x DC Power Input
Screen Size	15.6'' Full HD LCD Display	Button	Power On/Off
Resolution	1920 x 1080		Optional On-screen Buttons
Brightness	350-nit Brightness with LED Backlight		
Touch Screen	Capacitive 10-Point Multi-Touch	MECHANICAL	
	High-strength Hardened Glass	Dimensions	391 x 255 x 37.5 mm
Image Sensors	OV6946 (400 x 400), OV6948 (200 x 200),	Kickstand	180-degree Rotatable Kickstand
	OV9734 (1280 x 800), OH01A (400 x 400),	Mounting	VESA 100 x 100 mm Mounting Compatibility
	OV2740 (1920 x 1080), OC0SA10 (400 x 400),		
	OCHTA10 (400 × 400), OCHFA10 (400 × 400),	ENVIRONMENTAL	
	OCH02B10 (400 × 400)	Temperature:	
COMMUNICATIONS		- Operation	0°C to 45°C
		- Storage	-20°C to 65°C
Ethernet	1 x RJ45 10/100/1000M	Humidity	30% to 85% (Non-condensing)
Wi-Fi	Dual-band IEEE 802.11 a/b/g/n/ac (2.4GHz & 5GHz)	Atmospheric Pressure	80-106kPa
Bluetooth	Bluetooth 5.2	Altitude	≤ 2000 m
POWER			
AC Adapter	100-240V AC input, 1.0-2.0A, 50-60Hz		
	19V, 3.43A DC Output		
Battery	14.4V, 6500 mAh, 93.6 Wh Lithium-ion Battery		

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Reset Button

Speaker

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15.6" PORTABLE ENDOSCOPY SYSTEM | EN-150

DIMENSIONS AND SYSTEM LAYOUT



MULTIPLE USE SCENARIOS



180° Rotatable Flip





Can be Served as a Kickstand

SUPPORT ENDOSCOPE AND HANDLE FROM VARIOUS MANUFACTURERS





Support Different Endoscope and Handles (Directional Control, Lens Bending Adjustment, Self-locking Function,

Image Adjustment, Camera Module Control, Illumination Control, Customizable Function Buttons, Suction and Irrigation, Data Transmission and Storage)

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OSD MENU FUNCTIONS

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Image Adjustment & Enhancement		Color & Gain Control	
Light Source	10 adjustable levels	Red Gain	Adjustable from 0 to 100
Brightness	Adjustable from 0 to 100	Green Gain	Adjustable from 0 to 100
Contrast	Adjustable from 0 to 100	Blue Gain	Adjustable from 0 to 100
Saturation	Adjustable from 0 to 100	Automatic Gain Control	Options: Average Gain, Peak Gain
Sharpness	Adjustable from 0 to 15	(AGC) Mode	
Gamma Level	Adjustable from 0 to 15	AGC Level	Adjustable from 0 to 100
VET Level	Adjustable from 0 to 3	Automatic Gain Target	Attenuation area selection: Levels 0–3
3D Noise Reduction	Levels 0–3, Automatic	(AGT) Window	
Noise Reduction	Adjustable from 0 to 5	Gain Level	Adjustable from 0 to 15
Display Customizatio	on & Orientation	Advanced Processing &	Correction
Zoom	Options: X1, X2, X3	Lens Shading Correction	Adjustable from 0 to 15
Image Flip	Options: Normal, Vertical Flip, Horizontal Flip,	(LSC)	
	180° Rotation (Not available for OV6946,	Light Intensity Limit	Adjustable from 0 to 15
	OV6948, OCHTA10)	Low-Light Gain	Adjustable from 0 to 15
Image Border Mode	Options: Default, Soft Edge, Hard Edge	Haze Reduction	Options: Disabled, Low, Medium, High
Language	Available in English and Chinese		

FPGA-POWERED IMAGE PROCESSING ADVANTAGES

- Advanced Image Enhancement Supports image preprocessing, color correction, noise reduction, and edge enhancement for superior visual clarity.
- Customizable Image Settings Adjustable brightness, RGB saturation, sharpness, gamma correction, and magnification for optimized viewing based on clinical needs.
- High-Speed Parallel Processing Ensures real-time, low-latency performance, meeting the stringent demands of surgical and diagnostic imaging applications.
- Flexible and Programmable Enables custom image processing algorithms, supporting wide dynamic range, low-light enhancement, and specialized medical imaging techniques.

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