

GE Healthcare

# Vscan™



Vscan is a pocket size visualization tool providing black and white anatomic and color-coded blood flow images in real-time. It can easily be integrated into physical examinations allowing physicians to add a visual inspection into the body. The images are generated based on ultrasound technology.

Vscan is handheld and helps to enable personalized use at the point of care. It will be used by physicians, as well as possibly nurses, paramedics or even medical students under the supervision/prescription of a physician who are interested in enhancing the way patient examinations are done today.

## Dimensions and Weight

- Display unit: 135 x 73 x 28 mm
- Probe: 120 x 33 x 26 mm
- Weight (unit and probe): 390 g
- Display: 3.5 inch, 240 x 320 pixels resolution

## Imaging

- Black and white mode for displaying anatomy in real-time
- Color-coded overlay for real-time blood flow imaging
- Field-of-view for black and white imaging: up to 75 degrees with maximum depth of 25 cm
- The color flow sector represents blood flow within an angle of 30 degrees
- Broad-bandwidth phased array probe: from 1.7 to 3.8 MHz
- Total scan time of one hour with fully charged battery

## User Interface

- The navigation wheel provides an intuitive user interface with minimal manual controls
- AutoOptimize adjusts gain for all depths automatically
- AutoCycle automatically detects full heart cycle for easy and fast review or storage
- Presets simplify optimized settings for imaging different organs
- Voice recordings can be stored as part of each examination – loudspeaker allows replay from device

## Clinical Applications

- Cardiac
- Abdomen
- Urinary bladder
- Obstetrics and gynecology
- Pediatric

- Selected peripheral vascular applications
- Thoracic/pleural fluid and motion detection

## Measurements

- Distance measurement on-board of Vscan device
- Distance and area measurements at PC with Vscan gateway software installed

## Data Storage

- Vscan data are stored on microSD or microSDHC card upgradeable to 32 GB
- Data are stored in generic formats: jpg for still frames, mpg for loops, wav for voice recordings
- Data are stored in examination folders
- All data can be recalled via gallery function

## Docking and Charger Station

- The display and control unit can easily be slid into docking station utilizing immediately the two connections provided
  - Universal power supply with 100-240 V~ 50/60 Hz and global plugs (NEMA, BS, AS/NZS, Europlug)
  - USB connection to PC (USB 2.0)
- Separate holder for convenient placement of probe
- Recharge time for device battery: 1 hour for 90% battery capacity

## Vscan Gateway Software\*

The Vscan device comes with its own PC software which provides a gateway between Vscan, customers' PC tools and GE hotline service.

- Any stored Vscan data can be viewed and interpreted at PC
- Basic distance and area measurements
- Images with those measurements can be stored back onto the device into the original exam folder
- Offline adjustment of contrast and brightness settings
- Patient data like name, ID, birth date can be added to exam information
- Image annotation
- Video controls for clips like play and pause, or back and forward stepping
- Playback of recorded audio files
- Data export into Microsoft Outlook e-mails, to hard disk, any compatible media or shared folders in network for long-term storage or easy access to other applications
- Exports can be executed for selected images or selected exams

- Folders can be mounted for deploying gateway tools on stored data
- Fast data finding with filter or sort function for exam date, patient name or ID
- Vscan and gateway software diagnostic tools
- Software updates for the gateway software and the Vscan device can automatically be offered if the PC with installed gateway software is connected to internet
- With internet connection, GE's service hotline is online available – remote diagnostics and even update installations can be enabled

\* **PC Requirements for Installing Vscan Gateway Software**

- 32-bit Windows OS: Windows XP SP2 or Vista
- CPU: Pentium 4 (2.4 GHz) or Pentium M (1.6 GHz)
- RAM: 1 GB
- Disk space: 700 MB on system partition; 200 MB on partition where program is installed
- Graphic minimum resolution: 1024 x 768
- Audio output for loudspeakers or earphones
- USB: At least one USB port available
- Pointing device mouse with left and right buttons
- Alphanumeric keyboard
- CD/DVD player
- Installed software: Windows Media Player version 10 or higher, Adobe Acrobat Reader 4.0 or higher (for on-line help function), Internet Explorer version 7 or higher, Microsoft Outlook (for sending e-mail from Vscan gateway software)
- Graphics board: DirectX 9.0c compatible

**Vscan Web Portal**

- Vscan customers can register at Vscan portal which entitles them to full content including training materials for product and clinical applications
- Especially non-traditional ultrasound users will benefit from provided online education how to apply Vscan in different clinical situations
- Animation rich educational material
- Each training module includes information about basic anatomy, recommendations for probe placement, and imaging and pathology
- Device and gateway software registration will provide product activation codes. With the supplied customer information, GE is enabled to secure requested maintenance or to submit desired information
- Tips, news, contact information

**Standard Configuration**

Following components are included in standard configuration:

- Vscan scanner with probe
- Docking station
- USB cable
- 4 GB Micro-SD memory card
- One rechargeable battery
- Global AC adapter with interchangeable plugs (USA and China, EU, UK, Australia)
- Soft case/protection case
- Access to Vscan web portal with entitlement to full online education package
- Vscan gateway software
- Gel (60 g bottle)

**Safety Conformance**

Safety classification:

- Vscan is an internally powered device with type BF applied part, according to clause 14 of IEC60601-1:1988
- Its AC adapter is class II device, according to clause 14 of IEC60601-1:1988

Vscan and accessories meet:

- EMC requirements of EN55011/A1/A2:2002 Class B
- IEC60601-2-37/A1/A2:2005
- IEC60601-1/A1/A2:1995
- IEC60601-1-1:2000
- IEC60601-1-2/A1:2004
- IEC60601-1-4 /A1:1999
- IEC60601-1-6:2006
- UL60601-1:2003
- CAN/CSA C22.2 No 601.1-M90
- NEMA UD3:2004
- European Medical Devices Directive (MDD) 93/42/EEC as amended by 2007/47/EC (CE Mark)

*Product not available in all geographies.*

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## Healthcare Re-imagined

GE is dedicated to helping you transform healthcare delivery by driving critical breakthroughs in biology and technology. Our expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, and biopharmaceutical manufacturing technologies is enabling healthcare professionals around the world to discover new ways to predict, diagnose and treat disease earlier. We call this model of care “Early Health.” The goal: to help clinicians detect disease earlier, access more information and intervene earlier with more targeted treatments, so they can help their patients live their lives to the fullest. Re-think, Re-discover, Re-invent, Re-imagine.

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imagination at work