

GE Healthcare

# Vscan\*



Version 1.2

Vscan is a pocket-sized 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 pocket-sized 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.

The pocket-sized device is complemented with Vscan gateway software enabling image management at customers' PC, a Vscan web portal, including online access to product and clinical information.

## Vscan Device

*Product not available in all geographies.*

### 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 inches, 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 24 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 90 minutes with fully charged battery (with 80% black and white, 20% color imaging)

### User Interface

- The navigation wheel with minimized number of keys provides an intuitive thumb-controllable user interface
- 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
- Abdominal
- Urology
- Fetal/OB
- Pediatric
- Selected peripheral vascular applications
- Thoracic/pleural motion and fluid 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 be easily slid into docking station utilizing the two connections provided
  - Universal power supply with 100-240 V~ 50/60 Hz and global plugs enabling recharge of docked device
  - USB connection to PC
- 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's service hotline.

- Stored Vscan data can be viewed and interpreted on 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, including name, ID, birth date, or comments, can be added to exam information
- Image annotation
- Video controls for clips such as play and pause, or back and forward stepping
- Playback of recorded audio files

- Data export into Microsoft Outlook e-mail, 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
- Export to pdf file with patient demographics, exam comments and selected images, which can be used as simple electronic report and/or further printout
- 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 may immediately be available 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**

##### **Operating system:**

- Windows 7 or Windows 8
- 32-bit and 64-bit versions are supported
- Windows 7 running in VMware Virtualization Software on Mac OS X 10.6

##### **Minimum hardware configuration:**

- 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 resolution: 1024 x 768
- Graphics board: DirectX 9.0c compatible
- Audio output for loudspeakers or earphones
- 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)

## **Vscan Web Portal**

- Vscan customers can register for full content access of the Vscan portal
- Online services to enhance Vscan experience by providing resources from product information to clinical and service support
- Vscan-specific application and product education, including an interactive basic ultrasound anatomy section, suggestions for probe placement, and example images

- Additional education resources will be posted on Vscan web portal, including webinars, further online programs and training opportunities

## **Standard Configuration**

Following components are included in standard configuration:

- Vscan scanner with probe
- Docking station including:
  - Global AC adapter with interchangeable plugs (USA and China, EU, UK, Australia)
  - USB cable
- Vscan gateway software
- One rechargeable battery
- 4 GB microSD memory card
- Soft case/protection case
- Access to Vscan web portal with entitlement to full online education package
- Gel (60 g bottle) (not available in all countries)

## **Selected Optional Accessories**

- Carrying case
- Separate battery charger

## **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
- IEC60601-2-37:2001/A1:2004/A2:2005
- IEC60601-2-37:2007
- IEC60601-1:1998/A1:1991/A2:1995
- IEC60601-1-1:2000
- IEC60601-1:2005
- IEC60601-1-2:2007
- IEC60601-1-4:1996/A1:1999
- IEC60601-1-6:2006
- UL60601-1: 2003
- CAN/CSA C22.2 NO601.1-M90
- NEMA UD-2:2004, Rev. 3
- NEMA UD-3:2004, Rev. 2
- The European Medical Devices Directive (MDD) 93/42/EEC (CE Mark)
- ISO10993-1:2009

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