



**EMP**<sup>®</sup>  
**Shenzhen Emperor Electronic Technology Co.,Ltd.**

Add: 2/F, Building7, Tian'an Nanyou Industrial Area, Nanshan District, Shenzhen 518054, China  
 Tel: +86-755-26051664 26415597 Fax: +86-755-26073886 26419886  
 E-mail: [business@china-emperor.com](mailto:business@china-emperor.com) [Http://www.china-emperor.com](http://www.china-emperor.com)



We reserve the right to make modifications without prior notification.

DISTRIBUTOR

EN.G30 Vet.201112

# G30 Vet

Hand-carried  
 Color Doppler Veterinary  
 Ultrasound System



**EMP**<sup>®</sup>  
 Emperor Medical



**G30Vet** is a compact veterinary color doppler system. G30Vet has professional measurement & calculation packages, specialized veterinary exam modes, bodymarks, and high density transducers for veterinary application. These enable veterinarians to diagnose in anytime and anywhere with great confidence.

Exquisite imaging with advanced technologies for better contrast and spatial resolution.

• **AIME:** Adaptive Image Micro-environment Enhancement. By reducing and eliminating the appearance of speckle echoes. AIME suppresses the noise and enhances contrast resolution to improve image uniformity .

• **SCAC:** Self-adaptive Color Artifact Clearance suppresses the noise caused by probe movement and patients' breath to deliver higher quality images. SCAC heightens tissue visibility and lesion visualization with improved, high-definition contrast resolution.

• **THI:** Tissue Harmonic Imaging enhances contrast resolution by receiving the second harmonic frequency of the tissue reflected signals while filtering other reflects.

• **TSI:** Tissue Specific Imaging automatically optimizes transducers to match the exam type for brilliantly clear imaging.

Ultimate mobility enables G30Vet an ideal solution for quick responses where performance counts.



Canine-GW, EDCB (GSD, CRL, HD, BD)



Swine-GW, EDCB (HL, SL)



Feline-GW, EDCB (HD, BD)



Bovine-GW, EDCB (CRL, BBD, BTD, BUD)



Equine-GW, EDCB (GSD, ERD, ESD, EED)



Sheep-GW, EDCB (CRL)

Numerous clinical measurement and calculation software packages satisfies your exceptional clinical demands.

The highly intuitive layout clusters 95 percent of your most frequently-used keys around the trackball. Radiologists are able to pay more attention to the patient with EMP's ergonomic design. EMP's one-touch design reduces at least 70% of operation time and increase diagnostic efficiency.



• One-touch information management keys

• One-touch imaging mode switching keys



- 15" LCD monitor with over 150° viewing angle
- Backlit control keys and Qwerty keyboard
- Low fan noise and heat
- 4 wheels swivel multi-functional trolley cart
- 3 probe connectors (with expanding transducer connectors)
- 4 USB ports
- Extended interface
- DICOM 3.0
- DVD-RW

Back view



1. Electronic Convex Transducer (2.5/3.5/5.0MHz, Standard)
2. Electronic Linear Transducer (6.5/7.5/9.0MHz, Standard)
3. Electronic Endorectal Transducer (5.0/6.5/7.5MHz, Optional)
4. Electronic Micro Convex Transducer (2.5/3.5/4.0/5.0MHz, Optional)
5. Electronic Micro Convex Transducer (5.0/6.5/8.0MHz, Optional)

## Performance Index

- Weight (portable color Doppler Ultrasound): less than 5kg.
- Working time of the battery (portable color Doppler Ultrasound): no less than 2h.
- 32 A/D sampling channels。
- 256 image gray scale。
- Display depth: 21 levels adjustments.
- Max. display depth: 320mm.
- Density of scanning lines: max. 256 line/frame.
- Max. frame frequency:  $\geq 30$ f/s.
- Optional probes:

Table 1

Probe Model	Type	Frequency (MHz)
35C50L	128 element, convex probe, R50, 72°	Central frequency: 3.5; 2.0/2.5/3.0/3.5/4.0/4.5/5.0 (registration test) 2.5/3.5/5.0 (convention and CE certification)
70L40J	128 element, linear probe, the width of acoustic window: 40mm	Central frequency: 7.0 5.0/6.5/7.5/9.0 (registration test) 6.5/7.5/9.0 (convention and CE certification)
70L60J	128 element, linear probe, the width of acoustic window: 60mm	Central frequency: 7.0 5.0/6.5/7.5/9.0 (registration test) 6.5/7.5/9.0 (convention and CE certification)
90L40J	128 element, linear probe, the width of acoustic window: 40mm	Central frequency: 9.0 7.5/9.0/10/12 (registration test) 7.5/9.0/12 (convention and CE certification)
65C10L	128 element, transvaginal probe, R10, 150°	Central frequency: 6.5 5.0/6.5/7.5 (registration, convention and CE certification)
35C20I	96 element, micro-convex probe, R20, 90°	Central frequency: 3.5 2.5/3.5/4.0/5.0 (registration, convention and

		CE certification)
65C15E	80 element, micro-convex probe, R15, 98°	Central frequency: 6.5 5.0/6.5/8.0 (registration, convention and CE certification)
27P20 A	64 element, phased array probe, the width of acoustic window: 20mm	2.4/4.2 (registration, convention and CE certification)

## Function

### General Function

- a) 1 probe connector, extendable to 3 connectors with an adaptor; it can be equipped with multi-frequency convex probe, linear probe, micro-convex probe, phased array probe and transvaginal probe.
- b) Monitor: ≥15" high-resolution color LED monitor;
- c) Weighting emission and multi-beamforming, Equipped with more than 4 beam-former function
- d) Equipped with THI (Tissue Harmonic Imaging), and second digital THI function
- e) Equipped with TSI (Tissue Specific Imaging) function
- f) The scanning modes are including 2D (2D ultrasound scanning diagnostic method), M (time motion, M mode diagnostic method), PW (Pulsed Wave Doppler), CFM (Color Flow Mapping), PDI (Power Doppler Imaging), CW
- g) Different frequencies are selected for 2D image and color image.
- h) Equipped with biopsy guide line, guide by convex probe, linear probe, micro convex probe and transvaginal probe; the position of the biopsy guide line can be corrected.
- i) Dual-direction cine-loop no less than 1024 frames, both auto-replay and cine loop display frame by frame, freely controlled by the operator; at least 10000 images can be saved in the host permanently.
- j) Massive image store (related with configured hard disk, no less than 320G).
- k) Equipped with at least 100 types of body marks, the probe position and scanning direction can be shown with arrow.
- l) DVD-RW multisession, storing and transferring images with USB connector.

m) Support to U-disk, for software updating (striving for online update)and storing or loading images.

n) Connect 3G/Wi-Fi communication module by USB connector, supporting wireless communication.

### **Function of 2D Gray Scale Image**

- ◆ 256 image gray scale
- ◆ 30dB to 150dB visual adjustable dynamic range.
- ◆ 0dB to 100dB visual adjustable main gain.
- ◆ 8 TGC adjustments.
- ◆ M-speed: 8 levels adjustments.
- ◆ Maximum display depth of convex probe is no less than 300mm, more than 20 levels adjustments.
- ◆ Equipped with partial zoom in, picture in picture function, no less than 4 enlargement ratio.
- ◆ Picture can display Freeze/ Unfreeze, Left-right reverse, Up-down reverse, Polarity reverse, picture rotation (90°/270°) , chroma (pseudo-color).

### **Doppler Spectrum**

- ◆ Sample volume range 0.5mm to 20.0mm.
- ◆ Angle correction range  $\pm 85^\circ$ .
- ◆ Scale display range 1mm/s to 15m/s.
- ◆ Deflection angle range of sample volume  $\pm 15^\circ$  (only applied for linear probe).
- ◆ Wall filter 8 levels adjustments.
- ◆ No less than 6 adjustments of spectrum speed.
- ◆ 16 adjustments of spectrum dynamic range.

- ◆ Display control: inverse-frequency spectrum, baseline shift, pseudo-color.
- ◆ PW gain 0 to 100dB.

### **Color Doppler**

- ◆ Sample box, maximum width to the whole 2D image, support B/C with the same width.
- ◆ Reflection angle range of sample volume  $\pm 15^\circ$  (only applied for linear probe).
- ◆ No less than 10 levels adjustment of color sensitive adjustment.
- ◆ Color gain 0 to 100dB.

### **Measurement and Calculation**

General measurement, measurement and calculation software packages of obstetrics, gynecology, orthopedics, adult and fetus ultrasound, abdomen, urology, small organs, blood vessel.

### **Pre-setting Function**

- ◆ Support probe and image parameters preset under each inspection model.
- ◆ Preset of comment terms and obstetric calculate methods.
- ◆ Support multi-languages operation and inputting, including Chinese, English, Spanish, Russian, German.
- ◆ Multi-language navigation operating system.
- ◆ Automatic optimization function to optimize images in real time.

### **Built-in Workstation**

- ◆ Directly form diagnostic report based on measurement results.
- ◆ Store image through internal hard disk and USB storage.
- ◆ Support text and photo printing function.
- ◆ Support video printing function.

## **Web Transmit Function: Support DICOM 3.0**

### **Peripheral Device**

- ◆ Photo and text printer.
- ◆ Video printer.
- ◆ USB 2.0 mobile storage device.

### **Hardware Interface**

Probe connector: one (extendable to 3 connectors with an adaptor);

Equipotential pole: 1;

Input/ output interface:

DICOM interface: 1 RJ45 network interface;

USB connectors: 4;

SD card connector: 1;

Input interface:

DC power supply connector: 1;

Audio input connector: 1 (standard MIC3.5mm socket);

Video input connector: 1 (BNC socket);

ECG connector: 1 (digital signal input);

Output interface:

Footswitch connector: 1 (DB-9P socket)

Composite video (PAL/NTSC) output connector: 1 (BNC socket);

Audio output connector: 1 (standard 3.5mm earphone socket);

RS232 connector: 1 (DB-9S socket);

VGA connector: 1;

S-video connector: 1;

External printer control interface: 1;

DVI interface: 1.