CCB-C900 V3.0 （CF540） 3D/4D Color Doppler Ultrasound Machine

MODEL	CCB-C900 3.0 VERSION
Computer specs	Windows 8 Embedded operation system (CN,EN language) 19’’ medical monitor(1280*1024)+10.4’’ touch monitor Intel i5 processor 4G RAM 120G SSD+500G HDD
Weight/Dimension	119KG/97*69*141cm
Imaging Modes	2D, 3D, 4D, Color/PW/CW/Power/Directional Color Power Doppler, Tissue Doppler, Color M-Mode, Free Steering (Anatomical) M-Mode
Features	Compound Imaging, Speckle Reduction Imaging, Tissue Harmonics Imaging, 4D, Automatic Image Optimization, Tissue Doppler, Image optimization, Multi-Beam, IMT, Trapezoidal imaging iBank database
DICOM Modes	Store, Print, Working list, Storage Commitment, Structured Reports
Export Options	DICOM, Ethernet, JPG/BMP/PNG,AVI, Network Storage, USB Memory Stick. USB DVD/CD+R(W)
Input/Output	VGA, 2 USB Ports, Ethernet, Dicom, Built-in speakers
Transducer Types	Convex, Cardiac, Linear,Micro Convex, 4D Volume and trans-vaginal probe
Applications	Abdominal, OB/GYN, Urology, Cardiac, Vascular, Small Parts, Pediatric, MSK
Probe Ports	4 Active
Cine Memory	>10 seconds, 750frames

Main specifications and system overview

Device function configuration:

1) Imaging mode: Triple-synchronization, trapezoidal imaging
2) Full-digital 2D gray-scale imaging
3) Color Doppler flow imaging
4) Directional color energy Doppler imaging
5) Pulse Wave Doppler (PW) imaging
6) Continuous Wave Doppler (CW) imaging
7) Spatial composite imaging
8) Trapezoidal imaging
9) Wide area imaging
10)High Resolution Composite Imaging Technology
11) Tissue harmonic imaging (THI) technology
(support for abdominal, heart, high frequency and intracavitary probe)
12) Adaptive speckle suppression technology
13) Linear probe trapezoidal imaging technology
14) Convex array probe widening angle imaging technology
15) 2D, color, Doppler mode automatic optimization adjustment technology
16) Real-time triple synchronization
17) Intelligent picture-in-picture imaging mode (PIP)
18) Real-time 3D imaging mode
19) Rich package standard, in addition to the general measurement software package, its standard configuration also equipped with a wealth of peripheral blood vessels, gynecology, obstetrics, cardiology, urology, neonatal, orthopedic and other measurement and blood flow analysis package, to well meet the clinical needs.
20) The size and color of the measurement cursor can be adjustable
21) Measurement results display position, display color, font color can be adjustable
22) Built-in E-COM graphic management system: 560GB memory, can edit the Chinese / English ultrasound diagnostic report, embedded in the report of ultrasound diagnostic images, and direct storage, print, callback, query, built-in DVD burner and USB interface
23) Display: 19-inch high-resolution high-brightness ultrasound dedicated LCD monitor + 10-inch color LCD touch screen
24) The operation panel can be adjusted around the left and right ≥90 °, the implementation of the diagnosis of doctors and patients to share.
25) Probe socket ≥ 4, full active, to meet the application for general hospital use.
26) Stored images can be displayed directly on the display interface, dump to the flash disk and other storage devices.

Applications: abdominal, urology, obstetrics and gynecology, pediatrics / neonatal, superficial structure / small organs, musculoskeletal, cardiac and so on.

Main technical parameters:

1. 2D imaging mode:

1.1 Gray scale: 256 level
1.2 Gray scale map: ≥ 16 level, adjustable and visible
1.3 Dynamic range 20-280dB, adjustable and visible
1.4 Resolution: horizontal ≤ 1mm; vertical ≤ 0.5mm
1.5 Under B mode, the number of focal points: 1-6 focus for options, the focus position continuously

adjustable
1.6 STC segment gain adjustment ≥ 8 segments
1.7 Tissue harmonic imaging: harmonic frequency ≥ 2
1.8 Ultrasonic line density: ≥ 256 Ultrasonic line can be adjustable
1.9 Preset conditions: ≥40 kinds, the user can customize the different organs to optimize the image of the pre-check conditions
1.10 Max scanning depth: ≥ 31.5cm, adjustable and visible
1.11 Scanning angle: ≥ 150 °, adjustable and visible
1.12 Wide image: support small organ probe
1.13 Adaptive speckle suppression: 0-100 adjustable.
1.14 Zoom function: the overall amplification, local amplification, M-type amplification (dynamic, frozen state can be interested in the region to do M-type sampling amplification)
1.15 Cine loop: ≥4800 frames
2. Color flow imaging mode:
2.1 Color gain: adjustable
2.2 Color frequency can be adjustable: ≥ 3 species
2.3 Sampling box: size and position adjustable
2.4 Color flow deflection ≥ 3 kinds of angle adjustable
2.5 Color map: 1-9 level
2.6 Color afterglow: 0-6 level
2.7 B / C split screen display
3. Energy Chart:
3.1 Directional Energy Chart
3.2 Energy Chart Gain: Adjustable
3.3 B / C split screen display
3.4 Energy Map: Level 1-8
3.5 Energy afterglow: 0-6 level
4. Doppler mode:
4.1 With Pulse Wave Doppler (PW) and Continuous Wave Doppler (CW)
4.2 PW blood flow measurement speed: the min measurable speed ≤ 0.2 cm / s, the max measurable speed ≥ 1500cm / s
4.3 CW blood flow measurement speed: the min measurable speed ≤ 0.6cm / s, the max measurable speed ≥ 7000cm / s

4.4 Sampling volume size: 1mm-40mm, adjustable
4.5 Sampling angle correction: -80-80 degrees
4.6 Spectrum gain: adjustable
4.7 PW Doppler frequency: ≥ 3 kinds, CW Doppler frequency: ≥ 15 kinds, can be adjustable
Real - time automatic Doppler envelope mapping and automatic measurement and analysis
4.8 Baseline: Zero shift adjustable
4.9 Scanning speed: adjustable
5. Measurement and analysis:
5.1 General measurements
5.2 OB&GYN measurements

5.3 Cardiac function measurement and analysis
5.4 Doppler flow measurement and analysis
5.5 Peripheral vascular measurement and analysis
5.6 Urology measurement and analysis
5.7 Orthopedic measurement and analysis
5.8 Automatic Doppler Flow Measurement and analysis
5.9 Number of user-programmable protocols, user-programmable formulas and tables.
5.10 Obstetric measurements: weight measurement formula ≥ 8 kinds of optional

6. Built-in graphic management system

6.1 You can edit the diagnostic report, embed the ultrasound diagnostic image in the report, and print directly
6.2 storage image format ≥ 4 kinds
6.3 DVD drive storage: readable and writable
6.4 input / output interface: VGA interface, video output input interface, S-video, parallel print interface, DICOM 3.0, USB

Probe configurations:

1. Abdomen convex array probe frequency: 2.0-5.0MHZ (frequency, harmonic frequency ≥ 5), the probe scanning angle of 20 ° ~ 85 °, adjustable visual.
2. linear array of small organs probe frequency: 6.0-12.0 MHZ (frequency, harmonic frequency ≥ 4). Probe scanning with trapezoidal imaging technology and two - dimensional beam deflection technology
3. the vaginal cavity probe frequency: Yin Chao probe 5.0-9.0MHZ (frequency, harmonic frequency ≥ 2) probe scanning angle 20 ° ~ 160 ° adjustable.
4. real-time three-dimensional (4D) volume probe: frequency: 2.0-6.0MHz, 4-band frequency adjustable.
5. the heart probe: frequency: 2.5-4.0MHz, 3-band frequency adjustable.

Probe configuration details:

Convex probe:

Frequency: 2.5, 3, 3.5, 4, H4, H5MHz
Power:5-100% (arithmetic progression of 5: 5,10,15...100)
Gain:0-100
Dynamic range: 20-280% (geometric progression of 2 start from 20: 20,40,60...280)
Gray map:0-7
Frame correlation:0-4
Filtering:0-4

Image denoising:0-14
Scanning depth:3-27.3cm
Body mark:17
Scanning range:50-100% (arithmetic progression of 10 start from 50: 50,60,70...100)
Focus point:6
Pseudo color map :0-11
Linear density:64,128,256
TSI: normal, fat, fluid, muscle
Reversal:up/down, left/right
Compound frequency: on/off
Automatic optimization: on/off
Space compound: on/off

Trans-vaginal probe:
Frequency: 4.5, 6.0, 7.0, 9.0, h8.0MHz
Power:5-100% (arithmetic progression of 5: 5,10,15...100)
Gain:0-100
Dynamic range: 20-280% (geometric progression of 2 start from 20: 20,40,60...280)
Gray map:0-7
Frame correlation:0-4
Filtering:0-4
Image denoising:0-14
Scanning depth:3-11.1cm
Body mark:26
Scanning range:50-100% (arithmetic progression of 10 start from 50: 50,60,70...100)
Focus point:6
Pseudo color map :0-11
Linear density:64,128,256
TSI: normal, fat, fluid, muscle
Reversal:up/down, left/right
Compound frequency: on/off
Automatic optimization: on/off
Space compound: on/off

4D Volume probe:
Frequency: 2, 3, 4.5, 6, H5 MHz
Power:5-100% (arithmetic progression of 5: 5,10,15...100)
Gain:0-100
Dynamic range: 20-280% (geometric progression of 2 start from 20: 20,40,60...280)
Gray map:0-7
Frame correlation:0-4
Filtering:0-4
Image denoising:0-14
Scanning depth:3-27.3cm
Body mark:7
Scanning range:50-100% (arithmetic progression of 10 start from 50: 50,60,70...100)
Focus point: 6

Pseudo color map :0-11
Linear density:64,128,256

Linear probe:
Frequency: 6, 7.5, 8.5, 10, H10 MHz
Power:5-100% (arithmetic progression of 5: 5,10,15...100)
Gain:0-100
Dynamic range: 20-280% (geometric progression of 2 start from 20: 20,40,60...280)
Gray map:0-7
Frame correlation:0-4
Filtering:0-4
Image denoising:0-14
Scanning depth:2-11cm
Body mark:13
Scanning range:50-100% (arithmetic progression of 10 start from 50: 50,60,70...100)
Focus point:5
Pseudo color map :0-11
Linear density:64,128,256
TSI: normal, fat, fluid, muscle
Reversal:up/down, left/right
Steering: left/right
Trapezoid Imaging: on/off
Compound frequency: on/off
Automatic optimization: on/off
Space compound: on/off

Cardiac probe:
Frequency: 2.5, 3, 3.5, 4, H3, H4 MHz
Power:5-100% (arithmetic progression of 5: 5,10,15...100)
Gain:0-100
Dynamic range: 20-280% (geometric progression of 2 start from 20: 20,40,60...280)
Gray map:0-7
Frame correlation:0-4
Filtering:0-4
Image denoising:0-14
Scanning depth:3-27.3cm
Body mark:7
Scanning range:50-100% (arithmetic progression of 10 start from 50: 50,60,70...100)
Focus point: 5
Pseudo color map :0-11
Linear density:64,128,256
TSI: normal, fat, fluid, muscle
Reversal:up/down, left/right
Compound frequency: on/off
Automatic optimization: on/off
Space compound: on/off

Micro-convex for pediatric C5-9R10
Central frequency 7.0MHz
multi-frequency: H8.0， 9.0， 7.0， 6.0， 4.5MHz

Micro-convex probe for adult C25R20
central frequency 5.0MHz
multi-frequency: H5.0， H4.0， 5.0， 4.0， 3.5， 2.0MHz

Trans-vaginal probe
multi-frequency: 4.5, 6.0, 7.0, 9.0，H8.0MHz