

The CBS-USB Module is a compact and robust Doppler system. It is characterised by its Doppler quality and its compatible, flexible and modular operation. The CBS-USB Module provides 2, 4 and 8 MHz transducers to perform all clinical routine and monitoring examinations and it is also suitable for use for emboli detection; all at a reasonable price.

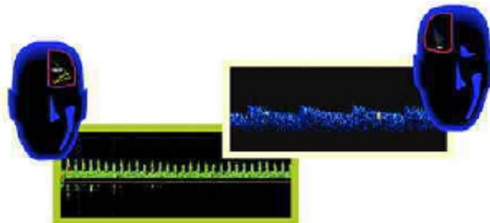
The CBS-USB Module offers single channel, dual channels, multi gate 'M' mode, emboli detection and many more functions. It also provides improved accuracy, reliability and a new powerful database. The report generator can make a report in either Microsoft word or PDF format.

Multi Gate M-mode

The CBS-USB module produces a powerful, high resolution M-mode display with Doppler signals displayed along the ultrasound beam at varying gates (32 gates). This makes it possible to simultaneously receive and analyse Doppler signals from a predefined range of depths.

The Doppler M-mode display shows the intensity, direction and depth information continuously and in real time. It provides an excellent graphical display of blood flow in all vessels located in the sound beam. The Doppler M-mode display allows users to easily move through the entire range of depths therefore making it easy for them to select the best Doppler signals and gather the most relevant clinic data.

The software has a clearly structured and intuitive user interface. The combination of freely configurable equipment settings, automatic routine configuration software and the easily generated reports provides optimal conditions for doctors to work quickly and efficiently.



Emboli detection

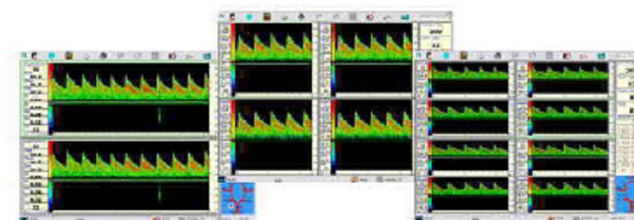
Emboli detection is very important in the early detection of vessel disease. The Doppler ultrasound technique is one of the common methods to detect the emboli non-invasively. The CBS-USB Module's advanced emboli detection algorithms provide a high degree of accuracy. Doctors can use the software tools to make their own advanced assessment easily. When using M-mode, the module allows Doctors to view the audio signal and actually see the emboli move from segment to segment.

Single Channel & Dual Channel Working Mode

The CBS-USB Module provides single and dual channel multi depth working modes to meet the needs of different applications.

Dual channel working mode; Two probes detect multiple vessels with various gates for comparing both the left and right side at the same time. This option is useful for use on critical patients and for research purposes.

Both single and dual channel working modes can display dual, four and eight spectrums.

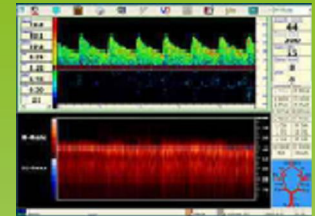


Dual Spectrums

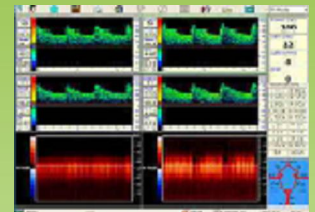
Four Spectrums

Eight Spectrums

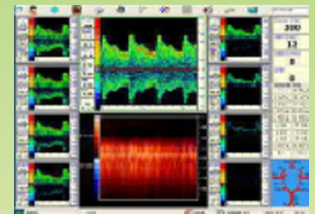
Working Modes



Single spectrum M-mode



Bilateral four spectrum M-mode



Eight spectrum M-mode



Size and Weight

Size: 318 x 89 x 161 mm
 Weight: 3.1 Kg

Power Supply

Voltage: 100—240 VAC
 Frequency: 50—60 Hz
 PMax: 60 VA
 Fuse: 2 x T1.6AL / 250V. 5mm dia x 20mm

Single Interface: USB port; Standard B series connector. Supports USB2.0 & USB1.1

Range & Accuracy of Clinical Parameters

2MHz PW

Frequency Range: 10—15 Hz
 Velocity Range: Up to 590 cm/s
 Accuracy: +/- 10%

4MHz CW

Frequency Range: 10—30Hz
 Velocity Range: Up to 590 cm/s
 Accuracy: +/- 10%

8MHz CW

Frequency Range: 10—30 Hz
 Velocity Range: Up to 290 cm/s
 Accuracy: +/- 10%

System Requirements

Processor: Pentium 4 , 2.8G or better
 RAM: DDR 512MB or better
 Hard Disk: Minimum 80GB
 Input and Output Ports: At least 1 x USB2.0
 Printer: Colour inkjet

Database

Type: Standard access database
 Operation: View. Edit (update). Delete. Search. Statistic for patient and exam information
 Spectrum Replay: Spectrum saved to database can be loaded, printed and replayed

System Parameters

M-Mode Display: 32 gates
 Multi-Depth: Simultaneous display of up to 8 spectrums per probe
 2MHz PW Depth Range: 20—177 mm. Adjustment of 2 mm
 1MHz / 2MHz PW Gate Range: 4—20 mm with 1mm steps
 Gain: 0—40 dB with 1dB steps
 Power: PW 10—700% / CW 10—40%
 DNR: 0—8 level with steps of 1
 Filter: 50, 100, 200, 400, 600, 800Hz. Optional filtering out of very low frequency signals
 Spectrum Display Colours: 256 colours with 6 medical coding schemes
 FFT: 128, 256

Data Analysis

Hard Disk Raw Data Storage: Up to 8 gates, long term continuous recording and replay
 Envelopes Display: On/Off, option to select forward envelope, reverse envelope or Both
 Measurement: Auto or manual measurement to get medical parameters
 Offline Evaluation: Spectrum replay, annotation, measurement
 Data Saved: Auto or manual save options. Spectrums can also be saved as BMP or JPEG files
 Blood Vessel Preset: Preset blood vessel parameters or default setting
 Exam Order: Auto jump to next vessel function and vessel reordering
 Thrombosis Detection: Auto thrombosis detection and count

Monitoring

No of Spectrums: Up to 8 per 2 MHz PW probe
 No of Trend Curves: Up to 7 according to the number of selected parameters
 HITS Display: Real time histogram of HITS energy distribution

Patient Report

Basic Function: Auto generate and preview report
 Report Generator: Patient reports can be saved in DOC or PDF formats
 Report Size: A4 or B5
 Report Types: Normal (spectrums), table and chart
 Selectable Page Format: Standard or defined

