

Color Doppler Ultrasonic Diagnostic 210



- **Features**

-- **Applications**

- Abdominal
- Small Parts
- Obstetrics
- Gynecological
- Cerebrovascular
- Peripheral Vascular
- Cardiac

-- **Imaging Modes**

- 2D
- Color Doppler
- Power Doppler
- Pulsed Wave Doppler
- M Mode
- Dual Image Mode
- Duplex, 2D & PW Doppler
- Triplex, 2D, Color & PW Doppler

-- **System Description**

- The system is a 128 channel, high resolution ultrasound imaging system with patented Adaptive Focusing which enables high performance ultrasound imaging from 2MHz to 10MHz.

- Each transducer has three imaging frequencies and two or three Doppler frequencies available.
- The system has sophisticated report generating capabilities for OB, Vascular, Cardiac, Gynecology and Urology.
- This PC based system can store images and reports to disk. Images and report can be copied to external media. HTML versions of reports can easily be copied, emailed and viewed by any Internet Browser.
- The system provides multiple application specific presets for each probe. Custom presets can be generated by the user.
- Windows 2000 Professional Operating System enables support of a wide range of peripherals and is readily upgraded with software enhancements.

-- **Hardware and Software**

- 128 Element Linear and Curved Arrays
- 2 Transducers can be connected electronically selectable
- Receiver Dynamic Range > 125dB
- Total Dynamic Range > 150dB
- Display Dynamic Range > 70dB

NewTech Medical Limited

8400 Normandale Lake Boulevard, Suite 920,
Bloomington 55437, Minnesota, U.S.A
Tel: 1-952-837-2688 Fax: 1-952-400-8947
<http://www.newtech-medical.com>
info@newtech-medical.com

- Eight Transmit Focal Zones for high resolution throughout the image
- Continuous dynamic focusing on receive
- Center frequency range from 2.5MHz to 9MHz
- Multi-frequency operation for all probes
- B Mode Imaging frame rates up to 34 frames per second
- B Mode line density up to 512 lines
- Field of View (FOV), variable, up to 25 cm in five steps
- Variable transmit power and variable image gain
- Slide pot TGC controls

-- Control Panel and User Interface

- Ergonomic control panel with controls organized by mode
- Alphanumeric QWERTY keyboard
- Trackball with Set and Esc keys
- Integrated stereo speakers
- 2D image controls: Power, Gain, TGC, Depth, Focus, Magnify, Zoom, Dual, Orientation
- Image Enhancement: Dynamic Range, Persistence, Gray Scale maps, Edge Enhancement
- Doppler controls: Angle/Steer (linear arrays), PRF (velocity range), Angle Correction, Baseline Shift, Gain, Power
- Color controls: Velocity mode, Power Mode, Color priority, Color frame rate, Color maps, Color persistence
- Patient data entry
- Image Acquisition: Cine review, Image storage, Cine storage
- Image and Report retrieval
- Image Annotation

-- Monitor

- 15 inch, color SVGA 1024×768
- Swivels, Tilts
- Brightness, Contrast, and Color temperature controls

-- Imaging Display

- Dual image display
- Image orientation control, both horizontal and vertical
- Magnify up to 3×
- 2× Zoom, with full screen image and magnified section
- Variable Sector Angle for curved array transducers
- 256 Gray shades

NewTech Medical Limited

8400 Normandale Lake Boulevard, Suite 920,
 Bloomington 55437, Minnesota, U.S.A
 Tel: 1-952-837-2688 Fax: 1-952-400-8947
<http://www.newtech-medical.com>
info@newtech-medical.com

- Eight gray scale maps
- Display dynamic range B/W GAIN: -10~10; Color GAIN: -10~10
- Display of output power
- Display of TI and MI (Track III) in all modes
- Variable persistence
- Edge enhancement
- Image storage for more than 10000 frames on local drive (unlimited with external media)
- Cine Loop:
 - Stores up to 256 frames of B & W or Color images (with optional 512MB memory, 128 frames standard)
 - Trackball control of frame-by-frame image selection
 - Controls for cine play back
 - Controls for trimming
 - Cine loops can be saved and retrieved as part of patient record
- Measurement capability in B Mode:
 - Distance
 - Area by ellipse
 - Area by trace
 - Curve length
 - Volume (required two images)
 - Angle
- Full image annotation capabilities including:
 - Text entry and editing
 - Pre-programmed vocabulary (user definable)
 - Arrows and pointers
 - Body marks that cover many applications and orientations

-- *M Mode*

- B Mode & M Mode display
- Full screen M Mode display
- Variable scroll speed 2, 3, 4, 5, 6, 8 seconds
- User adjustable M Mode line
- Time, velocity, acceleration, Heart Rate measurements
- Variable Dynamic Range and Persistence

-- *PW Doppler*

- Duplex (simultaneous) 2D and Doppler
- Triplex mode, 2D, Color & PW
- Steered mode for linear arrays

NewTech Medical Limited

8400 Normandale Lake Boulevard, Suite 920,
 Bloomington 55437, Minnesota, U.S.A
 Tel: 1-952-837-2688 Fax: 1-952-400-8947
<http://www.newtech-medical.com>
info@newtech-medical.com

- Wide range of velocities (PRFs)
- Variable wall filters
- Adjustable gate size from 1 to 7 mm
- Doppler angle correction for velocity measurements
- Baseline shift and invert functions
- Variable spectral sweep speeds
- Automatic mean and peak velocity traces
- Variable gray maps
- Measurement capability in PW Mode: Time, Velocity, Acceleration

-- *Color Doppler Imaging*

- Region of Interest (ROI), size and position variable
- Steered Color with linear arrays
- Variable wall filters
- Variable Color priority
- Multiple Color maps
- Variable Color frame rate
- Velocity and power displays
- Variable color persistence
- Color invert

-- *Power Doppler Imaging*

- Region of Interest (ROI), size and position variable
- Steered color with linear arrays
- Variable wall filters
- Variable Color priority
- Multiple Color maps
- Variable Color frame rate
- Variable color persistence

-- *Calculation Packages*

All measurement packages support a powerful Worksheet capability that enables review and manipulation of measurement information.

-- *Obstetrics Measurements*

- Calculation of Estimated Gestational Age (EGA) based upon: AC, BPD, BD, CRL, FL, GSD, HC, HL, MAD, OFD, TL, UL
- Calculation of Estimated Fetal Weight (EFW)

NewTech Medical Limited

8400 Normandale Lake Boulevard, Suite 920,
Bloomington 55437, Minnesota, U.S.A
Tel: 1-952-837-2688 Fax: 1-952-400-8947
<http://www.newtech-medical.com>
info@newtech-medical.com

- Calculation of growth parameter ratios
- Graphic display of statistical growth charts
- Biophysical Score report
- Structural Report

-- Cardiac Measurements

- Cardiac index
- Cardiac output
- LV end-diastolic volume
- LV end-systolic volume
- Ejection fraction
- Stroke index
- Stroke volume
- IVS/LVPW ratio
- Aortic valve pressure gradient
- Aortic pressure half time
- Aortic valve area
- Mitral valve area
- Left ventricular outflow tract pressure gradient

-- Vascular Measurements

- Time Average Mean Velocity (TAM)
- Time Average Max Velocity (TAMX)
- Pulsatility Index (PI)
- Resistive Index (RI)
- Peak Systolic Velocity (PSV)
- End Diastolic Velocity (EDV)
- S/D Ratio (PSV/EDV)
- PSV_ICA/PSV_CCA
- Velocity Ratio (Velocity 1 / Velocity 2)
- % Stenosis by Diameter
- % Stenosis by Area

-- Focusing

Transmitting focusing (8 ranges) , receiving continuous focusing

-- Display Parameter

Acoustic power, total gain, dynamic range, TGC curve, gain of Doppler, pulse repetition frequency,

NewTech Medical Limited

8400 Normandale Lake Boulevard, Suite 920,
Bloomington 55437, Minnesota, U.S.A
Tel: 1-952-837-2688 Fax: 1-952-400-8947
<http://www.newtech-medical.com>
info@newtech-medical.com

wall-filtering ratio.

-- Image Process

Colorful map, frame average processing, angle adjustment and wall filter

-- Gray 256

-- Image Storage

Storage and playback of 128 continuous image

-- Image Output Output to floppy disk, USB and color video printer

-- Standard Configuration

Main unit

15"RGB color monitor, resolution 1024*768

3.5MHz 60R65D multi-frequency convex probe

7.8MHz38L multi-frequency linear probe

-- Option

3.3MHz72D20R multi-frequency convex probe

7.0MHz14D10R multi-frequency convex probe

Color video printer

3D

- Probe



3.5MHz60D65R
flexible frequency
convex probe



7.8MHz38L flexible
frequency linear
probe



3.3MHz72D20R
flexible frequency
convex
probe(selectable)



7.0MHz14D10R
flexible frequency
convex
probe(selectable)

NewTech Medical Limited

8400 Normandale Lake Boulevard, Suite 920,
Bloomington 55437, Minnesota, U.S.A

Tel: 1-952-837-2688 Fax: 1-952-400-8947

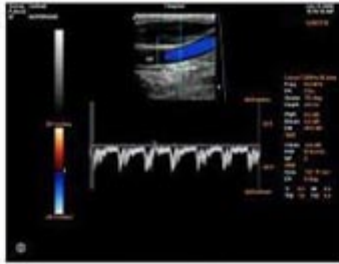
<http://www.newtech-medical.com>

info@newtech-medical.com

- - Gallery



Gallstone



Carotid



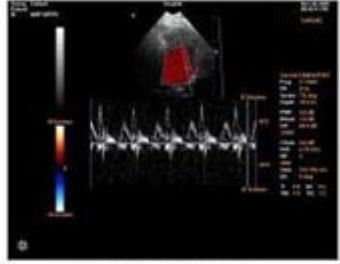
Space occupying lesion
of hepatic pouch



Space occupying lesion
of hypothyroid pouch



Long axis section of
the left ventricle



Mitral Valve



Mitral Valve blood stream



Ovary appendages



Tricuspid Valve



VSD defect



Ovary appendages



Long axis section of
the left ventricle

NewTech Medical Limited

8400 Normandale Lake Boulevard, Suite 920,
Bloomington 55437, Minnesota, U.S.A
Tel: 1-952-837-2688 Fax: 1-952-400-8947
<http://www.newtech-medical.com>
info@newtech-medical.com